

Nevada System of Higher Education

Second Quarter 2019 Discussion Guide

August 16, 2019

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Discussion Topics

Section 1	Capital Markets Review
Section 2	Performance Review
Section 3	Noteworthy Items
Section 4	Investment Structure Review
Section 5	Legal & Compliance Update

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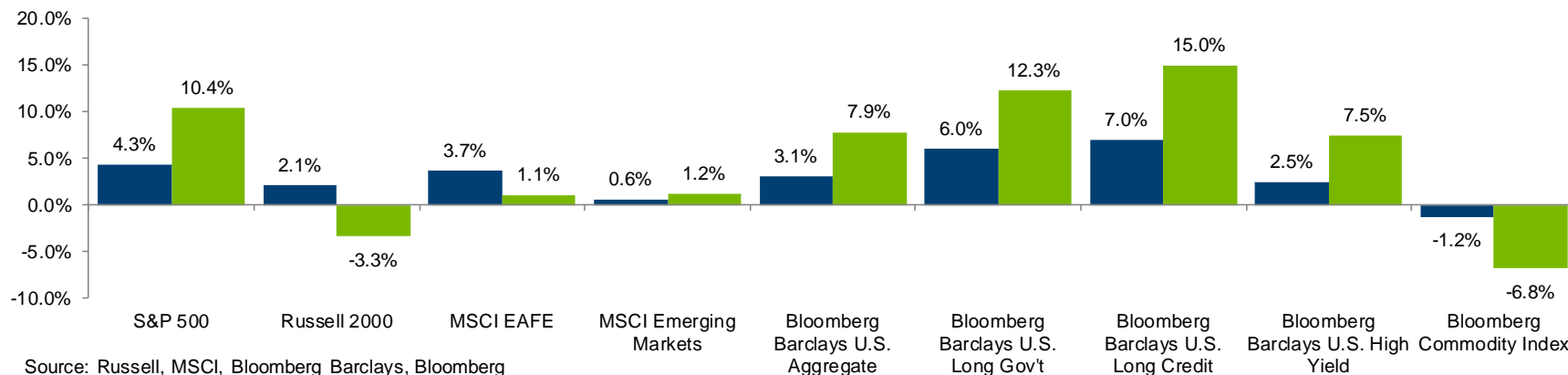
Discussion Topics

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Market Highlights

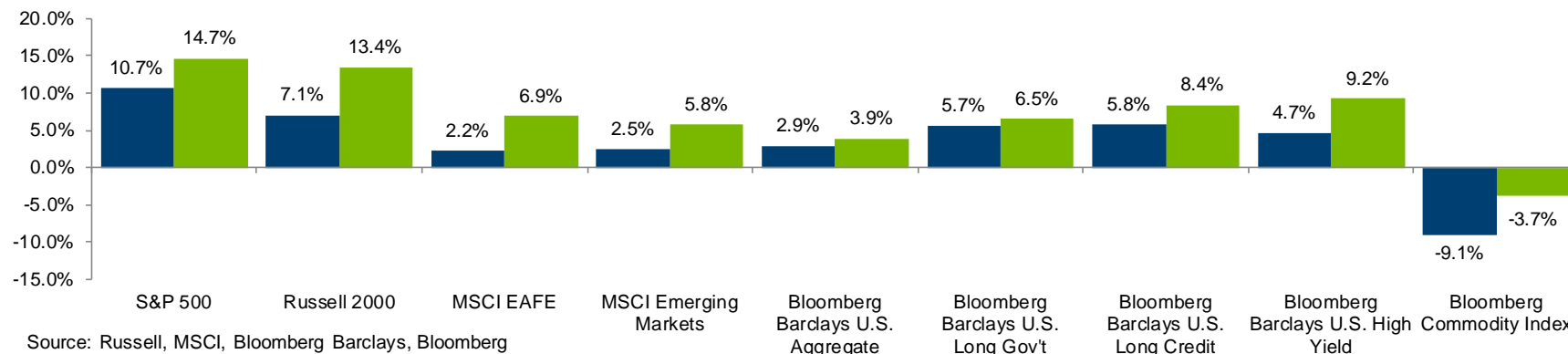
SHORT TERM RETURNS AS OF 06/30/2019

■ Second Quarter 2019 ■ One-Year



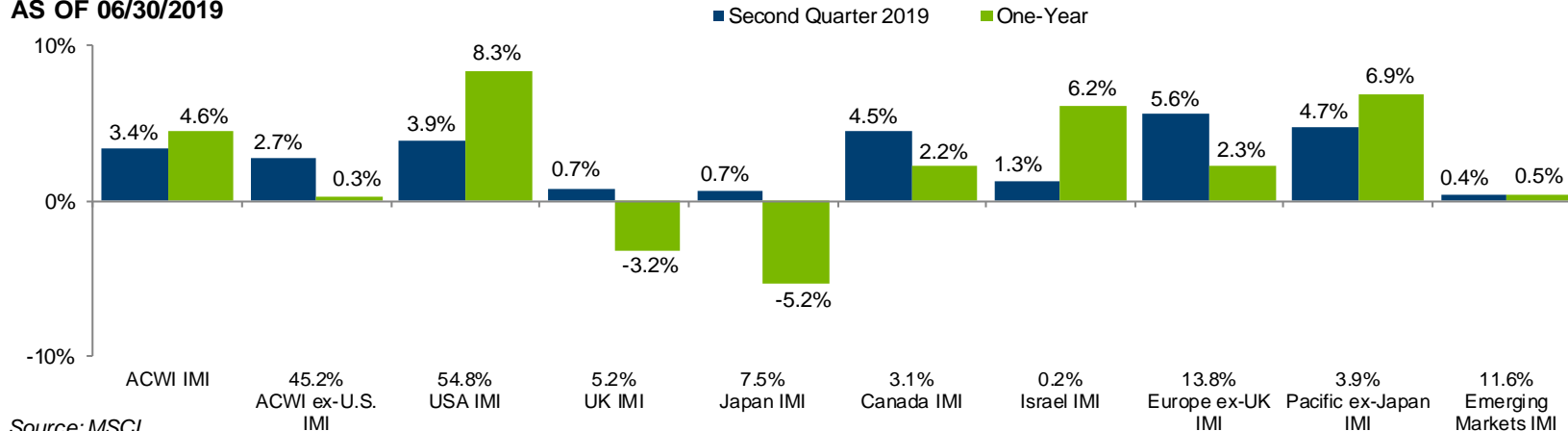
LONG TERM ANNUALIZED RETURNS AS OF 06/30/2019

■ Five-Year ■ Ten-Year



Global Equity Markets

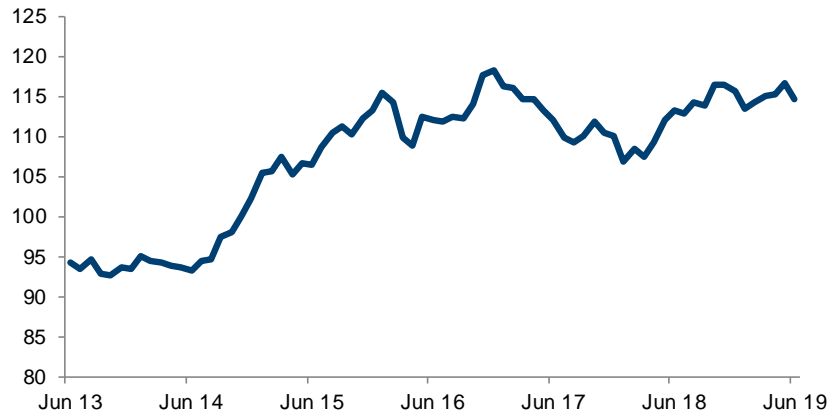
**GLOBAL MSCI IMI INDEX RETURNS (USD, Net)
AS OF 06/30/2019**



- Global trade negotiations dominated equity markets the second quarter. In local currency terms, the MSCI AC World Investable Market Index returned 3.4% which was supported by prospects of looser monetary policy by major central banks and positive progress in U.S.-China trade negotiations.
- Increased expectations of further monetary stimulus from the European Central Bank (ECB) combined with a strengthening of the euro against the U.S. dollar resulted in the European equities being the strongest performer (in USD terms) over the second quarter.
- Japanese equities delivered positive returns in USD terms due to strong yen performance against the U.S. dollar over the second quarter. In local currency terms, however, Japanese equities largely lagged other markets with yen strength and escalating trade tensions leading Japanese equities to be the only equity market to post negative returns in local currency terms over the second quarter.
- Emerging market equities especially those with greater linkages to China came under pressure due to uncertainties around ongoing trade dispute.

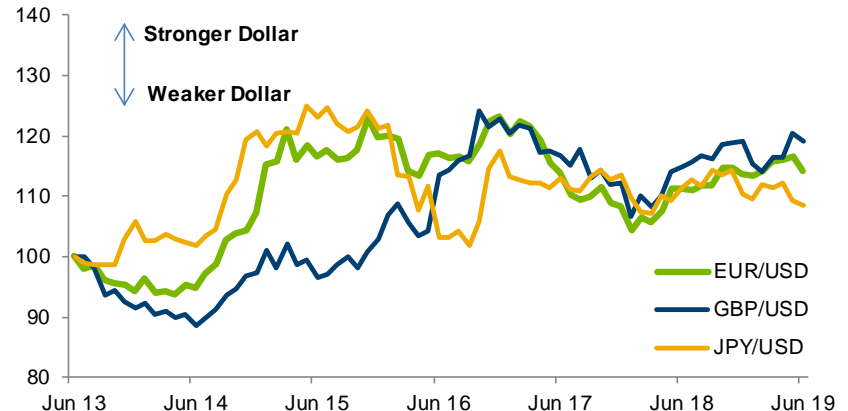
Currency

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



Source: Federal Reserve

**U.S. DOLLAR RELATIVE TO EUR, GBP AND JPY
REBASED TO 100 AT 06/30/2013**

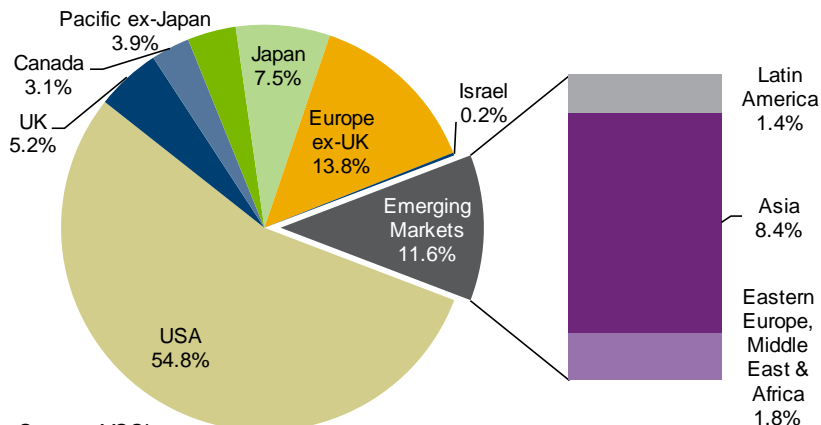


Source: FactSet

- The U.S. dollar fell 0.4% on a trade-weighted basis during the second quarter, depreciating against all major currencies with the exception of sterling. The upward trend in the U.S. dollar stalled in the second quarter. The dollar fell in June as expectations of Fed easing grew. Cyclical supports to the 'greenback' (stronger relative economic growth and wide interest rate differentials) lost momentum.
- In the UK, Brexit uncertainties continued as UK Prime Minister Theresa May announced her resignation and the prohibitive favorite, Boris Johnson, has taken a very tough stance on Brexit which has increased expectations of a "Hard-Brexit" by the end of October. Against this backdrop, sterling depreciated by 2.3% against the U.S. dollar.
- Despite a more dovish ECB and a weaker economic outlook, the euro appreciated by 1.4% against the U.S. dollar.
- The yen strengthened over the quarter as investors moved back to the 'safe-haven' currency. Similar to the Euro Area, there was less disappointment in economic releases over the quarter while the gap between U.S. and Japanese government bond yields narrowed by just under 50 bps.

Global Equity Markets

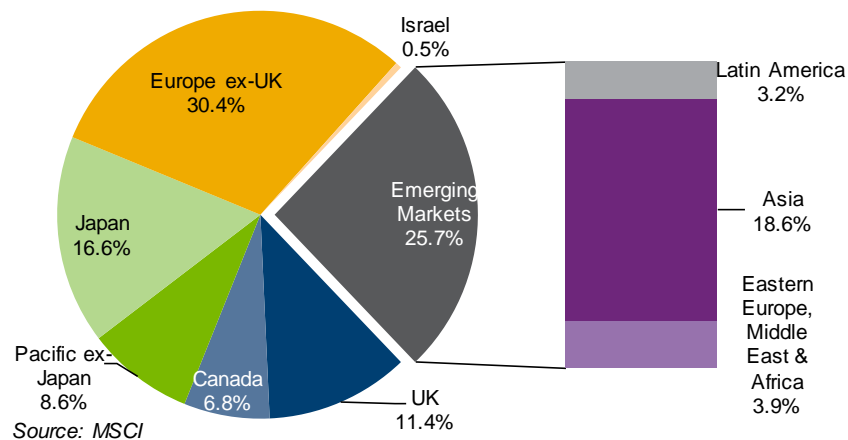
MSCI ALL COUNTRY WORLD IMI INDEX GEOGRAPHIC ALLOCATION AS OF 06/30/2019



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.

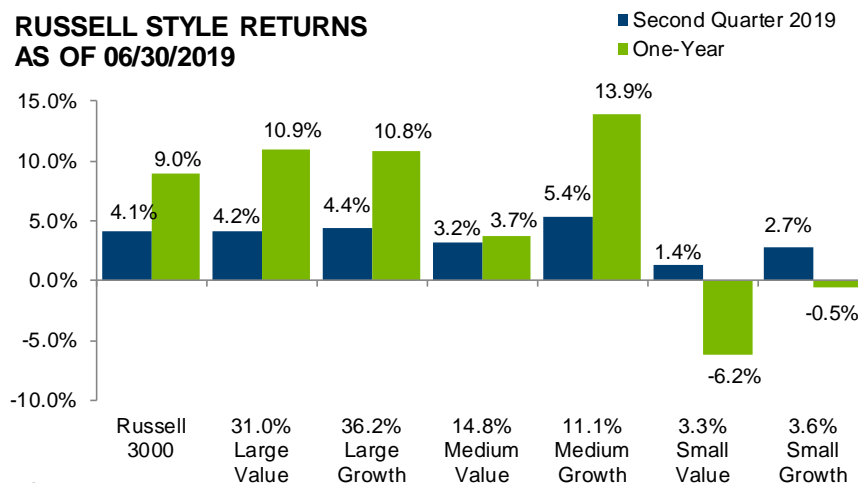
MSCI ALL COUNTRY WORLD EX-U.S. IMI INDEX GEOGRAPHIC ALLOCATION AS OF 06/30/2019



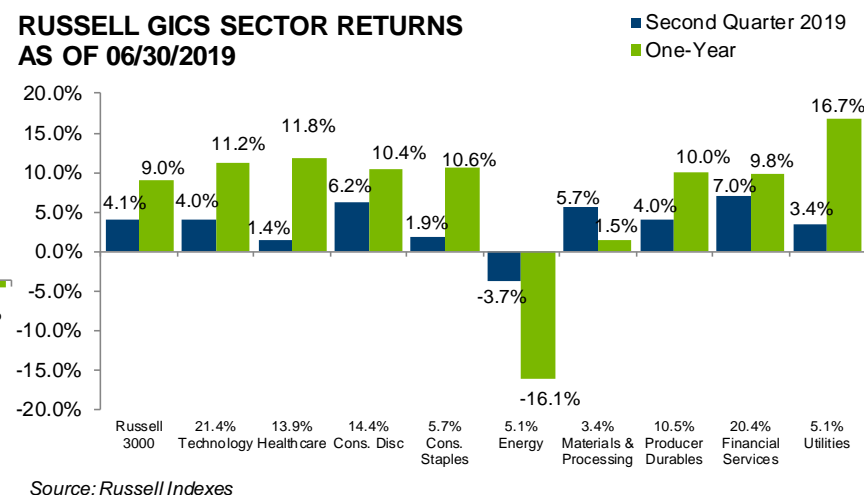
Source: MSCI

U.S. Equity Markets

RUSSELL STYLE RETURNS AS OF 06/30/2019



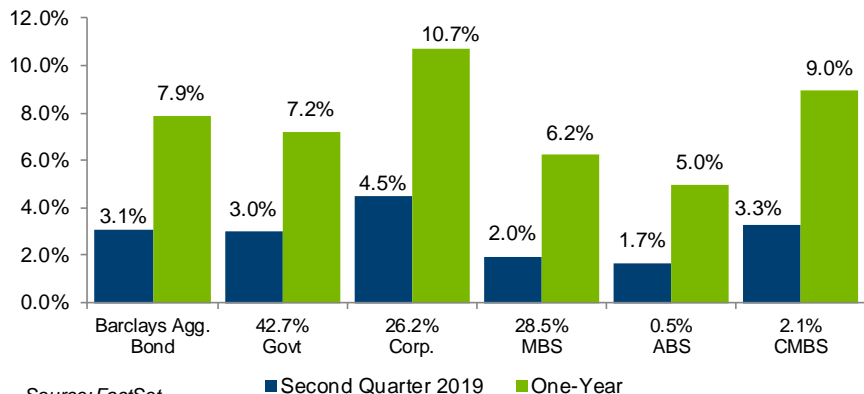
RUSSELL GICS SECTOR RETURNS AS OF 06/30/2019



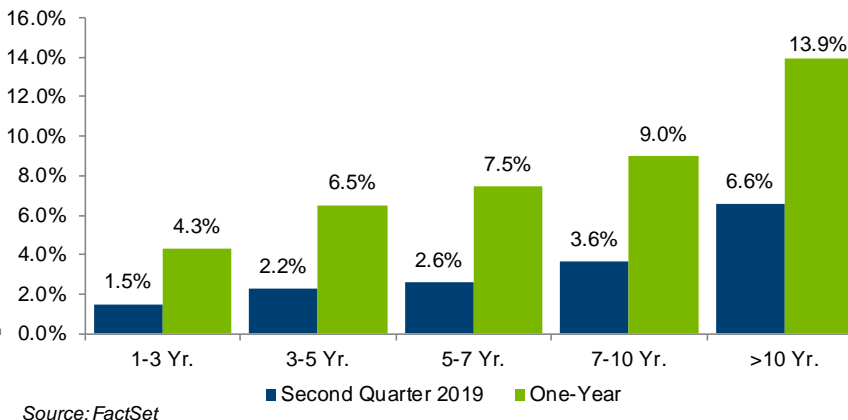
- U.S. equities continued their rally fueled by the increased expectation for an interest rate cut by the U.S. Federal Reserve (Fed). Greater optimism over thawing U.S.-China trade tensions towards the end of the quarter also helped to lift investor sentiment. The Russell 3000 Index rose 4.1% during the second quarter and 9.0% over the trailing one-year period.
- All sectors, except for energy (-3.7%), generated positive returns over the second quarter. In particular, financial services (7.0%) and consumer discretionary (6.2%) were the best performing sectors in the second quarter.
- Performance was positive across the market capitalization spectrum during the quarter. In general, small cap stocks underperformed both large and medium cap stocks. Growth stocks outperformed their value counterparts in the second quarter, benefitting from the fall in U.S. yields.

U.S. Fixed Income Markets

**BLOOMBERG BARCLAYS AGGREGATE RETURNS BY SECTOR
AS OF 06/30/2019**

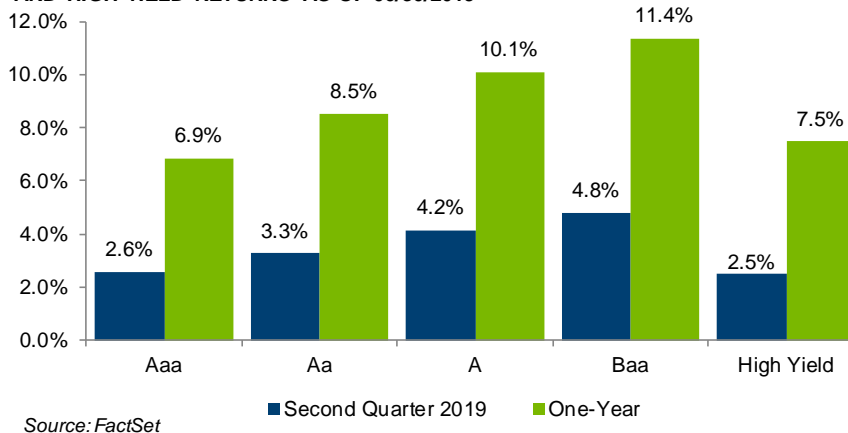


**BLOOMBERG BARCLAYS AGGREGATE RETURNS BY MATURITY
AS OF 06/30/2019**



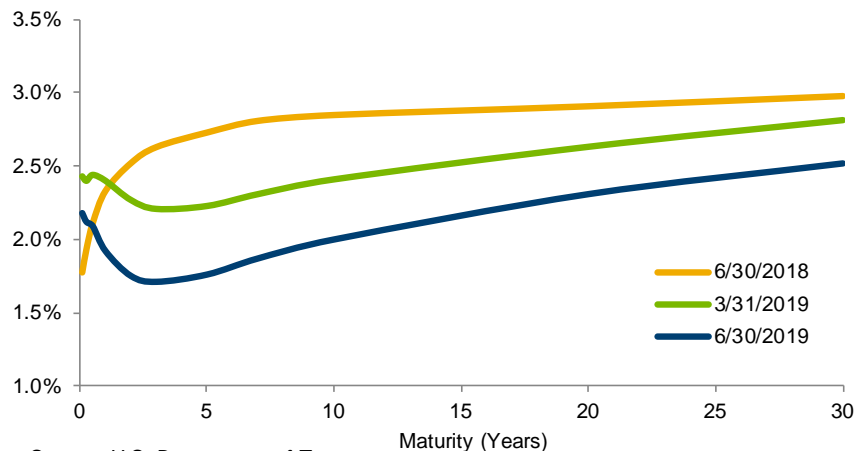
- The Bloomberg Barclays U.S. Aggregate Bond Index returned 3.1% over the quarter. Corporate bonds were the best performers, returning 4.5% whilst ABS bonds underperformed with a return of 1.7%.
- Performance was positive across all credit grades. Within investment grade bonds, lower quality bonds outperformed with Baa bonds returning 4.8%.
- Long-maturity bonds outperformed both intermediate and short-maturity bonds during the quarter. Long-maturity bonds returned 6.6% while short-maturity bonds returned only 1.5% in the second quarter of 2019.

**BLOOMBERG BARCLAYS AGGREGATE RETURNS BY QUALITY
AND HIGH YIELD RETURNS AS OF 06/30/2019**

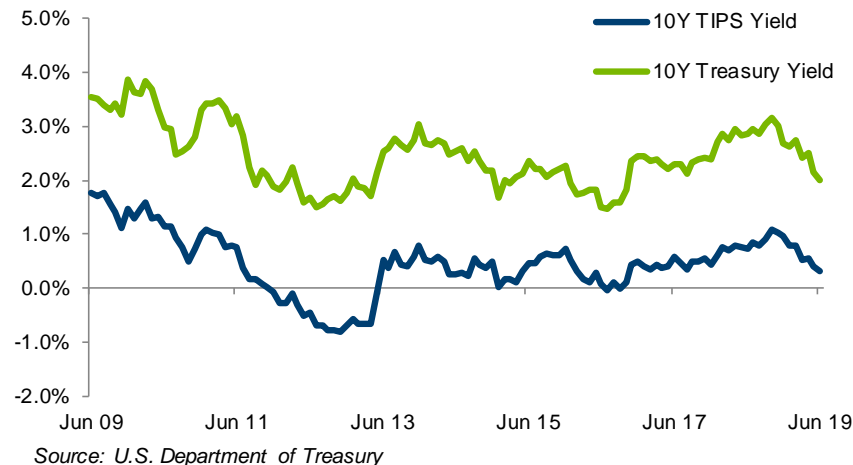


U.S. Fixed Income Markets (cont'd)

U.S. TREASURY YIELD CURVE



U.S. 10-YEAR TREASURY AND TIPS YIELDS



- The U.S. nominal yield curve shifted downwards during the quarter with yields falling across all maturities. In the second quarter, 10-year US Treasury yield dipped below 2.0% for the first time since 2016 but ultimately rested at 2.0% at the end of quarter; a 41 bps decrease since the end of March 2019.
- The Fed appeared to capitulate to financial market pressure by signaling possible rate cuts this year, with eight out of seventeen officials expecting at least one rate cut in 2019. This came amidst a slowing U.S. economy and elevated risks from the ongoing trade dispute.
- The 10-year TIPS yield fell by 22bps over the quarter and ended the period at 0.31%. Breakeven inflation decreased as inflation expectations had moved lower.

Credit Spreads

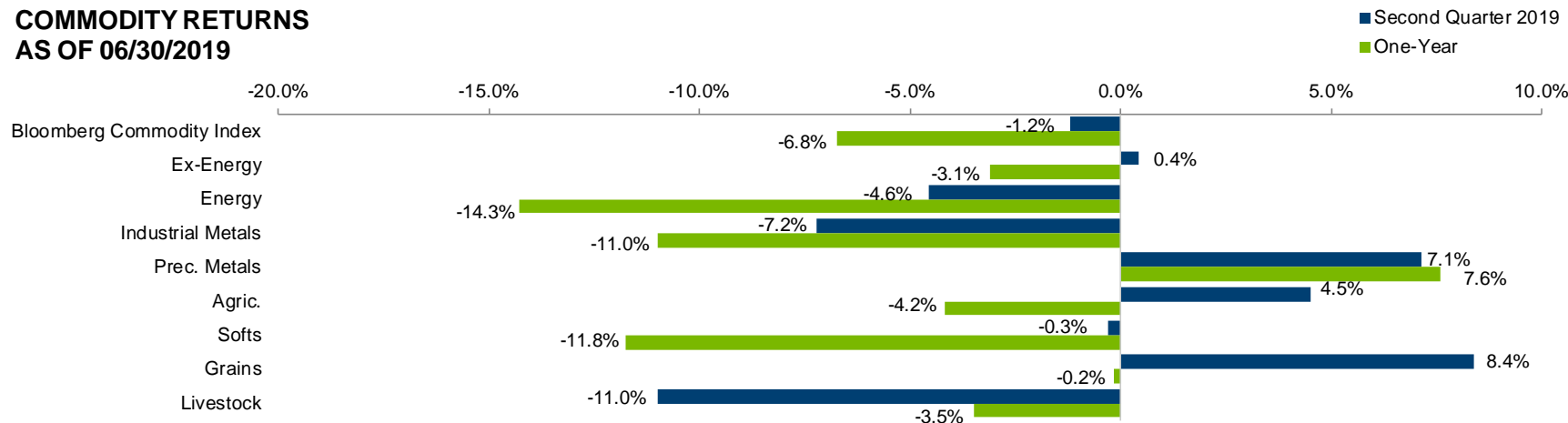
Spread (bps)	06/30/2019	03/31/2019	06/30/2018	Quarterly Change (bps)	1-Year Change (bps)
U.S. Aggregate	46	44	44	2	2
Long Gov't	1	1	1	0	0
Long Credit	161	172	174	-11	-13
Long Gov't/Credit	92	99	101	-7	-9
MBS	46	35	28	11	18
CMBS	69	69	70	0	-1
ABS	41	39	47	2	-6
Corporate	115	119	123	-4	-8
High Yield	377	391	363	-14	14
Global Emerging Markets	282	283	288	-1	-6

Source: FactSet, Bloomberg Barclays

- Mirroring equity market concern, credit spreads increased in the middle of the quarter but broadly retraced May's spread widening late in the quarter as investor eased and an appetite for risk returned.
- In the second quarter of 2019, high yield bond spreads narrowed by 14bps – the largest spread narrowing among credit market we consider here. Despite the spread narrowing, high yield bonds underperformed investment grade bonds due to the lower duration of the index.
- Spreads on securitized debt widened slightly, most notably for mortgage-backed securities which increased by 11 bps.

Commodities

COMMODITY RETURNS AS OF 06/30/2019



Source: Bloomberg

Note: Softs and Grains are part of the wider Agriculture sector

- Commodities generally fell during the second quarter with the Bloomberg Commodity Index declining 1.2%.
- Livestock (-11.0%) was the worst performing sector whilst precious metals (7.1%) returned the most. The latter benefitted from safe-haven buying in a quarter where geopolitical risks rose and gold prices surged by 8.8%.
- The energy sector fell 4.6% during the quarter. The price of Brent crude oil fell by 2.7% to \$67/bbl and the WTI crude oil spot price fell by 2.8% to \$58/bbl. Oil prices got some support from rising tensions in Middle East as the U.S. re-imposed sanctions on Iran. However, a sharp rise in U.S. crude inventories and, more significantly, signs of slowing global growth put pressure on energy prices.
- Weaker anticipated demand due to a slowing economic environment also pushed industrial metals lower with copper prices falling 7.9% to \$5,972/t.

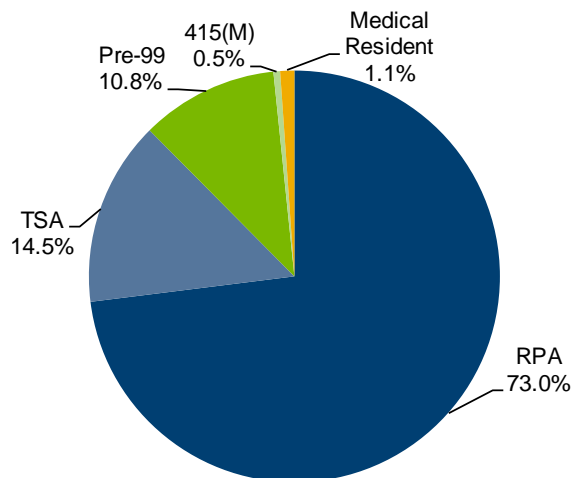
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Asset Allocation

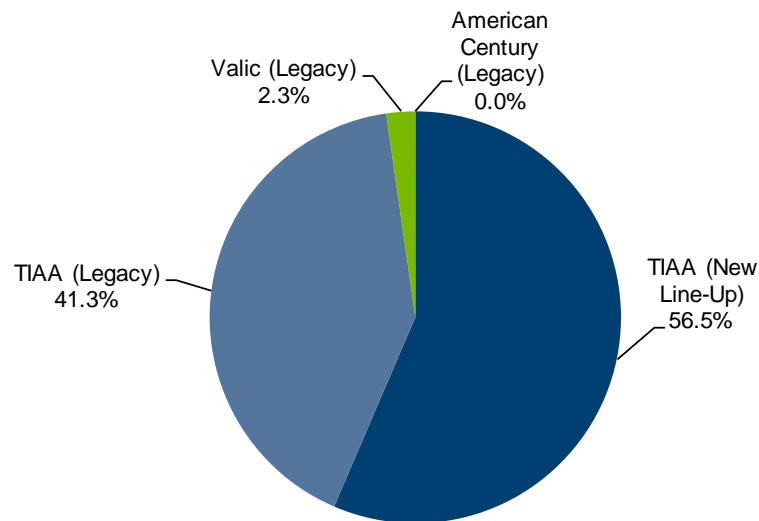
Assets by Plan

As of June 30, 2019



Assets by Vendor

As of June 30, 2019



As of 6/30/2019

Plan	RPA		TSA		Pre-99		415(M)		Medical Resident		Total	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
TIAA (New Line-Up)	\$ 1,483,396,801	61.2%	\$ 308,706,350	63.9%	\$ 40,472,962	11.3%	\$ 16,100,035	92.1%	\$ 26,910,416	73.1%	\$ 1,875,586,564	56.5%
TIAA (Legacy)	\$ 897,434,768	37.0%	\$ 153,726,041	31.8%	\$ 318,209,465	88.6%	\$ 1,389,397	7.9%	\$ 167,760	0.5%	\$ 1,370,927,432	41.3%
Valic (Legacy)	\$ 44,949,298	1.9%	\$ 20,319,020	4.2%	\$ -	0.0%	\$ -	0.0%	\$ 9,747,142	26.5%	\$ 75,015,459	2.3%
American Century (Legacy)	\$ -	0.0%	\$ -	0.0%	\$ 316,850	0.1%	\$ -	0.0%	\$ -	0.0%	\$ 316,850	0.0%
Total	\$ 2,425,780,866	100.0%	\$ 482,751,410	100.0%	\$ 358,999,278	100.0%	\$ 17,489,432	100.0%	\$ 36,825,318	100.0%	\$ 3,321,846,305	100.0%
Other Assets*											\$ 1,930,174	0.1%
Grand Total	\$ 2,425,780,866	73.0%	\$ 482,751,410	14.5%	\$ 358,999,278	10.8%	\$ 17,489,432	0.5%	\$ 36,825,318	1.1%	\$ 3,323,776,479	100.0%

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

Source: TIAA

Tier I(a) Watch List

Tier I (a)

	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			
							2nd Quarter 2019	1st Quarter 2019	4th Quarter 2018	3rd 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			
							2nd Quarter 2019	1st Quarter 2019	4th Quarter 2018	3rd 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.	Yes	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.	Yes	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.	Yes	No	No	No	No (Buy)	No				
Vanguard Target Retirement 2060 - Instl.	Yes	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.

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Tier II Watch List

Tier II

	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			
							2nd Quarter 2019	1st Quarter 2019	4th Quarter 2018	3rd 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*	No	Yes	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	No	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 Instl. Large Cap Growth Fund	No	Yes	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 Loevner International Equity Instl.	No	No	No	No	No (Buy)	No				
MFS International Value Fund	No	No	No	No	No (Buy)	No				
Cohen & Steers Instl 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.

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

Tier I(a) Performance Summary

As of 6/30/2019

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Plan	3,323,776,479	100.0								03/01/2014
Tier I (a)	830,649,009	25.0								03/01/2014
Vanguard Target Retirement Income Trust Plus	24,303,277	0.7	2.9 (19)	8.7 (54)	6.6 (1)	5.3 (67)	4.3 (53)		5.3 (82)	09/01/2011
Vanguard Target Retirement Income Trust I			3.0 (14)	8.7 (54)	6.6 (1)	5.3 (67)	4.2 (53)	6.4	5.3 (82)	
Vanguard Target Retirement Income Trust II			2.9 (25)	8.7 (54)	6.6 (1)	5.3 (68)	4.2 (54)	6.4	5.3 (83)	
Vanguard Target Income Composite Index			3.0 (1)	8.8 (53)	6.7 (1)	5.4 (62)	4.4 (50)	6.5	5.4 (81)	
Vanguard Target Retirement 2015 Trust Plus	52,384,077	1.6	3.1 (43)	9.8 (67)	6.5 (36)	6.7 (43)	5.0 (28)		7.1 (23)	09/01/2011
Vanguard Target Retirement 2015 Trust I			3.1 (48)	9.8 (68)	6.5 (36)	6.7 (44)	5.0 (28)	8.4	7.1 (24)	
Vanguard Target Retirement 2015 Trust II			3.1 (44)	9.8 (67)	6.5 (36)	6.7 (45)	4.9 (29)	8.4	7.0 (25)	
Vanguard Target 2015 Composite Index			3.1 (34)	9.9 (62)	6.6 (32)	6.9 (38)	5.1 (20)	8.5	7.2 (18)	
Vanguard Target Retirement 2020 Trust Plus	90,518,507	2.7	3.2 (37)	11.4 (33)	6.6 (30)	7.9 (21)	5.6 (1)		8.0 (9)	09/01/2011
Vanguard Target Retirement 2020 Trust I			3.2 (38)	11.4 (33)	6.6 (30)	7.9 (22)	5.6 (1)	9.2	8.0 (10)	
Vanguard Target Retirement 2020 Trust II			3.2 (37)	11.4 (33)	6.6 (30)	7.9 (22)	5.6 (1)	9.2	8.0 (11)	
Vanguard Target 2020 Composite Index			3.3 (25)	11.5 (32)	6.7 (29)	8.0 (18)	5.8 (1)	9.4	8.1 (5)	
Vanguard Target Retirement 2025 Trust Plus	108,639,939	3.3	3.4 (25)	12.5 (26)	6.7 (30)	8.8 (24)	6.1 (1)		8.7 (16)	09/01/2011
Vanguard Target Retirement 2025 Trust I			3.4 (25)	12.5 (26)	6.7 (30)	8.8 (27)	6.0 (3)	9.9	8.6 (17)	
Vanguard Target Retirement 2025 Trust II			3.4 (26)	12.5 (26)	6.7 (31)	8.8 (28)	6.0 (4)	9.8	8.6 (18)	
Vanguard Target 2025 Composite Index			3.4 (22)	12.6 (23)	6.8 (26)	8.9 (14)	6.2 (1)	10.0	8.8 (6)	
Vanguard Target Retirement 2030 Trust Plus	134,317,988	4.0	3.4 (32)	13.3 (39)	6.6 (28)	9.5 (34)	6.3 (17)		9.2 (18)	09/01/2011
Vanguard Target Retirement 2030 Trust I			3.4 (35)	13.3 (39)	6.5 (29)	9.5 (35)	6.3 (18)	10.4	9.2 (19)	
Vanguard Target Retirement 2030 Trust II			3.4 (37)	13.3 (40)	6.5 (29)	9.5 (35)	6.3 (22)	10.4	9.2 (20)	
Vanguard Target 2030 Composite Index			3.5 (28)	13.4 (37)	6.6 (28)	9.7 (28)	6.4 (12)	10.6	9.4 (14)	
Vanguard Target Retirement 2035 Trust Plus	136,407,952	4.1	3.4 (39)	14.1 (59)	6.3 (28)	10.2 (37)	6.6 (22)		9.8 (16)	09/01/2011
Vanguard Target Retirement 2035 Trust I			3.4 (39)	14.1 (59)	6.3 (29)	10.2 (38)	6.6 (23)	11.0	9.8 (17)	
Vanguard Target Retirement 2035 Trust II			3.5 (39)	14.1 (59)	6.3 (29)	10.2 (38)	6.6 (23)	10.9	9.7 (18)	
Vanguard Target 2035 Composite Index			3.5 (33)	14.2 (56)	6.4 (22)	10.4 (34)	6.7 (17)	11.1	9.9 (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 6/30/2019

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Vanguard Target Retirement 2040 Trust Plus	121,796,445	3.7	3.5 (43)	14.9 (52)	6.1 (33)	10.9 (31)	6.8 (22)		10.2 (13)	09/01/2011
Vanguard Target Retirement 2040 Trust I			3.5 (43)	14.9 (53)	6.1 (33)	10.9 (31)	6.8 (24)	11.3	10.1 (13)	
Vanguard Target Retirement 2040 Trust II			3.5 (43)	14.9 (52)	6.1 (33)	10.9 (31)	6.8 (26)	11.2	10.1 (14)	
Vanguard Target 2040 Composite Index			3.6 (31)	15.0 (51)	6.2 (28)	11.1 (24)	7.0 (11)	11.4	10.3 (10)	
Vanguard Target Retirement 2045 Trust Plus	91,716,643	2.8	3.5 (45)	15.4 (52)	6.0 (35)	11.1 (27)	7.0 (18)		10.2 (15)	09/01/2011
Vanguard Target Retirement 2045 Trust I			3.5 (47)	15.4 (52)	5.9 (36)	11.1 (28)	6.9 (18)	11.3	10.2 (15)	
Vanguard Target Retirement 2045 Trust II			3.5 (46)	15.4 (53)	5.9 (37)	11.1 (29)	6.9 (19)	11.3	10.2 (15)	
Vanguard Target 2045 Composite Index			3.6 (36)	15.6 (51)	6.1 (30)	11.3 (16)	7.1 (8)	11.5	10.4 (12)	
Vanguard Target Retirement 2050 Trust Plus	49,643,993	1.5	3.5 (42)	15.4 (61)	6.0 (37)	11.1 (40)	6.9 (22)		10.2 (15)	09/01/2011
Vanguard Target Retirement 2050 Trust I			3.5 (42)	15.4 (62)	6.0 (37)	11.1 (41)	6.9 (22)	11.3	10.2 (15)	
Vanguard Target Retirement 2050 Trust II			3.5 (44)	15.4 (64)	5.9 (38)	11.1 (42)	6.9 (29)	11.3	10.2 (18)	
Vanguard Target 2050 Composite Index			3.6 (34)	15.6 (54)	6.1 (32)	11.3 (25)	7.1 (10)	11.5	10.4 (12)	
Vanguard Target Retirement 2055 Trust Plus	16,064,626	0.5	3.5 (43)	15.4 (65)	6.0 (33)	11.1 (44)	6.9 (26)			09/01/2011
Vanguard Target Retirement 2055 Trust I			3.5 (45)	15.4 (65)	6.0 (33)	11.1 (45)	6.9 (28)		10.2 (29)	
Vanguard Target Retirement 2055 Trust II			3.5 (45)	15.4 (67)	5.9 (34)	11.1 (46)	6.9 (30)		10.2 (30)	
Vanguard Target 2055 Composite Index			3.6 (39)	15.6 (61)	6.1 (26)	11.3 (32)	7.1 (16)		10.4 (18)	
Vanguard Target Retirement 2060 Trust Plus	4,842,803	0.1	3.5 (65)	15.4 (77)	6.0 (26)	11.1 (59)	7.0		9.5	04/01/2012
Vanguard Target Retirement 2060 Trust I			3.5 (64)	15.4 (77)	6.0 (27)	11.1 (60)	6.9		9.5	
Vanguard Target Retirement 2060 Trust II			3.5 (69)	15.4 (77)	5.9 (27)	11.1 (61)	6.9		9.4	
Vanguard Target 2060 Composite Index			3.6 (54)	15.6 (75)	6.1 (23)	11.3 (43)	7.1		9.6	
Vanguard Target Retirement 2065 Trust Plus	12,760	0.0	3.5 (66)	15.5 (76)	6.0 (24)				7.4 (29)	08/01/2017
Vanguard Target Retirement 2065 Trust I			3.5 (68)	15.5 (76)	6.1 (23)				7.5 (29)	
Vanguard Target Retirement 2065 Trust II			3.5 (63)	15.5 (76)	6.1 (23)				7.4 (29)	
Vanguard Target 2065 Composite Index			3.6 (54)	15.6 (75)	6.1 (23)				7.6 (27)	

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

Tier I Performance Summary

As of 6/30/2019

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Tier I	140,918,714	4.2								02/01/2014
Vanguard Target Retirement Income - Instl.	10,208,148	0.3	2.9 (28)	8.6 (54)	6.6 (1)	5.3 (69)			4.8 (48)	07/01/2015
Vanguard Tgt Ret Inc;Inv (VTINX)			3.0 (12)	8.6 (54)	6.5 (2)	5.2 (69)	4.2	6.4	4.7 (49)	
Vanguard Target Income Composite Index			3.0 (1)	8.8 (53)	6.7 (1)	5.4 (62)	4.4	6.5	4.9 (46)	
Vanguard Target Retirement 2015 - Instl.	16,910,858	0.5	3.0 (51)	9.7 (69)	6.5 (36)	6.7 (44)			5.5 (38)	07/01/2015
Vanguard Tgt Ret2015;Inv (VTXVX)			3.0 (51)	9.7 (69)	6.5 (37)	6.7 (46)	4.9	8.3	5.5 (41)	
Vanguard Target 2015 Composite Index			3.1 (34)	9.9 (62)	6.6 (32)	6.9 (38)	5.1	8.5	5.7 (30)	
Vanguard Target Retirement 2020 - Instl.	21,425,911	0.6	3.2 (39)	11.3 (37)	6.6 (30)	7.9 (26)			6.2 (13)	07/01/2015
Vanguard Tgt Ret2020;Inv (VTWNX)			3.2 (37)	11.3 (37)	6.5 (31)	7.8 (28)	5.6	9.2	6.2 (14)	
Vanguard Target 2020 Composite Index			3.3 (25)	11.5 (32)	6.7 (29)	8.0 (18)	5.8	9.4	6.4 (1)	
Vanguard Target Retirement 2025 - Instl.	21,812,790	0.7	3.4 (25)	12.5 (29)	6.7 (31)	8.8 (28)			6.7 (13)	07/01/2015
Vanguard Tgt Ret2025;Inv (VTTVX)			3.3 (29)	12.5 (29)	6.6 (32)	8.7 (32)	5.9	9.8	6.7 (14)	
Vanguard Target 2025 Composite Index			3.4 (22)	12.6 (23)	6.8 (26)	8.9 (14)	6.2	10.0	6.9 (5)	
Vanguard Target Retirement 2030 - Instl.	21,036,500	0.6	3.4 (43)	13.3 (40)	6.5 (31)	9.5 (36)			7.0 (23)	07/01/2015
Vanguard Tgt Ret2030;Inv (VTHR)			3.4 (37)	13.3 (40)	6.4 (32)	9.4 (37)	6.2	10.3	7.0 (24)	
Vanguard Target 2030 Composite Index			3.5 (28)	13.4 (37)	6.6 (28)	9.7 (28)	6.4	10.6	7.2 (20)	
Vanguard Target Retirement 2035 - Instl.	12,332,700	0.4	3.4 (39)	14.1 (59)	6.3 (31)	10.2 (38)			7.3 (27)	07/01/2015
Vanguard Tgt Ret2035;Inv (VTTHX)			3.5 (37)	14.0 (62)	6.3 (31)	10.1 (39)	6.5	10.9	7.3 (28)	
Vanguard Target 2035 Composite Index			3.5 (33)	14.2 (56)	6.4 (22)	10.4 (34)	6.7	11.1	7.5 (22)	

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

Tier I Performance Summary (cont'd.)

As of 6/30/2019

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Vanguard Target Retirement 2040 - Instl.	11,502,199	0.3	3.5 (45)	14.8 (53)	6.0 (37)	10.8 (32)			7.6 (26)	07/01/2015
Vanguard Tgt Ret2040;Inv (VFORX)			3.5 (45)	14.8 (56)	6.0 (39)	10.8 (34)	6.7	11.2	7.6 (28)	
Vanguard Target 2040 Composite Index			3.6 (31)	15.0 (51)	6.2 (28)	11.1 (24)	7.0	11.4	7.8 (18)	
Vanguard Target Retirement 2045 - Instl.	10,590,330	0.3	3.5 (48)	15.4 (53)	5.9 (40)	11.1 (29)			7.8 (23)	07/01/2015
Vanguard Tgt Ret2045;Inv (VTIVX)			3.5 (45)	15.4 (53)	5.9 (39)	11.0 (34)	6.9	11.2	7.8 (26)	
Vanguard Target 2045 Composite Index			3.6 (36)	15.6 (51)	6.1 (30)	11.3 (16)	7.1	11.5	8.0 (17)	
Vanguard Target Retirement 2050 - Instl.	10,805,823	0.3	3.5 (45)	15.4 (64)	5.9 (42)	11.1 (43)			7.8 (32)	07/01/2015
Vanguard Tgt Ret2050;Inv (VFIFX)			3.5 (45)	15.4 (64)	5.9 (42)	11.0 (45)	6.9	11.2	7.8 (34)	
Vanguard Target 2050 Composite Index			3.6 (34)	15.6 (54)	6.1 (32)	11.3 (25)	7.1	11.5	8.0 (17)	
Vanguard Target Retirement 2055 - Instl.	3,798,407	0.1	3.5 (45)	15.4 (64)	6.0 (33)	11.1 (46)			7.8 (32)	07/01/2015
Vanguard Tgt Ret2055;Inv (VFFVX)			3.5 (49)	15.4 (69)	5.9 (38)	11.0 (52)	6.8		7.7 (35)	
Vanguard Target 2055 Composite Index			3.6 (39)	15.6 (61)	6.1 (26)	11.3 (32)	7.1		8.0 (17)	
Vanguard Target Retirement 2060 - Instl.	430,364	0.0	3.5 (45)	15.4 (64)	5.9 (33)	11.1 (49)			7.8 (33)	07/01/2015
Vanguard Tgt Ret2060;Inv (VTTX)			3.5 (51)	15.4 (69)	5.8 (41)	11.0 (53)	6.8		7.7 (35)	
Vanguard Target 2060 Composite Index			3.6 (39)	15.6 (61)	6.1 (26)	11.3 (32)	7.1		8.0 (17)	
Vanguard Target Retirement 2065 - Instl.	64,682	0.0	3.6 (39)	15.5 (62)	5.9 (34)				7.4 (29)	08/01/2017
Vanguard Tgt Ret2065;Inv (VLXVX)			3.5 (42)	15.4 (68)	5.8 (41)				7.3 (34)	
Vanguard Target 2065 Composite Index			3.6 (39)	15.6 (61)	6.1 (26)				7.6 (28)	

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

Tier II Performance Summary

As of 6/30/2019

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Tier II	880,983,963	26.5								03/01/2014
Vanguard Total Bond Market Index Fund - Inst.	38,514,358	1.2	3.1 (48)	6.1 (68)	7.9 (38)	2.2 (70)	2.9 (48)	3.8 (71)	5.1 (34)	10/01/1995
Performance Benchmark			3.2 (35)	6.2 (57)	8.0 (30)	2.3 (63)	3.0 (38)	3.9 (70)	5.2 (26)	
Vanguard Total Stock Market Index Fund - Inst.	52,114,068	1.6	4.1 (57)	18.7 (48)	9.0 (58)	14.0 (49)	10.2 (47)	14.7 (30)	7.6 (25)	08/01/1997
Performance Benchmark			4.1 (57)	18.7 (48)	9.0 (58)	14.0 (49)	10.2 (47)	14.7 (30)	7.6 (25)	
Vanguard Institutional Index Fund - Instl. Plus	138,560,296	4.2	4.3 (10)	18.5 (7)	10.4 (13)	14.2 (7)	10.7 (1)	14.7 (1)	7.3 (1)	08/01/1997
S&P 500 Index			4.3 (9)	18.5 (8)	10.4 (6)	14.2 (3)	10.7 (1)	14.7 (1)	7.3 (3)	
Vanguard FTSE Social Index Fund - Adm.	2,698,187	0.1	4.5 (41)	19.0 (46)	11.3 (31)	16.0 (33)	11.5 (32)	15.5 (20)	5.0 (77)	06/01/2000
FTSE 4Good U.S. Select Index			4.6 (39)	19.0 (45)	11.4 (30)	16.1 (31)	11.7 (29)	15.7 (17)		
S&P 500 Index			4.3 (49)	18.5 (50)	10.4 (41)	14.2 (47)	10.7 (38)	14.7 (30)	5.9 (46)	
Vanguard Extended Market Index Fund - Inst.	42,595,238	1.3	3.0 (93)	19.5 (94)	2.1 (93)	13.2 (84)	7.8 (82)	14.7 (64)	8.4 (45)	08/01/1997
Performance Benchmark			3.0 (93)	19.5 (94)	1.9 (93)	13.0 (85)	7.7 (86)	14.6 (65)		
Vanguard Total International Stock Index Fund - Inst.	10,393,551	0.3	2.8 (74)	13.3 (70)	0.6 (53)	9.0 (37)	2.3 (45)		4.8 (71)	12/01/2010
Performance Benchmark			2.9 (73)	13.4 (70)	0.5 (54)	9.2 (35)	2.4 (43)		4.8 (69)	
Vanguard Developed Market Index Fund - Inst.	47,888,367	1.4	3.3 (64)	13.8 (67)	0.0 (64)	8.9 (40)	2.6 (41)		5.9 (35)	02/01/2010
Performance Benchmark			3.5 (58)	14.1 (63)	0.1 (59)	9.3 (33)	2.8 (37)		5.8 (36)	
Vanguard Emerging Markets Stock Index Fund - Inst.	32,490,887	1.0	0.7 (73)	12.1 (49)	3.2 (32)	9.3 (51)	2.3 (48)	5.6 (55)	7.2 (71)	07/01/2000
Performance Benchmark			1.0 (64)	12.3 (46)	3.4 (31)	9.7 (43)	2.4 (45)	5.8 (52)	7.1 (72)	
Vanguard Federal Money Market Fund - Inv.	25,807,489	0.8	0.6 (22)	1.2 (22)	2.2 (20)	1.3 (20)	0.8 (20)	0.4 (28)	2.9 (25)	11/01/1989
FTSE 3 Month T-Bill			0.6 (11)	1.2 (14)	2.3 (15)	1.4 (17)	0.8 (18)	0.5 (20)	2.8 (40)	
T. Rowe Price Stable Value Common Trust Fund A	5,416,108	0.2	0.5 (64)	1.1 (51)	2.2 (35)				2.1 (32)	02/01/2018
Huebel Stable Value Index			0.6 (14)	1.2 (14)	2.4 (14)				2.3 (15)	
TIAA Traditional - RC	117,853,773	3.5	1.0 (5)	2.0 (8)	4.1 (5)	4.1 (1)	4.2 (1)	4.2 (1)	4.4 (1)	08/01/2005
Huebel Stable Value Index			0.6 (14)	1.2 (14)	2.4 (14)	2.1 (5)	2.0 (8)	2.2 (32)	2.9 (30)	
TIAA Traditional - RCP	81,280,117	2.4	0.8 (8)	1.6 (9)	3.3 (7)	3.4 (1)	3.4 (1)	3.5 (1)	3.7 (1)	06/01/2006
Huebel Stable Value Index			0.6 (14)	1.2 (14)	2.4 (14)	2.1 (5)	2.0 (8)	2.2 (32)	2.7 (30)	
PIMCO Total Return Fund - Inst.	21,507,582	0.6	3.2 (27)	6.1 (70)	7.6 (58)	3.2 (10)	3.0 (33)	4.7 (36)	7.2	06/01/1987
Blmbg. Barc. U.S. Aggregate			3.1 (48)	6.1 (68)	7.9 (39)	2.3 (64)	2.9 (40)	3.9 (70)	6.3	
DFA Inflation-Protected Securities Portfolio - I	20,116,901	0.6	3.1 (8)	6.8 (15)	5.8 (1)	2.2 (28)	1.9 (12)	3.9 (13)	4.1 (12)	10/01/2006
Blmbg. Barc. Global Inflation-Linked: U.S. TIPS			2.9 (26)	6.2 (46)	4.8 (20)	2.1 (35)	1.8 (15)	3.6 (17)	3.9 (24)	

Tier II Performance Summary (cont'd)

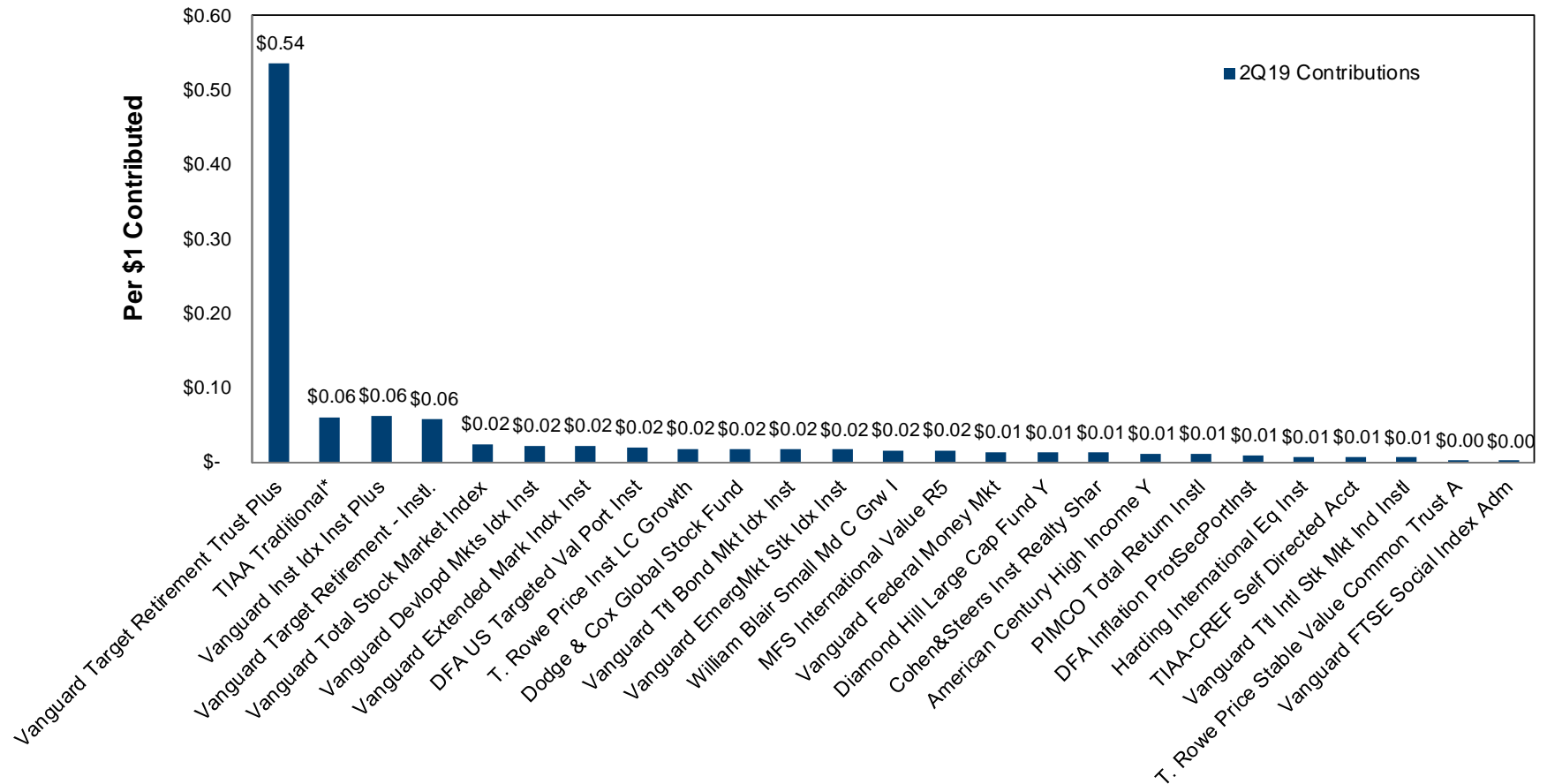
As of 6/30/2019

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
American Century High Income - Y	24,986,888	0.8	2.0 (74)	8.8 (65)	5.3 (82)	7.1 (28)	4.1 (33)		5.9 (10)	01/01/2013
ICE BofAML US High Yield Master II Constrained			2.6 (40)	10.2 (25)	7.6 (22)	7.5 (15)	4.7 (15)		5.6 (15)	
T. Rowe Price Instl. Large Cap Growth Fund	32,335,431	1.0	3.0 (93)	18.1 (93)	10.0 (64)	23.1 (2)	15.1 (8)	17.8 (7)	10.7 (2)	11/01/2001
Russell 1000 Growth Index			4.6 (56)	21.5 (51)	11.6 (37)	18.1 (48)	13.4 (36)	16.3 (22)	8.7 (38)	
Diamond Hill Large Cap - Y	25,620,951	0.8	7.0 (1)	21.1 (2)	12.7 (6)	13.9 (4)	9.5 (3)		13.4 (9)	01/01/2012
Russell 1000 Value Index			3.8 (43)	16.2 (37)	8.5 (40)	10.2 (73)	7.5 (51)		12.5 (38)	
William Blair Small/Mid Cap Growth Fund - I	31,806,270	1.0	6.3 (26)	24.5 (38)	9.9 (23)	18.4 (38)	13.3 (11)	16.3 (24)	11.3 (7)	01/01/2004
Russell 2500 Growth Index			4.1 (54)	23.9 (43)	6.1 (43)	16.1 (53)	10.0 (48)	15.7 (38)	10.0 (27)	
DFA U.S. Targeted Value - I	34,991,447	1.1	0.9 (57)	13.2 (69)	-8.1 (73)	8.4 (44)	4.0 (55)	13.1 (30)	10.6 (7)	03/01/2000
Russell 2500 Value Index			1.9 (38)	15.3 (41)	-1.9 (20)	9.0 (33)	5.5 (19)	13.3 (28)	9.8 (28)	
Dodge & Cox Global Stock Fund	27,773,394	0.8	2.3 (91)	12.2 (90)	1.5 (93)	11.9 (63)	4.8 (80)	11.3 (36)	5.3 (76)	05/01/2008
MSCI AC World Index (Net)			3.6 (71)	16.2 (69)	5.7 (63)	11.6 (65)	6.2 (58)	10.1 (53)	5.0 (87)	
Harding Loevner International Equity Instl.	12,424,529	0.4	4.5 (65)	16.6 (72)	0.7 (72)	9.8 (39)	5.0 (18)	9.3 (13)	6.3	06/01/1994
MSCI AC World ex USA Growth (Net)			4.4 (69)	17.2 (68)	2.6 (50)	9.8 (39)	4.0 (34)	7.6 (47)		
MFS International Value Fund - R6	29,085,518	0.9	4.4 (7)	17.1 (3)	7.0 (1)	10.5 (6)	7.8 (1)	11.4 (1)	7.4 (1)	06/01/2006
MSCI AC World ex USA Value (Net)			1.6 (89)	10.0 (93)	-0.1 (56)	8.9 (33)	0.3 (89)	5.4 (91)	2.6 (79)	
Cohen and Steers Instl. Realty Shares	24,722,611	0.7	3.5 (9)	21.2 (9)	14.7 (6)	6.4 (18)	9.1 (8)	15.9 (20)	12.1 (8)	03/01/2000
FTSE NAREIT Equity REIT Index			1.2 (70)	17.8 (68)	11.2 (46)	4.2 (55)	7.9 (36)	15.5 (37)	11.3 (35)	
Tier III	23,034,878	0.7								03/01/2014
Mutual Fund Window	23,034,878	0.7								03/01/2014
Orphan Accounts	1,446,259,741	43.5								
TIAA Orphan Accounts	1,370,927,432	41.2								
VALIC Orphan Accounts	75,015,459	2.3								
American Century Orphan Accounts	316,850	0.0								
Other Assets	1,930,174	0.1								03/01/2014
Loans	679,583	0.0								03/01/2014
Loans Deemed Distributed	627,788	0.0								03/01/2014
Plan Loan Default Fund	622,802	0.0								07/01/2014

Total Plan Contributions

As of 6/30/2019

Contributed Funds



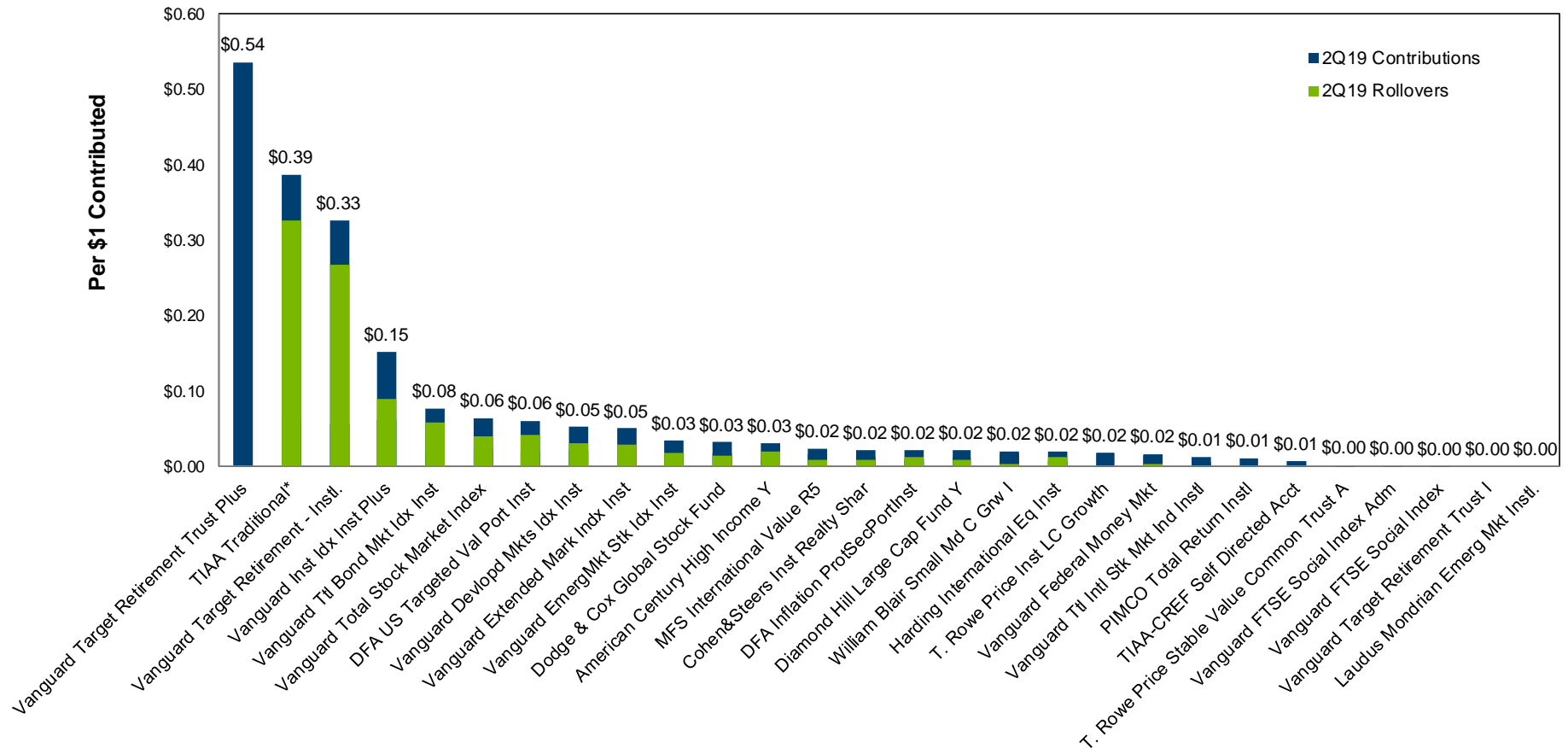
*TIAA RC 76% / TIAA RCP 24% Contribution Split

Source: TIAA

Total Plan Contributions (Including Rollovers)

As of 6/30/2019

Contributed Funds (Including Rollovers)



*TIAA RC 56% / TIAA RCP 44% Contribution and Rollover Split

Source: TIAA

Quarterly Participant Transfers

As of 6/30/2019

Investment	Transfers In	Transfers Out	Net Transfers	Ending Balance (6/30/2019)	Number of Participants
Vanguard Target Retirement Trust Plus Funds	\$4,556,687	(\$20,976,782)	(\$16,420,095)	\$830,649,009	4,014
Vanguard Target Retirement Mutual Funds	\$1,638,054	(\$5,709,161)	(\$4,071,107)	\$140,918,714	1,541
Vanguard Total Bond Market Index Inst	\$2,352,989	(\$823,400)	\$1,529,589	\$38,514,358	978
Vanguard Total Stock Market Index Inst	\$1,326,377	(\$2,024,798)	(\$698,421)	\$52,114,068	566
Vanguard Institutional Index Inst	\$6,745,046	(\$2,031,620)	\$4,713,426	\$138,560,296	1,590
Vanguard FTSE Social Index Fund	\$2,866,560	(\$2,681,038)	\$185,522	\$2,698,187	43
Vanguard Extended Market Index Inst	\$3,239,267	(\$1,355,472)	\$1,883,795	\$42,595,238	1,121
Vanguard Total International Stock Index Inst	\$181,792	(\$371,197)	(\$189,405)	\$10,393,551	169
Vanguard Developed Markets Index Ins	\$4,581,320	(\$253,436)	\$4,327,884	\$47,888,367	1,190
Vanguard Emerging Markets Stock Index Inst	\$1,846,371	(\$244,161)	\$1,602,210	\$32,490,887	1,394
Vanguard Federal Money Market Inv	\$5,765,290	(\$4,857,798)	\$907,491	\$25,807,489	210
T. Rowe Price Stable Value Common Trust A	\$1,252,552	(\$159,015)	\$1,093,537	\$5,416,108	236
TIAA Traditional	\$7,038,453	(\$1,300,090)	\$5,738,363	\$199,133,890	1,735
PIMCO Total Return Instl	\$770,484	(\$1,192,966)	(\$422,482)	\$21,507,582	699
DFA Inflation Protected Securities Portfolio Inst	\$1,876,235	(\$389,558)	\$1,486,677	\$20,116,901	918
American Century High Income	\$1,439,650	(\$263,240)	\$1,176,410	\$24,986,888	879
T. Rowe Price Inst LC Growth	\$1,061,360	(\$4,968,510)	(\$3,907,150)	\$32,335,431	389
Diamond Hill Large Cap Fund Y	\$1,203,227	(\$1,104,428)	\$98,798	\$25,620,951	947
William Blair Small Md C Grw I	\$754,961	(\$1,003,368)	(\$248,407)	\$31,806,270	1,053
DFA US Targeted Val Port Inst	\$1,484,825	(\$940,448)	\$544,377	\$34,991,447	1,184
Dodge & Cox Global Stock Fund	\$513,764	(\$1,637,487)	(\$1,123,723)	\$27,773,394	758
Harding International Equit Inst	\$412,855	(\$508,701)	(\$95,846)	\$12,424,529	799
MFS International Value R6	\$645,376	(\$1,879,894)	(\$1,234,517)	\$29,085,518	1,252
Cohen & Steers Inst Realty Shares	\$1,077,475	(\$321,700)	\$755,775	\$24,722,611	1,454
Mutual Fund Window	\$3,164,744	(\$797,444)	\$2,367,300	\$23,034,878	49
Total	\$57,795,713	(\$57,795,713)	\$0	\$1,875,586,564	

Source: TIAA

Historical Quarterly Participant Transfers

As of 6/30/2019

Investment	4Q17		1Q18		2Q18		3Q18		4Q18		1Q19		2Q19	
	Net Transfers (\$M)	# of Part.	Net Transfers (\$M)	# of Part.	Net Transfers (\$M)	# of Part.	Net Transfers (\$M)	# of Part.	Net Transfers (\$M)	# of Part.	Net Transfers (\$M)	# of Part.	Net Transfers (\$M)	# of Part.
Vanguard Target Retirement Trust Plus	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$740.97	4042	-\$15.23	4044	-\$16.42	4014
Vanguard Target Retirement Trusts I	-\$2.42	3613	-\$2.42	3852	-\$15.86	3836	\$164.98	4017	-\$784.41	0	\$0.00	0	\$0.00	0
Vanguard Target Retirement Mutual Funds	-\$1.05	1468	-\$1.05	1376	-\$6.56	1378	\$37.28	1575	-\$13.22	1550	-\$5.36	1498	-\$4.07	1541
Vanguard Total Bond Market Index Inst	-\$0.12	875	-\$0.12	883	\$0.12	863	\$1.22	885	\$2.25	898	\$2.76	952	\$1.53	978
Vanguard Total Stock Market Index Inst	\$2.16	611	\$2.16	707	-\$1.04	683	-\$0.32	672	\$3.82	630	-\$1.44	599	-\$0.70	566
Vanguard Institutional Index Inst	-\$2.83	1468	-\$2.83	1436	\$4.45	1486	\$6.01	1546	\$10.14	1531	\$5.59	1578	\$4.71	1590
Vanguard FTSE Social Index Fund	\$0.00	0	\$0.00	5	\$0.27	9	\$0.68	19	\$0.17	30	\$0.54	43	\$0.19	43
Vanguard Extended Market Index Inst	\$0.71	1158	\$0.71	1205	-\$1.77	1190	-\$1.18	1180	-\$2.20	1116	-\$0.71	1104	\$1.88	1121
Vanguard Total International Stock Index Inst	\$0.14	160	\$0.14	176	\$0.13	172	-\$0.41	177	\$0.73	163	\$0.44	171	-\$0.19	169
Vanguard Developed Markets Index Ins	\$0.75	965	\$0.75	1011	\$4.08	1048	\$4.95	1113	\$4.26	1131	\$2.82	1171	\$4.33	1190
Vanguard Emerging Markets Stock Index Inst	\$0.20	1198	\$0.20	1293	\$0.89	1324	\$1.38	1376	\$1.62	1365	\$1.15	1395	\$1.60	1394
Vanguard Federal Money Market Inv	-\$2.82	174	-\$2.82	188	\$0.66	188	-\$225.44	200	\$11.50	201	-\$1.62	214	\$0.91	210
T. Rowe Price Stable Value Common Trust A	\$0.00	0	\$0.00	4	\$0.94	51	\$0.58	96	\$1.26	145	\$1.06	202	\$1.09	236
TIAA Traditional	\$2.14	1605	\$2.14	1732	\$5.08	1677	\$5.25	1744	\$10.71	1713	\$3.90	1741	\$5.74	1735
PIMCO Total Return Instl	\$0.77	669	\$0.77	729	\$2.54	757	-\$0.28	803	-\$0.62	778	\$0.02	738	-\$0.42	699
DFA Inflation Protected Securities Portfolio Inst	\$0.17	751	\$0.17	783	\$1.68	801	\$0.85	856	\$2.50	865	\$0.49	903	\$1.49	918
American Century High Income	\$0.48	812	\$0.48	847	\$1.37	848	\$1.55	883	\$2.56	882	\$1.39	880	\$1.18	879
T. Rowe Price Inst LC Growth	\$0.91	370	\$0.91	393	\$0.74	386	\$1.37	406	\$3.45	393	\$1.61	388	-\$3.91	389
Diamond Hill Large Cap Fund Y	\$1.26	1102	\$1.26	1163	\$0.07	1170	-\$1.21	1159	-\$2.37	1076	-\$1.32	989	\$0.10	947
William Blair Small Md C Grw I	\$0.12	691	\$0.12	773	\$3.38	835	\$2.13	941	\$2.84	980	\$0.83	1048	-\$0.25	1053
DFA US Targeted Val Port Inst	-\$1.25	970	-\$1.25	974	\$1.44	1007	\$2.37	1085	\$2.35	1110	\$0.61	1177	\$0.54	1184
Dodge & Cox Global Stock Fund	\$1.91	1005	\$1.91	1063	-\$2.84	1012	-\$2.01	946	-\$2.65	863	-\$2.76	788	-\$1.12	758
Harding International Equit Inst	-\$0.10	791	-\$0.10	804	-\$0.50	758	-\$0.44	725	\$0.62	729	\$0.59	783	-\$0.10	799
MFS International Value R6	-\$0.43	1161	-\$0.43	1207	\$0.33	1231	-\$1.30	1270	-\$0.71	1221	-\$1.04	1251	-\$1.23	1252
Laudus Mondrian Emerg Mkts Ins	-\$0.02	144	-\$0.02	137	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0
Cohen & Steers Inst Realty Shares	-\$0.34	1415	-\$0.34	1443	\$0.51	1440	\$0.42	1470	\$0.41	1446	-\$0.02	1464	\$0.76	1454
Mutual Fund Window	-\$0.32	33	-\$0.32	34	\$0.42	35	\$1.59	37	\$4.01	39	\$5.70	46	\$2.37	49
TIAA-CREF Funds	\$0.00	0	\$0.00	0	-\$0.54	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0
Total	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	

Net Transfers In (Darker shades represent larger transfers while lighter shades represent smaller transfers)
 Net Transfers Out (Darker shades represent larger transfers while lighter shades represent smaller transfers)

Source: TIAA

Annual Investment Fee Monitoring & Transparency – As of 6/30/2019

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	\$24,303,277	0.06%	\$14,582	0.00%	\$0	0.06%	\$14,582	0.039%	\$9,478	0.10%	\$24,060
Vanguard Target Retirement 2015 Trust Plus	\$52,384,077	0.06%	\$31,430	0.00%	\$0	0.06%	\$31,430	0.039%	\$20,430	0.10%	\$51,860
Vanguard Target Retirement 2020 Trust Plus	\$90,518,507	0.06%	\$54,311	0.00%	\$0	0.06%	\$54,311	0.039%	\$35,302	0.10%	\$89,613
Vanguard Target Retirement 2025 Trust Plus	\$108,639,939	0.06%	\$65,184	0.00%	\$0	0.06%	\$65,184	0.039%	\$42,370	0.10%	\$107,554
Vanguard Target Retirement 2030 Trust Plus	\$134,317,988	0.06%	\$80,591	0.00%	\$0	0.06%	\$80,591	0.039%	\$52,384	0.10%	\$132,975
Vanguard Target Retirement 2035 Trust Plus	\$136,407,952	0.06%	\$81,845	0.00%	\$0	0.06%	\$81,845	0.039%	\$53,199	0.10%	\$135,044
Vanguard Target Retirement 2040 Trust Plus	\$121,796,445	0.06%	\$73,078	0.00%	\$0	0.06%	\$73,078	0.039%	\$47,501	0.10%	\$120,578
Vanguard Target Retirement 2045 Trust Plus	\$91,716,643	0.06%	\$55,030	0.00%	\$0	0.06%	\$55,030	0.039%	\$35,769	0.10%	\$90,799
Vanguard Target Retirement 2050 Trust Plus	\$49,643,993	0.06%	\$29,786	0.00%	\$0	0.06%	\$29,786	0.039%	\$19,361	0.10%	\$49,148
Vanguard Target Retirement 2055 Trust Plus	\$16,064,626	0.06%	\$9,639	0.00%	\$0	0.06%	\$9,639	0.039%	\$6,265	0.10%	\$15,904
Vanguard Target Retirement 2060 Trust Plus	\$4,842,803	0.06%	\$2,906	0.00%	\$0	0.06%	\$2,906	0.039%	\$1,889	0.10%	\$4,794
Vanguard Target Retirement 2065 Trust Plus	\$12,760	0.06%	\$8	0.00%	\$0	0.06%	\$8	0.039%	\$5	0.10%	\$13
Vanguard Target Retirement Income - Instl.	\$10,208,148	0.09%	\$9,187	0.00%	\$0	0.09%	\$9,187	0.039%	\$3,981	0.13%	\$13,169
Vanguard Target Retirement 2015 - Instl.	\$16,910,858	0.09%	\$15,220	0.00%	\$0	0.09%	\$15,220	0.039%	\$6,595	0.13%	\$21,815
Vanguard Target Retirement 2020 - Instl.	\$21,425,911	0.09%	\$19,283	0.00%	\$0	0.09%	\$19,283	0.039%	\$8,356	0.13%	\$27,639
Vanguard Target Retirement 2025 - Instl.	\$21,812,790	0.09%	\$19,632	0.00%	\$0	0.09%	\$19,632	0.039%	\$8,507	0.13%	\$28,138
Vanguard Target Retirement 2030 - Instl.	\$21,036,500	0.09%	\$18,933	0.00%	\$0	0.09%	\$18,933	0.039%	\$8,204	0.13%	\$27,137
Vanguard Target Retirement 2035 - Instl.	\$12,332,700	0.09%	\$11,099	0.00%	\$0	0.09%	\$11,099	0.039%	\$4,810	0.13%	\$15,909
Vanguard Target Retirement 2040 - Instl.	\$11,502,199	0.09%	\$10,352	0.00%	\$0	0.09%	\$10,352	0.039%	\$4,486	0.13%	\$14,838
Vanguard Target Retirement 2045 - Instl.	\$10,590,330	0.09%	\$9,531	0.00%	\$0	0.09%	\$9,531	0.039%	\$4,130	0.13%	\$13,662
Vanguard Target Retirement 2050 - Instl.	\$10,805,823	0.09%	\$9,725	0.00%	\$0	0.09%	\$9,725	0.039%	\$4,214	0.13%	\$13,940
Vanguard Target Retirement 2055 - Instl.	\$3,798,407	0.09%	\$3,419	0.00%	\$0	0.09%	\$3,419	0.039%	\$1,481	0.13%	\$4,900
Vanguard Target Retirement 2060 - Instl.	\$430,364	0.09%	\$387	0.00%	\$0	0.09%	\$387	0.039%	\$168	0.13%	\$555
Vanguard Target Retirement 2065 - Instl.	\$64,682	0.09%	\$58	0.00%	\$0	0.09%	\$58	0.039%	\$25	0.13%	\$83
Vanguard Total Bond Market Index Fund	\$38,514,358	0.04%	\$13,480	0.00%	\$0	0.04%	\$13,480	0.039%	\$15,021	0.07%	\$28,501
Vanguard Total Stock Market Index Fund	\$52,114,068	0.03%	\$15,634	0.00%	\$0	0.03%	\$15,634	0.039%	\$20,324	0.07%	\$35,959
Vanguard Institutional Index Fund - Instl. Plus	\$138,560,296	0.02%	\$27,712	0.00%	\$0	0.02%	\$27,712	0.039%	\$54,039	0.06%	\$81,751
Vanguard FTSE Social Index Fund - Admiral	\$2,698,187	0.14%	\$3,777	0.00%	\$0	0.14%	\$3,777	0.039%	\$1,052	0.18%	\$4,830
Vanguard Extended Market Index Fund - Instl.	\$42,595,238	0.06%	\$25,557	0.00%	\$0	0.06%	\$25,557	0.039%	\$16,612	0.10%	\$42,169
Vanguard Total International Stock Index Fund - Instl.	\$10,393,551	0.08%	\$8,315	0.00%	\$0	0.08%	\$8,315	0.039%	\$4,053	0.12%	\$12,368
Vanguard Developed Market Index Fund - Instl.	\$47,888,367	0.05%	\$23,944	0.00%	\$0	0.05%	\$23,944	0.039%	\$18,676	0.09%	\$42,621
Vanguard Emerging Markets Stock Index Fund - Instl.	\$32,490,887	0.10%	\$32,491	0.00%	\$0	0.10%	\$32,491	0.039%	\$12,671	0.14%	\$45,162
Vanguard Federal Money Market Fund	\$25,807,489	0.11%	\$28,388	0.00%	\$0	0.11%	\$28,388	0.039%	\$10,065	0.15%	\$38,453
T. Rowe Price Stable Value Common Trust Fund A	\$5,416,108	0.48%	\$25,997	0.00%	\$0	0.48%	\$25,997	0.039%	\$2,112	0.52%	\$28,110
TIAA Traditional - RC & RCP	\$199,133,890	0.49%	\$975,756	0.15%	(\$298,701)	0.34%	\$677,055	0.039%	\$77,662	0.64%	\$754,717
PIMCO Total Return Fund	\$21,507,582	0.55%	\$118,292	0.00%	\$0	0.55%	\$118,292	0.039%	\$8,388	0.59%	\$126,680
DFA Inflation-Protected Securities Portfolio	\$20,116,901	0.12%	\$24,140	0.00%	\$0	0.12%	\$24,140	0.039%	\$7,846	0.16%	\$31,986
American Century High Income	\$24,986,888	0.59%	\$147,423	0.00%	\$0	0.59%	\$147,423	0.039%	\$9,745	0.63%	\$157,168
T. Rowe Price Instl. Large Cap Growth Fund	\$32,335,431	0.56%	\$181,078	0.00%	\$0	0.56%	\$181,078	0.039%	\$12,611	0.60%	\$193,689
Diamond Hill Large Cap	\$25,620,951	0.55%	\$140,915	0.00%	\$0	0.55%	\$140,915	0.039%	\$9,992	0.59%	\$150,907
William Blair Small/Mid Cap Growth Fund	\$31,806,270	1.10%	\$349,869	0.15%	(\$47,709)	0.95%	\$302,160	0.039%	\$12,404	0.99%	\$314,564
DFA U.S. Targeted Value	\$34,991,447	0.37%	\$129,468	0.00%	\$0	0.37%	\$129,468	0.039%	\$13,647	0.41%	\$143,115
Dodge & Cox Global Stock Fund	\$27,773,394	0.62%	\$172,195	0.10%	(\$27,773)	0.52%	\$144,422	0.039%	\$10,832	0.56%	\$155,253
Harding Loeven International Equity Instl.	\$12,424,529	0.81%	\$100,639	0.15%	(\$18,637)	0.66%	\$82,002	0.039%	\$4,846	0.70%	\$86,847
MFS International Value Fund	\$29,085,518	0.63%	\$183,239	0.00%	\$0	0.63%	\$183,239	0.039%	\$11,343	0.67%	\$194,582
Cohen and Steers Instl. Realty Shares	\$24,722,611	0.75%	\$185,420	0.00%	\$0	0.75%	\$185,420	0.039%	\$9,642	0.79%	\$195,061
Mutual Fund Window	\$23,034,878	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.039%	\$8,984	0.04%	\$8,984
Total	\$1,875,586,564	0.19%	\$3,538,946	-0.02%	(\$392,820)	0.17%	\$3,146,126	0.039%	\$731,479	0.21%	\$3,877,605
Without Brokerage	\$1,852,551,685	0.19%	\$3,538,946	-0.02%	(\$392,820)	0.17%	\$3,146,126	0.039%	\$722,495	0.21%	\$3,868,621

Source: TIAA

Morningstar Model Portfolios – RC Performance

As of 6/30/2019

	Performance(%)						
	1 Quarter	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
RC							
Very Conservative RC	2.1	5.9	5.9	4.6	3.9	4.1	04/01/2014
Very Conservative Benchmark RC	2.3	5.9	5.9	4.5	3.9	4.0	
Conservative RC	2.3	7.9	5.1	6.2	4.5	4.8	04/01/2014
Conservative Benchmark RC	2.5	8.1	5.7	6.2	4.8	5.0	
Moderately Conservative RC	2.6	10.0	5.7	8.2	6.0	6.4	04/01/2014
Moderately Conservative Benchmark RC	2.7	10.1	5.8	7.6	5.5	5.9	
Moderate RC	2.8	11.9	5.6	8.7	6.1	6.5	04/01/2014
Moderate Benchmark RC	2.9	11.9	5.9	8.8	6.0	6.4	
Moderately Aggressive RC	3.0	13.5	5.3	9.6	6.3	6.8	04/01/2014
Moderately Aggressive Benchmark RC	3.1	13.5	5.7	9.7	6.4	6.9	
Aggressive RC	3.2	16.7	6.4	11.0	7.1	7.6	04/01/2014
Aggressive Benchmark RC	3.3	15.2	5.4	10.8	6.8	7.4	
Very Aggressive RC	3.5	17.0	4.9	11.4	7.0	7.6	04/01/2014
Very Aggressive Benchmark RC	3.4	16.8	5.2	11.8	7.0	7.7	
RC Ex-TIAA							
Very Conservative RC Ex-TIAA	2.7	6.6	6.0	3.4	3.2	3.5	04/01/2014
Very Conservative Benchmark RC Ex-TIAA	3.2	7.7	7.6	3.8	3.4	3.7	
Conservative RC Ex-TIAA	2.7	8.6	6.0	5.6	4.2	4.6	04/01/2014
Conservative Benchmark RC Ex-TIAA	3.3	9.7	7.1	5.7	4.4	4.7	
Moderately Conservative RC Ex-TIAA	3.0	10.8	6.1	7.3	5.5	5.9	04/01/2014
Moderately Conservative Benchmark RC Ex-TIAA	3.3	11.4	7.0	7.0	5.2	5.6	
Moderate RC Ex-TIAA	3.1	12.5	6.0	8.0	5.7	6.1	04/01/2014
Moderate Benchmark RC Ex-TIAA	3.4	12.9	6.7	8.4	5.8	6.2	
Moderately Aggressive RC Ex-TIAA	3.2	13.9	5.5	8.9	6.1	6.6	04/01/2014
Moderately Aggressive Benchmark RC Ex-TIAA	3.4	14.2	6.3	9.4	6.2	6.7	
Aggressive RC Ex-TIAA	3.3	15.4	5.1	10.3	6.6	7.1	04/01/2014
Aggressive Benchmark RC Ex-TIAA	3.4	15.5	5.6	10.7	6.7	7.2	
Very Aggressive RC Ex-TIAA	3.3	16.8	4.7	11.3	7.0	7.6	04/01/2014
Very Aggressive Benchmark RC Ex-TIAA	3.4	16.8	5.2	11.8	7.0	7.7	

Morningstar Model Portfolios – RC Allocations

As of 6/30/2019

RC

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	8%	9%	7%	5%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	4%	4%	4%
DFA Inflation-Protected Securities I	13%	8%	8%	5%	3%	4%	-
DFA US Targeted Value I	-	3%	-	3%	3%	6%	17%
Diamond Hill Large Cap Y	-	3%	-	3%	3%	5%	6%
Dodge & Cox Global Stock	-	-	-	-	3%	3%	5%
Harding International Eq Inst	-	-	-	-	-	3%	4%
MFS International Value R6	3%	-	3%	3%	3%	3%	-
PIMCO Total Return Instl	-	-	-	-	-	-	-
T. Rowe Price Stable Value Fund	10%	7%	5%	4%	-	-	-
TIAA Traditional	40%	34%	30%	22%	15%	7%	-
Vanguard Developed Markets Idx Instl	-	6%	7%	12%	16%	17%	21%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	6%	7%	10%	12%
Vanguard Extended Market Idx I	-	4%	8%	10%	13%	13%	-
Vanguard Institutional Index Instl PI	5%	10%	17%	20%	22%	25%	25%
Vanguard Total Bond Market Index I	18%	13%	5%	4%	3%	-	-
William Blair Small-Mid Cap Gr I	3%	-	3%	-	-	-	6%

RC Ex-TIAA

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	8%	9%	7%	5%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	3%	3%	4%
DFA Inflation-Protected Securities I	12%	8%	7%	5%	3%	3%	-
DFA US Targeted Value I	-	3%	-	3%	5%	5%	17%
Diamond Hill Large Cap Y	3%	3%	-	3%	5%	5%	6%
Dodge & Cox Global Stock	-	-	-	-	3%	3%	5%
Harding International Eq Inst	-	-	-	-	3%	4%	4%
MFS International Value R6	-	-	3%	3%	3%	3%	-
PIMCO Total Return Instl	29%	7%	-	-	-	-	-
T. Rowe Price Stable Value Fund	24%	19%	15%	11%	7%	4%	-
Vanguard Developed Markets Idx Instl	3%	6%	7%	12%	12%	16%	21%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	6%	7%	10%	12%
Vanguard Extended Market Idx I	-	4%	8%	10%	11%	15%	-
Vanguard Institutional Index Instl PI	-	10%	17%	20%	21%	24%	25%
Vanguard Total Bond Market Index I	18%	28%	26%	19%	12%	5%	-
William Blair Small-Mid Cap Gr I	3%	-	3%	-	-	-	6%

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

Morningstar Model Portfolios – RC Benchmarks

As of 6/30/2019

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	29%	20%	13%	10%	6%	3%	-
Blmbg. Barc. US Corp HY	7%	6%	5%	3%	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%	14%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	5%
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%	8%	6%	5%	3%	3%	-
Blmbg. Barc. US Agg. Bond	72%	56%	44%	32%	21%	10%	-
Blmbg. Barc. US Corp HY	7%	6%	5%	3%	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%	14%
Russell 1000 Value	3%	7%	8%	12%	14%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	5%
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%	6%	7%	8%

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

Morningstar Model Portfolios – RCP Performance

As of 6/30/2019

	Performance(%)						
	1 Quarter	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
RCP							
Very Conservative RCP	2.3	5.7	5.7	4.3	3.7	3.9	04/01/2014
<i>Very Conservative Benchmark RCP</i>	2.1	5.4	5.2	4.1	3.5	3.7	
Conservative RCP	2.7	8.3	5.5	6.0	4.2	4.5	04/01/2014
<i>Conservative Benchmark RCP</i>	2.4	7.9	5.3	5.9	4.4	4.7	
Moderately Conservative RCP	2.8	10.3	5.5	7.7	5.6	6.0	04/01/2014
<i>Moderately Conservative Benchmark RCP</i>	2.7	10.2	5.7	7.2	5.3	5.6	
Moderate RCP	3.0	12.4	5.7	8.3	5.8	6.2	04/01/2014
<i>Moderate Benchmark RCP</i>	3.1	12.3	6.0	8.5	5.8	6.2	
Moderately Aggressive RCP	3.2	13.8	5.5	9.3	6.3	6.8	04/01/2014
<i>Moderately Aggressive Benchmark RCP</i>	3.2	13.8	5.8	9.5	6.2	6.7	
Aggressive RCP	3.3	15.3	5.3	10.4	6.7	7.2	04/01/2014
<i>Aggressive Benchmark RCP</i>	3.4	15.4	5.6	10.8	6.8	7.3	
Very Aggressive RCP	3.3	16.8	4.7	11.4	6.9	7.6	04/01/2014
<i>Very Aggressive Benchmark RCP</i>	3.4	16.8	5.2	11.8	7.1	7.7	
RCP Ex-TIAA							
Very Conservative RCP Ex-TIAA	3.1	7.6	7.7	3.9	3.5	3.8	04/01/2014
<i>Very Conservative Benchmark RCP Ex-TIAA</i>	3.0	7.4	7.3	3.7	3.3	3.6	
Conservative RCP Ex-TIAA	3.2	9.4	6.7	5.7	4.3	4.7	04/01/2014
<i>Conservative Benchmark RCP Ex-TIAA</i>	3.2	9.5	6.9	5.6	4.3	4.7	
Moderately Conservative RCP Ex-TIAA	3.3	11.6	6.8	7.5	5.6	5.9	04/01/2014
<i>Moderately Conservative Benchmark RCP Ex-TIAA</i>	3.2	11.3	6.8	7.0	5.1	5.6	
Moderate RCP Ex-TIAA	3.4	13.0	6.6	8.1	5.7	6.1	04/01/2014
<i>Moderate Benchmark RCP Ex-TIAA</i>	3.4	12.9	6.7	8.4	5.8	6.2	
Moderately Aggressive RCP Ex-TIAA	3.4	14.3	6.0	9.0	6.1	6.6	04/01/2014
<i>Moderately Aggressive Benchmark RCP Ex-TIAA</i>	3.4	14.2	6.3	9.4	6.2	6.7	
Aggressive RCP Ex-TIAA	3.4	15.7	5.3	10.4	6.6	7.2	04/01/2014
<i>Aggressive Benchmark RCP Ex-TIAA</i>	3.4	15.5	5.6	10.7	6.7	7.2	
Very Aggressive RCP Ex-TIAA	3.3	16.8	4.7	11.4	7.0	7.6	04/01/2014
<i>Very Aggressive Benchmark RCP Ex-TIAA</i>	3.4	16.8	5.2	11.8	7.0	7.7	

Morningstar Model Portfolios – RCP Allocations

As of 6/30/2019

RCP

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	7%	7%	6%	5%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	4%	3%	4%
DFA Inflation-Protected Securities I	10%	7%	7%	5%	3%	-	-
DFA US Targeted Value I	-	4%	3%	4%	4%	6%	17%
Diamond Hill Large Cap Y	3%	14%	3%	5%	4%	5%	6%
Dodge & Cox Global Stock	-	-	-	3%	3%	3%	5%
Harding International Eq Inst	-	-	-	3%	3%	3%	4%
MFS International Value	3%	-	3%	-	3%	3%	-
PIMCO Total Return Instl	29%	17%	12%	3%	-	-	-
TIAA Traditional	40%	32%	25%	16%	10%	5%	-
Vanguard Developed Markets Idx Instl	-	6%	7%	11%	13%	17%	21%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	5%	7%	10%	12%
Vanguard Extended Market Idx I	-	3%	9%	9%	12%	13%	-
Vanguard Federal Money Market Inv	5%	4%	-	-	-	-	-
Vanguard Institutional Index Instl PI	-	-	13%	17%	21%	25%	25%
Vanguard Total Bond Market Index I	-	3%	5%	11%	8%	7%	-
William Blair Small-Mid Cap Gr I	3%	-	-	-	-	-	6%

RCP Ex-TIAA

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	6%	8%	6%	4%	4%	-	-
Cohen & Steers Instl Realty Shares	-	-	4%	3%	4%	3%	4%
DFA Inflation-Protected Securities I	12%	9%	7%	5%	4%	3%	-
DFA US Targeted Value I	-	3%	-	4%	3%	4%	17%
Diamond Hill Large Cap Y	-	3%	-	4%	3%	4%	6%
Dodge & Cox Global Stock	-	-	-	3%	3%	3%	5%
Harding International Eq Inst	-	-	-	3%	-	3%	4%
MFS International Value	3%	-	3%	-	3%	3%	-
PIMCO Total Return Instl	24%	5%	-	-	-	-	-
Vanguard Developed Markets Idx Instl	-	6%	7%	11%	15%	17%	21%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	5%	7%	10%	12%
Vanguard Extended Market Idx I	-	4%	7%	10%	13%	16%	-
Vanguard Federal Money Market Inv	6%	3%	3%	-	-	-	-
Vanguard Institutional Index Instl PI	3%	10%	17%	17%	23%	25%	25%
Vanguard Total Bond Market Index I	43%	46%	39%	31%	18%	9%	-
William Blair Small-Mid Cap Gr I	3%	-	3%	-	-	-	6%

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

Morningstar Model Portfolios – RCP Benchmarks

As of 6/30/2019

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%	16%	13%	10%	7%	4%	-
Blmbg. Barc. US Corp HY	7%	6%	5%	3%	3%	-	-
Blmbg. Barc. US Long Govt./Credit	7%	6%	5%	6%	4%	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%	14%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	5%
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	66%	52%	41%	32%	21%	10%	-
Blmbg. Barc. US Corp HY	7%	6%	5%	3%	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%	14%
Russell 1000 Value	3%	7%	8%	12%	13%	15%	17%
Russell 2000 Growth	-	-	3%	3%	3%	4%	5%
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 6/30/2019

	Performance(%)						
	1 Quarter	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
RC							
Very Conservative RC (Static)	2.2	5.5	5.8	4.5	3.9	4.1	04/01/2014
Very Conservative Benchmark RC (Static)	2.1	5.5	5.6	4.4	3.8	3.9	
Conservative RC (Static)	2.5	8.0	5.4	6.3	4.8	5.1	04/01/2014
Conservative Benchmark RC (Static)	2.4	8.1	5.7	6.3	4.8	5.1	
Moderately Conservative RC (Static)	2.8	10.0	6.2	7.8	5.7	6.1	04/01/2014
Moderately Conservative Benchmark RC (Static)	2.7	10.2	6.1	7.4	5.5	5.8	
Moderate RC (Static)	3.0	12.0	6.4	9.2	6.4	6.8	04/01/2014
Moderate Benchmark RC (Static)	2.9	12.1	5.8	8.7	6.0	6.4	
Moderately Aggressive RC (Static)	3.2	13.5	6.4	10.5	6.9	7.4	04/01/2014
Moderately Aggressive Benchmark RC (Static)	3.2	13.8	5.9	9.7	6.4	6.9	
Aggressive RC (Static)	3.3	15.1	6.3	12.1	7.6	8.1	04/01/2014
Aggressive Benchmark RC (Static)	3.4	15.6	5.7	10.8	6.8	7.4	
Very Aggressive RC (Static)	3.3	16.3	5.2	12.4	7.2	7.8	04/01/2014
Very Aggressive Benchmark RC (Static)	3.4	17.0	5.3	11.8	7.0	7.7	
RCP							
Very Conservative RCP (Static)	2.1	5.9	5.6	4.3	3.7	3.9	04/01/2014
Very Conservative Benchmark RCP (Static)	2.0	5.4	5.2	4.1	3.5	3.6	
Conservative RCP (Static)	2.5	7.9	5.3	6.1	4.6	4.8	04/01/2014
Conservative Benchmark RCP (Static)	2.4	8.1	5.6	6.0	4.5	4.8	
Moderately Conservative RCP (Static)	2.9	10.1	6.2	7.6	5.5	5.8	04/01/2014
Moderately Conservative Benchmark RCP (Static)	2.8	10.3	6.1	7.2	5.2	5.6	
Moderate RCP (Static)	3.1	12.2	6.5	9.0	6.2	6.6	04/01/2014
Moderate Benchmark RCP (Static)	3.0	12.3	5.9	8.5	5.8	6.2	
Moderately Aggressive RCP (Static)	3.3	13.7	6.5	10.3	6.8	7.2	04/01/2014
Moderately Aggressive Benchmark RCP (Static)	3.2	14.0	5.9	9.5	6.3	6.8	
Aggressive RCP (Static)	3.4	15.2	6.4	12.0	7.6	8.1	04/01/2014
Aggressive Benchmark RCP (Static)	3.5	15.9	5.9	10.8	6.8	7.4	
Very Aggressive RCP (Static)	3.3	16.3	5.2	12.4	7.2	7.8	04/01/2014
Very Aggressive Benchmark RCP (Static)	3.4	17.0	5.3	11.8	7.0	7.7	

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Discussion Topics

Section 1	Capital Markets Review
Section 2	Performance Review
Section 3	Noteworthy Items
Section 4	Investment Structure Review
Section 5	Legal & Compliance Update

Vanguard Target Retirement Trusts/Funds

- Each of the Vanguard Target Retirement Funds posted a positive return that closely approximated the return of its respective performance benchmark during the second quarter
 - The longer-dated, more equity-heavy Vanguard Institutional Target Retirement 2065 Fund returned 3.6%
 - The Vanguard Institutional Target Retirement Income Fund, with its greater proportion of fixed income assets, returned 2.9%
- For the twelve months ended June 30, 2019, all the Target Retirement Funds advanced
 - The Institutional Target Retirement 2065 Fund returned 5.9%, while the Institutional Target Retirement Income Fund returned 6.6%
 - 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 continued to register “Yellow” on the Watch List during the second 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 0.6 percentage point during the second quarter
- The Fund’s relative underperformance was primarily attributable to:
 - An overweight allocation to B-rated securities
 - An underweight allocation to BB-rated securities
 - Short duration posture relative to the Index
- Partially offsetting the period’s negative relative results was positive security selection within the electric-integrated, oil field equipment & services, and financing sectors
- For the twelve months ended June 30, 2019, the Fund generated a return of 5.3% versus the benchmark’s return of 7.6%
- Longer-term results remained 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

DFA U.S. Targeted Value Fund

- The Fund continued to register “Yellow” on the Watch List during the second 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 second quarter
- The Fund’s relative underperformance was primarily attributable to:
 - An overweight allocation to the lowest relative price (deep value) stocks
 - A general exclusion of highly regulated utilities, as utilities outperformed the overall index
- With mid caps outperforming small caps during the quarter, the portfolio’s inclusion of mid caps contributed positively to performance during the second quarter
- For the twelve months ended June 30, 2019, the Fund generated a return of -8.1% versus the benchmark’s return of 1.9%
 - 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 registered “Orange” on the Watch List during the second quarter
 - Due to the manager’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 lagged the return of its performance benchmark, the MSCI AC World Index, by 1.3 percentage points during the second quarter
- The Fund’s relative underperformance was primarily attributable to:
 - Negative stock selection within the financials and consumer discretionary sectors
 - Additional detractors included Baidu (-28%), Grupo Televisa (-23%), Occidental Petroleum (-23%), Apache (-2%), and FedEx (-9%)
- For the twelve months ended June 30, 2019, the Fund generated a return of 1.5% versus the benchmark’s return of 5.7%
 - 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

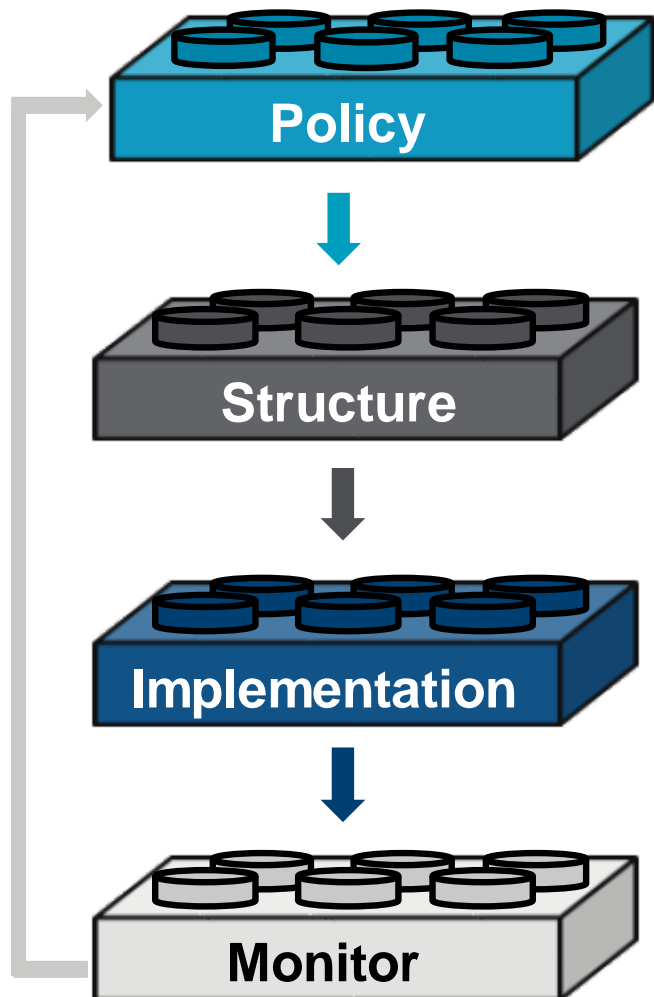
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Discussion Topics

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The Building Blocks of a Successful Retirement Program

Evolving landscape requires ongoing review of investment program best practices



- Define and categorize plan objectives
 - Maintain broad, long-term focus
-
- Number of options offered
 - Education on option implementation
 - Off-the-Shelf vs. Custom
 - Active or Passive
 - Style-Based, Asset Class, or Objective-Based
 - Single or Multi-Manager
-
- Finalize investment options within structure
 - Investment Manager Selection
 - Vehicle Type
 - Fees
-
- Ongoing monitoring and maintenance for better participant outcomes

Key Observations

- ✓ The Plans' investment lineups offer several high quality investment managers
- ✓ All of the funds are in the lowest cost share class option available at the current level of assets under management (AUM)
- ✓ Participants are provided with the ample opportunity to form well-diversified portfolios, given a reasonable range of risk and return circumstance
- ✓ Participants are offered a broad selection of U.S. and non-U.S. equity funds across investment styles (growth and value) and the market capitalization spectrum (large and small)
- ✓ The Plans currently offer a range of diversified investment options types that are commonly used in other participant-directed defined contribution plans
- ✓ High utilization of the Plans' Target Retirement Date Funds suggests that participants prefer a "one-stop" offering that can efficiently meet their investment needs as opposed to managing their own investment decisions
- ✓ The Plans are competitive with regards to the number of investment options offered to participants
- ✓ The Plans' self-directed window is competitive in terms of its costs and operational functionality

Additional areas for the Committee's consideration are detailed on the following page

Considerations

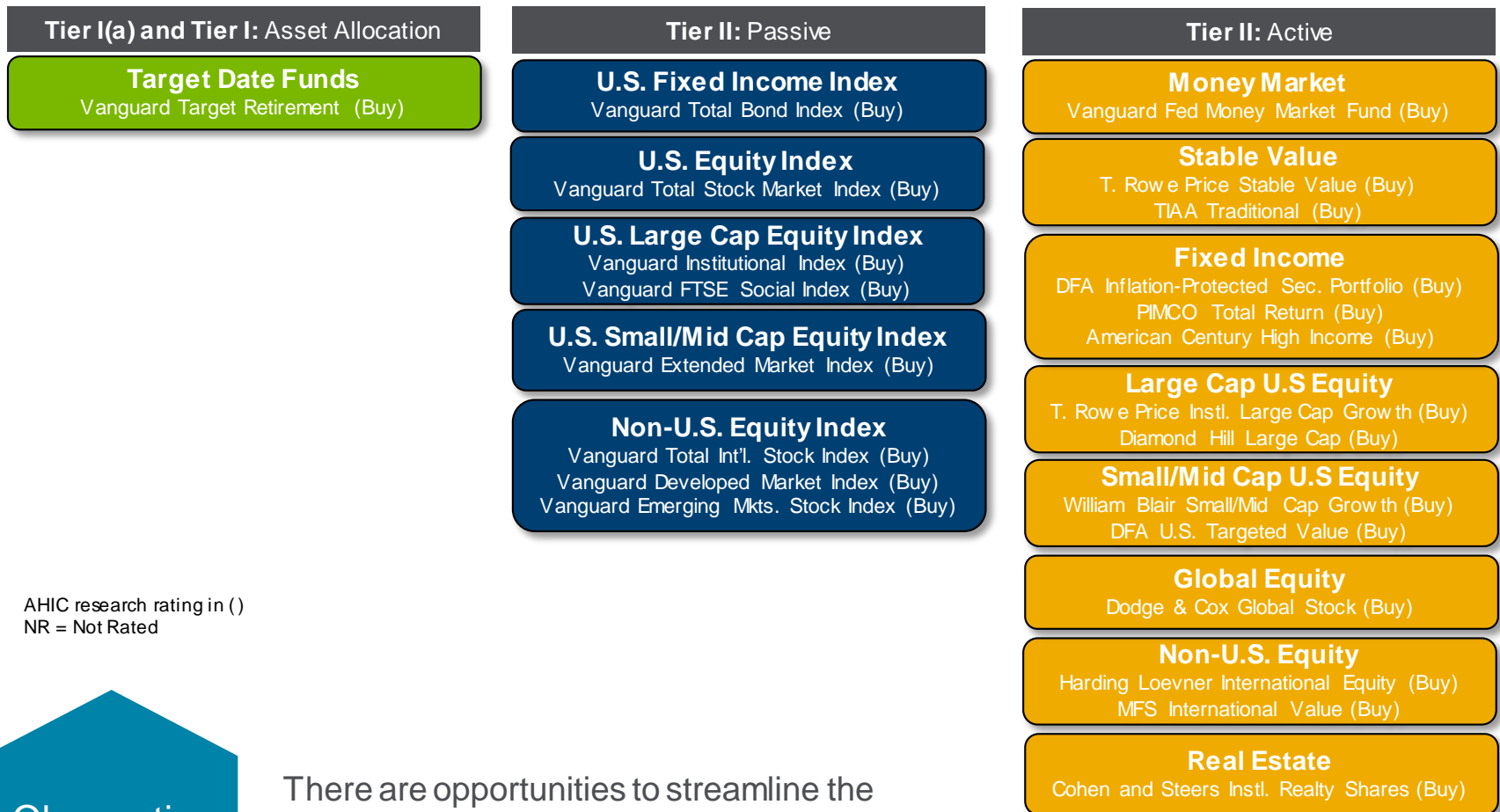
1. Consolidate assets and ongoing deferrals from the Vanguard Institutional Index Fund and the Vanguard Extended Market Index Fund into the Vanguard Total Stock Market Index Fund (VSMPX)
2. Consolidate assets and ongoing deferrals from the Vanguard Developed Market Index Fund and the Vanguard Emerging Markets Index Fund into the Vanguard Total International Stock Market Index Fund (VTSNX)
3. Add an international bond index fund to allow participants to broaden their investment diversification
 - Similar to the diversification benefit expected from international equities, international bonds can help mitigate volatility in a diversified portfolio
4. Initiate a search for a multi-asset inflation hedging option
 - Consolidate assets and ongoing deferrals from the existing TIPS and REIT fund options into this single fund option

We look forward to discussing these considerations at the August 16th RPAC meeting



Current Circumstances

Tiered Investment Structure – Current



AHIC research rating in ()
NR = Not Rated



There are opportunities to streamline the investment lineup while still maintaining a well diversified set of options for participants

AHIC Manager Research Ratings

As of 3/31/2019

Fund	AHIC Ratings
Vanguard Target Retirement Funds/Trusts	Buy
Vanguard Total Bond Market Index Fund	Buy
Vanguard Total Stock Market Index Fund	Buy
Vanguard Institutional Index Fund	Buy
Vanguard FTSE Social Index Fund	Buy
Vanguard Extended Market Index Fund	Buy
Vanguard Total International Stock Index	Buy
Vanguard Developed Market Index Fund	Buy
Vanguard Emerging Markets Stock Index Fund	Buy
Vanguard Federal Money Market Fund	Buy
T. Rowe Price Stable Value Common Trust Fund A	Buy
TIAA Traditional RC/RCP	Above Average
PIMCO Total Return Fund	Buy
DFA Inflation-Protected Securities	Buy
American Century High Income	Buy
T. Rowe Price Instl. Large Cap Growth Fund	Buy
Diamond Hill Large Cap	Buy
William Blair Small/Mid Cap Growth Fund	Buy
DFA U.S. Targeted Value	Buy
Dodge & Cox Global Stock Fund	Buy
Harding Loevner International Equity Instl.	Buy
MFS International Value Fund	Buy
Cohen & Steers Instl Realty Shares	Buy

Observations:

- The Plans' investment lineups offer several high quality investment managers
 - Buy: 100%
 - Qualified: 0%
 - Sell: 0%
 - Not Rated: 0%
 - In Review: 0%

The overall ratings score can be interpreted as follows:

Buy – we recommend purchase of this investment product

Qualified – we recommend client investments in this product be maintained

Sell – we recommend termination of client investments in this product

In Review – the rating is under review as we evaluate factors that may cause us to change the current rating

Lowest Cost Share Class Analysis

As of 3/31/2019

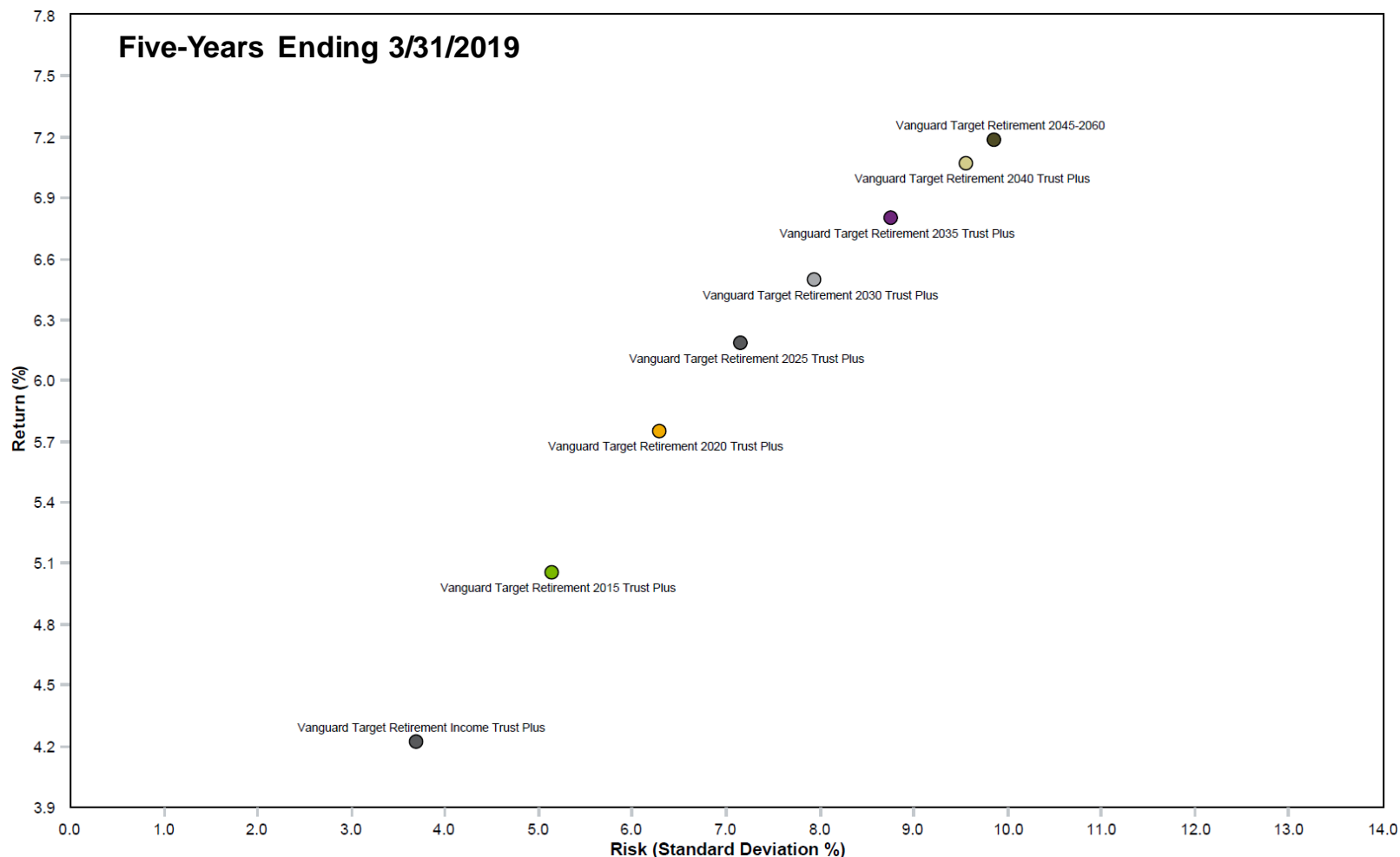
				Fund Expense Information					Institutional Peer Comparison ²	
Portfolio	Vehicle Type ¹	Peer Group	Assets	Expense Ratio %	Revenue Share %	Lowest Eligible Share Class?	Next Lowest Share Class	Next Lowest Expense Ratio %	Universe Median	Offering At or Below Median?
Tier I (a)										
Vanguard Target Retirement Trust Plus	MF	Mixed Asset Target	\$ 804,534,168	0.06%	0.25%	✓	Trust Select	0.05%	0.16% - 0.29%	✓
Tier I										
Vanguard Target Retirement - Instl.	MF	Mixed Asset Target	\$ 139,860,662	0.09%	0.25%	✓	--	--	0.16% - 0.29%	✓
Tier II										
Vanguard Total Bond Market Index Fund - Instl.	MF	U.S. Broad Market Core Fixed Income (Passive)	\$ 35,313,058	0.04%	0.00%	✓	Institutional Plus	0.03%	0.12%	✓
Vanguard Total Stock Market Index Fund - Instl.	MF	U.S. Large Cap Core Equity (Passive)	\$ 50,136,268	0.04%	0.00%	✓	Institutional Plus	0.02%	0.20%	✓
Vanguard Institutional Index Fund - Instl. Plus	MF	S&P 500 Index (Passive)	\$ 125,761,398	0.02%	0.00%	✓	Institutional Select	0.01%	0.20%	✓
Vanguard FTSE Social Index Fund - Adm.	MF	Specialty & Misc Sector	\$ 2,337,707	0.18%	0.00%	✓	Institutional	0.12%	1.12%	✓
Vanguard Extended Market Index Fund - Instl.	MF	U.S. Mid Cap Core Equity (Passive)	\$ 38,693,581	0.06%	0.00%	✓	Institutional Plus	0.05%	0.09%	✓
Vanguard Total International Stock Index Fund - Instl.	MF	International Multi-Cap Core Equity (Passive)	\$ 10,038,558	0.08%	0.00%	✓	Institutional Plus	0.07%	0.25%	✓
Vanguard Developed Market Index Fund - Instl.	MF	International Large Cap Core Equity (Passive)	\$ 41,218,284	0.06%	0.00%	✓	Institutional Plus	0.04%	0.55%	✓
Vanguard Emerging Markets Stock Index Fund - Instl.	MF	Emerging Markets Equity (Passive)	\$ 29,980,905	0.10%	0.00%	✓	Institutional Plus	0.08%	0.22%	✓
Tier III										
Vanguard Federal Money Market Fund	MF	U.S. Taxable Money Market	\$ 25,546,234	0.11%	0.00%	✓	--	--	0.35%	✓
T. Rowe Price Stable Value Common Trust Fund A	CIT	Stable Value	\$ 4,229,019	0.48%	0.00%	✓	--	--	0.47%	✗
TIAA Traditional - RC	CIT	Stable Value	\$ 109,522,124	0.49%	0.15%	✓	--	--	0.47%	✗
TIAA Traditional - RCP	CIT	Stable Value	\$ 79,600,972	0.49%	0.15%	✓	--	--	0.47%	✗
PIMCO Total Return Fund	MF	U.S. Broad Market Core+ Fixed Income	\$ 20,980,931	0.55%	0.00%	✓	--	--	0.49%	✗
DFA Inflation-Protected Securities Portfolio	MF	U.S. TIPS	\$ 17,841,012	0.12%	0.00%	✓	--	--	0.40%	✓
American Century High Income	MF	U.S. High Yield Bonds	\$ 23,135,317	0.59%	0.00%	✓	--	--	0.70%	✓
T. Rowe Price Instl. Large Cap Growth Fund	MF	U.S. Large Cap Growth Equity	\$ 34,571,266	0.56%	0.00%	✓	--	--	0.80%	✓
Diamond Hill Large Cap	MF	U.S. Large Cap Value Equity	\$ 23,449,323	0.55%	0.00%	✓	--	--	0.69%	✓
William Blair Small/Mid Cap Growth Fund	MF	U.S. SMID Cap Growth Equity	\$ 29,531,201	1.10%	0.15%	✓	R6	1.04%	0.94%	✗
DFA U.S. Targeted Value	MF	U.S. SMID Cap Value Equity	\$ 33,262,456	0.37%	0.00%	✓	--	--	0.95%	✓
Dodge & Cox Global Stock Fund	MF	Global Multi-Cap Growth Equity	\$ 27,742,197	0.63%	0.10%	✓	--	--	0.98%	✓
Harding Loebner International Equity Instl.	MF	International Large Cap Growth Equity	\$ 11,695,123	0.81%	0.15%	✓	--	--	0.87%	✓
MFS International Value Fund	MF	International Large Cap Value Equity	\$ 28,516,198	0.63%	0.00%	✓	--	--	0.90%	✓
Cohen and Steers Instl. Realty Shares	MF	Real Estate Sector	\$ 22,738,270	0.75%	0.00%	✓	--	--	0.95%	✓

Minimum assets required: Institutional = \$5 million; Institutional Plus = \$100 million; Trust Select = Approximately \$2 billion as a guideline as each client situation is evaluated individually based on the entire Vanguard relationship; Institutional Select = \$5 billion

¹Vehicle Type Definitions: "MF" = Mutual Fund, "CIT" = Collective Investment Trust

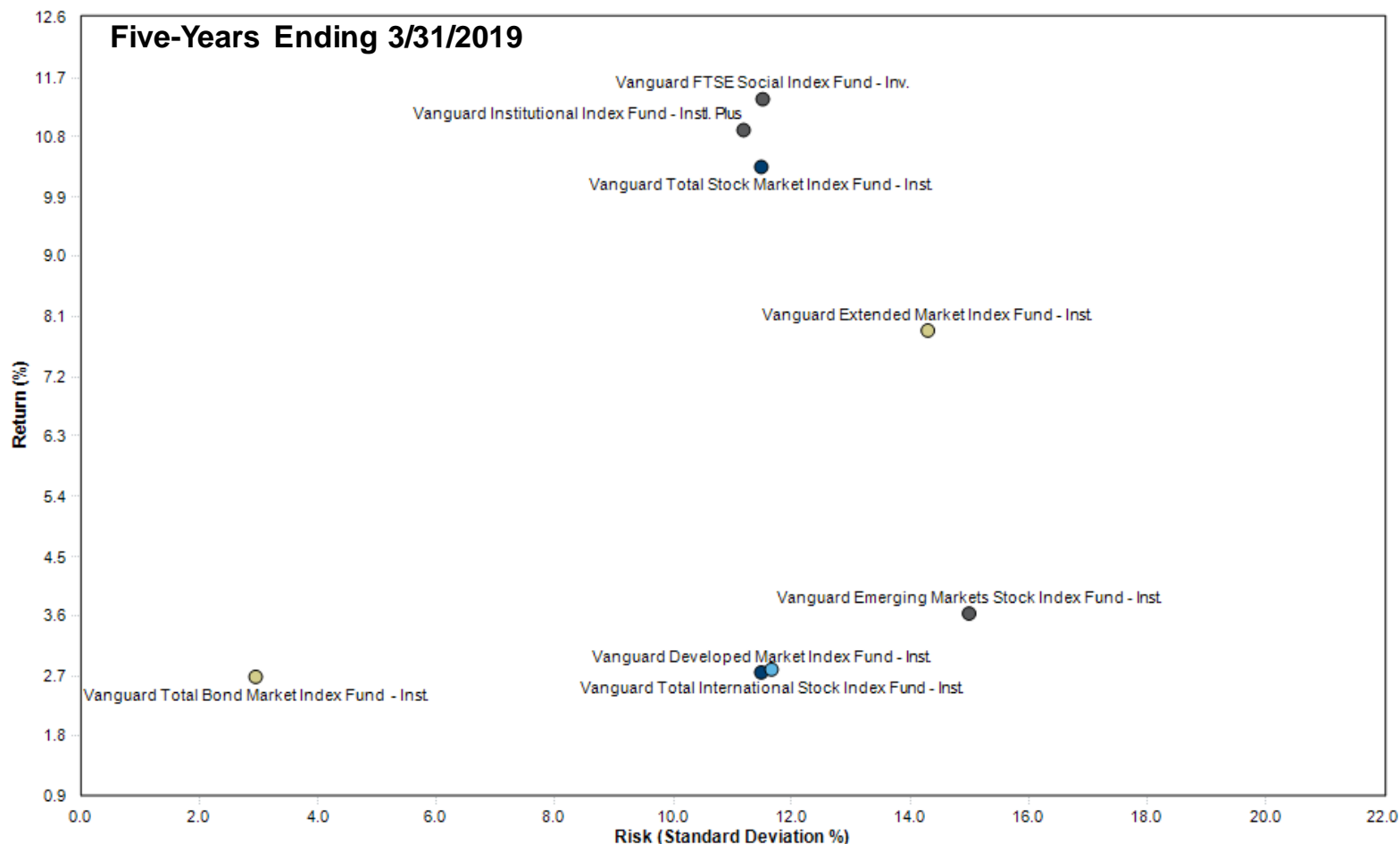
²Institutional mutual fund fee universes were created by AHIC, as of December 31, 2018, using a custom proprietary methodology. Peer universe membership data has been sourced from Investment Metrics. Fund expense information has been sourced from Morningstar for all asset classes except the stable value universe which uses information from Hueler. Information for the Stable Value peer group was sourced from Hueler as of December 31, 2018 and includes wrap fees as a component of the fund expense. Since fund expense ratios do not change frequently, AHIC believes this study to be a relevant comparison for up to a year, at which time it will be updated. For complete information on methodologies, contact your AHIC consultant.

Do Offerings Span the Risk Spectrum? – Target Date Retirement Funds



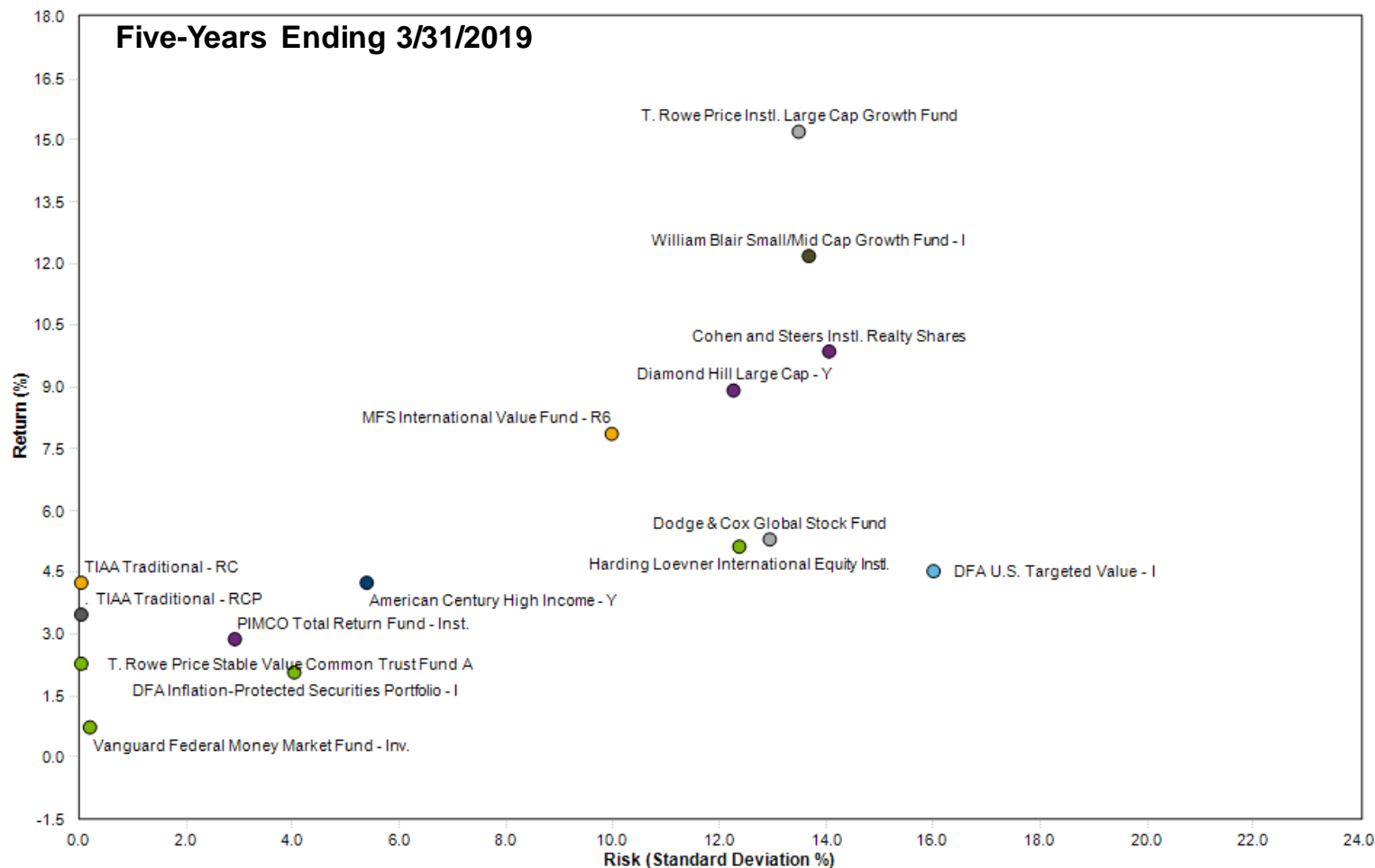
- As highlighted above, the Plans' Target Date Retirement Funds have markedly different risk-return characteristics based upon their respective target date

Do Offerings Span the Risk Spectrum? – Index Funds



- As highlighted above, the Plans' index fund options provide participants with ample opportunity to form well-diversified portfolios, given a reasonable range of risk and return circumstance

Do Offerings Span the Risk Spectrum? – Active Funds



- The Plans' actively managed investment options also provide participants with ample opportunity to form well-diversified portfolios, given a reasonable range of risk and return circumstance

Are Different Styles and Capitalizations Offered?

Five-Years Ending 3/31/2019

Style Analysis – Index Funds



Style Analysis – Active Funds



- An effective and efficient way for participants to reduce loss, and thereby increase return, is to diversify their investment portfolios
- As illustrated above, participants are offered a broad selection of U.S. equity funds across investment styles (growth and value) and the market capitalization spectrum (large and small)
 - The Plans index fund offerings are predominately large cap options

Diversification Relative to Peers

As of 3/31/2019

Investment Option Type:	NSHE*	Plans with 5,000+ Participants	All Plans
U.S. Stock (Active)	6.7%	20.4%	20.9%
U.S. Stock (Indexed)	12.1	15.8	15.4
Non-U.S. Stock (Active)	3.8	3.3	3.6
Non-U.S. Stock (Indexed)	4.5	2.2	2.1
Company Stock	0.0	15.3	14.0
Total Stock	27.2	57.0	56.0
U.S. Bonds (Active)	2.5	4.3	4.4
U.S. Bonds (Indexed)	2.0	5.9	5.5
Non-U.S. Bonds (Active)	0.0	0.3	0.3
TIPS	1.0	0.4	0.4
Stable Value	10.8	6.2	6.4
Cash Equivalents	1.4	3.5	3.4
Total Fixed Income	17.7	20.6	20.4
Balanced/Lifestyle	0.0	3.5	3.2
Target Retirement Date	52.8	16.6	17.8
Self-Directed	1.1	1.1	1.3
Real Estate	1.3	0.3	0.4
Sector Fund(s) Other than Real Estate	0.0	0.0	0.1
Other	0.0	0.7	0.7
Total	100.0%	100.0%	100.0%

Source: Plan Sponsor Council of America "61st Annual Survey – PSCA's Annual Survey of Profit Sharing and 401(k) Plans." 2018

*Excludes loans

Diversification Relative to Peers - Summary

- Compared to peers, participants have allocated:
 - ↑ A meaningfully higher percentage of assets to target retirement date funds
 - ↓ A higher percentage of assets to stable value
 - ↓ A higher percentage of assets to non-U.S. stock funds (active & index)
 - ↓ A higher percentage of assets to REITs
 - ↓ A lower percentage of assets to U.S. stock funds (active)
 - ↓ A lower percentage of assets to U.S. bond funds (active & index)
- **Observations:**
 - We consider high utilization of the Plans' target retirement date funds to be a meaningful positive
 - This suggests that:
 - Inertia plays a dominant role in participant's retirement decision making
 - Participants prefer a "one-stop" offering that can efficiently meet their investment needs as opposed to managing their own investment decisions

Are Important Fund Types Missing?

As of 3/31/2019

Investment Option Type:	NSHE	All Plans*
<i>U.S. Stock (Active)</i>	Yes – 4	85.3%
<i>U.S. Stock (Indexed)</i>	Yes – 4	87.3
<i>International/Global Stock (Active)</i>	Yes – 3	83.7
<i>International/Global Stock (Indexed)</i>	Yes – 3	47.3
<i>U.S Bonds (Active)</i>	Yes – 2	78.8
<i>U.S. Bonds (Indexed)</i>	Yes – 1	46.1
<i>International/Global Bonds</i>	No	24.5
<i>Inflation-Protected Bond</i>	Yes – 1	31.0
<i>Stable Value</i>	Yes – 2	67.3
<i>Cash Equivalents</i>	Yes – 1	44.1
<i>Balanced Stock/Bond Fund</i>	No	45.3
<i>Target Retirement Date/Lifecycle Funds</i>	Yes – 1	73.1
<i>Target Risk/Lifestyle Funds</i>	No	9.0
<i>Real Estate Fund</i>	Yes – 1	37.1
<i>Sector Fund(s)</i>	No	15.9
<i>Self-Directed Brokerage Window</i>	Yes – 1	24.5

Source: Plan Sponsor Council of America "61st Annual Survey – PSCA's Annual Survey of Profit Sharing and 401(k) Plans." 2018

Note: The Vanguard Target Retirement Suite and TIAA Traditional are counted as one option each

Are Important Fund Types Missing? – Summary

- The Plans currently offer a range of diversified investment options types that are commonly used in other participant-directed defined contribution plans
 - Participants are offered ample opportunity to diversify their assets
- Less commonly offered fund options that are absent from the Plans include:
 - International/Global Bond Fund
- Option types we do not recommend adding to the Plans include:
 - Balanced Stock/Bond Fund
 - Target Risk/Lifestyle Fund
 - Sector Funds

AHIC Observation: International/Global Bond Fund

- Over the past ten years the global investable market has changed, largely as a result of the growth and maturation of world bond markets
 - International bonds make up more than 35% of the world's investable assets
- Similar to the diversification benefit expected from international equities, international bonds can help mitigate volatility in a diversified portfolio assuming that the currency risk inherent to this asset class is hedged
 - International bond investors are exposed to the risk of interest rate movements, the political landscape, and the economies of many different markets, which are relatively uncorrelated to the same U.S. factors
 - While the bonds of any one country may be more volatile than comparable bonds in the U.S., a portfolio that includes the bonds of all countries and issuers would benefit from imperfect correlations across those issuers
- Sponsors have access to investment vehicles such as broadly diversified, low-cost index funds which make adding an international bond fund to a DC plan easy
- We believe that many investors would benefit from adding hedged foreign bonds to their existing diversified portfolios

AHIC Observation: Balanced/Target Risk/Lifestyle Funds

- Balanced/Target Risk/Lifestyle funds offer a diversified portfolio with a constant mix of stocks and bonds
- Balanced/Target Risk/Lifestyle funds follow a one-size fits all strategy
 - They do not accommodate differences in participants' return objectives or risk tolerances
- We favor Target Retirement Date Funds over Balanced/Target Risk/Lifestyle funds for the following reasons:
 - Target date funds are typically more diversified than balanced funds; many invest in non-traditional and/or opportunistic asset classes that aren't otherwise available as core options in defined contribution plans
 - Target date evolve over time, becoming more conservative. We find this attractive as most participants do not reposition their portfolio even though their circumstances are evolving
 - A participant only needs to focus on one key variable, their anticipated retirement date, in selecting the appropriate lifecycle fund

AHIC Observation: Sector Funds

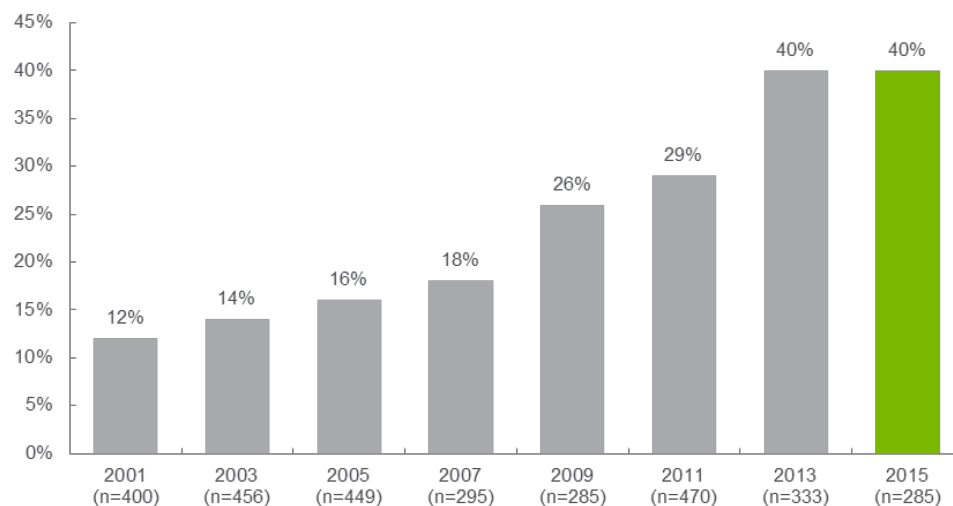
- Sector funds focus on the securities of a specific industry or segment of the economy, such as:
 - Natural Resources
 - Socially Conscious
 - Science & Technology
 - Health Sciences
- In recent years, sector funds have gained attention due to their unique diversification opportunities that complement a typical stock/bond portfolio
 - Sector-specific funds have the potential to deliver returns that are very different from, and sometimes greater than, broad market averages
- We do not believe individual sector funds are suitable for defined contribution plans
 - They are not required for participants to form well-diversified portfolios, given a reasonable range of risk and return characteristics
- We believe that these types of funds are ideally suited for a self-directed brokerage window

Self-Directed Brokerage Window

The trend to include a self-directed window within defined contribution plan re-design is driven by:

1. Desire to offer investment flexibility while reducing the monitoring burden of the Plan's fiduciaries
2. Need to satisfy vocal participants who demand more specialized investment options beyond the "core" investment option structure
3. Allow for eligible mutual funds to be mapped or transferred "in-kind" during an initial transition period

Plans Offering Self-Directed Brokerage Window



¹Source: 2015 Aon Hewitt Trends and Experience in Defined Contribution Plans.



Investment Structure Circumstances

Investment Structure – Why Does it Matter?

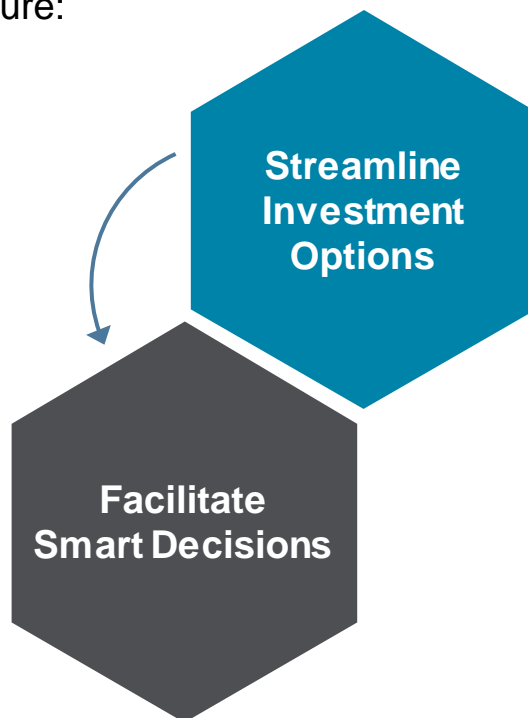
Defined contribution participants are responsible for key actions that influence their own outcomes



The structure of a defined contribution investment menu can have a significant **impact** on the choices people make, and ultimately their **success**. For these reasons, Aon believes in two key principles relating to investment menu structure:

Facilitate smart decisions

- Good governance leads to a strong investment menu
- Structure can nudge participants to act in their best long-term interest
- Design can help participants move into distribution stage



Streamline investment options as much as possible

- Target date funds as default where participants can choose one fund and “forget it”
- A limited number of passive and/or active strategies for participants that want to build customized investment portfolios

What is the Right Number of Funds to Offer?

Less Choice

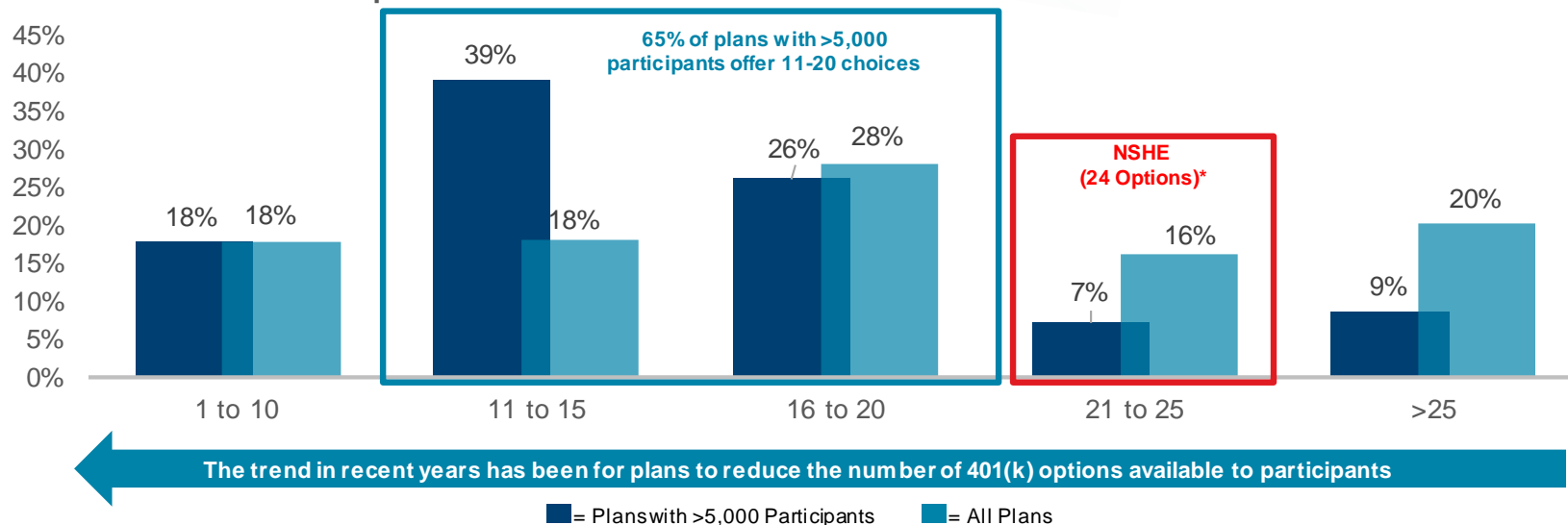
- Menu Consolidation
- Fewer Fund Options
- Broader Mandates



More Choice

- Large Menu
- More Fund Options
- Specialized Mandates

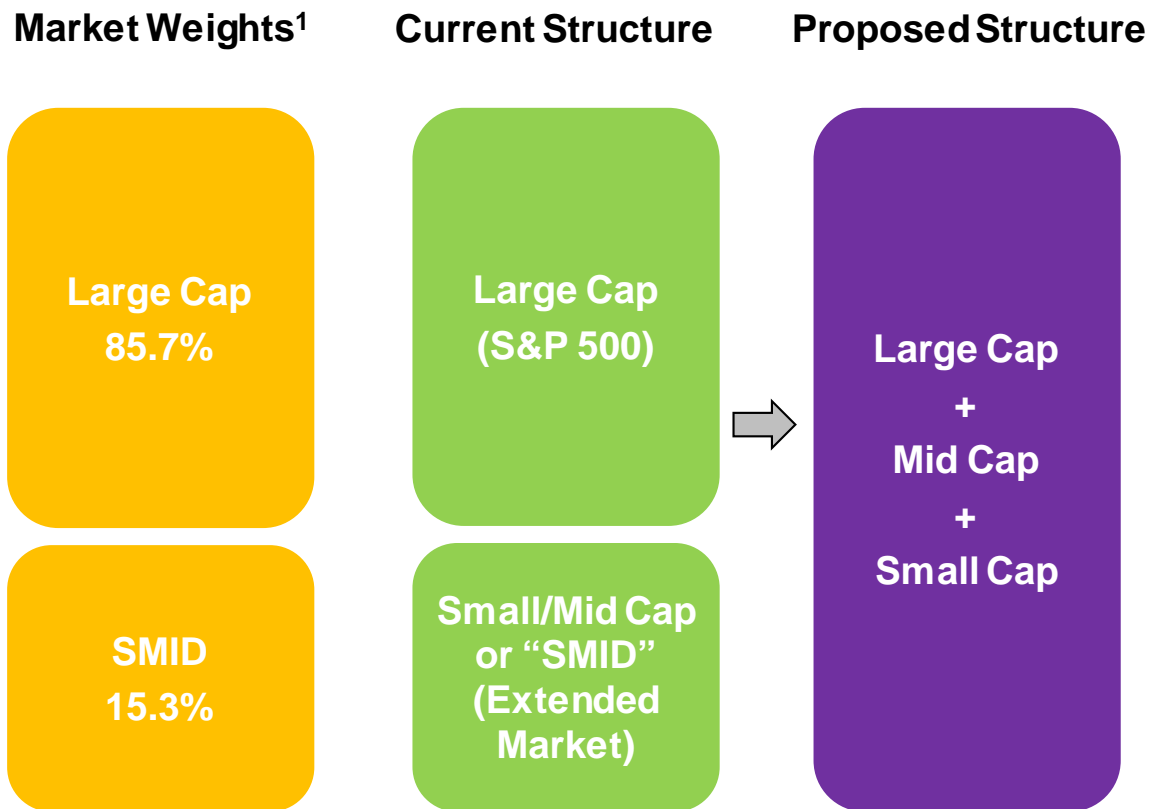
Number of Investment Options: Distribution of Results¹



¹Source: Plan Sponsor Council of America "61st Annual Survey – PSCA's Annual Survey of Profit Sharing and 401(k) Plans." 2018

*Counts the target-date suite, TIAA Traditional, and self-directed window as a single option

Consideration #1: Total U.S. Stock Market Index Fund



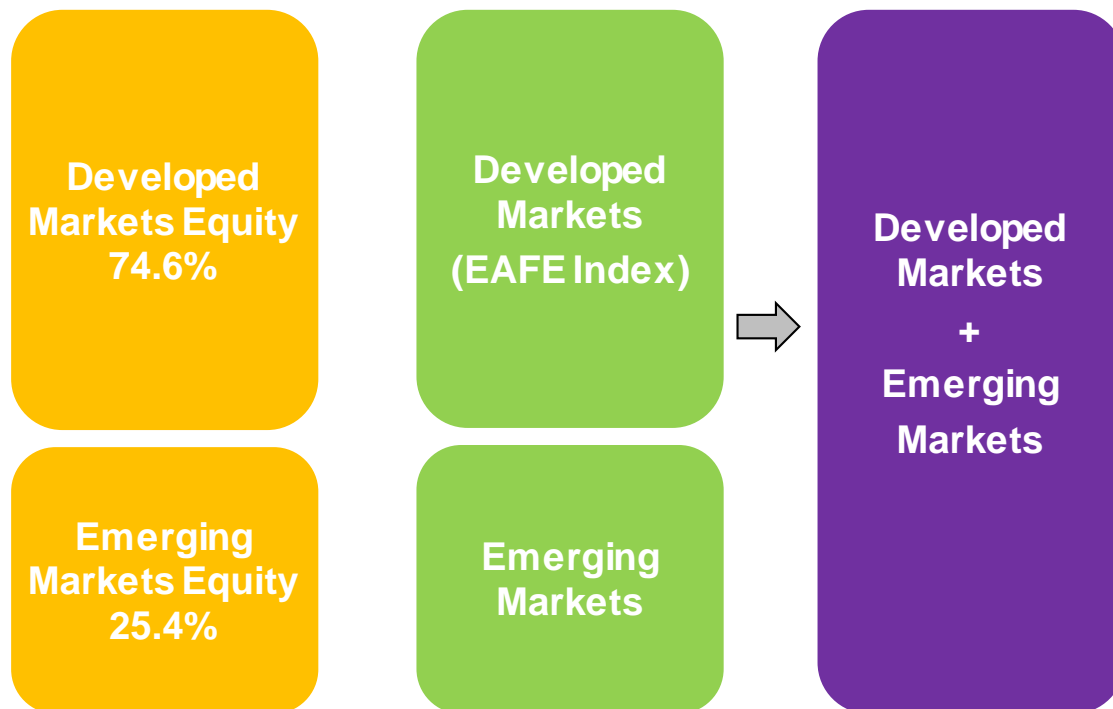
AHIC Recommendation:

- Consolidate the large cap and SMID cap index funds into a single, total U.S. stock market index fund
- AHIC’s preferred approach is one fund with total U.S. equity market coverage
 - Maintains simplicity (consolidates two funds to one)
 - Potentially easier for participant decision-making (do not need to decide how to allocate between large and SMID cap equities)

¹ Dow Jones U.S. Total StockMarket as of March 31, 2019.

Consideration #2: Total International Stock Market Index Fund

Market Weights¹ Current Structure Proposed Structure



AHIC Recommendation:

- Consolidate the developed and emerging market index funds into a single, total international stock market index fund
- AHIC's preferred approach is one fund with total international equity market coverage
 - Maintains simplicity (consolidates two funds to one)
 - Potentially easier for participant decision-making (do not need to decide how to allocate between developed and emerging market equities)

¹ Dow Jones U.S. Total StockMarket as of March 31, 2019.

Correlation Table – Tier II Investment Options

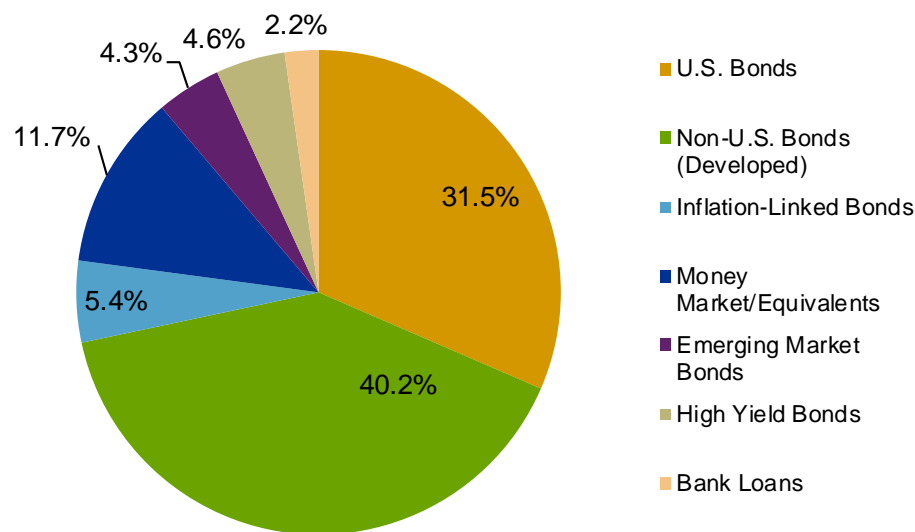
- The five-year correlation among NSHE's investment options is shown below
- Correlations above **0.7** are shown in red, between **0.3 and 0.7** in yellow, and below **0.3** in green

Five-Years Ending 3/31/2019

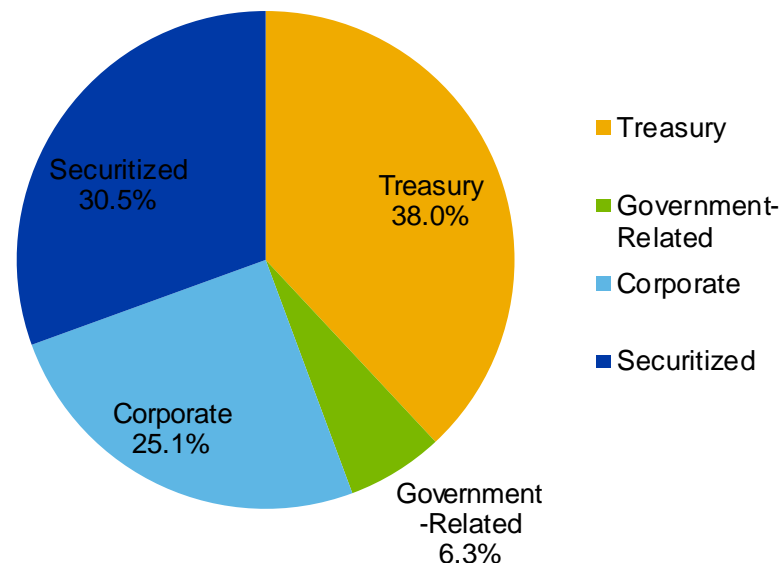
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Vanguard Total Bond Market Index Fund	1.00																						
2 Vanguard Total Stock Market Index Fund	-0.06	1.00																					
3 Vanguard Institutional Index Fund	-0.06	0.99	1.00																				
4 Vanguard FTSE Social Index Fund	-0.09	0.99	0.99	1.00																			
5 Vanguard Extended Market Index Fund	-0.08	0.93	0.89	0.91	1.00																		
6 Vanguard Total International Stock Index Fund	0.10	0.80	0.80	0.78	0.70	1.00																	
7 Vanguard Developed Market Index Fund	0.06	0.81	0.82	0.80	0.72	0.99	1.00																
8 Vanguard Emerging Markets Stock Index Fund	0.24	0.63	0.64	0.61	0.54	0.88	0.80	1.00															
9 Vanguard Federal Money Market Fund	0.07	0.01	0.00	0.01	0.01	0.01	0.00	0.03	1.00														
10 T. Rowe Price Stable Value Common Trust Fund A	0.27	0.00	-0.01	0.01	0.00	-0.10	-0.10	-0.08	0.50	1.00													
11 TIAA Traditional - RC	0.20	-0.01	-0.02	-0.01	0.01	-0.04	-0.05	0.02	-0.50	0.01	1.00												
12 TIAA Traditional - RCP	0.21	0.01	0.01	0.01	0.04	0.02	0.01	0.06	-0.51	-0.04	0.97	1.00											
13 PIMCO Total Return Fund	0.90	0.11	0.12	0.10	0.07	0.30	0.28	0.36	0.06	0.24	0.24	0.24	1.00										
14 DFA Inflation-Protected Securities Portfolio	0.83	0.08	0.08	0.02	0.07	0.29	0.25	0.43	0.06	0.17	0.18	0.21	0.81	1.00									
15 American Century High Income	0.10	0.72	0.71	0.69	0.70	0.80	0.79	0.70	0.06	-0.15	0.11	0.16	0.28	0.30	1.00								
16 T. Rowe Price Instl. Large Cap Growth Fund	-0.09	0.89	0.89	0.92	0.82	0.79	0.81	0.61	0.05	0.02	-0.06	-0.05	0.13	0.06	0.64	1.00							
17 Diamond Hill Large Cap	-0.16	0.97	0.97	0.96	0.89	0.77	0.78	0.60	-0.02	-0.06	-0.02	0.01	0.01	-0.03	0.70	0.84	1.00						
18 William Blair Small/Mid Cap Growth Fund	-0.10	0.91	0.87	0.90	0.95	0.66	0.69	0.49	0.03	0.04	-0.09	-0.07	0.06	0.03	0.61	0.84	0.84	1.00					
19 DFA U.S. Targeted Value	-0.23	0.86	0.81	0.82	0.95	0.61	0.62	0.44	-0.05	-0.10	0.02	0.05	-0.11	-0.05	0.65	0.68	0.86	0.85	1.00				
20 Dodge & Cox Global Stock Fund	-0.15	0.88	0.89	0.88	0.80	0.90	0.89	0.76	-0.03	-0.13	0.05	0.09	0.09	0.06	0.81	0.82	0.91	0.73	0.76	1.00			
21 Harding Loevner International Equity Instl.	0.20	0.80	0.81	0.78	0.71	0.96	0.96	0.84	-0.02	-0.08	-0.02	0.03	0.38	0.37	0.77	0.79	0.75	0.68	0.59	0.84	1.00		
22 MFS International Value Fund	0.30	0.78	0.79	0.77	0.67	0.88	0.90	0.70	0.00	0.02	-0.06	0.01	0.46	0.41	0.66	0.78	0.70	0.70	0.51	0.73	0.92	1.00	
23 Cohen and Steers Instl. Realty Shares	0.52	0.58	0.56	0.55	0.56	0.43	0.44	0.40	0.04	0.32	0.25	0.26	0.59	0.51	0.40	0.47	0.48	0.54	0.44	0.38	0.51	0.58	1.00

Consideration #3: Add an International Bond Index Fund

- Financial theory suggests that holding a portfolio in market proportions is optimal
- As shown below, non-dollar bonds and emerging market debt comprise almost half of the global fixed income opportunity set



Total Global Fixed Income Opportunity Set
\$52.2 Trillion

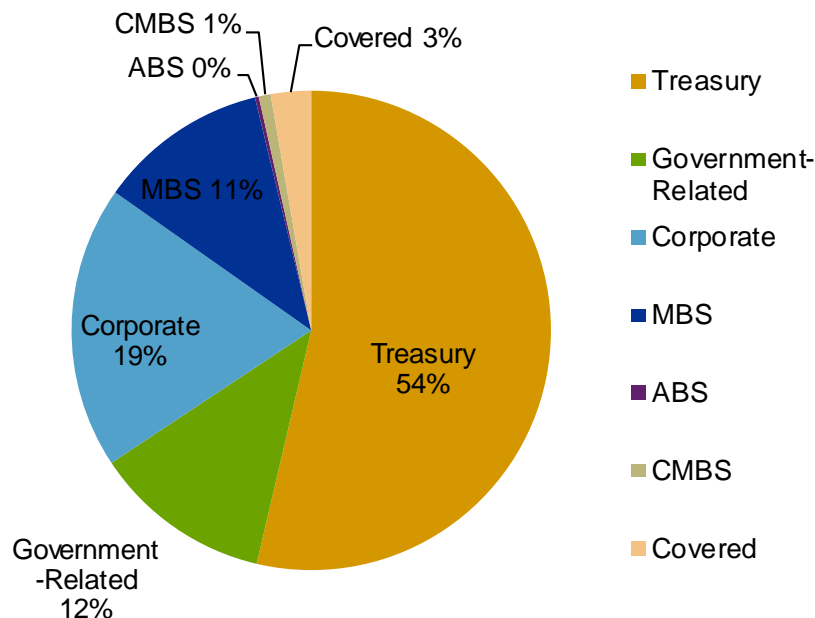


Barclays Capital U.S. Aggregate Index
41% of global opportunity set, \$20.3 Trillion

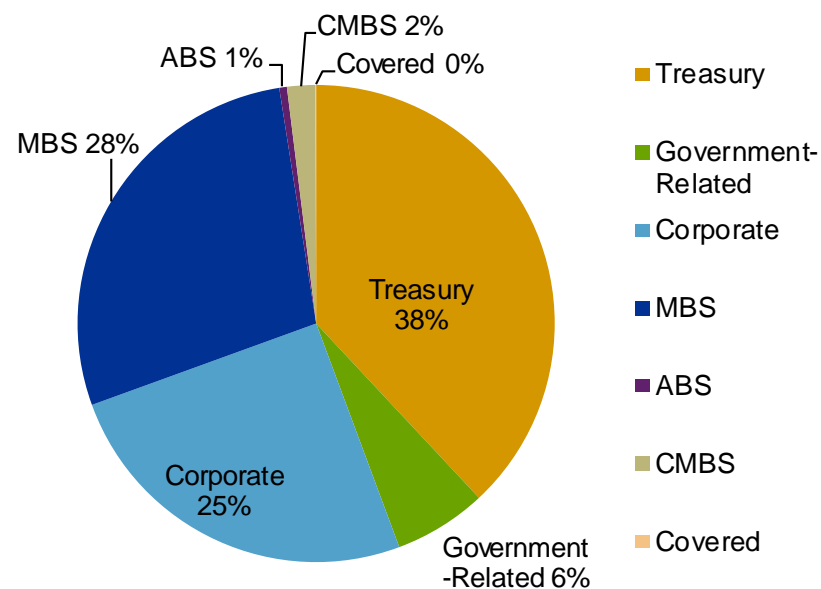
Source: Aon Hewitt Investment Consulting, Barclays
Data as of December 31, 2018

Consideration #3: Add an International Bond Index Fund (cont'd)

- The international bond market has a larger allocation to government debt than the U.S. fixed income market, largely at the expense of securitized products
- Allocations to sovereign debt and Mortgage Backed Securities (MBS) should be viewed as similar to one another, without a need to match the market's exposure to each



Barclays Capital Global Aggregate Index
Sector Exposure (%) as of 12/31/2018
\$49.7 trillion on MV



Barclays Capital U.S. Aggregate Index
Sector Exposure (%) as of 12/31/2018
\$20.3 trillion on MV

Source: Aon Hewitt Investment Consulting, Barclays
Data as of December 31, 2018

Index Fund Structure and Manager Recommendations – Summary

Current Structure & Fund Options	Recommended Structure	Recommended Fund Options	Comments
Fixed Income Index Vanguard Total Bond Market Index (0.04% Expense)	Fixed Income Index (broad U.S. bond market)	Vanguard Total Bond Market Index (0.04% Expense)	<ul style="list-style-type: none"> No change to U.S. bond index fund (Vanguard product is “Buy” rated)
	International Fixed Income Index (broad non-U.S. bond market)	Vanguard Total International Bond Index (0.11% Expense)	<ul style="list-style-type: none"> A single index fund provider (Vanguard) may help participants quickly identify the Plans’ passive investment offerings
Large Cap Index Vanguard Instl. Index (0.02% Expense)	Total U.S. Equity Market (large, mid, and small cap)	Vanguard Total Stock Market Index (0.02% Expense)	<ul style="list-style-type: none"> Consolidate large cap and extended market into one fund Overall fees lower (vs. a blend of the large cap and SMID cap funds)
Extended Market Index Vanguard Extended Market Index (0.06% Expense)			
Developed Index Vanguard Developed Mkt. Index (0.06% Expense)	Total International Equity Market (developed and emerging)	Vanguard Total International Stock Index (0.08% Expense) ¹	<ul style="list-style-type: none"> Replace developed and emerging markets only funds with broader option Small expense increase due to emerging markets exposure; but higher expected return and greater diversification
Emerging Market Index Vanguard Extended Market Index (0.10% Expense)			

¹ An “Institutional Plus” share class option with a fee of 0.07% is available at \$100 million in assets.

Morningstar Model Portfolios – Current

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%
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%

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%

Morningstar Model Portfolios – Scenario #1

- Merge the Vanguard Institutional Index Fund (VIIIX) and the Vanguard Extended Market Index Fund (VIEIX) into the Vanguard Total Stock Market Index Fund (VIT SX)
- Merge the Vanguard Developed Market Index Fund (VTMNX) and the Vanguard Emerging Market Index (VEMIX) Fund into the Total International Stock Market Index Fund (VTSNX)

RC

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	8%	9%	6%	4%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	4%	4%	4%	5%	4%
DFA Inflation-Protected Securities I	12%	7%	7%	5%	3%	4%	-
DFA US Targeted Value I	-	4%	3%	4%	6%	9%	11%
Diamond Hill Large Cap Y	-	-	-	-	3%	-	-
Dodge & Cox Global Stock	-	3%	-	3%	4%	5%	5%
Harding International Eq Inst	-	-	-	4%	6%	8%	9%
MFS International Value R6	3%	3%	5%	5%	4%	6%	6%
PIMCO Total Return Instl	-	-	-	-	-	-	-
T. Rowe Price Stable Value Fund	10%	7%	5%	4%	-	-	-
TIAA Traditional	40%	34%	30%	22%	15%	7%	-
Vanguard Federal Money Market Investor	-	-	-	-	-	-	-
Vanguard Total Bond Market Index I	18%	13%	6%	4%	3%	-	-
Vanguard Total Stock Market Idx I	-	5%	10%	11%	14%	16%	20%
Vanguard Total International Stock Index I	6%	15%	19%	27%	30%	37%	39%
William Blair Small-Mid Cap Gr I	3%	-	5%	3%	3%	3%	6%

RCP

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	7%	7%	6%	4%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	4%	4%	5%	4%
DFA Inflation-Protected Securities I	10%	7%	7%	5%	3%	-	-
DFA US Targeted Value I	-	6%	5%	4%	6%	7%	11%
Diamond Hill Large Cap Y	3%	12%	-	-	3%	-	-
Dodge & Cox Global Stock	3%	-	-	4%	4%	4%	5%
Harding Loevner International Eq Instl	-	-	-	3%	6%	6%	9%
MFS International Value R6	-	3%	7%	5%	4%	7%	6%
PIMCO Total Return Instl	29%	21%	12%	-	-	-	-
TIAA Traditional	40%	32%	25%	16%	10%	5%	-
Vanguard Federal Money Market Investor	5%	3%	-	-	-	-	-
Vanguard Total Bond Market Index I	-	-	5%	14%	8%	7%	-
Vanguard Total Intl Stock Index I	-	6%	8%	11%	14%	17%	20%
Vanguard Total Stock Market Idx I	-	3%	18%	27%	30%	37%	39%
William Blair Small-Mid Cap Gr I	3%	-	4%	3%	3%	5%	6%

Morningstar Model Portfolios – Scenario #2

- Merge the Vanguard Institutional Index Fund (VIIIX) and the Vanguard Extended Market Index Fund (VIEIX) into the Vanguard Total Stock Market Index Fund (VIT SX)
- Merge the Vanguard Developed Market Index Fund (VTMNX) and the Vanguard Emerging Market Index (VEMIX) Fund into the Total International Stock Market Index Fund (VTSNX)
- Add the Vanguard Total International Bond Index Fund (VTABX)

RC

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	8%	8%	6%	5%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	4%	4%	5%
DFA Inflation-Protected Securities I	9%	8%	6%	4%	3%	-	-
DFA US Targeted Value I	-	4%	4%	7%	6%	8%	8%
Diamond Hill Large Cap Y	4%	-	-	-	3%	-	-
Dodge & Cox Global Stock	3%	3%	-	3%	4%	-	5%
Harding International Eq Inst	-	-	3%	5%	6%	-	6%
MFS International Value R6	-	3%	3%	3%	4%	12%	7%
PIMCO Total Return Instl	-	-	-	3%	-	-	-
T. Rowe Price Stable Value Fund	8%	6%	3%	-	-	-	-
TIAA Traditional	40%	34%	30%	22%	15%	7%	-
Vanguard Total Bond Market Index I	17%	11%	4%	3%	-	-	-
Vanguard Total International Stock Index I	-	14%	19%	27%	30%	37%	39%
Vanguard Total Intl Bd Idx Admiral	8%	3%	6%	3%	3%	7%	-
Vanguard Total Stock Market Idx I	-	6%	9%	12%	14%	19%	22%
William Blair Small-Mid Cap Gr I	3%	-	4%	-	3%	6%	8%

RCP

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	6%	6%	6%	5%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	4%	5%	5%
DFA Inflation-Protected Securities I	8%	8%	6%	4%	3%	-	-
DFA US Targeted Value I	-	5%	5%	7%	6%	7%	8%
Diamond Hill Large Cap Y	4%	6%	-	3%	3%	-	-
Dodge & Cox Global Stock	-	3%	3%	4%	4%	4%	5%
Harding Loevner International Eq Instl	-	-	3%	-	6%	5%	6%
MFS International Value R6	-	3%	3%	5%	4%	7%	7%
PIMCO Total Return Instl	27%	15%	5%	-	-	-	-
TIAA Traditional	40%	32%	25%	16%	10%	5%	-
Vanguard Federal Money Market Investor	5%	-	-	-	-	-	-
Vanguard Total Bond Market Index I	-	5%	9%	11%	5%	7%	-
Vanguard Total Intl Bd Idx Admiral™	4%	4%	3%	3%	3%	-	-
Vanguard Total Intl Stock Index I	3%	5%	8%	15%	14%	18%	22%
Vanguard Total Stock Market Idx I	-	8%	18%	24%	30%	37%	39%
William Blair Small-Mid Cap Gr I	3%	-	3%	-	3%	5%	8%

Morningstar Model Portfolios – Scenario #3

- Add the Vanguard Total International Bond Index Fund (VTABX)

RC

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	7%	7%	5%	5%	5%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	3%	3%	4%
DFA Inflation-Protected Securities I	9%	8%	6%	4%	3%	-	-
DFA US Targeted Value I	-	3%	-	3%	4%	3%	3%
Diamond Hill Large Cap Y	-	-	-	-	4%	-	-
Dodge & Cox Global Stock	-	-	-	-	-	-	3%
MFS International Value R6	3%	3%	3%	3%	3%	3%	4%
T. Rowe Price Stable Value Fund	8%	6%	3%	-	-	-	-
TIAA Traditional	40%	34%	30%	22%	15%	7%	-
Vanguard Developed Markets Idx Instl	-	4%	8%	12%	16%	18%	20%
Vanguard Emerging Mkts Stock Idx I	-	3%	4%	6%	8%	11%	13%
Vanguard Extended Market Idx I	-	4%	12%	11%	12%	18%	19%
Vanguard Institutional Index Instl PI	4%	13%	16%	22%	24%	31%	31%
Vanguard Total Bond Market Index I	19%	10%	5%	6%	-	-	-
Vanguard Total Intl Bd Idx Admiral	7%	5%	5%	3%	3%	6%	-
William Blair Small-Mid Cap Gr I	3%	-	-	-	-	-	3%

RCP

Fund Name	Very Conservative	Conservative	Moderately Conservative	Moderate	Moderately Aggressive	Aggressive	Very Aggressive
American Century High Income Y	6%	6%	6%	5%	4%	-	-
Cohen & Steers Instl Realty Shares	-	-	3%	3%	4%	4%	4%
DFA Inflation-Protected Securities I	8%	8%	6%	4%	3%	-	-
DFA US Targeted Value I	-	4%	-	3%	3%	-	3%
Diamond Hill Large Cap Y	3%	9%	-	-	3%	-	-
Dodge & Cox Global Stock	-	-	-	-	-	-	3%
MFS International Value R6	-	3%	3%	3%	-	5%	4%
PIMCO Total Return Instl	27%	15%	4%	-	-	-	-
TIAA Traditional	40%	32%	25%	16%	10%	5%	-
Vanguard Developed Markets Index Instl	4%	3%	8%	12%	19%	18%	20%
Vanguard Emerging Mkts Stock Idx Instl	-	3%	4%	6%	8%	11%	13%
Vanguard Extended Market Index Instl	-	3%	12%	11%	13%	20%	19%
Vanguard Federal Money Market Investor	5%	-	-	-	-	-	-
Vanguard Institutional Index Instl PI	-	5%	16%	22%	24%	30%	31%
Vanguard Total Bond Market Index I	-	5%	10%	12%	6%	7%	-
Vanguard Total Intl Bd Idx Admiral™	4%	4%	3%	3%	3%	-	-
William Blair Small-Mid Cap Gr I	3%	-	-	-	-	-	3%

Consideration #4: Add a Multi-Asset Inflation Fund

- Inflation is a sustained increase in the level of prices within a country for goods or services
- As inflation rises, every dollar owned by an individual buys a smaller percentage of the same good or service as previously purchased
- The U.S. Bureau of Labor Statistics gathers pricing data on thousands of items monthly from various locations – this sampling is known as the Consumer Price Index or “CPI”

The Price of White Bread in the United States¹

January 1980



50 cents



December 2018



\$1.36

- While the expectation for inflation is not overly concerning, “tail events” are unpredictable and can be caused by...
 - An increase in money supply
 - An increase in the cost of production (cost-push inflation)
 - An increase in aggregate demand (demand-pull inflation)

¹Information from the U.S. Bureau of Labor Statistics

Consideration #4: Add a Multi-Asset Inflation Fund (cont'd)

- In recent years, the defined contribution (DC) marketplace has evolved to include more inflation sensitive products appropriate for core fund lineups
- Asset classes are generally selected opportunistically by seeking to react to and benefit from market conditions at any particular time rather than with a view to delivering a particular exposure at any particular time

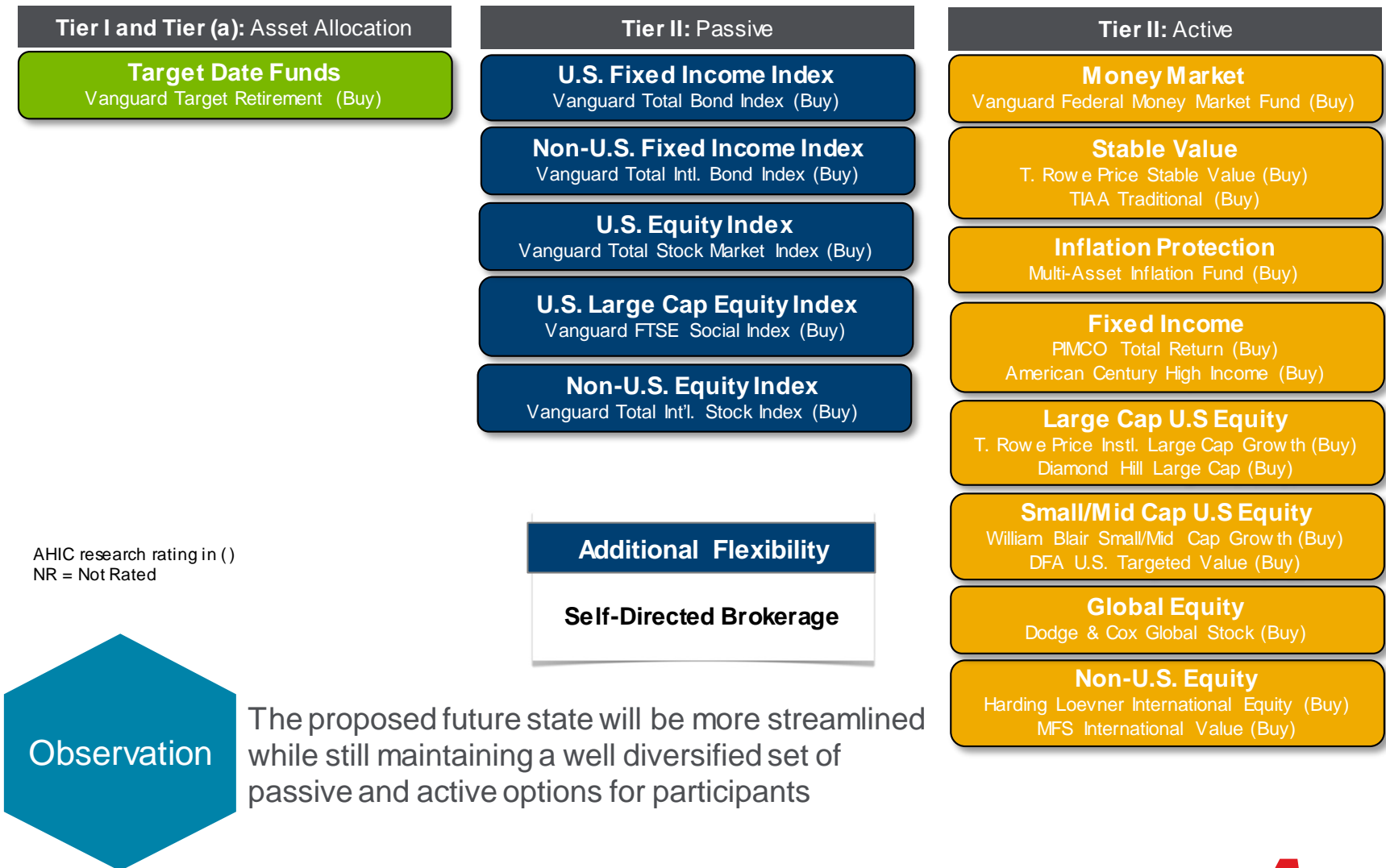
Asset Class	Over the Short-Term	Over the Long-Term	Comments
Inflation-Linked Bonds (TIPS)	+	+++	Explicit hedge when held until maturity
REITs (Real Estate Equities)	-	++	Return characteristics are often dominated by equity beta, but could have higher sensitivity to inflation
Commodities	+++	++	Inflation shocks likely driven by supply / demand imbalances

- We recommend the Committee initiate a search for a multi-asset inflation hedging fund option and consider consolidating assets and ongoing deferrals from the existing TIPS and REIT fund options into this single fund option

Active Fund Structure – Summary

Asset-Style Menu (14 Options)		Asset-Class Menu (13 Options)
Vanguard Federal Money Market Fund	<div>Cash</div>	➤ Retain Vanguard Fed Money Market Fund
T. Rowe Price Stable Value TIAA Traditional	<div>Capital Preservation</div>	➤ Retain T. Rowe Price Stable Value ➤ Retain TIAA Traditional
PIMCO Total Return Fund American Century High Income	<div>Fixed Income</div>	➤ Retain PIMCO Total Return Fund ➤ Retain American Century High Income
T. Rowe Price Instl. Large Cap Growth Diamond Hill Large Cap	<div>Large Cap Equity</div>	➤ Retain T. Rowe Price Instl. Large Cap Growth ➤ Retain Diamond Hill Large Cap
William Blair Small/Mid Cap Growth DFA U.S. Targeted Value	<div>SMID Cap Equity</div>	➤ Retain William Blair Small/Mid Cap Growth ➤ Retain DFA U.S. Targeted Value
Dodge & Cox Global Stock	<div>Global Equity</div>	➤ Retain Dodge & Cox Global Stock
Harding Loevner International Equity MFS International Value Fund	<div>International Equity</div>	➤ Retain Harding Loevner International Equity ➤ Retain MFS International Value Fund
DFA Inflation-Protected Securities Cohen and Steers Instl. Realty Shares	<div>Inflation Protection</div>	➤ New Multi-Asset Inflation Fund

Tiered Investment Structure – For Discussion Purposes



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Discussion Topics

Section 1	Capital Markets Review
Section 2	Performance Review
Section 3	Noteworthy Items
Section 4	Investment Structure Review
Section 5	Legal & Compliance Update



Aon Quarterly Update

Second Quarter 2019

Retirement Legal Consulting & Compliance

In this Issue

- 2 Lump Sums for Retirees Back on the Table
- 3 Wealth and Health Savings
- 4 Delegate Aon to Serve as the Administrative Fiduciary
- 5 Actuarial Equivalence Litigation—A Continuing Update
- 5 Managing Fiduciary Risk and Optimizing DC Plan Performance
- 6 Higher Education 403(b) Plan Litigation Update
- 7 Quarterly Roundup of Other New Developments

Prior Issues

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

Notes From Your Editors

Spring has sprung, bringing us an important new retirement development.

In 2015, the Internal Revenue Service (IRS) indicated an intention to severely restrict a plan sponsor’s ability to offer retirees in pay status single lump-sum distributions in lieu of ongoing monthly payments. The IRS recently announced that no such restrictions will be issued, and plan sponsors again have access to this very useful pension de-risking strategy. This *Quarterly Update* begins with an article about retiree lump-sum windows and how plan sponsors can use them to meet de-risking goals.

One topic that frequently comes up for employers is whether their employees will have enough funds saved for retirement. Although there may be a number of savings opportunities available to employees, health savings accounts are one of the more tax-favorable tools that can be used to help employees save more and be better prepared for retirement. We discuss how to best optimize these savings vehicles in this issue.

Plan sponsors often ask for help managing their retirement plans. Aon has developed two programs designed to transfer much of the day-to-day responsibilities from the plan sponsor to Aon. The first is an offer for Aon to accept fiduciary decision-making responsibilities for defined benefit and defined contribution (DC) plans as well as nonqualified plans. The second is a program to help manage DC plan responsibilities. For DC plans, the two programs can be combined, and a customized program can be developed to best meet a plan sponsor’s needs.

As reported last quarter, the retirement plan community is paying close attention to 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. As expected, the defendants have filed motions to dismiss the complaint in each of the cases, but we haven’t seen the plaintiffs’ responses yet. We include a short update about these cases (and one new one that was just filed) and will continue to provide updates as the litigation continues.

We continue our focus on plans covered under Section 403(b) of the Internal Revenue Code (relating to plans of certain tax-exempt organizations). This issue contains an article discussing lawsuits brought against sponsors of these plans. We also discuss some recent fiduciary litigation and other interesting updates in the Quarterly Roundup, a regular feature of our publication.

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.

Jennifer Ross Berrian
Partner
Aon

Susan Motter
Associate Partner
Aon

Lump Sums for Retirees Back on the Table

by Cedy Jury and Tom Meagher



While employers have continued to search for ways to reduce financial risks associated with their defined benefit (DB) plans, a de-risking strategy has once again been made available by the Treasury Department and Internal Revenue Service (IRS). Specifically, the IRS has reversed course, placing retiree lump sums back on the table.

In early 2012, the IRS issued several private letter rulings (PLRs) permitting DB plans to allow retirees to elect to receive their monthly benefit payments in the form of a lump-sum payment without violating the required minimum distribution (RMD) rules of Section 401(a)(9) of the Internal Revenue Code (Code). These PLRs received a lot of attention among plan sponsors and continued to be issued over a period of years. In 2015, the IRS announced its intention to amend the RMD regulations to preclude the offering of lump-sum payments to retirees (other than in accordance with certain enumerated events, e.g., plan termination). That announcement effectively removed the payment of lump sums to retirees from the de-risking alternatives to be considered by plan sponsors.

▶ **Retiree lump-sum window programs gained popularity as a pension de-risking strategy because, among other things, they allowed for additional retiree spending flexibility, administrative expense and PBGC savings, and potentially a balance sheet benefit.**

On March 6, 2019, the IRS issued Notice 2019-18 indicating that it no longer intends to amend the RMD regulations. Moreover, until further notice, the IRS will not assert that a plan amendment providing for a retiree lump-sum window program will cause a plan to violate the RMD regulations. While the issues associated with the RMD rules appear to have been addressed by this guidance, the IRS did indicate an intention to continue to evaluate such programs under other provisions of the Code.

Retiree lump-sum window programs gained popularity as a pension de-risking strategy because, among other things, they allowed for additional retiree spending flexibility, administrative expense and PBGC savings, and potentially a balance sheet benefit. However, these programs transfer investment and longevity risk to retirees and introduce additional requirements for employers, including developing accurate data, defining the target population, and mitigating the impact of anti-selection (where unhealthy retirees elect the lump sum and leave the healthier—and more expensive—retirees in the plan).

It is important for sponsors considering a retiree lump-sum window to build sufficient time to navigate these complexities and pay close attention to plan governance. Ensuring compliance with retiree and spousal consent rules, nondiscrimination testing, Code Section 417(e) lump-sum assumption provisions, and the terms of the plan and trust also require careful consideration and planning.

Making the choice between a lump sum and a lifetime monthly pension can be an important decision for a retiree. We recommend a robust communication campaign to help retirees fully understand the implications of any voluntary election. Some plan sponsors also provide financial advisors to help each retiree consider the impact of the offer on his or her financial situation.

A lump-sum offer to retirees is another strategy to reduce pension risk while providing retirees additional choice. Plan sponsors ultimately need to evaluate whether this is the right strategy for them and their retirees. Aon's multi-disciplinary team can help with every step of a retiree lump-sum window offer—from consideration and analysis to implementation.

Wealth and Health Savings

by Alex Bush and David Fairburn



Employers invest a lot of time, effort, and money to support their employees' retirement savings needs, and it's often not enough to prepare employees for retirement. Rather than working harder, both employers and employees could work smarter by strategically utilizing all retirement savings vehicles, including a defined contribution (DC) plan with pre-tax, after-tax, and Roth 401(k) features and Health Savings Accounts (HSAs). HSAs are tax-sheltered savings accounts available to employees enrolled in high-deductible health plans.

Motivating employees to start saving can be a challenge, but it is the critical first step. Even then, 81% of employees are projected to fall short of saving enough money for an adequate retirement. Aon has previously covered the topic of retirement readiness in the [Fourth Quarter 2018](#) issue of the *Quarterly Update*. When savings are projected to fall short, the most commonly recommended remedies, such as saving more, working longer, or spending less, can be difficult for employees. A better approach for employees is to take full advantage of all available vehicles to optimize savings outcomes.

While no savings vehicle is best for all employees, following a few simple guidelines can help maximize participants' retirement savings:

- **Maximize Employer Money.** Design plans to encourage employees to use vehicles that provide extra contributions toward their retirement.
 - Many DC plans encourage employees to save by offering a match on employee contributions and utilizing auto enrollment and escalation features.
 - Very few HSAs offer an employer match or utilize automation to drive savings.
- **Maximize Investment Returns.** Establish investment options and defaults to maximize returns within an employee's risk tolerance.
 - Many DC plans feature investment lineups designed to simplify employee decision-making while limiting fees and leakage.
 - HSAs are often not coordinated with an employer's DC plan and typically offer less sophisticated investment lineups and higher fees.

- **Maximize Tax Advantages.** Encourage employee decisions to minimize taxes, providing more money to the employee, now and in retirement.
 - Pre-tax DC savings and employer contributions (and the earnings on both) are taxed as ordinary income at distribution. Roth 401(k) and after-tax contributions are taxed in the year of contribution. Earnings on after-tax contributions are also taxed at distribution. All amounts that employees contribute to DC plans are subject to Social Security and Medicare taxes when earned.
 - HSAs have a "triple-tax advantage." In addition to contributions and earnings being free from ordinary income tax, distributions are tax-free if such distributions are used for qualified medical expenses. No Social Security or Medicare taxes are withheld from amounts contributed to HSAs.

Many factors influence what will be the most efficient savings vehicle for a person, including income, retirement savings levels, life expectancy, projected retirement expenditures (including health care), plan design, and taxes. No single answer will be the same for all employees since DC plans and HSAs have unique advantages that vary from person to person. For example, lower-income and middle-income employees who are far behind on retirement savings often benefit most by placing their entire savings into a DC plan on a pre-tax basis and ignoring other vehicles. Conversely, high-income and middle-income employees on track for retirement may benefit from a mix of HSA savings and DC plan savings on both a Roth 401(k) and pre-tax basis.

Next Steps for Plan Sponsors

- Review the design of your DC plan and HSA including savings options, employer contributions, default elections, and auto features.
- Evaluate how your investment lineup compares for your DC plan and HSA to make sure each have appropriate funds at reasonable fees and costs.
- Enable better decision-making by enhancing participant tools and communications.
- Consider your DC and HSA in the context of broader financial well-being programs, tools, and guidance.

Aon's consultants can help navigate the alternatives and develop strategies to fit your population. Please reach out and we'll help you get started.

Delegate Aon to Serve as the Administrative Fiduciary

by Hitz Burton and Tom Meagher



Sponsoring a tax-qualified or nonqualified retirement plan can be difficult—increasing numbers of regulations along with administrative complexity can require more than a full-time effort to keep a plan compliant. Retirement plans today require specific skills, many of which can only be gained through experience working with the plan and related operations. While plan sponsors have had to devote more and more time to overseeing their

retirement plans and related administration, internal resources may continue to be challenged due to competing organizational priorities, turnover, lack of experience, plan complexity, and inadequate time to address new issues. These challenges can quickly overwhelm plan fiduciaries and benefit organizations charged with retirement plan responsibilities.

The need for expertise regarding retirement plan decisions and related administration has become increasingly important over the past few years. Litigation appears to be around almost every corner from “stock drop” and “stock rise” cases to litigation challenging early retirement windows, actuarial equivalence, and annuity buyouts. Regulators have also become increasingly aggressive in certain circumstances, including assessing penalties for various fiduciary breaches. As plan sponsors continue to evaluate their retirement plans and related administration, we are hearing increasing levels of concern from plan sponsors that they may not have the time or resources necessary to handle all of the day-to-day decisions that come with sponsoring a qualified or nonqualified retirement plan. Moreover, there is increasing concern that many of the plan-related decisions are fiduciary in nature, thus exposing plan fiduciaries to possible personal liability if they have been found to have breached their fiduciary duties to the plans or their participants.

In response to these issues, plan sponsors are increasingly turning to third-party resources to provide the expertise necessary to mitigate these risks. Plan sponsors and fiduciaries have already outsourced a number of responsibilities to third parties including plan administration, investments, and domestic relations orders, and they appear to be searching for additional decision-making support in this increasingly complex and litigious environment.

▶ **As plan sponsors continue to evaluate their retirement plans and related administration, we are hearing increasing levels of concern from plan sponsors that they may not have the time or resources necessary to handle all of the day-to-day decisions that come with sponsoring a qualified or nonqualified retirement plan.**

To address the inherent challenges and complexities involved in making fiduciary decisions for a retirement plan, Aon’s new fiduciary decision-making service is designed to relieve plan sponsors and designated fiduciaries of many of the “plan administrator” day-to-day decision-making activities. To the extent that these decisions are assigned to Aon, Aon will be responsible, as the designated fiduciary under the Employee Retirement Income Security Act of 1974 (ERISA), for everything from maintaining a plan document that satisfies qualification requirements of the Internal Revenue Code (Code) to compliance with various reporting and disclosure requirements under ERISA—and many other decision-making services in between.

To assist clients interested in outsourcing fiduciary (and non-fiduciary) retirement plan responsibilities, Aon has staffed this service offer with a cross-functional team of compliance, administrative, recordkeeping, and investment specialists who are subject matter experts in their respective fields. The Aon team is available to provide plan sponsors and fiduciaries with a variety of services, including assuming responsibility for:

- All plan reporting and disclosure obligations (e.g., Form 5500 Annual Report, Annual Funding Notice, and Summary Plan Description);
- Plan document maintenance to ensure compliance with the qualification requirements of Code Section 401(a);
- Oversight and decision-making authority over the plan’s formal ERISA claims and appeals process;
- Plan governance, including preparation and review of committee minutes, updates of committee charters and bylaws, and establishment of a fiduciary record for plan actions;
- Coordination of all investment activity between investment committee members and third parties, retention and evaluation of independent investment advisors, and periodic evaluation of investment fees; and
- Oversight over contracting with third parties and monitoring their performance against plan requirements.

If you are interested in discussing outsourcing some or all of the decision-making associated with one or more of the tax-qualified or nonqualified retirement plans you currently sponsor, please contact your Aon consultant.

Actuarial Equivalence Litigation—A Continuing Update

by Hitz Burton and Jennifer Ross Berrian

Four lawsuits were filed last December against large pension plans challenging the actuarial equivalence factors used for calculating optional forms of benefit or early retirement reduction factors. Motions to dismiss have been filed in all four cases. The motions include various arguments urging the courts to dismiss the claims. Some of the more interesting arguments include:

- The variation between the amount of benefits calculated under the plan's factors and the factors under Section 417(e)(3) of the Internal Revenue Code (Code) is less than 5% and is, therefore, reasonable;
- Congress could have specified the interest rate and mortality factors used to calculate early retirement benefits and optional payment forms but has not (unlike Congress' requirement to use specific factors for calculating lump sums as set forth in Code Section 417(e)(3));
- The mortality table used by the plan is listed in the definition of "standard mortality table" for nondiscrimination testing and thus is reasonable for optional form conversions; and

- A variety of procedural arguments under the Employee Retirement Income Security Act of 1974 (ERISA), including the application of ERISA's six-year statute of limitations and failure to exhaust the internal plan claims and appeals procedures.

The plaintiffs have yet to file responses to the defendants' motions to dismiss, and we do not expect any court rulings on these motions before this summer.

As we go to press, a fifth lawsuit has been filed with substantially similar allegations as the prior lawsuits. Given the economic incentives in place, we expect additional litigation in this area—at least until one or more of the earlier claims are dismissed.

We will continue to monitor developments in these cases as well as related litigation and will update you when developments arise. Please contact your Aon consultant for more information about these cases.

Managing Fiduciary Risk and Optimizing DC Plan Performance

by Alex Bush, Melissa Elbert, and Brian Pieper

Over the past few decades, the defined contribution (DC) plan has cemented its status as the American workers' primary retirement vehicle. The growth in importance of DC plans has increased the risks faced by plan fiduciaries as they find themselves under heightened scrutiny from participants, regulators and, most ominously, plaintiffs' attorneys.

Consequently, the most challenging issues facing plan sponsors and fiduciaries of DC plans are:

- **Fiduciary Risk.** Since 2016, more than 100 lawsuits have been filed against DC plan fiduciaries. The lawsuits primarily allege a breach of fiduciary duties under the Employee Retirement Income Security Act of 1974 (ERISA). Specifically, the alleged breaches occurred because the plan fiduciaries failed to have prudent processes and documentation in the selection of plan investment options and/or plan participants were charged excessive fees. In some cases, plan fiduciaries have been held personally responsible for damages, putting their personal assets at risk. Given the large pool of assets being managed by plan fiduciaries, it is likely litigation of this type will continue and may evolve into new types of claims.

- **Compliance and Operations Risk.** Heavy reliance on automation and outside vendors often puts distance between the plan sponsors and fiduciaries and their plans' operations. However, the responsibility for plan performance, including operational and technical compliance, remains with the plan sponsor and fiduciaries. As such, this distance can create a false sense of security.

In addition, the elimination of the Internal Revenue Service (IRS) determination letter program for ongoing, individually designed plans means that plan sponsors can no longer regularly confirm the tax-qualification status of their plans. Therefore, plan sponsors must find new ways to ensure the qualification of their plans.

- **Competitiveness and Adequacy.** In our current economic climate, employers struggle to attract and retain the right talent. Competitive employers, seeking to retain talent, will assess their benefits, including their retirement programs, on a comparable basis.

To help plan sponsors navigate this new era of competitiveness and risk associated with their retirement programs, Aon created DC Manager—a customizable solution that helps plan sponsors understand

and address their responsibilities in a comprehensive manner. Through DC Manager, Aon provides a variety of services designed to assist plan fiduciaries in fulfilling their duties and managing their risk, including:

- **Review of Governance Processes.** Reviewing the charters of plan committees, the delegations of authority, and the governance aspects of the plan's investment policy statement to confirm governance is being conducted in accordance with documentation.
- **Fiduciary Oversight.** Coordinating quarterly meetings and agendas, taking meeting minutes, informing the committee of fiduciary updates, documenting decisions and follow-up items, developing a customized compliance calendar, and tracking project status.
- **Fiduciary Training.** Providing comprehensive fiduciary training to equip plan fiduciaries with an understanding of the laws governing their plan and their fiduciary duties to plan participants and beneficiaries.
- **Ongoing Vendor Management.** Confirming that vendors are fulfilling their contractual obligations (including monitoring whether any fee concessions should be imposed due to missed service milestones) and reviewing vendor metrics and education materials.
- **Fee Benchmarking.** Helping plan fiduciaries ensure that plan expenses are reasonable by utilizing comparisons that include both soft-dollar (e.g., revenue sharing) and direct-billed charges, reviewing current service agreements against best practices, and supporting contract renegotiation, as appropriate.

In addition to ongoing fiduciary assistance, DC Manager includes periodic reviews of critical plan functions to help ensure your plan is compliant and operating efficiently. We also provide plan design support to help you understand your competitive position and the retirement readiness of your employees. These supplemental services include:

- **Plan Document Review.** Analyzing documents for compliance with the IRS' required amendments list to help ensure they satisfy tax-qualification requirements and remain up-to-date.
- **Review Plan Operations.** Performing a targeted review of plan operations, focusing on operational areas with specific concerns and those that typically represent the greatest risk.
- **Retirement Readiness Study.** Helping plan sponsors understand expected employee outcomes and identifying retirement income adequacy by comparing projected needs and resources utilizing methodology from Aon's *The Real Deal: 2018 Retirement Income Adequacy at U.S. Plan Sponsors* study.
- **Plan Design Analysis.** Competitive benchmarking of your plan's cost and value using Aon's Benefit Index® tool to help you identify your competitive position compared to a hand-selected peer group.

DC Manager is a great approach and solution for DC plans. Please contact the authors or your Aon consultant to discuss how DC Manager can assist you.

Higher Education 403(b) Plan Litigation Update

by Diane Smola and Cynthia Zaleta



Peppered with claims unique to 403(b) plans, lawsuits in the higher education marketplace have become prevalent as plaintiffs' attorneys have followed a litigation recipe tested in the corporate 401(k) marketplace. In August 2016, Schlichter, Bogard & Denton, the plaintiffs' firm responsible for much of the 401(k) litigation, reset the litigation table to include prominent private universities and filed eight lawsuits alleging breach of

fiduciary responsibilities. Other law firms quickly added to the mix, and as of March 15, 2019, at least 19 such lawsuits have been filed against universities. These lawsuits primarily focus on three areas: inappropriate or imprudent investment choices, excessive fees, and self-dealing.

- **Inappropriate or Imprudent Investment Choices.** Plaintiffs allege that too many investment choices resulted in participant confusion. Plaintiffs also identify investments that habitually underperform both their benchmarks and available alternatives as well as pinpoint the

liquidity restrictions of a popular fixed annuity as being problematic. Plaintiffs allege that retaining these poor performing options substantially reduced participants' retirement assets.

- **Excessive Fees.** Plaintiffs allege that too many investment choices diluted the plan fiduciaries' ability to leverage scale to negotiate lower administrative and investment fees. In addition, using multiple recordkeepers, rather than a single recordkeeper, resulted in duplicative, excessive, and unreasonable fees for recordkeeping services. Further, plaintiffs assert a fiduciary breach as the plan fiduciaries failed to conduct a periodic, competitive bidding process to ensure reasonable recordkeeping fees were, and continued to be, paid by participants.
- **Self-Dealing.** Several lawsuits allege self-dealing by plan fiduciaries. Specifically, plaintiffs allege the fees paid by participants were used for the university's own benefit.

Evolution of 403(b) Landscape

In 1958 Congress added Section 403(b) to the Internal Revenue Code (Code). At that time, investments were limited to annuity contracts. With the passage of the Employee Retirement Income Security Act of

1974 (ERISA), Code Section 403(b) was amended to permit custodial accounts that could invest in mutual funds.

Department of Labor Regulations, which became effective in 1975, specified that the purchase of annuity contracts or establishment of custodial accounts were not subject to ERISA if, among other requirements, participation by a 403(b) plan participant is completely voluntary, and all rights under the contracts or accounts are enforceable solely by the participant. Additionally, employer involvement must be limited to allowing vendors to publicize their contracts/accounts, collecting employee contributions, and limiting funding products to afford employees reasonable choice in light of all relevant circumstances. At that time, many 403(b) plan sponsors interpreted the regulations to mean that multiple recordkeepers and investment lineups were preferred. The Internal Revenue Service issued new 403(b) regulations in July 2007, which imposed a written plan document requirement and various employer responsibilities. Since these regulations, there has been a renewed focus on overall compliance, including adherence to the requirements of ERISA.

Unfortunately, the ability for 403(b) plan fiduciaries to effect change remains encumbered. Individually-owned contracts, which are typically a staple in many 403(b) plans, require that certain proprietary investment options be maintained and open for ongoing deposits. Additionally, individually-owned contracts limit the plan fiduciaries' ability to map assets when an investment becomes imprudent. Plan fiduciaries may only make changes with respect to future contributions. Today, more than 40 years after the passage of ERISA, 403(b) plans are still precluded from investing in low-cost collective investment trusts.

Current Litigation Setting

Where do the 403(b) lawsuits stand as of March 15, 2019? Some cases have been fully dismissed. A majority are still pending, in whole or in part, with the primary focus on investment choices and fees. Finally,

some cases have been settled or have been agreed to be settled with no admission of liability. Some of the interesting case notes, from our point of view, include:

- One university petitioned the Supreme Court to compel participants to accept arbitration rather than file ERISA class-action lawsuits. The Supreme Court denied this request.
- At least one case was voluntarily dismissed by the plaintiff with both parties agreeing to bear their own attorney fees and costs of litigation.
- In one pending settlement, the proposed agreement requires the plan sponsor to:
 - Hire an independent advisor to conduct an RFP;
 - Ease the ability of participants to transfer investments out of frozen annuity accounts;
 - Avoid the use of plan assets to pay salaries of employees who work on the plan;
 - Use reasonable efforts to further reduce recordkeeping fees; and
 - Notify participants if fees increase and why.

Closing

We predict that more lawsuits will be filed against colleges and universities that sponsor 403(b) retirement plans. As a result, we encourage 403(b) plan sponsors and fiduciaries to consider adopting sustainable practices in executing their oversight responsibilities. These include regular reviews of investment options and completing operational compliance and service reviews.

This article was also published in the Volume II 2019 issue of Connections.

Please see the applicable Disclosures and Disclaimers on page 11.

Quarterly Roundup of Other New Developments

By Teresa Kruse, Jan Raines, and Bridget Steinhart

The Mighty Mickey Mouse—Disney Prevails

Disney plan fiduciaries have prevailed on appeal against claims that they breached their fiduciary duty of prudence with respect to an investment option offered under the Disney Savings and Investment Plan. On March 1, 2019, the 9th Circuit Court of Appeals affirmed the district court's dismissal of the plaintiffs' amended complaint and the denial of leave to amend the amended complaint, effectively ending the litigation.

Plaintiffs alleged that offering the Sequoia Fund as one of many plan investment options violated the plan's investment policy. They also alleged that plan fiduciaries violated the fiduciary duty of prudence under the Employee Retirement Income Security Act of 1974 (ERISA) by retaining the Sequoia Fund as an investment option. The plaintiffs'

basis for these claims was their assertion that the Sequoia Fund held over 30% of its portfolio in an artificially inflated stock and that Disney fiduciaries knew, or should have known, that the stock was overvalued and, therefore, the Sequoia Fund was no longer a prudent investment option. In their amended complaint, the plaintiffs claimed that plan fiduciaries never discovered Sequoia's shift from "conservative 'value' to risky 'growth' stocks" or communicated the same to participants.

The 9th Circuit cited three reasons for affirming the decisions of the district court: (i) "allegations based solely on publicly available information that a stock is excessively risky in light of its price do not state a claim for breach of the ERISA duty of prudence;" (ii) the non-diversified and risky nature of the Sequoia Fund was described in both the plan's summary plan description and the Fund's 2015 prospectus

and terms such as “value” and “growth” cannot be used to draw “unreasonable inferences” as to investment strategy; and (iii) allowing plaintiffs a second opportunity to amend their complaint would be futile because plaintiffs’ complaint cannot “be saved by any amendment.” *Wilson v. Fid. Mgmt. Tr., No. 17-55726, 2019 BL 69493 (9th Cir. Mar. 1, 2019)*.

Intel Asks Justices to Decide When the Clock Starts Running

Intel Corp. has petitioned the U.S. Supreme Court to resolve a circuit court split regarding the deadline by which plaintiffs can file lawsuits alleging fiduciary breach under ERISA. The statute of limitations under ERISA is the earlier of (i) six years after the act or omission constituting the breach or (ii) three years after the earliest date on which the plaintiff had actual knowledge of the breach. At issue is how to determine when a plaintiff has actual knowledge of a breach.

The *Intel* class action lawsuit concerned hedge fund investment holdings in two of Intel’s retirement plans and allegedly inadequate fund disclosure. Even though the plaintiff received lots of information about plan investments when he began participating in the plan, the 9th Circuit held that the limitations period did not begin until the plaintiff was “actually aware of the facts constituting the breach.” Merely claiming that those facts were available to the plaintiff was not sufficient to constitute actual knowledge according to the 9th Circuit. (The 9th Circuit noted, in order for the plaintiff to be found to have actual knowledge to cause the statute of limitations to begin to run, the plaintiff was required to have actual knowledge both that the investments occurred, and that they were imprudent.) Other courts have held that the limitations period begins to run when the plaintiff has constructive knowledge of a breach (e.g., being in receipt of documentation that would alert the person to a breach).

Recently, the 6th, 7th, and 11th Circuits have used a similar standard as the 9th Circuit’s for “actual knowledge.” Conversely, the 3rd and 5th Circuits have interpreted “actual knowledge” as being satisfied when a plaintiff has constructive knowledge of the claim. Intel, in its petition to the Supreme Court, indicates that “no amount of disclosure by plan fiduciaries can ensure that plan participants will possess ‘actual knowledge’ of the facts disclosed by the plan, enabling virtually every plaintiff to get past a motion for summary judgment,” and potentially discourage timely participant review of disclosure materials.

We are following this case and will provide updates as they are available. *Sulyma v. Intel Corp. Inv. Policy Comm., 909 F.3d 1069 (9th Cir. 2018), petition for cert. filed Feb. 26, 2019*.

ConAgra “Reinterpretation” of Compensation Definition

A former high-level ConAgra employee filed a class action lawsuit against the plan sponsor and fiduciaries of the ConAgra Brands Retirement Income Savings Plan regarding the “reinterpretation” of the plan’s definition of compensation applied when determining whether elective deferrals and matching contributions should have been made following termination of employment. The plaintiff was terminated as part of a reduction in force on April 1, 2016 and was paid a management incentive bonus on or about July 15, 2016 (which would have been paid even if he had continued employment).

The lawsuit relates to the plan’s definition of “compensation,” specifically whether certain post-severance bonus payments are includible in eligible compensation for the purpose of making elective deferrals and receiving the corresponding match. According to the lawsuit, the plan document defined compensation to include payments made by the later of (i) 2½ months after severance of employment or (ii) the end of the calendar year that includes the date of severance, if the compensation received would have been paid to the participant while still employed. However, no deferrals were deducted from the plaintiff’s bonus and no corresponding match was made on his behalf.

The plaintiff exhausted the plan’s claims procedures, receiving denials to both his initial claim and appeal. The denial letters were based upon an administrative reinterpretation of the plan’s definition of compensation. The letters claimed that due to a reinterpretation of who constitutes an eligible employee under the plan, only bonus payments made within 2½ months of severance were included in plan compensation. The denial letters acknowledged that the definition of compensation in the plan had not been amended but claimed that a plan amendment was not required.

It is important to remember that interpretation of the plan document is a key fiduciary duty. ERISA requires fiduciaries to act “in accordance with the documents and instruments governing the plan” as long as they are consistent with ERISA. It is also critical to document all plan provision interpretations, either in meeting minutes of the fiduciary committee (if also the plan administrator) or in an administrative procedures document, and to apply these interpretations consistently to all similar matters. It is also important to understand when a plan provision is subject to “administrative reinterpretation” and when changing the meaning of a provision requires a plan amendment. When there are challenges regarding the definition of compensation or any administrative interpretations, fiduciaries should seek expert advice for assistance.

This case is still in the beginning stages, and the defendants may have valid defenses to the plaintiff’s claims. We will monitor future developments. *Carlson v. ConAgra Brands, Case No. 1:18-cv-8323 (N.D. Ill. Dec. 19, 2018)*.

The Latest Fee Fiasco

FMR LLC, the parent company of Fidelity Investments, is facing allegations that it has been charging secret and unauthorized mutual fund fees and that the mutual funds have, in many cases, been passing those fees on to plan investors. This has led to retirement investor litigation along with investigations by the Department of Labor and the Commonwealth of Massachusetts.

A participant in the T-Mobile USA, Inc. 401(k) Retirement Savings Plan sued FMR and related entities (collectively, Fidelity) alleging kickbacks and secret payments. Fidelity is alleged to have secretly charged mutual funds an annual fee described as an “infrastructure fee.” The fee is purportedly used to offset the costs for Fidelity to maintain other asset managers’ funds on their FundsNetwork platform. Fidelity alleges that the charge has been fully disclosed and has publicly stated that it has informed 20,000 clients about this fee.

It appears as if Fidelity describes the concept of the infrastructure fee within the footnotes of its disclosures, not as a specific dollar amount applicable to each plan. In view of this recent development, Aon is reviewing whether this fee is a growing industry change. As we learn more about the investigations, the lawsuit, and the industry usage of this type of fee, we will update our clients. *Wong v. Fidelity Mgmt. & Res. Co. et al.*, No. 1:19-cv-10335 (D. Mass. Feb. 21, 2019).

Fee Litigation Settlements—Show Me the Money, or Not?

As retirement plan litigation continues to move through the courts, we are seeing more settlements being reached in advance of trial. However, the settlements are no longer just about money; depending on settlement negotiations between the parties some now require plan fiduciaries to:

- Retain an independent fiduciary who will be charged with discretionary decision-making authority affecting the plan investments, including proprietary options, mutual funds, separate accounts, and collective trust funds (*Moreno v. Deutsche Bank*)
- Add a nonproprietary target-date fund and increase company match for a specified period of time (*Cryer v. Franklin Res.*)

Creating and maintaining a good governance structure and process is an important way to meet fiduciary responsibilities. Our Aon consultants are available to help review your processes, provide fiduciary training, and develop an annual fiduciary checklist. *Moreno v. Deutsche Bank Americas Holding Corp.*, No. 1:15-cv-09936 (S.D.N.Y. Aug. 14, 2018); *Cryer v. Franklin Res.*, No. 4:16-cv-04265-CW (N.D. Cal. Mar. 15, 2019).

Retirement Plan Litigation

Retirement plan litigation has been prevalent over the past decade impacting corporate plan sponsors, 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
 - *Moreno v. Deutsche Bank*—Case settled for \$21.9 million and other remedies
 - *Cryer v. Franklin Res.*—Case settled for \$13.8 million and other remedies
 - *Schapker v. Waddell & Reed*—Case settled for \$4.9 million
 - Correction. In the First Quarter 2019 issue, we reported *Rozo v. Principal* settled for \$3 million. This should be noted as a case fully dismissed. *Rozo v. Principal*, No. 4:14-cv-00463-JAJ (S.D. Iowa Sept. 12, 2018)

- Universities

- *Short v. Brown Univ.*—Case settled for \$3.5 million
- *Clark v. Duke Univ.*—Case settled for \$10.6 million and other remedies
- *Cassell v. Vanderbilt Univ.*—Case settled through mediation; settlement to be made public shortly

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. *Moreno v. Deutsche Bank Americas Holding Corp.*; *Cryer v. Franklin Res.*; *Schapker v. Waddell & Reed Fin., Inc.*, No. 2:17-cv-02365 (D. Kan. Nov. 19, 2018); *Short v. Brown Univ.*, No. 1:17-cv-00318 (D.R.I. Mar. 11, 2019); *Clark v. Duke Univ.*, No. 1:16-cv-01044 (M.D.N.C. Jan. 16, 2019); *Cassell v. Vanderbilt Univ.*, No. 3:16-cv-02086 (M.D. Tenn. Feb. 25, 2019).

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About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

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