



AGENDA ITEM

A-5. UNC Optional Retirement Program Technical Change Brian Usischon

Situation: The University administers the Optional Retirement Program of the University of North Carolina (ORP) for the benefit of employees as an alternative to the state retirement system. North Carolina General Statute 135-5.1 (d) provides that “the Board of Governors of The University of North Carolina shall designate the company or companies from which contracts are to be purchased or the trustee responsible for the investment of contributions under the Optional Retirement Program, and shall approve the form and contents of such contracts or trust agreement.” The Board of Governors has designated the president as Plan Administrator and authorized the president to further delegate to qualified professionals most plan administration duties.

Background: The president, with the assistance of professional staff, oversees and monitors the investment management, performance and expenses associated with the administration of the ORP. The oversight and monitoring process is designed to ensure that the ORP’s investment options are maintained consistent with the ORP’s investment policy statement; that the ORP and its participants receive the services promised in vendor contracts; and that the investment and administrative expenses charged to the plan by investment providers and service providers are reasonable. The University’s oversight and monitoring activities which includes reviewing the ORP’s recordkeeping fees and investment fees, are supplemented by regular reviews by the University’s Investment Advisor, CAPTRUST, and the UNC System Benefits Committee.

Assessment: The University System Benefits Committee has recently reviewed proposals to further lower investment fees utilizing an investment vehicle called a Collective Investment Trust (CIT), which will lower investment fees to participations participating in the ORP Target date funds. The attached document outlines some significant plan improvements over the past several years and provides additional details about the proposed collective investment trust arrangement.

The President’s staff, delegated with the responsibility to review plan investments, has reviewed the committee’s recommendation and presents to the Board a recommendation both to adopt a Collective Investment Trust with Vanguard, effective January 1, 2018, and also to authorize the President or her staff to execute the required documents to enter into a collective trust

APPENIDX R

arrangement. Once implemented, the trust will be available to ORP participants using the existing retirement plan record keepers (TIAA and Fidelity).

Action:

This item requires a vote by the Committee and the full Board.

TARGET DATE FUND SELECTION OVERVIEW

THE UNIVERSITY OF NORTH CAROLINA

CAPTRUST

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Our mission is to enrich the lives of our clients, colleagues and communities through sound financial advice, integrity, and a commitment to service beyond expectation.

INTRODUCTION

Background

- The University of North Carolina Optional Retirement Program (ORP) has been in existence since 1972. The ORP is the “standard” defined contribution retirement program available in higher education. Similar retirement plans exist at most other colleges and universities (public and private).
- Over 40,000 university employees have chosen the ORP over the Teachers’ and State Employees’ Retirement System (TSERS), a defined benefit plan, during the past 45 years. A significant liability has been removed from TSERS associated with these employees.
- The ORP is a large plan with total assets under management as of 12/31/2016 at \$5.51 Billion. UNC has effectively managed the ORP for more than 45 years.

Information on Current Plan Management

- The Board of Governors is the sole governing authority of the UNC ORP. The IRS issued a plan qualification letter to the University of North Carolina for the Optional Retirement Program.
- The University of North Carolina competes with other large, research oriented Universities across the country for both faculty and staff. The University must be able to compete with other state University systems; as well as, the large private institutions of higher education.

Collective Investment Trust

The University is proposing the adoption of a collective investment trust, within the UNC Optional Retirement Program. A collective investment trust is an investment vehicle, similar to mutual funds, but only available to qualified retirement plans like the UNC ORP and other corporate 401(k) plans. A collective investment trust is operated by a bank or trust company and handles a group of pooled trusts accounts.

UNC PLANS ASSET SUMMARY

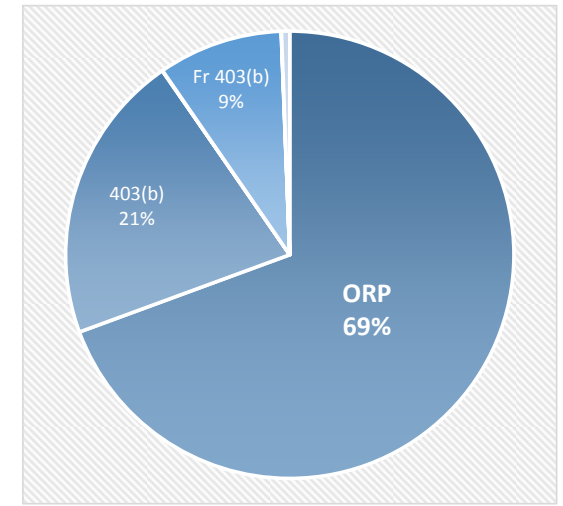
The UNC Retirement Plans

Plan Name	Plan Type	TIAA Assets	Fidelity Assets	Total Plan Assets 3/31/17
The UNC Optional Retirement Program	401(a)	\$4,545,678,504	\$966,604,670	\$5,512,283,174
The UNC 403(b) Plan	403(b)	\$973,747,530	\$505,971,845	\$1,479,719,375
UNC ORP Excess Benefit Arrangement 415(m) Plan	NonP	\$1,632,986	\$311,438	\$1,944,424
The UNC ORP Frozen 403(b) Plan*	403(b)	\$616,302,607	\$18,249,516	\$634,552,123
Senior Adm Officer Retirement Program of The University of North Carolina	401(a)	\$902,632	\$415,622	\$1,318,254
The UNC Qualified Governmental Excess Benefit Arrangement for Senior Adm Officers	NonP	\$386,186	\$134,478	\$520,664
The UNC Code Section 457(b) Plan	457(b)	\$20,694,063	\$20,925,975	\$41,620,038
TOTALS		\$5,543,041,901	\$1,512,613,546	\$7,055,655,447

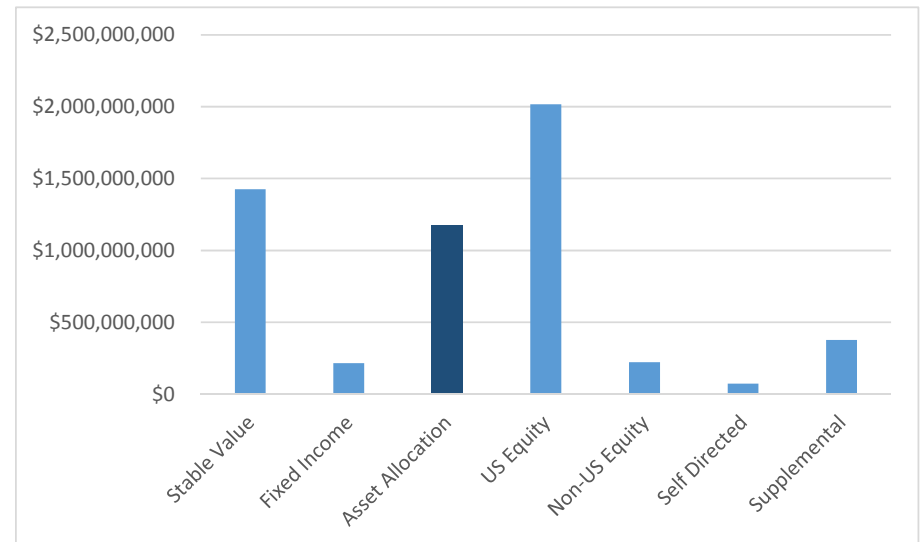
*Assets are reported as part of the ORP Plan

Within the ORP Plan, Target Date Funds make up 20% of plan assets (\$1.09B), with the additional 1% of the Asset Allocation category consisting of Balanced funds

ORP Asset Category	3.31.2017 Assets	(%)
Stable Value/Traditional Annuity	\$1,425,396,820	26%
Fixed Income	\$216,651,131	4%
Asset Allocation	\$1,178,841,633	21%
US Equity	\$2,016,546,299	37%
Non-US Equity	\$223,475,872	4%
Self Directed	\$74,120,902	1%
Supplemental- TIAA Frozen	\$377,250,517	7%
TOTAL ORP Assets	\$5,512,283,174	100%



The ORP Plan holds over 69% of total Retirement Plan assets



HISTORICAL PLAN CHANGES

Date	Changes Made	Pricing Impact
July 2014	<ul style="list-style-type: none"> • UNC ORP plan reduced to two providers, TIAA CREF and Fidelity, eliminating VALIC and Lincoln • TIAA was selected as the default provider • The fund lineup is harmonized as much as possible on the two platforms 	<ul style="list-style-type: none"> • The resulting revenue requirement for both the ORP and 403(b) assets becomes 0.79% on TIAA and 0.075% on the Fidelity platform • Approximate administrative savings is \$2.5M annually based on \$5.5B in assets
April 2015	<ul style="list-style-type: none"> • TIAA implements updates to their CREF fund structure resulting in three new share classes • All CREF funds in UNC plans are automatically moved to the R3 share class 	<ul style="list-style-type: none"> • The lower fund expense ratio results in an investment expense savings to the plan on the TIAA platform of approximately \$1.8M
July 2015	<ul style="list-style-type: none"> • The TIAA platform qualifies based on asset threshold for a lower share class of two existing Vanguard Index funds: Extended Market and Short-Term Bond 	<ul style="list-style-type: none"> • The share class change results in an investment expense savings of approximately \$27,000
October 2015	<ul style="list-style-type: none"> • The Fidelity platform qualifies based on asset threshold for the lower share class of the Vanguard Short-Term Bond index • On both platforms the Morgan Stanley Mid Cap Growth fund is replaced with the Mass Mutual Select Mid Cap Growth Fund 	<ul style="list-style-type: none"> • The share class change results in an investment expense savings of approximately \$5,000
January 2016	<ul style="list-style-type: none"> • Principal Fixed Account replaced with Lincoln Fixed on the Fidelity Platform • The Vanguard Target Date Fund series moves to the new institutional shares for all plans, resulting in a 7 basis point fee reduction • Columbia Acorn International is replaced with T.Rowe Price International 	<ul style="list-style-type: none"> • The TDF share class change moves the expense ratio from 17bps to 10bps, resulting in an investment cost savings of about \$726,000 which equates to a 47% reduction
June 2016	<ul style="list-style-type: none"> • Vendor benchmarking project results in TIAA CREF lowering their revenue requirement from 0.079% to 0.065% • TIAA platform moves to cheaper share class for three active funds and one Vanguard index fund • The Fidelity contracted fee goes from 0.075% to 0.060% • An asset exception is granted for the Fidelity platform to take advantage of cheaper share classes for three Vanguard index funds 	<ul style="list-style-type: none"> • TIAA reduced fee results in an administrative savings of \$576,873 in the ORP and \$119,443 in the 403(b), for a total of \$696,316 annually • Fidelity was collecting 0.06% from revenue share and not billing for the shortfall, so the new pricing ensures that costs would not increase from current amount • Share class changes on index funds amount to an investment expense savings of \$60,000 across the two platforms
December 2016	<ul style="list-style-type: none"> • The UNC platform allows RIAs (registered investment advisors) to attach and work directly with plan participants, and the program had fee levels set differently on both platforms (3% on the Fidelity platform and 2% on TIAA) • Fee levels were revised and aligned at a max fee of 1.25% • The Vanguard Fed Money Market Fund added as a secondary money market fund on the TIAA platform, as TIAA was ending their fee waivers on the CREF Mmkt fund and would be recouping previously waived fees 	

ORP INVESTMENT CONTRIBUTIONS

- There has been significant growth in the Vanguard TDF assets held in the ORP; as of 6/30/17 assets totaled 1,095,119,294
- The industry has adopted the usage of investment vehicles other than mutual funds for certain plan types in order to achieve lower investment management costs
- UNC issued a Target Date Fund RFP specific to Collective Investment Trust (CIT) vehicles in the spring of 2017

Combined Vendor Contributions/Rollovers	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016 Total	Percentage
Target Date Fund	\$33,540,672	\$33,328,344	\$31,422,971	\$30,379,919	\$128,671,906	51.4%
Non- TDF Fund	\$29,941,971	\$32,308,287	\$31,075,976	\$29,474,198	\$121,800,432	48.6%
TOTALS	\$62,482,644	\$65,636,630	\$62,498,947	\$59,854,117	\$250,472,338	

Fidelity 2016 Contributions/Rollovers	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016 Total	Percentage
Target Date Fund	\$10,611,146	\$15,837,611	\$13,196,724	\$13,240,721	\$52,886,202	60.7%
Non- TDF Fund	\$7,123,523	\$10,117,551	\$8,257,681	\$8,716,934	\$34,215,689	39.3%
TOTALS	\$17,734,669	\$25,955,162	\$21,454,405	\$21,957,655	\$87,101,891	

TIAA- CREF 2016 Contributions/Rollovers	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016 Total	Percentage
Target Date Fund	\$22,929,527	\$17,490,733	\$18,226,247	\$17,139,198	\$75,785,704	46.4%
Non- TDF Fund	\$21,818,448	\$22,190,735	\$22,818,295	\$20,757,264	\$87,584,743	53.6%
TOTALS	\$44,747,974	\$39,681,468	\$41,044,542	\$37,896,462	\$163,370,447	

TARGET DATE FUNDS/INVESTMENT VEHICLE OPTIONS

Element	Collective Investment Trusts	Mutual Funds (Current ORP/403(b) Structure)
Regulating Body	State banking agencies, IRS, DOL	SEC
Controlling Document	Declaration of Trust	Prospectus
Fees	Typically lower than mutual fund equivalents due to reduced operational expenses; are generally calculated on a tiered schedule but can be a flat asset-based fee; fee can be negotiable per client	Typically higher than CIT equivalents due to additional operational expenses; fees are outlined in a fund's prospectus and are a flat asset-based fee; cannot be negotiated per client, must follow prospectus
Multiple Share Classes Available	Sometimes	Usually
Availability	Qualified Plans as defined by IRS, only institutional clients	To investors as defined in the prospectus, can be retail or institutional clients
Responsible Party	Trustee	Fund Board
Composition	Pooled assets	Pooled assets
Valuation	Usually daily, required to be at least quarterly; NAV can be gross or net of management fees depending on trust	Daily, NAV is net of investment management fees
Liquidity	Follows valuation methodology	Follows valuation methodology
Performance Information	Available from trustee/investment manager; history is generally more limited than equivalent mutual fund	Available from third parties such as Morningstar
Clearing	Most are NSCC traded	NSCC traded
Revenue Sharing Offered	Sometimes	Usually

TARGET DATE FUND RFP EXPENSES

Proposals received which met the criteria of the ORP Plan:

Series	Expense Ratio
Vanguard Instl Target Retirement (Current Series for ORP and 403b)	0.10%
Vanguard Target Retirement Trust Plus (Recommended for ORP assets)	0.06%
Schwab Indexed Retirement Trust I (SIRT)	0.07%
Northern Trust Focus Funds K	0.07%
State Street Target Retirement NL W	0.10%
Morningstar Lifetime Mod Index N1	0.16%
<i>Passive TDF Category Average *</i>	<i>0.29%-0.34%</i>

**The TDF Category Average are only taking institutional share classes into account. This data is based on most recent prospectus net expense ratio as of 4.26.16*

***All series listed above have 0.00% revenue share*

CIT RECOMMENDATIONS

- Recommendation is to transition all ORP Target Date Fund assets to the Vanguard Collective Investment Trust (CIT) structure on both the TIAA and Fidelity platforms
 - Total assets in the ORP Target Date Funds as of 6/30/17: \$1,095,119,294
 - Investment expense reduction achieved by transitioning from mutual funds to Collective Investment Trust (CIT): 4 bps or 0.040%
 - Projected first year investment cost savings based on assets as of 6/30/17: \$438,047
- Potential implementation date of 1/1/18, based on TIAA and Fidelity administrative procedures
- This recommendation to utilize Collective Investment Trust (CIT) is specific to the ORP due to 403(b) plan regulations that do not allow CIT investment structures to be offered



Investment Disclosure Information

VANGUARD INST TARGET RETIREMENT

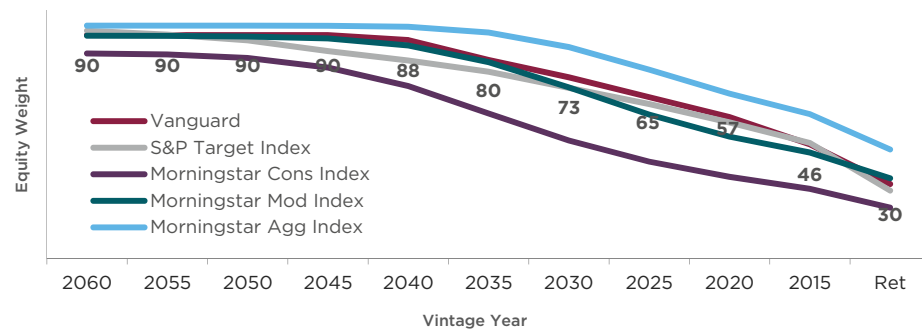
Period Ending 6.30.17 | Q2 17

Investor Assumptions/Glidepath Methodology

Glidepath Management	• Through retirement (assumed at age 65) ending 7 years after retirement**
Assumed Investor Savings Rate:	• Contributions start at 5% at age 25 and increase to 10% at age 65. Also includes a 50% employer match up to 3% of salary.
Assumed Investor Income Growth Rate	• 1.1% annual salary growth
Income Replacement	• The portfolios are designed to provide withdrawals in retirement based on multiples of an investor's age 65 salary.
Assumed Accumulated Savings at Retirement	• N/A
Life Expectancy	• Through age 95
Asset Allocation Flexibility	• Strict targets with narrow ranges.
Other Assumptions	• Glidepath was tested against 10,000 potential lifetime return outcomes

Vanguard uses a proprietary capital markets modeling tool to statistically analyze historical data, including interest rates, inflation, and other risk factors for global equities, fixed income, and commodity markets. This tool is used to generate forward-looking distributions of expected returns. Then, by combining these figures with their investor assumptions, Vanguard constructs target portfolios with asset allocations that seek to provide the highest probability of a successful outcome (not outliving retirement savings).

Target Asset Allocation Glidepath per Vintage Year



Investment Profile

% Open Architecture:	0%	Active/Passive:	Passive
Inception Date:	6-26-2015	% Active:	0%
Net Assets \$MM:	\$114,960	Manager Tenure:	2.08 years (longest)
Manager Name:	Team	Expense Range:	0.09-0.10%
Avg # of Holdings:	5	Investment Structure:	Mutual Fund

Dedicated Asset Class Granularity/Diversification

Emerging Market Equities	No
International/Global Debt	Yes
Inflation-Protected Securities	Yes
High Yield Fixed Income	No
Real Estate	No
Commodities	No

The Vanguard Target Retirement funds allocate to five broad index funds that provide comprehensive exposure to U.S. and non-U.S. equity and bond markets. Using index funds allows Vanguard to provide investment diversification at a low cost while also producing returns in line with equity and fixed income markets. Through its five index funds, the strategies gain exposure to over 25 sub-asset classes, capturing over 90% of the world's investable market.

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*Due to lack of track record, performance data for the Vanguard Target Retirement series is being used for the Vanguard Inst Target Retirement series.

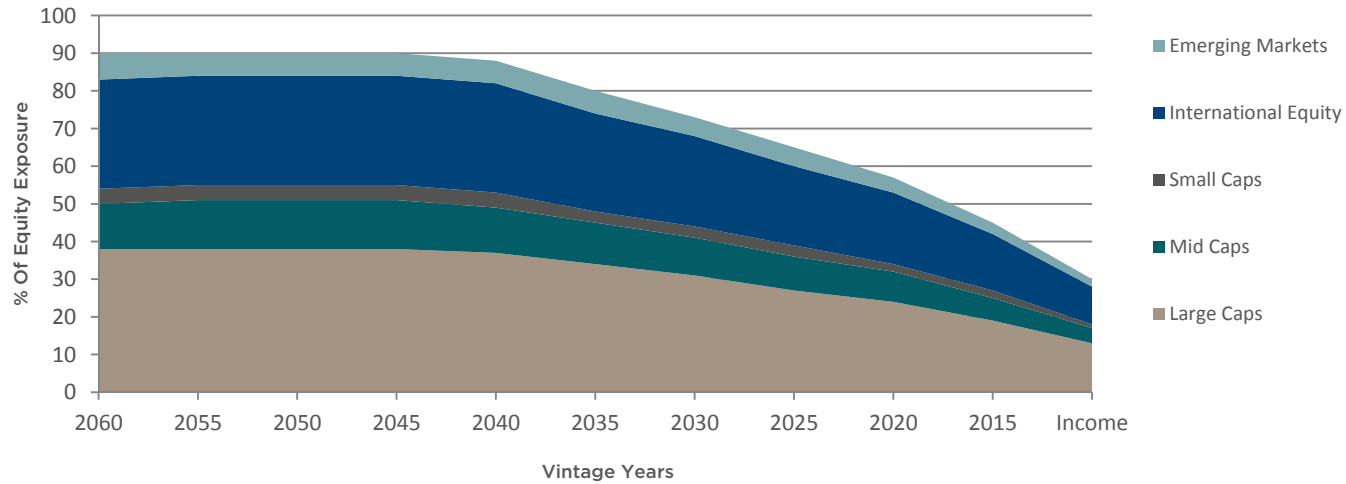
**Post 7 years becomes a static portfolio, rolled into the Retirement Income Fund

VANGUARD INST TARGET RETIREMENT

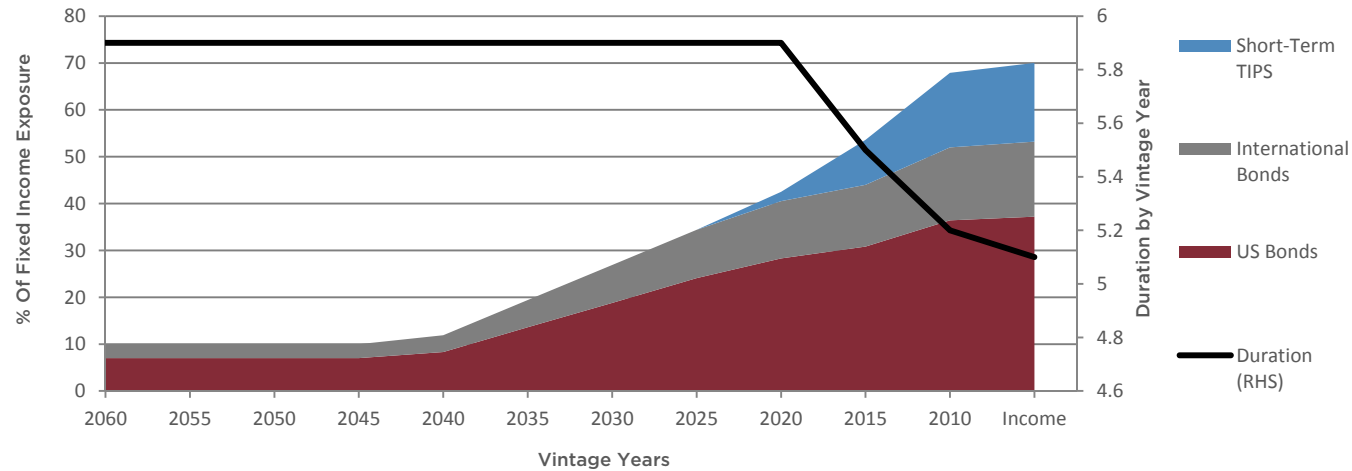
Period Ending 6.30.17 | Q2 17

Material Changes to the Series

Equity Exposure



Fixed Income Exposure



*All information provided by the asset manager, as of 9/30/16. Asset allocations shown are static in nature and do not incorporate any tactical views implemented by the manager.

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VANGUARD TARGET RETIREMENT TRUST

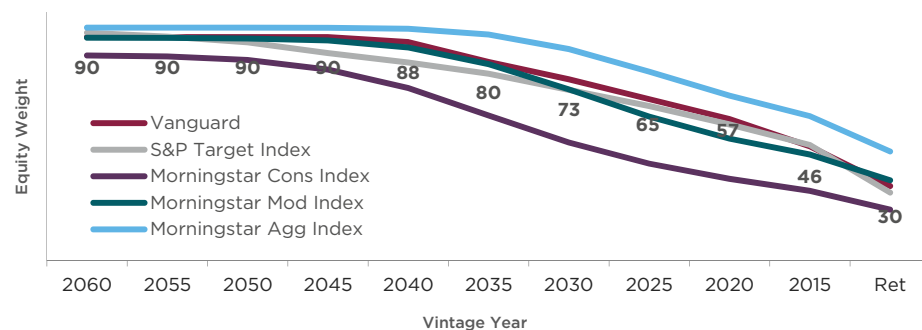
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Target Asset Allocation Glidepath per Vintage Year



Investment Profile

% Open Architecture:	0%	Active/Passive:	Passive
Inception Date:	6-22-2007	% Active:	0%
Net Assets \$MM:	\$163,459	Manager Tenure:	5.50 years (longest)
Manager Name:	Team	Expense Range:	0.05% - 0.40%
Avg # of Holdings:	5	Investment Structure:	CIT

Dedicated Asset Class Granularity/Diversification

Emerging Market Equities	No
International/Global Debt	Yes
Inflation-Protected Securities	Yes
High Yield Fixed Income	No
Real Estate	No
Commodities	No

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*Net Assets \$MM: as of 9/30/16

VANGUARD TARGET RETIREMENT TRUST

Period Ending 6.30.17 | Q2 17

Material Changes to the Series

2006:

- Increased minimum equity allocation from 20% to 30%
- Added Emerging Markets Equity

Rationale:

- Participant behavior showed lower savings rate
- Decreased costs within the EM space led to increased liquidity

2010:

- Collapsed three international equity index funds (Europe, Pacific, and Emerging Markets) with Vanguard Total International Stock Index

Rationale:

- More cost-effective way to gain international exposure

2013:

- Replaced the broad TIPs fund with a short-term TIPs allocation
- Eliminated the Prime Money Market fund
- Added a 20% International Bond Index Allocation

Rationale:

- Short-Term TIPs provide better inflation exposure with lower interest rate risk
- Deemed to be an unnecessary asset class
- Dedicated exposure to move more in line with the Global fixed income Market Cap; better FI diversification

2015:

- Increased international stock allocation from 30% to 40%
- Increased International bond allocation from 20% to 30%

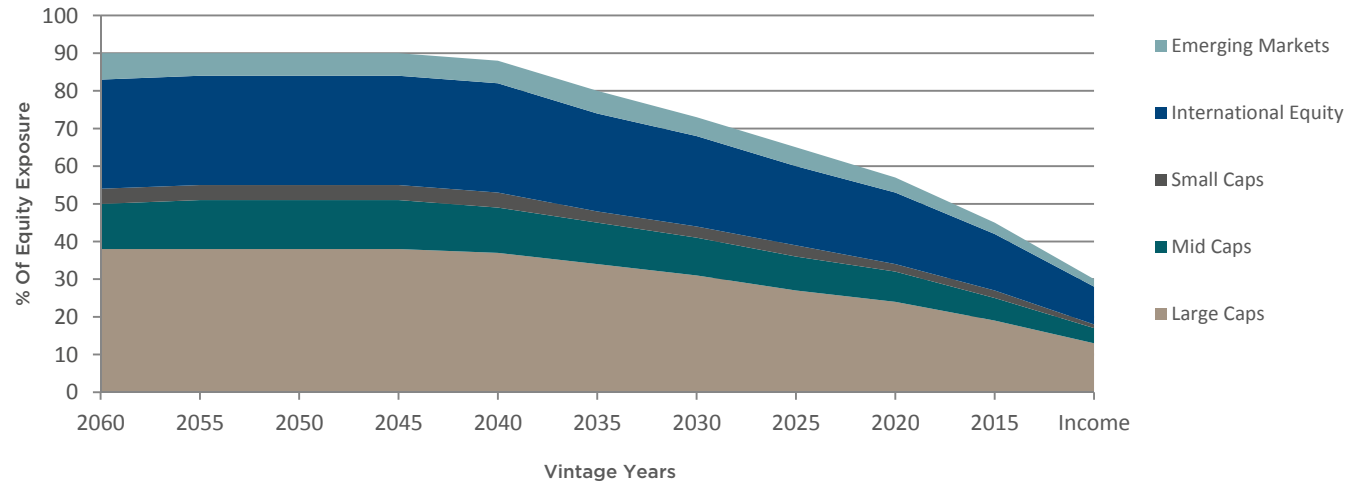
Rationale:

- Move to be more in line with the Global Market Cap

*All information provided by the asset manager, as of 9/30/16. Asset allocations shown are static in nature and do not incorporate any tactical views implemented by the manager.

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Equity Exposure



Fixed Income Exposure

