Vanguard Target Retirement Target-Date Fund Series Report

**Morningstar Analyst Rating**

<table>
<thead>
<tr>
<th>Key Features</th>
<th>Rating:</th>
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</thead>
<tbody>
<tr>
<td>Asset-Weighted Expense Ratio</td>
<td>0.12%</td>
</tr>
<tr>
<td>Active/Passive Exposure</td>
<td>0% Active</td>
</tr>
<tr>
<td>Open/Closed Architecture</td>
<td>100% Closed</td>
</tr>
<tr>
<td>Total Net Assets (SM)</td>
<td>386,175</td>
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</tbody>
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**Executive Summary**

Vanguard takes a pragmatic approach to its glide path design, focusing on low-cost exposure to multiple asset classes as well as lower risk levels as investors approach and pass the retirement date. With an emphasis on index funds over actively managed offerings, the firm reduces the risks of manager turnover, high trading costs, and capacity constraints. The committee has seen recent changes because of moves to increase foreign stock and bond stakes in 2015, putting it near the leading edge of its peers.

**Performance**

This series’ low-cost model helps it maintain a performance advantage over the long haul. In addition to keeping costs in check, the series’ high-quality bond and broadly diversified stock portfolio help it come out ahead of the pack on a risk-adjusted basis.

**Price**

Vanguard’s unsparing dedication to low costs makes this line-up one of the least expensive options around, allowing more of its gains to compound year in and year out.

**People**

Vanguard’s Strategic Asset Allocation Committee is responsible for the series’ glide-path construction, asset allocation, and underlying fund selection. More than a dozen members sit on the committee, including Vanguard’s chief economist, chief investment officer, head of fixed income, and head of quantitative equity. The committee has seen recent changes because of movement in Vanguard’s executive suite, but it remains strong.

**Parent**

Vanguard has written the book on low-cost, index-oriented investing. The firm’s for-profit structure ensures that low fees and investor interests remain paramount. The fund’s board does not have an independent chairman but has acted consistently in shareholders’ interests. Vanguard has a clean regulatory record.

**Morningstar Analyst Rating**

Morningstar evaluates mutual funds based on five key pillars, which its analysts believe lead to funds that are more likely to outperform over the long term on a risk-adjusted basis.

**Morningstar Opinion**

Heather Larsen

02-02-2018

The Vanguard Target Retirement series has made incremental adjustments to the asset-allocation glide path over time, but the goal to provide investors with a low-cost, diversified portfolio remains unchanged. Vanguard’s approach is founded on a wealth of industry research and data on participant behavior, and it is boosted by the firm’s success as a low-cost index fund provider. This straightforward series continues to be a top pick and earns a Morningstar Analyst Rating of Gold.

The series’ overall stock and bond asset allocation has been in place since mid-2006. The glide path begins with a 90% equity exposure until the investor hits 25 years to retirement. From there, equity exposure gradually decreases until seven years after retirement, when the glide path plateaus to a 30% stake in equities. The equity/bond breakdown hews closely to the industry average, but subasset allocation is more nuanced. In 2015, Vanguard increased the series’ international-equity exposure to 40% from 30% and its international-bond exposure to 30% from 20%. The typical competitor allocates about one third of equities to non-U.S. stocks and 15% of fixed income to non-U.S. bonds, making this one the most internationally diverse series in the industry.

The firm’s research shows that investing closer to global market-cap weightings provides greater diversification and lower average volatility. Still, the series doesn’t match the roughly 50% U.S./50% non-U.S. equity allocation (and 40% U.S./60% non-U.S. bond allocation) that marks a neutral global allocation. Management has stopped short of going that far for now, noting that investors still have a preference for a home-country bias for their investment portfolios and incremental increases are not without additional costs.

Management implements the strategy using a lean set of well-regarded index funds. Just two funds, which comprise the full market-cap and style spectrum of U.S. and non-U.S. markets (including emerging countries), cover the equity side. Two funds cover domestic and international bonds across all funds in the series, and a short-term inflation-protected securities fund comes into play five years prior to retirement.

Greater optimism surrounding the global economy’s prospects helped drive this series results in 2017. Vanguard Total International Stock Market Index led the way, returning 27% that year. That boost helped overcome tepid results from the series’ U.S. and international fixed-income and inflation-protection components. With the exception of the series’ retirement income and 2050 funds, each vintage landed in the top half of its respective peer group in 2017. The series’ trailing three-, five-, and 10-year results through year-end 2017 were also competitive. While market movements largely drive results of this index-based series, its at-cost pricing provides an enduring edge, helping it remain a sound long-term option for investors.
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The date shown next to the Morningstar Analyst Rating is the date on which the Morningstar Manager Research Analyst assigned or reaffirmed the current rating for the target-date fund series based on the analyst’s latest review and research report for the target-date fund series.

The Five (5) Pillars

Morningstar has identified five key areas that we believe are crucial to predicting the future success of funds: People, Parent, Process, Performance, and Price. Each pillar is evaluated when assessing a fund as well as the interaction between the pillars, which we believe is crucial to understanding a fund’s overall merit.

People

The overall quality of a target-date fund series’ investment team is a significant key to its ability to deliver superior performance relative to its benchmark and/or peers. Evaluating a target-date fund series’ investment team requires that analysts assess several relevant issues including how key decisions are made.

Parent

We believe the parent organization is of utmost importance in evaluating a target-date fund series. The target-date fund series’ management set the tone for key elements of our evaluation, including capacity management, risk management, recruitment and retention of talent, and incentive pay. Beyond these operational areas, we prefer firms that have a culture of stewardship and put investors first to those that are too heavily weighted to salesmanship.

Process

We look for target-date fund series with a performance objective and investment process (for both security selection and portfolio construction) that is sensible, clearly defined, and repeatable. In addition, the portfolio should be constructed in a manner that is consistent with the investment process and performance objectives.
Performance
We do not believe past performance is necessarily predictive of future results, and this factor accordingly receives a relatively small weighting in our evaluation process. In particular, we strive not to anchor on short-term performance. However, we do believe that the evaluation of long-term return and risk patterns is vital to determining if a target-date fund series is delivering to our expectations.

Price
To reflect actual investor experience, price is evaluated within the context of the relevant market or cross-border region—for example, the United States, Australia, Canada, or Europe. In recognition of differences in scale and distribution costs in various markets, the level at which a target-date fund series is penalized for high fees or rewarded for low fees can vary with region. In Europe, for example, target-date fund series are penalized if they land in the most expensive quintile of their Morningstar category and are rewarded if they land in the cheapest quintile. The assessment is made using prospectus expense ratios, but in the case of target-date fund series with performance fees, expenses are evaluated excluding any performance fees and then the structure of the performance fee is evaluated separately.

Morningstar Analyst Ratings
Morningstar Analyst Ratings are assigned on a five-tier scale running from Gold to Negative. The top three ratings, Gold, Silver, and Bronze, all indicate that our analysts think highly of a target-date fund series; the difference between them corresponds to differences in the level of analyst conviction in a target-date fund series’ ability to outperform its benchmark and peers through time, within the context of the level of risk taken.

Gold
Represents target-date fund series that our analysts has the highest-conviction in for that given investment mandate. By giving a target-date fund series a Gold rating, we are expressing an expectation that it will outperform its relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term (defined as a full market cycle or at least five years). To earn a Gold rating, a target-date fund series must distinguish itself across the five pillars that are the basis for our analysis.

Silver
Represents target-date fund series our analyst has high-conviction in, but not in all of the five pillars. With those fundamental strengths, we expect these target-date fund series will outperform their relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term (defined as a full market cycle or at least five years).

Bronze
Represents target-date fund series that have advantages that clearly outweigh any disadvantages across the pillars, giving analyst the conviction to award them a positive rating. We expect these target-date fund series to beat their relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term (defined as a full market cycle or at least five years).

Neutral
Represents target-date fund series in which our analysts don’t have a strong positive or negative conviction. In our judgment, these target-date fund series are not likely to deliver standout returns, but they aren’t likely to seriously underperform their relevant performance benchmark and/or peer group either.

Negative
Represents target-date fund series that possess at least one flaw that our analysts believe is likely to significantly hamper future performance, such as high fees or an unstable management team. Because of these faults, we believe these target-date fund series are inferior to most competitors and will likely underperform their relevant performance benchmark and/or peer group, within the context of the level of risk taken, over a full market cycle.

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Under Review
This designation means that a change that occurred with the target-date fund series or at the target-date fund series company requires further review to determine the impact on the rating.

Not Ratable
This designation is used only where we are providing a Report on a new strategy or on a strategy where there are no relevant comparators, but where investors require information as to suitability.

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