

# T. Rowe Price Retirement Target-Date Fund Series Report

## Morningstar Analyst Rating



### Key Features

|                              |             |
|------------------------------|-------------|
| Asset-Weighted Expense Ratio | 0.75%       |
| Active/Passive Exposure      | 86% Active  |
| Open/Closed Architecture     | 100% Closed |
| Total Net Assets (\$M)       | 160,569     |

## Executive Summary

### Rating:

#### Process

#### Positive

Management's research suggests investors spend more money in retirement than they anticipate and risk outliving their savings. As a result, the funds' glide path has a higher equity allocation than many of its rivals', both before and during retirement. The majority of the underlying funds come recommended via their Morningstar Analyst Ratings.

#### Price

#### Neutral

This series' funds aren't as cheap as peers that invest in passively managed options, but they are reasonably priced, especially compared with series that invest predominantly in active strategies.

#### Performance

#### Positive

The series' three-, five-, and 10-year returns through June 2017 handily outpaced the majority of its peers'. But the funds' relatively heavy equity stake can lead to greater short-term volatility than many rivals. For example, the funds lost more than their average competitor during 2008's market slide and rebounded more sharply than most during 2009's rally.

#### People

#### Positive

T. Rowe Price's asset-allocation committee makes the strategic decisions for the funds, while firm veteran Jerome Clark leads a group of associate managers who run the funds' day-to-day operations. Longtime team member Wyatt Lee joined the manager roster in August 2015. The underlying funds largely feature solid, proven managers.

#### Parent

#### Positive

T. Rowe Price's corporate culture and regulatory history are impressive. The firm stresses long-term investing, high-quality securities, and sensible risk management. T. Rowe also does a good job describing its target-date funds and communicating with investors. Manager transitions are typically planned well in advance.

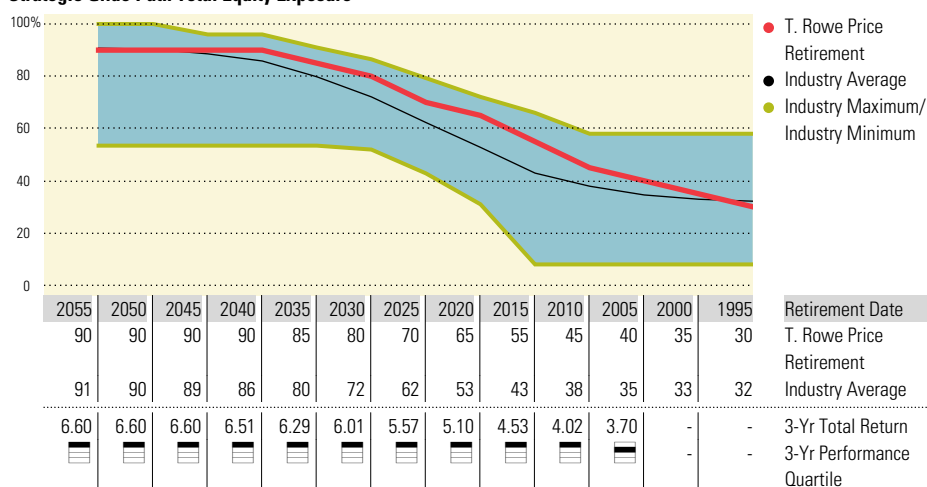
## Morningstar Analyst Rating

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.

### Analyst Rating Spectrum

★ Gold ★ Silver ★ Bronze Neutral Negative

## Strategic Glide Path Total Equity Exposure



## Available Funds

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| 2005 Fund | 2020 Fund | 2035 Fund | 2050 Fund |
| 2010 Fund | 2025 Fund | 2040 Fund | 2055 Fund |
| 2015 Fund | 2030 Fund | 2045 Fund | 2060 Fund |

## Morningstar Opinion

Solid underlying funds and a steady asset-allocation approach give the T. Rowe Price Retirement series a discernible edge over most peers, earning a Morningstar Analyst Rating of Silver.

This series' advantages begin with its consistency. Jerome Clark has served as the series' lead manager since its 2002 inception, and comanager Wyatt Lee joined the roster in August 2015. The firm has invested heavily in its asset-allocation group and plans to continue growing the team. The asset-allocation team currently stands at more than 30 members.

With the risk of outliving one's assets in mind, the group designed a glide path that looks more aggressive than the typical competitor's. Except for the early savings years and about 20 years after retirement, the series keeps a higher equity weighting than the industry norm throughout the glide path.

Within the portfolios, the series' lineup of skippers remains impressive. We rate 15 of the series' 18 underlying T. Rowe Price funds; 13 are Morningstar Medalists as of this writing, reflecting analysts' conviction that they will outperform peers over the long haul. However, the series' managers have revisited the bond exposure and will add four relatively new fixed-income funds—not currently covered by Morningstar analysts—to the underlying mix beginning in October 2017. As part of the change, they will reduce exposure to an intermediate-term bond fund to make way

## Leo Acheson

Analyst - Fund of Fund Strategies 08-03-2017

for a nontraditional bond fund, and they will swap an unhedged international-bond fund for a one that hedges currency exposure. The former fund's inception was in January 2015, and the latter has yet to launch. Ideally, these funds would have longer track records before joining the series. Meanwhile, the series' exposure to high-yield bonds, emerging-markets debt, bank loans, and long-term Treasuries will vary as the investor ages. (Bank-loan and long-term Treasury funds also represent new fund additions). T. Rowe Price expects these changes to improve returns and lower volatility over the long haul.

These changes don't stem from performance concerns, as the series has turned in excellent results, thanks largely to its supporting managers. All vintages outperformed their typical rivals in the trailing three-, five-, and 10-year periods through June 2017. The series' heavy stock weighting and the group's modest tactical tilts also boosted returns.

Strong returns have attracted investors: The team accumulated more than \$200 billion in target-date assets as of June 2017. Four of the series' five small- and mid-cap funds are closed to new investors, so continued growth could create capacity constraints. To address the issue, the series has the option to invest in small- and mid-cap index funds. The series' access to top-tier active funds has been one of its key strengths, so we will keep an eye on this development.

# T. Rowe Price Retirement Target-Date Fund Series Report

## Process: Approach

Rating: Positive

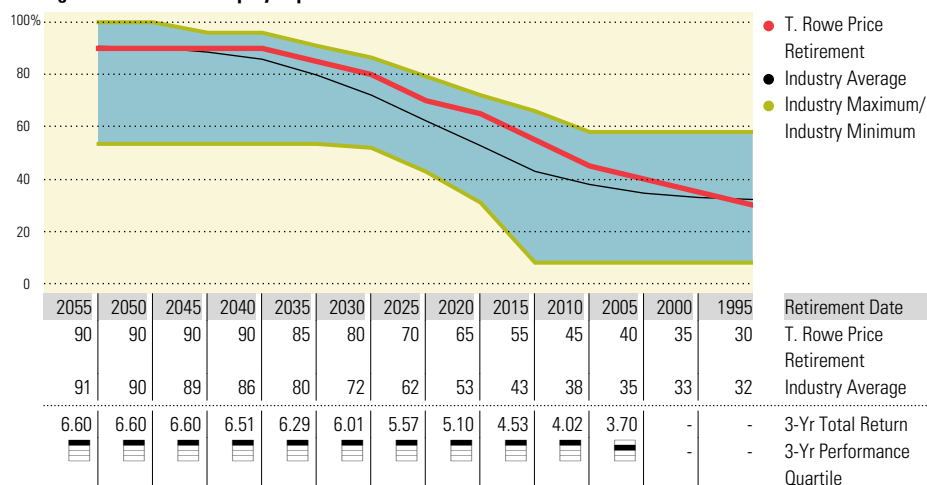
In conducting extensive in-house studies, T. Rowe Price found that 401(k) plan participants' average savings rate was less than half the recommended rate, while the average withdrawal rate was more than twice the recommended rate. T. Rowe concluded that retirees' biggest risk is outliving their savings. As a result, it emphasizes sizable exposure to stocks to boost asset growth.

The series has a relatively aggressive asset-allocation glide path. It begins with a 90% equity/10% fixed-income portfolio when investors are the furthest from retirement. That split roughly matches the typical peer 40 years from retirement, but the series' funds maintain a higher equity stake than most rivals both leading up to and during retirement. The funds slowly transition from stocks to bonds at the end of each quarter until they reach the target allocation of 55% equity at retirement. The shifting doesn't stop at retirement, because T. Rowe Price doesn't view the retirement year as a distinct year in the course of an individual's retirement planning. Even after investors arrive at the 55% equity/45% fixed-income allocation at the target retirement date, the quarterly shifts continue for 30 more years until the equity stake plateaus at 20%.

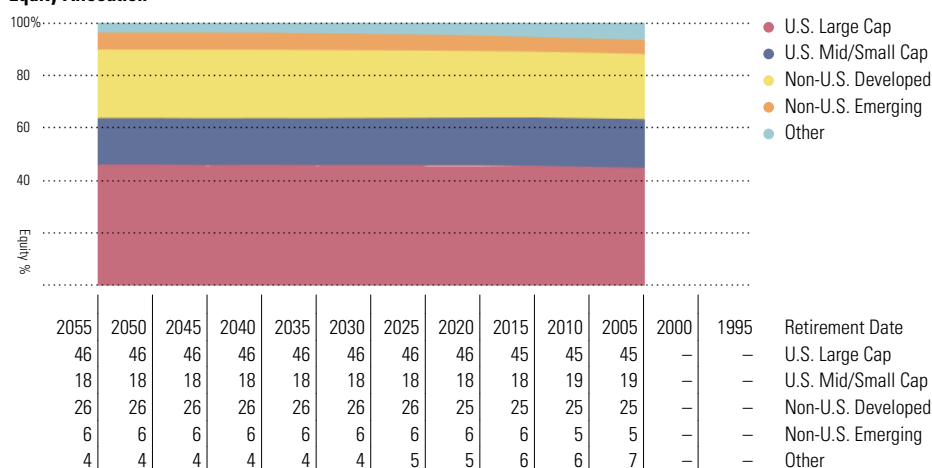
Management has modest leeway to adjust the funds' stock/bond split (up to 5 percentage points) and make sub-asset-class tilts, such as growth versus value stocks or developed-markets versus emerging-markets stocks. A committee of veteran T. Rowe Price managers uses qualitative inputs to determine which asset classes appear to have the most favorable return prospects for the next six to 18 months.

The asset-allocation approach has remained consistent and is supported by sound reasoning, earning the series a Positive Process rating. However, the team could enhance its method for selecting and overseeing underlying managers. The group picked underlying funds based on their mandates and won't swap out strategies unless their approaches or styles change. In fact, the series has not fired a manager since its 2002 inception. Instead, it relies on various steering committees at the firm to provide oversight. Moreover, although the series' management team ensures that the underlying funds provide style-pure exposure, it has not run additional analytics, such as correlation of excess returns, to assess how the funds complement one another.

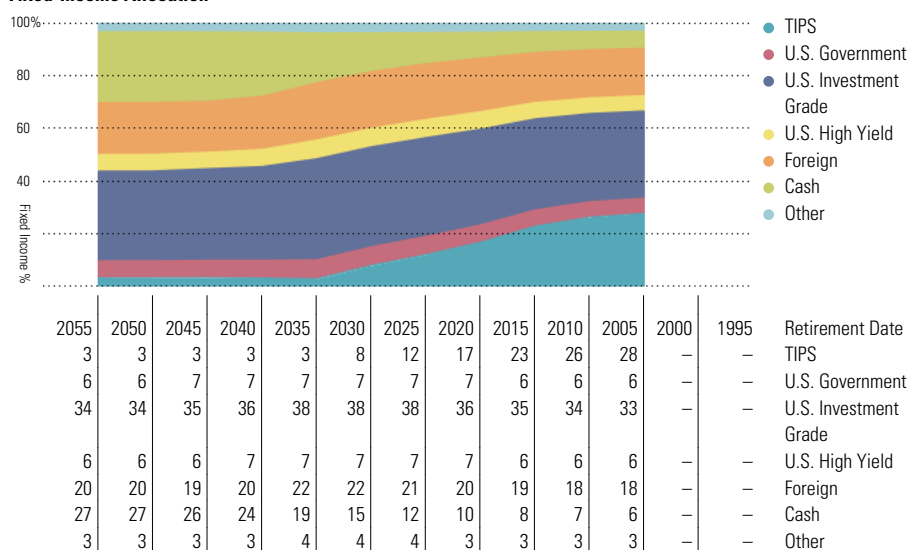
### Strategic Glide Path Total Equity Exposure



### Equity Allocation



### Fixed-Income Allocation



# T. Rowe Price Retirement Target-Date Fund Series Report

## Process: Portfolio

This series and its underlying funds benefit from T. Rowe Price's strong investment culture. Long manager tenures and an emphasis on high-quality securities are common. The funds used in the series generally have solid long-term records: Of the 17 underlying funds with 10 years of history through June 2017 (excluding the money market fund), all but two outperformed their Morningstar Category average.

We cover 15 of the 18 underlying funds, of which 13 received medals as of this report's publishing date. T. Rowe Price International Stock and T. Rowe Price Small-Cap Stock receive Neutral ratings because of manager turnover, but those funds in aggregate take less than 10% of the series' assets. The firm's portfolio manager changes are usually well-planned and allow for slow transitions to minimize disruption, though T. Rowe Price Growth Stock's manager unexpectedly departed in early 2014. Nonetheless, the

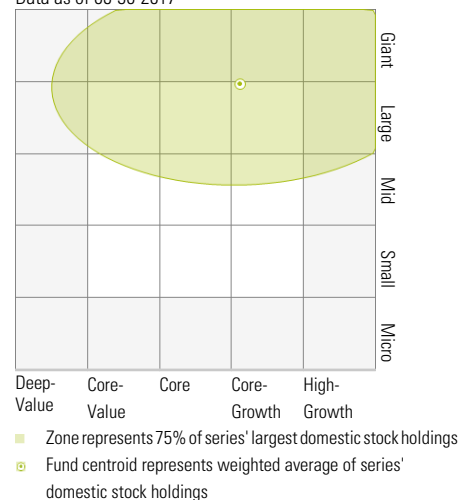
**Rating: Positive**

new manager has already settled into his role, and we upgraded the fund's rating to Bronze in May 2017. We also upgraded T. Rowe Price International Value Equity to Bronze in late 2016.

The underlying funds cover a wide range of asset classes. On the equity side, the series keeps a 70% U.S./30% international split (including a dedicated emerging-markets stock fund) that's similar to the target-date industry norm. A core bond fund anchors the fixed-income exposure. More-specialized funds, such as an emerging-markets debt strategy and a high-yield bond fund, fill out the remainder of the bond stake. In late 2017, T. Rowe Price plans on adding small stakes in four new fixed-income funds—a floating rate fund, a nontraditional bond fund, a long-term Treasury fund, and a currency-hedged international-bond fund.

### Series Holding-based Style Map - Equity

Data as of 06-30-2017



### Top Investments as of 06-30-2017

|                                      |                           | % of Assets | 3-Yr Return % | 3-Yr % Rank in Cat | 3-Yr Std Dev | 5-Yr Return % | 5-Yr % Rank in Cat | Analyst Rating | Star Rating |
|--------------------------------------|---------------------------|-------------|---------------|--------------------|--------------|---------------|--------------------|----------------|-------------|
| T. Rowe Price New Income             | Intermediate-Term Bond    | 16.66       | 2.26          | 47                 | 2.85         | 2.34          | 54                 | Bronze         | ★★★         |
| T. Rowe Price Equity Index 500       | Large Blend               | 14.29       | 9.34          | 15                 | 10.34        | 14.33         | 29                 | Bronze         | ★★★★        |
| T. Rowe Price Growth Stock           | Large Growth              | 12.74       | 12.48         | 6                  | 12.30        | 16.40         | 8                  | Bronze         | ★★★★★       |
| T. Rowe Price Value                  | Large Value               | 10.90       | 7.11          | 35                 | 10.70        | 15.40         | 4                  | Bronze         | ★★★★        |
| T. Rowe Price Overseas Stock         | Foreign Large Blend       | 6.63        | 2.14          | 26                 | 11.30        | 8.88          | 22                 | Bronze         | ★★★★        |
| T. Rowe Price International Value Eq | Foreign Large Value       | 6.36        | -0.31         | 54                 | 11.39        | 7.62          | 48                 | Bronze         | ★★★         |
| T. Rowe Price International Stock    | Foreign Large Growth      | 6.09        | 3.94          | 17                 | 12.12        | 8.90          | 43                 | Neutral        | ★★★         |
| T. Rowe Price Ltd Dur Infl Focus Bd  | Inflation-Protected Bond  | 3.96        | -0.29         | 70                 | 1.86         | 0.04          | 38                 | —              | ★★          |
| T. Rowe Price Mid-Cap Value          | Mid-Cap Value             | 2.75        | 7.68          | 21                 | 10.96        | 14.83         | 21                 | Gold           | ★★★★★       |
| T. Rowe Price Emerging Markets Stock | Diversified Emerging Mkts | 2.72        | 4.04          | 6                  | 15.68        | 5.80          | 19                 | Bronze         | ★★★★        |
| Total # Holdings                     |                           |             |               |                    |              |               |                    |                | 19          |
| % Portfolio in Top 10 Holdings       |                           |             |               |                    |              |               |                    |                | 83.10       |
| Overall Average Morningstar Rating   |                           |             |               |                    |              |               |                    |                | 3.80        |

## Price

The average expense ratio across the target-date industry has declined as series continue to cut costs and new entrants to the space increasingly favor inexpensive underlying index strategies. In fact, roughly half of the industry's 60 or so target-date series use exclusively passive underlying strategies or blend active and passive managers. As a result, series that use primarily active skippers, such as the T. Rowe Price Retirement funds, look less competitive from a fee standpoint.

**Rating: Neutral**

The no-load share classes of the T. Rowe Price Retirement funds, which hold about 80% of the series' assets, carry reasonable price tags for primarily actively managed target-date funds, but their fees now look about average versus the broad industry. The Retirement and Advisor share classes look pricier. The series receives a Neutral Price rating.

### Asset-Weighted Cost vs. Industry Average

|                          |       |
|--------------------------|-------|
| T. Rowe Price Retirement | 0.75% |
| Industry Average         | 0.72% |

| Avg Cost Per Share Class | Exp Ratio (%) | Net Assets (\$M) |
|--------------------------|---------------|------------------|
| No Load                  | 0.70%         | 121,438          |
| Adv                      | 0.95%         | 16,043           |
| Inst                     | 0.55%         | 12,196           |
| Retirement               | 1.20%         | 10,893           |
|                          | —             | —                |

# T. Rowe Price Retirement Target-Date Fund Series Report

## Performance

**Rating: Positive**

The series' above-average equity allocation shapes its performance. In the immediate years leading up to retirement, it keeps roughly 10 percentage points more in equities than the industry norm and remains above-average throughout most of retirement. Thus, the strength of the equity market can make a big difference in the series' performance pattern. For instance, during 2008's financial crisis, nearly all of the series' funds trailed their peer group averages.

The bold equity allocation has paid off as the market has risen since 2008: The series' funds averaged a top-quartile ranking in their peer groups in five of the

past eight calendar years. Even during 2011's tumultuous market, the majority of the funds in the series still surpassed their typical peer. That consistent record burnishes the series' long-term results: Among the funds with 10-year records through June 2017, every fund ranks at or near the top of its respective peer group.

The series' above-average equity allocation has resulted in above-average volatility, as measured by standard deviation. But the funds' gains have more than compensated for the bumpy ride. Most of the funds' risk-adjusted returns in the trailing five- and 10-year

periods rank in the top quartile of their categories, helping the series earn a Positive Performance rating.

A solid cast of underlying funds further aids the series' overall performance. The underlying funds show a similar level of consistency in their calendar-year rankings as the series' target-date funds, with the majority outperforming their typical peer each year. Twelve of the 18 underlying funds in the series with Morningstar Ratings earn 4 or 5 stars, reflecting their strong long-term, risk-adjusted results.

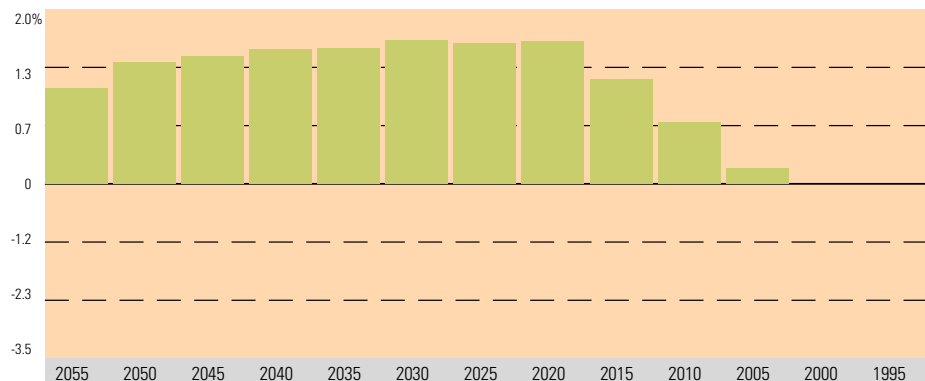
### Target-Date Fund Performance as of 06-30-2017

|                               | YTD<br>Return % | YTD %<br>Rank in Cat | 2016<br>Return % | 2015<br>Return % | 3-Yr<br>Return % | 3-Yr %<br>Rank in Cat | 3-Yr<br>Std Dev | 5-Yr<br>Return % | 5-Yr %<br>Rank in Cat | Star<br>Rating |
|-------------------------------|-----------------|----------------------|------------------|------------------|------------------|-----------------------|-----------------|------------------|-----------------------|----------------|
| T. Rowe Price Retirement 2005 | 5.8             | 19                   | 6.7              | -0.7             | 3.7              | 33                    | 5.0             | 6.4              | 34                    | ★★★★           |
| T. Rowe Price Retirement 2010 | 6.2             | 11                   | 7.1              | -0.8             | 4.0              | 12                    | 5.5             | 7.1              | 5                     | ★★★★           |
| T. Rowe Price Retirement 2015 | 7.2             | 7                    | 7.3              | -0.6             | 4.5              | 6                     | 6.3             | 8.2              | 1                     | ★★★★★          |
| T. Rowe Price Retirement 2020 | 8.5             | 1                    | 7.4              | -0.3             | 5.1              | 2                     | 7.2             | 9.3              | 1                     | ★★★★★          |
| T. Rowe Price Retirement 2025 | 9.6             | 1                    | 7.5              | -0.2             | 5.6              | 1                     | 7.9             | 10.2             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2030 | 10.6            | 1                    | 7.7              | 0.0              | 6.0              | 3                     | 8.6             | 11.0             | 3                     | ★★★★★          |
| T. Rowe Price Retirement 2035 | 11.4            | 1                    | 7.6              | 0.1              | 6.3              | 4                     | 9.2             | 11.6             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2040 | 11.9            | 1                    | 7.6              | 0.2              | 6.5              | 3                     | 9.6             | 11.9             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2045 | 12.2            | 2                    | 7.7              | 0.2              | 6.6              | 3                     | 9.6             | 12.0             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2050 | 12.1            | 3                    | 7.7              | 0.2              | 6.6              | 3                     | 9.6             | 12.0             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2055 | 12.1            | 4                    | 7.7              | 0.2              | 6.6              | 3                     | 9.7             | 12.0             | 3                     | ★★★★★          |
| T. Rowe Price Retirement 2060 | 12.0            | 4                    | 7.6              | 0.2              | 6.6              | 1                     | 9.7             | —                | —                     | ★★★★★          |

For peer comparisons, 1 = highest return or lowest risk, 100 = lowest return or highest risk.

### Target Date Funds Risk-Adjusted Returns +/- Category Average

Data as of 06-30-2017

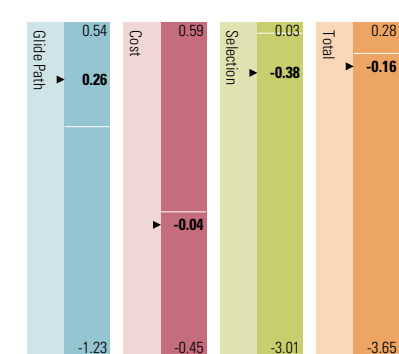


- Risk-adjusted return exceeding category average
- Risk-adjusted return trailing category average
- Category Average

Data is based on longest available performance history: three or five years. For series with more than 18 months of history, but less than three years of history, the risk-adjusted return of the appropriate Morningstar Lifetime Moderate Index is used to create a 3-year history.

### Attribution Analysis

Trailing 3-Year Returns as of 06-30-2017



T. Rowe Price Retirement

|              |       |
|--------------|-------|
| ● Glide Path | 0.26  |
| ● Cost       | -0.04 |
| ● Selection  | -0.38 |
| ● Total      | -0.16 |

# T. Rowe Price Retirement Target-Date Fund Series Report

## People

The experience and tenure of T. Rowe Price's asset-allocation group and the strength of the underlying funds lead to a Positive People rating. Jerome Clark, a firm veteran, has managed the series since its 2002 inception. Wyatt Lee, a longtime associate to Clark, officially joined the manager roster in August 2015. Kim DeDominicis assists Clark and Lee.

The asset-allocation group currently stands at more than 30 investment professionals. The team has made a number of hires lately, making it one of the larger asset-allocation groups. The size of the team reflects a strong commitment to the asset-allocation space.

Richard Whitney, who formerly headed up asset allocation at the firm, retired at the end of 2016. Charles Shriver and David Giroux replaced Whitney as co-chairs of T. Rowe Price's 12-member asset-allocation committee in October 2016. The committee guides the series' modest tactical decisions and has a suc-

**Rating: Positive**

cessful long-term record on the firm's asset-allocation products. The group's membership includes leaders from the firm's equity and fixed-income funds. Sebastien Page, a PIMCO transplant who joined T. Rowe in mid-2015, replaced Whitney as the head of asset-allocation strategies.

The underlying fund managers used in the series are also a sound bunch. The nine-year average manager tenure of the series' underlying funds lands well ahead of the mutual fund industry average. T. Rowe Price has a history of handling manager changes for the underlying funds well, with a long transition period being the norm.

Although he does not invest directly in the target-date mutual funds, Clark has more than \$1 million invested in T. Rowe Price's similarly managed target-date collective trusts, according to the firm's compliance department.

### Series Management

| Manager      | Start Date |
|--------------|------------|
| Jerome Clark | 09-2002    |
| Wyatt Lee    | 08-2015    |

|                                     |            |
|-------------------------------------|------------|
| Average Tenure                      | 8.4 years  |
| Longest Tenure                      | 14.8 years |
| Target-Date Industry Average Tenure | 4.5 years  |

### Underlying Funds' Management

|                                     |            |
|-------------------------------------|------------|
| Average Tenure                      | 9.1 years  |
| Longest Tenure                      | 25.1 years |
| Mutual Fund Industry Average Tenure | 7.0 years  |

## Parent

T. Rowe Price is evolving but retains the strong research-focused culture that's driven its long-term success. Despite the retirements of some long-tenured portfolio managers, the former CEO, and outgoing CIO Brian Rogers, the firm's careful focus on succession planning and long transition periods have eased the process. Even with a changing of the guard, there's no lack of talent. Successful former portfolio manager Rob Sharps is now co-head of global equities and oversees five CIOs who are among the firm's top managers. The analyst team is on solid footing, and the firm has continued hiring despite the pressures facing active managers. CEO Bill Stromberg, who joined T. Rowe in 1987 as an analyst, maintains an investment focus while recognizing that the busi-

**Rating: Positive**

ness must evolve to flourish in an industry that's gravitated toward passive investing. The firm is bolstering its technology resources and is expanding its distribution overseas, achievable goals given its pristine balance sheet. In 2017, the firm opportunistically acquired the Henderson High Yield Opportunities team, led by a former T. Rowe employee, as it addresses demand for capacity-constrained strategies that are also part of its popular target-date lineup and potentially new multiasset products down the line (several T. Rowe strategies are closed). T. Rowe is sensibly adapting, and its fundholder-first mentality and ability to attract and retain investment talent support its Positive Parent rating.

### Fund Family Data

|                             |       |
|-----------------------------|-------|
| Average Overall Star Rating | ★★★★  |
| % of Assets w/Star Rating   | 90.4% |

| Assets                 | (listed in USD \$Mil) |
|------------------------|-----------------------|
| Total Assets Under Mgt | 687,047               |

|  |           |
|--|-----------|
| Average Manager Tenure                           | 7.5 years |
| 5-year Manager Retention Rate (%)                | 93.5%     |
| Manager Investment Over 1 Million USD (% Assets) | 32.2%     |

|                       |       |
|-----------------------|-------|
| Average Fee Level (%) | 39.0% |
|-----------------------|-------|

|                               |       |
|-------------------------------|-------|
| 3-year Firm Success Ratio (%) | 81.0% |
|-------------------------------|-------|



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## The Morningstar Analyst Rating™ for Target-Date Fund Series

The Morningstar Analyst Rating™ for Target-Date Fund Series is a forward-looking analysis of a target-date fund series. The Analyst Rating does not express a view on a given asset class or peer group; rather, it seeks to evaluate each target-date fund series within the context of its objective, an appropriate benchmark, and peer group.

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 items 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 objective.

## 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 analyst 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.

Morningstar Research Services may also use two other designations in place of a rating:

### 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.

For more information about our Analyst Rating methodology please go to <http://corporate1.morningstar.com/ResearchLibrary/>

## Morningstar Star Rating

The Morningstar Star Rating is a proprietary data point that is quantitatively driven. Target-date fund series are rated from one to five stars based on how well the target-date fund series performed (after adjusting for risk and accounting for sales charges) in comparison to similar target-date fund series. Within each Morningstar Category, the top 10% of target-date fund series receive 5 stars and the bottom 10% receives 1 star. target-date fund series are rated for up to three time periods—three-, five-, and ten-years—and these ratings are combined to produce an overall star rating, which is noted within the Report. target-date fund series with less than three years of history are not rated. Star Ratings are based entirely on a mathematical

evaluation of past performance. Star Ratings are in no way to be considered a buy or sell signal nor should be viewed as a statement of fact.

## Equity-Related Data Points

The Report lists the top ten holdings in the target-date fund series as of the date noted. For each underlying holding, a series of data points is provided including, where applicable, that security's Economic Moat rating as of the date noted.

## Economic Moat

The concept of an economic moat plays a vital role in our equity analyst's qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of its fair value estimate. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as returns on invested capital (or ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (or WACC). Without a moat, profits are more susceptible to competition. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Companies with a *narrow moat* are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. *Wide-moat* companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe low-quality, *no-moat* companies will see their normalized returns gravitate toward the firm's cost of capital more quickly than companies with moats.

For more information about methodology in analysing stocks, please go to <http://global.morningstar.com/equitydisclosures>.

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The Analyst has not served as an officer, director or employee of the target-date fund series company within the last 12 months, nor has it or its associates engaged in market making activity for the target-date fund series company.

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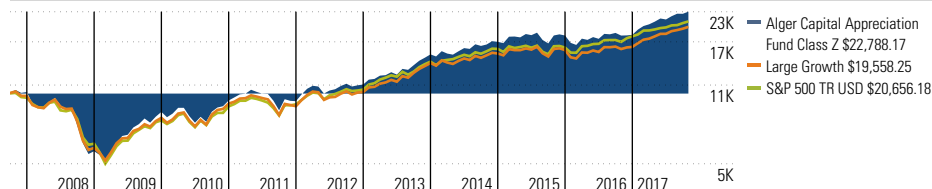
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# Alger Capital Appreciation Fund Class Z ACAZX

Morningstar Analyst Rating  
**Bronze**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category     | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|--------------|------------------|
| 25.83  | ↓0.00   0.00     | 0.00        | 2.7                 | Open   | \$500,000 | None | 0.89%    | ★★★★                | Large Growth | Large Growth     |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks long-term capital appreciation. The fund invests at least 85% of its net assets, plus any borrowings for investment purposes, in equity securities of companies of any market capitalization that Fred Alger Management, Inc. believes demonstrate promising growth potential. It can leverage, that is, borrow money to buy additional securities. The fund can invest in foreign securities.

## Performance 10-18-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 12,625 | 10,209 | 12,543 | 15,002  | 20,640  | 22,544   |
| Fund               | 26.25  | 2.09   | 25.43  | 14.48   | 15.60   | 8.47     |
| +/- S&P 500 TR USD | 10.01  | -0.32  | 3.24   | 1.40    | 1.27    | 0.95     |
| +/- Category       | 4.22   | -0.21  | 1.73   | 1.68    | 1.50    | 0.98     |
| % Rank in Cat      | 22     | 67     | 34     | 31      | 23      | —        |
| # of Funds in Cat  | 1,293  | 1,360  | 1,281  | 1,143   | 1,014   | 717      |

\* Currency is displayed in BASE

## Top Holdings 07-31-2017

|                | Weight % | Last Price  | Day Chg % | 52 Week Range     |
|----------------|----------|-------------|-----------|-------------------|
| Amazon.com Inc | 6.63     | 997.00 BASE | -1.20 ↓   | 710.10 - 1,083.31 |
| Apple Inc      | 6.41     | 159.76 BASE | -0.44 ↓   | 104.08 - 164.94   |
| Microsoft Corp | 6.03     | 77.61 BASE  | 0.03 ↑    | 56.66 - 77.87     |
| Alphabet Inc C | 5.25     | 992.81 BASE | 0.06 ↑    | 727.54 - 997.21   |
| Facebook Inc A | 5.06     | 176.03 BASE | -0.05 ↓   | 113.55 - 176.74   |

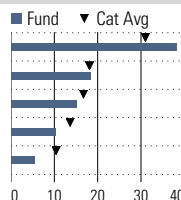
% Assets in Top 5 Holdings

29.38

⊕ Increase ⊖ Decrease ☆ New to Portfolio

## Top Sectors 07-31-2017

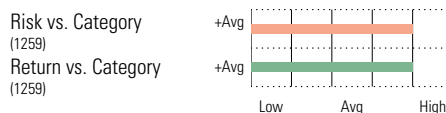
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Technology         | 38.14 | 38.14     | 31.71    | 30.08   |
| Consumer Cyclical  | 18.25 | 18.61     | 13.48    | 17.19   |
| Healthcare         | 15.05 | 20.43     | 15.05    | 15.81   |
| Financial Services | 10.25 | 10.25     | 6.98     | 12.72   |
| Industrials        | 5.52  | 9.68      | 5.52     | 9.48    |



## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-14-2016        | 20.76            | 0.1684                 | 0.0000                  | 0.0000            | 0.0000          | 0.1684             |
| 12-16-2015        | 20.69            | 1.6694                 | 0.0000                  | 0.0000            | 0.0000          | 1.6694             |
| 12-18-2014        | 20.88            | 2.6839                 | 0.5463                  | 0.0000            | 0.0000          | 3.2302             |
| 12-18-2013        | 20.73            | 0.8278                 | 0.7067                  | 0.0000            | 0.0000          | 1.5345             |
| 12-18-2012        | 16.91            | 0.0707                 | 0.0000                  | 0.0000            | 0.1704          | 0.2411             |

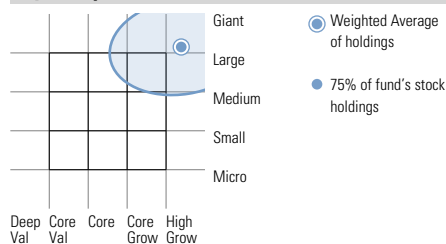
## 3 Year Average Morningstar Risk Measures



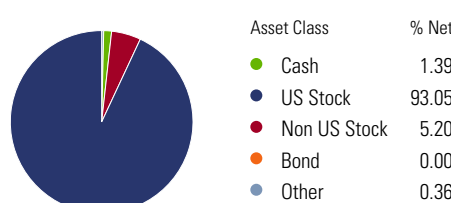
## Pillars

|             |               |
|-------------|---------------|
| Process     | ⊕ Positive    |
| Performance | ⊕ Positive    |
| People      | ⊕ Positive    |
| Parent      | ⊕ Neutral     |
| Price       | ⊖ Negative    |
| Rating      | <b>Bronze</b> |

## Style Map



## Asset Allocation



## Management

|                | Start Date |
|----------------|------------|
| Patrick Kelly  | 09-30-2004 |
| Ankur Crawford | 06-01-2015 |



# Alger Capital Appreciation Fund Class Z ACAZX

## Analysis

### Success and the challenge of size.

By Alec Lucas, Ph.D. 12/22/2016

Alger Capital Appreciation has a Morningstar Analyst Rating of Bronze because lead manager Patrick Kelly has proved skilled at executing Alger's aggressive-growth, high-turnover approach. From Kelly's 2004 start date through November 2016, the fund's 11.2% annualized gain beat the Russell 1000 Growth Index by 2.5 percentage points and outpaced all but four large-growth Morningstar Category peers.

Lofty fees have always been a hurdle for Kelly, but in recent years he's also faced the challenge of size. Per Statement of Additional Information disclosures, Kelly has managed more than \$15 billion across all accounts since late 2014, versus less than one third that figure at year-end 2009.

The increase in assets here has coincided with a move up the market-cap spectrum. Between late 2004 and late 2009, when the fund and its open-end clones together had less than \$2 billion in assets, the fund's combined small- and mid-cap stake was on average 17.4 percentage points more than the Russell 1000 Growth Index's. The now \$6.4 billion Alger Capital Appreciation open-end lineup has been consistently underweight since 2010, however. As of September 2016, this fund had a 12% small- and mid-cap stake, versus the index's 20%.

The fund still has an aggressive edge. With 43% of assets in its top 10 holdings, as of September 2016, the fund was more top-heavy than three fourths of its peers. Sector bets remained sizable, too. Its 40.4% tech weighting was nearly 9 percentage more than the index's.

The fund's willingness to stand out has been a liability of late. Through November 2016, its 0.2% year-to-date loss trailed the index by 6 percentage points, and the fund was on pace for its worst calendar-year showing versus the benchmark since 2008. The fund's calendar-year returns under Kelly have otherwise been competitive, though, includ-

ing crushing the index from 2005-07 and in 2009 while edging it from 2012-15.

The huge chunk of assets Kelly now manages will make difficult to build on his long-term record. Yet, with his skill, experience, and ability to adapt, he should have a good shot.

### Process Pillar: Positive

Lead manager Patrick Kelly's skilled use of Alger's aggressive-growth approach to investing merits a Positive Process Pillar rating. Like his colleagues, Kelly looks for companies that are poised for growth in one of two stages. Some have high unit volume growth leading to increased product demand and market share, like search-engine giant Alphabet GOOG. Others undergo positive lifecycle changes, such as benefiting from new management or product advancements. Apple AAPL, with its series of innovative iPhone, iPad, and Apple Pay launches, is an example.

Kelly taps Alger's team of analysts to find growing firms within their respective sectors. The analysts come up with one-, three-, and five-year target prices for each firm, modeling earnings and cash flows over five years. Kelly ultimately picks the stocks that he thinks have the most upside potential relative to their price targets and is willing to deviate meaningfully from the Russell 1000 Growth Index's sector weightings. He monitors risk/reward trade-offs and often trims positions after they come within 10% of their price targets, which is one reason for the portfolio's above-average, triple-digit annual turnover. Kelly is willing to pay up for growth, but the portfolio's average price multiples tend to be in line with and sometimes below the benchmark's and typical rival's, suggesting that he's not insensitive to valuation.


The portfolio's exposure to stocks at the lower end of the market-cap spectrum is less pronounced than in the past. Between late 2004 and late 2009, when the fund and its open-end clones together had less than \$2 billion in assets, the fund's combined small- and mid-cap stake was on average 17.4 percentage points more than the Russell 1000 Growth Index's. The \$6.4 billion Alger Capital Ap-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Neutral  |
| Price       |  Negative |

### 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.

### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 26.25          | 4.22         |
| 2016 | 0.66           | -2.56        |
| 2015 | 6.56           | 2.96         |
| 2014 | 13.50          | 3.51         |
| 2013 | 35.31          | 1.39         |

# Alger Capital Appreciation Fund Class Z ACAZX

## Analysis

preciation open-end lineup has been consistently underweight since 2010, however. As of September 2016, this fund had a 12% small- and mid-cap stake, versus the index's 20%.

The portfolio isn't tame, though. It has become more top-heavy since mid-2014, and its 43% stake in its top 10 holdings, as of September 2016, ranked in the large-growth category's top quartile. Sector bets can still be sizable, too. The fund's 40.4% tech weighting was nearly 9 percentage more than the index's. Four the top five holdings were tech titans, including Alphabet, with tech-dependent retailer Amazon.com AMZN as the lone exception. Each position reflects management's optimism about firms poised to benefit from increases in Internet usage.

Although the portfolio sits squarely in the large-growth section of the Morningstar Style Box, some holdings cross into value. The fund's 0.7% stake in Air Products & Chemicals APD, as of September 2016, is an example. It should benefit from rising North American oil and gas production.

### Performance Pillar: Positive

A topnotch, albeit volatile, record under lead manager Patrick Kelly earns the fund a Positive Performance Pillar rating. Since Kelly took the helm in late September 2004, the fund's 11.2% annualized return through November 2016 beat the Russell 1000 Growth Index by 2.5 percentage points and earned the large-growth category's fifth spot, while Kelly's other charge, Alger Spectra ALARX, placed first.

Kelly's aggressive tactics can pay off handsomely in rallies but lead to sizable losses in downturns. The fund posted top-decile calendar-year returns among large-growth peers in 2005-07, as well as in 2009's rebound, but fared worse than roughly four fifths of rivals in 2008. That year Kelly bought speculative fare like JA Solar JASO, which did not have positive cash flows, and was too slow to sell amid the burgeoning credit crisis.

Since year-end 2009, performance has moderated but remained competitive overall. The fund edged

the benchmark and its typical rival each calendar year from 2012 to 2015. Through November 2016, however, its 0.2% year-to-date loss trailed the index by 6 percentage points, and the fund was on pace for its worst calendar-year showing versus the benchmark since 2008. Stock-picking has been poor, especially in tech. Healthcare stocks also hurt, including top-20 positions in Allergan AGN and Vertex Pharmaceuticals VRTX to begin the year.

### People Pillar: Positive

The fund's Positive People Pillar rating reflects lead manager Patrick Kelly's talent and experience. Since taking the helm here and at Alger Spectra SPECX in late September 2004, his first shot at portfolio management, Kelly has executed the firm's aggressive approach with great success. This fund and Spectra, its more flexible counterpart, have consistently been top performers in the large-growth category.

In June 2015, the firm tapped Ankur Crawford to assist Kelly as comanager on both funds. She joined Alger around the time Kelly took over here. Crawford subsequently completed Alger's in-house training program, the same one Kelly went through in the late 1990s, and like Kelly, she worked initially as a tech analyst. She's been a portfolio manager on Alger Mid Cap Growth AMCGX and its clones since November 2010. They have not fared as well as Kelly's funds have during her tenure, but significant turnover among Crawford's comanagers make them an imperfect gauge of her management abilities.

Kelly and Crawford draw support from roughly 20 analysts who divide coverage based on global sectors and regions. About a third of the analysts have less than 15 years of industry experience while the rest have more than 20 years.

Kelly has at least \$50,000 in the Alger Capital Appreciation strategy and Crawford at least \$20,000. Kelly also invests over \$1 million in Alger Spectra.

### Parent Pillar: Neutral

Established in 1964 as a growth shop, privately held Fred Alger Management has overcome a

great deal since the early 2000s. Its World Trade Center headquarters were decimated on 9/11, claiming the lives of most of the firm's investment staff, including David Alger, the founder's brother and manager of Alger Spectra SPECX, which Smart Money magazine praised as the most successful mutual fund of the 1990s. Alumni returned to help rebuild the firm, but soon afterward it was implicated in the market-timing and late-trading scandal of 2003. Alger settled those charges by 2007. With a bolstered compliance department, it has had a clean regulatory record since. Alger Spectra has returned to prominence, as it has consistently been a top-performing large-cap growth fund since manager Patrick Kelly took the helm in September 2004.

Kelly's Alger Capital Appreciation ALARX has also excelled, but the firm has had less success running other strategies. That could change, though. Proven small-cap manager Amy Zhang joined in early 2015, and Alger acquired Weatherbie Capital in early 2017 for its small/mid-cap growth expertise. Both Zhang and the Weatherbie team build benchmark-agnostic portfolios of about 50 stocks. These additions are promising, but Alger still has room for improvement. Fees are above average, and overall manager investment is weak. The firm receives a Neutral Parent Pillar rating.

### Price Pillar: Negative

Fees have come down the past few years but remain lofty compared with most rivals', earning the fund a Negative Price Pillar rating. The A shares' 1.23% fiscal 2015 expense ratio, which applied to over half the fund's asset base, was 6 basis points above the large-cap, front-load peer median. That ranked in the most expensive third of those peers. At 0.90%, the Z shares were more competitively priced, but their \$500,000 minimum investment places them in the large-cap institutional fee-level comparison group. As a result, they too have an above-average price tag.

Investors also face ample trading costs thanks to the fund's triple-digit annual portfolio turnover. In fiscal 2015, brokerage fees of nearly 0.12% of average net assets were well above the 0.04% cat-

# Alger Capital Appreciation Fund Class Z ACAZX

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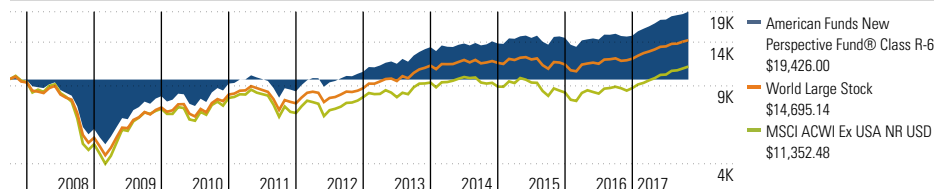
## Analysis

egory median.

# American Funds New Perspective Fund® Class R-6 RNPGX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category          | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------------|------------------|
| 44.69  | ↓0.00   0.00     | 0.92        | 75.0                | Open   | \$250     | None | 0.45%    | ★★★★★               | World Large Stock | Large Growth     |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Investment Strategy**

The investment seeks long-term growth of capital; future income is a secondary objective. The fund seeks to take advantage of investment opportunities generated by changes in international trade patterns and economic and political relationships by investing in common stocks of companies located around the world. In pursuing its primary investment objective, it invests primarily in common stocks that the investment adviser believes have the potential for growth. In pursuing its secondary objective, the fund invests in common stocks of companies with the potential to pay dividends in the future.

**Performance** 10-18-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 12,649 | 10,231 | 12,595 | 14,616  | 18,399  | 19,275   |
| Fund                        | 26.49  | 2.31   | 25.95  | 13.49   | 12.97   | 6.78     |
| +/- MSCI ACWI Ex USA NR USD | 2.85   | 0.50   | 2.67   | 6.18    | 6.15    | 5.56     |
| +/- Category                | 7.15   | 0.35   | 4.85   | 4.05    | 2.66    | 2.79     |
| % Rank in Cat               | 11     | 28     | 12     | 5       | 9       | —        |
| # of Funds in Cat           | 814    | 888    | 796    | 667     | 553     | 311      |

\* Currency is displayed in BASE

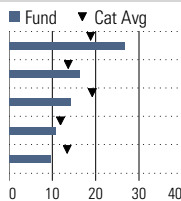
**Top Holdings** 09-30-2017

|   | Weight % | Last Price  | Day Chg % | 52 Week Range           |
|---|----------|-------------|-----------|-------------------------|
| Amazon.com Inc                            | 3.38     | 997.00 BASE | -1.20 ↓   | 710.10 - 1,083.31       |
| Facebook Inc A                            | 2.39     | 176.03 BASE | -0.05 ↓   | 113.55 - 176.74         |
| Taiwan Semiconductor Manufacturing Co Ltd | 2.27     | 240.50 BASE | 1.26 ↑    | 178.00 - 241.50         |
| Naspers Ltd Class N                       | 1.91     | — BASE      | 0.11 ↑    | 192,598.00 - 329,600.00 |
| Microsoft Corp                            | 1.84     | 77.61 BASE  | 0.03 ↑    | 56.66 - 77.87           |
| % Assets in Top 5 Holdings                | 11.79    |             |           |                         |

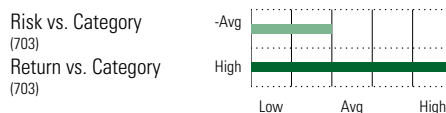
⊕ Increase ⊖ Decrease ✱ New to Portfolio

**Top Sectors** 09-30-2017

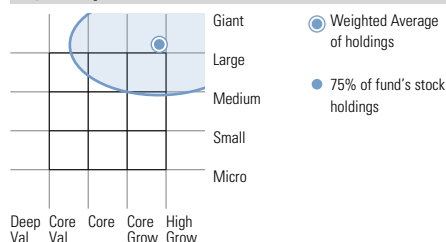
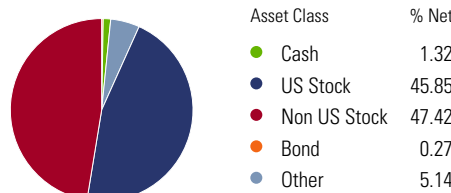
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Technology         | 26.71 | 26.71     | 19.71    | 17.92   |
| Consumer Cyclical  | 16.36 | 17.89     | 16.36    | 12.74   |
| Financial Services | 14.17 | 14.17     | 12.61    | 18.28   |
| Consumer Defensive | 10.83 | 12.72     | 10.83    | 10.97   |
| Healthcare         | 9.69  | 17.44     | 9.69     | 12.49   |


**Dividend and Capital Gains Distributions**

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-22-2016        | 35.44            | 1.0754                 | 0.0000                  | 0.0000            | 0.4096          | 1.4850             |
| 12-23-2015        | 36.23            | 1.9500                 | 0.0000                  | 0.0000            | 0.3775          | 2.3275             |
| 12-26-2014        | 36.66            | 2.2900                 | 0.0000                  | 0.0000            | 0.3539          | 2.6439             |
| 12-26-2013        | 37.25            | 1.7520                 | 0.0000                  | 0.0000            | 0.4199          | 2.1719             |
| 12-26-2012        | 31.06            | 0.0000                 | 0.0000                  | 0.0000            | 0.4382          | 0.4382             |

**3 Year Average Morningstar Risk Measures**

**Pillars**

|             |          |
|-------------|----------|
| Process     | Positive |
| Performance | Positive |
| People      | Positive |
| Parent      | Positive |
| Price       | Positive |
| Rating      | Gold     |

**Style Map**

**Asset Allocation**

**Management**

|                    | Start Date |
|--------------------|------------|
| Robert W. Lovelace | 12-01-2000 |
| Jonathan Knowles   | 12-01-2004 |
| Brady L. Enright   | 12-01-2005 |
| Jody F. Jonsson    | 12-01-2005 |
| Steven T. Watson   | 12-01-2005 |
| Isabelle de Wismes | 12-01-2007 |
| Noriko H. Chen     | 04-30-2012 |

# American Funds New Perspective Fund® Class R-6 RNPGX

## Analysis

### Seeking growth across the globe.

By Alec Lucas, Ph.D. 12/29/2016

American Funds New Perspective has a Morningstar Analyst Rating of Gold for its ability to profit from changes in global trade.

Outperformance has been its norm. The fund's trailing returns for the three- to 15-year periods through November 2016 all rank in the world-stock Morningstar Category's top quartile or better. Although on pace for a bottom-third showing in 2016, the fund finished in the top half of the peer group in every other calendar year over the past decade.

Focusing on multinational blue chips and trading carefully in emerging markets has helped the fund achieve this record. The managers seek growth across the globe but buy when it is mispriced or misunderstood, often hanging on through subsequent rough patches. They built most of the fund's now top-five position in diabetes drug-maker Novo Nordisk NOVO B in mid-2009 and held fast in 2016 as concerns about pricing pressure in the U.S. caused Novo's stock to drop. The firm's long-term growth, though, will most likely be fueled by emerging markets, whose rising middle class will become more prone to diabetes as its diet westernizes. Moreover, since the fund first bought Novo in mid-2009, its stock has trounced the fund's benchmark.

The fund's seven-person team is stable and experienced. Longest-tenured manager Robert Lovelace has run diversified money in the fund for more than 15 years and spent 14 years prior to that as an analyst for the fund. With her 2012 start date, manager Noriko Chen is the least tenured; but she has been in the industry nearly 25 years.

The firm's multimanager system is another plus. Each manager oversees a separate sleeve of the portfolio in line with his or her own style. Jonathan Knowles, for example, runs a very top-heavy portfolio of about 30 stocks with high returns on equity, while Steven Watson can be quite contrari-

an in his more diffuse portfolio of 50-60 stocks. The combination of varied sleeves mutes volatility for the fund as a whole and helps it to fare well in different market conditions.

The fund's next decade may not top its prior one, but its strategy and team breed confidence.

### Process Pillar: + Positive

The fund's singular focus combined with its willingness to adapt merit a Positive Process Pillar rating. Since its March 1973 inception, the fund has sought to invest in firms poised to benefit from changing global trade patterns. While that mission has endured, the fund's methods have evolved with the market. In its early days, the investable universe consisted largely of the constituents of the MSCI World Index, the fund's longtime benchmark. As the global opportunity set broadened to include developing markets, the fund began investing there, too, and in October 2011 changed its benchmark to the MSCI All-Country World Index. The fund can now invest in firms located anywhere in the world if they receive at least 25% of their revenues from outside their home region and have at least a \$5 billion market cap at time of purchase. Although those requirements lend themselves to a continued emphasis on developed-markets blue chips, the fund has laid the foundation for increasing its emerging-markets exposure beyond its mid- to upper-single-digit historical norm.

American's multimanager approach lets the managers play to their strengths. With distinct styles, they can invest in their best ideas or hold cash and wait for compelling opportunities. Meanwhile, the combination of separately managed sleeves mutes the overall fund's volatility. Only high turnover is frowned upon.

Sector and geographic allocations in the fund's roughly 250-stock portfolio are largely a byproduct of its managers' bottom-up analysis. The fund's balance of domestic and foreign stocks also shifts based on where the managers see the best opportunities. Its helping of U.S. stocks has ranged from more than half to less than a fourth of assets dur-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |            |
|-------------|------------|
| Process     | + Positive |
| Performance | + Positive |
| People      | + Positive |
| Parent      | + Positive |
| Price       | + Positive |

### 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.

Analyst Rating Spectrum

Gold Silver Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 26.49          | 7.15         |
| 2016 | 2.19           | -3.35        |
| 2015 | 5.63           | 7.32         |
| 2014 | 3.56           | 0.77         |
| 2013 | 27.23          | 2.04         |



# American Funds New Perspective Fund® Class R-6 RNP GX

## Analysis

ing the past three decades and stood at 48% in November 2016, up from less than 30% near the U.S. market's 2007 peak.

The fund's managers seek growth across the globe but buy when it is mispriced or misunderstood, often hanging on through subsequent rough patches. They built most of the fund's now top-five position in diabetes drugmaker Novo Nordisk in mid-2009 and held fast in 2016 as concerns about pricing pressure in the U.S. caused Novo's stock to drop. The firm's long-term growth, though, will most likely be fueled by emerging markets, whose rising middle class will become more prone to diabetes as its diet westernizes.

The fund doesn't get carried away, either. Although its 20.7% tech stake, as of late 2016, roughly doubled the portfolio's year-end 2012 weighting, the managers have sought firms whose competitive advantages give them a long-term edge. Top-10 holding Facebook FB, for example, has a wide Morningstar Economic Moat Rating because its sites and apps enable the firm to compile user data that advertisers covet.

### Performance Pillar: Positive

Consistent outperformance earns the fund a Positive Performance Pillar rating. Its trailing returns for the three- to 15-year periods through November 2016 all rank in the world-stock category's top quartile or better. Although on pace for a bottom-third showing in 2016, the fund has finished in the top half of the peer group in every other calendar year over the past decade. Since its 1973 inception and over longest-tenured manager Robert Lovelace's 15-plus years, it has trounced its typical category rival, the MSCI All-Country World Index, and its former benchmark, the MSCI World Index.

The fund has amassed this record without incurring more volatility than its average peer or index. In fact, its Morningstar Risk ratings are below average for the trailing five- and 10-year periods through November 2016. It also has captured nearly 105% of the MSCI All-Country World Index's upside and 93% of its downside since

Lovelace joined the fund in December 2000.

The fund's focus on multinational blue chips has seldom hurt shareholders. In its 40-plus calendar years, the fund has lost money in only seven (1974, 1990, 2000-02, 2008, 2011). In each of those years the fund lost significantly less than the benchmark, except for 2011. Even then, the fund held its own during 2011's peak-to-trough plunge but lagged in the subsequent rebound and lost 7.6% for the year, versus the index's 5.5% drop.

### People Pillar: Positive

American Funds' multimanager approach helps to handle this fund's \$60 billion asset base, the world-stock category's second largest. The fund's Positive People Pillar rating reflects its systemic strengths as well as the managers' experience, ability, and aligned interests.

Capital Group, the parent of American Funds, divides these assets between management teams from subsidiaries Capital World Investors and Capital International Investors. Joanna Jonsson oversees CWI's team of Jonathan Knowles, Brady Enright, and Isabelle de Wismes. Longest-tenured manager Robert Lovelace heads up CII's team, which includes Noriko Chen and Steven Watson, who had been a CWI manager here prior to October 2015. Each of the managers, based in the United States, England, and Asia, oversees a separate sleeve of the portfolio, with Jonsson and Lovelace helping to ensure that their investing styles complement one another. For example, Knowles runs a very top-heavy portfolio of about 30 stocks with high returns on equity, while Watson sticks largely to value names in a more diffuse portfolio of 50-60 stocks. They're a veteran group. Each manager has been in the industry for at least two decades. The CWI and CII teams are both supported by about 40 analysts, with each analyst group also responsible for its own slice of the portfolio.

Each manager has at least \$100,000 in the fund, with three investing more than \$1 million.

### Parent Pillar: Positive

With roots tracing to 1931, Capital Group has long

been a standard-bearer in asset management. Widely known in the United States for its American Funds open-end lineup, the active manager boasts some of the industry's more reliable equity and allocation offerings. The firm's multimanager system is key to its success. Dividing each fund into independently run sleeves lets managers invest in line with their styles, enhancing diversification and reducing volatility of the overall portfolio. The funds' analyst-led research portfolios help develop the next generation and recruit top talent with the promise of running money from the start. The result is an investment culture marked by lengthy tenures, strong manager co-investment, and competitive long-term records.

Capital Group has improved its fixed-income approach through greater coordination and the addition of veteran managers, but the firm still must show it can achieve the kind of excellence in that asset class that it has with equities. Capacity monitoring, a perennial issue given the funds' massive asset bases, could become a more pressing concern if the firm's efforts to grow its business in Europe and Asia succeed or if U.S. fund flows shift back to active management. In the meantime, investors benefit from Capital Group's modest fees, consistent results, and sound stewardship. The firm earns a Positive Parent rating.

### Price Pillar: Positive

This fund is one of the cheapest broker-sold options in the world-stock category, and it looks affordable when compared with no-load funds, too. The A shares, which hold more than half of the fund's assets, charged a 0.77% expense ratio in fiscal 2016. That was 57 basis points below the world-stock, front-load peer median and easily ranked in that group's cheapest decile. Plus, 15 of the fund's 17 other share classes sported bottom-quintile expense ratios versus similarly distributed rivals, while the two exceptions (together accounting for 1% of assets) had below-average price tags.

Trading costs across all share classes were also comparatively modest. Brokerage fees of 0.03% of average net assets in fiscal 2016 were less than

# American Funds New Perspective Fund® Class R-6 RNPGX

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## Analysis

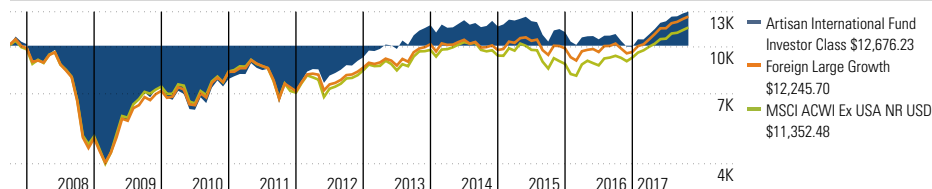
half the 0.07% category median.

# Artisan International Fund Investor Class ARTIX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status  | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category             | Investment Style |
|--------|------------------|-------------|---------------------|---------|-----------|------|----------|---------------------|----------------------|------------------|
| 32.85  | ↑0.16   0.49     | 0.93        | 14.0                | Limited | \$1,000   | None | 1.19%    | ★★                  | Foreign Large Growth | Large Growth     |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks maximum long-term capital growth. The fund invests primarily in developed markets but also may invest up to 35% of the fund's total assets at market value at the time of purchase in emerging and less developed markets. Under normal market conditions, it is substantially fully invested in common stocks and similar securities, and invests at least 65% of its net assets at market value at the time of purchase in securities of non-U.S. companies.

## Performance 10-17-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 12,765 | 10,209 | 12,199 | 11,636  | 14,192  | 12,585   |
| Fund                        | 27.65  | 2.09   | 21.99  | 5.18    | 7.25    | 2.33     |
| +/- MSCI ACWI Ex USA NR USD | 4.29   | 0.18   | -2.42  | -2.04   | 0.43    | 1.09     |
| +/- Category                | 0.17   | 0.31   | -2.07  | -4.10   | -1.39   | 0.13     |
| % Rank in Cat               | 44     | 29     | 71     | 98      | 80      | 44       |
| # of Funds in Cat           | 405    | 424    | 388    | 322     | 277     | 191      |

\* Currency is displayed in BASE

## Top Holdings 09-30-2017

|                                 | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|---------------------------------|----------|-------------|-----------|-----------------|
| ⊕ Deutsche Boerse AG            | 4.78     | 92.86 BASE  | -1.83 ↓   | 66.11 - 98.42   |
| ⊖ Linde AG                      | 4.48     | 174.70 BASE | -0.40 ↓   | 144.20 - 179.70 |
| ⊖ Alibaba Group Holding Ltd ADR | 4.32     | 179.61 BASE | 2.45 ↑    | 86.01 - 184.70  |
| ⊖ Allianz SE                    | 3.84     | 195.95 BASE | 0.33 ↑    | 135.45 - 196.75 |
| ⊕ ING Groep NV                  | 3.65     | —           | —         | —               |
| % Assets in Top 5 Holdings      | 21.07    |             |           |                 |

⊕ Increase ⊖ Decrease ☆ New to Portfolio

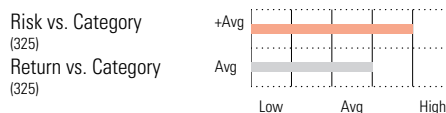
## Top Sectors 09-30-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|--------------------|-------|-----------|----------|---------|------------------|
| Financial Services | 26.65 | 26.65     | 10.45    | 17.40   | ■ Fund ▼ Cat Avg |
| Consumer Defensive | 15.04 | 17.88     | 12.46    | 14.18   |                  |
| Industrials        | 14.93 | 14.93     | 7.23     | 13.06   |                  |
| Technology         | 13.78 | 15.58     | 5.52     | 17.02   |                  |
| Basic Materials    | 9.53  | 9.53      | 6.22     | 6.30    |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 11-17-2016        | 25.76            | 0.0000                 | 0.0000                  | 0.0000            | 0.3003          | 0.3003             |
| 11-19-2015        | 29.32            | 0.0000                 | 0.0000                  | 0.0000            | 0.1282          | 0.1282             |
| 11-19-2014        | 30.46            | 0.0000                 | 0.0000                  | 0.0000            | 0.2284          | 0.2284             |
| 11-21-2013        | 29.49            | 0.0000                 | 0.0000                  | 0.0000            | 0.2922          | 0.2922             |
| 12-19-2012        | 24.60            | 0.0000                 | 0.0000                  | 0.0000            | 0.2747          | 0.2747             |

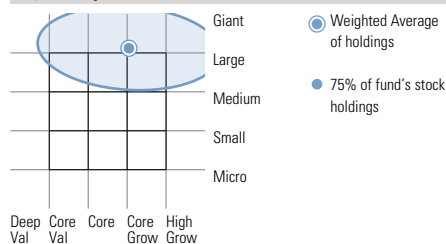
## 3 Year Average Morningstar Risk Measures



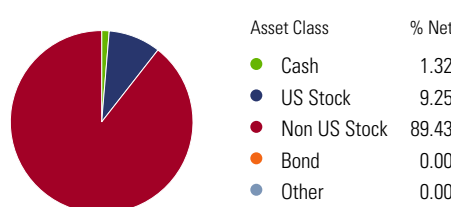
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊖ Negative |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

|                      | Start Date |
|----------------------|------------|
| Mark L. Yockey       | 12-28-1995 |
| Andrew J. Euretig    | 02-01-2012 |
| Charles-Henri Hamker | 02-01-2012 |

# Artisan International Fund Investor Class ARTIX

## Analysis

**Its flexible approach can lead to dry spells, but this fund's virtues are substantial.**

By Greg Carlson 6/5/2017

Despite poor showings in 2015 and 2016, Artisan International's veteran leader, deep team, and sensible approach continue to earn a Morningstar Analyst Rating of Silver. This closed fund's lead skipper, Mark Yockey, has steered it for more than 21 years, and the results have been superb: From its December 1995 inception through May 2017, the fund surpassed all of its foreign large-growth peers, as well as 95% of the larger foreign large-blend Morningstar Category, on both a total-return and risk-adjusted basis. It also trounced its MSCI EAFE benchmark as well as the MSCI EAFE Growth Index (to which its returns have been a bit more correlated).

Yockey has generated this stellar record utilizing a flexible approach. He invests in a mix of rapidly growing firms, more-mature and stable growers, and turnaround plays. The size of each group varies depending on where he and his team find the most opportunities, but the first two groups tend to predominate. In the late 1990s, the fund shone because of a hefty stake in tech and telecom. More recently, the fund's hot streak from 2011-14 was due in part to a move into Macau-related gaming stocks and other firms benefiting from rising demand from Chinese consumers.

But the fund's shifts have also led to dry spells. For example, Yockey moved into beaten-down European banks in 2009-10, only to see those stocks drop further--a big reason the fund trailed more than 85% of peers in 2010. More recently, the fund's stake in China-related stocks was one reason why it trailed 95% of peers in 2015. Another was poor stock selection in automotive firms, which again weighed on returns in 2016 along with an increased stake in consumer staples firms--Yockey felt he found compelling values there because of business-model changes that may increase margins, but the stocks lagged.

Thus, the fund requires patience at times--its trail-

ing returns through May were subpar over three and five years. But the fund has been quite rewarding over the long term, and the depth of the team and a responsible approach to capacity management (the fund closed to new investors in 2016) trump concerns about above-average fees.

**Process Pillar:**  Positive

Lead manager Mark Yockey is a growth investor at heart. But he's always spread the fund's assets among faster-growing, somewhat pricey companies; higher-quality stable growers; and value plays, although the weightings of those three groups have shifted over time. The stable growers have lately played a bigger role at times, which helps explain why the fund moved back to the foreign large-growth category in 2014 after residing in foreign large-blend from 2010-13. Yockey invests loosely along themes, and the fund has always had somewhat of an independent streak; regional and sector weightings often stray significantly from the norm, and emerging-markets exposure has swung from minimal to 20% of assets over time. Thus, returns have been less correlated to the MSCI EAFE and the MSCI World ex USA indexes than those of the typical foreign large-blend or foreign large-growth fund. This distinctive approach earns a Positive Process rating.

The fund typically holds 60-100 stocks; the number depends in part on how many compelling stocks Yockey finds, but the portfolio also became more diffuse in the mid-2000s when assets in the strategy exceeded \$25 billion. Strategy assets are now about \$26 billion, but the portfolio remains somewhat compact at 70 stocks.

Yockey trades around positions at times but will hold on to solid picks for years. Portfolio turnover has averaged 51% over the past five years.

The fund owns a bigger slug of large-cap stocks than usual, and its average market cap significantly exceeded both that of its MSCI EAFE benchmark and the foreign large-growth norm at the end of March 2017. Yockey has generally found better values among large caps lately: Behemoths such as online marketplace Alibaba BABA of China,

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Negative |

### 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.

### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 28.27          | 0.69         |
| 2016 | -9.66          | -7.52        |
| 2015 | -3.85          | -4.81        |
| 2014 | -0.97          | 2.96         |
| 2013 | 25.18          | 6.60         |

# Artisan International Fund Investor Class ARTIX

## Analysis

Swiss food giant Nestle NESN, and U.S. medical device firm Medtronic MDT were among the fund's top 25 holdings. Other stocks near the top of the portfolio with very large market caps included Japan Tobacco, Hong Kong-based insurer AIA Group, and German diversified financial firm Allianz ALV.

Yockey may also have a difficult time these days taking significant stakes in mid-cap stocks; the team ran a total of \$25.7 billion in the strategy at the end of April--strategy assets peaked at \$33 billion before recent outflows and investment losses, and the fund closed to new investors in 2016. (Artisan has a long track record of closing its funds to preserve flexibility.) The number of holdings was recently 70 here, at the lower end of the fund's range, so it doesn't appear the portfolio has been altered because of liquidity concerns. Furthermore, there were two mid-cap stocks in the top 25 at the end of March 2017. But the fund's large-cap-heavy profile could hold it back if smaller fare outperforms.

### Performance Pillar: Positive

This fund can run hot and cold--and it's been downright frigid lately--but it's been a strong performer over the very long haul. It posted a spectacular run of performance in the late 1990s as manager Mark Yockey played the runup in tech, media, and telecom quite well. In the 2000s, the fund's returns weren't nearly as impressive (on either an absolute or relative basis), but it still turned in respectable performance. More recently, the fund notched three consecutive finishes in the foreign large-blend category's top decile from 2011-13 before moving to foreign large growth and surpassing 80% of that peer group in 2014. Since then, the fund has struggled, lagging 95% of peers in 2015 and 97% of them in 2016.

Despite its recent tough stretch, from stocks' October 2007 peak through May 2017, the fund outpaced its MSCI EAFE benchmark, the MSCI All Country World ex USA Index, and the growth-oriented versions of those indexes while beating 55% of peers. And the fund looks stellar across Yockey's full tenure. From its late 1995 inception

through May 2017, the fund surpassed the foreign large-growth and foreign large-blend norms by 2.8 and 3.0 percentage points annualized, respectively. Although its returns have been volatile at times, the fund has outpaced all other foreign large-growth funds on a risk-adjusted basis when measured on Sortino ratio (which penalizes poor downside performance). Thus, it earns a Positive Performance rating.

### People Pillar: Positive

Although this team lost a veteran in early 2013, it remains quite proven.

Mark Yockey has managed this fund since its December 1995 inception. He's also run Artisan International Small Cap ARTJX, Artisan Global Equity ARTHX, and Artisan Global Small Cap since their respective 2001, 2010, and 2013 inceptions. (The latter fund was liquidated in January 2017.) Before Artisan, he managed Waddell & Reed Global Growth UNGX for six years. All his charges boast fine results.

Andrew Euretig was named an associate manager here in February 2012 and a comanager in January 2013. He has comanaged Artisan Global Equity since January 2013. He joined the team in 2005 and covers industrials. Charles-Henri Hamker was named an associate manager of this fund and Artisan International Small Cap in February 2012. In January 2013, he became a comanager of the latter fund and Artisan Global Equity and was a comanager of Artisan Global Small Cap. He joined the team in 2000.

The trio is supported by 13 analysts and eight research associates. On average, the senior analysts have worked on the team for six years and have 14 years of investment experience. Yockey's long resume and the depth of his supporting cast earn a Positive rating for People.

Barry Dargan, a former MFS manager, comanaged Artisan Global Equity from its inception through January 2013 before leaving the firm.

### Parent Pillar: Positive

Artisan hires proven or promising managers and allows them to build and run their teams with a large degree of autonomy. Four of the teams employ investment strategies that are well-executed and have performed strongly over longer-term periods. The firm's emerging-markets team has generated mediocre results in its 8.5-year tenure, and two teams have launched since only early 2014. The firm tends to close funds to preserve their flexibility and increase the chances that they will continue to outperform. Indeed, seven of the firm's 15 funds are currently closed to new investors. The firm also has a clean regulatory history.

Artisan's board generally does a fine job, but it could push the advisor to pass on economies of scale through a more aggressive negotiation of fees or management-fee breakpoints. The firm's funds aren't often priced well for their size.

On a positive note, all but two of Artisan's funds have at least one manager with more than \$1 million invested in fund shares, and seven have at least two managers who invest heavily in their funds. That's the highest level of manager investment disclosed to the SEC and an industry best-practice.

The firm went public in March 2013. While this could pressure management into keeping popular funds open to boost revenue, it has thus far continued to close them. Also, its executives retain tight control of the firm.

### Price Pillar: Negative

The 1.19% expense ratio of this fund's Investor shares, which hold 43% of the assets, earns a Morningstar Fee Level of Above Average. The Institutional shares hold 40% of the assets, charge 0.95%, and earn an Average fee level. The fund's Advisor shares, launched in April 2015, hold 17% of the assets, charge 1.01%, and earn an Above Average fee level.

With assets of \$13 billion, the fund is bigger than the vast majority of foreign large-cap funds, thus its expenses should be lower. It earns a Negative



# Artisan International Fund Investor Class ARTIX

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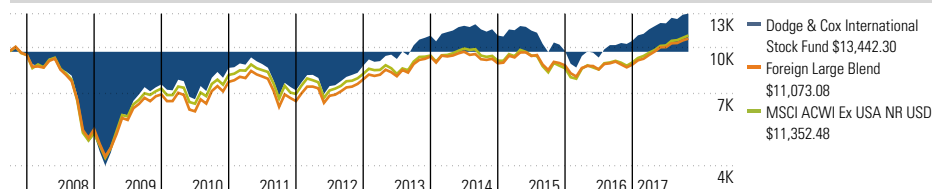
## Analysis

Price rating.

# Dodge & Cox International Stock Fund DODFX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status  | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category            | Investment Style |
|--------|------------------|-------------|---------------------|---------|-----------|------|----------|---------------------|---------------------|------------------|
| 47.00  | ↓-0.03   -0.06   | 1.80        | 65.7                | Limited | \$2,500   | None | 0.64%    | ★★★★                | Foreign Large Blend | Large Blend      |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Investment Strategy**

The investment seeks long-term growth of principal and income. Under normal circumstances, the fund will invest at least 80% of its total assets in equity securities of non-U.S. companies, including common stocks, depository receipts evidencing ownership of common stocks, preferred stocks, securities convertible into common stocks, and securities that carry the right to buy common stocks. The fund typically invests in medium-to-large well-established companies based on standards of the applicable market.

**Performance** 10-17-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 12,344 | 10,140 | 12,904 | 11,978  | 15,652  | 13,377   |
| Fund                        | 23.44  | 1.40   | 29.04  | 6.20    | 9.37    | 2.95     |
| +/- MSCI ACWI Ex USA NR USD | 0.08   | -0.52  | 4.63   | -1.02   | 2.55    | 1.72     |
| +/- Category                | 1.43   | -0.45  | 6.33   | -1.33   | 1.91    | 1.68     |
| % Rank in Cat               | 32     | 83     | 3      | 80      | 10      | 13       |
| # of Funds in Cat           | 747    | 791    | 721    | 580     | 516     | 334      |

\* Currency is displayed in BASE

**Top Holdings** 09-30-2017

|                            | Weight % | Last Price | Day Chg % | 52 Week Range           |
|----------------------------|----------|------------|-----------|-------------------------|
| ⊕ Sanofi SA                | 3.81     | 84.51 BASE | 0.74 ↑    | 67.22 - 92.97           |
| ⊖ Naspers Ltd Class N      | 3.52     | — BASE     | 0.11 ↑    | 192,598.00 - 329,600.00 |
| ⊕ Itau Unibanco Holding SA | 2.69     | 44.41 BASE | 0.18 ↑    | 31.01 - 45.79           |
| ⊕ Schneider Electric SE    | 2.64     | 73.35 BASE | 0.21 ↑    | 58.05 - 74.65           |
| ⊖ BNP Paribas              | 2.52     | 67.43 BASE | 1.74 ↑    | 49.21 - 68.95           |
| % Assets in Top 5 Holdings | 15.17    |            |           |                         |

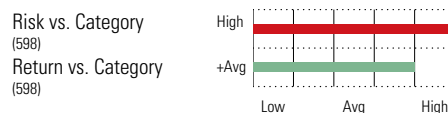
⊕ Increase ⊖ Decrease ☆ New to Portfolio

**Top Sectors** 09-30-2017

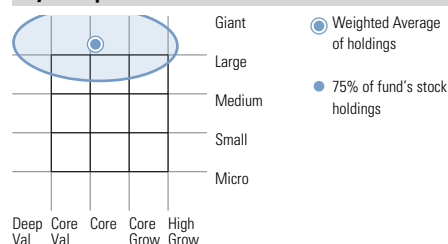
|                        | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|------------------------|-------|-----------|----------|---------|------------------|
| Financial Services     | 27.46 | 27.46     | 23.49    | 21.01   | ■ Fund ▼ Cat Avg |
| Technology             | 20.65 | 25.02     | 20.65    | 10.51   |                  |
| Healthcare             | 15.24 | 15.24     | 13.88    | 9.35    |                  |
| Energy                 | 8.04  | 8.56      | 6.49     | 5.02    |                  |
| Communication Services | 7.78  | 7.78      | 7.23     | 4.41    |                  |

**Dividend and Capital Gains Distributions**

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-20-2016        | 38.12            | 0.5434                 | 0.0000                  | 0.0000            | 0.8516          | 1.3950             |
| 12-21-2015        | 36.10            | 0.0000                 | 0.0000                  | 0.0000            | 0.8400          | 0.8400             |
| 12-19-2014        | 42.41            | 0.0000                 | 0.0000                  | 0.0000            | 0.9699          | 0.9699             |
| 12-19-2013        | 41.83            | 0.0000                 | 0.0000                  | 0.0000            | 0.6950          | 0.6950             |
| 12-19-2012        | 34.54            | 0.0000                 | 0.0000                  | 0.0000            | 0.7470          | 0.7470             |

**3 Year Average Morningstar Risk Measures**

**Pillars**

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | ★★★★ Gold  |

**Style Map**

**Asset Allocation**

|                | % Net | % Short | % Long | Bench mark | Cat Avg |
|----------------|-------|---------|--------|------------|---------|
| ● Cash         | 1.13  | 0.23    | 1.37   | -0.01      | 2.19    |
| ● US Stock     | 7.12  | 0.00    | 7.12   | 0.77       | 3.05    |
| ● Non US Stock | 91.73 | 0.00    | 91.73  | 99.10      | 94.56   |
| ● Bond         | 0.00  | 0.00    | 0.00   | 0.00       | -0.20   |
| ● Other        | 0.01  | 0.01    | 0.02   | 0.14       | 0.41    |

**Management**

|                       | Start Date |
|-----------------------|------------|
| C. Bryan Cameron      | 05-01-2001 |
| Diana S. Strandberg   | 05-01-2001 |
| Mario C. DiPrisco     | 01-01-2004 |
| Roger G. Kuo          | 05-01-2006 |
| Keiko Horkan          | 05-01-2007 |
| Charles F. Pohl       | 05-01-2007 |
| Richard T. Callister  | 03-30-2012 |
| Englebert T. Bangayan | 02-28-2015 |

# Dodge & Cox International Stock Fund DODFX

## Analysis

**An impressive, reliable choice, though not as conservative as one might think.**

By Gregg Wolper 12/19/2016

Dodge & Cox International Stock boasts many strengths, including patience, low costs, and a highly experienced and deep team of managers and analysts. Those attributes, along with a standout performance record, earn the fund a Morningstar Analyst Rating of Gold.

This fund endured an uncharacteristically subpar 2015. It's not unusual for the fund to lag during market downturns, though it didn't in 2014. The managers buy out-of-favor stocks when their long-term prospects remain strong, in the managers' view, and it's not unusual for such controversial stocks to fall hard if markets weaken. But the extent of 2015's underperformance--the fund lagged the foreign large-blend Morningstar Category average by nearly 10 percentage points--was unusual. Its long-standing overweighting in emerging-markets stocks bore much of the blame, as those markets, and currencies, had a very rough year. But the managers stuck to their approach. They added to some of the most beaten-up positions, such as beleaguered Petrobras PBR, and have reaped the benefits of this year's rebound in those positions. For the year to date through Nov. 30, 2016, the fund's 5.7% return tops the category average by 7 percentage points and lands in the third percentile.

Fortunately for shareholders of this closed fund, its strong periods have far outweighed the down times. Moves such as buying major drug firms years ago when investors soured on them have frequently paid off. That explains why the fund's 10- and 15-year returns both land well into the category's top quartile and comfortably beat those of the MSCI ACWI Ex USA Index. And it's reassuring that most of the fund's eight managers have been on board since its 2001 inception, either as managers the whole time or as analysts who were then promoted. They've used the same low-turnover, contrarian strategy the whole time. (Annual turnover rates are consistently in the teens.) The fund's reasonable price is another attraction.

This fund thus holds much appeal--as long as shareholders understand that its calm, patient approach does not protect against a bumpy ride.

**Process Pillar:**  Positive

This fund essentially uses a standard value-investing approach but executes it with unusual dedication and patience. Its managers look for companies they consider undervalued versus their true long-range worth. That often has led them to unpopular stocks, such as United States and European drug giants when concerns about the effects of lackluster drug pipelines were rampant, or individual companies suffering from specific issues, such as Bank of America BAC or Petrobras PBR. They typically stick with their holdings for years. (This fund's turnover rate for 2015 was just 18%, which is typical.)

The managers invest mostly in large-cap stocks and use bottom-up, fundamental research to determine which to invest in. They don't align country or industry weightings with the indexes. Broader macroeconomic views or other high-level factors play lesser roles, though the managers do consider issues such as potential legislation. And one top-down opinion does influence the portfolio: The managers' conviction that faster growth rates in emerging markets will be a long-term phenomenon that merits consistently tilting the portfolio strongly in that direction.

This fund does not hedge most of its foreign-currency exposure into the U.S. dollar but will hedge selectively when the managers feel a currency's value has moved far out of its normal range. Even then, they target only certain currencies and hedge just a portion of that exposure.

Although some traits of this portfolio are unexceptional, this fund continues to have big differences with peers and indexes in some respects. In the Sept. 30, 2016, portfolio, the fund has almost no exposure to consumer defensive stocks, even though those make up around 10% of the MSCI ACWI ex-US Index and even more of the average rival fund. The fund has roughly one fourth of the portfolio in technology sector, more than double

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 23.36          | 1.05         |
| 2016 | 8.26           | 7.48         |
| 2015 | -11.35         | -9.77        |
| 2014 | 0.08           | 5.06         |
| 2013 | 26.31          | 6.88         |

# Dodge & Cox International Stock Fund DODFX

## Analysis

the stakes of the index and the typical peer. And the fund has more than 20% of its assets in emerging markets, a higher stake than the emerging-markets-heavy ACWI ex-US Index and about 3 times the category average. The latter position derives from the managers' long-term belief that higher growth rates in emerging markets merits that overweighting, despite the inevitable turmoil. On the individual stock level, the managers have more than 4% of assets each in two stocks: Samsung Electronics, whose stock price surprisingly has had a stellar year despite the alarming headlines, and Naspers, an Internet firm that has been a large holding since 2007. Also in the top 25, the fund still owns several long-held Big Pharma names, including Sanofi SNO, Roche RHHBY, and Novartis NVS, even though the managers acknowledge pricing pressure especially in the U.S. On Sept. 30, the fund had 20% and 25% of its euro and Swiss franc exposure, respectively, hedged in to the U.S. dollar, along with nearly all of its China exposure.

### Performance Pillar: Positive

This fund bounced back from a poor showing in 2015 to burnish its credentials as one of the top foreign-stock funds. Its broad commitment to emerging markets despite their struggles in prior years, and to certain troubled holdings (with Petrobras PBR a prime example), served it well. Strong rebounds by many pushed the fund to a top-decile ranking in the foreign large-blend category for the year to date through Nov. 30, 2016, even after lagging in the year's first half.

In 2015, its overweighting in emerging markets (and some other problems) had proved harmful, as sentiment toward emerging markets soured and the fund's willingness to add to its stakes as prices fell deepened the damage in the short term. That's not the first time the fund has stumbled. In 2011, for example, its outsize emerging-markets stake, and other issues such as Nokia NOK, took their toll in a rough year.

As these instances imply, the fund can be volatile despite (or perhaps because of) its patient, value-oriented approach. However, the patience pays

off. The fund's return since its 2001 inception is far ahead of the averages for the foreign large-blend and foreign large-value averages as well as the MSCI EAFE and the MSCI ACWI Ex USA indexes. Its five- and 10-year returns also beat all four by comfortable margins. Its history thus instills confidence, but it shouldn't be considered a tame choice.

### People Pillar: Positive

Few funds can match this management team's depth and experience. An eight-person investment policy committee, whose members have an average tenure with the firm of 22 years, calls the shots at this fund. Several also serve on the committees for Dodge & Cox Stock DODGX or Dodge & Cox Global Stock DODFX, and two managers--Charles Pohl and Diana Strandberg--serve on all three committees. While the committees' rosters are quite stable overall, changes do occasionally take place. Englebert Bangayan, who joined the firm in 2002, became a member of the committee in February 2015, and in June 2016, longtime committee member Greg Serrurier retired.

The analyst ranks are also broad and deep, with similarly impressive levels of experience, at Dodge & Cox. As of Sept. 30, 2016, the firm had 34 industry analysts and portfolio managers on the equity side, not including junior-level research analysts on two-year contracts. Twenty-nine of them had been at the firm for seven years or more. (There are another 26 managers and analysts with similar levels of experience on the fixed-income side who are consulted at times for this fund.)

San Francisco is the home base for the entire staff. Nearly all of the analysts and managers have spent their entire careers at Dodge & Cox. Indeed, managers and analysts rarely leave for any reason besides retirement.

### Parent Pillar: Positive

Dodge & Cox is an exemplary firm and earns a Positive Parent rating.

The firm, based in San Francisco, benefits from a strong investment culture. CEO and president Dana Emery and chairman Charles Pohl are also lead

members of the investment team; they run both the firm and its funds with a long time horizon.

But there are no stars here. Each fund is run collaboratively by one of five investment policy committees, whose members average more than 20 years at the firm. Moreover, the analyst ranks are broad and deep, with impressive levels of experience. In all, the firm has approximately 60 managers and analysts, most of whom are Dodge & Cox lifers. Indeed, team members rarely leave for any reason other than retirement.

Dodge & Cox's approach to new strategies is also admirable, having rolled out just six since its 1930 founding. The most recent is a global fixed-income offering that launched in May 2014; the firm developed its foreign-bond capabilities as a natural extension of its international-equity expertise. Management has also proved willing in the past to safeguard its strategies by closing funds.

Managers are heavily invested in the funds and the firm and have ample incentive to serve shareholders, as evinced by low costs, clear communications, and a sober long-term approach. In all, the firm is built to last.

### Price Pillar: Positive

Dodge & Cox International Stock is one of the least-expensive actively managed foreign-stock funds. It has one share class, which doesn't carry a load; its 2015 expense ratio (also listed in the May 2016 prospectus) was 0.64%. A large asset base--around \$55 billion at the end of November 2016--helps keep costs down. However, Dodge & Cox starts out of the gate with low expenses by keeping its management fee modest, at just 60 basis points.

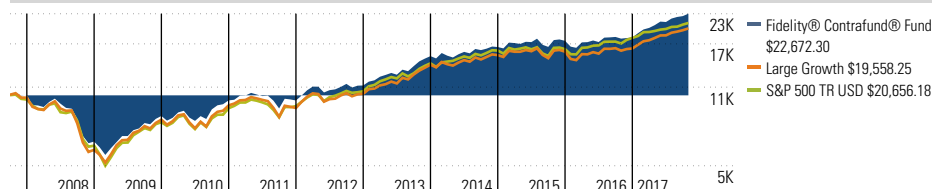
The fund's consistently low turnover rate also helps keep down trading costs, which aren't included in the expense ratio. Overall, the fund gets a Positive Price rating.

# Fidelity® Contrafund® Fund FCNTX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category     | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|--------------|------------------|
| 124.25 | ↑0.04   0.03     | 0.24        | 117.9               | Open   | \$2,500   | None | 0.68%    | ★★★★                | Large Growth | Large Growth     |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks capital appreciation. The fund normally invests primarily in common stocks. It invests in securities of companies whose value the advisor believes is not fully recognized by the public. The fund invests in domestic and foreign issuers. It invests in either "growth" stocks or "value" stocks or both. The fund uses fundamental analysis of factors such as each issuer's financial condition and industry position, as well as market and economic conditions to select investments.

## Performance 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 12,698 | 10,293 | 12,871 | 15,146  | 20,112  | 22,532   |
| Fund               | 26.98  | 2.93   | 28.71  | 14.84   | 15.00   | 8.46     |
| +/- S&P 500 TR USD | 10.84  | 0.44   | 5.86   | 1.79    | 0.74    | 0.96     |
| +/- Category       | 4.96   | 0.50   | 4.05   | 2.05    | 1.04    | 0.96     |
| % Rank in Cat      | 20     | 23     | 18     | 26      | 33      | 29       |
| # of Funds in Cat  | 1,374  | 1,443  | 1,362  | 1,219   | 1,088   | 767      |

\* Currency is displayed in BASE

## Top Holdings 08-31-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range           |
|----------------------------|----------|-------------|-----------|-------------------------|
| Facebook Inc A             | 7.39     | 176.03 BASE | -0.05 ↓   | 113.55 - 176.74         |
| Berkshire Hathaway Inc A   | 5.06     | — BASE      | 0.09 ↑    | 213,680.00 - 283,000.00 |
| Amazon.com Inc             | 4.49     | 997.00 BASE | -1.20 ↓   | 710.10 - 1,083.31       |
| Apple Inc                  | 3.75     | 159.76 BASE | -0.44 ↓   | 104.08 - 164.94         |
| Alphabet Inc A             | 3.49     | — BASE      | 0.17 ↑    | 743.59 - 1,016.31       |
| % Assets in Top 5 Holdings | 24.18    |             |           |                         |

⊕ Increase ⊖ Decrease ☆ New to Portfolio

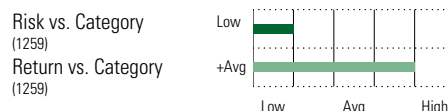
## Top Sectors 08-31-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|--------------------|-------|-----------|----------|---------|------------------|
| Technology         | 38.48 | 38.48     | 26.88    | 30.46   | ■ Fund ▼ Cat Avg |
| Financial Services | 22.57 | 22.57     | 19.73    | 12.69   |                  |
| Consumer Cyclical  | 15.26 | 19.63     | 15.26    | 16.99   |                  |
| Healthcare         | 9.75  | 14.81     | 9.54     | 15.87   |                  |
| Industrials        | 5.72  | 6.76      | 5.72     | 9.35    |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 02-10-2017        | 104.60           | 0.6600                 | 0.0000                  | 0.0000            | 0.0160          | 0.6760             |
| 12-09-2016        | 100.08           | 2.8380                 | 0.0000                  | 0.0000            | 0.2770          | 3.1150             |
| 02-05-2016        | 88.14            | 0.6230                 | 0.0000                  | 0.0000            | 0.0140          | 0.6370             |
| 12-11-2015        | 97.64            | 4.0100                 | 0.0000                  | 0.0000            | 0.3110          | 4.3210             |
| 02-06-2015        | 97.92            | 0.9500                 | 0.0000                  | 0.0000            | 0.0000          | 0.9500             |

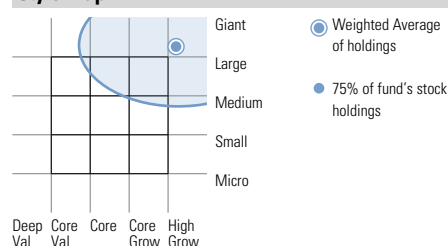
## 3 Year Average Morningstar Risk Measures



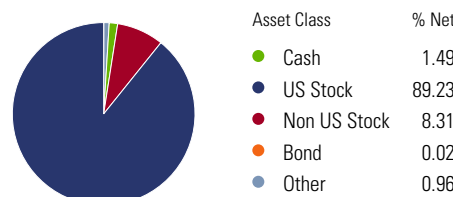
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

| Manager        | Start Date |
|----------------|------------|
| William Danoff | 09-17-1990 |



# Fidelity® Contrafund® Fund FCNTX

## Analysis

### This fund remains in capable hands.

By Katie Rushkewicz Reichart, CFA 3/7/2017

Led by Will Danoff since 1990, this \$107 billion fund has long been one of the industry's biggest by assets. The challenges its size presents, plus fees that aren't as low as might be expected given its economies of scale, limit its Morningstar Analyst Rating to Silver. However, Danoff's experience and consistent execution through the years help it maintain an edge.

Danoff looks for companies poised to grow their earnings and places a heavy emphasis on the management teams in charge. For instance, Facebook FB has grown into a top-two position given Danoff's confidence in Mark Zuckerberg. The fund's technology stake increased to more than a third of assets by December 2016, an all-time high for the fund. The fund's investments in a variety of privately held companies tend to cluster in the tech sector. The fund owned shares of Snap SNAP well before its early 2017 IPO and also counts Uber and Pinterest among its holdings; private-company investment totals less than 2% of the fund's assets, though, so there aren't major risk or liquidity concerns.

Top positions in the portfolio have largely remained intact for several years--turnover is moderate because of the fund's size--and include some financials names that aren't commonplace in other large-growth Morningstar Category funds. The fund has had a longtime bet on Berkshire Hathaway BRK.A; Danoff said he's never sold a share. The inclusion of such stocks has dampened the fund's risk profile. Indeed, it's lost less than the Russell 1000 Growth Index in down markets and has been less volatile than large-growth peers under Danoff.

Danoff has Fidelity's large global analyst team at his disposal, which helps him keep tabs on the sprawling portfolio of 300-plus names and feeds him ideas that can help distinguish the fund from its benchmark. The fund has lagged the Russell 1000 Growth Index and S&P 500 during the trail-

ing five years through February; however, Danoff's experience and the fund's strong risk-adjusted returns during his tenure provide confidence in its continued success.

#### Process Pillar: Positive

Will Danoff follows a typical growth strategy, looking for firms with improving earnings, but his execution sets the fund apart. He weaves together his own analytical insights, gleaned from 30 years at Fidelity, with research from 135 global analysts. As the biggest owner of many stocks, Danoff has unparalleled access to company management, helping him understand a business' growth drivers. Capacity has long been a risk, given that Danoff manages more than \$100 billion across accounts. (In 2013, Fidelity named John Roth as comanager at Danoff's other charge, Fidelity Advisor New Insights FINSX, which in the past looked very similar to Fidelity Contrafund but has started deviating to a greater extent.) Even so, Contrafund is the second-biggest actively managed large-cap fund and is often a top owner of its holdings, so its size does limit its flexibility.

Danoff has made tweaks to the process through the years to accommodate its growing size, including trading less often, owning fewer mid- and small-cap names, and maintaining a portfolio of 270-500 stocks. (The name count has trended downward recently as Danoff has focused on his best ideas.) These moves haven't affected long-term performance, which remains strong. The fund has been closed in the past, but it is currently open and has experienced outflows in recent years.

Danoff's consistent execution through the years earns the fund a Positive Process rating.

Despite the fund's large asset base and portfolio of hundreds of names, it has avoided looking too marketlike. It has held as much as 20% in non-U.S. equities in the past, though its 7% non-U.S. stake as of December 2016 was on the low end of its normal range during the past decade.


While the fund's size limits Danoff's ability to take meaningful positions throughout the portfolio, he

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

#### 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.

#### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 27.02          | 5.00         |
| 2016 | 3.36           | 0.14         |
| 2015 | 6.46           | 2.86         |
| 2014 | 9.56           | -0.44        |
| 2013 | 34.15          | 0.23         |

# Fidelity® Contrafund® Fund FCNTX

## Analysis

doesn't shy away from making big bets where he can. Alphabet GOOG and Berkshire Hathaway BRK.A are long-standing bets in the portfolio, each at more than 5% of assets as of December. Facebook FB is a top-two position based on Danoff's belief that it is a great franchise with excellent management. The fund's tech stake has ticked up during the past year, and it remains the biggest sector weighting, at nearly 37% of assets. The fund's healthcare stake has come down to under 10% of assets, and Danoff is treading carefully on concerns about drug pricing. The fund's 16% financials stake is above the large-growth norm (though similar to its S&P 500 prospectus benchmark's).

The fund has stakes in some private tech companies, including Uber, Pinterest, and Airbnb, though these totaled less than 2% of assets as of year-end. It also owned Snap SNAP well before its 2017 IPO. The fund, which held 4%-6% cash in early 2016, was close to fully invested as of December.

### Performance Pillar: Positive

This fund earns a Positive Performance rating. It's been a top large-growth offering under Will Danoff, who has managed it since September 1990. During his tenure through February 2017, the fund has gained 12.9% annualized to the S&P 500's 10.2%, the Russell 1000 Growth Index's 9.6%, and the category's 8.9%. Danoff's record is all the more impressive considering the huge sum of money he oversees, totaling more than \$100 billion. Undoubtedly, this fund is less flexible than the \$6 billion Fidelity Series Opportunistic Insights used exclusively in Fidelity's target-date series, which he's led to even better results since its late-2012 inception.

This fund isn't too volatile for a growth fund. Danoff, who has run money long enough to witness a few major market blowups, has outperformed large-growth peers and the Russell 1000 Growth Index in down markets during his tenure, including in both bear markets of the 2000s. The fund's Morningstar Risk score, which penalizes downside deviations in returns, is low. Danoff prefers proven growers showing tangible signs of improv-

ing earnings to more-speculative fare, which means the fund can lag in certain market environments, such as 2009's rally. Its 20% gain for the 12 months through February lagged the S&P 500 and Russell 1000 Growth Index, with picks such as Estee Lauder EL and Nike NKE dragging on results.

### People Pillar: Positive

Will Danoff has run this fund since September 1990. On his watch, it has been one of the top-performing large-growth funds, even as it has grown in size. While Danoff's years of experience and stock-picking abilities have given the fund an edge and support its Positive People rating, he also relies on Fidelity's global analyst staff of 135. The analysts' input is essential, as it would be difficult to effectively oversee a portfolio of 300-500 stocks himself. The analysts have incentives to relay their best ideas to him, as he commands more than \$100 billion in assets across all his charges. But Danoff is actively involved in stock-specific research and carries around a thick notebook listing the tickers of companies he's met with.

Given Danoff's heavy asset load, capacity has been a long-standing concern. Fidelity has taken small steps to address that, naming John Roth as Danoff's co-manager at the \$25 billion Fidelity Advisor New Insights FINSX in September 2013. That won't take too much off Danoff's plate, as he recently started running Fidelity Series Opportunistic Insights (\$6 billion in assets as of June), which is used exclusively in the target-date series. Roth may be viewed as the heir apparent here, given he was handpicked by Danoff, but the latter has announced no intention of retiring soon. Danoff invests more than \$1 million in both this fund and Fidelity Advisor New Insights.

### Parent Pillar: Positive

Long one of the industry's biggest asset managers, Fidelity has faced pressure as investors have pulled money from the active U.S. equity funds for which the firm is best known. While significant outflows could gravely impact some firms, Fidelity is shielded by its diverse mix across asset classes (including its own competitively priced index funds), success in other business lines, and private ownership that helps it escape quarterly earnings

scrutiny.

The asset-management division remains well-staffed amid cost-cutting across the firm. Still, the firm could stand to rationalize its active-equity fund lineup: There are many redundant or mediocre funds alongside the standouts run by long-time star managers and up-and-comers. Retaining talent remains critical, particularly following the unexpected retirement announcement of a talented young small-cap manager. To its credit, Fidelity has handled equity manager transitions better than in the past. Meanwhile, Fidelity's fixed-income division remains among the industry's best, with a team-oriented approach assuaging key-person risk. Fidelity's target-date funds have improved, and the firm's technology and trading resources remain topnotch.

Even as it has raced to address competitive headwinds by unveiling a handful of factor-based exchange-traded funds, Fidelity remains capable on the actively managed side, earning a Positive Parent rating.

### Price Pillar: Positive

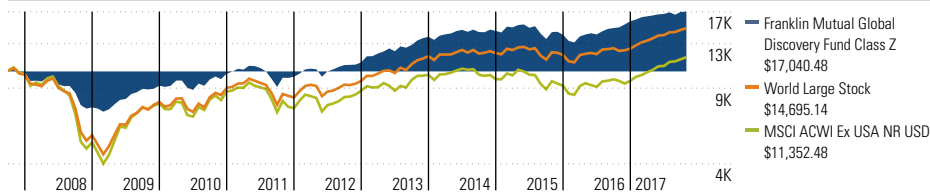
This fund has a performance fee, so its expense ratio can change based on how its three-year returns look relative to the S&P 500. (For every percentage point of out- or underperformance, the expense ratio is adjusted by 0.02%, up to a maximum of 0.20%.) The performance-based fee is in the interest of investors, who don't have to pay as much when the fund is underperforming. The fund's Price Pillar rating is determined without considering the performance adjustment. The no-load and K shares are priced below average relative to similarly sold peers, so the fund receives a Positive Price rating. Expenses have ranged from 0.64% to 1.01% during the past decade; the latter is hard to justify given the fund's huge asset base. Currently the no-load shares cost 0.68%.

# Franklin Mutual Global Discovery Fund Class Z MDISX

Morningstar Analyst Rating  
**Bronze**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category          | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------------|------------------|
| 33.44  | ↑0.08   0.24     | 2.04        | 22.3                | Open   | \$100,000 | None | 0.99%    | ★★★★                | World Large Stock | Large Blend      |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks capital appreciation. The fund invests primarily in equity securities (including securities convertible into, or that the investment manager expects to be exchanged for, common or preferred stock) of U.S. and foreign companies that the investment manager believes are available at market prices less than their value based on certain recognized or objective criteria (intrinsic value). The equity securities in which the fund invests are primarily common stock. The fund may invest substantially and potentially up to 100% of its assets in foreign securities.

## Performance 10-17-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 10,888 | 10,158 | 11,677 | 12,634  | 15,674  | 16,971   |
| Fund                        | 8.88   | 1.58   | 16.77  | 8.11    | 9.40    | 5.43     |
| +/- MSCI ACWI Ex USA NR USD | -14.48 | -0.33  | -7.64  | 0.89    | 2.58    | 4.20     |
| +/- Category                | -10.44 | -0.40  | -5.18  | -1.33   | -0.84   | 1.41     |
| % Rank in Cat               | 99     | 76     | 88     | 73      | 64      | 20       |
| # of Funds in Cat           | 847    | 921    | 829    | 691     | 574     | 319      |

\* Currency is displayed in BASE

## Top Holdings 06-30-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range  |
|----------------------------|----------|-------------|-----------|----------------|
| Medtronic PLC              | 2.40     | 78.59 BASE  | 0.76 ↑    | 69.35 - 89.72  |
| Novartis AG ADR            | 2.31     | 86.04 BASE  | -0.35 ↓   | 66.93 - 86.90  |
| ⊖ Time Warner Inc          | 2.06     | 101.48 BASE | 0.02 ↑    | 78.81 - 103.89 |
| Merck & Co Inc             | 2.01     | 63.51 BASE  | 0.46 ↑    | 58.29 - 66.80  |
| Eli Lilly and Co           | 1.98     | 85.73 BASE  | -0.38 ↓   | 64.18 - 87.49  |
| % Assets in Top 5 Holdings | 10.76    |             |           |                |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

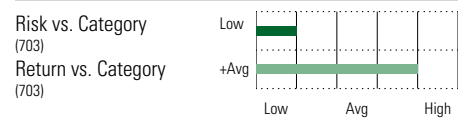
## Top Sectors 06-30-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Financial Services | 26.15 | 29.60     | 26.15    | 18.09   |
| Healthcare         | 14.96 | 15.17     | 13.24    | 12.74   |
| Technology         | 12.61 | 13.56     | 11.93    | 18.17   |
| Consumer Cyclical  | 9.50  | 12.06     | 9.50     | 13.05   |
| Energy             | 9.19  | 9.19      | 6.32     | 4.27    |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-22-2016        | 31.24            | 0.7738                 | 0.0396                  | 0.0000            | 0.6748          | 1.4882             |
| 09-02-2016        | 30.75            | 0.4289                 | 0.0430                  | 0.0000            | 0.0109          | 0.4828             |
| 12-18-2015        | 28.78            | 1.6120                 | 0.2677                  | 0.0000            | 0.5166          | 2.3963             |
| 09-04-2015        | 31.31            | 0.3635                 | 0.0000                  | 0.0000            | 0.0363          | 0.3998             |
| 12-19-2014        | 33.33            | 1.2116                 | 0.0000                  | 0.0000            | 0.7915          | 2.0031             |

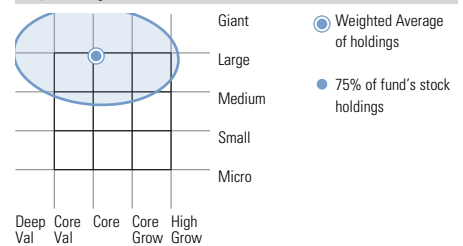
## 3 Year Average Morningstar Risk Measures



## Pillars

|             |   |          |
|-------------|---|----------|
| Process     | + | Positive |
| Performance | + | Positive |
| People      | + | Positive |
| Parent      | + | Neutral  |
| Price       | + | Positive |
| Rating      |   | Bronze   |

## Style Map



## Asset Allocation

|              | % Net | % Short | % Long | Bench mark | Cat Avg |
|--------------|-------|---------|--------|------------|---------|
| Cash         | 4.10  | 0.17    | 4.27   | 0.00       | 1.78    |
| US Stock     | 49.71 | 0.00    | 49.71  | 51.83      | 51.39   |
| Non US Stock | 38.52 | 0.00    | 38.52  | 48.11      | 45.36   |
| Bond         | 3.85  | 0.00    | 3.85   | 0.00       | 0.92    |
| Other        | 3.82  | 0.00    | 3.82   | 0.07       | 0.56    |

## Management

|                         | Start Date |
|-------------------------|------------|
| Philippe Brugère-Trélat | 12-07-2009 |
| Peter A. Langerman      | 12-07-2009 |
| Timothy Rankin          | 12-31-2010 |

# Franklin Mutual Global Discovery Fund Class Z MDISX

## Analysis

### Bargain-hunting can be a pain.

By Wiley Green 4/11/2017

Franklin Mutual Global Discovery's robust process is implemented by an experienced team, but the fund is not a bargain and earns a Morningstar Analyst Rating of Bronze.

The Franklin Mutual Series team is deep and tenured, which provides confidence that the fund's deep-value process will be consistently executed. The group of portfolio managers has averaged more than a decade with the Mutual Series team, and the analysts have averaged six years at the firm, despite new hires in 2013 lowering the average. The team has dedicated merger/arbitrage and distressed-debt experts, an identifying feature and trademark of the Mutual Series style.

Management's bottom-up approach is primarily oriented toward cheap stocks but includes merger-arbitrage and distressed debt. Focusing on fundamentals helps them look past short-term drops to buy more when they think a security has become a bigger bargain. In mid-2015, the managers built a top-25 equity position in Volkswagen VOW3 because they thought its stock price didn't reflect the value of its Porsche and Audi businesses. When Volkswagen's shares then got crushed following its emissions scandal, management reassessed the company's value, including the impact of potential fines and lost sales, and increased the number of shares the fund held by roughly half. This focus on fundamentals also helped the managers add to names like Royal Dutch Shell RDSA and Symantec SYMC after share prices slid in 2015, and those stocks became primary drivers of the fund's rebound in 2016. The fund's appetite for risk extends to downtrodden sectors, too. Management remained relatively cautious in 2015 by maintaining a benchmark-matching equity weighting in hard-hit energy names, but they found opportunities in financials stocks, which on average had the lowest trailing 12-month price/earnings and price/book ratios of any global sector.

Despite fees that leave something to be desired

and mixed performance, Peter Langerman and his team are well schooled in the fund's proven approach and should keep it competitive.

#### Process Pillar: Positive

This fund's integrated value approach receives a Positive Process Pillar rating. As with other Mutual Series offerings, it's focused on cheap stocks, but also includes merger-arbitrage plays on announced acquisitions and distressed debt. While the managers pay attention to standard valuation metrics like price multiples, they concentrate on firms' enterprise values as a function of what each individual business line is worth. Their activity in merger-arbitrage helps keep tabs on what informed buyers are willing to pay. Once they find companies whose securities are trading at a material discount to their estimates of intrinsic value, they look across the capital structure and invest where they see the best risk/reward opportunities. Positions often migrate across that structure. An initial stake in a bankrupt firm's senior collateralized debt can lead to buying its junior unsecured debt as management becomes comfortable with its restructuring plan, or it may lead to an exchange for equity following the reorganization.

The managers court risk by investing in troubled firms, but their expertise, combined with an insistence on an appropriate margin of safety on price, provide some protection. They're also willing to wait years for theses to play out and readily go to cash if compelling alternatives are lacking. In addition, they're quick to sell once securities reach their estimates of fair value.


Management aims to layer downside protection into the structure of the portfolio. It holds a diverse mix of roughly 130 equity and fixed-income securities. Cheap stocks and merger-arbitrage equity positions typically take up 80%-90% of the fund's assets, while the remainder is split largely between distressed debt and cash, as opportunity dictates. As of March 2017, the fund's equity stake stood at 90%, with roughly 4% of assets in distressed debt. Since bankruptcy plays, whether liquidations or reorganizations, move according to the courts' timing, they can reward investors inde-

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Neutral  |
| Price       |  Positive |

#### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 9.14           | -10.21       |
| 2016 | 12.86          | 7.32         |
| 2015 | -3.36          | -1.67        |
| 2014 | 5.33           | 2.54         |
| 2013 | 25.64          | 0.45         |

# Franklin Mutual Global Discovery Fund Class Z MDISX

## Analysis

pendent of market movements. Yet they also come with their own brand of uncertainty.

The fund can invest all of its assets overseas and up to 25% in emerging markets. Foreign exposure peaked at 71% in 2007, 8% of which was in emerging markets (including South Korea and Taiwan). Since mid-2010, foreign exposure has generally trended downward, and most of the fund's stocks are multinationals like top-10 holding Royal Dutch Shell RDS.A. While the managers don't hedge the foreign-currency exposure of holdings that do most of their business in U.S. dollars, like Shell, they do hedge the rest of their international currency exposure.

Cash was near 30% when the current team took over in late 2009. It quickly came down and has since ranged from roughly 5% to 15%.

### Performance Pillar: Positive

By building a portfolio of cheap stocks, merger-arbitrage plays, and distressed debt, management aims to outperform on a risk-adjusted basis. Since lead manager Peter Langerman began his second stint here at year-end 2009, this value portfolio's returns edged the world-stock Morningstar Category but lagged the MSCI World Index. The fund has benefited relative to index and peers by hedging a majority of its currency exposure back to the U.S. dollar. From the end of 2009 through March 2017, the hedged MSCI World Index has beaten the unhedged index by 2% annualized, making the fund's relative returns difficult to assess. Offsetting the currency tailwind is the fact that value investing has been out of favor globally, demonstrated by the MSCI World Value Index lagging the MSCI World Index during the same period.

The fund's results look better on a risk-adjusted basis, thanks to lower volatility than the benchmark. During the same period, the fund's Morningstar Risk-Adjusted Return beat the category average and the MSCI World Value Index, earning it a Positive Performance rating. However, the fund's risk-adjusted returns lag the manager's chosen benchmark, the MSCI World Index.

### People Pillar: Positive

This fund's Positive People Pillar rating reflects management's expertise and shared experience. That experience has been somewhat varied, as all three managers left the firm at one point before returning and two of three had prior stints here. Lead manager Peter Langerman and comanager Philippe Brugere-Trelat both joined predecessor Heine Securities in the 1980s, while comanager Timothy Rankin joined the firm shortly after Franklin's 1996 acquisition. Beginning with Brugere-Trelat's departure prior to that acquisition, all three left the firm for periods ranging from three to 10 years but returned by mid-2010. Langerman previously managed here from 1993 to 1998 and returned in late December 2009, around when Brugere-Trelat also started. Rankin was a comanager here from July 2001 to late 2004 and returned at year-end 2010.

The managers are part of Franklin's Mutual Series team. Tracing its lineage back to pioneering value investor Max Heine and his protege Michael Price, the team comprises 15 portfolio managers and five analysts, who have been with the firm or its predecessor for 12-plus years on average. They divide coverage by global industry, region, and asset class. Brugere-Trelat, for example, focuses on European equities. He also leads Franklin Mutual European MEURX.

Langerman and Rankin each invest more than \$1 million in the fund, and Brugere-Trelat at least \$500,000.

### Parent Pillar: Neutral

Publicly traded but family controlled and managed, Franklin Resources BEN is the parent company of Franklin Templeton Investments. A global asset manager with \$738 billion in assets as of early 2017, the firm has grown through multiple acquisitions over the years.

Franklin's recent struggles highlight, albeit to an extreme, the challenges facing active management. Between mid-2014 and early 2016, the firm's AUM fell by more than one fifth as investors increasingly opted for passive strategies

and flagships like Franklin Income FKINX performed poorly. Franklin responded by cutting 300 personnel worldwide and launching seven exchange-traded funds in the United States, four of which passively track customized benchmarks built using a proprietary multifactor model for each.

The step toward passive investing illustrates the firm's tendency to add to its investment capabilities rather than foster excellence across its lineup. The firm's U.S. strategies are the most wide-ranging, and of the 36 U.S. open- and closed-end funds with a Morningstar Analyst Rating, half are Neutral. On the fixed-income side, although Templeton Global Bond TPINX remains a standout, the firm's other taxable- and municipal-bond strategies have had missteps, including ill-timed bets on energy and Puerto Rico debt. We have downgraded the firm's Parent Pillar rating to Neutral from Positive.

### Price Pillar: Positive

The fund's assets-per-share weighted expense ratio of 1.23% toes the line between average and below-average relative to its world-stock peers, earning it a Positive Price rating. However, the fund's management fee is greater than half of its peers in the world-stock category despite being the fourth-largest fund in the category. Further, the management fee has increased in the past decade, while the fund's assets have grown more than 40%. One positive was the recent reduction of the 12b-1 fee levied on the fund's A shares, to 25 basis points from 30. Investors aren't getting the services of these topnotch value investors at a discount.

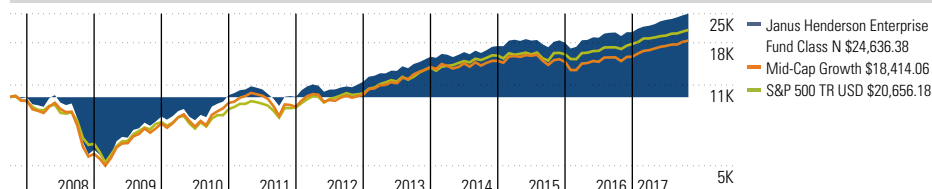


# Janus Henderson Enterprise Fund Class N JDMNX

Morningstar Analyst Rating  
**Bronze**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status  | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category       | Investment Style |
|--------|------------------|-------------|---------------------|---------|-----------|------|----------|---------------------|----------------|------------------|
| 116.78 | ↑0.24   0.21     | 0.18        | 15.2                | Limited | —         | None | 0.68%    | ★★★★★               | Mid-Cap Growth | Mid Growth       |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks long-term growth of capital. The fund pursues its investment objective by investing primarily in common stocks selected for their growth potential, and normally invests at least 50% of its equity assets in medium-sized companies. Medium-sized companies are those whose market capitalization falls within the range of companies in the Russell Midcap® Growth Index. Market capitalization is a commonly used measure of the size and value of a company. It may also invest in foreign securities, which may include investments in emerging markets.

## Performance 10-18-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 12,233 | 10,278 | 12,530 | 15,969  | 21,835  | 24,577   |
| Fund               | 22.33  | 2.78   | 25.30  | 16.89   | 16.90   | 9.41     |
| +/- S&P 500 TR USD | 6.10   | 0.37   | 3.11   | 3.80    | 2.57    | 1.89     |
| +/- Category       | 3.83   | -0.02  | 2.68   | 5.70    | 4.03    | 2.59     |
| % Rank in Cat      | 21     | 49     | 25     | 2       | 4       | —        |
| # of Funds in Cat  | 581    | 597    | 570    | 517     | 440     | 337      |

\* Currency is displayed in BASE

## Top Holdings 06-30-2017

|                                   | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|-----------------------------------|----------|-------------|-----------|-----------------|
| Sensata Technologies Holding N.V. | 2.25     | 49.68 BASE  | 1.06 ↑    | 35.10 - 49.82   |
| Lamar Advertising Co Class A      | 2.14     | 68.52 BASE  | -0.25 ↓   | 58.68 - 79.09   |
| ⊕ TD Ameritrade Holding Corp      | 2.11     | 47.54 BASE  | 0.68 ↑    | 33.26 - 50.72   |
| Aon PLC                           | 1.92     | 149.60 BASE | 0.27 ↑    | 107.19 - 150.16 |
| PerkinElmer Inc                   | 1.92     | 70.19 BASE  | -0.31 ↓   | 45.35 - 72.11   |
| % Assets in Top 5 Holdings        | 10.34    |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

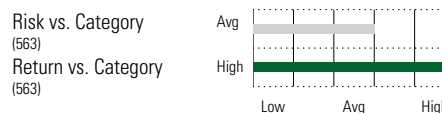
## Top Sectors 06-30-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|--------------------|-------|-----------|----------|---------|------------------|
| Technology         | 31.54 | 31.54     | 29.70    | 20.65   | ■ Fund ▼ Cat Avg |
| Industrials        | 21.32 | 27.40     | 21.32    | 17.93   |                  |
| Healthcare         | 19.34 | 19.34     | 15.54    | 15.39   |                  |
| Consumer Cyclical  | 12.23 | 12.23     | 10.39    | 16.94   |                  |
| Financial Services | 8.41  | 8.41      | 6.18     | 11.89   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-19-2016        | 96.92            | 1.5579                 | 0.0000                  | 0.0000            | 0.2134          | 1.7713             |
| 12-17-2015        | 86.14            | 2.8187                 | 0.3164                  | 0.0000            | 0.4000          | 3.5351             |
| 12-17-2014        | 85.38            | 4.9724                 | 0.0000                  | 0.0000            | 0.0921          | 5.0645             |
| 12-17-2013        | 79.46            | 4.3403                 | 0.0000                  | 0.0000            | 0.2324          | 4.5727             |
| 12-18-2012        | 66.49            | 2.2663                 | 0.0000                  | 0.0000            | 0.0000          | 2.2663             |

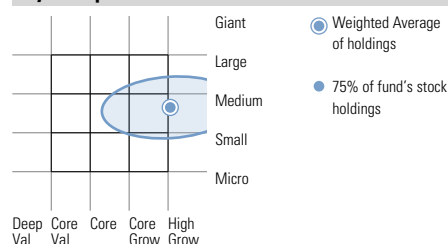
## 3 Year Average Morningstar Risk Measures



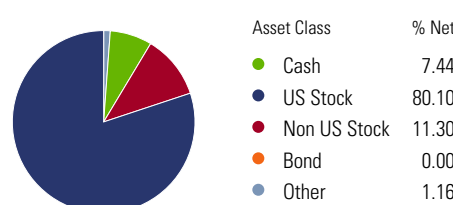
## Pillars

|             |               |
|-------------|---------------|
| Process     | ⊕ Positive    |
| Performance | ⊕ Positive    |
| People      | ⊕ Positive    |
| Parent      | ⊕ Neutral     |
| Price       | ⊕ Positive    |
| Rating      | <b>Bronze</b> |

## Style Map



## Asset Allocation



## Management

|                     | Start Date |
|---------------------|------------|
| Brian Demain        | 11-01-2007 |
| Philip Cody Wheaton | 07-01-2016 |

# Janus Henderson Enterprise Fund Class N JDMNX

## Analysis

### This hot fund is about to close to new investors.

By Greg Carlson 12/16/2016

Janus Enterprise has grown by leaps and bounds lately, but it is about to close to new investors. The fund's experienced skipper and prudent approach continue to merit a Morningstar Analyst Rating of Bronze.

Manager Brian Demain has run this mid-growth fund for more than nine years, and while it typically hasn't blown away the competition in a single year, it has shone more recently, and its record during his tenure is strong. From Nov. 1, 2007, through Nov. 30, 2016, the fund surpassed more than 80% of its peers on both a total-return and risk-adjusted basis (based on Sortino and Sharpe ratios) and outpaced its Russell Midcap Growth benchmark on both measures.

Investors have taken notice: Between the start of 2015 and November 2016, the fund took in a net \$5.7 billion, more than doubling its size, and Demain now manages a total of \$13 billion in this strategy. Thus, it was comforting when Janus announced on Dec. 9 that the fund will close to new investors on Jan. 27, 2017.

Funds often close too late, but this pool of assets should be manageable given Demain's measured strategy. He typically favors mid-cap firms with relatively stable revenues, economic moats, and improving returns on invested capital, and he hangs on to them for an average of six to seven years while avoiding big individual positions (top holdings rarely exceed 3% of assets). He's willing to let picks largely cluster within a few sectors, but this hasn't resulted in undue volatility, and the fund has only lagged its typical peer in one calendar year during his tenure (2013's big rally).

Results versus the benchmark have been inconsistent on a calendar-year basis; the fund significantly lagged in 2009's and 2013's surges, virtually matched the index in 2010, 2011, and 2014, and meaningfully outperformed the bogy in 2012, 2015, and 2016. Some patience is required, which in-

vestors rushing into the fund in 2015 should bear in mind. Janus' impending merger with UK-based asset manager Henderson Group creates some uncertainty. But it is unlikely that management will tinker with this successful fund.

#### Process Pillar: Positive

Managers Brian Demain and Cody Wheaton prefer companies with recurring revenues, competitive advantages, and strong or improving returns on invested capital. The portfolio's average profitability measures typically land above the mid-growth Morningstar Category norm. The managers are willing to pay up for durable growth at times; thus, valuations are typically at or above the category norm as well. They will also own, in far smaller quantities, opportunistic growth plays with rapid, more-volatile growth.

When it comes to firms' balance sheets, Demain doesn't care as much about the absolute amount of their debt as the structure of that debt. The fund's debt/capital ratio is often above average, though it was slightly below its typical peer's in September 2016. He likes to see maturities staggered in a prudent way, and he opts for companies that can generate more than enough cash to pay off their debt.

Valuation is also a factor: Demain performs discounted cash flow analysis on every stock and will sell on valuation concerns. A recent example is industrial conglomerate IDEX.

The fund typically owns 70-80 stocks. Demain is a patient investor--portfolio turnover was 8% versus 67% for its typical peer in the most recent fiscal year. He typically scales new purchases up in size in a gradual manner. The fund's appealing approach earns a Positive for Process.

Manager Brian Demain's focus on steadier fare has resulted in a distinctive portfolio. The fund's active share versus its benchmark, the Russell Mid Cap Growth Index, was 85.5% at the end of September 2016.

There are no strict sector constraints here. Its tech

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Neutral  |
| Price       |  Positive |

### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 22.33          | 3.83         |
| 2016 | 12.18          | 6.15         |
| 2015 | 3.57           | 4.51         |
| 2014 | 12.19          | 5.19         |
| 2013 | 30.94          | -3.98        |

# Janus Henderson Enterprise Fund Class N JDMNX

## Analysis

weighting has been significantly higher than the category median (30% of assets versus 20% at the end of September), and its industrial and health-care stakes have typically been higher, too. Within tech, Demain has found a wealth of firms with strong balance sheets and solid growth prospects. Its top holdings in the sector include several that Morningstar's equity analysts believe have economic moats, including scientific instrument maker Sensata Technologies ST and telecom software maker Amdocs DOX.

Consumer defensive and consumer cyclical firms, meanwhile, have been big underweightings in the fund relative to its peers. Demain finds fewer durable growth companies in those sectors within mid-caps with the exception of a few mainline retailers at times.

The fund has grown rapidly of late, but Demain should retain the flexibility to continue constructing distinctive portfolios. He manages \$13 billion between this fund, Janus Aspen Enterprise JAAGX, and similar separate accounts. His patient style makes that amount manageable, and the fund is slated to close to new investors on Jan. 27, 2017.

### Performance Pillar: Positive

It took one bad year to make this fund look somewhat ordinary over the longer haul, but strong showings in 2015 and 2016 have boosted its record.

This fund rarely blew away its rivals from when Brian Demain took the helm in November 2007 through 2012. It outperformed its typical peer each calendar year from 2008-12, but the fund's margin of victory was often narrow, and a relatively weak 2013 erased much of its edge. In 2014, the fund surpassed 88% of its mid-growth peers and matched its Russell Midcap Growth benchmark. In 2015, it beat most rivals and solidly outpaced the index because of winning picks such as medical diagnostics firm Boston Scientific BSX and Constellation Software CSU. Through November 2016, it surpassed the index and the category by large margins for the year to date because of picks such

as broker TD Ameritrade AMTD, Ritchie Bros. Auctioneers RBA, and biotech firm Medivation, which was acquired by Pfizer.

During Demain's full tenure through November 2016, the fund beat 80% of peers and the benchmark on both a total-return and risk-adjusted basis (as measured by Sortino and Sharpe ratios). The fund typically gains an edge on its peers and the index when times are tough. It has captured 91% of the downside of the Russell Midcap Growth and 88% of the losses of its typical peer when stocks fall. All told, it earns a Positive rating for Performance.

### People Pillar: Positive

Brian Demain, the fund's assistant manager since late 2004, took the reins here in November 2007 after Jonathan Coleman moved over to lead the firm's flagship Janus Fund JANSX. (He took over the similarly managed Janus Aspen Enterprise JAAGX at the same time.) Demain started as an analyst at Janus in 1999 and became the communications sector team's leader in 2004.

Demain works with the firm's team of small/mid-cap analysts for roughly 60% to two thirds of the fund's holdings. That team includes Cody Wheaton, who was named an assistant manager here in January 2014 and comanager in July 2016. Wheaton still spends time as an analyst covering consumer and financials stocks. The team includes five other analysts.

The analysts support just three funds--this one and small-growth funds Janus Venture JAVTX and Janus Triton JATTX. The latter two funds boasted strong records under Chad Meade and Brian Schaub, who left the firm in May 2013 to join other former Janus personnel at Arrowpoint Partners. One veteran member of this team, Janus Venture comanager Maneesh Modi, jumped to Arrowpoint in early 2015 to back the departed duo.

The rest of the fund's holdings are covered by the firm's large-cap team. Here, Demain works most closely with the tech and healthcare teams, as the fund typically has an overweighting in both those

sectors--particularly tech. The fund earns a Positive rating for People.

### Parent Pillar: Neutral

In October 2016, Janus Capital Group and Henderson Global Investors announced that they intended to merge. The deal was completed at the end of May 2017, with the new group named Janus Henderson Investors.

The business aims and rationale for combining the two entities were clear. Both firms had been looking to diversify their product ranges and increase their scope of distribution, and this merger achieves those objectives. The combined entity also has greater scale--total assets under management were \$345 billion at the end of June 2017--but no long-term fee cuts, which would help the firm better compete in an industry where fees are declining, have been announced. The previous firms' CEOs are co-leaders of the new group, and Enrique Chang, Janus' head of investments, is the overall CIO. This provides some potential for change to the Henderson culture, but Chang had a positive impact on the Janus equity team, and some senior members from the Henderson investment team still have a voice.

There have been personnel departures, but the fact that investment team overlap was relatively limited has been a positive. There are, however, likely to be further changes as the group strategy takes shape, not least in terms of the CEO role, which the board is expected to review in three years. We continue to monitor this situation. Both firms previously earned Neutral Parent ratings, and the combined firm does as well.

### Price Pillar: Positive

This fund has done a good job of sharing economies of scale with shareholders across share classes. The fund's T shares hold 31% of the assets, charge 0.93%, and earn a Morningstar Lee Level of Below Average. The I shares hold 26% of the assets, charge 0.78%, and also earn a Below Average. The N shares hold 18% of the assets, charge 0.68%, and earn a Low.

And the D shares hold 13% of the assets, charge

# Janus Henderson Enterprise Fund Class N JDMNX

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## Analysis

0.84%, and earn a Below Average.

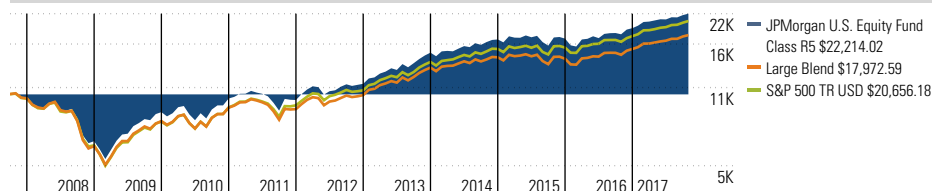
The fund's other four share classes hold the remaining 14% of its assets and earn a Below Average fee level, on average. Overall, the fund earns a Positive rating for Price.

# JPMorgan U.S. Equity Fund Class R5 JUSRX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category    | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------|------------------|
| 16.74  | ↑0.01   0.06     | 0.98        | 15.1                | Open   | —         | None | 0.56%    | ★★★★★               | Large Blend | Large Growth     |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks to provide high total return from a portfolio of selected equity securities. Under normal circumstances, the fund invests at least 80% of its assets in equity securities of U.S. companies. "Assets" means net assets, plus the amount of borrowings for investment purposes. In implementing its strategy, the fund primarily invests in common stocks of large- and medium-capitalization U.S. companies but it may also invest up to 20% of its assets in common stocks of foreign companies, including depositary receipts.

## Performance 10-18-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,549 | 10,248 | 12,234 | 14,279  | 19,793  | 22,176   |
| Fund               | 15.49  | 2.48   | 22.34  | 12.61   | 14.63   | 8.29     |
| +/- S&P 500 TR USD | -0.75  | 0.07   | 0.15   | -0.47   | 0.30    | 0.77     |
| +/- Category       | 0.59   | 0.10   | 1.30   | 1.34    | 1.65    | 1.63     |
| % Rank in Cat      | 48     | 42     | 31     | 32      | 9       | 8        |
| # of Funds in Cat  | 1,296  | 1,381  | 1,262  | 1,109   | 983     | 724      |

\* Currency is displayed in BASE

## Top Holdings 08-31-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|----------------------------|----------|-------------|-----------|-----------------|
| ⊖ Apple Inc                | 4.44     | 159.76 BASE | -0.44 ↓   | 104.08 - 164.94 |
| ⊕ Microsoft Corp           | 3.44     | 77.61 BASE  | 0.03 ↑    | 56.66 - 77.87   |
| ⊖ UnitedHealth Group Inc   | 2.79     | 205.23 BASE | 0.66 ↑    | 136.22 - 207.80 |
| ⊕ Pfizer Inc               | 2.34     | 35.83 BASE  | -1.02 ↓   | 29.83 - 36.60   |
| ⊖ Citigroup Inc            | 2.32     | 73.12 BASE  | 1.29 ↑    | 47.70 - 76.14   |
| % Assets in Top 5 Holdings | 15.33    |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

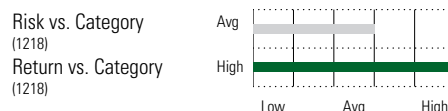
## Top Sectors 08-31-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|--------------------|-------|-----------|----------|---------|------------------|
| Technology         | 22.99 | 22.99     | 20.12    | 19.59   | ■ Fund ▼ Cat Avg |
| Financial Services | 16.84 | 18.70     | 16.84    | 16.90   |                  |
| Healthcare         | 14.70 | 16.02     | 14.11    | 14.73   |                  |
| Industrials        | 12.32 | 12.32     | 9.66     | 11.85   |                  |
| Consumer Cyclical  | 11.63 | 13.88     | 11.63    | 11.24   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-27-2017        | 16.42            | 0.0000                 | 0.0000                  | 0.0000            | 0.0453          | 0.0453             |
| 06-28-2017        | 15.93            | 0.0000                 | 0.0000                  | 0.0000            | 0.0391          | 0.0391             |
| 03-29-2017        | 15.54            | 0.0000                 | 0.0000                  | 0.0000            | 0.0312          | 0.0312             |
| 12-20-2016        | 14.83            | 0.0000                 | 0.0000                  | 0.0000            | 0.0513          | 0.0513             |
| 12-14-2016        | 14.77            | 0.5345                 | 0.0000                  | 0.0000            | 0.0000          | 0.5345             |

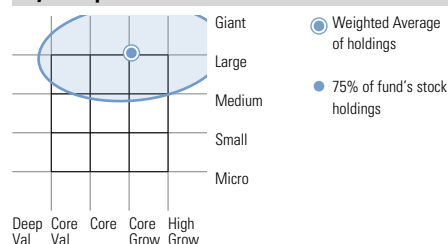
## 3 Year Average Morningstar Risk Measures



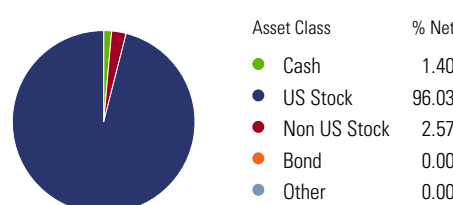
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

|              | Start Date |
|--------------|------------|
| Thomas Luddy | 02-21-2006 |
| Susan Bao    | 01-01-2001 |
| Scott Davis  | 08-18-2014 |
| David Small  | 07-21-2016 |

# JPMorgan U.S. Equity Fund Class R5 JUSRX

## Analysis

### Careful succession planning should not derail this fund's solid trajectory.

By Thomas Lancereau, CFA 1/27/2017

The combination of a strong team with succession planning built in, a robust process, and low fees supports JPMorgan U.S. Equity's Morningstar Analyst Rating of Silver.

JPMorgan has announced that veteran manager Tom Luddy will step back from managing the fund in January 2018 and will be appointed vice chairman of JPMorgan Investment Management. Scott Davis, who has been a named comanager on the fund since August 2014 in anticipation of this transition, will take the lead here. Susan Bao, a comanager on the fund since 2001, will retain her role while assuming lead responsibility on the firm's Large Cap Core Plus (130/30) strategies. Although Luddy's planned transition is a significant loss for investors, they have good reasons to remain confident in the fund.

It is designed to outperform incrementally, primarily through stock selection. The portfolio managers run around 75% of the fund's assets, drawing on the research of JPMorgan's strong core analyst team using the firm's proprietary dividend-discount model. The remaining 25% is directly managed by the analysts' team under the leadership of David Small. Sector weightings stay within close range of the S&P 500's, and positions are rarely as much as 2 percentage points off the benchmark weightings, resulting in a well-diversified portfolio of more than 170 holdings.

As one would expect, tracking error relative to the S&P 500 has been in a narrow 2%-3% range over time, while active share has been below 60%. That may sound like a recipe for mediocrity, but the fund has consistently outperformed thanks to solid stock-picking across the board and despite some manager changes on the edges in recent years. Its performance is firmly anchored in the top quartile of the U.S. large-blend Morningstar Category during the trailing three-, five-, and 10-year periods through December 2016. Those good res-

ults testify to the effectiveness of a robust investment process, skillfully executed by a strong team of portfolio managers and analysts. The fund's low expenses are an additional edge and have also contributed to the compelling long-term record of this sound core holding.

#### Process Pillar: Positive

The benchmark-sensitive process aims to minimize sector and macroeconomic exposure relative to the S&P 500. The fund can deviate from market industry and stock weightings by 4 percentage points, but it generally stays within 2 percentage points. It shows considerable correlation with the S&P 500, with an R-squared of about 96%. The portfolio is also diversified by name, with more than 150 holdings and about 20% of assets in the top 10. The strategy earns a Positive rating for Process because of what sets it apart: consistently strong stock-picking built on an in-house dividend-discount model and a strong core analyst team.

The core of the portfolio, 55% of assets, is run by longtime managers Tom Luddy and Susan Bao. Scott Davis runs 20% of the portfolio using the same strategy. All three rely on the research of the firm's core analyst team. These industry analysts rank stocks within each industry based on estimated fair value; they use an in-house model incorporating long-term earnings, cash flow, and growth-rate estimates. The managers incorporate these rankings into their stock-picking, expressing modest sector preferences based on their macroeconomic view.

The remaining 25% of the portfolio is run directly by the analysts. This portion is broadly sector-neutral relative to the S&P 500, though the analysts may express industry preferences within those sectors.


In keeping with a philosophy that stock-picking should drive performance, sector weightings remain fairly close to the S&P 500's, with relative valuation driving differences. As of the end of November 2016, the portfolio continues to have an underweighting in overvalued consumer staples, utilities, and REITs, with a small overweighting in

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

#### 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.

#### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 15.49          | 0.59         |
| 2016 | 10.86          | 0.49         |
| 2015 | 0.84           | 1.91         |
| 2014 | 13.95          | 2.99         |
| 2013 | 36.07          | 4.57         |



# JPMorgan U.S. Equity Fund Class R5 JUSRX

## Analysis

another more defensive sector, healthcare. Names like UnitedHealth Group UNH are also part of a "cheap yield" theme comprising growth-at-a-reasonable price names that have strong promise on the upside. This play includes Alphabet GOOG.

The fund also continues a tilt toward consumer discretionary, with a preference for media stocks including a significant exposure to Walt Disney DIS. Management is also playing the cyclical recovery in technology, particularly semiconductors, including Broadcom AVGO, a big overweighting. Anticipating interest-rate normalization, the managers added to financials in recent years. Insurance was the most favored industry within that sector, with stock picks diversified among property-casualty insurers such as Chubb CB and life insurers like Metlife MET.

### Performance Pillar: + Positive

A carefully circumscribed strategy has led to strong performance over the long term, earning the fund a Positive Performance Pillar rating. Outperformance is generally attributable to stock-picking across the board and has been very consistent over time. While the fund has had some manager changes on the edges in recent years, its performance is firmly anchored in the top quartile of its category during the trailing three-, five-, and 10-year periods through December 2016. Over the long term, the fund's Morningstar Risk ratings, which emphasize downside volatility, have been in line with the category average, though they have been higher in recent years. The strategy is designed to control risk, not minimize it. The fund has also outperformed its S&P 500 benchmark during five- and 10-year periods, although an uncharacteristically poor 2016 has caused it to lag during three years. Stock selection in healthcare was particularly detrimental last year. Set against the fund's longer-term record, though, this is not cause for concern.

Scott Davis, who will become lead portfolio manager in January 2018, has been involved with the fund only since August 2014, but data provided by JPMorgan shows he has added value during that time span.

### People Pillar: + Positive

The careful planning of Tom Luddy's transition supports our Positive People Pillar rating. The core portfolio is currently run by Tom Luddy and Susan Bao, who together manage a number of JPMorgan's core large-cap U.S. equity vehicles; Luddy is the lead on this one. He joined the firm in 1976 and helped develop the stock-valuation model at the strategy's center.

He will step back from managing the fund in January 2018 and will be appointed vice chairman of JPMorgan Investment Management. Bao, who has been with JPMorgan since 1997 and a comanager here since 2001, will retain a 10% sleeve in the fund in addition to her responsibility as lead on the 130/30 fund, JPMorgan U.S. Large Cap Core Plus JLCAX, effective January 2018.

At that time, Scott Davis, who started at JPMorgan in 2006 and was a media and Internet analyst on the team, will become lead on the fund, in charge of about 65% of the portfolio. He was appointed comanager in August 2014 and now runs about 20% of assets using the same strategy. Both Bao and Davis have less than \$500,000 each invested in the fund.

The 25% sleeve run by the analysts' team now led by David Small will not be affected by this transition.

### Parent Pillar: + Positive

J.P. Morgan Asset Management is one of the largest asset managers in the world, with nearly \$2 trillion in assets. After healthy inflows in 2015, it continues to rank among the top 10 U.S. mutual fund companies. Its U.S. fund business boasts a diverse lineup of more than 120 funds and ETFs supported by a global investment team, and a distribution effort centered on education has built advisor trust.

Many of the most popular funds are Morningstar Medalists, and a number are run by managers on the job for a decade or more, including Jonathan Simon of JPMorgan Mid Cap Value FLMVX and Giri Devulapally of JPMorgan Large Cap Growth

SEEGX. While Doug Swanson, longtime manager of the firm's largest fund, JPMorgan Core Bond WOBDX, began a leave of absence in 2015, veteran Barb Miller stepped in, supported by the same strong team. The SmartRetirement target-date series is another bright spot. The lineup earns an average of 3 stars but has been improving. One concern has been whether the fast-growing JPMorgan Strategic Income Opportunities JSOSX has been adequately supported, though it has seen outflows lately.

An experienced board of trustees has maintained strong oversight, and fees are competitive. Manager investment in the funds has increased significantly, and compensation now factors in 10-year performance where applicable, which exceeds industry standards.

### Price Pillar: + Positive

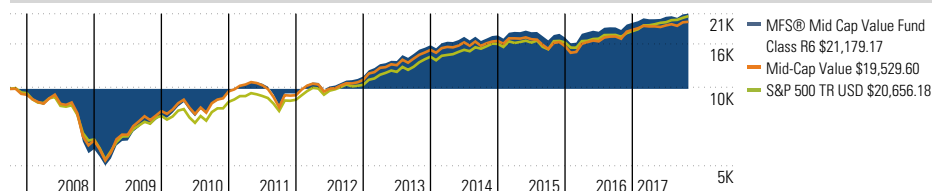
The fund easily earns a Positive Price rating. Most of its assets are in Institutional, Retirement, or Select shares. The Institutional shares have a Morningstar Fee Level of Below Average compared with other large-cap institutional shares. While the Select shares' expense ratio ranks as Average compared with the same group, they are also available to retail investors through certain advisors. The Retirement shares are Below Average within their peer group. The rest of the fund's share classes rank either in the lowest or second-lowest quintile of the relevant fee-level comparison group.

# MFS® Mid Cap Value Fund Class R6 MVCKX

Morningstar Analyst Rating

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category      | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|---------------|------------------|
| 23.78  | ↑0.02   0.08     | 1.33        | 6.9                 | Open   | —         | None | 0.75%    | ★★★★                | Mid-Cap Value | Mid Value        |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks capital appreciation. The fund normally invests at least 80% of the fund's net assets in issuers with medium market capitalizations. The adviser generally defines medium market capitalization issuers as issuers with market capitalizations similar to those of issuers included in the Russell Midcap® Value Index over the last 13 months at the time of purchase. It normally invests the fund's assets primarily in equity securities.

## Performance 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 10,954 | 10,268 | 11,712 | 13,684  | 19,021  | 21,179   |
| Fund               | 9.54   | 2.68   | 17.12  | 11.02   | 13.72   | 7.79     |
| +/- S&P 500 TR USD | -6.60  | 0.19   | -5.73  | -2.03   | -0.53   | 0.29     |
| +/- Category       | 1.46   | 0.24   | -0.92  | 1.49    | 1.34    | 0.94     |
| % Rank in Cat      | 34     | 36     | 64     | 37      | —       | —        |
| # of Funds in Cat  | 410    | 432    | 404    | 364     | 313     | 222      |

\* Currency is displayed in BASE

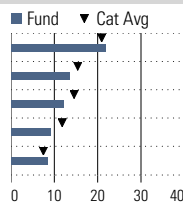
## Top Holdings 08-31-2017

|   | Weight % | Last Price | Day Chg % | 52 Week Range |
|---|----------|------------|-----------|---------------|
| ⊕ The Hartford Financial Services Group Inc | 1.48     | 55.52 BASE | -0.52 ↓   | 42.30 - 57.16 |
| ⊕ KeyCorp                                   | 1.21     | 18.58 BASE | 2.14 ↑    | 12.36 - 19.53 |
| ⊖ Fifth Third Bancorp                       | 1.18     | 28.07 BASE | 0.36 ↑    | 19.58 - 28.97 |
| ⊕ Nasdaq Inc                                | 1.17     | 74.60 BASE | -0.15 ↓   | 63.30 - 78.31 |
| ⊕ Pinnacle Foods Inc                        | 1.16     | 56.94 BASE | -0.14 ↓   | 46.36 - 66.67 |
| % Assets in Top 5 Holdings                  | 6.20     |            |           |               |

⊕ Increase ⊖ Decrease ☆ New to Portfolio

## Top Sectors 08-31-2017

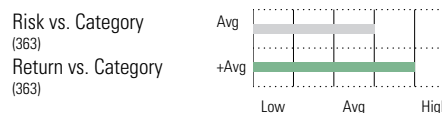
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Financial Services | 21.87 | 24.62     | 19.47    | 20.01   |
| Industrials        | 13.56 | 13.56     | 10.90    | 14.48   |
| Consumer Cyclical  | 12.20 | 12.85     | 11.58    | 13.64   |
| Technology         | 9.14  | 9.74      | 6.75     | 10.89   |
| Utilities          | 8.38  | 8.38      | 7.56     | 6.55    |



## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-20-2016        | 21.97            | 0.0000                 | 0.0138                  | 0.0000            | 0.3141          | 0.3279             |
| 12-17-2015        | 18.85            | 0.4368                 | 0.3575                  | 0.0000            | 0.1317          | 0.9261             |
| 12-18-2014        | 20.22            | 0.9552                 | 0.2681                  | 0.0000            | 0.1563          | 1.3796             |
| 12-17-2013        | 19.07            | 0.7832                 | 0.1441                  | 0.0000            | 0.1512          | 1.0785             |

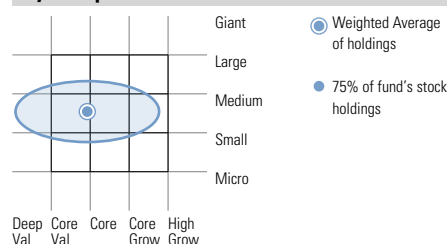
## 3 Year Average Morningstar Risk Measures



## Pillars

|             |   |   |
|-------------|---|---|
| Process     | — | — |
| Performance | — | — |
| People      | — | — |
| Parent      | — | — |
| Price       | — | — |
| Rating      | — | — |

## Style Map



## Asset Allocation

|                | % Net | % Short | % Long | Bench mark | Cat Avg |
|----------------|-------|---------|--------|------------|---------|
| ● Cash         | 1.38  | 0.09    | 1.47   | 0.00       | 3.48    |
| ● US Stock     | 95.90 | 0.00    | 95.90  | 99.34      | 92.23   |
| ● Non US Stock | 2.72  | 0.00    | 2.72   | 0.66       | 4.15    |
| ● Bond         | 0.00  | 0.00    | 0.00   | 0.00       | 0.11    |
| ● Other        | 0.00  | 0.00    | 0.00   | 0.00       | 0.03    |

## Management

|                  | Start Date |
|------------------|------------|
| Kevin J. Schmitz | 11-20-2008 |
| Brooks A. Taylor | 11-20-2008 |

# MFS® Mid Cap Value Fund Class R6 MVCKX

## Analysis

### Morningstar's Take

Morningstar Analyst Rating —

### Morningstar Pillars

|             |   |   |
|-------------|---|---|
| Process     | — | — |
| Performance | — | — |
| People      | — | — |
| Parent      | — | — |
| Price       | — | — |

### 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.

Analyst Rating Spectrum

 Gold
  Silver
  Bronze
  Neutral
  Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 9.64           | 1.32         |
| 2016 | 15.86          | -2.20        |
| 2015 | -2.14          | 3.27         |
| 2014 | 10.29          | 0.97         |

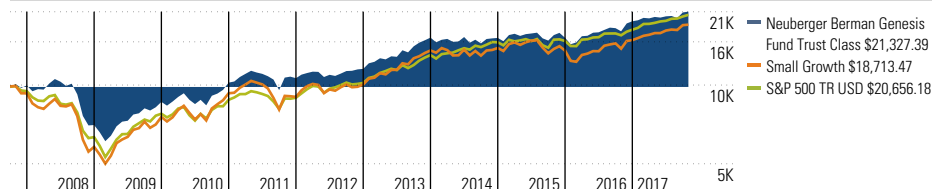
We do not currently publish an Analyst Report for this fund.

# Neuberger Berman Genesis Fund Trust Class NBGEX

Morningstar Analyst Rating  
**Bronze**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category     | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|--------------|------------------|
| 66.34  | ↑0.34   0.52     | 0.05        | 10.8                | Open   | —         | None | 1.10%    | ★★★★                | Small Growth | Small Growth     |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks growth of capital. The fund invests mainly in common stocks of small-capitalization companies, which it defines as those with a total market value of no more than \$2 billion at the time the fund first invests in them. It may continue to hold or add to a position in a stock after the company's market value has grown beyond \$2 billion. The fund seeks to reduce risk by diversifying among many companies and industries.

## Performance 10-18-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,073 | 10,442 | 12,088 | 14,146  | 18,083  | 21,326   |
| Fund               | 10.73  | 4.42   | 20.88  | 12.26   | 12.58   | 7.87     |
| +/- S&P 500 TR USD | -5.50  | 2.01   | -1.32  | -0.82   | -1.75   | 0.35     |
| +/- Category       | -6.37  | 0.71   | -4.14  | -0.30   | -0.75   | 0.54     |
| % Rank in Cat      | 88     | 23     | 81     | 60      | 65      | 37       |
| # of Funds in Cat  | 625    | 662    | 613    | 546     | 485     | 365      |

\* Currency is displayed in BASE

## Top Holdings 06-30-2017

|                                    | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|------------------------------------|----------|-------------|-----------|-----------------|
| ⊖ West Pharmaceutical Services Inc | 2.36     | 92.41 BASE  | -0.63 ↓   | 70.17 - 99.91   |
| ⊖ Pool Corp                        | 2.10     | 111.90 BASE | 1.41 ↑    | 88.64 - 124.25  |
| ⊖ Fair Isaac Corp                  | 1.79     | 147.15 BASE | 0.33 ↑    | 109.77 - 149.00 |
| ⊖ Sensient Technologies Corp       | 1.79     | 78.69 BASE  | 1.11 ↑    | 68.51 - 84.98   |
| ⊖ Tyler Technologies Inc           | 1.77     | 176.16 BASE | 0.31 ↑    | 139.61 - 182.49 |
| % Assets in Top 5 Holdings         | 9.81     |             |           |                 |

⊕ Increase ⊖ Decrease ☆ New to Portfolio

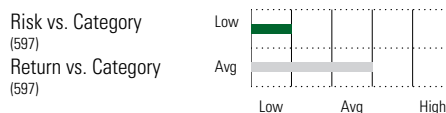
## Top Sectors 06-30-2017

|                      | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|----------------------|-------|-----------|----------|---------|------------------|
| ⚙️ Industrials       | 20.95 | 20.98     | 20.69    | 16.49   | ■ Fund ▼ Cat Avg |
| 💻 Technology         | 18.73 | 18.97     | 18.09    | 25.17   |                  |
| 🏦 Financial Services | 17.90 | 17.90     | 11.98    | 11.18   |                  |
| 🚗 Consumer Cyclical  | 13.98 | 16.18     | 13.83    | 12.86   |                  |
| 🏥 Healthcare         | 12.98 | 16.76     | 12.98    | 16.95   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-16-2016        | 60.14            | 3.4720                 | 0.0427                  | 0.0000            | 0.0325          | 3.5472             |
| 12-17-2015        | 53.66            | 5.5461                 | 0.0000                  | 0.0000            | 0.0342          | 5.5803             |
| 12-15-2014        | 57.29            | 4.9091                 | 0.0000                  | 0.0000            | 0.0356          | 4.9447             |
| 12-16-2013        | 62.79            | 4.4992                 | 0.0035                  | 0.0000            | 0.1910          | 4.6937             |
| 12-14-2012        | 50.03            | 2.1053                 | 0.0092                  | 0.0000            | 0.1083          | 2.2228             |

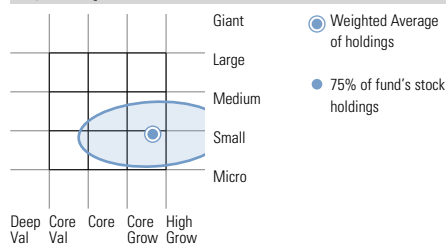
## 3 Year Average Morningstar Risk Measures



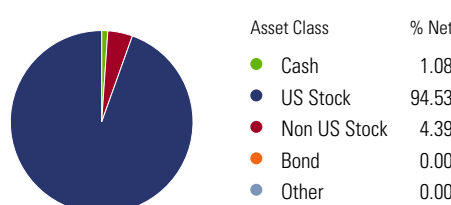
## Pillars

|             |               |
|-------------|---------------|
| Process     | ⊕ Positive    |
| Performance | ⊕ Positive    |
| People      | ⊕ Positive    |
| Parent      | ⊕ Positive    |
| Price       | ⊕ Positive    |
| Rating      | <b>Bronze</b> |

## Style Map



## Asset Allocation



## Management

|                    | Start Date |
|--------------------|------------|
| Judith M. Vale     | 02-01-1994 |
| Robert W. D'Alelio | 08-01-1997 |
| Brett S. Reiner    | 12-19-2005 |
| Gregory G. Spiegel | 02-01-2015 |

# Neuberger Berman Genesis Fund Trust Class NBGEX

## Analysis

### This fund features experienced management and a strong long-term track record.

By David Kathman, CFA 12/8/2016

Neuberger Berman Genesis has one of the longest, most consistent track records of any small- or mid-cap fund, helping earn it a Morningstar Analyst Rating of Bronze. A seasoned management team led by Judy Vale and Bob D'Alelio has run the fund for the past 20 years, using a strategy that's very much focused on the long term. They look for small-cap stocks that dominate a competitive niche and feature solid balance sheets and free cash flows, in addition to reasonable valuations. They tend to hold on to stocks that they like as long as the thesis remains intact, so turnover is low (under 20% a year) and some favorite stocks, such as top-10 holdings Church & Dwight CHD and AptarGroup ATR, have been in the portfolio for more than a decade.

Although the managers consider themselves small-cap value investors, their tendency to stick with their winners means that quite a few holdings have grown into mid-caps, and the portfolio has long leaned toward the growth area of the Morningstar Style Box. As a result, the fund has always been tough to categorize. It was in the small-blend Morningstar Category for years before moving to mid-cap growth in 2011, and in 2015 it moved to its current home in the small-growth category.

The good thing for investors is that the fund's long-term returns look great no matter what it's compared with. Through Nov. 30, 2016, its 10-, 15-, and 20-year returns all rank in or near the small-growth category's top decile and would look similarly strong relative to the mid-cap growth and small-blend peer groups. They have also easily beaten the fund's benchmark, the Russell 2000 Index, and the Russell 2500, a small/mid-cap index. In the short term, the fund's relative returns have tended to rank near the top or the bottom of its peer group, mainly because it's one of the least volatile small-cap funds; its peers have much more dramatic ups and downs in absolute terms.

The fund's \$11 billion asset base makes it one of the largest funds in the small-growth category. That's concerning enough to keep it from a higher Analyst Rating, even though the managers have done a good job of handling that asset base.

#### Process Pillar: Positive

As with most Neuberger Berman stock funds, this fund's managers pay little attention to benchmarks, picking stocks through a bottom-up process that's informed by long-term macroeconomic trends. They focus on small companies that generate good free cash flows by dominating a competitive niche, generally preferring firms that aren't too cyclical and can grow over the next three to five years regardless of the broader economy. Although they do use some screens to identify promising small-cap stocks, they evaluate companies primarily through hands-on research, including one-on-one meetings with management and follow-up phone calls. Wall Street research plays a minor role, mainly in determining the consensus view on a company.

Management takes a long-term, patient perspective, often holding on to stocks for years; thus, the portfolio's annual turnover is low, usually around 20%. The managers will buy only stocks with market caps under \$1.5 billion, but the low turnover means that holdings often grow into mid-caps, so the fund historically has tended to straddle the line between small- and mid-cap territory.

Although the team members consider themselves value managers and try to keep the portfolio's price/earnings ratio below that of the Russell 2000 Index, in practice they're willing to pay up a bit for attractive stocks in growing industries, so the fund has had a growth tilt.

The managers keep this fund diversified and close to fully invested; cash seldom exceeds 5% of assets and no holding takes up more than 3%. They don't worry too much about benchmarks, so sector weightings often differ from those of category peers or the Russell 2000 Index, but they try not to let any sector get too big.

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

#### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 10.73          | -6.37        |
| 2016 | 18.06          | 6.86         |
| 2015 | 0.15           | 2.56         |
| 2014 | -0.31          | -2.74        |
| 2013 | 36.89          | -4.02        |

# Neuberger Berman Genesis Fund Trust Class NBGEX

## Analysis

The fund is still heavy in defensive steady-Eddies such as Church & Dwight and packaging maker AptarGroup (two of the top six holdings as of Sept. 30, 2016). It also holds some more-cyclical names, provided they meet the necessary quality criteria. The portfolio's technology weighting has increased in the three years since Gregory Spiegel joined the team (specifically to cover tech), though it still has a modest underweighting in the sector relative to its small-growth peers.

The fund has an overweighting in financials relative to its peers but an underweighting relative to the Russell 2000. Conversely, it is slightly underweight in healthcare relative to the category, but overweight relative to the Russell 2000. Within healthcare, it owns much less pharma and biotech than the benchmark, which helped it in 2016, when those industries suffered losses.

The managers have been paying more attention to dividend yield lately, so that about three fourths of the fund's holdings paid a dividend. However, they avoid real estate investment trusts, which have too much leverage for their liking.

### Performance Pillar: Positive

This fund has been an outstanding long-term performer. As of December 2016, its 15- and 20-year returns rank in the top decile of the small-growth category, and they look similarly strong relative to mid-cap growth, where it was from 2011 to 2015, and small blend, where it was until 2011. Its 10-year returns rank in the top one third of all three categories.

At first glance, the fund's annual returns look like they've been all over the map, with top-decile rankings in some years (2002, 2005, 2007) and bottom-decile rankings in others (2003, 2006, 2014). However, that pattern says more about the volatility of the market during the past decade than it does about this fund, which actually has been one of the least volatile small- or mid-cap offerings around. It has a Morningstar Risk rating of Low over the trailing 10-year period, and its standard deviation (a measure of volatility) is among the

lowest in the small-growth, mid-growth, or small-blend categories.

The fund tends to hold up well in down markets such as 2008 and 2011, thanks to the managers' emphasis on relatively stable cash generators without a lot of debt, but for the same reasons it has a tough time keeping up in speculation-driven bull markets such as those of 2009 and 2010. It badly underperformed peers in 2014, when low-quality, debt-heavy stocks performed best, but rebounded nicely in 2015 and the first 11 months of 2016 with top-quartile returns.

### People Pillar: Positive

The managers here are an experienced lot. Judy Vale became a manager of the fund in February 1994, and Bob D'Alelio was named a manager in August 1997. Both have more than 30 years of investment experience, and they've done a fine job of overseeing the fund's management team for more than a decade. Brett Reiner was named comanager in December 2005 after having been an analyst on the fund since 2003; Michael Bowyer, who was named a comanager at the same time as Reiner, retired in 2016 after 15 years with the fund. Gregory Spiegel was named comanager in March 2015 after three years as a technology analyst on the fund.

The team also includes four dedicated analysts: Solin Cho, who joined the fund in 2012 and has been with Neuberger since 2006; Abhishek Rathod and James Graeber, who joined the fund in 2014; and Vinayak Kakodkar, who joined in 2016. Cho and Rathod were previously analysts elsewhere in Neuberger. Each member of the team covers specific sectors except Vale and D'Alelio, who are generalists.

As of Aug. 31, 2016, Vale, D'Alelio, and Reiner each had more than \$1 million invested in the fund, and Spiegel had \$500,000 to \$1 million invested.

### Parent Pillar: Positive

Unlike fund shops that tightly control risk, resulting in a lineup of bland index-huggers, Neuberger Berman lets its managers invest with conviction.

Neuberger funds tend to be concentrated, with relatively low turnover and significant sector bets. That leads to more-volatile returns, but the funds have mostly performed quite well over time, with few duds and several standouts.

This culture faced a threat in 2008 when then-parent Lehman Brothers collapsed, but a group of Neuberger insiders eventually took the firm private. It's now owned by about 300 employees, including most portfolio managers and many analysts, providing good incentives for them to stick around. Neuberger is focused solely on investment management, though its retail mutual funds only make up a fraction of assets under management (about 15% as of late 2015). Since 2008, it gradually has been shifting its distribution emphasis to advisor-sold share classes with sales charges, though existing shareholders can still buy no-load shares.

Neuberger has made a handful of acquisitions during the past decade and launched a flurry of new funds in recent years, including some trendy ones such as absolute return, long-short, and China funds. Such moves are potential causes for concern that bear watching, but at heart, Neuberger remains a boutique with a nicely distinctive investing culture.

### Price Pillar: Positive

About one third of this fund's assets are in the Institutional shares, whose 0.85% expense ratio is in the cheapest 20% of institutional shares of domestic small-cap funds; an agreement with the advisor will prevent it from rising above that level until 2021. Most of the remaining assets are split between the Investor, R6, and Trust shares, whose expenses are in the second-cheapest quintile of their peer groups. Overall, this fund's expenses are quite reasonable.

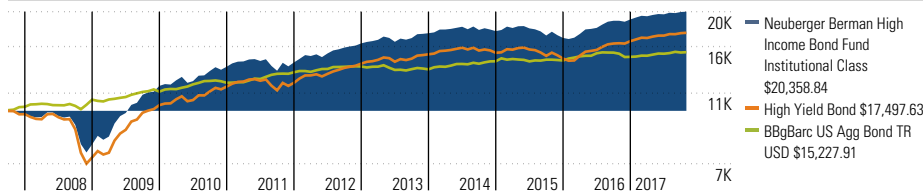


# Neuberger Berman High Income Bond Fund Institutional Class NHILX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category        | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-----------------|------------------|
| 8.81   | ↓0.00   0.01     | 5.46        | 3.3                 | Open   | \$1 mil   | None | 0.71%    | ★★★                 | High Yield Bond |                  |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks high total return consistent with capital preservation. To pursue its goal, the fund normally invests mainly in a diversified portfolio of U.S. dollar-denominated, High-Yield Bonds, with an emphasis on debt securities rated below investment grade (commonly called "junk bonds"). The adviser normally expects to have a weighted averaged maturity between five and ten years.

## Performance 10-18-2017

|                                | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000               | 10,576 | 10,066 | 10,597 | 11,380  | 12,764  | 20,400   |
| Fund                           | 5.76   | 0.66   | 5.97   | 4.40    | 5.00    | 7.39     |
| +/- BBgBarc US Agg Bond TR USD | 2.57   | 0.76   | 5.44   | 2.17    | 2.88    | 3.19     |
| +/- Category                   | -0.54  | -0.01  | -1.60  | 0.03    | 0.08    | 1.15     |
| % Rank in Cat                  | 71     | 58     | 83     | 58      | 53      | —        |
| # of Funds in Cat              | 679    | 725    | 668    | 584     | 467     | 305      |

\* Currency is displayed in BASE

## Top Holdings 08-31-2017

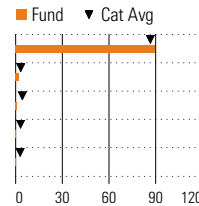
|   | Weight % | Maturity Date | Amount Mil | Value Mil |
|---|----------|---------------|------------|-----------|
| ✳ iShares iBoxx \$ High Yield Corp Bd ETF | 1.25     | —             | 0.45       | 39.87     |
| ⊕ Frontier Comms 11%                      | 1.16     | 09-15-2025    | 42.50      | 37.08     |
| Numericable Grp Sa 144A 6%                | 1.14     | 05-15-2022    | 34.67      | 36.40     |
| Embarq 7.995%                             | 0.99     | 06-01-2036    | 30.99      | 31.45     |
| Vrx Escrow 144A 5.875%                    | 0.95     | 05-15-2023    | 35.66      | 30.40     |

% Assets in Top 5 Holdings 5.50

⊕ Increase ⊖ Decrease ✳ New to Portfolio

## Top Sectors 08-31-2017

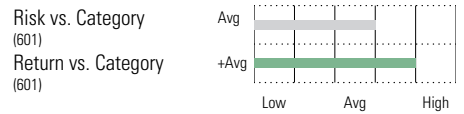
|                | Fund  | BMark | Cat Avg |
|----------------|-------|-------|---------|
| Corporate Bond | 89.61 | —     | 84.02   |
| Bank Loan      | 2.32  | —     | 0.70    |
| Convertible    | 0.96  | —     | 1.72    |
| Asset-Backed   | 0.27  | —     | 0.59    |
| Commercial MBS | 0.00  | —     | 0.33    |



## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-29-2017        | 8.81             | 0.0000                 | 0.0000                  | 0.0000            | 0.0386          | 0.0386             |
| 08-31-2017        | 8.78             | 0.0000                 | 0.0000                  | 0.0000            | 0.0388          | 0.0388             |
| 07-31-2017        | 8.84             | 0.0000                 | 0.0000                  | 0.0000            | 0.0400          | 0.0400             |
| 06-30-2017        | 8.78             | 0.0000                 | 0.0000                  | 0.0000            | 0.0402          | 0.0402             |
| 05-31-2017        | 8.84             | 0.0000                 | 0.0000                  | 0.0000            | 0.0402          | 0.0402             |

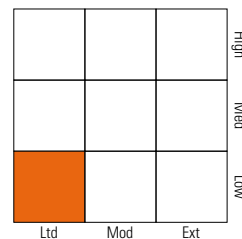
## 3 Year Average Morningstar Risk Measures



## Pillars

|             |   |          |
|-------------|---|----------|
| Process     | + | Positive |
| Performance | + | Positive |
| People      | + | Positive |
| Parent      | + | Positive |
| Price       | + | Positive |
| Rating      |   | Silver   |

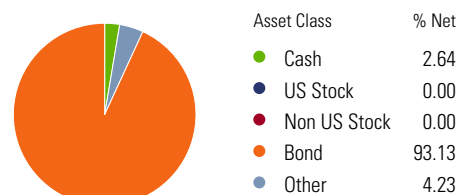
## Style Map 06-30-2017



## Bond Statistics

|                                    | Value  |
|------------------------------------|--------|
| Average Effective Duration         | 3.70   |
| Average Effective Maturity (Years) | 5.20   |
| Average Credit Quality             | B      |
| Average Weighted Coupon            | 5.97   |
| Average Weighted Price             | 101.91 |

## Asset Allocation



## Management

|                       | Start Date |
|-----------------------|------------|
| Thomas P. O'Reilly    | 10-03-2005 |
| William (Russ) Covode | 02-28-2011 |
| Daniel J. Doyle       | 02-28-2014 |
| Patrick Flynn         | 01-01-2016 |

# Neuberger Berman High Income Bond Fund Institutional Class NHILX

## Analysis

### A credible way to gain high-yield exposure.

By Maciej Kowara 2/24/2017

Neuberger Berman High Income Bond Fund maintains its Morningstar Analyst Rating of Silver, even though its performance has lately resembled a slightly cheaper metal.

Despite a reasonable showing in 2016's bond market rally, the fund's performance in 2015 was challenging and weighs on its trailing returns. For a fund that prides itself, as this one does, on limiting downside risk, the 4.77% loss in 2015 was an uncharacteristic misstep, which put it in the bottom half of its category for the year. Energy, where the fund had a 4% overweight relative to its benchmark at the start of 2015, was the biggest culprit. The assumptions justifying this overweight were twofold. First, the drop in oil price was supposed be temporary, partly because a lot of marginal supply from the United States would be taken off as weaker players would exit production. Second, management thought the fund would weather that stretch of weakness because most of its holdings hedged out their exposure to oil price for 12 months. As it turned out, U.S. oil industry continued production even as oil price kept grinding down, and as the hedges the companies had put in place ran out, some of them found themselves in trouble. Management responded by changing the way it values oil producers in mid-2015 and started trimming its stake there, finishing the year with an underweight in energy. While this helped avoid some of the big losses in 2015's second half, it also set the fund up for not fully participating in the energy rally of 2016. Thus, while the fund's 10-year record—which management claims as its own—still looks very good, the shorter-term trailing performance numbers are middling.

That said, we remain confident that this was a stumble rather than a sign of problems. The fund boasts one of the deepest credit-research capabilities in the industry; its management is well experienced; and its process, which aims to weed out bonds with highest default chances, enhances its

appeal. Add the fact that it is reasonably priced, and it remains a very credible option for investors looking for long-term exposure to this asset class.

#### Process Pillar: Positive

Based on the thoroughness of its credit analysis, which is joined to focus on downside risk protection, the fund earns a Positive Process Pillar rating.

Downside risk protection is the key overriding theme of this fund's approach and informs its most general characteristics. The fund focuses on liquid BB- and B-rated issues, though it allows itself an opportunistic use of CCC- (and BBB-) rated paper; it does not invest in non-U.S. dollar debt (developed or emerging) or derivatives, but allows itself up to 20% in bank loans, an area to which the firm has a dedicated team. The fund limits exposure to each industry to three times the index's level. Finally, it aims to be well diversified across issues, sectors, and industries.

The decision-making process itself combines top-down considerations with individual security selection. Top-down analysis tries to take a measure of global economic trends and valuations and supplement it with analysis of individual industries. The bottom-up part starts with filtering out most illiquid names, after which the analysts deploy proprietary credit analysis tools. These look at fundamentals, such as interest coverage, valuations, ability to deleverage, and susceptibility to shocks, while also considering less quantifiable perspectives, such as management quality.

The fund's most recent positioning reflects both management's read on the overall economic picture as well as their concerns about the impact of President Donald Trump's election.

Management views the economy and the markets to be relatively healthy, as evidenced by near-average credit spreads and defaults. Consequently, the fund's 12% exposure to CCC-rateds, while below its benchmark's, is close to its own historical average. The main concession to the broad macro themes is the 8% stake in bank loans, which management treats as insurance against the anticip-

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

#### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 5.76           | -0.54        |
| 2016 | 14.17          | 0.87         |
| 2015 | -4.77          | -0.77        |
| 2014 | 1.51           | 0.40         |
| 2013 | 7.57           | 0.67         |

# Neuberger Berman High Income Bond Fund Institutional Class NHILX

## Analysis

ated rise in interest rates.

Related to the new administration, Neuberger Berman has identified the potential for international trade disruptions, or tariffs, as well as the elimination of the corporate interest deduction and expensing of capital expenditures, as areas of concern. If enacted, these would negatively affect firms that depend heavily on imports (costs rise) as well as companies that issue a lot of debt and have little capital expenditures (taxes rise); firms with opposite characteristic would most likely benefit. While not a main principle in portfolio construction, these considerations now at least contribute to how management and analysts think about constructing it. As with many such plausible-sounding prognostications, it remains to be seen if they add value to the portfolio.

### Performance Pillar: Positive

Recent performance has been middling, but in view of the fund's excellent 10-year track record, we are maintaining its Performance Pillar at Positive.

The fund's 10-year return still lands in the category's top decile, but this is mainly due to good showing in the 2008 and 2009 financial crisis. Ever since, however, performance has been more muted. 2015 was supposed to be a year in which this relatively defensive fund should have done well, but because of its energy missteps, this wasn't to be; it finished that year in the bottom half of its category. The fund was never expected to shine in a big junk rally year such as 2016, but it was additionally held back by its underweighting in energy, which it trimmed in the second half of 2015. It ended 2016 close to the middle of its peers.

The fund's risk measures also look about average compared with their peers. This may seem odd for a defensive fund such as this, but can be explained by the fact that, paradoxically, it focuses on the more liquid segment of the high-yield market. More liquid issues, it turns out, often show elevated volatility because they are easier to sell for those who need to sell quickly, particularly in

times of market stress.

### People Pillar: Positive

The fund earns a Positive People Pillar rating based on the experience of its management team, the depth of its resources, and well-aligned incentives.

The fund is managed by four comanagers, one of whom, Tom O'Reilly, is recognized as the team leader. O'Reilly joined Neuberger Berman in 1997, has been on the fund since 2005, and became the team leader in late 2015, when previous lead Ann Benjamin retired. O'Reilly is joined by comanagers Russ Covode and Dan Doyle, both with lots of industry experience and at least a few years on the fund. The newest addition to the team is Patrick Flynn, who filled in the slot vacated by Benjamin. The comanager structure brings stability and continuity.

The overall team is large, experienced, and has low turnover. There are 10 PMs and 30 credit analysts. There were no analyst departures in 2016, but two new—experienced—additions, one from Deutsche, the other from Janus. One change worth noting is that the research effort is now headed solely by Chris Kocinski. Vivek Bommi, who used to co-head research, permanently moved to Neuberger Berman's London office.

The incentives are properly aligned. Up to 20% of bonus (depending on seniority) goes into funds the managers run and is locked for three years. Finally, almost half of the team owns equity in the firm.

### Parent Pillar: Positive

Unlike fund shops that tightly control risk, resulting in a lineup of bland index-huggers, Neuberger Berman lets its managers invest with conviction. Neuberger funds tend to be concentrated, with relatively low turnover and significant sector bets. That leads to more-volatile returns, but the funds have mostly performed quite well over time, with few duds and several standouts.

This culture faced a threat in 2008 when then-parent Lehman Brothers collapsed, but a group of Neuberger insiders eventually took the firm private. It's now owned by about 300 employees, including most portfolio managers and many analysts, providing good incentives for them to stick around. Neuberger is focused solely on investment management, though its retail mutual funds only make up a fraction of assets under management (about 15% as of late 2015). Since 2008, it gradually has been shifting its distribution emphasis to advisor-sold share classes with sales charges, though existing shareholders can still buy no-load shares.

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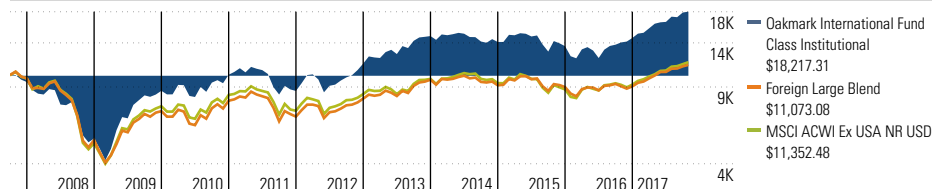
### Price Pillar: Positive

The fund earns a Positive Price Pillar rating because the majority of assets are held in share classes that earn a Morningstar Fee Level of Below Average. The fund's institutional share class holds 74% of assets and charges an expense ratio of 0.69% compared with 0.74% for the median of similarly distributed high-yield bond funds. The fund's retirement share class, NRHIX, holds another 20% of assets and charges a 0.61% expense ratio, which is similarly below the 0.70% charge for the median retirement share class in the high-yield bond Morningstar Category.

# Oakmark International Fund Class Institutional OANIX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category            | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|---------------------|------------------|
| 29.17  | ↑0.12   0.41     | —           | 41.0                | Open   | \$1 mil   | None | 0.81%    | ★★★★★               | Foreign Large Blend | Large Blend      |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Investment Strategy**

The investment seeks long-term capital appreciation. The fund invests primarily in a diversified portfolio of common stocks of non-U.S. companies. It may invest in non-U.S. markets throughout the world, including emerging markets. Ordinarily, the fund will invest in the securities of at least five countries outside of the U.S. There are no geographic limits on the fund's non-U.S. investments. The fund may invest in securities of large-, mid-, and small- capitalization companies.

**Performance** 10-17-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 12,792 | 10,172 | 13,676 | 13,964  | 17,686  | 18,136   |
| Fund                        | 27.92  | 1.72   | 36.76  | 11.77   | 12.08   | 6.13     |
| +/- MSCI ACWI Ex USA NR USD | 4.56   | -0.20  | 12.35  | 4.55    | 5.26    | 4.90     |
| +/- Category                | 5.91   | -0.14  | 14.04  | 4.24    | 4.61    | 4.86     |
| % Rank in Cat               | 5      | 68     | —      | —       | —       | —        |
| # of Funds in Cat           | 747    | 791    | 721    | 580     | 516     | 334      |

\* Currency is displayed in BASE

**Top Holdings** 06-30-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|----------------------------|----------|-------------|-----------|-----------------|
| ⊕ Glencore PLC             | 5.15     | 374.65 BASE | -0.32 ↓   | 230.60 - 386.70 |
| ⊕ Credit Suisse Group AG   | 4.56     | 15.65 BASE  | 0.06 ↑    | 11.59 - 15.83   |
| ⊕ Daimler AG               | 4.13     | 69.32 BASE  | 0.87 ↑    | 59.01 - 73.23   |
| ⊕ BNP Paribas              | 3.83     | 67.43 BASE  | 1.74 ↑    | 49.21 - 68.95   |
| ⊕ Lloyds Banking Group PLC | 3.81     | 66.83 BASE  | 0.75 ↑    | 53.25 - 73.58   |

% Assets in Top 5 Holdings 21.47

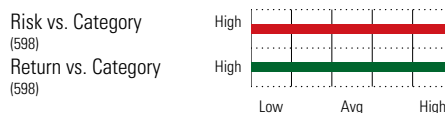
⊕ Increase ⊖ Decrease ☆ New to Portfolio

**Top Sectors** 06-30-2017

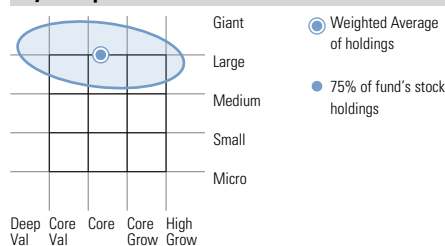
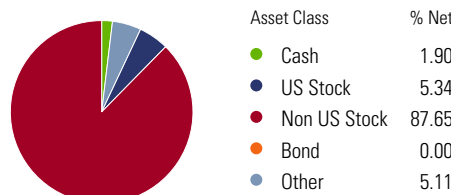
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|--------------------|-------|-----------|----------|---------|------------------|
| Financial Services | 32.63 | 32.63     | 32.04    | 20.95   | ■ Fund ▼ Cat Avg |
| Consumer Cyclical  | 27.74 | 29.55     | 27.38    | 11.69   |                  |
| Industrials        | 18.38 | 19.12     | 18.38    | 13.12   |                  |
| Basic Materials    | 9.81  | 9.81      | 7.22     | 8.11    |                  |
| Consumer Defensive | 5.53  | 6.17      | 4.97     | 11.42   |                  |

**Dividend and Capital Gains Distributions**

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|

**3 Year Average Morningstar Risk Measures**

**Pillars**

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊖ Neutral  |
| Price       | ⊖ Neutral  |
| Rating      | ★★★★★ Gold |

**Style Map**

**Asset Allocation**

**Management**

|                    | Start Date |
|--------------------|------------|
| David G. Herro     | 09-30-1992 |
| Michael L. Manelli | 11-30-2016 |

# Oakmark International Fund Class Institutional OANIX

## Analysis

### Despite the loss of a veteran comanager, this remains an excellent holding.

By Greg Carlson 1/12/2017

Oakmark International lost a veteran comanager, but its prospects remain strong. It continues to earn a Morningstar Analyst Rating of Gold.

At the end of September 2016, Rob Taylor, comanager of this fund since the end of 2008, retired. Taylor's departure certainly represented a loss. A 22-year veteran of the firm, he had served as director of international research from 2004-15 and comanaged Gold-rated Oakmark Global OAKGX since 2005.

But this fund will remain in highly proven hands. Lead manager David Herro has amassed a superb record in his 24-year tenure. He has twice previously run the fund on his own for periods of roughly three years (1992-95 and 2005-08) with no drop-off in performance. He also named a new comanager here in November--Mike Manelli, his comanager on Bronze-rated Oakmark International Small Cap OAKEX since 2011. The two are backed by six other analysts and portfolio managers with an average of 8.3 years' tenure at the firm. Three of them were recently named comanagers on Herro's other charges: Justin Hance on Oakmark International Small Cap, Jason Long on Oakmark Global, and Eric Liu on Oakmark Global Select OAKWX (which Herro has managed with Bill Nygren).

Although Herro runs more than \$30 billion in this strategy, the reopening of the fund to all new investors in July 2016 isn't a concern. Investment losses and redemptions due to poor recent performance pulled that number down from a peak of over \$40 billion. Herro says he hoped to match recent outflows with inflows, which makes it easier to buy and sell stocks at desired times. The strategy remains focused on large caps.

The fund's financials holdings, which make up a sizable chunk of assets, have largely underperformed (even in 2016, when the fund did well over-

all). But Herro argues that the fund's European bank stocks in particular are too cheap given their improved balance sheets and potential for earnings growth. The fund remains a solid holding.

#### Process Pillar: Positive

Like all Oakmark stock-pickers, lead manager David Herro and team seek companies trading at deep discounts to their assessment of their intrinsic value. The estimate of a business' worth is based on multiple valuation models and, depending on the company under consideration, may focus on a firm's likely private-market acquisition price, its tangible book value, or normalized discounted cash flows.

That's not unusual, but the degree to which Oakmark focuses on absolute, not relative, value sets the shop and this team apart. Firms that appear attractively valued compared with industry peers will only garner attention if they also seem cheap relative to their own stringently vetted prospects.

Herro also favors companies with shareholder-aligned managements, as evidenced by (among other things) their own investment in the firm and their capital-allocation skill. Stock-repurchase programs, dividend hikes, and sensible acquisitions that are accretive to earnings are generally regarded favorably, but as with all aspects of the entirely bottom-up process, judgments are made strictly on a case-by-case basis. Herro aims for long holding periods, but volatility can force his hand. Portfolio turnover typically ranges from 30% to 50% annually. This distinctive approach earns a Positive rating for Process.

As usual, this fund looks significantly different from its typical peer and its benchmark. At the close of September 2016, the fund's combined 72% stake in the United Kingdom and the rest of developed Europe was well above the 57% stake of the MSCI World ex USA Index and the fund's typical foreign large-blend peer. The fund's hefty stake in European financial-services firms such as Credit Suisse of Switzerland, BNP Paribas of France, and Intesa Sanpaolo of Italy drove that weighting.

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Neutral  |
| Price       |  Neutral  |

#### 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.

#### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 28.45          | 6.14         |
| 2016 | —              | —            |
| 2015 | —              | —            |
| 2014 | —              | —            |
| 2013 | —              | —            |

# Oakmark International Fund Class Institutional OANIX

## Analysis

Indeed, financials along with consumer cyclical companies were the fund's largest sector exposures, soaking up a combined 61% of assets at the end of the third quarter. With industrial stocks accounting for an additional 19% of assets, the fund tilts toward cyclicals, although (as usual) it has no exposure to energy—which served the fund well in 2015. Healthcare, typically a more defensive area of the market, is virtually absent from the portfolio, while it garners an 10% weighting in the benchmark MSCI World ex USA Index and in its typical foreign large-blend rival.

David Herro managed close to \$35 billion in late 2016, down from a peak of over \$40 billion. The fund reopened to all new investors in July and has always had a large-cap focus, but it would be tough to take hefty positions in firms at the low end of the fund's capitalization range (\$5 billion).

### Performance Pillar: Positive

Between the fund's October 1992 inception and Dec. 31, 2016, it delivered an annualized return of 9.7%, 4.0 percentage points better than the gain of its benchmark, the MSCI World ex USA Index. The fund's margin of victory versus the typical foreign-large blend fund was almost as large. It's performed consistently well, too. In the time frame's rolling five-year periods, the fund bested those yardsticks 85% of the time.

Versus its benchmark, the fund has garnered most of its outperformance during downturns while hovering near the norm in rallies. Meanwhile, the fund has offered the best of both worlds versus typical peers, losing 92% as much in down markets while also gaining 11% more in upturns. True, the fund has been more volatile; its overall Morningstar Risk rating is High. However, the fund's Sortino ratio, a measure of risk-adjusted return, is far higher than the benchmark's and typical peer's figures. Thus, its Performance rating is Positive.

That said, the fund recently went through a tough stretch—it trailed more than 90% of peers over the past one and three years through July 2016. The poor showing owed in part to a big stake in finan-

cials that hurt badly. Positions in automakers Daimler, Honda, and Toyota were also detractors. A late-year rebound improved its numbers, but even in July the fund had beaten more than 90% of peers and its benchmark over the trailing five, 10, and 15 years.

### People Pillar: Positive

At the end of September 2016, Rob Taylor, a comanager here since 2008, retired. David Herro, lead manager of the fund since its 1992 inception, remains at the helm. Taylor's departure was certainly a loss. He was a 22-year firm veteran, had comanaged Gold-rated Oakmark Global since 2005, and served as the head of international research from 2004-15.

However, don't expect a drop-off here. Herro has generated a stellar record in his 24-year tenure, has steered Bronze-rated Oakmark International Small Cap since its 1995 inception, and has comanaged Silver-rated Oakmark Global Select with veteran Bill Nygren since its 2006 launch. Herro also took over Taylor's spot at Oakmark Global, managing the fund's non-U.S. portion.

In November, Herro made several promotions: Mike Manelli, comanager of Oakmark International Small Cap since 2011, was named comanager of this fund, too. Also, Justin Hance, Jason Long, and Eric Liu became comanagers on International Small Cap, Global, and Global Select, respectively. (The trio joined the firm in 2010, 2011, and 2009, respectively.) Although Herro is 55 and has no plans to retire, he wanted to give team members more responsibility as part of succession planning.

Herro's support team also includes three analysts with an average of nine years' tenure at Harris and 11 years of total investment experience. This experienced crew earns a Positive for People.

### Parent Pillar: Neutral

Paris-based Natixis Global Asset Management is the parent to a number of different asset managers globally, including Natixis AM in France and Loomis Sayles and Harris Associates in the United States. These affiliated companies have maintained a large degree of autonomy, both in opera-

tional terms and in terms of their investment philosophies. The quality of investment culture varies significantly from one subsidiary to another. The results of the teams at Loomis Sayles and Harris Associates, manager for the U.S. Oakmark funds, for example, are excellent, communications with investors are of high quality, and fund launches have been minimal. NGAM's latest acquisition, DNCA, has also begun improving its funds' fee structures.

On the other hand, the results obtained by Natixis AM are more mixed, and its teams are less stable. Furthermore, in July 2017, the French financial regulator Autorité des Marchés Financiers imposed a EUR 35 million fine on Natixis AM for failings relative to its range of formula-based funds, arguing that the firm had overcharged investors and had failed to adequately disclose charges in the funds' filings. The sanction on Natixis AM thus weighs negatively on our assessment of the group's stewardship, but we recognize that strengths in other parts of the organization, particularly in the U.S.-based affiliates, partly compensate for this weakness, resulting in a Neutral Parent Pillar rating.

### Price Pillar: Neutral

At 1.00% as of the most recent annual report (September 2016), the fund's price tag is a bit lower than the median price tag in the fund's fee-level comparison group of foreign large-cap no-load funds (1.04%) and earns a Morningstar Fee Level of Average. However, that expense ratio was 5 basis points lower a year ago when the fund was larger.

Judged by asset size, the fund doesn't look like a bargain. At \$26 billion, it ranks among the Morningstar Category's largest offerings. The fund could stand to share more of its economies of scale with fundholders. It earns a Price rating of Neutral.

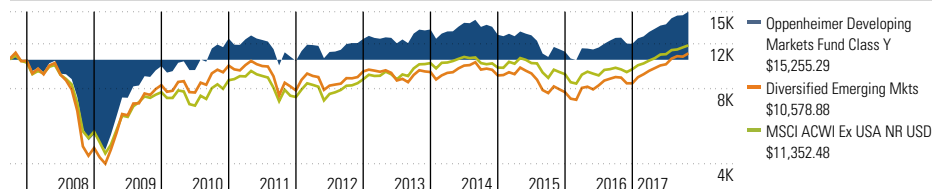


# Oppenheimer Developing Markets Fund Class Y ODVYX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status  | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category                  | Investment Style  |
|--------|------------------|-------------|---------------------|---------|-----------|------|----------|---------------------|---------------------------|-------------------|
| 42.49  | ↑0.08   0.19     | 0.41        | 38.5                | Limited | —         | None | 1.07%    | ★★★★                | Diversified Emerging Mkts | Large Growth Mkts |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks capital appreciation. The fund mainly invests in common stocks of issuers in developing and emerging markets throughout the world and at times it may invest up to 100% of its total assets in foreign securities. Under normal market conditions, it will invest at least 80% of its net assets, plus borrowings for investment purposes, in equity securities of issuers whose principal activities are in a developing market, i.e. are in a developing market or are economically tied to a developing market country. The fund will invest in at least three developing markets.

## Performance 10-17-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 13,266 | 10,219 | 12,692 | 11,685  | 12,955  | 15,095   |
| Fund                        | 32.66  | 2.19   | 26.92  | 5.33    | 5.31    | 4.20     |
| +/- MSCI ACWI Ex USA NR USD | 9.30   | 0.28   | 2.52   | -1.89   | -1.51   | 2.97     |
| +/- Category                | 2.74   | 0.99   | 2.11   | -0.42   | 0.93    | 3.13     |
| % Rank in Cat               | 39     | 19     | 43     | 63      | 32      | 3        |
| # of Funds in Cat           | 830    | 878    | 795    | 639     | 446     | 185      |

\* Currency is displayed in BASE

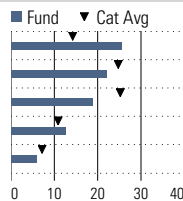
## Top Holdings 08-31-2017

|   | Weight % | Last Price  | Day Chg % | 52 Week Range       |
|---|----------|-------------|-----------|---------------------|
| ⊖ Tencent Holdings Ltd                    | 6.37     | 353.60 BASE | -0.28 ↓   | 179.60 - 356.40     |
| ⊖ Alibaba Group Holding Ltd ADR           | 5.96     | 179.61 BASE | 2.45 ↑    | 86.01 - 184.70      |
| Taiwan Semiconductor Manufacturing Co Ltd | 5.70     | 240.50 BASE | 1.26 ↑    | 178.00 - 241.50     |
| ⊖ Housing Development Finance Corp Ltd    | 4.75     | — BASE      | -0.47 ↓   | 1,183.15 - 1,802.00 |
| ⊕ Master China Series 1                   | 2.89     | —           | —         | —                   |
| % Assets in Top 5 Holdings                | 25.66    |             |           |                     |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

## Top Sectors 09-30-2017

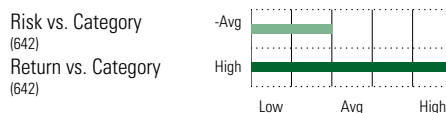
|                      | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|----------------------|-------|-----------|----------|---------|
| 🏠 Consumer Cyclical  | 25.56 | 25.56     | 24.58    | 13.31   |
| 🏢 Financial Services | 21.96 | 22.23     | 21.41    | 23.83   |
| 💻 Technology         | 18.89 | 20.14     | 18.77    | 24.30   |
| 🏭 Consumer Defensive | 12.64 | 13.93     | 12.64    | 9.95    |
| 🏠 Basic Materials    | 5.84  | 5.84      | 2.85     | 6.24    |



## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-02-2016        | 31.52            | 0.0000                 | 0.0000                  | 0.0000            | 0.1664          | 0.1664             |
| 12-02-2015        | 30.90            | 0.0000                 | 0.0000                  | 0.0000            | 0.2240          | 0.2240             |
| 12-05-2014        | 36.45            | 0.5977                 | 0.0000                  | 0.0000            | 0.2236          | 0.8213             |
| 12-06-2013        | 37.07            | 0.1792                 | 0.0000                  | 0.0000            | 0.1635          | 0.3427             |
| 12-07-2012        | 33.82            | 0.0000                 | 0.0000                  | 0.0000            | 0.2493          | 0.2493             |

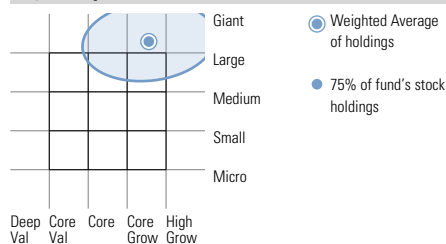
## 3 Year Average Morningstar Risk Measures



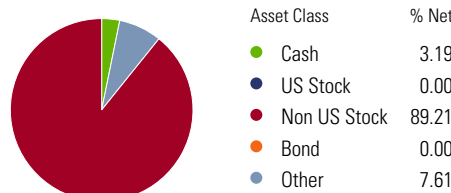
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Neutral  |
| Price       | ⊕ Positive |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

Justin M. Leverenz  
Start Date: 05-01-2007

# Oppenheimer Developing Markets Fund Class Y ODVYX

## Analysis

### Going for growth.

By Patricia Oey 9/26/2017

Oppenheimer Developing Markets' well-established process, reasonable fees, and seasoned manager make it a solid choice for emerging-markets exposure. The fund earns a Morningstar Analyst Rating of Silver.

Portfolio manager Justin Leverenz looks for firms that he thinks will benefit from growth trends in emerging markets, namely a broadening middle class, new technology, and institutional progress (such as improved governance, industry consolidation). As a result, the portfolio tilts toward consumer companies, large-cap growth names, and also includes multinational firms such as Kering SA KER and insurance firm AIA.

What the fund doesn't own is just as important as what it does. Leverenz avoids many of the government-controlled firms and capital-intensive cyclical companies that dominate the MSCI EM Index, such as the big Chinese banks and hardware firms from Taiwan and South Korea. Leverenz doesn't believe these firms have the competitive advantages and above-average earnings growth potential that he prizes highly.

However, with this benchmark-agnostic portfolio, performance can lag. In 2016, emerging-markets returns were driven by the commodity sector, where Leverenz typically has an underweighting. So far in 2017, his very low exposure in the rallying markets of Taiwan and South Korea is dragging on performance. It is typically these persistent underweightings, and not bad picks, that can have an impact on the fund's relative performance. But despite this, Leverenz has managed to stay ahead of the pack through a variety of market conditions since he took the reins in May 2007.

At \$38 billion, this is by far the largest U.S.-listed, actively managed emerging-markets fund. It is closed to new investors in the U.S., but in late 2016, Oppenheimer launched European listings of this fund. Starting in 2015, the fund started to shift

toward larger names, and so far, this has not had a significant impact on returns. While asset growth and its impact on performance bear monitoring, given emerging markets' lower levels of liquidity, we continue to think this fund is a strong choice.

#### Process Pillar: Positive

The team has employed a thoughtful, bottom-up approach that earns the fund a Positive Process rating.

Justin Leverenz aims to buy firms with competitive advantages and above-average earnings growth potential. Often these stocks fit an investment theme—for exposure to leapfrogging technologies, the fund was an early holder of Internet firms Tencent and Alibaba BABA, who more recently have been capitalizing on the large market potential for their respective mobile payment platforms. Leverenz also has some long-held, well-run banks that benefit from the growth in consumer finance, such as mortgages and credit cards. Given the long-term nature of these themes, the fund tends to hold names for years. As a result, annual turnover has averaged 20%-30%, well below the category norm.

Entry price and valuations are key elements of the process. In the first quarters of 2016 and 2017, the team added to top-10 holding Taiwan Semiconductor, believing its dominant market share is unrivaled. They will also pick up names after a sharp price decline, such as retailer Steinhoff International, which is well positioned in Africa. However, these ideas can become misses, such as clothing retailer Fast Retailing (owner of Uniqlo), which is expanding in Asia but continues to struggle in its main Japan market. The fund bought the name in early 2016 and exited about 12 months later.

Over the past few years, the fund has grown more concentrated, which is a concern. In 2015, Justin Leverenz began pruning smaller holdings and smaller companies, given the fund's large asset base, and the number of holdings has declined to about 100 from 120. Over that same period, strong outperformance by large holdings such as Tencent, Alibaba BABA, Taiwan Semiconductor, and Hous-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Neutral  |
| Price       |  Positive |

### 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.

### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 32.91          | 2.99         |
| 2016 | 7.17           | -1.30        |
| 2015 | -13.84         | -0.05        |
| 2014 | -4.55          | -1.54        |
| 2013 | 8.68           | 8.82         |

# Oppenheimer Developing Markets Fund Class Y ODVYX

## Analysis

ing Development Finance Corp. HDFC has further concentrated the portfolio. In August 2015, the top 10 holdings accounted for 26% of the portfolio. Currently, they account for 38%, among the highest in the category.

Last year, Leverenz said he is looking to opportunistically shift allocations to achieve more equal weighting, especially across the top half of names in the portfolio. However, he conceded that he was not able to make much headway in the past 12 months, given the strong performance of many of his largest holdings. Even after recently removing names such as Baidu BIDU and JD.com JD, the fund still has a large 15% exposure to Chinese Internet names, which, while not likely, could face some regulatory risks.

Some new ideas Leverenz has been working into the portfolio are biologics, with the purchase of Samsung Biologics, Celltrion, and Jiangsu Hengrui Medicine, and South African names, with recently added Steinhoff, Firstrand, and Shoprite. These two new themes remain small, accounting for less than 3% of the portfolio.

### Performance Pillar: Positive

The fund tends to outshine its peers in challenging market conditions, and it hasn't sat out during market rallies. It earns a Positive Performance rating.

Good stock-picking, rather than being in the right countries at the right time, has kept the fund in good shape through a full market cycle. For example, from 2011 through 2015, the cumulative return for the MSCI China Index was 8%, whereas this fund's China holdings returned 51%. Similarly, over the same time period the MSCI India Index returned negative 9%, whereas this fund's India holdings returned 34%.

Valuation is also a key driver of long-term performance. In 2007, Justin Leverenz had an underweighting in the largest, most liquid Chinese stocks because they were expensive, and those

names were among the hardest-hit during the 2008 financial crisis. This portfolio positioning helped the fund outperform the category average return by more than 500 basis points in 2008, and it has since contributed to the fund's long-term outperformance relative to peers.

The overall results are impressive. Since Leverenz took over in May 2007, the fund's A shares' 86% cumulative gain through August 2017 landed well ahead of the category average return of 28% and the MSCI Emerging Markets Index's return of 44%. His record looks even better when accounting for risk, as downside protection has made for a less-volatile experience overall.

### People Pillar: Positive

Lead manager Justin Leverenz has done a solid job steering this fund, and he invests more than \$1 million alongside fundholders. The fund earns a Positive People rating.

Leverenz has over 20 years of investment experience, has worked in the Greater China region, and is fluent in Chinese. He joined Oppenheimer's international equity team in 2004 as an analyst for Rajeev Bhaman on Oppenheimer Global OPPAX and took over as portfolio manager here in May 2007. He is also the director of emerging-markets equities, where he leads a team of seven professionals and also serves as co-portfolio manager for small-cap-focused Emerging Markets Innovators. Earlier this year, Oleg Maksimov joined the analyst team. He has 25 years of investment experience and was most recently a co-portfolio manager for a long-short fund. His background in commodities helps bolster an area that has not been Leverenz's strong suit.

Leverenz is in his late 40s, and managers on Oppenheimer's international equity team typically stay on for decades. Given his unique investment approach, there is some key-person risk here, especially because there is no heir apparent on the analyst team. In September 2015, seven-year veteran analyst John Paul Lech was named co-portfolio

manager, but Leverenz retained all discretion on portfolio trades. In March 2017, Lech stepped down and left the team. Aside from Lech, there have been no analyst departures under Leverenz.

### Parent Pillar: Neutral

Art Steinmetz became CEO of OppenheimerFunds in July 2014, the firm's first from its investment ranks, after managing several of its taxable-bond funds for many years. Steinmetz replaced Bill Glavin, who joined the firm in 2009 to help clean up the mess that occurred following the 2008 financial crisis, when several key Oppenheimer fixed-income funds suffered massive losses due to hidden risks. Since taking over, Steinmetz has been trying to move Oppenheimer forward in a positive way, launching new funds and emphasizing offerings that can (he hopes) outperform in areas where passive and index vehicles don't do well.

Overall fund performance has improved since the financial crisis, and the company has made strides in the area of manager ownership of fund shares. More than half of fund assets are run by managers with at least \$1 million personally invested alongside fundholders, twice the level of two years ago. And although the firm's average fee-level percentile still lands in the "average" range for fees overall, it represents continued improvement.

That being said, Oppenheimer still has to show that it can attract and retain top portfolio managers in all parts of its business. It still remains to be seen if Oppenheimer can stand out from the industry set as it transitions from "fix-it" mode to one more of growth and new-product initiatives and one under new leadership.

### Price Pillar: Positive

The fund's fees are lower than those of similarly distributed peers within the emerging-markets category. As such, this fund earns a Positive Price rating.

The retail class A shares' fee (as per the October 2016 prospectus) included a management fee of

# Oppenheimer Developing Markets Fund Class Y ODVYX

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## Analysis

0.78%, 12b-1 fees of 0.25%, and other expenses of 0.29%, for a total of 1.32%. This expense ratio is lower than the median fee of 1.60% for emerging-markets funds distributed to retail investors with front loads (typically A shares).

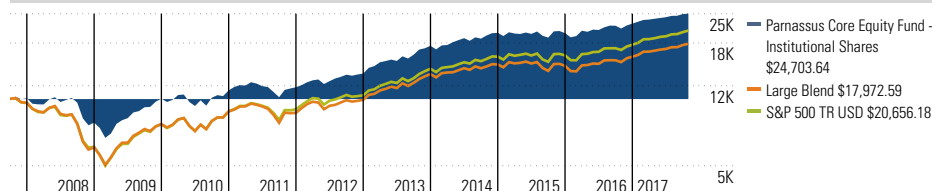
About 75% of the assets are in two institutional share classes: class Y, which charges 1.07%, and class I, which charges 0.88%. These fees are lower than the institutional group median of 1.20%.

# Parnassus Core Equity Fund - Institutional Shares PRILX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category    | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------|------------------|
| 43.37  | ↑0.07   0.16     | 1.20        | 15.8                | Open   | \$100,000 | None | 0.66%    | ★★★★                | Large Blend | Large Blend      |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks to achieve both capital appreciation and current income. The fund's objective is to achieve both capital appreciation and current income by investing primarily in a diversified portfolio of equity securities. Equity securities include common and preferred stock. Under normal circumstances, the fund will invest a minimum of 80% of its net assets (plus borrowings for investment purposes) in equity securities. At least 75% of the fund's total assets will normally be invested in equity securities that pay interest or dividends.

## Performance 10-17-2017

|                       | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000 Fund | 11,113 | 10,088 | 11,686 | 13,500  | 18,775  | 24,675   |
| +/- S&P 500 TR USD    | -5.01  | -1.60  | -5.99  | -2.53   | -0.83   | 1.95     |
| +/- Category          | -3.63  | -1.57  | -4.73  | -0.67   | 0.58    | 2.83     |
| % Rank in Cat         | 90     | 97     | 91     | 72      | 47      | 2        |
| # of Funds in Cat     | 1,409  | 1,501  | 1,370  | 1,198   | 1,061   | 784      |

\* Currency is displayed in BASE

## Top Holdings 09-30-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|----------------------------|----------|-------------|-----------|-----------------|
| Gilead Sciences Inc        | 5.44     | 80.01 BASE  | -0.29 ↓   | 63.76 - 86.27   |
| Danaher Corp               | 4.93     | 86.05 BASE  | 0.93 ↑    | 76.06 - 88.62   |
| Intel Corp                 | 4.56     | 40.25 BASE  | 1.16 ↑    | 33.23 - 40.29   |
| Praxair Inc                | 4.51     | 139.90 BASE | -1.09 ↓   | 114.43 - 142.97 |
| ⊕ Walt Disney Co           | 4.01     | 98.25 BASE  | -0.11 ↓   | 90.60 - 116.10  |
| % Assets in Top 5 Holdings | 23.45    |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

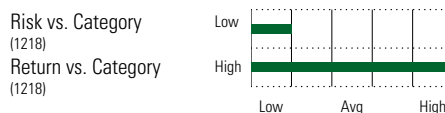
## Top Sectors 09-30-2017

|                      | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|----------------------|-------|-----------|----------|---------|------------------|
| ⊕ Healthcare         | 24.77 | 24.77     | 14.15    | 14.67   | ■ Fund ▼ Cat Avg |
| ⚙ Industrials        | 14.82 | 22.12     | 14.82    | 11.90   |                  |
| 💻 Technology         | 14.32 | 23.00     | 14.32    | 19.68   |                  |
| 🏦 Financial Services | 11.02 | 13.57     | 7.51     | 16.99   |                  |
| 🛒 Consumer Cyclical  | 10.74 | 10.74     | 6.86     | 11.19   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-29-2017        | 43.12            | 0.0000                 | 0.0000                  | 0.0000            | 0.1500          | 0.1500             |
| 06-30-2017        | 41.85            | 0.0000                 | 0.0000                  | 0.0000            | 0.1254          | 0.1254             |
| 03-31-2017        | 40.95            | 0.0000                 | 0.0000                  | 0.0000            | 0.1413          | 0.1413             |
| 12-28-2016        | 39.55            | 0.0000                 | 0.0000                  | 0.0000            | 0.1118          | 0.1118             |
| 11-22-2016        | 38.86            | 1.0914                 | 0.0000                  | 0.0000            | 0.0000          | 1.0914             |

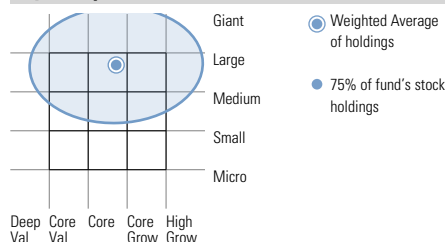
## 3 Year Average Morningstar Risk Measures



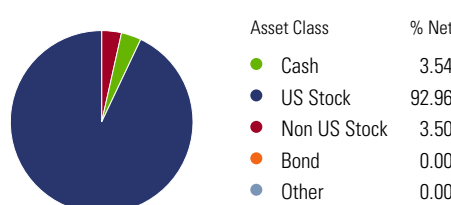
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊖ Neutral  |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

|                   | Start Date |
|-------------------|------------|
| Todd C. Ahlsten   | 05-01-2001 |
| Benjamin E. Allen | 05-01-2012 |

# Parnassus Core Equity Fund - Institutional Shares PRILX

## Analysis

**This socially conscious fund is a good core option for any investor.**

By David Kathman, CFA 11/14/2016

Parnassus Core Equity is a good illustration that funds following a socially conscious or ESG (environmental, social, governance) mandate can also be superior long-term performers. Since Todd Ahlsten began managing the fund in May 2001, its returns have been among the best in the large-blend Morningstar Category and have trounced the S&P 500. These returns have been remarkably steady, beating the category in eight of the past 10 calendar years with much less volatility than the average large-blend fund. Those great results, along with an experienced management team and disciplined strategy, earn it a Morningstar Analyst Rating of Silver.

Ahlsten and Ben Allen, his comanager since 2012, use a combination of negative and positive screens to ensure the fund follows ESG principles. They avoid firms that get more than 10% of their revenue from alcohol, tobacco, gambling, weapons, or nuclear power, or which have financial ties to Sudan. They prefer firms that score well on various governance, workplace, and environmental criteria and which have good customer and community relations. They don't avoid fossil-fuel stocks entirely, like some ESG funds do, but such stocks must clear an especially high bar to make it into the portfolio.

Within those constraints, Ahlsten and Allen maintain a portfolio of roughly 40 stocks, at least 75% of which must be dividend-payers, with an emphasis on those having wide or increasing competitive advantages. In fact, 63% of the portfolio was in stocks with wide Morningstar Economic Moat Ratings as of Sept. 30, 2016, well above the 50% large-blend category average, and the average holding was more profitable than the category norm.

That quality focus has been a big factor in the fund's strong performance in down markets such as 2008, but the managers are also willing to take

chances that can help the fund in up markets. The fund currently has an overweighting relative to its peers in industrial stocks, several of which have posted nice gains in 2016, partially offsetting the struggles of top holdings Gilead Sciences GILD and Wells Fargo WFC, among others.

**Process Pillar:**  Positive

This fund has typical socially conscious restrictions: It avoids companies deriving significant revenue from alcohol, tobacco, weapons, nuclear power, or gambling, or those with ties to Sudan. However, Parnassus also emphasizes positive environmental, social, and governance criteria, believing that such criteria also identify companies likely to outperform industry peers. They seek out firms that score well on corporate governance, employee benefits, stakeholder relations, products, environmental impact, and customer and supply-chain relationships.

From the 400 or so stocks that pass those screens, managers Todd Ahlsten and Ben Allen look for companies with wide or increasing economic moats that sell increasingly relevant products or services and that are guided by good management. While they do not make top-down sector calls, they buy when a stock is undervalued based on a range of outcomes incorporating a variety of macroeconomic scenarios. That can lead to sector biases, but the managers avoid sector weightings that are more than twice that of the S&P 500 benchmark. They also won't put more than 5% of the portfolio in any individual stock. The fund must have 75% of assets in dividend-paying stocks, but there is no particular emphasis on high dividends or dividend growth.

This thorough, disciplined strategy earns the fund a Positive rating for Process.


Todd Ahlsten and Ben Allen are patient, high-conviction investors. They hold 40 or so names and initiate a position only if they are willing to stake at least 1% of assets. As of November 2016, the portfolio's biggest sector overweightings relative to the S&P 500 were in industrials and basic materials, both of which hurt returns in 2015 but re-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Neutral  |

### 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.

### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 11.31          | -3.58        |
| 2016 | 10.60          | 0.24         |
| 2015 | -0.33          | 0.74         |
| 2014 | 14.70          | 3.74         |
| 2013 | 34.15          | 2.65         |



# Parnassus Core Equity Fund - Institutional Shares PRILX

## Analysis

bounded in 2016, and in consumer defensive stocks, which have been a modestly positive contributor.

The fund is significantly light in energy, consumer cyclicals, and financials, though National Oilwell Varco NOV, which the managers like for its socially responsible policies and wide moat, is a top-20 holding. The managers explicitly say that the fund is not fossil-fuel-free, as some socially responsible peers are, but they have a high bar for energy stocks to make it into the portfolio. In spring 2015, they trimmed the fund's healthcare exposure, especially in biotech, because of valuation concerns. The fund now has a slight underweighting in that sector, but it still owns such stocks as Gilead GILD (the top holding as of Sept. 30, 2016), CVS Health CVS, and Allergan AGN.

The second-largest holding as of Sept. 30, 2016, was Wells Fargo WFC, which was recently hit by revelations that an overly aggressive sales culture had led to the creation of fake accounts. Because of their initial conclusion that the firm has handled the scandal well, the managers still held the stock as of late October.

### Performance Pillar: Positive

The fund has an excellent long-term record, earning it a Positive Performance rating. As of November 2016, its 10- and 15-year returns rank in the large-blend category's top 3%, and its five-year returns rank in the top decile. It also ranks in the top 2% since Todd Ahlsten became manager in May 2001 and in the top decile since Ben Allen became comanager in May 2012. Ahlsten got off to a rocky start with an ill-timed cash stockpile and some poor picks, but he soon righted the ship while Parnassus began building its research team in earnest.

The fund beat the large-blend category in eight of the nine calendar years from 2006 through 2014, including top-decile finishes in 2007 and 2008. (Ahlsten made a good call by avoiding financials ahead of the crisis.) The one exception was 2010, when it landed in the bottom decile because of poor performance by such prominent holdings as

Cisco CSCO and Microsoft MSFT.

It bounced back with four straight years of solid, category-beating returns. It had an especially nice run in 2014, when it gained 14% to rank in the category's top 11% and beat the S&P 500 benchmark, thanks to big gains from Allergan AGN and other picks such as Apple AAPL. It landed in the middle of the pack in 2015 and trailed the S&P 500, partly because of its energy exposure, but looked better in the first 10 months of 2016, beating the category despite problems at top holdings Gilead GILD and Wells Fargo WFC.

### People Pillar: Positive

Lead manager Todd Ahlsten is Parnassus' chief investment officer. He joined the firm as a research analyst in 1995 and became director of research in 1998. Ahlsten began comanaging this fund with Parnassus' founder Jerome Dodson in 2001. He took over as sole manager in 2002 and has earned excellent results since. Ahlsten has more than \$1 million invested in this fund. His long track record and investment help earn the fund a Positive People rating.

Ben Allen joined as comanager on May 1, 2012, and is Parnassus' director of research. Allen started at Parnassus as an analyst in 2005 and was part of a three-manager team that earned a nice record at Parnassus Mid-Cap PARMX from October 2008 through April 2012 before moving on to this fund. Allen has increased his investment here, and it now stands between \$100,000 and \$500,000.

While Ahlsten has final say on picks, each manager is responsible for half of the fund's 40 or so holdings. Ahlsten generally covers healthcare and technology stocks, while Allen favors industrials and business services. They are supported by a 12-person team of research analysts, all of whom contribute to this fund, though some have other responsibilities as well. Five of these analysts serve as portfolio managers on other Parnassus funds (Matt Gershuny is director of research as well as comanager of Parnassus Mid-Cap), while three of them primarily do ESG research.

### Parent Pillar: Positive

Change is under way at Parnassus Investments. Jerome Dodson, who founded the company in 1984, announced in February 2017 that Ben Allen had succeeded him as the firm's president. Dodson remains the chief executive officer, but Allen is expected to assume that role in 2018. Dodson will continue to manage money at Parnassus indefinitely. Allen embodies the Parnassus approach to recruiting and retaining investment talent. He joined the firm as a research intern, a rite of passage for members of the research team, and worked his way from senior research analyst to director of research to portfolio manager. The transition is not cause for panic. Allen is talented and experienced, the plan is thoughtful, and the firm retains all its high-caliber research leaders.

Parnassus has six funds, the newest of which is an Asia-focused fund launched in April 2013. A foreign fund is a first for the company, but the firm has not grown recklessly; the last time it had launched a new fund was in 2005. The funds invest only in securities that pass its environmental, social, and governance screens. From there, the managers find companies with relevant products, sustainable competitive advantages, quality management, and ethical practices, and it buys when the stock is undervalued. The fixed-income fund also uses equity research for security selection. A well-defined wheelhouse combined with a strong culture of investment excellence adds up to a Parent rating of Positive.

### Price Pillar: Neutral

The 0.87% expense ratio of this fund's Investor shares is close to the median for its peer group, and the fund earns a Neutral rating for Price. The fund's expenses have always been reasonable, and, as its asset base has grown, its net expense ratio has decreased gradually from 1.07% a decade ago.

Institutional shareholders also get a good deal. Requiring a minimum investment of only \$100,000, the share class charges 0.67% a year, below aver-

# Parnassus Core Equity Fund - Institutional Shares PRILX

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## Analysis

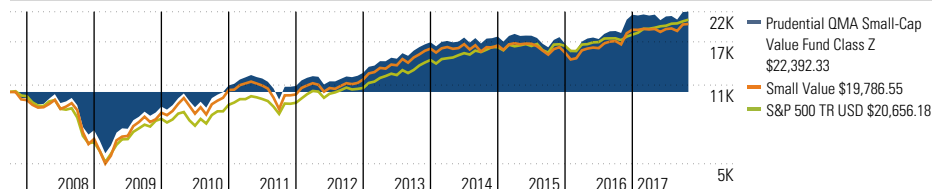
age for the large-cap institutional peer group.

# Prudential QMA Small-Cap Value Fund Class Z TASVX

Morningstar Analyst Rating

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category    | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------|------------------|
| 22.27  | ↓ -0.11   -0.49  | 1.54        | 1.6                 | Open   | \$5 mil   | None | 0.70%    | ★★★★                | Small Value | Small Value      |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks above-average capital appreciation. The fund normally invests at least 80% of its investable assets in equity and equity-related securities of small-cap companies. The subadviser considers small-cap companies to be companies with market capitalizations within the market cap range of companies included in the Russell 2000 Index or the Standard & Poor's SmallCap 600 Index. While most assets will typically be invested in U.S. equity and equity-related securities, including real estate investment trusts (REITs), the fund may also invest in foreign equity and equity-related securities.

## Performance 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 10,310 | 10,610 | 12,330 | 14,124  | 19,011  | 22,444   |
| Fund               | 3.10   | 6.10   | 23.30  | 12.20   | 13.71   | 8.42     |
| +/- S&P 500 TR USD | -13.13 | 3.68   | 1.10   | -0.88   | -0.62   | 0.90     |
| +/- Category       | -2.72  | 1.36   | 2.35   | 1.96    | 1.51    | 1.34     |
| % Rank in Cat      | 81     | 16     | 32     | 27      | 31      | 21       |
| # of Funds in Cat  | 374    | 393    | 365    | 318     | 276     | 189      |

\* Currency is displayed in BASE

## Top Holdings 09-30-2017

|                            | Weight % | Last Price | Day Chg % | 52 Week Range |
|----------------------------|----------|------------|-----------|---------------|
| MGIC Investment Corp       | 1.16     | 13.54 BASE | 3.28 ↑    | 7.94 - 13.62  |
| Cathay General Bancorp     | 1.12     | 40.69 BASE | 1.17 ↑    | 28.84 - 41.11 |
| Umpqua Holdings Corp       | 1.11     | 19.95 BASE | 1.32 ↑    | 14.77 - 20.03 |
| SkyWest Inc                | 1.11     | 46.15 BASE | -0.43 ↓   | 28.35 - 47.60 |
| Washington Federal Inc     | 1.09     | 34.30 BASE | 0.73 ↑    | 26.17 - 35.95 |
| % Assets in Top 5 Holdings | 5.59     |            |           |               |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

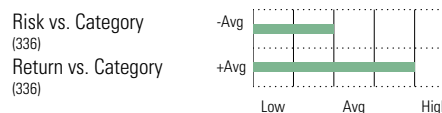
## Top Sectors 09-30-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Financial Services | 35.44 | 38.03     | 35.15    | 25.56   |
| Consumer Cyclical  | 16.64 | 16.64     | 10.88    | 13.35   |
| Industrials        | 14.69 | 15.18     | 14.69    | 17.64   |
| Real Estate        | 14.17 | 14.17     | 11.56    | 7.78    |
| Technology         | 5.05  | 7.48      | 5.02     | 11.15   |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 12-19-2016        | 21.81            | 0.0000                 | 0.0534                  | 0.0000            | 0.3426          | 0.3961             |
| 12-15-2015        | 16.42            | 6.3835                 | 0.3703                  | 0.0000            | 0.6137          | 7.3674             |
| 12-22-2014        | 25.45            | 2.4013                 | 0.1384                  | 0.0000            | 0.2763          | 2.8159             |
| 12-16-2013        | 25.96            | 1.4755                 | 0.4373                  | 0.0000            | 0.2763          | 2.1891             |
| 12-28-2012        | 21.06            | 0.0000                 | 0.0000                  | 0.0000            | 0.0353          | 0.0353             |

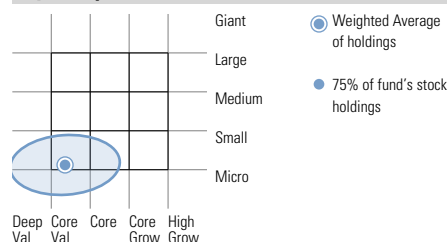
## 3 Year Average Morningstar Risk Measures



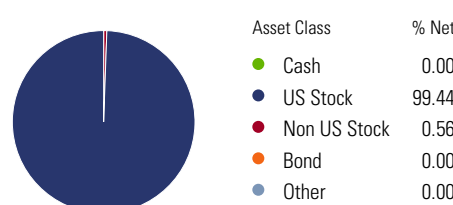
## Pillars

|             |   |   |
|-------------|---|---|
| Process     | — | — |
| Performance | — | — |
| People      | — | — |
| Parent      | — | — |
| Price       | — | — |
| Rating      | — | — |

## Style Map



## Asset Allocation



## Management

|                   | Start Date |
|-------------------|------------|
| Stephen Courtney  | 01-15-2015 |
| Robert Leung      | 01-15-2015 |
| Mitchell B. Stern | 01-15-2015 |

# Prudential QMA Small-Cap Value Fund Class Z TASVX

## Analysis

### Morningstar's Take

Morningstar Analyst Rating —

### Morningstar Pillars

|             |   |   |
|-------------|---|---|
| Process     | — | — |
| Performance | — | — |
| People      | — | — |
| Parent      | — | — |
| Price       | — | — |

### 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.

Analyst Rating Spectrum

 Gold
  Silver
  Bronze
 Neutral
 Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 3.10           | -2.72        |
| 2016 | 33.94          | 7.95         |
| 2015 | -7.04          | -0.34        |
| 2014 | 5.89           | 2.55         |
| 2013 | 35.87          | -0.35        |

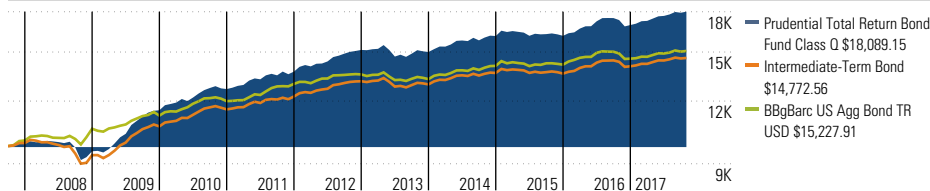
We do not currently publish an Analyst Report for this fund.

# Prudential Total Return Bond Fund Class Q PTRQX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category               | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|------------------------|------------------|
| 14.60  | ↑0.02   0.15     | 2.93        | 28.0                | Open   | \$5 mil   | None | 0.43%    | ★★★★★               | Intermediate-Term Bond |                  |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks total return. The fund will seek to achieve its objective through a mix of current income and capital appreciation as determined by the fund's investment subadviser. It invests, under normal circumstances, at least 80% of the fund's investable assets in bonds. For purposes of this policy, bonds include all fixed-income securities, other than preferred stock, with a maturity at date of issue of greater than one year. The fund may invest up to 30% of its investable assets in high risk, below investment-grade securities having a rating of not lower than CCC. It may invest up to 30% of its investable assets in foreign debt securities.

## Performance 10-17-2017

|                                | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000               | 10,603 | 10,025 | 10,344 | 11,185  | 11,948  | 18,029   |
| Fund                           | 6.03   | 0.25   | 3.44   | 3.80    | 3.62    | 6.07     |
| +/- BBgBarc US Agg Bond TR USD | 2.85   | 0.35   | 2.90   | 1.57    | 1.50    | 1.87     |
| +/- Category                   | 2.56   | 0.31   | 2.20   | 1.58    | 1.44    | 1.82     |
| % Rank in Cat                  | 3      | 10     | 7      | 3       | 4       | —        |
| # of Funds in Cat              | 934    | 968    | 917    | 791     | 713     | 495      |

\* Currency is displayed in BASE

## Top Holdings 09-30-2017

|  | Weight % | Maturity Date | Amount Mil | Value Mil |
|--|----------|---------------|------------|-----------|
| ⊕ US 5 Year Note (CBT) Dec17           | 23.50    | 12-29-2017    | 0.07       | 7,652.31  |
| ⊕ 2 Year US Treasury Note Future Dec17 | -14.37   | 12-29-2017    | 0.02       | -4,680.54 |
| ⊕ Us Ultra Bond Cbt Dec17              | 9.35     | 12-19-2017    | 0.02       | 3,043.42  |
| ⊖ US 10 Year Note (CBT) Dec17          | -4.53    | 12-19-2017    | 0.01       | -1,475.18 |
| Ultra 10-Year U.S. Treasury Note Nov17 | 2.59     | 11-21-2017    | 0.01       | 843.72    |
| % Assets in Top 5 Holdings             | 16.53    |               |            |           |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

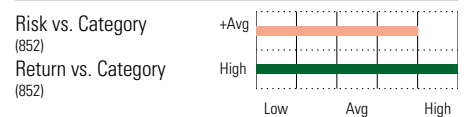
## Top Sectors 09-30-2017

|                          | Fund  | BMark | Cat Avg |                  |
|--------------------------|-------|-------|---------|------------------|
| Corporate Bond           | 33.02 | 25.73 | 32.19   | ■ Fund ▼ Cat Avg |
| Other Government Related | 19.87 | 2.74  | 0.57    |                  |
| Asset-Backed             | 17.11 | 0.51  | 6.05    |                  |
| Commercial MBS           | 7.23  | 1.29  | 15.09   |                  |
| U.S. Treasury            | 5.96  | 37.23 | 22.58   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-29-2017        | 14.55            | 0.0000                 | 0.0000                  | 0.0000            | 0.0407          | 0.0407             |
| 08-31-2017        | 14.64            | 0.0000                 | 0.0000                  | 0.0000            | 0.0367          | 0.0367             |
| 07-31-2017        | 14.52            | 0.0000                 | 0.0000                  | 0.0000            | 0.0328          | 0.0328             |
| 06-30-2017        | 14.46            | 0.0000                 | 0.0000                  | 0.0000            | 0.0368          | 0.0368             |
| 05-31-2017        | 14.47            | 0.0000                 | 0.0000                  | 0.0000            | 0.0356          | 0.0356             |

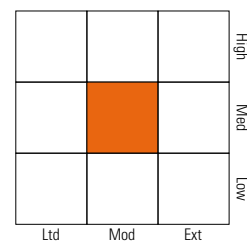
## 3 Year Average Morningstar Risk Measures



## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | Silver     |

## Style Map 09-30-2017



| Bond Statistics                    | Value  |
|------------------------------------|--------|
| Average Effective Duration         | 6.22   |
| Average Effective Maturity (Years) | —      |
| Average Credit Quality             | BBB    |
| Average Weighted Coupon            | 3.49   |
| Average Weighted Price             | 102.46 |

## Asset Allocation

|                | % Net | % Short | % Long | Bench mark | Cat Avg |
|----------------|-------|---------|--------|------------|---------|
| ● Cash         | 0.45  | 2.19    | 2.64   | 0.00       | 0.34    |
| ● US Stock     | 0.00  | 0.00    | 0.00   | 0.00       | 0.03    |
| ● Non US Stock | 0.01  | 0.00    | 0.01   | 0.00       | 0.00    |
| ● Bond         | 97.26 | 28.26   | 125.52 | 99.99      | 97.90   |
| ● Other        | 2.28  | 0.52    | 2.81   | 0.01       | 1.73    |

## Management

|                    | Start Date |
|--------------------|------------|
| Robert Tipp        | 10-30-2002 |
| Michael J. Collins | 11-18-2009 |
| Richard Piccirillo | 12-31-2012 |
| Gregory Peters     | 03-05-2014 |

# Prudential Total Return Bond Fund Class Q PTRQX

## Analysis

### A richly resourced fund with a considerable record.

By Eric Jacobson 4/13/2017

Prudential Total Return Bond is run by a fixed-income group that rivals the largest in the industry and boasts massive investments in people and analytics. The fruits of those efforts have earned the fund a good long-term record, and Prudential has improved the fund's pricing. We are raising the fund's Morningstar Analyst Rating to Silver.

Prudential's history of running insurance assets--traditionally heavy in corporate bonds--has influenced this fund's strategy, and the firm boasts at least 80 credit analysts. So even though it's benchmarked against the Bloomberg Barclays U.S. Aggregate Bond Index, it has a credit bias. The fund's corporate exposure has long topped the benchmark's once high-yield bonds and bank loans are included (neither are in the index), though its managers trimmed credit risk going into 2017 and have favored securitized assets in recent years, too. Corporates and bank loans comprised 43% of the fund as of December 2016, compared with a 28% corporate stake in the index, and roughly a third on average in the intermediate-term bond Morningstar Category.

Though the implications for performance aren't quite the same, the fund had 32% in securitized assets as of December 2016, including the highly rated CLOs, nonagency residential, and commercial mortgage-backed securities. It held 10% in U.S. Treasury and agency securities--versus 66% for the index--down from 43% at the end of 2007.

There's nothing inherently wrong with that profile, but it places the fund on the category's edge in terms of credit risk. And while the market's rate sensitivity has also risen, the fund's has trended a bit longer in the past few years. It was buffeted by both rates and credit in 2015, for example, pushing its return below the midpoint of distinct peers in its group. But despite above-average volatility, the fund has survived rough markets without severe or lasting damage: In 2008, it had exposure

to rallying Treasuries as its other sectors struggled, placing in the category's middle. Overall, the fund still requires a level of comfort with its composition.

#### Process Pillar: Positive

This fund's managers focus on finding issues that have good fundamentals but generate a healthy amount of income. That gives it a bias toward corporates, securitized assets, and smaller helpings in non-U.S. developed- and emerging-markets debt, with very little exposure to Treasuries and agencies.

The team has long gravitated toward corporate credit. In that context, the managers compare internal credit scores against rating agencies', assign scores based on yield premiums versus the broad market, and build rankings based on liquidity and event risk. Internally developed risk analytics are then applied to portfolios.

The team targets a goal of 150 basis points of out-performance per year over the Barclays U.S. Aggregate Bond Index, ideally averaging contributions of roughly 75 basis points from sector allocation, 40 basis points from subsector and security selection, and 35 basis points from plays on duration, currency, and the yield curve. With the use of its risk models, the team also looks to cap the fund's tracking error at 250 basis points.

Overall, the fund has managed strong execution of a straightforward, well-developed strategy, which has earned it a Positive Process Pillar rating.

The fund's credit emphasis has been more pronounced in recent years, as has a longer duration. After taking that figure to 3.8 years in March 2009, the fund's managers drove it up to 6.3 years as of December 2016, around a half-year longer than the benchmark's and roughly three quarters of a year longer than the (distinct) intermediate-bond category average.

As of December 2016, the fund held 43% in corporate credit, roughly two thirds of which was investment-grade, and the rest high-yield and bank-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

### Analyst Rating Spectrum



### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 6.03           | 2.39         |
| 2016 | 4.83           | 1.59         |
| 2015 | 0.09           | 0.34         |
| 2014 | 7.25           | 2.07         |
| 2013 | -0.91          | 0.51         |



# Prudential Total Return Bond Fund Class Q PTRQX

## Analysis

loan exposure, reflecting some trimming of credit risk leading up to 2017. Another 14% was in CLOs, classified by Prudential as asset-backed. Sizing up the kind of highly rated CLO tranches this fund owns can be tricky, though, because they carry structural protection from credit risk but are ultimately supported by leveraged bank loans. Depending on how you assess such quirks, one could argue for viewing the fund's credit risk more cautiously.

The portfolio was rounded out with asset-backed (roughly 12% after stripping out CLOs) and commercial-mortgage-backed securities (10%) and exposure to foreign government debt (6%) and emerging-markets issues (6%). With only a 1% stake in agency mortgages, and 4% in Treasuries and agency debt, that leaves the fund with a massive underweighting in those sectors relative to its benchmark, and the category, albeit to a lesser degree.

### Performance Pillar: Positive

The fund's long-term record has been attractive: Its trailing returns all place in its category's best quartile. And though its volatility during those periods has been higher than average, it hasn't been extreme and the fund hasn't suffered serious blows. It earns a Positive Performance rating.

The ride has been a little choppy at times. The fund's duration was 3.8 years in early 2009 and ratcheted up to 6.3 years by December 2016. Many rivals trimmed rate sensitivity, though, producing different relative outcomes.

When Treasury yields spiked between Oct. 8, 2010, and Feb. 10, 2011, for example, the fund's duration was still in the range of 4.5-4.9 years, and its 1.4% loss placed in the best third of distinct funds in the group. Its duration was longer when yields spiked in early 2013, hitting 6.1 years by the end of September from 5.3 years at March 31 of that year. As yields spiked from May through September, the fund lost 5% and trailed its average peer.

And while it trimmed credit risk going into 2017,

the fund has been more aggressive there since 2008 when it placed in the category's middle and dipped to the group's bottom half during the third-quarter 2011 credit sell-off. The fund also had some poor relative months when credit sold off in the second half of 2014 and then 2015, but it didn't fare notably worse on a relative basis than during the third quarter of 2011.

### People Pillar: Positive

The fund is run by Michael J. Collins, Robert Tipp, Richard Piccirillo, and Gregory Peters; they also manage other portfolios for Prudential Financial, including Prudential Absolute Return Bond PADZX. They average more than 20 years of investment experience and are backed by a fixed-income group with big research manpower by virtue of a cadre of portfolio managers and roughly 100 analysts. The group also draws on a large team focused on proprietary analytics, risk management, and performance attribution. The managers' record and substantial resources earn it a Positive People Pillar rating.

Collins also manages some of the firm's other multisector strategies. He has been at Prudential since 1986 and has experience as a high-yield manager and developing proprietary quantitative international interest-rate and currency models. Tipp has been with the firm since 1991; he heads its global bonds team and drives global rate positioning for several portfolios. Piccirillo has been with Prudential since 1993 and specializes in mortgage- and asset-backed securities. Prior to joining the firm he worked as a fixed-income analyst for Fischer Francis Trees & Watts. Peters has experience as Morgan Stanley's global director of fixed income and economic research and was responsible for the firm's macro research and asset-allocation strategy. His prior experience included stints at Salomon Smith Barney and the U.S. Treasury.

### Parent Pillar: Positive

The Prudential funds are part of PGIM, the new name for the former Prudential Investment Management, the asset-management arm of conglomerate Prudential Financial. PGIM has notable strengths, including a culture that's positive in many ways, and it has continued to move in the

right direction. Our increasing confidence in the firm earns it a Positive Parent rating.

Nearly all of the Prudential funds are subadvised by subsidiaries of PGIM, primarily Jennison Associates, Quantitative Management Associates, PGIM Fixed Income, and PGIM Real Estate. The fixed-income team, with more than half of the firm's fund assets, is well-resourced and risk-aware, while the actively managed fundamental equity funds are run by Jennison with an established, repeatable investment process. The Prudential funds as a group have respectable long-term records.

PGIM has launched a lot of new funds since 2010, about half of its 79 open-end funds (as of June 2017). That's a potential concern, but these new funds have been in areas where the firm already has significant resources.

The Prudential funds are overseen by an engaged, active board. The trustees have pushed for lower fees, and the fund's expenses have been coming down, though they could go even lower. Manager investment in the Prudential funds has also improved from its previous low levels.

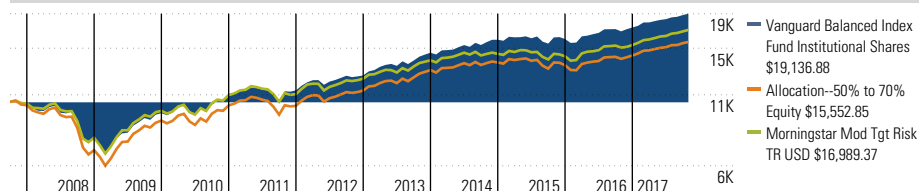
### Price Pillar: Positive

The fund's pricing had historically been a mixed bag, with share classes holding half its assets all priced below average relative to their respective peer groups of similarly distributed funds, with the other half of the fund's asset base residing in classes charging above-average fees. Prudential addressed that problem in early 2016, however, contractually limiting expenses on the fund's share classes. They're not required to maintain that agreement, but it would be unusual for a bond fund to raise its prices after such a move. At the new levels, just enough assets are priced below average to push the fund's Price Pillar rating to Positive.

# Vanguard Balanced Index Fund Institutional Shares VBAIX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category                      | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------------------------|------------------|
| 33.93  | ↓0.00   0.00     | 2.04        | 35.3                | Open   | \$5 mil   | None | 0.06%    | ★★★★★               | Allocation--50% to 70% Equity | Large Blend      |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Performance** 10-17-2017

|                                     | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-------------------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000                    | 11,066 | 10,161 | 11,366 | 12,815  | 15,637  | 19,078   |
| Fund                                | 10.66  | 1.61   | 13.66  | 8.62    | 9.35    | 6.67     |
| +/- Morningstar Mod Tgt Risk TR USD | -1.08  | 0.22   | -0.19  | 1.49    | 1.90    | 1.26     |
| +/- Category                        | 0.27   | 0.20   | 0.50   | 2.03    | 1.87    | 1.59     |
| % Rank in Cat                       | 51     | 35     | 44     | 11      | 12      | 12       |
| # of Funds in Cat                   | 804    | 834    | 801    | 709     | 650     | 458      |

\* Currency is displayed in BASE

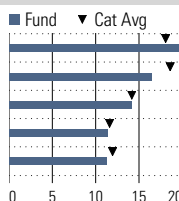
**Top Holdings** 09-30-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range     |
|----------------------------|----------|-------------|-----------|-------------------|
| ⊖ Apple Inc                | 1.64     | 159.76 BASE | -0.44 ↓   | 104.08 - 164.94   |
| ⊕ Microsoft Corp           | 1.31     | 77.61 BASE  | 0.03 ↑    | 56.66 - 77.87     |
| ⊕ Facebook Inc A           | 0.93     | 176.03 BASE | -0.05 ↓   | 113.55 - 176.74   |
| ⊕ Amazon.com Inc           | 0.90     | 997.00 BASE | -1.20 ↓   | 710.10 - 1,083.31 |
| ⊕ Johnson & Johnson        | 0.80     | 140.68 BASE | -0.08 ↓   | 109.32 - 141.58   |
| % Assets in Top 5 Holdings | 5.57     |             |           |                   |

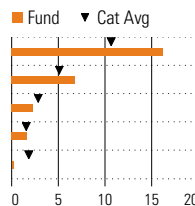
⊕ Increase ⊖ Decrease ☆ New to Portfolio

**Top Sectors** 09-30-2017

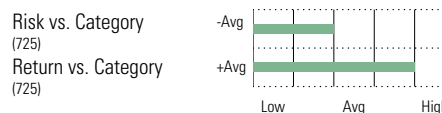
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Technology         | 19.83 | 19.83     | 17.70    | 17.61   |
| Financial Services | 16.43 | 16.64     | 15.02    | 18.13   |
| Healthcare         | 14.15 | 15.21     | 13.28    | 13.71   |
| Industrials        | 11.35 | 11.46     | 11.35    | 11.15   |
| Consumer Cyclical  | 11.25 | 12.03     | 11.25    | 11.49   |



|                        | Fund  | BMark | Cat Avg |
|------------------------|-------|-------|---------|
| Government             | 16.21 | 14.49 | 10.23   |
| Agency Mortgage-Backed | 6.81  | 6.74  | 4.67    |
| Commercial MBS         | 2.32  | 0.10  | 2.41    |
| Government-Related     | 1.63  | 0.50  | 1.13    |
| Asset-Backed           | 0.20  | 0.01  | 1.41    |


**Dividend and Capital Gains Distributions**

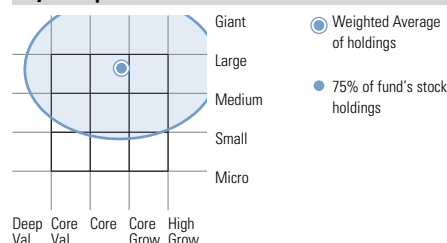
| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-21-2017        | 33.39            | 0.0000                 | 0.0000                  | 0.0000            | 0.1790          | 0.1790             |
| 06-22-2017        | 32.89            | 0.0000                 | 0.0000                  | 0.0000            | 0.1520          | 0.1520             |
| 03-28-2017        | 32.06            | 0.0000                 | 0.0000                  | 0.0000            | 0.1570          | 0.1570             |
| 12-23-2016        | 31.24            | 0.0000                 | 0.0000                  | 0.0000            | 0.1960          | 0.1960             |
| 09-16-2016        | 30.60            | 0.0000                 | 0.0000                  | 0.0000            | 0.1610          | 0.1610             |

**3 Year Average Morningstar Risk Measures**

**Pillars**

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | ★★★★★ Gold |

**Investment Strategy**

The investment seeks to track the performance of a benchmark index that measures the investment return of the overall U.S. stock market. The fund employs an indexing investment approach designed to track the performance of two benchmark indexes. With approximately 60% of its assets, the fund seeks to track the investment performance of the CRSP U.S. Total Market Index. With approximately 40% of its assets, the fund seeks to track the investment performance of the Bloomberg Barclays U.S. Aggregate Float Adjusted Index.

**Style Map**

**Asset Allocation**

|                | % Net | % Short | % Long | Bench mark | Cat Avg |
|----------------|-------|---------|--------|------------|---------|
| ● Cash         | 1.98  | 0.00    | 1.98   | 1.00       | 5.29    |
| ● US Stock     | 58.87 | 0.00    | 58.87  | 45.78      | 45.85   |
| ● Non US Stock | 0.47  | 0.00    | 0.47   | 21.57      | 13.64   |
| ● Bond         | 38.67 | 0.00    | 38.68  | 31.17      | 33.37   |
| ● Other        | 0.00  | 0.00    | 0.00   | 0.49       | 1.86    |

**Management**

|                       | Start Date |
|-----------------------|------------|
| Joshua C. Barrickman  | 02-22-2013 |
| Christopher E. Wrazen | 07-07-2015 |
| William A. Coleman    | 04-26-2016 |
| Gerard C. O'Reilly    | 04-26-2016 |

# Vanguard Balanced Index Fund Institutional Shares VBAIX

## Analysis

### Success by doing less.

By Gretchen Rupp 12/14/2016

Vanguard Balanced Index takes a straightforward approach to asset allocation, maintaining a steady 60% stock/40% bond allocation. The fund's index-based holdings lead to a portfolio with relatively high-quality fixed-income securities and broad exposure to the U.S. stock market, and they have also produced more stable returns than most allocation--50% to 70% equity Morningstar Category peers. These positive attributes, along with rock-bottom fees, have resulted in category-leading results and earn the fund a Morningstar Analyst Rating of Gold.

This fund stands out among its peers for its simplicity. Unlike many rival fund managers who use tactical management to adjust attributes like overall stock/bond weighting, credit quality, or growth and value tilts, this fund doesn't waver. Maintaining this predictable mix mitigates the risk of ill-timed portfolio changes. Its stock portfolio tracks the CRSP U.S. Total Stock Market Index, which includes virtually the entire domestic stock market, while the bond sleeve follows the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index, which serves as a proxy for U.S. investment-grade taxable bonds. The result is a U.S.-centric portfolio, whereas the fund's average peer invests about 10% in foreign equities. And fixed-income picks don't reach below investment-grade debt, while the average moderate-allocation fund invests over 21% of fixed-income assets in unrated bonds or those rated BB and below.

The low-maintenance approach hasn't hampered this fund's performance over the long term--over the past 10 years through November 2016, for example, its 6.3% annualized gain ranks in its peer group's top quintile. It has achieved those results with less volatility than most, as shown by a Sharpe ratio that tops about 85% of peers over that period. Eschewing foreign holdings has provided a tailwind recently, as domestic equities have generally led the market since 2013. Meanwhile, the fund's fixed-income allocation provided

a buffer in 2015's second half as high-yield market liquidity concerns dragged down many peers.

### Process Pillar: Positive

This fund maintains a near constant 60%/40% balance between U.S. stocks and bonds. While many allocation funds will make shifts in asset allocations, this fund doesn't waver. To the extent possible, the fund will use cash flows, both into and out of the portfolio, in order to bring the allocation back toward its target. The implication is that following a period of strong equity market appreciation, the fund will add to its fixed-income portfolio to bring the balance back to 60%/40% (and vice versa). Historically, a disciplined rebalancing approach has helped to keep relative volatility in check, earning the fund a Positive Process rating.

The equity sleeve follows the CRSP U.S. Total Stock Market Index, which tracks nearly every stock in the U.S. market and allows it to achieve the level of diversification deemed optimal by the efficient-market hypothesis. The fund holds nearly 3,300 names, spanning mega- to micro-cap stocks.

The fixed-income side of the portfolio also follows a passive approach, tracking the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index. The fund holds about 6,800 bonds compared with about 10,000 in the index. Because of the large number of bonds in the index and their lack of trading volume, it is common for bond funds to engage in sampling. Still, this fund carefully replicates the index's key characteristics, such as duration and credit quality.

The fund's equity exposure stays in line with its index's norms, and some of these traits distinguish it from the moderate-allocation crowd. Because of the expansive nature of its target stock index, the CRSP U.S. Total Stock Market Index, it has considerably more sector and industry breadth and somewhat more market-cap diversification than the majority of its peers. It replicates a purely domestic stock index, so it normally has nothing in foreign equities; most of its rivals invest about 11% of their stock assets abroad. Yet the fund's market-cap-weighting approach means that giant-cap

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 10.66          | 0.32         |
| 2016 | 8.81           | 1.47         |
| 2015 | 0.52           | 2.45         |
| 2014 | 10.00          | 3.79         |
| 2013 | 18.11          | 1.63         |

# Vanguard Balanced Index Fund Institutional Shares VBAIX

## Analysis

names such as Apple AAPL, Exxon Mobil XOM, and Microsoft MSFT hold the largest sway.

Government and government-backed securities dominate the bond side of the portfolio. The average duration of the fund's holdings, a proxy for interest-rate risk, is longer than the category average. However, this reflects the index, which excludes securities with less than one year to maturity. In addition, the fund strives to be fully invested, so it holds less cash than the category average. The credit quality of the portfolio is slightly higher than the category's because the index excludes high-yield securities. The index also excludes Treasury Inflation-Protected Securities. In addition to these omissions, the fund lacks exposure to international fixed-income securities, whereas most funds in the category include a stake.

### Performance Pillar: Positive

This fund's cost advantage has helped it generate attractive long-term performance relative to the allocation--50% to 70% equity category, supporting the Positive Performance rating. Although the fund's composition may cause performance to vary from the typical moderate-allocation fund, its steady and broadly diversified asset mix isn't likely to become too far out of favor. In fact, the fund has never landed in the bottom half of its peer group across three-year rolling periods for the 10-year period through November 2016. Meanwhile, the fund's 6.3% return beats 83% of peers over the same period.

On top of its strong performance, the fund has not distributed any capital gains in the past decade. Steady inflows aid the rebalancing process and the equity index team's effective trading techniques also reduced gains.

The exceptionally diversified nature of its stock and bond portfolios serves to moderate risk. Over the past 10 years, the fund's standard deviation is less than about 85% of its category peers. Because the fund has consistently produced above-average returns with below-average risk, its risk-adjusted return ranking is slightly better than its

rank based purely on return. The fund's investor returns suggest that some investors became disillusioned with the promise of diversification in 2008. After all, the fund was still down 22% that year. But patient investors recouped their losses in less than two years.

### People Pillar: Positive

Vanguard's Equity Index Group uses a team-based approach. Portfolio manager rotation is part of the normal course of business, and the team believes that this further develops expertise, benefiting fundholders. As a result, manager Christine Franquin was taken off this fund's roster as of April 2016, but she continues to manage other index funds at the firm. Gerard O'Reilly and Bill Coleman replaced Franquin. O'Reilly has been with Vanguard since 1992 and has managed stock index portfolios since 1994. He comanages a number of other index funds, including Vanguard Growth Index VIGIX and Vanguard Total Stock Market Index VTSAX. Coleman joined Vanguard in 2006 and runs other stock index funds as well as Vanguard's target-date funds.

Joshua Barrickman has managed the fund's bond portfolio since February 2013. Barrickman, who leads the fixed-income indexing group, joined Vanguard in 1998 and has comanaged the firm's bond funds since 2005. He also oversees the \$130 billion Vanguard Total Bond Market Index VBTXX, which has the same index as the bond portion of this fund. Christopher Wrazen joined the fund in 2015 when previous comanager Paul Malloy took a new position managing fixed-income operations in London. The managers' long tenures and indexing expertise continue to earn a Positive People rating.

### Parent Pillar: Positive

Vanguard has one of the mutual fund industry's strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-

five-, and 10-year periods, its Morningstar Success Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: Positive

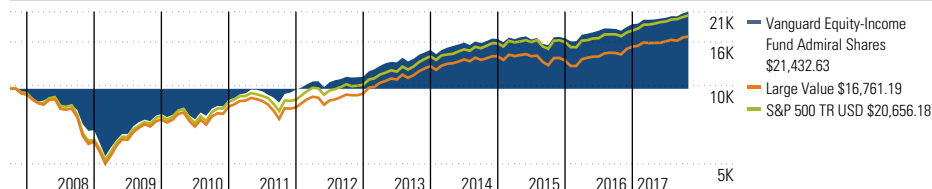
Vanguard's investment philosophy is based on the concept of low-cost investing, and this fund is no exception, earning a Positive Price rating. The Admiral share class, which has a minimum initial investment of \$10,000, has an expense ratio of 0.08%, while the Investor share class, which has a minimum initial investment of \$3,000, charges 0.22%. The median expense ratio for the category is 0.91%. Thus, this fund enjoys an enormous cost advantage over its peers. Unlike many of Vanguard's funds, this fund does not offer an exchange-traded fund share class. However, investors could invest a similar 60/40 split in cheaper broad-market ETFs Vanguard Total Stock Market VTI and Vanguard Total Bond Market BND, but this approach requires that the investor rebalance to maintain the target allocation.

# Vanguard Equity-Income Fund Admiral Shares VEIRX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category    | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------|------------------|
| 75.92  | ↑0.02   0.03     | 2.62        | 29.4                | Open   | \$50,000  | None | 0.17%    | ★★★★★               | Large Value | Large Value      |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks to provide an above-average level of current income and reasonable long-term capital appreciation. The fund invests mainly in common stocks of mid-size and large companies whose stocks typically pay above-average levels of dividend income and are, in the opinion of the purchasing advisor, undervalued relative to other such stocks. In addition, the advisors generally look for companies that they believe are committed to paying dividends consistently. Under normal circumstances, it will invest at least 80% of its assets in equity securities. The fund uses multiple investment advisors.

## Performance 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,323 | 10,255 | 12,083 | 14,263  | 18,676  | 21,399   |
| Fund               | 13.23  | 2.55   | 20.83  | 12.57   | 13.31   | 7.90     |
| +/- S&P 500 TR USD | -2.92  | 0.06   | -2.02  | -0.48   | -0.95   | 0.40     |
| +/- Category       | 2.67   | 0.13   | 1.35   | 2.55    | 1.34    | 2.12     |
| % Rank in Cat      | 20     | 45     | 39     | 6       | 20      | 5        |
| # of Funds in Cat  | 1,265  | 1,336  | 1,247  | 1,085   | 939     | 672      |

\* Currency is displayed in BASE

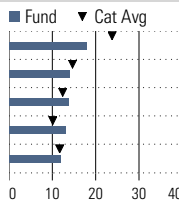
## Top Holdings 06-30-2017

|                                   | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|-----------------------------------|----------|-------------|-----------|-----------------|
| ⊕ Microsoft Corp                  | 4.88     | 77.61 BASE  | 0.03 ↑    | 56.66 - 77.87   |
| ⊕ JPMorgan Chase & Co             | 3.71     | 97.99 BASE  | 0.38 ↑    | 67.54 - 98.55   |
| ⊕ Johnson & Johnson               | 3.29     | 140.68 BASE | -0.08 ↓   | 109.32 - 141.58 |
| ⊕ Philip Morris International Inc | 3.10     | 112.51 BASE | -0.12 ↓   | 86.78 - 123.55  |
| ⊖ Wells Fargo & Co                | 3.05     | 53.41 BASE  | 0.41 ↑    | 44.41 - 59.99   |
| % Assets in Top 5 Holdings        | 18.02    |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

## Top Sectors 06-30-2017

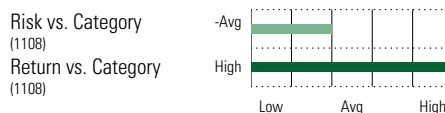
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Financial Services | 17.77 | 18.17     | 17.17    | 22.86   |
| Healthcare         | 13.97 | 13.97     | 12.23    | 13.74   |
| Technology         | 13.85 | 14.17     | 13.64    | 11.47   |
| Consumer Defensive | 13.10 | 13.10     | 11.83    | 9.18    |
| Industrials        | 11.83 | 13.45     | 11.83    | 10.78   |



## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-21-2017        | 74.24            | 0.0000                 | 0.0000                  | 0.0000            | 0.4960          | 0.4960             |
| 06-22-2017        | 72.11            | 0.0000                 | 0.0000                  | 0.0000            | 0.4490          | 0.4490             |
| 03-28-2017        | 71.05            | 0.0000                 | 0.0000                  | 0.0000            | 0.4890          | 0.4890             |
| 12-23-2016        | 68.99            | 0.7078                 | 0.0000                  | 0.0000            | 0.5430          | 1.2508             |
| 09-16-2016        | 65.52            | 0.0000                 | 0.0000                  | 0.0000            | 0.4800          | 0.4800             |

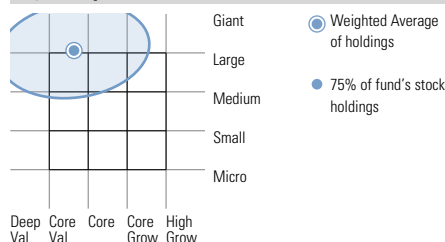
## 3 Year Average Morningstar Risk Measures



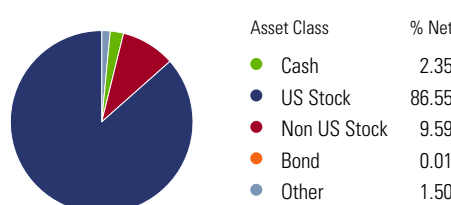
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

|                      | Start Date |
|----------------------|------------|
| James P. Stetler     | 12-31-2003 |
| W. Michael Reckmeyer | 08-15-2007 |
| Binbin Guo           | 01-27-2016 |



# Vanguard Equity-Income Fund Admiral Shares VEIRX

## Analysis

### An effective pair.

By Alec Lucas, Ph.D. 6/5/2017

Aided by a low fee hurdle, Vanguard Equity-Income's subadvisor duo combines to produce a resilient portfolio of dividend-paying stocks. The fund earns a Morningstar Analyst Rating of Silver.

The fund pairs experienced teams from Wellington Management and Vanguard's in-house quantitative equity group. Industry veteran Michael Reckmeyer has led Wellington's two thirds of the portfolio since year-end 2007. James Stetler has overseen the rest of the fund's assets for Vanguard's team since 2003.

The teams use complementary strategies. Reckmeyer runs a roughly 60-70 stock portfolio of stout dividend payers that he tries to buy when they're out of favor. In late 2016, for example, he added to the fund's position in now top-25 holding Unilever UN because of its geographically diverse product mix and above-average organic growth rate. The Vanguard team rounds out the portfolio by taking small stakes in 100-plus stocks based on factors such as valuation and earnings sustainability.

The fund's sector weightings hew closely to those of FTSE High Dividend Yield Index, rarely diverging by more than 5 percentage points. Versus its large-value Morningstar Category peer group, however, the fund tends to tread heavily in income-oriented sectors such as utilities, telecom, and consumer staples. As of March 2017, the fund's 22.8% combined stake in these sectors ranked near the category's top decile.

The fund has the wind at its back whenever investors seek safety in yield-rich sectors. The fund held up better than 90% of its large-value Morningstar Category peers in 2011's equity market plunge from May to early October and more recently in the 2015-16 correction. The fund, though, is prone to lag when interest rates spike, as in 2016's second half.

Over the long haul, Reckmeyer's stock-picking skill

and the Vanguard quant team's model have produced strong risk-adjusted results. From Reckmeyer's late 2007 start date through May 2017, the fund's top-decile 7.9% annualized gain edged its benchmark with less volatility.

The fund is a worthy option.

### Process Pillar: Positive

Two subadvisors here take distinct but effective approaches to finding value in the market's short-term dislocations, earning the fund a Positive Process Pillar rating. Manager Michael Reckmeyer, who runs about two thirds of the fund's assets, is a stickler for dividends, valuations, and healthy balance sheets. He buys stocks with above-average dividends and low valuations but unappreciated growth prospects. Typically, these stocks offer a yield above the S&P 500's upon purchase. Unlike the strategy he runs for Vanguard Wellesley Income VWINX, however, his portfolio here can hold a stock if its yield falls below the S&P 500's. Reckmeyer can be contrarian, adding to solid but out-of-favor stocks whose challenges are more than reflected in their share prices. While he generally holds stocks for about four to five years, Reckmeyer is quick to sell if stocks' fundamentals deteriorate or hit their target price. He can also swap a name for a similar stock trading at a better valuation.

Vanguard's James Stetler and his quant team manage about one third of the fund's assets. They rely on computer models that pick stocks from the FTSE High Dividend Yield Index based on valuation, growth, management decisions (stock buybacks, dividend increases, and so on), momentum, and earnings sustainability. They turn their portfolio over more than Reckmeyer, but the fund's overall turnover still tends to be below most peers'.


The fund has a diverse portfolio of about 150-200 dividend-paying stocks. They consistently produce an above-average yield versus the large-value category norm, although they are typically well-capitalized firms. Currently, the fund derives its top-decile 2.6% trailing 12-month yield from stocks that, on average, have a return on assets that

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 13.25          | 2.48         |
| 2016 | 14.82          | 0.01         |
| 2015 | 0.86           | 4.90         |
| 2014 | 11.38          | 1.16         |
| 2013 | 30.19          | -1.02        |



# Vanguard Equity-Income Fund Admiral Shares VEIRX

## Analysis

ranks in the category's top quintile. The fund largely steers clear of higher-yielding stocks, which can signal a distressed dividend or limited growth prospects.

While Vanguard's portion of the portfolio doesn't stray too far from the U.S.-focused FTSE High Dividend Yield Index, Wellington's Michael Reckmeyer has recently found a number of attractively valued dividend payers overseas. Since early 2013, the fund's foreign stake has hovered around 10%. Most of these holdings are multinationals that pay stout dividends, like British American Tobacco BATS, which has a wide Morningstar Research Services Economic Moat Rating.

Sector weightings tend to stay fairly close to the fund's benchmark but can diverge dramatically from the Russell 1000 Value Index. Financials claimed 17.3% of the fund's assets as of April 2017. That was more than any other sector but still below the Russell index's 26.4% stake. While exposure to dividend havens like telecom and utilities (a combined 10.8% presently) can be significant, the fund is more diversified than most income-oriented peers.

### Performance Pillar: Positive

The fund's Positive Performance Pillar rating reflects its strong record under the current subadvisor lineup. Since Wellington Management and Vanguard's in-house quantitative equity group became solely responsible for this fund's asset base in late 2005, its 8.8% annualized gain through May 2017 beat the Russell 1000 Value Index by 1.6 percentage points and landed in the large-value category's top decile, with below-average volatility.

Wellington's management team underwent a change at year-end 2007, when Michael Reckmeyer took over the lead role from John Ryan. That transition went smoothly because Reckmeyer had been a longtime member of the firm's value equity-income team and he uses the same approach as his predecessor. The fund has continued to fare well. From January 2008 through May 2017, it topped the Russell index in 44 of 54 five-year rolling periods. The fund has had less suc-

cess against the FTSE High Dividend Yield Index, its primary prospectus benchmark since mid-2007, but maintains a slight cumulative edge versus that boggy during the same period.

Vanguard does not disclose individual subadvisors' results, but Reckmeyer's use of a nearly identical strategy on Hartford Equity Income HQIAX gives a sense of how the two teams have done. Although the Hartford fund has better long-term gross returns, there are years when the quant group adds value, like 2011.

### People Pillar: Positive

Consistent and capable subadvisor leadership earns the fund a Positive People Pillar rating. Since late 2005, the fund's assets have been split between anchor Wellington Management and Vanguard's in-house quantitative equity group. Wellington, a subadvisor here since 2000, boasts ample resources in overseeing about two thirds of assets. Michael Reckmeyer took over as lead manager of Wellington's slice in late 2007 and has been a member of the firm's seasoned seven-person value equity-income team since 1994. While the team parted ways with its energy, chemicals, and paper analyst in late 2016, it has access to the firm's 50-plus global industry analysts as it looks for a replacement. Two members of the otherwise Pennsylvania-based team live in London.

The quantitative equity group runs the rest of the portfolio. James Stetler has been investing at Vanguard since 1996 and has been running a slice of this fund since 2003. Binbin Guo came aboard in early 2016, replacing James Troyer, who had joined the fund in early 2012. Michael Roach, who joined the fund around the same time as Troyer, left in May 2017 to head up Vanguard's quantitative equity group in Australia. The entire global team includes nearly 30 strategists, analysts, and managers combined, who have on average more than a decade of industry experience.

Reckmeyer invests more than \$1 million in the fund.

### Parent Pillar: Positive

Vanguard has one of the mutual fund industry's

strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-, five-, and 10-year periods, its Morningstar Success Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: Positive

Rock-bottom fees earn the fund a Positive Price Pillar rating. The Investor shares' 0.26% expense ratio, which applies to about one fifth of the fund's assets, is 64 basis points below the large-cap no-load peer median and lower than 94% of those peers. The Admiral shares contain the rest of the fund's assets and are even cheaper at 0.17%, which beats 95% of their rivals' fees. Modest trading costs are another plus. In fiscal 2016, brokerage fees of 0.01% of average net assets fell below the category's 0.04% median.

The fund's price tag will shift, however. Vanguard pays subadvisor Wellington an asset-based fee,

# Vanguard Equity-Income Fund Admiral Shares VEIRX

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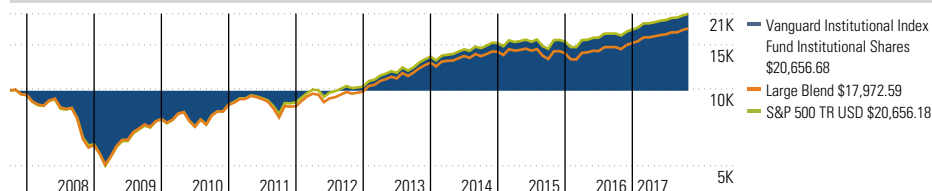
## Analysis

with breakpoints, and the expense ratio also includes a performance adjustment based on the fund's three-year rolling return versus the FTSE High Dividend Yield Index.

# Vanguard Institutional Index Fund Institutional Shares VINIX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category    | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------|------------------|
| 233.46 | ↑0.19   0.08     | 1.94        | 230.8               | Open   | \$5 mil   | None | 0.04%    | ★★★★                | Large Blend | Large Blend      |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Investment Strategy**

The investment seeks to track the performance of a benchmark index that measures the investment return of large-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the Standard & Poor's 500 Index, a widely recognized benchmark of U.S. stock market performance that is dominated by the stocks of large U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

**Performance** 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,611 | 10,248 | 12,281 | 14,439  | 19,447  | 20,619   |
| Fund               | 16.11  | 2.48   | 22.81  | 13.03   | 14.23   | 7.50     |
| +/- S&P 500 TR USD | -0.03  | -0.01  | -0.05  | -0.03   | -0.03   | 0.00     |
| +/- Category       | 1.35   | 0.03   | 1.21   | 1.84    | 1.38    | 0.89     |
| % Rank in Cat      | 28     | 50     | 35     | 12      | 15      | 21       |
| # of Funds in Cat  | 1,409  | 1,501  | 1,370  | 1,198   | 1,061   | 784      |

\* Currency is displayed in BASE

**Top Holdings** 09-30-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range     |
|----------------------------|----------|-------------|-----------|-------------------|
| Apple Inc                  | 3.68     | 159.77 BASE | -0.44 ↓   | 104.08 - 164.94   |
| Microsoft Corp             | 2.65     | 77.63 BASE  | 0.06 ↑    | 56.66 - 77.87     |
| Facebook Inc A             | 1.87     | 176.05 BASE | -0.02 ↓   | 113.55 - 176.74   |
| Amazon.com Inc             | 1.77     | 996.99 BASE | -1.18 ↓   | 710.10 - 1,083.31 |
| Johnson & Johnson          | 1.61     | 140.68 BASE | -0.06 ↓   | 109.32 - 141.58   |
| % Assets in Top 5 Holdings | 11.59    |             |           |                   |

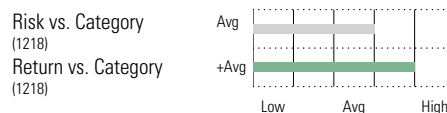
⊕ Increase ⊖ Decrease ✱ New to Portfolio

**Top Sectors** 09-30-2017

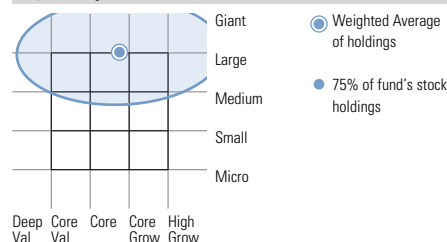
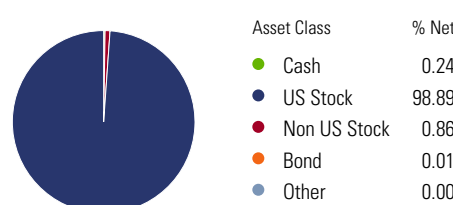
|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|--------------------|-------|-----------|----------|---------|------------------|
| Technology         | 20.68 | 20.68     | 18.42    | 19.68   | ■ Fund ▼ Cat Avg |
| Financial Services | 16.55 | 16.55     | 15.14    | 16.99   |                  |
| Healthcare         | 14.79 | 15.66     | 13.75    | 14.67   |                  |
| Industrials        | 10.73 | 11.03     | 10.73    | 11.90   |                  |
| Consumer Cyclical  | 10.71 | 11.31     | 10.71    | 11.19   |                  |

**Dividend and Capital Gains Distributions**

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-21-2017        | 227.68           | 0.0000                 | 0.0000                  | 0.0000            | 1.2030          | 1.2030             |
| 06-22-2017        | 221.73           | 0.0000                 | 0.0000                  | 0.0000            | 0.9740          | 0.9740             |
| 03-28-2017        | 214.71           | 0.0000                 | 0.0000                  | 0.0000            | 1.0330          | 1.0330             |
| 12-23-2016        | 206.04           | 0.5913                 | 0.0000                  | 0.0000            | 1.2620          | 1.8533             |
| 09-16-2016        | 195.36           | 0.0000                 | 0.0000                  | 0.0000            | 1.0400          | 1.0400             |

**3 Year Average Morningstar Risk Measures**

**Pillars**

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | ★★★★ Gold  |

**Style Map**

**Asset Allocation**

**Management**

|                  | Start Date |
|------------------|------------|
| Donald M. Butler | 12-31-2000 |
| Scott E. Geiger  | 04-27-2016 |

# Vanguard Institutional Index Fund Institutional Shares VINIX

## Analysis

### This is one of the best S&P 500 trackers available.

By Adam McCullough 7/31/2017

Vanguard Institutional Index offers broadly representative and well-diversified exposure to U.S. large-cap stocks. This fund's fee and a soundly constructed and reasonably representative portfolio leave it well-positioned to continue its long streak of generating attractive risk-adjusted returns relative to its peers over the long haul. It earns a Morningstar Analyst Rating of Gold.

Broad diversification is an intrinsic advantage of fund's replication of the market-cap-weighted S&P 500, which covers approximately 80% of the investable U.S. stock market. An index committee manages the S&P 500's composition, while most indexes follow mechanical, rules-based approaches. Yet, this index has performed similarly to other popular large-cap indexes, such as the Russell 1000 Index. Market-cap weighting pulls the portfolio toward the largest U.S. stocks and accurately reflects the composition of the market. Its market-cap weighting approach can be beneficial in bull markets that are characterized by large-cap leadership, such as the post-financial-crisis charge in U.S. stocks. That said, market-cap-weighting can also lead to sector and single-security concentration, as witnessed at the height of the technology bubble. So, market-cap-weighted indexes' greatest strength is arguably also their Achilles' heel.

Low turnover is another key advantage of the fund's broad market-cap-weighted approach. Lower turnover equates to lower costs and a lesser likelihood of taxable capital gains distributions. The average annual turnover the fund was 5% during the past five years. This compares to a median figure of 58% for its category peers. In fact, this fund hasn't distributed a capital gain since its inception.

During the past decade through June 2017, this fund returned 7.2% annually, outpacing the U.S. large-blend Morningstar Category average by 1.5 percentage points. Much of this relative outper-

formance can be attributed to the fund's sizable fee advantage. At 0.04%, the fund's annual levy is a tiny fraction of the 0.90% median fee its category peers charge.

#### Process Pillar: Positive

The fund employs full replication to track the S&P 500. This index effectively diversifies risk, promotes low turnover, and accurately represents its target market segment, supporting the Positive Process rating.

The S&P 500 has a slight quality tilt because of its conservative eligibility requirements. For instance, stocks must be profitable during the last four quarters before they are eligible to be added in the index. While qualifying stocks must pass some quantitative screens, a committee selects the final stocks for the index. And unlike other large-cap indexes, stock size is not the sole determinant of inclusion. Also, the index has higher free-float and trading volume requirements than similar indexes, which should help it avoid the least-liquid stocks. This committee structure gives the S&P 500 a greater degree of flexibility than indexes that follow more-mechanical rules, though this approach also reduces transparency.

Stocks are added and removed from the S&P 500 at the committee's discretion, so it can be difficult to anticipate changes ahead of time. Because this is one of the most widely tracked indexes, changes tend to move stock prices. In January 2010, S&P announced Berkshire Hathaway would be added to the index, and Berkshire's stock price appreciated more than 10% over the next few days.



This is a well-diversified offering that captures nearly 80% of the investable U.S. equity market. Its top-10 holdings represent just under 20% of the portfolio, half of the category average. Top holdings include household names such as Apple AAPL, Microsoft MSFT, Amazon AMZN, and Exxon Mobil XOM. Sector weightings here are similar to the large-blend Morningstar Category average. The technology, healthcare, and financial-services sectors represent the fund's largest sector weightings, while the real estate, utility, and ma-

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

#### 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.

#### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 16.11          | 1.35         |
| 2016 | 11.93          | 1.56         |
| 2015 | 1.37           | 2.44         |
| 2014 | 13.65          | 2.69         |
| 2013 | 32.35          | 0.85         |

# Vanguard Institutional Index Fund Institutional Shares VINIX

## Analysis

terials sectors carry the smallest weightings. The average market capitalization of the fund's holdings is about 20% smaller than the category norm.

Many of the fund's largest holdings are multinational firms, giving it substantial indirect international exposure. The portfolio managers use dividend reinvesting and derivatives to keep pace with the benchmark. The fund has historically used securities lending to generate additional income to offset expenses.

The portfolio managers can use index derivatives to keep the fund fully invested and manage redemptions. During the past decade through June 2017, the fund averaged only a 0.3% cash allocation, about a tenth of its average actively managed peer's.

### Performance Pillar: Positive

The fund has generated a strong long-term performance compared with its large blend Morningstar Category peers, which supports its Positive Performance Pillar rating.

During the past 10 years through June 2017, the fund's return topped the large-cap blend category average 1.5 percentage points each year. The fund's cost advantage has contributed the most to its outperformance over the long-run. Because the fund generates its edge from its low cost, its advantage is consistent. Over the trailing 14 years through June 2017, the fund's rolling three-year returns landed in the top half of the category 99% of the time. And because it was fully invested, this fund performed worse than the category average during the bear market drawdown from October 2007 to March 2009. But its subsequent recovery more than made up for the slightly larger drawdown.

The fund benefits from securities lending and the use of derivatives to efficiently track its index. It has not distributed a capital gain over the prior decade. And its annualized tax-cost ratio was 0.5% over the past 10 years, compared with the 0.8% average of all S&P 500-tracking funds. That places this offering's tax-adjusted returns in the

top decile over the same time period.

### People Pillar: Positive

A well-equipped group manages all of Vanguard's equity index funds. The team's extensive experience, deep bench of talent, and strong trading infrastructure underpin this fund's Positive People Pillar rating.

Vanguard veteran Donald Butler has managed has served as a manager on the fund since December 2000. Butler is a Principal of Vanguard Group, has been with the firm since 1992, and managed investment portfolios since 1997. Butler comanaged the fund with George Sauter until April 2005, when Sauter traded his portfolio management duties in to lead Vanguard's Retail Investor Group. Sauter led this initiative until his retirement June 2012. Scott Geiger joined as a portfolio manager on this fund in April 2016. He has been with Vanguard since 2006 and began managing portfolios in 2013. Butler and Geiger combine to co-manage four Vanguard funds including Vanguard Extended Market, Vanguard S&P 500 Value, and Vanguard 500 Index.

According to the Statement of Additional Information, neither manager has money invested in the fund. Vanguard links the managers' compensation to operating efficiency, which helps keep costs low and aligns their interests with investors'. Minimizing costs and tracking-error are their primary objectives. Vanguard has automated much of this process and provides the managers with robust tools to handle flows, corporate actions, and benchmark changes.

### Parent Pillar: Positive

Vanguard has one of the mutual fund industry's strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-, five-, and 10-year periods, its Morningstar Suc-

cess Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: Positive

This is among the cheapest S&P 500-tracking funds. It charges a low 0.04% annual fee, well below the large-blend category median of 0.90%, supporting its Positive Price Pillar rating.

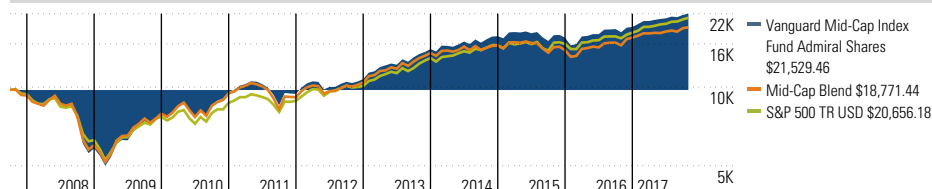
As an Institutional-focused fund, this fund's minimum initial purchase amount is high, but may be available on select 401(k) platforms. Vanguard 500 Admiral VFIAX also tracks the S&P 500 and levies a 0.04% fee, but this fund's minimum initial purchase is \$10,000. The portfolio's ETF equivalent Vanguard 500 ETF VOO also levies 0.04% per year, but does not require an initial minimum purchase beyond the cost of one share.

The fund manages cash with index derivatives and generates additional income with securities lending, which benefits shareholders.

# Vanguard Mid-Cap Index Fund Admiral Shares VIMAX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category      | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|---------------|------------------|
| 184.54 | ↑0.12   0.07     | 1.42        | 89.1                | Open   | \$10,000  | None | 0.06%    | ★★★★                | Mid-Cap Blend | Mid Blend        |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Investment Strategy**

The investment seeks to track the performance of a benchmark index that measures the investment return of mid-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Mid Cap Index, a broadly diversified index of stocks of mid-size U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

**Performance** 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,433 | 10,247 | 12,047 | 13,918  | 19,542  | 21,499   |
| Fund               | 14.33  | 2.47   | 20.47  | 11.65   | 14.34   | 7.95     |
| +/- S&P 500 TR USD | -1.81  | -0.01  | -2.38  | -1.40   | 0.08    | 0.45     |
| +/- Category       | 3.43   | -0.61  | 0.87   | 1.87    | 1.70    | 1.15     |
| % Rank in Cat      | 14     | 76     | 45     | 33      | 17      | 33       |
| # of Funds in Cat  | 442    | 462    | 427    | 348     | 315     | 216      |

\* Currency is displayed in BASE

**Top Holdings** 09-30-2017

|                            | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|----------------------------|----------|-------------|-----------|-----------------|
| ⊕ Lam Research Corp        | 0.82     | 200.49 BASE | 3.05 ↑    | 93.69 - 200.91  |
| ⊖ Fiserv Inc               | 0.74     | 127.07 BASE | 0.35 ↑    | 92.81 - 129.81  |
| ⊖ Amphenol Corp Class A    | 0.71     | 86.62 BASE  | -0.09 ↓   | 62.72 - 88.00   |
| ⊖ Western Digital Corp     | 0.69     | 85.50 BASE  | -0.33 ↓   | 52.10 - 95.77   |
| ⊕ Roper Technologies Inc   | 0.68     | 250.23 BASE | -0.19 ↓   | 167.50 - 253.16 |
| % Assets in Top 5 Holdings | 3.64     |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

**Top Sectors** 09-30-2017

|                    | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|--------------------|-------|-----------|----------|---------|
| Technology         | 16.59 | 16.59     | 14.90    | 15.30   |
| Consumer Cyclical  | 16.58 | 18.54     | 16.58    | 14.96   |
| Financial Services | 14.87 | 14.87     | 11.40    | 16.25   |
| Industrials        | 13.61 | 15.02     | 13.61    | 16.04   |
| Healthcare         | 9.03  | 9.46      | 8.40     | 9.44    |

0 5 10 15 20

**Dividend and Capital Gains Distributions**

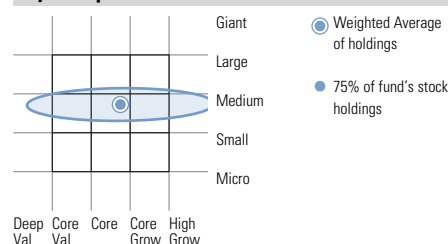
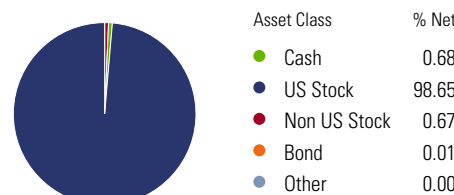
| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-26-2017        | 180.21           | 0.0000                 | 0.0000                  | 0.0000            | 0.6300          | 0.6300             |
| 06-22-2017        | 176.66           | 0.0000                 | 0.0000                  | 0.0000            | 0.5830          | 0.5830             |
| 03-28-2017        | 171.57           | 0.0000                 | 0.0000                  | 0.0000            | 0.5710          | 0.5710             |
| 12-21-2016        | 165.10           | 0.0000                 | 0.0000                  | 0.0000            | 0.8040          | 0.8040             |
| 09-19-2016        | 157.19           | 0.0000                 | 0.0000                  | 0.0000            | 0.6290          | 0.6290             |

**3 Year Average Morningstar Risk Measures**

|                              |     |     |      |  |  |
|------------------------------|-----|-----|------|--|--|
| Risk vs. Category<br>(354)   | Avg |     |      |  |  |
| Return vs. Category<br>(354) | Avg |     |      |  |  |
|                              | Low | Avg | High |  |  |

**Pillars**

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | ★★★★ Gold  |

**Style Map**

**Asset Allocation**

**Management**

|                    | Start Date |
|--------------------|------------|
| Donald M. Butler   | 05-21-1998 |
| Michael A. Johnson | 04-27-2016 |



# Vanguard Mid-Cap Index Fund Admiral Shares VIMAX

## Analysis

**This is a well-constructed mid-cap fund with a sizable cost advantage.**

By Adam McCullough 10/11/2017

Vanguard Mid-Cap Index is a compelling market-cap-weighted fund that accurately represents the U.S. mid-cap market while keeping turnover low. Its well-diversified portfolio, efficient index construction, and low expense ratio should provide a persistent edge over its peers in the long run. It earns a Morningstar Analyst Rating of Gold.

The fund tracks the CRSP U.S. Mid Cap Index, a broadly diversified, representative index that accurately represents the U.S. mid-cap stock market. The index targets U.S. stocks smaller than the largest 70% ranked by market cap and larger than the smallest 15%. This brings in more than 330 holdings, most of which have not established durable competitive advantages and tend to be riskier than larger stocks. But the fund effectively diversifies firm-specific risk. Its top 10 holdings represent about 7% of assets, compared with the mid-blend Morningstar Category average of 24%.

The fund has two primary advantages that reduce its transaction costs. It invests in larger stocks than many of its category peers, which tend to be more liquid and less expensive to trade than their smaller counterparts. And its index employs buffer rules that wait to move a stock until it is squarely in an adjacent size segment and then only moves half the position at once. This reduces unnecessary trades and the market impact cost of trading. The fund's average 10-year turnover of 19% is less than a fourth of the category average.

In early 2013, the fund changed its underlying index to the CRSP U.S. Mid Cap Index from the MSCI Mid Cap 450 Index to reduce expenses. The change nearly doubled its holdings' average market cap. Despite the change, the fund's low fee and thoughtful index construction (current and prior) has paid off. During the trailing 10 years through September 2017, it bested the category average by 1.5 percentage points per year with similar volatility. This fund's low fee and broad di-

versification contributed the most to this outperformance.

**Process Pillar:**  Positive

The fund employs full replication to track the market-cap-weighted CRSP U.S. Mid Cap Index. This index effectively diversifies risk, promotes low turnover, and accurately represents its target market segment, supporting a Positive Process rating.

The CRSP U.S. Mid-cap Index targets stocks representing the largest 70th-85th percentile of the U.S. stock market. But it doesn't immediately add or remove securities when they cross those thresholds. A stock must first pass through a wide market-cap buffer zone before it is added to or removed from the index. At that point, CRSP transfers only half of the holding. If the stock in question remains on the other side of the buffer zone at the next quarterly review, CRSP will transfer the remaining half. This approach limits turnover where it doesn't significantly affect the fund's market-cap orientation, which should help reduce transaction costs. The buffer zones can make a big difference here as holdings can migrate into two adjacent size segments. Breaking the trades in half effectively doubles capacity and reduces market impact cost. In September 2017, the index started to spread its trades out across five days, which should further lower transaction costs. The index rebalances quarterly. In early 2013, the fund changed its underlying index to its current index from the MSCI U.S. Mid-cap 450 Index to reduce licensing fees.

This broad, market-cap-weighted portfolio offers efficient exposure to mid-cap stocks. Its index will likely incur lower transaction costs than some of its index peers because it owns larger stocks, which are less expensive to trade, and applies generous buffer rules to limit turnover where it doesn't significantly affect the fund's style characteristics.


The case for indexing boils down to two considerations: costs and whether the index represents its peers' opportunity set. Like most of its index peers, this fund charges a much lower fee than its act-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 14.41          | 3.34         |
| 2016 | 11.22          | -2.92        |
| 2015 | -1.34          | 3.41         |
| 2014 | 13.76          | 5.96         |
| 2013 | 35.15          | 1.05         |

# Vanguard Mid-Cap Index Fund Admiral Shares VIMAX

## Analysis

ively managed counterparts. And because its portfolio is representative of its active peers, it should do better than average net of fees over the long term. But there are some drawbacks. Market-cap-weighting relies on market participants to incorporate information into stock prices, and the fund is always fully invested. During bull markets, that can help performance, but hurt during market downturns.

The fund's market-cap orientation is 50% greater than the category average. Most of the fund's sector weightings are similar to the category average, but it has a greater consumer discretionary sector weighting and less exposure to materials and financials stocks. The portfolio is well-diversified: Its top 10 holdings represent around 7% of the portfolio.

### Performance Pillar: Positive

The fund has generated attractive long-term performance compared with its mid-blend category peers. It earns a Positive Performance Pillar rating. During the past decade through September 2017, the fund's return topped the category average by 1.5 percentage points each year. Its cost advantage has contributed the most to this outperformance over the long run.

Because the fund generates its edge from its low cost, the advantage is consistent. During the trailing 12 years through September 2017, the fund's rolling three-year returns land in the top half of the category 88% of the time. And because it was fully invested, this fund performed worse than the category average during the bear market drawdown from October 2007 to March 2009. But the slightly higher drawdown was more than offset by its subsequent recovery. The fund benefits from the use of derivatives and securities lending to efficiently track its index. During the past decade through September 2017, the fund averaged only a 0.3% cash allocation, about a tenth of its typical actively managed peer's. It has not distributed a capital gain in the prior decade. The fund's annualized tax-cost ratio measured 0.4% during the past 10 years, less than half the figure for the average mid-blend index fund.

### People Pillar: Positive

A well-equipped group manages all of Vanguard's equity index funds. The team's extensive experience, deep bench of talent, and strong trading infrastructure underpin this fund's Positive People rating.

Donald Butler and Michael Johnson comanage the fund. Butler is a principal of Vanguard Group, has been with the firm since 1992, managed investment portfolios since 1997, and served as comanager of this fund since 2009. Butler comanages 11 other funds including Vanguard 500 Index VFINX and Vanguard Extended Market Index VEXMX. Johnson has been with Vanguard since 1999 and began managing portfolios in 2010. Johnson comanages 17 other funds including Vanguard Mega Cap Index VMCTX and Vanguard Large Cap Index VLACX. Butler and Johnson also co-manage Vanguard Mid-Cap Growth VMGRX and Vanguard Mid-Cap Value VMVIX.

According to the Statement of Additional Information, neither manager has money invested here, but Vanguard links the managers' compensation to operating efficiency, which helps keep costs low and aligns their interests with investors'. Minimizing costs and tracking error are their primary objectives. Vanguard has automated much of this process and provides the managers with robust tools to handle flows, corporate actions, and benchmark changes.

### Parent Pillar: Positive

Vanguard has one of the mutual fund industry's strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-, five-, and 10-year periods, its Morningstar Success Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: Positive

This is among the cheapest market-cap-weighted mid-blend funds available, which supports its Positive Price Pillar rating.

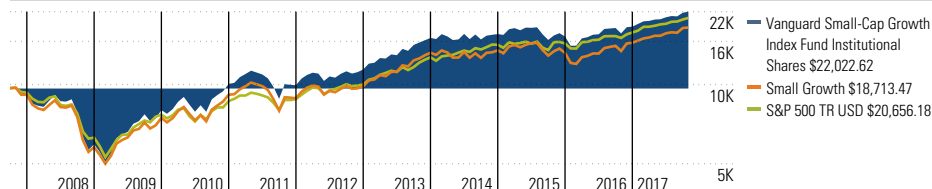
The Investor share class charges an 0.18% fee and has a \$3,000 minimum investment requirement. The Admiral shares carry a \$10,000 minimum, but only levy a 0.06% fee. The ETF share class' expense ratio matches the Admiral share class at 0.06%, but it doesn't have a minimum investment beyond the price of one share. The Institutional share class (VMVIX) carries a 0.05% fee but may be only available to investors through qualified accounts such as those on a 401(k) platform. The fund uses index derivatives to manage cash, which should benefit shareholders by minimizing its cash drag.

# Vanguard Small-Cap Growth Index Fund Institutional Shares VSGIX

Morningstar Analyst Rating  
Silver

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category     | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|--------------|------------------|
| 43.55  | ↑0.10   0.23     | 0.92        | 20.1                | Open   | \$5 mil   | None | 0.06%    | ★★★                 | Small Growth | Small Growth     |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of small-capitalization growth stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Small Cap Growth Index, a broadly diversified index of growth stocks of small U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

## Performance 10-18-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,685 | 10,344 | 12,209 | 13,829  | 18,505  | 21,991   |
| Fund               | 16.85  | 3.44   | 22.09  | 11.41   | 13.10   | 8.20     |
| +/- S&P 500 TR USD | 0.62   | 1.03   | -0.11  | -1.67   | -1.23   | 0.68     |
| +/- Category       | -0.25  | -0.26  | -2.92  | -1.14   | -0.23   | 0.87     |
| % Rank in Cat      | 48     | 58     | 75     | 71      | 54      | 29       |
| # of Funds in Cat  | 625    | 662    | 613    | 546     | 485     | 365      |

\* Currency is displayed in BASE

## Top Holdings 09-30-2017

|                                     | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|-------------------------------------|----------|-------------|-----------|-----------------|
| ⊕ Take-Two Interactive Software Inc | 0.69     | 104.61 BASE | 0.68 ↑    | 43.33 - 107.53  |
| ⊕ Alnylam Pharmaceuticals Inc       | 0.62     | 117.55 BASE | -0.97 ↓   | 31.38 - 126.16  |
| ⊕ Diamondback Energy Inc            | 0.61     | 102.19 BASE | -0.41 ↓   | 82.77 - 114.00  |
| ⊕ CoStar Group Inc                  | 0.59     | 283.75 BASE | 0.01 ↑    | 179.21 - 291.95 |
| ⊕ Vail Resorts Inc                  | 0.58     | 221.80 BASE | 1.28 ↑    | 153.66 - 232.71 |
| % Assets in Top 5 Holdings          | 3.09     |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

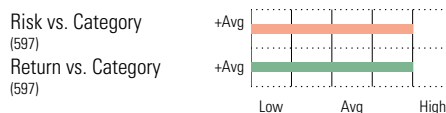
## Top Sectors 09-30-2017

|                   | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|-------------------|-------|-----------|----------|---------|------------------|
| Technology        | 23.75 | 23.75     | 21.01    | 25.43   | ■ Fund ▼ Cat Avg |
| Healthcare        | 16.10 | 16.89     | 13.14    | 16.97   |                  |
| Industrials       | 14.29 | 14.68     | 14.19    | 16.62   |                  |
| Real Estate       | 13.01 | 15.18     | 13.01    | 3.77    |                  |
| Consumer Cyclical | 12.80 | 16.15     | 12.80    | 12.69   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-19-2017        | 42.06            | 0.0000                 | 0.0000                  | 0.0000            | 0.0600          | 0.0600             |
| 06-20-2017        | 40.99            | 0.0000                 | 0.0000                  | 0.0000            | 0.0600          | 0.0600             |
| 03-23-2017        | 38.78            | 0.0000                 | 0.0000                  | 0.0000            | 0.0960          | 0.0960             |
| 12-21-2016        | 37.89            | 0.0000                 | 0.0000                  | 0.0000            | 0.1770          | 0.1770             |
| 09-19-2016        | 36.67            | 0.0000                 | 0.0000                  | 0.0000            | 0.0870          | 0.0870             |

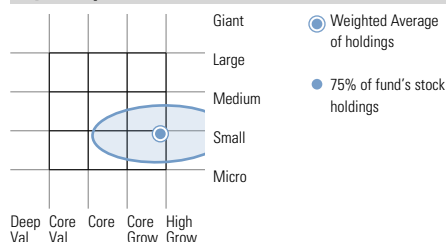
## 3 Year Average Morningstar Risk Measures



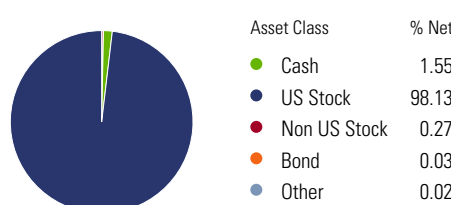
## Pillars

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | Silver     |

## Style Map



## Asset Allocation



## Management

|                    | Start Date |
|--------------------|------------|
| Gerard C. O'Reilly | 12-30-2004 |
| William A. Coleman | 04-27-2016 |

# Vanguard Small-Cap Growth Index Fund Institutional Shares VSGIX

## Analysis

### One of the cheapest small-growth funds available.

By Alex Bryan 4/5/2017

Vanguard Small Cap Growth Index is one of the lowest-cost small-cap growth funds available. It effectively diversifies risk, represents its Morningstar Category's broad opportunity set, and applies generous buffer rules to mitigate unnecessary turnover, which further support its Morningstar Analyst Rating of Silver.

This strategy targets stocks representing the faster-growing and more richly valued half of the U.S. small-cap market and weights them by market capitalization. This brings in more than 600 holdings, such as Buffalo Wild Wings BWLD, Churchill Downs CHDN, and Fitbit FIT. Small-growth firms have greater growth potential than their larger counterparts, but they also tend to be riskier. There is always a risk that the fund's holdings may not live up to the expectations reflected in their high valuations, which could hurt performance. Most of the fund's holdings lack durable competitive advantages and exhibit greater volatility than larger stocks.

Because it casts a wide net, this fund includes some stocks with only modest growth characteristics. These holdings should help reduce the portfolio's exposure to speculative growth stocks and volatility. The fund has less overlap with its value counterpart (Vanguard Small Cap Value Index VSI-AX) than do rival value and growth funds based on the Russell 2000 and S&P SmallCap 600 indexes. Its benchmark, the CRSP U.S. Small Cap Growth Index, applies generous buffer rules to mitigate unnecessary turnover and the resulting transaction costs, though this can permit some modest style drift. The fund's growth orientation is similar to the small-growth category average, but it climbs a little further up the market-cap ladder.

While this portfolio often looks a lot like the category norm, its low fee, low turnover, and broad diversification have been a winning combination. The fund outpaced the small-value category average by 1.76 percentage points annualized during

the trailing 10 years through March 2017, with comparable volatility. Prior to May 2013, the fund tracked the MSCI US Small Cap Growth Index, but switched to the CRSP U.S. Small Cap Growth Index to reduce costs.

#### Process Pillar: Positive

The fund employs full replication to track the CRSP U.S. Small Cap Growth Index. This broad, market-cap-weighted index diversifies risk, accurately reflects the composition of its target market, and keeps turnover low, supporting the Positive Process Pillar rating.

CRSP ranks all U.S. stocks by market cap and excludes the largest 85% and smallest 2% from the mid-cap universe. It then assigns composite value and growth scores to each stock using several metrics. The growth metrics include projected short- and long-term earnings-per-share growth, three-year historical earnings and sales-per-share growth, current investment/assets, and return on assets. The last metric penalizes companies for undisciplined growth. CRSP evaluates value on book/price, forward and trailing earnings/price, dividend yield, and sales/price. It fully allocates stocks with the strongest growth characteristics to the small-cap growth index until it represents half the assets in the small-cap market.

CRSP keeps 100% of each stock in its respective style index until it passes through a buffer zone. At that point, it only moves 50% of the stock from one style index to the other. If the stock stays on the opposite side of the buffer zone at the following quarterly review, CRSP will transfer the remaining half. This mitigates turnover where it does not significantly affect the fund's style characteristics.

This is a broadly diversified portfolio that includes more than 600 holdings, each of which represents less than 1% of the portfolio. These include names such as WageWorks WAGE, Lions Gate Entertainment LGF, and Domino's Pizza DPZ. While these companies have strong growth prospects, about 24% of the fund is invested in stocks that were not profitable over the trailing 12 months through

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 16.85          | -0.25        |
| 2016 | 10.74          | -0.46        |
| 2015 | -2.52          | -0.11        |
| 2014 | 4.04           | 1.60         |
| 2013 | 38.20          | -2.71        |

# Vanguard Small-Cap Growth Index Fund Institutional Shares VSGIX

## Analysis

March 2017.

Like most of its peers, the fund has greater exposure to the healthcare and technology sectors and less exposure to financial-services and utility stocks than the broad CRSP U.S. Small Cap Index. However, it has much greater exposure to real estate stocks than the category average. While these firms may not grow as quickly as many other growth stocks, many qualified for inclusion because they have experienced high historical growth rates and currently trade at high earnings multiples.

Market-cap weighting skews the portfolio toward the larger names in its target market segment, which are not necessarily the fastest growing. But this weighing approach also promotes low turnover, as do the fund's style-buffering rules, which allow stocks with slowing growth to stay in the portfolio longer. That said, the fund's growth orientation is usually similar to the category norm. But it does have a larger market-cap orientation than most of its category peers.

### Performance Pillar: Positive

The fund has regularly outperformed its peers in the small-growth category, and thus warrants a Positive Performance Pillar rating. Over the trailing 10 years through March 2017, the fund landed in the category's top quintile, outpacing the category average by 1.76 percentage points annualized, with comparable volatility. This was largely due to its cost advantage and more favorable stock exposure in the consumer cyclical and healthcare sectors.

Performance also looks good over shorter horizons. In fact, the fund's returns ranked in the top half of the small-growth category average in 94% of all three-year rolling periods over the trailing 13 years through March 2017. As an added benefit, the fund has not distributed a capital gain in the past 10 years. Vanguard offers a separate exchange-traded fund share class of this fund, which allows the managers to transfer low-cost-basis shares out of the portfolio in a tax-free transaction with the ETF's market makers. This structure may help

make the fund more tax-efficient than its peers.

Full index replication has kept tracking error low. Over the trailing three years through March 2017, the fund's Admiral share class beat the benchmark by 8 basis points annually, while the Investor share class only lagged by 6 basis points. This was largely due to securities-lending revenue, which helped offset the fund's expenses.

### People Pillar: Positive

A well-equipped group manages all of Vanguard's equity index funds. The team's extensive experience, deep bench of talent, and strong trading infrastructure underpin this fund's Positive People Pillar rating.

Vanguard occasionally rotates managers across its equity index funds. It added William Coleman as a named manager on this fund in April 2016. Coleman has worked at Vanguard since 2006 and has been a named manager on some of Vanguard's other index funds since 2013. He joined Gerard O'Reilly, who has managed the fund since the end of 2004. O'Reilly has served as a portfolio manager at Vanguard since 1994 and is a Principal with the firm. Both managers are members of Vanguard's Global Equity Index Group, which offers trade execution and risk-management support for the fund.

O'Reilly and Coleman manage several other index funds, including Vanguard Total Stock Market Index VTSAX, Vanguard FTSE Social Index VFTNX, and Vanguard Small Cap Value Index. However, Vanguard's team approach and supporting infrastructure keep this workload manageable.

The managers do not have any money invested in this fund. Vanguard links their compensation to operating efficiency, which helps keep costs low and align their interests with investors'. Minimizing costs and tracking error are their primary objectives.

### Parent Pillar: Positive

Vanguard has one of the mutual fund industry's strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors

to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-, five-, and 10-year periods, its Morningstar Success Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: Positive

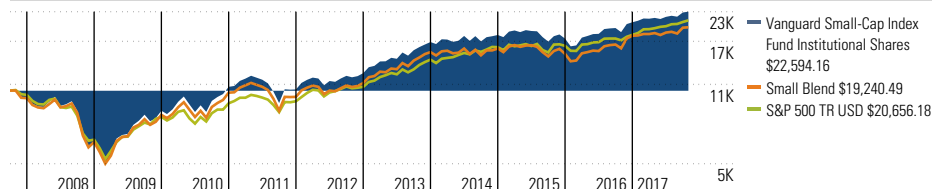
Vanguard charges a razor-thin 0.08% expense ratio for the fund's Admiral shares and 0.20% for the Investor shares, which makes it the cheapest option in the category and supports the Positive Price Pillar rating. The minimum investments for the Investor and Admiral shares are \$3,000 and \$10,000, respectively. Vanguard charges a \$20 annual account maintenance fee for balances below \$10,000, but investors can avoid it by agreeing to receive statements and fund documents electronically. Vanguard also offers this fund in an ETF format, Vanguard Small-Cap Growth ETF VBK, for a 0.08% fee with no minimum investment. The managers generate ancillary income for the fund through securities lending, which partially offsets its expenses.



# Vanguard Small-Cap Index Fund Institutional Shares VSCIX

**Morningstar Analyst Rating**  
**Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category    | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|-------------|------------------|
| 68.47  | ↑0.19   0.28     | 1.40        | 79.8                | Open   | \$5 mil   | None | 0.05%    | ★★★★                | Small Blend | Small Blend      |

**Growth of 10,000** 10-17-2007 - 10-17-2017

**Investment Strategy**

The investment seeks to track the performance of a benchmark index that measures the investment return of small-capitalization stocks. The fund employs an indexing investment approach designed to track the performance of the CRSP US Small Cap Index, a broadly diversified index of stocks of small U.S. companies. The advisor attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

**Performance** 10-17-2017

|                    | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|--------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000   | 11,155 | 10,378 | 12,197 | 14,019  | 19,181  | 22,575   |
| Fund               | 11.55  | 3.78   | 21.97  | 11.92   | 13.91   | 8.48     |
| +/- S&P 500 TR USD | -4.59  | 1.29   | -0.88  | -1.13   | -0.34   | 0.98     |
| +/- Category       | 2.64   | -0.88  | -0.51  | 0.82    | 1.16    | 1.42     |
| % Rank in Cat      | 21     | 84     | 58     | 47      | 34      | 18       |
| # of Funds in Cat  | 792    | 830    | 778    | 638     | 541     | 383      |

\* Currency is displayed in BASE

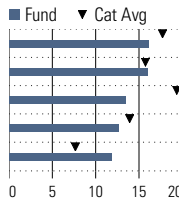
**Top Holdings** 09-30-2017

|                                     | Weight % | Last Price  | Day Chg % | 52 Week Range   |
|-------------------------------------|----------|-------------|-----------|-----------------|
| ⊖ Teleflex Inc                      | 0.31     | 240.66 BASE | -0.04 ↓   | 136.53 - 248.68 |
| ⊕ Take-Two Interactive Software Inc | 0.31     | 104.56 BASE | 0.66 ↑    | 43.33 - 107.53  |
| ⊖ CDW Corp                          | 0.29     | 68.67 BASE  | 0.22 ↑    | 43.64 - 71.53   |
| ⊕ Alnylam Pharmaceuticals Inc       | 0.28     | 117.67 BASE | -0.88 ↓   | 31.38 - 126.16  |
| ⊖ Diamondback Energy Inc            | 0.27     | 102.17 BASE | -0.40 ↓   | 82.77 - 114.00  |
| % Assets in Top 5 Holdings          | 1.46     |             |           |                 |

⊕ Increase ⊖ Decrease ✱ New to Portfolio

**Top Sectors** 09-30-2017

|                      | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |
|----------------------|-------|-----------|----------|---------|
| 🏭 Industrials        | 16.09 | 16.39     | 15.43    | 17.26   |
| 💻 Technology         | 16.03 | 16.03     | 14.84    | 15.28   |
| 🏦 Financial Services | 13.47 | 14.46     | 13.36    | 18.90   |
| 🛒 Consumer Cyclical  | 12.59 | 14.49     | 12.59    | 13.46   |
| 🏠 Real Estate        | 11.85 | 12.64     | 11.85    | 7.20    |

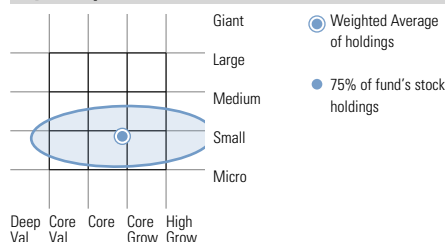
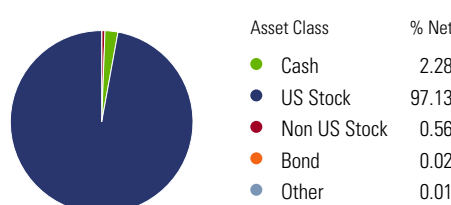

**Dividend and Capital Gains Distributions**

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-19-2017        | 66.08            | 0.0000                 | 0.0000                  | 0.0000            | 0.2570          | 0.2570             |
| 06-20-2017        | 64.65            | 0.0000                 | 0.0000                  | 0.0000            | 0.1280          | 0.1280             |
| 03-23-2017        | 62.57            | 0.0000                 | 0.0000                  | 0.0000            | 0.2040          | 0.2040             |
| 12-21-2016        | 62.51            | 0.0000                 | 0.0000                  | 0.0000            | 0.3600          | 0.3600             |
| 09-19-2016        | 57.63            | 0.0000                 | 0.0000                  | 0.0000            | 0.2750          | 0.2750             |

**3 Year Average Morningstar Risk Measures**

**Pillars**

|             |            |
|-------------|------------|
| Process     | ⊕ Positive |
| Performance | ⊕ Positive |
| People      | ⊕ Positive |
| Parent      | ⊕ Positive |
| Price       | ⊕ Positive |
| Rating      | ★★★★ Gold  |

**Style Map**

**Asset Allocation**

**Management**

|                    | Start Date |
|--------------------|------------|
| William A. Coleman | 04-27-2016 |
| Gerard C. O'Reilly | 04-27-2016 |



# Vanguard Small-Cap Index Fund Institutional Shares VSCIX

## Analysis

### A well-constructed fund with a sizable cost advantage.

By Adam McCullough 9/28/2017

Vanguard Small-Cap Index is a compelling market-cap-weighted fund that accurately represents the U.S. small-cap target market while keeping turnover low. Its well-diversified portfolio, efficient index construction, and low expense ratio should provide a persistent edge over its peers. It earns a Morningstar Analyst Rating of Gold.

The fund tracks the CRSP U.S. Small Cap Index, a broadly diversified index that accurately represents the U.S. small-cap stock market. The index targets U.S. stocks smaller than the largest 85% ranked by market capitalization and larger than the smallest 2%. This brings in more than 1,400 holdings, most of which have not yet established durable competitive advantages and tend to be riskier than larger stocks. But the fund effectively diversifies firm-specific risk. Its top 10 holdings represent about 3% of assets, compared with the small-blend Morningstar Category average of 21%.

The fund has two primary advantages that reduce its transaction costs. It invests in larger stocks than many of its category peers, which tend to be more liquid and less expensive to trade than their smaller counterparts. And its index employs buffer rules that wait to move a stock until it is squarely in an adjacent size segment and then only moves half the position at once. This reduces unnecessary trades and the market impact cost of trading. The fund's average 10-year turnover of 15% is less than a quarter of the small-blend category average.

In early 2013, the fund changed its underlying index to the CRSP U.S. Small Cap Index from the MSCI USA Small Cap Index to reduce expenses. The change nearly doubled its holdings' average market capitalization. Despite the change, the fund's low fee and thoughtful index construction (current and prior) have paid off. For the trailing 10 years through August 2017, it bested the category

average by 2.0 percentage points per year with similar volatility. More-favorable stock exposure in the energy, telecom, and financial sectors contributed the most to this outperformance.

#### Process Pillar: Positive

The fund tracks the CRSP U.S. Small Cap Index, which offers exposure to U.S. stocks smaller than the largest 85% ranked by market capitalization and larger than the smallest 2%. This index effectively diversifies risk, promotes low turnover, and accurately represents its target market segment, supporting its Positive Process Pillar rating.

Its index will likely incur lower transaction costs than some of its index peers because it owns larger stocks than the category average, which are less expensive to trade, and applies generous buffer rules to limit turnover where it doesn't significantly affect the fund's style characteristics. When the index does move positions into or out of the portfolio, it breaks the trade in half to smooth the transition between size segments and further reduce transaction costs. In September 2017, the index started to spread its trades out over five days, which should further lower transaction costs.

To be included in the index, at least 12.5% of the stock's shares must be publicly traded, and like most of its index peers, the fund weights its holdings by free-float market capitalization. Stocks must also meet trading liquidity hurdles. The index rebalances quarterly. In early 2013, the fund changed its underlying index to the CRSP U.S. Small Cap Index from the MSCI USA Small Cap Index to reduce expenses.

Small-cap stocks tend to be riskier and less profitable than large-cap stocks because they have less established competitive advantages and are more sensitive to the business cycle. But they offer diversification benefits and may compensate investors with higher returns. Over the long term, small-cap stocks have generated higher returns than their larger counterparts, but they can experience decade-long stretches of underperformance.

Market-cap weighting skews the portfolio toward

### Morningstar's Take

Morningstar Analyst Rating



#### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Positive |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

#### 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.

#### Analyst Rating Spectrum

 Gold  Silver  Bronze Neutral Negative

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 11.55          | 2.64         |
| 2016 | 18.32          | -2.46        |
| 2015 | -3.63          | 1.75         |
| 2014 | 7.53           | 3.74         |
| 2013 | 37.80          | 0.41         |

# Vanguard Small-Cap Index Fund Institutional Shares VSCIX

## Analysis

the larger stocks in the small-cap segment and keeps turnover low. Indeed, the fund's average market capitalization is double the category average. Turnover has averaged 15% during the past 10 years, less than a fourth of the category average's. This weighting approach allows market prices to determine the portfolio's sector weightings. The fund's sector weightings are similar to the category average, but it has a greater real estate sector weighting and less exposure to financial stocks. The portfolio holds more than 1,400 stocks, and its top 10 holdings represent around 3% of the portfolio compared with the category average of 21%. Market-cap-weighted index funds have some drawbacks. They rely on market participants to incorporate information into stock prices. While market participants have done a good job of valuing stocks over the long term, the market has gone through episodes of mania and panic.

### Performance Pillar: Positive

Compared with its small-blend category peers, the fund has generated strong long-term performance, underpinning its Positive Performance Pillar rating.

During the past decade through August 2017, the fund's 8.4% annualized return bested the small-blend category's average return by 2 percentage points with similar volatility. The fund's Sharpe ratio, a measure of risk-adjusted returns, landed in the category's top quintile over the same period. Compared with its category, the fund benefited the most from its cost advantage. Its market-cap-weighted portfolio promotes low turnover, and the fund hasn't issued a capital gains distribution since its inception. In fact, the fund's tax-cost ratio, a measure of the portion of the fund's returns forgone to taxes, measured 0.5% during the trailing 10 years through August 2017. This places the fund's tax-cost ratio in the best quintile of the category.

Because the fund remains fully invested, it had a slightly higher drawdown than its average peer during the financial crisis from October 2007 to March 2009. But staying fully invested paid off in the long run, and the fund more than made up for

its drawdown, handily outpacing its category peers during the subsequent recovery.

### People Pillar: Positive

A well-equipped group manages all of Vanguard's equity index funds. The team's extensive experience, deep bench of talent, and strong trading infrastructure underpin this fund's Positive People Pillar rating.

Vanguard occasionally rotates managers across its equity index funds. It replaced Michael Buek with William Coleman and Gerard O'Reilly as named managers on the fund in April 2016. O'Reilly joined Vanguard in 1992 and has served as a portfolio manager since 1994. Coleman has been with Vanguard since 2006 and has served as a named portfolio manager since 2013. Both managers are members of Vanguard's Global Equity Index Group, which offers trade execution and risk-management support for the fund. Coleman and O'Reilly run several other funds, including Vanguard Balanced Index VBIAX, Vanguard FTSE Social Index VFTSX, and Vanguard Small Cap Value Index VSLAX. Vanguard's team approach keeps this workload manageable.

The managers do not have any money invested in this fund. Vanguard links their compensation to operating efficiency, which helps keep costs low and align their interests with investors'. Minimizing costs and tracking error are their primary objectives. Vanguard has automated much of this process and provides the managers with robust tools to handle flows, corporate actions, and benchmark changes.

### Parent Pillar: Positive

Vanguard has one of the mutual fund industry's strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-, five-, and 10-year periods, its Morningstar Suc-

cess Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: Positive

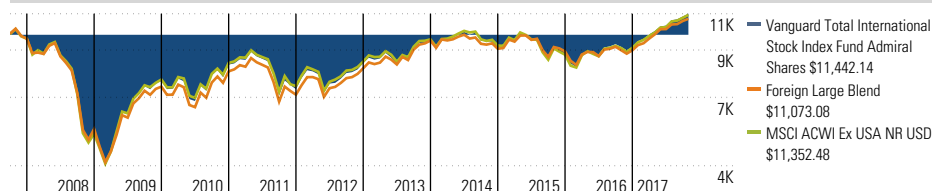
This is among the cheapest market-cap-weighted small-blend funds available, which supports its Positive Price Pillar rating.

The Investor share class charges an 0.18% fee. The Investor shares have a \$3,000 minimum investment requirement. The Admiral shares carry a \$10,000 minimum, but only levy a 0.06% fee. The exchange-traded fund share class' expense ratio matches the Admiral share class at 0.06%, but it doesn't have a minimum investment beyond the price of one share. The Institutional share class (VSCIX) carries a 0.05% fee but may be only available to investors through qualified accounts, such as those on a 401(k) platform. The fund uses index derivatives to manage cash, which should benefit shareholders by minimizing its cash drag.

# Vanguard Total International Stock Index Fund Admiral Shares VTIAX Morningstar Analyst Rating **Gold**

| NAV \$ | NAV Day Change % | Yield TTM % | Total Assets \$ Bil | Status | Min. Inv. | Load | Expenses | Morningstar Rating™ | Category            | Investment Style |
|--------|------------------|-------------|---------------------|--------|-----------|------|----------|---------------------|---------------------|------------------|
| 29.97  | ↑0.05   0.17     | 2.57        | 306.6               | Open   | \$10,000  | None | 0.11%    | ★★★                 | Foreign Large Blend | Large Blend      |

## Growth of 10,000 10-17-2007 - 10-17-2017



## Investment Strategy

The investment seeks to track the performance of a benchmark index that measures the investment return of stocks issued by companies located in developed and emerging markets, excluding the United States. The fund employs an indexing investment approach designed to track the performance of the FTSE Global All Cap ex US Index, a float-adjusted market-capitalization-weighted index designed to measure equity market performance of companies located in developed and emerging markets, excluding the United States. The index includes approximately 5,800 stocks of companies located in over 45 countries.

## Performance 10-17-2017

|                             | YTD    | 1 Mo   | 1 Yr   | 3Yr Ann | 5Yr Ann | 10Yr Ann |
|-----------------------------|--------|--------|--------|---------|---------|----------|
| Growth of 10,000            | 12,385 | 10,190 | 12,430 | 12,485  | 14,205  | 11,345   |
| Fund                        | 23.85  | 1.90   | 24.30  | 7.68    | 7.27    | 1.27     |
| +/- MSCI ACWI Ex USA NR USD | 0.49   | -0.01  | -0.10  | 0.46    | 0.45    | 0.04     |
| +/- Category                | 1.84   | 0.05   | 1.59   | 0.14    | -0.19   | 0.00     |
| % Rank in Cat               | 26     | 46     | 32     | 46      | 56      | —        |
| # of Funds in Cat           | 747    | 791    | 721    | 580     | 516     | 334      |

\* Currency is displayed in BASE

## Top Holdings 09-30-2017

|                              | Weight % | Last Price  | Day Chg % | 52 Week Range               |
|------------------------------|----------|-------------|-----------|-----------------------------|
| ⊖ Nestle SA                  | 1.07     | 84.70 BASE  | 0.95 ↑    | 71.45 - 86.00               |
| ⊖ Tencent Holdings Ltd       | 0.96     | 354.60 BASE | 0.00 ↓    | 179.60 - 356.40             |
| ⊖ Samsung Electronics Co Ltd | 0.88     | — BASE      | -0.07 ↓   | 1,539,000.00 - 2,769,000.00 |
| ⊖ Novartis AG                | 0.83     | 84.65 BASE  | 0.65 ↑    | 67.40 - 84.75               |
| ⊖ HSBC Holdings PLC          | 0.81     | 746.40 BASE | 0.39 ↑    | 518.17 - 772.00             |
| % Assets in Top 5 Holdings   | 4.54     |             |           |                             |

⊕ Increase ⊖ Decrease ★ New to Portfolio

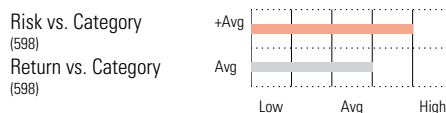
## Top Sectors 09-30-2017

|                      | Fund  | 3 Yr High | 3 Yr Low | Cat Avg |                  |
|----------------------|-------|-----------|----------|---------|------------------|
| 🏦 Financial Services | 21.35 | 21.42     | 21.31    | 21.01   | ■ Fund ▼ Cat Avg |
| ⚙️ Industrials       | 12.47 | 12.47     | 11.85    | 13.20   |                  |
| 🛒 Consumer Cyclical  | 11.35 | 12.43     | 11.35    | 11.70   |                  |
| 💻 Technology         | 11.05 | 11.05     | 9.10     | 10.51   |                  |
| 🏠 Consumer Defensive | 9.50  | 10.47     | 9.50     | 11.31   |                  |

## Dividend and Capital Gains Distributions

| Distribution Date | Distribution NAV | Long-Term Capital Gain | Short-Term Capital Gain | Return of Capital | Dividend Income | Distribution Total |
|-------------------|------------------|------------------------|-------------------------|-------------------|-----------------|--------------------|
| 09-19-2017        | 29.52            | 0.0000                 | 0.0000                  | 0.0000            | 0.1600          | 0.1600             |
| 06-20-2017        | 27.73            | 0.0000                 | 0.0000                  | 0.0000            | 0.2990          | 0.2990             |
| 03-23-2017        | 26.56            | 0.0000                 | 0.0000                  | 0.0000            | 0.0860          | 0.0860             |
| 12-19-2016        | 24.48            | 0.0000                 | 0.0000                  | 0.0000            | 0.2090          | 0.2090             |
| 09-12-2016        | 25.24            | 0.0000                 | 0.0000                  | 0.0000            | 0.1480          | 0.1480             |

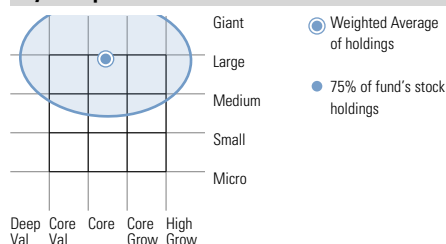
## 3 Year Average Morningstar Risk Measures



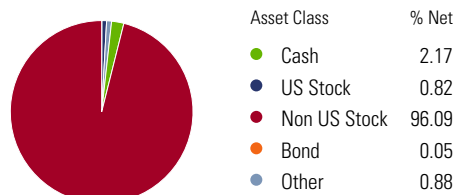
## Pillars

|             |             |
|-------------|-------------|
| Process     | ⊕ Positive  |
| Performance | ⊖ Neutral   |
| People      | ⊕ Positive  |
| Parent      | ⊕ Positive  |
| Price       | ⊕ Positive  |
| Rating      | <b>Gold</b> |

## Style Map



## Asset Allocation



## Management

|                | Start Date |
|----------------|------------|
| Michael Perre  | 08-05-2008 |
| Michelle Louie | 02-25-2016 |

# Vanguard Total International Stock Index Fund Admiral Shares VTIAX

## Analysis

**This is one of the cheapest and most broadly diversified funds in its category.**

By Daniel Sotiroff 9/6/2017

Vanguard Total International Stock Index Fund is an excellent choice for exposure to stocks listed outside of the U.S. It accurately represents the foreign investable universe and is well diversified across developed and emerging markets. Its broad coverage, combined with a low fee support a Morningstar Analyst Rating of Gold.

This fund tracks the FTSE Global All-Cap Ex-U.S. Index, and covers stocks listed in more than 40 countries. The broad reach of this index includes all stocks that land in the top 98% by market capitalization. Holdings are weighted by market capitalization, which helps mitigate turnover and the associated transaction costs. The inclusion of small-cap stocks gives this fund a modest tilt toward smaller firms, and improves its overall diversification. Top-10 holdings account for only 8% of this fund's assets.

The market-cap-weighting approach emphasizes multi-national firms that are large and profitable. Companies such as Nestle, Samsung, and Novartis are among this fund's top holdings. Sector and country allocations are similar to a typical fund in this category, with stocks from Japan representing the largest single country allocation, at almost 18% of the portfolio.

The volatility of this fund has been in line with the category norm, despite holding more emerging market stocks than many of its peers. And while the fund's greater exposure to emerging market stocks can cause its performance to diverge from its peers', its total and risk-adjusted returns landed in the middle of the category over the trailing three and five years through July 2017. But we remain confident that its cost advantage and representative portfolio will lead to strong category-relative performance over a full market cycle.

Vanguard recently cut the fund's expense ratio on this fund and charges 0.18% for Investor shares.

Admiral shares and the ETF each cost 0.11%. These are among the lowest expense ratios in the category, and should give the fund a durable edge over its peers.

**Process Pillar:**  Positive

This fund tracks a heavily diversified index of international stocks that cover developed and emerging markets across large-, mid-, and small-cap stocks. Its broad reach accurately represents the investable universe of stocks outside of the U.S. Holdings in this portfolio are weighted by market capitalization, which captures the market's consensus opinion regarding the value of each stock while promoting low turnover, and supports a positive process pillar rating.

This fund tracks the FTSE Global All-Cap ex-U.S. Index, which covers more than 40 countries across developed and emerging markets. It sorts stocks by their free float adjusted market capitalization, and holds those that land in the top 98%. The index uses buffering rules around this cutoff point to help mitigate excessive turnover. Holdings are weighted by market capitalization, which emphasizes large multinational firms while keeping turnover and the associated transaction costs in check. Qualifying stocks are subject to liquidity screens to help ensure that the index is investable. The index is reconstituted semiannually in March and September. Additional quarterly reviews in June and December are used to make smaller changes, such as adding IPOs. The managers use near full replication to fulfill their index-tracking objective.

The portfolio holds more than 5,900 stocks with 8% of assets in its top 10 holdings. This makes it one of the best diversified funds in the foreign large blend Morningstar Category. The inclusion of small caps causes the average market capitalization of this fund to be modestly smaller than the category norm. However, market-cap weighting skews the portfolio toward the largest stocks, which include major multinational firms such as Nestle and Samsung.

The fund's sector allocations are similar to the cat-

### Morningstar's Take

Morningstar Analyst Rating



### Morningstar Pillars

|             |  |
|-------------|--|
| Process     |  Positive |
| Performance |  Neutral  |
| People      |  Positive |
| Parent      |  Positive |
| Price       |  Positive |

### 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.

Analyst Rating Spectrum

 Gold  Silver  Bronze **Neutral** **Negative**

### Fund Performance

|      | Total Return % | +/- Category |
|------|----------------|--------------|
| YTD  | 23.85          | 1.84         |
| 2016 | 4.67           | 3.89         |
| 2015 | -4.26          | -2.67        |
| 2014 | -4.17          | 0.81         |
| 2013 | 15.14          | -4.29        |

# Vanguard Total International Stock Index Fund Admiral Shares VTIAX

## Analysis

category average. Stocks from the financial services sector represent the fund's largest sector weighting, accounting for 22% of the portfolio. Country and regional allocations are notably different. This fund has a higher allocation to stocks from emerging-markets countries, and it makes up for some of this difference by underweighting stocks from the United Kingdom. Like many of its peers, stocks from Japan represent the largest country weight, at 18% of assets.

Investment in foreign stocks carries an additional layer of risk due to fluctuations in foreign exchange rates. Like most of its peers this fund does not hedge this currency risk, which can make it more volatile than most broad U.S. market funds.

### Performance Pillar: ● Neutral

This fund's performance hasn't stood out, so it earns a Neutral Performance Pillar rating. Its total return lagged the foreign large blend category average by 0.26% over the trailing five years through July 2017, ranking in the middle of the category. Its risk-adjusted performance over this period was also near the category midpoint.

This fund's mediocre category relative performance is a consequence of several factors. Its price/book ratio has been lower than the category average, indicating that many of its peers have a modest growth tilt. This has aided their performance over the past several years has provided better returns than this fund's benchmark index. Additionally, its higher allocation to emerging market stocks hurt performance as well. Stocks from these regions also underperformed the category norm.

The fund has managed to slightly outperform its index over the trailing three-years through July 2017. Securities lending has played a big role by offsetting most of the fund's expenses. An additional contributor was Vanguard's fair value pricing methodology, which updates stale prices on foreign securities after the markets they are listed in have markets have closed.

### People Pillar: ● Positive

The fund is comanaged by Michael Perre and Michelle Louie. As members of Vanguard's Equity Index Group they can leverage Vanguard's global footprint and portfolio management technology. The managers are compensated with a bonus that factors in the gross, pre-tax performance of the fund relative to its benchmark index over the prior 12 months. These characteristics align the interests of the managers and investors, and support a Positive People Pillar rating.

This fund's management team not only oversees the portfolio, but also executes trades on a day-to-day basis. Vanguard's portfolio management team typically consists of two comanagers on each fund, and these managers rotate to different funds every few years to improve their breadth and depth of expertise. They also have access to Vanguard's trading desks around the world that enable them to make the most efficient transactions in various global markets. Perre is a principal in the Vanguard Equity Index Group and has been with the firm since 1990. Louie was promoted to portfolio manager from equity trader in 2016 at which point she became a named manager on this fund. She has been with Vanguard since 2010. Neither of these managers own shares in this fund.

### Parent Pillar: ● Positive

Vanguard has one of the mutual fund industry's strongest corporate cultures and earns a Positive Parent rating. Its consistent messages to investors to keep costs low, diversify, and stay the course are reflected in the firm's own behavior. Vanguard's U.S. fundholders own the firm through small investments by each mutual fund, mitigating potential conflicts of interest that can exist at other firms that are serving two masters. Fund performance is strong overall: Over the past three-, five-, and 10-year periods, its Morningstar Success Ratios are greater than 70%--high among large, diversified fund families.

Over the past year, the firm has collected more than USD 200 billion in net inflows, thanks in large part to investors' interest in passive investing. The firm's indexing and ETF prowess, low costs, and

success in penetrating the financial-advisor sales channel all have fueled growth. Total assets under management now exceed USD 3.3 trillion, giving Vanguard a significant more-than-20% market share across U.S. mutual funds.

Vanguard has been a global player for years but has only more recently turned its focus to growing internationally. The firm is a large player in Australia, where it has the most history, but doesn't yet have the brand recognition and trust it enjoys in the United States in other parts of the world. While non-U.S. funds don't participate in the ownership of Vanguard, the firm's investorcentric culture extends globally.

### Price Pillar: ● Positive

Vanguard charges a 0.18% expense ratio for the fund's Investor shares and 0.11% for the Admiral shares. It also offers an ETF share class of this fund, which charges 0.11%. These fees are among the lowest expense ratios in the foreign large blend Morningstar category, and support a positive price pillar rating. Investment minimums are \$3,000 for Investor shares and \$10,000 for Admiral shares. This fund's holdings are weighted by market capitalization, which keeps turnover and the associated transaction costs in check. The last reported turnover ratio landed in the bottom decile of the category. This fund also engages in securities lending, and the profits from this activity can help offset the fund's expenses.



# T. Rowe Price Retirement Target-Date Fund Series Report

## Morningstar Analyst Rating



### Key Features

|                              |             |
|------------------------------|-------------|
| Asset-Weighted Expense Ratio | 0.75%       |
| Active/Passive Exposure      | 86% Active  |
| Open/Closed Architecture     | 100% Closed |
| Total Net Assets (\$M)       | 160,569     |

## Executive Summary

### Rating:

#### Process

#### Positive

Management's research suggests investors spend more money in retirement than they anticipate and risk outliving their savings. As a result, the funds' glide path has a higher equity allocation than many of its rivals', both before and during retirement. The majority of the underlying funds come recommended via their Morningstar Analyst Ratings.

#### Price

#### Neutral

This series' funds aren't as cheap as peers that invest in passively managed options, but they are reasonably priced, especially compared with series that invest predominantly in active strategies.

#### Performance

#### Positive

The series' three-, five-, and 10-year returns through June 2017 handily outpaced the majority of its peers'. But the funds' relatively heavy equity stake can lead to greater short-term volatility than many rivals. For example, the funds lost more than their average competitor during 2008's market slide and rebounded more sharply than most during 2009's rally.

#### People

#### Positive

T. Rowe Price's asset-allocation committee makes the strategic decisions for the funds, while firm veteran Jerome Clark leads a group of associate managers who run the funds' day-to-day operations. Longtime team member Wyatt Lee joined the manager roster in August 2015. The underlying funds largely feature solid, proven managers.

#### Parent

#### Positive

T. Rowe Price's corporate culture and regulatory history are impressive. The firm stresses long-term investing, high-quality securities, and sensible risk management. T. Rowe also does a good job describing its target-date funds and communicating with investors. Manager transitions are typically planned well in advance.

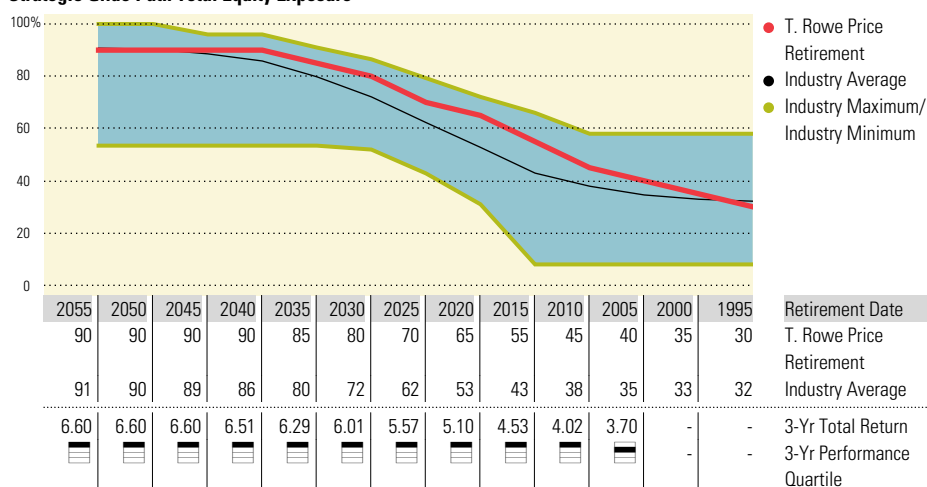
## Morningstar Analyst Rating

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.

### Analyst Rating Spectrum

★ Gold ★ Silver ★ Bronze Neutral Negative

## Strategic Glide Path Total Equity Exposure



## Available Funds

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| 2005 Fund | 2020 Fund | 2035 Fund | 2050 Fund |
| 2010 Fund | 2025 Fund | 2040 Fund | 2055 Fund |
| 2015 Fund | 2030 Fund | 2045 Fund | 2060 Fund |

## Morningstar Opinion

Solid underlying funds and a steady asset-allocation approach give the T. Rowe Price Retirement series a discernible edge over most peers, earning a Morningstar Analyst Rating of Silver.

This series' advantages begin with its consistency. Jerome Clark has served as the series' lead manager since its 2002 inception, and comanager Wyatt Lee joined the roster in August 2015. The firm has invested heavily in its asset-allocation group and plans to continue growing the team. The asset-allocation team currently stands at more than 30 members.

With the risk of outliving one's assets in mind, the group designed a glide path that looks more aggressive than the typical competitor's. Except for the early savings years and about 20 years after retirement, the series keeps a higher equity weighting than the industry norm throughout the glide path.

Within the portfolios, the series' lineup of skippers remains impressive. We rate 15 of the series' 18 underlying T. Rowe Price funds; 13 are Morningstar Medalists as of this writing, reflecting analysts' conviction that they will outperform peers over the long haul. However, the series' managers have revisited the bond exposure and will add four relatively new fixed-income funds—not currently covered by Morningstar analysts—to the underlying mix beginning in October 2017. As part of the change, they will reduce exposure to an intermediate-term bond fund to make way

## Leo Acheson

Analyst - Fund of Fund Strategies 08-03-2017

for a nontraditional bond fund, and they will swap an unhedged international-bond fund for a one that hedges currency exposure. The former fund's inception was in January 2015, and the latter has yet to launch. Ideally, these funds would have longer track records before joining the series. Meanwhile, the series' exposure to high-yield bonds, emerging-markets debt, bank loans, and long-term Treasuries will vary as the investor ages. (Bank-loan and long-term Treasury funds also represent new fund additions). T. Rowe Price expects these changes to improve returns and lower volatility over the long haul.

These changes don't stem from performance concerns, as the series has turned in excellent results, thanks largely to its supporting managers. All vintages outperformed their typical rivals in the trailing three-, five-, and 10-year periods through June 2017. The series' heavy stock weighting and the group's modest tactical tilts also boosted returns.

Strong returns have attracted investors: The team accumulated more than \$200 billion in target-date assets as of June 2017. Four of the series' five small- and mid-cap funds are closed to new investors, so continued growth could create capacity constraints. To address the issue, the series has the option to invest in small- and mid-cap index funds. The series' access to top-tier active funds has been one of its key strengths, so we will keep an eye on this development.



# T. Rowe Price Retirement Target-Date Fund Series Report

## Process: Approach

Rating: Positive

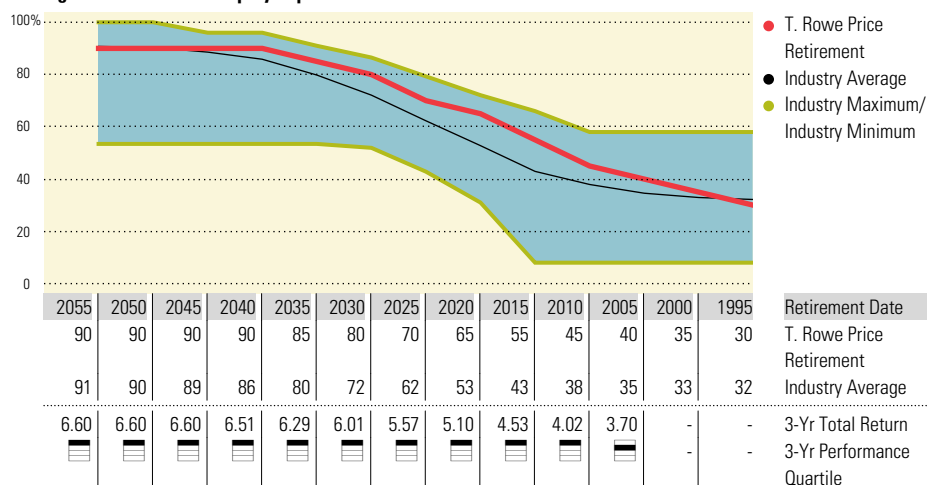
In conducting extensive in-house studies, T. Rowe Price found that 401(k) plan participants' average savings rate was less than half the recommended rate, while the average withdrawal rate was more than twice the recommended rate. T. Rowe concluded that retirees' biggest risk is outliving their savings. As a result, it emphasizes sizable exposure to stocks to boost asset growth.

The series has a relatively aggressive asset-allocation glide path. It begins with a 90% equity/10% fixed-income portfolio when investors are the furthest from retirement. That split roughly matches the typical peer 40 years from retirement, but the series' funds maintain a higher equity stake than most rivals both leading up to and during retirement. The funds slowly transition from stocks to bonds at the end of each quarter until they reach the target allocation of 55% equity at retirement. The shifting doesn't stop at retirement, because T. Rowe Price doesn't view the retirement year as a distinct year in the course of an individual's retirement planning. Even after investors arrive at the 55% equity/45% fixed-income allocation at the target retirement date, the quarterly shifts continue for 30 more years until the equity stake plateaus at 20%.

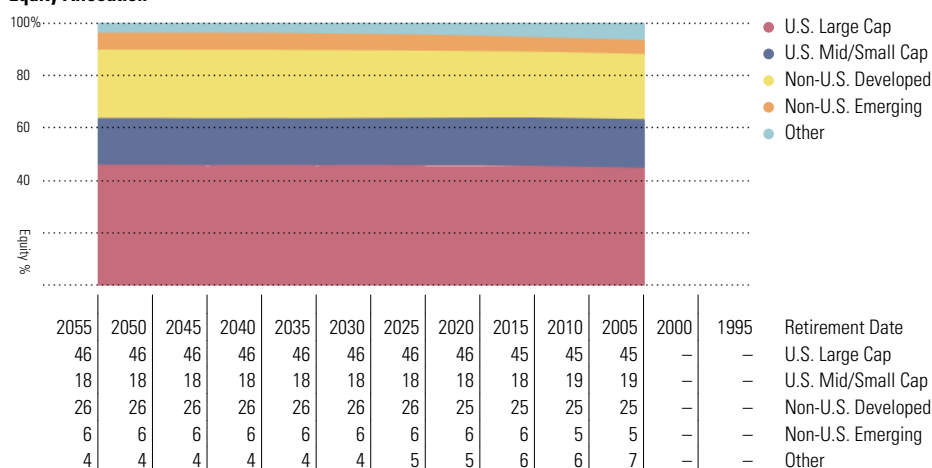
Management has modest leeway to adjust the funds' stock/bond split (up to 5 percentage points) and make sub-asset-class tilts, such as growth versus value stocks or developed-markets versus emerging-markets stocks. A committee of veteran T. Rowe Price managers uses qualitative inputs to determine which asset classes appear to have the most favorable return prospects for the next six to 18 months.

The asset-allocation approach has remained consistent and is supported by sound reasoning, earning the series a Positive Process rating. However, the team could enhance its method for selecting and overseeing underlying managers. The group picked underlying funds based on their mandates and won't swap out strategies unless their approaches or styles change. In fact, the series has not fired a manager since its 2002 inception. Instead, it relies on various steering committees at the firm to provide oversight. Moreover, although the series' management team ensures that the underlying funds provide style-pure exposure, it has not run additional analytics, such as correlation of excess returns, to assess how the funds complement one another.

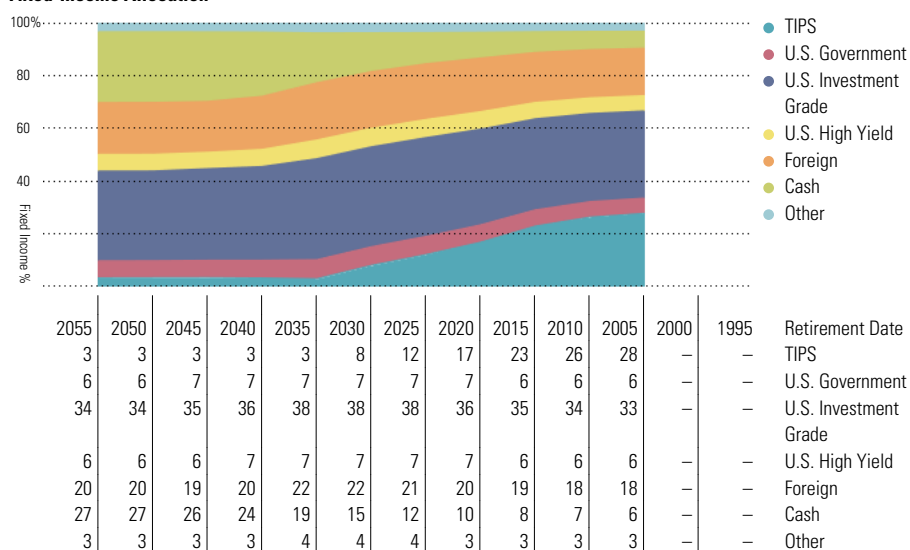
### Strategic Glide Path Total Equity Exposure



### Equity Allocation



### Fixed-Income Allocation



# T. Rowe Price Retirement Target-Date Fund Series Report

## Process: Portfolio

This series and its underlying funds benefit from T. Rowe Price's strong investment culture. Long manager tenures and an emphasis on high-quality securities are common. The funds used in the series generally have solid long-term records: Of the 17 underlying funds with 10 years of history through June 2017 (excluding the money market fund), all but two outperformed their Morningstar Category average.

We cover 15 of the 18 underlying funds, of which 13 received medals as of this report's publishing date. T. Rowe Price International Stock and T. Rowe Price Small-Cap Stock receive Neutral ratings because of manager turnover, but those funds in aggregate take less than 10% of the series' assets. The firm's portfolio manager changes are usually well-planned and allow for slow transitions to minimize disruption, though T. Rowe Price Growth Stock's manager unexpectedly departed in early 2014. Nonetheless, the

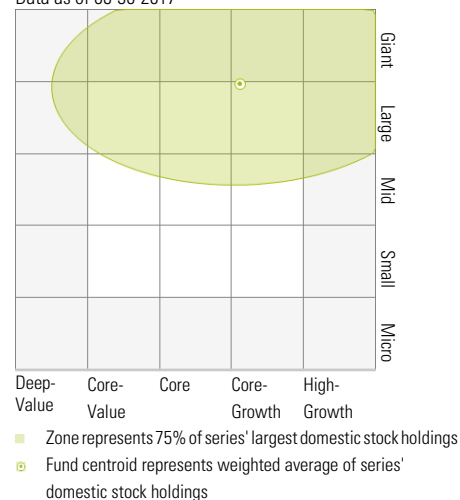
**Rating: Positive**

new manager has already settled into his role, and we upgraded the fund's rating to Bronze in May 2017. We also upgraded T. Rowe Price International Value Equity to Bronze in late 2016.

The underlying funds cover a wide range of asset classes. On the equity side, the series keeps a 70% U.S./30% international split (including a dedicated emerging-markets stock fund) that's similar to the target-date industry norm. A core bond fund anchors the fixed-income exposure. More-specialized funds, such as an emerging-markets debt strategy and a high-yield bond fund, fill out the remainder of the bond stake. In late 2017, T. Rowe Price plans on adding small stakes in four new fixed-income funds—a floating rate fund, a nontraditional bond fund, a long-term Treasury fund, and a currency-hedged international-bond fund.

### Series Holding-based Style Map - Equity

Data as of 06-30-2017



### Top Investments as of 06-30-2017

|                                      |                           | % of Assets | 3-Yr Return % | 3-Yr % Rank in Cat | 3-Yr Std Dev | 5-Yr Return % | 5-Yr % Rank in Cat | Analyst Rating | Star Rating |
|--------------------------------------|---------------------------|-------------|---------------|--------------------|--------------|---------------|--------------------|----------------|-------------|
| T. Rowe Price New Income             | Intermediate-Term Bond    | 16.66       | 2.26          | 47                 | 2.85         | 2.34          | 54                 | Bronze         | ★★★         |
| T. Rowe Price Equity Index 500       | Large Blend               | 14.29       | 9.34          | 15                 | 10.34        | 14.33         | 29                 | Bronze         | ★★★★        |
| T. Rowe Price Growth Stock           | Large Growth              | 12.74       | 12.48         | 6                  | 12.30        | 16.40         | 8                  | Bronze         | ★★★★★       |
| T. Rowe Price Value                  | Large Value               | 10.90       | 7.11          | 35                 | 10.70        | 15.40         | 4                  | Bronze         | ★★★★        |
| T. Rowe Price Overseas Stock         | Foreign Large Blend       | 6.63        | 2.14          | 26                 | 11.30        | 8.88          | 22                 | Bronze         | ★★★★        |
| T. Rowe Price International Value Eq | Foreign Large Value       | 6.36        | -0.31         | 54                 | 11.39        | 7.62          | 48                 | Bronze         | ★★★         |
| T. Rowe Price International Stock    | Foreign Large Growth      | 6.09        | 3.94          | 17                 | 12.12        | 8.90          | 43                 | Neutral        | ★★★         |
| T. Rowe Price Ltd Dur Infl Focus Bd  | Inflation-Protected Bond  | 3.96        | -0.29         | 70                 | 1.86         | 0.04          | 38                 | —              | ★★          |
| T. Rowe Price Mid-Cap Value          | Mid-Cap Value             | 2.75        | 7.68          | 21                 | 10.96        | 14.83         | 21                 | Gold           | ★★★★★       |
| T. Rowe Price Emerging Markets Stock | Diversified Emerging Mkts | 2.72        | 4.04          | 6                  | 15.68        | 5.80          | 19                 | Bronze         | ★★★★        |
| Total # Holdings                     |                           |             |               |                    |              |               |                    |                | 19          |
| % Portfolio in Top 10 Holdings       |                           |             |               |                    |              |               |                    |                | 83.10       |
| Overall Average Morningstar Rating   |                           |             |               |                    |              |               |                    |                | 3.80        |

## Price

The average expense ratio across the target-date industry has declined as series continue to cut costs and new entrants to the space increasingly favor inexpensive underlying index strategies. In fact, roughly half of the industry's 60 or so target-date series use exclusively passive underlying strategies or blend active and passive managers. As a result, series that use primarily active skippers, such as the T. Rowe Price Retirement funds, look less competitive from a fee standpoint.

**Rating: Neutral**

The no-load share classes of the T. Rowe Price Retirement funds, which hold about 80% of the series' assets, carry reasonable price tags for primarily actively managed target-date funds, but their fees now look about average versus the broad industry. The Retirement and Advisor share classes look pricier. The series receives a Neutral Price rating.

### Asset-Weighted Cost vs. Industry Average

|                          |       |
|--------------------------|-------|
| T. Rowe Price Retirement | 0.75% |
| Industry Average         | 0.72% |

| Avg Cost Per Share Class | Exp Ratio (%) | Net Assets (\$M) |
|--------------------------|---------------|------------------|
| No Load                  | 0.70%         | 121,438          |
| Adv                      | 0.95%         | 16,043           |
| Inst                     | 0.55%         | 12,196           |
| Retirement               | 1.20%         | 10,893           |
|                          | —             | —                |

# T. Rowe Price Retirement Target-Date Fund Series Report

## Performance

**Rating: Positive**

The series' above-average equity allocation shapes its performance. In the immediate years leading up to retirement, it keeps roughly 10 percentage points more in equities than the industry norm and remains above-average throughout most of retirement. Thus, the strength of the equity market can make a big difference in the series' performance pattern. For instance, during 2008's financial crisis, nearly all of the series' funds trailed their peer group averages.

The bold equity allocation has paid off as the market has risen since 2008: The series' funds averaged a top-quartile ranking in their peer groups in five of the

past eight calendar years. Even during 2011's tumultuous market, the majority of the funds in the series still surpassed their typical peer. That consistent record burnishes the series' long-term results: Among the funds with 10-year records through June 2017, every fund ranks at or near the top of its respective peer group.

The series' above-average equity allocation has resulted in above-average volatility, as measured by standard deviation. But the funds' gains have more than compensated for the bumpy ride. Most of the funds' risk-adjusted returns in the trailing five- and 10-year

periods rank in the top quartile of their categories, helping the series earn a Positive Performance rating.

A solid cast of underlying funds further aids the series' overall performance. The underlying funds show a similar level of consistency in their calendar-year rankings as the series' target-date funds, with the majority outperforming their typical peer each year. Twelve of the 18 underlying funds in the series with Morningstar Ratings earn 4 or 5 stars, reflecting their strong long-term, risk-adjusted results.

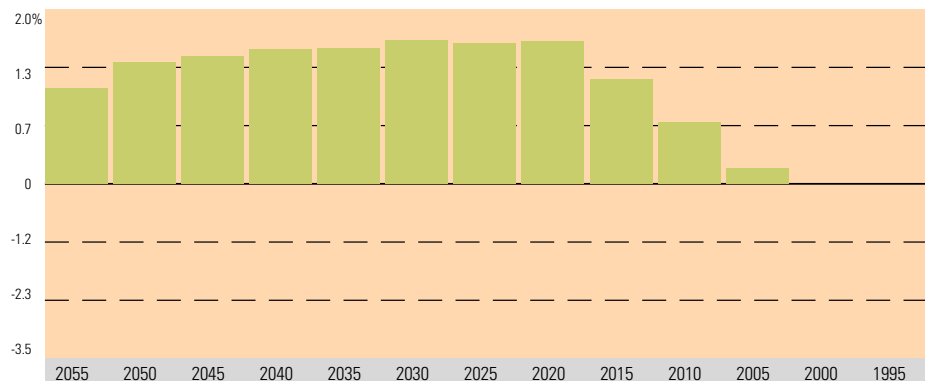
### Target-Date Fund Performance as of 06-30-2017

|                               | YTD<br>Return % | YTD %<br>Rank in Cat | 2016<br>Return % | 2015<br>Return % | 3-Yr<br>Return % | 3-Yr %<br>Rank in Cat | 3-Yr<br>Std Dev | 5-Yr<br>Return % | 5-Yr %<br>Rank in Cat | Star<br>Rating |
|-------------------------------|-----------------|----------------------|------------------|------------------|------------------|-----------------------|-----------------|------------------|-----------------------|----------------|
| T. Rowe Price Retirement 2005 | 5.8             | 19                   | 6.7              | -0.7             | 3.7              | 33                    | 5.0             | 6.4              | 34                    | ★★★★           |
| T. Rowe Price Retirement 2010 | 6.2             | 11                   | 7.1              | -0.8             | 4.0              | 12                    | 5.5             | 7.1              | 5                     | ★★★★           |
| T. Rowe Price Retirement 2015 | 7.2             | 7                    | 7.3              | -0.6             | 4.5              | 6                     | 6.3             | 8.2              | 1                     | ★★★★★          |
| T. Rowe Price Retirement 2020 | 8.5             | 1                    | 7.4              | -0.3             | 5.1              | 2                     | 7.2             | 9.3              | 1                     | ★★★★★          |
| T. Rowe Price Retirement 2025 | 9.6             | 1                    | 7.5              | -0.2             | 5.6              | 1                     | 7.9             | 10.2             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2030 | 10.6            | 1                    | 7.7              | 0.0              | 6.0              | 3                     | 8.6             | 11.0             | 3                     | ★★★★★          |
| T. Rowe Price Retirement 2035 | 11.4            | 1                    | 7.6              | 0.1              | 6.3              | 4                     | 9.2             | 11.6             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2040 | 11.9            | 1                    | 7.6              | 0.2              | 6.5              | 3                     | 9.6             | 11.9             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2045 | 12.2            | 2                    | 7.7              | 0.2              | 6.6              | 3                     | 9.6             | 12.0             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2050 | 12.1            | 3                    | 7.7              | 0.2              | 6.6              | 3                     | 9.6             | 12.0             | 2                     | ★★★★★          |
| T. Rowe Price Retirement 2055 | 12.1            | 4                    | 7.7              | 0.2              | 6.6              | 3                     | 9.7             | 12.0             | 3                     | ★★★★★          |
| T. Rowe Price Retirement 2060 | 12.0            | 4                    | 7.6              | 0.2              | 6.6              | 1                     | 9.7             | —                | —                     | ★★★★★          |

For peer comparisons, 1 = highest return or lowest risk, 100 = lowest return or highest risk.

### Target Date Funds Risk-Adjusted Returns +/- Category Average

Data as of 06-30-2017

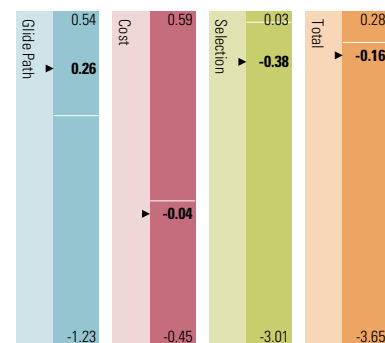


- Risk-adjusted return exceeding category average
- Risk-adjusted return trailing category average
- Category Average

Data is based on longest available performance history: three or five years. For series with more than 18 months of history, but less than three years of history, the risk-adjusted return of the appropriate Morningstar Lifetime Moderate Index is used to create a 3-year history.

### Attribution Analysis

Trailing 3-Year Returns as of 06-30-2017



T. Rowe Price Retirement

|              |              |
|--------------|--------------|
| Glide Path   | 0.26         |
| Cost         | -0.04        |
| Selection    | -0.38        |
| <b>Total</b> | <b>-0.16</b> |

# T. Rowe Price Retirement Target-Date Fund Series Report

## People

The experience and tenure of T. Rowe Price's asset-allocation group and the strength of the underlying funds lead to a Positive People rating. Jerome Clark, a firm veteran, has managed the series since its 2002 inception. Wyatt Lee, a longtime associate to Clark, officially joined the manager roster in August 2015. Kim DeDominicis assists Clark and Lee.

The asset-allocation group currently stands at more than 30 investment professionals. The team has made a number of hires lately, making it one of the larger asset-allocation groups. The size of the team reflects a strong commitment to the asset-allocation space.

Richard Whitney, who formerly headed up asset allocation at the firm, retired at the end of 2016. Charles Shriver and David Giroux replaced Whitney as co-chairs of T. Rowe Price's 12-member asset-allocation committee in October 2016. The committee guides the series' modest tactical decisions and has a suc-

**Rating: Positive**

cessful long-term record on the firm's asset-allocation products. The group's membership includes leaders from the firm's equity and fixed-income funds. Sebastien Page, a PIMCO transplant who joined T. Rowe in mid-2015, replaced Whitney as the head of asset-allocation strategies.

The underlying fund managers used in the series are also a sound bunch. The nine-year average manager tenure of the series' underlying funds lands well ahead of the mutual fund industry average. T. Rowe Price has a history of handling manager changes for the underlying funds well, with a long transition period being the norm.

Although he does not invest directly in the target-date mutual funds, Clark has more than \$1 million invested in T. Rowe Price's similarly managed target-date collective trusts, according to the firm's compliance department.

### Series Management

| Manager      | Start Date |
|--------------|------------|
| Jerome Clark | 09-2002    |
| Wyatt Lee    | 08-2015    |

|                                     |            |
|-------------------------------------|------------|
| Average Tenure                      | 8.4 years  |
| Longest Tenure                      | 14.8 years |
| Target-Date Industry Average Tenure | 4.5 years  |

### Underlying Funds' Management

|                                     |            |
|-------------------------------------|------------|
| Average Tenure                      | 9.1 years  |
| Longest Tenure                      | 25.1 years |
| Mutual Fund Industry Average Tenure | 7.0 years  |

## Parent

T. Rowe Price is evolving but retains the strong research-focused culture that's driven its long-term success. Despite the retirements of some long-tenured portfolio managers, the former CEO, and outgoing CIO Brian Rogers, the firm's careful focus on succession planning and long transition periods have eased the process. Even with a changing of the guard, there's no lack of talent. Successful former portfolio manager Rob Sharps is now co-head of global equities and oversees five CIOs who are among the firm's top managers. The analyst team is on solid footing, and the firm has continued hiring despite the pressures facing active managers. CEO Bill Stromberg, who joined T. Rowe in 1987 as an analyst, maintains an investment focus while recognizing that the busi-

**Rating: Positive**

ness must evolve to flourish in an industry that's gravitated toward passive investing. The firm is bolstering its technology resources and is expanding its distribution overseas, achievable goals given its pristine balance sheet. In 2017, the firm opportunistically acquired the Henderson High Yield Opportunities team, led by a former T. Rowe employee, as it addresses demand for capacity-constrained strategies that are also part of its popular target-date lineup and potentially new multiasset products down the line (several T. Rowe strategies are closed). T. Rowe is sensibly adapting, and its fundholder-first mentality and ability to attract and retain investment talent support its Positive Parent rating.

### Fund Family Data

|                             |       |
|-----------------------------|-------|
| Average Overall Star Rating | ★★★★  |
| % of Assets w/Star Rating   | 90.4% |

| Assets                 | (listed in USD \$Mil) |
|------------------------|-----------------------|
| Total Assets Under Mgt | 687,047               |

|  |           |
|--|-----------|
| Average Manager Tenure                           | 7.5 years |
| 5-year Manager Retention Rate (%)                | 93.5%     |
| Manager Investment Over 1 Million USD (% Assets) | 32.2%     |

|                       |       |
|-----------------------|-------|
| Average Fee Level (%) | 39.0% |
|-----------------------|-------|

|                               |       |
|-------------------------------|-------|
| 3-year Firm Success Ratio (%) | 81.0% |
|-------------------------------|-------|

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The Morningstar Analyst Rating™ for Target-Date Fund Series is a forward-looking analysis of a target-date fund series. The Analyst Rating does not express a view on a given asset class or peer group; rather, it seeks to evaluate each target-date fund series within the context of its objective, an appropriate benchmark, and peer group.

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 items 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 objective.



## 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 analyst 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.

Morningstar Research Services may also use two other designations in place of a rating:

### 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.

For more information about our Analyst Rating methodology please go to <http://corporate1.morningstar.com/ResearchLibrary/>

## Morningstar Star Rating

The Morningstar Star Rating is a proprietary data point that is quantitatively driven. Target-date fund series are rated from one to five stars based on how well the target-date fund series performed (after adjusting for risk and accounting for sales charges) in comparison to similar target-date fund series. Within each Morningstar Category, the top 10% of target-date fund series receive 5 stars and the bottom 10% receives 1 star. target-date fund series are rated for up to three time periods—three-, five-, and ten-years—and these ratings are combined to produce an overall star rating, which is noted within the Report. target-date fund series with less than three years of history are not rated. Star Ratings are based entirely on a mathematical evaluation of past performance. Star Ratings are in no way to be considered a buy or sell signal nor should be viewed as a statement of fact.

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## Equity-Related Data Points

The Report lists the top ten holdings in the target-date fund series as of the date noted. For each underlying holding, a series of data points is provided including, where applicable, that security's Economic Moat rating as of the date noted.

## Economic Moat

The concept of an economic moat plays a vital role in our equity analyst's qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of its fair value estimate. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as returns on invested capital (or ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (or WACC). Without a moat, profits are more susceptible to competition. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Companies with a *narrow moat* are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. *Wide-moat* companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe low-quality, *no-moat* companies will see their normalized returns gravitate toward the firm's cost of capital more quickly than companies with moats.

For more information about methodology in analysing stocks, please go to <http://global.morningstar.com/equitydisclosures>.

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