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# Morningstar Analyst Rating

## Exchange-Traded Funds and Index Mutual Funds

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### Morningstar Manager Research

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#### Contents

- 1 Overview
- 2 People
- 2 Process
- 6 Parent
- 6 Performance
- 7 Price

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#### Overview

The purpose of Morningstar’s qualitative, analyst-driven research on exchange-traded funds and index mutual funds is to identify those funds that we believe should be able to outperform a relevant peer group, within the context of the level of risk taken, over the longer term.

The pillars of our analysis are the same regardless of whether we are rating a passively managed index fund or ETF or an actively managed fund. However, their relative impact on our overall assessment of a fund differs somewhat when it comes to analyzing and rating index funds and ETFs.

Obviously, keeping costs—both explicit ones, such as the expense ratio, as well as implicit ones, like the cost of portfolio turnover—at a minimum is paramount in the context of running an index-tracking fund. As such, it should come as no surprise that the top-rated funds that we analyze are among the lowest-cost options in their Morningstar Categories, not just versus their actively managed peers but also relative to competitive index fund and ETF options.

Although costs are critical, they are just one component of our holistic assessment of these funds. We also closely scrutinize their performance relative to their peers in their Morningstar Categories, which include actively managed funds as well as other index funds and ETFs. And we carefully analyze these funds’ underlying benchmarks to understand how their portfolios will be built and the techniques that their sponsors employ to track them with precision. Stewardship plays a vital role in our analysis. We tend to favor parent firms that put investors’ interests ahead of commercial goals and that align fund managers’ incentives accordingly. Of course, the skills and experience of the people managing the fund are an important factor in our analysis. In the management of index funds and ETFs, every 0.01% of performance counts, so it is vital to have a seasoned team in place.

In sum, we reserve our Medalist ratings for those funds that are best-suited to deliver precise tracking of sensibly constructed indexes at a very low cost over a long time frame—ones backed by experienced managers and sponsored by firms that are good stewards of investors’ capital. These are the index funds and ETFs that we are confident will outperform their peer group, within the context of the level of risk taken, over the longer term.

## People

It is a mistake to assume that management doesn't matter when it comes to index funds and ETFs. Skillful managers and traders stand a better chance of tracking their benchmark over time, and they are better equipped to cope with challenging conditions. As is the case with active funds, we prefer teams with long track records. Teams that have run index funds and ETFs for several years--whether with their current firm or with a prior one--will generally earn higher marks than those who are relatively new to the job. Similarly, we prefer teams that focus solely on running index funds and ETFs. We'd rather see indexing treated as a core competency than a sideline.

Just as with active funds, we give teams that manage index funds and ETFs credit if they invest in their fund. It signals their commitment to the overall philosophy of indexing. That said, it is important to recognize that index fund and ETF managers are unique from their peers overseeing active funds. The fact that members of teams managing index funds and/or ETFs are not as highly compensated as are managers of active funds and that they tend to manage a relatively larger number of funds somewhat diminishes the importance of coinvestment. As such, we tend to make a more holistic assessment of these managers' compensation and how it aligns their interests with those of fund shareholders.

### *Issues we consider:*

- ▶ The structure of the portfolio management team
- ▶ The amount of experience the team has in managing index funds and/or ETFs
- ▶ The division of responsibilities among the various team members
- ▶ Whether indexing is a core competency for the manager/team
- ▶ The role that portfolio managers play in trading for the fund
- ▶ Whether the manager invests in the fund
- ▶ The historical level of personnel turnover and whether it has resulted from regular rotations of employees or stems from other issues

## Process

### **Portfolio Construction**

Our analysis of index funds' and ETFs' process focuses on the construction of these funds' underlying benchmarks and the systems and portfolio management techniques that their sponsors have put in place to achieve high-fidelity tracking of said benchmarks. As such, our assessment of these funds' process spills over into understanding the capabilities of the index provider as well. In all matters related to process, we place a premium on transparency and independence.

In the case of index funds and ETFs, much of their portfolio construction and management process is defined by the methodology of their benchmark index. We closely scrutinize these funds' underlying indexes to understand what their rules will ultimately yield in terms of the risk/reward profile of the

resulting portfolio, its representativeness of the opportunity set available to active managers within a fund's respective Morningstar Category, the potential for concentration risks, the existence of embedded active bets (that is, strategic beta), and considerations of portfolio turnover.

Some indexes, particularly in narrow market segments (such as country indexes or sector indexes), have significant biases that can increase a fund's risk level. For example, many country-specific indexes are quite top-heavy, with the majority of assets concentrated in just a few of the top holdings. These same funds may also have significant sector biases. We will point out these biases and their implications in our analysis. If the risks seem extreme, it is reasonable to question the fund's investment merit.

In the case of strategic-beta, or so-called "smart beta," indexes we work toward understanding the manner in which these benchmarks select and weight their constituents. We assess whether these indexes' embedded strategies look to exploit well-known, time-tested risk premiums that are rooted in economic intuition (for example, value, momentum). We approach funds tied to such benchmarks with an added degree of conservatism, as many have limited live track records and were likely selected by fund sponsors on the basis of attractive hypothetical (that is, back-tested) performance.

Turnover is another point of emphasis in our assessment of process. Broad market-capitalization-weighted indexes generally keep turnover low. Low turnover equates to lower trading costs, which is a key driver of indexing's long-term success. However, turnover can creep up for indexes that reconstitute or rebalance regularly and for indexes that are weighted using some other factor besides market capitalization (such as dividends or equal weighting, for example). Index funds and ETFs that have turnover well above their category average are likely making more active bets relative to their cap-weighted counterparts. These tend to be strategic-beta funds. We closely scrutinize these funds' benchmarks to understand the measures that are in place to manage the cost of turnover and analyze the difference between the performance of the fund and its benchmark to understand how much benchmark-relative slippage (that is, tracking difference) results from these added costs.

If a fund tracks a very popular index, it may encounter problems with front-running during the quarterly or annual periods when the index is reconstituted. The most prominent example of this issue would be funds tracking the Russell 2000 Index. We should be satisfied that management is taking the steps necessary to minimize the impact of front-running on the fund's tracking performance.

*Issues we consider:*

- ▶ Index concentration
- ▶ The rules dictating the rebalancing and reconstitution of the fund's benchmark
- ▶ Whether or not the index portfolio adequately reflects the opportunity set available to active managers in the fund's peer group
- ▶ If the fund tracks a strategic-beta index, we seek to understand whether it seeks to exploit well-known, time-tested risk premiums or is potentially a product of back-testing and/or overfitting of data
- ▶ Any changes to the benchmark index's methodology over time and whether they have yielded positive, neutral, or negative results

**Portfolio Management**

After examining process as defined by the makeup of an index fund's or ETF's underlying benchmark, we move on to understand how these funds' managers set about tracking their indexes. For these funds' managers, tight tracking is a never-ending task that involves numerous trade-offs and requires, among other things, robust systems and a capable team.

Funds that track indexes composed of fewer, more-liquid constituents (for example, those benchmarked to the S&P 500) generally use full replication. If they don't, they should have a good reason why.

Funds that track indexes with thousands of constituents (for example, Barclays U.S. Aggregate Bond Index) usually use a sampling technique to track their benchmark. We seek to understand the methodology and evaluate whether it is robust enough to track the benchmark over time and in a variety of market conditions.

If the fund manager uses derivatives, exchange-traded products, or cash in the process of managing the fund, we examine how they are used and to what extent. Generally, these instruments are used to minimize the impact of cash flows and/or during the benchmark's reconstitution. If a fund uses them extensively, however, we must understand why and assess the manager's competency in carrying out such a strategy. We also scrutinize the steps the manager is taking to control counterparty risk.

We parse the benchmark's construction methodology and how that might affect the fund's ability to track the index closely. For example, if the index is top-heavy or has significant sector biases, regulations regarding concentration risk may keep the fund from fully replicating the benchmark. In these instances, tracking error is to be expected, unless the fund tracks a 10/40 or 25/50 index that has been constructed specifically to get around these problems.

Indexes are generally constructed to screen out illiquid securities. However, if we run across an index fund or ETF that tracks a benchmark that includes a meaningful percentage of illiquid securities, we assess what steps management has taken to address this problem and to minimize tracking error.

The key to successful indexing is keeping all investing costs low. The best index funds and ETFs are those that try to keep the funds' internal trading costs--both brokerage and market-impact costs--as low as possible. We like to see some indication that fund managers are monitoring trading costs closely. Index fund or ETF managers often do their own trading or use cross-trades so that they can directly monitor and manage trading costs. Obviously, brokerage expenses should be for execution only. There is no reason for an index fund to include soft dollars in its brokerage commission rates.

Some funds may employ a variety of tactics to offset the drag of expenses. The most common tactic is securities lending. In those cases where funds are lending securities from their portfolio, we analyze the measures it has in place to mitigate the associated counterparty risk. We also scrutinize the associated policies pertaining to the sharing of revenues resulting from securities loans.

Distribution policies stipulate how income generated from the fund's portfolio of securities is returned to investors. We seek to understand how the fund distributes this income and how the fund's manager handles dividend and/or coupon payments received from the underlying securities in such a manner as to minimize cash drag.

*Issues we consider:*

- ▶ Portfolio management approaches (for example, sampling, full replication, or synthetic replication)
- ▶ Use of derivatives in managing the funds and how any associated counterparty risk is being monitored and mitigated
- ▶ Tracking issues that might arise by virtue of the construction of a fund's benchmark. This can be problematic in instances where a fund's benchmark index includes illiquid securities or its makeup might run afoul of regulations regarding portfolio concentration
- ▶ How portfolio managers handle index reconstitutions or other changes to the benchmark
- ▶ How portfolio managers attempt to minimize trading costs
- ▶ Techniques, such as securities lending, aimed at improving tracking performance. If the manager has a securities-lending program, we scrutinize the associated policies pertaining to revenue sharing, maximum loan amounts, and collateralization of securities loans
- ▶ The fund's distribution policy and how cash drag is minimized
- ▶ The creation and redemption process. In the case of ETFs, we want to understand the portfolio manager's approach to managing creations and redemptions of new fund shares.
- ▶ In the case of ETFs, we also examine portfolio managers' relationships with the funds' authorized participants and market makers.
- ▶ Pricing mechanisms employed by index funds' managers to mitigate the effects of dilution
- ▶ The frequency and magnitude of capital gains distributions
- ▶ The magnitude, volatility, and underlying drivers of ETFs' premiums and discounts to net asset value

## Parent

Our Parent rating for index funds and ETFs is identical to those for actively managed funds from the same parent firm. This is because our parent-level assessment takes a holistic view of an asset manager's operations, culture, fees, and so on.

### *Issues we consider:*

- ▶ How the firm is organized, its ownership structure, and the makeup of its equity ownership
- ▶ Whether the firm has adequate resources to support its offerings – trading, research, technology, and so on
- ▶ The quality of the fund offerings across the firm
- ▶ The firm's ability to retain managers and analysts
- ▶ The firm's record with respect to handling manager transitions
- ▶ The firm's growth plans
- ▶ The firm's product development philosophy and its track record in launching new funds and shuttering unsuccessful ones
- ▶ Whether compensation policies align managers' interests with shareholders'
- ▶ Expense ratios
- ▶ The firm's overall level of transparency, especially in its communications with shareholders

## Performance

We examine index mutual funds' and ETFs' performance through two separate lenses. We first assess these funds' performance relative to their peers in their respective Morningstar Categories. We then focus on tracking efficiency. High-fidelity tracking performance is requisite for index-tracking funds.

We view index funds and ETFs as valid alternatives to actively managed funds. Reasonably priced index funds and ETFs can be tough competition for active managers. Studies have shown that many active managers, particularly those burdened by high fees, have a tough time beating inexpensive index funds and ETFs over time. As such, competitively priced index funds and ETFs that track broad-based benchmarks representative of the opportunity set available to their active category peers will generally earn high marks for performance.

We build our analysis of past and prospective performance on top of our thorough understanding of the relevant index's construction methodology, as the index's makeup will ultimately dictate the risk/return profile of the fund. For example, if the index includes more small caps than competing active funds, the fund will likely underperform during periods when small caps are out of favor. Such a fund is also likely to experience more volatility.

We note that in some cases it can be difficult to assess index funds' and ETFs' tracking efficiency with precision. This is especially difficult in those instances where index values are based on closing market prices while funds set their NAVs at different times of the day, depending on the prevailing practices in the country and time zone. In these cases, analysts will assess these funds' tracking performance using alternative means (for example, custom benchmarks).

*Issues we consider:*

- ▶ How the fund has performed relative to other funds in its Morningstar Category
- ▶ How the fund has fared relative to its peers in different market conditions
- ▶ The fund's volatility relative to its category peers
- ▶ How well the fund has tracked its benchmark over time
- ▶ Whether the fund's performance has benefited or been hindered by market cap, sector, or country biases
- ▶ How the fund has performed relative to other similar index funds and ETFs

## Price

The premise of indexing is predicated on low costs, so this is a key pillar in our analysis of index funds and ETFs. To succeed, index funds and ETFs must have a substantial cost advantage over competing active funds. The best index funds and ETFs are often the cheapest, so we favor those funds that have lower expense ratios over other index funds and ETFs in the same category. Where applicable, we include other less-visible costs in our assessment of fees. Examples of such costs include acquired fund fees and swap costs.

*Issues to consider:*

- ▶ How the fund's expense ratio compares with the median fee levied by its peers in its Morningstar Category
- ▶ How the fund's expense ratio compares with other index funds and ETFs
- ▶ Trading costs. In the case of ETFs, we examine historical bid/ask spreads, premiums/discounts, and market-impact costs. Given that these figures tend to be small within our universe of rated funds and that we assume they will be amortized over a long holding period, they are not a material component of our assessment. ■■