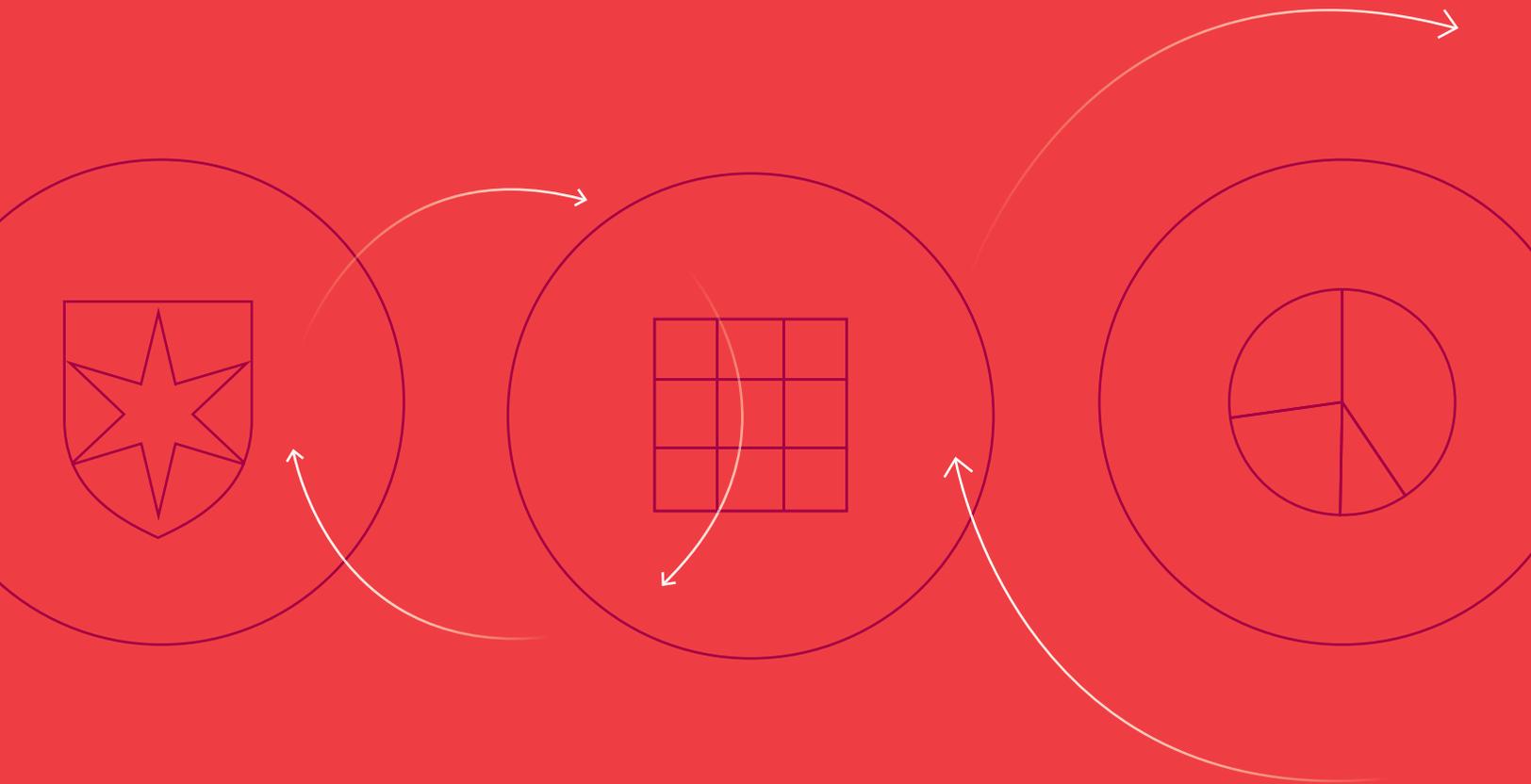


Morningstar Investment Management **Manager Selection**



The Morningstar Difference: Manager Selection

Investment manager quality is a critical component of a portfolio's investment success. Poor choice of managers can undermine the best investment policy. Morningstar, Inc. has framed much of the conversation about analyzing and evaluating investment managers, by developing tools, formulating statistics, and publishing research to help investors.

Using this work as a foundation, the Morningstar Investment Management group's manager selection team defines a select group of quality managers to fill portfolio needs. Our team uses proprietary investment screening and analysis based on extensive research, insight, and in-depth due diligence.

We build upon the strengths of Morningstar, Inc.'s information: independent investment research, data, and tools. From that foundation, our advice is formed from our own quantitative measures and the qualitative analysis of our investment professionals.

Advice

Morningstar Investment Management



Advice and other investment advisory services are provided by the registered investment advisors within the Morningstar Investment Management group, which include Morningstar Associates, LLC, Ibbotson Associates, Inc., and Morningstar Investment Services, Inc., all wholly owned subsidiaries of Morningstar, Inc.

Using the Deep Resources of Morningstar, Inc.

We draw on Morningstar, Inc.'s deep data and analytical resources, combining proprietary quantitative and qualitative assessments to identify managers we believe can serve investors for the long term. Our investment professionals begin by tapping the wealth of information in the extensive Morningstar, Inc. investment database, which covers hundreds of thousands of investment offerings globally, including mutual funds offered to the U.S. and overseas markets, closed-end funds, variable annuities, separate accounts, exchange-traded funds, individual stocks, and hedge funds.

Beyond developing rich data resources and insightful quantitative techniques, our colleagues in manager research at Morningstar, Inc. have pioneered qualitative analysis and established proprietary data points to

evaluate investment managers. The Morningstar Rating™ for funds is a quantitative, backward-looking measure, while the Morningstar Analyst Rating™ is a qualitative, forward-looking measure. The analysts evaluate five key pillars we believe are crucial to predicting the future success of a fund: people, process, parent, performance, and price.

The investment professionals of the Morningstar Investment Management group's manager selection team, who are employed by a registered investment advisor, build on these ratings. We use our industry expertise and insights into the specific investment objective under consideration to evaluate managers and determine whether an investment is suitable for a portfolio. We also assess, using similar criteria, investment strategies and product types

Data Points Analyzed



People

- ▶ Review of the investment management team
- ▶ Manager interviews
- ▶ Manager tenure
- ▶ Manager record on other offerings



Process

- ▶ Investment philosophy and process review
- ▶ Investment style
- ▶ Style consistency
- ▶ Asset class exposure
- ▶ Fund size
- ▶ Manager role
- ▶ Holdings overlap



Parent

- ▶ Review of organization
- ▶ Review of compliance and litigation



Performance

- ▶ Risk-return profile
- ▶ Risk-adjusted performance
- ▶ Performance consistency
- ▶ Alpha
- ▶ Tracking error
- ▶ Information ratio
- ▶ Rolling-period relative performance
- ▶ Calendar year performance
- ▶ Volatility
- ▶ Up- and down-capture ratios



Price

- ▶ Expenses

Refining the Investment Universe

Using the work done by the Morningstar, Inc. manager research team as a foundation, we perform a comprehensive review of the universe of investment options, using several key screening techniques. Then, employing established criteria, we categorize investments and focus on a shorter list of managers we think represent solid prospects.

Our credentialed investment team has years of experience evaluating investment managers, articulating the nuances of different styles, comparing managerial track records, and determining how an investment will fit into a portfolio. Some of the screens we apply to funds in the universe include:

Holdings-Based Analysis

Here, our team uses the vast holdings-based database of Morningstar, Inc. to uncover the relevant characteristics of each investment and identify its true investment style. For instance, this helps us classify an equity investment option by market capitalization and style orientation. We can then use our proprietary style consistency score to measure a manager's style drift. This provides insight on two key factors:

True investment style— Few portfolios, even indexed strategies, are stylistically pure, so considering the underlying holdings helps us appreciate the range of style an investment may display.

How managers will work in combination— We seek to select managers whose holdings complement each other for an efficient and effective portfolio that minimizes overlap and maximizes diversification; when combined, the managers help accomplish the objective of the investment strategy.

Quantitative Analysis

Our team conducts a comprehensive quantitative review using current and historical data points of each investment option. This helps ensure that the investment style and structure of the investment are a good fit for the intended role.

We also review the investment's performance from the manager's start date to assess alpha, the excess return over the benchmark an investment manager provides; tracking error, how much the investment manager deviates from the benchmark; and rolling category rankings, which compare the fund to the peer group and benchmark to measure a manager's ability to generate alpha in different market environments.

In appropriate cases when building a portfolio, our investment professionals will also perform returns-based style analysis, which classifies investments based on their performance relative to a number of passive benchmarks, to create custom peer groups for measuring pure alpha, tracking error, and style consistency.

Qualitative Analysis

Our team performs qualitative analysis on the investment options to help ensure that they exhibit sustainable competitive advantages, giving us confidence in their long-term prospects. Among the items we review are: the organization, for strength and stability; compliance and litigation, to ensure a professional and ethical operation; the investment management team, for the qualifications, experience, and depth of talent; and investment philosophy and process, to assess whether the manager follows a consistent, disciplined process.

Our Process is Built on Our Experience



ETF Selection

We also perform due diligence and selection on exchange-traded funds. As with our selection of other mutual funds and strategies, our process begins with the 11,000 exchange-traded products in the Morningstar, Inc., database and includes the analysis of Morningstar, Inc.'s ETF analyst team.

Our analysts perform qualitative work that can't be found in an automated solution. ETFs are often less expensive than their open-ended mutual fund counterparts, but assessing them has to go beyond this fact. We closely examine the risk characteristics that define ETFs—including tracking error, trading volume, bid/ask spread, and premium/discount—to help ensure the goals are realistic and the liquidity is what we expect. As with other funds, we tend to assess ETFs strategically within a portfolio context to achieve access to a particular market segment or sub-asset class. Because ETFs often have a narrower focus than other types of funds, they can be a valuable addition to many portfolios.

Ongoing Oversight and Due Diligence

Manager selection is an ongoing process. The Morningstar Investment Management groups's manager selection team periodically updates its evaluation of managers as new information becomes available, investment objectives change, or evaluations from the Morningstar, Inc., research team are revised. This ongoing monitoring ensures that funds continue to meet investment style and performance expectations and to confirm our assessment of other

qualitative factors. The criteria that might cause us to place an investment on a watch list or remove it include:

- ▶ Deterioration of performance
- ▶ Style drift
- ▶ Securities held outside mandate
- ▶ Change in investment philosophy or process
- ▶ Manager turnover
- ▶ Compliance and/or regulatory issues

Our Investment Professionals

Our team, like our counterparts on the Morningstar, Inc. manager research team, has unparalleled access to managers. Because of who we are and the brand we've built, managers are eager to talk with us.

This means we are able to get the story behind the data to learn what issues matter most in the context of the needs of our clients. We apply our expertise, drawing on years of experience, to analyze what's behind things such as style drifts, ongoing performance issues, or even potential manager changes. We set expectations about how a fund is likely to perform in a portfolio, and continually check to ensure we still have confidence in the fund's ability to sustain this performance. This isn't analysis that can be found in a tool or online. The human element matters.

About the Morningstar Investment Management Group

The Morningstar Investment Management group, through its registered investment advisor entities, creates custom investment solutions that combine award-winning research with proprietary Morningstar, Inc. data. The Investment Management group provides retirement, investment advisory, and portfolio management services for financial institutions, plan sponsors, and financial advisors around the world. Learn more about investment advisory services from the Morningstar Investment Management group:

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