



Morningstar Research Services LLC Form ADV Part 2A: Firm Brochure

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This brochure provides information about the qualifications and business practices of Morningstar Research Services LLC. If you have any questions about the contents of this brochure, please contact us at (312) 696-6000 or send an email to compliance@morningstar.com. The information in this brochure has not been approved or verified by the United States Securities and Exchange Commission or by any state securities authority.

Additional information about Morningstar Research Services LLC also is available on the SEC’s website at www.adviserinfo.sec.gov.

Morningstar Research Services, LLC is registered with the United States Securities and Exchange Commission as a Registered Investment Adviser. Registration with the Securities and Exchange Commission does not imply a certain level of skill or training. Please retain this brochure for future reference.

Item 2. Material Changes

This amendment to Part 2A of Form ADV dated March 12, 2020 contains the following material change since the firm’s last Part 2A Form ADV filing dated November 11, 2019:

Item 4. Advisory Business, Item 5. Fees and Compensation, and Item 8. Method of Analysis, Investment Strategies, and Risk of Loss were updated to include Due Diligence Tools.

Item 5. Fees and Compensation was also updated to reflect current fees and billing practices.

Item 8. Methods of Analysis, Investment Strategies, and Risk of Loss was also updated to provide additional information about our Pillar evaluation process and the “Not Ratable” designation was removed from the Morningstar Analyst Rating and the Morningstar Quantitative Rating.

Item 10. Other Financial Industry Activities and Affiliates was updated to reflect Morningstar, Inc’s acquisition of DBRS, a credit rating agency, and its integration with Morningstar Credit Ratings, LLC under the brand name DBRS Morningstar.

Item 3. Table of Contents

Advisory Business	1
Fees and Compensation	2
Performance-Based Fees and Side-by-Side Management	4
Types of Clients	4
Methods of Analysis, Investment Strategies and Risk of Loss	4
Disciplinary Information	7
Other Financial Industry Activities and Affiliations	7
Code of Ethics, Participation or Interest in Client Transactions & Personal Trading	9
Brokerage Practices	10
Review of Accounts	10
Client Referrals and Other Compensation	12
Custody	12
Investment Discretion	12
Voting Client Securities	12
Financial Information	12

Item 4. Advisory Business

A. Firm

Morningstar Research Services LLC is a Delaware limited liability company formed in 2016, and is a wholly owned subsidiary of Morningstar, Inc. (“Morningstar”). Morningstar is a publicly traded company (NASDAQ Ticker: MORN) with Mr. Joseph Mansueto, Executive Chairman of Morningstar, holding more than 49% of Morningstar’s outstanding shares. Because of that ownership, Mr. Mansueto is an indirect owner of Morningstar Research Services.

Morningstar Research Services is registered with the United States Securities and Exchange Commission (“SEC”) under Section 203(c) of the Investment Advisers Act of 1940, as amended. Morningstar Research Services consists primarily of investment professionals that were previously part of Morningstar’s U.S.-based manager and equity research teams. Morningstar’s manager and equity research teams have been producing investment research since 1986 and 1999 respectively.

B. Services - Overview

Investment Research Reports

Our core offering is the production of investment research reports on equity securities, mutual funds, exchange-traded funds, and separately managed accounts (“Investment Research Reports”). Investment Research Reports are prepared **without** taking into consideration any investor or investor’s specific facts and circumstances and thus are generic/impersonal investment advice intended to be educational in nature and for user’s research purposes.

Our Investment Research Reports or excerpts from them are distributed in two primary ways: (1) through Morningstar’s software products (e.g., Morningstar Direct), newsletters, and Morningstar branded websites (e.g., www.morningstar.com) (collectively “Distribution through Morningstar”); and (2) through license agreements directly with non-affiliated financial institutions including broker/dealer firms, banks, insurance companies, and investment advisory firms and media platforms (“License Arrangements”).

Our core investment research offerings include the following:

1. *Equity Research Reports*

- We produce investment research reports with qualitative analysis on primarily North American equity securities. Our equity analysts utilize a proprietary discounted cash flow model as part of their evaluation of a security and their determination of its fair value estimate of the security’s stock. See Item 8 below for details.

2. *Manager Research Reports*

- We produce investment research reports with qualitative analysis on certain open-end and closed-end mutual funds, exchange-traded funds (ETF), and separately managed accounts (“Fund” or collectively, “Funds”). The cornerstone of our qualitative investment research is the determination of a Fund’s Morningstar Analyst Rating™. See Item 8 below for more details.

Investment Consulting

We provide investment consulting services to affiliated registered investment advisers (“Affiliated Clients”) as well as non-affiliated financial institutions including broker/dealer firms, banks, insurance companies, and investment advisory firms (“Non-Affiliated Clients”). These investment consulting services are provided on a non-

discretionary basis; with the Affiliated and Non-Affiliated Clients (collectively "Institutional Clients") having final decision-making authority on whether to follow our recommendation(s) or not.

Our core investment consulting services, either on a stand-alone basis or in combination, are the following:

1. *Due Diligence*

- a. We apply quantitative screens and qualitative analysis to evaluate investment managers with the end goal of identifying those we believe would be appropriate for an Institutional Client to consider given their stated objective/purpose. See Item 8 below for details.
- b. In addition to identifying investment managers, we often are required to provide a written analysis on each investment manager including our rationale for recommending them.
- c. At the Institutional Client's discretion, we may be engaged to provide on-going monitoring. This on-going monitoring typically includes our periodically applying quantitative screens and qualitative analysis and when need be, recommending a change or changes to what we initially recommended to the Institutional Client. This is often supplemented with a written document detailing our rationale for such a change(s). Institutional Clients have the final decision-making authority as to whether to accept our recommendation or not and, if accept, the timing of when the changes are to occur.

2. *Fund Selection*

- a. We analyze an investment universe as defined by an Institutional Client and create a list of Funds (e.g., open-end mutual funds, exchange-traded funds and/or separately managed accounts) that meets the Institutional Client's specific criteria (e.g., certain performance level over a five-year period, tenure of portfolio manager). The list of Funds is typically used by the Institutional Client in providing investment advice to their clients. A given list is typically broken down by asset class and for each asset class, the identification of two to five Funds that have passed our quantitative screens and qualitative analysis. See Item 8 below for details. In engagements with Unaffiliated Clients, the list of Funds under each asset class may require that a certain number of them be their proprietary open-end mutual funds and/or exchange-traded funds. If such requirement is present, the Unaffiliated Client is responsible for communicating such constraint to its clients.
- b. In addition to identifying Funds, we often are requested to provide a written analysis on each Fund including our rationale for recommending it.
- c. At the Institutional Client's discretion, we may also be engaged to perform on-going monitoring. This on-going monitoring typically includes periodically applying quantitative screens and qualitative analysis against the defined investment universe and when need be, recommending a change or changes that the Institutional Client may want to consider. In addition to recommending Funds, we often are required to provide a written analysis on our rationale for making such recommendation. The Institutional Client has the final decision-making authority

as to accepting our recommendation or not and, if accepted, the timing of when the changes are to occur.

Ancillary Services

1. *Newsletter Content*

We provide content for two newsletters (1) FundInvestor and (2) ETFInvestor distributed by Morningstar. The purpose of these newsletters is to provide subscribers education/information on an investment topic or topics as well as data, statistics and written analysis on a specific fund(s) and/or ETF(s).

2. *Other Commentaries/Reports*

- a. We prepare commentaries such as market outlooks, sector outlooks, industry reports, and thematic research as well as various other types of reports that are a more condensed/targeted format than what is in our standard investment research reports. Such commentaries and reports are available through Morningstar's software products, newsletters and Morningstar branded websites. The goal of these commentaries and reports is to provide readers with education/information. Our analysts also participate in videos produced by Morningstar and made available through Morningstar's branded websites and platforms.

3. *Analyst Access*

- a. Institutional Clients are given the ability to interact with our analysts about their published investment research (referred to hereafter as "Analyst Access"). During such conversations, the analyst:
 - i. Answers questions pertaining to the content of their published research;
 - ii. Clarifies points made within their published research;
 - iii. Provides insight into the analyst's research process;
 - iv. Reiterates the analysis/opinions made within the published research; and
 - v. Provides their opinions on a given market sector or sectors.

4. *Due Diligence Tools*

- a. To assist with an Institutional Client's internal research team's processes and workflows for fund selection and monitoring, we prepare a custom suite of reports to help teams evaluate funds and operate more efficiently. Scorecards use objective and data-driven methods to rank funds based on formulas that aggregate many of the important characteristics that drive a fund's performance, as determined by Morningstar's research analysts. The Scorecards are delivered with updated data each month, using a client's preferred file type and location. Additional summary reports that assist with the due diligence process include Screens (a report that lists high-quality investments for different strategies and goals, according to Morningstar's research analysts), Alerts (a report that captures material changes and supports the monitoring workflow for a custom list of investments), and Red Flags (a report that captures warning signs and supports the monitoring workflow for a custom list of investments).

C. Customized Services

At an Institutional Client's request, we will take under consideration a request to provide them a customized version of the above services or a different type of advisory services that would utilize our investment research, due diligence, and fund selection expertise. Given the customized nature, the Institutional Client may impose constraints/restrictions on such things as security types, asset classes, or proprietary

Fund requirements and/or wish to collaborate with us on such things as investment methodology and screening criteria.

D. Wrap Fee Programs

We do not sponsor a wrap fee program, nor do we provide portfolio management services to a wrap fee program.

E. Assets Under Management

Given the nature of our services, we do not have assets under management.

Item 5. Fees and Compensation

A. Fees and Compensation

For our **Investment Research Reports**, our compensation is generally structured in the following way:

1. Equity Research Reports

- a. With respect to Distribution through Morningstar, we do not charge a separate fee to a subscriber of Morningstar's software or websites to access our qualitative report on equity securities. The subscription fee charged to subscribers of Morningstar's software and/or websites not only includes access to such reports, but access to Morningstar's data, statistics, tools and general educational materials as well. That subscription fee is determined, billed and received by Morningstar. We do not receive a fee from Morningstar for subscriber's access to our qualitative reports.
- b. With respect to License Arrangements, fees are negotiable, but generally starts at \$500 per authorized user annually. The actual amount charged depends on a range of variables including the number of users it wishes to have available to our investment research, the number of securities they wish to receive investment research reports on, the inclusion or exclusion of the analyst access service, the degree of customizations (e.g., translated in other languages), and the client's assets under management. The fee is typically charged quarterly in advance. In other instances, fees are based on the percentage of gross revenue received related to the use of an Equity Research Report. These fees are typically 10% of gross revenue and are charged quarterly in arrears. If, in accordance with contractual terms, the institutional client terminates the License Arrangement they have with us prior to the end of the billing period, we may refund any unearned fees on a pro rata basis after the termination of the contract. In addition to the fee, payment terms and payment schedules are negotiable.
- c. In certain cases, Non-Affiliated Clients may determine what to pay us for our Equity Research Reports by using a 'broker vote' process. That process is where we receive remuneration for our investment research and analyst access services based on its perceived value as determined by the institutional investor's representatives. Actual remuneration is determined by the institutional investor, is typically received in arrears and is paid to us by the institutional investor's broker(s) at intervals they and/or their broker determine.

2. Manager Research Reports

- a. With respect to Distribution through Morningstar, we do not charge a separate fee to a subscriber of Morningstar's

software or websites to access our manager research reports. The subscription fee charged to subscribers of Morningstar's software and/or websites not only includes access to such reports, but access to Morningstar's data, statistics, tools and general educational materials as well. That subscription fee is determined, billed and received by Morningstar. We do not receive a fee from Morningstar for subscriber's access to our manager research reports.

- b. With respect to License Arrangements, fees are negotiable, but generally starts at \$500 per authorized user annually. The actual amount charged to the institutional client depends on a range of variables including the number of users they wish to have access to our investment research, the type of client they wish to redistribute our research to, the number of Funds they wish to receive investment research reports on, the inclusion or exclusion of the analyst access service, the degree of customizations (e.g., translated in other languages), and the client's assets under management. The fee is typically charged quarterly in advance. If, in accordance with contractual terms, the institutional client terminates the License Arrangement they have with us prior to the end of the billing period, we may refund any unearned fees on a pro rata basis after the termination of the contract. In addition to the fee, payment terms and payment schedules are negotiable.

For **Investment Consulting**, our compensation is the following:

1. Due Diligence

- a. Fees are negotiable, but typically starts at \$3,000 per investment manager reviewed. The actual amount charged to a Non-Affiliated Client depends on a range of variables including their intended use, the number of investment managers they wish to have reviewed, the type of reporting they wish to receive from us, the degree of customizations or constraints they wish to place on us, and whether they want us to provide on-going monitoring services. The fee is typically charged quarterly in advance. If, in accordance with contractual terms, the Non-Affiliated Client terminates the License Arrangement prior to the end of the billing period, we may refund any unearned fees on a pro rata basis after the termination of the contract. In addition to the fee, payment terms and payment schedules are negotiable. Fees in connection with services provided to Affiliated Clients are typically governed by an intercompany agreement and is often lower than the above stated amount.

2. Fund Selection

- a. Fees are negotiable, but typically starts at \$50,000 per list annually. The actual amount charged to a Non-Affiliated Client depends on a range of variables including their intended use, the number and type of asset classes they wish the list to cover, the number and type of Funds they wish the list to have, the type of reporting they wish to receive from us, the degree of customizations or constraints they wish to place on us, and whether they want us to provide on-going monitoring services. The fee is typically charged quarterly in advance. In instances where our Fund Selection services are used as an input for an Institutional Client's financial product, basis point fees are charged. Basis point fees are charged quarterly in arrears, and typically start at 15-20 bps annually. If, in accordance with contractual terms, the Non-Affiliated Client terminates the License Arrangement prior to the end of the billing period, we may refund any unearned fees on a pro rata basis after the termination of the contract. In addition to the fee, payment

terms and payment schedules are negotiable. Fees in connection with services provided to Affiliated Clients are typically governed by an intercompany agreement and is often lower than the above stated amount.

For **Ancillary Services:**

1. *Newsletters*
 - a. We do not charge a separate fee to the subscribers of Morningstar's Newsletters to access our written analysis of other commentaries/reports. The subscription fee for the FundInvestor and ETFInvestor newsletters is determined, billed and received by Morningstar. We do not receive a fee from Morningstar for subscriber's access to our commentaries/reports.
2. *Other Commentaries/Reports*
 - a. We do not charge a separate fee to Morningstar's software or websites subscribers to access our other commentaries/reports. The subscription fee charged to subscribers of Morningstar's software and/or websites not only includes access to such commentaries/reports, but access to Morningstar's data, statistics, tools and general educational materials as well. That subscription fee is determined, billed and received by Morningstar. We do not receive a fee from Morningstar for subscriber's access to our commentaries/reports.
3. *Analyst Access*
 - a. *Equity Analysts*
 - i. Licensed Agreements – compensation for granting access to our equity analysts is negotiable and is included in the per user charge as referred to in 1(b) of Section A of Fees and Compensation above. In 'broker vote' cases, remuneration paid by the institutional investor includes their perceived value in having access to our equity analysts.
 - b. *Manager Research Analysts*
 - i. Licensed Agreements – compensation for granting access to our manager research analysts is negotiable and is included in the per user charge as referred to in 2(b) of Section A of Fees and Compensation above.
4. *Due Diligence Tools*
 - a. With respect to License Arrangements, fees are negotiable, but generally starts at \$20,000 annually. The actual amount charged depends on a range of variables including the number of users with access, how the tools will be used, and how the reports will be distributed. The fee is typically charged quarterly in advance. If, in accordance with contractual terms, the institutional client terminates the License Arrangement they have with us prior to the end of the billing period, we may refund any unearned fees on a pro rata basis after the termination of the contract. In addition to the fee, payment terms and payment schedules are negotiable.

For **Customized Services:**

Fees for a customized version of the above services or a different type of advisory services that would utilize our investment research, due diligence, fund selection expertise are negotiable. In negotiating with an institutional investor, the actual amount charged depends on a range of variables including the type of service being sought, the type of securities involved (e.g., equities or Funds), the

intended purpose for our service, the type of output being sought from us, the intended use of the Morningstar name. In addition to the fee, payment terms and payment schedules are negotiable.

B. Payment

Payments, payment terms and payment schedules are negotiable and governed by the contractual agreement with the Non-Affiliated Clients. Other than Affiliated Clients, we typically send an invoice on a quarterly basis, although in some instances, we may bill monthly or annually. For our Affiliated Clients, fees are charged through an intercompany charge.

C. Other Costs in Connection with our Advisory Services

The above noted fees are separate from fees and expenses one may incur if followed our recommendations. For example, investors in an equity security will be subject to brokerage/transaction costs and custodian fees or expenses whereas investors of open-end funds and exchange-traded funds will be subject to fees and expenses as described in their prospectus including management fee, operating expenses, distribution charges including 12b-1 fees and for open-end mutual fund, sales charges (e.g., front-end sales loads) and for exchange-traded funds brokerage/transaction costs.

D. Charging Fees in Advance

If, in accordance with contractual terms, the institutional client terminates their contract prior to the end of the billing period, we may refund any unearned fees on a pro rata basis after the termination of the contract.

E. Compensation from Sales of Securities

We do not expect, accept or receive compensation for the sale of securities that are the subject of our Investment Research Reports.

F. Revenue Sharing Arrangements

We do not have any revenue sharing arrangements with any registered investment advisers or mutual funds.

Item 6. Performance-Based Fees and Side-by-Side Management

We do not have performance-based fee arrangements with any qualified client pursuant to Rule 205-3 under the Investment Advisers Act of 1940, as amended.

Item 7. Types of Clients

The type of client to whom we generally provide investment advice to are financial institutions as more fully explained in Item 4 above many of whom are themselves registered and governed by a regulatory body.

Item 8. Methods of Analysis, Investment Strategies and Risk of Loss

Investment Research Reports

Analysis Performed on Equities

At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process. Moreover, we think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (e.g., mines), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price

movements), but we believe these negatives are mitigated by deep analysis and our long-term approach.

We believe that a company's intrinsic worth results from the future cash flows it can generate. The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic worth—or fair value estimate, in Morningstar terminology. Five-star stocks sell for the biggest risk-adjusted discount to their fair values, whereas 1-star stocks trade at premiums to their intrinsic worth.

Four key components drive the Morningstar rating: (1) our assessment of the firm's economic moat, (2) our estimate of the stock's fair value, (3) our uncertainty around that fair value estimate and (4) the current market price. This process ultimately culminates in our single-point star rating.

1. **Economic Moat**

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period. 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.

To assess the sustainability of excess profits, analysts perform ongoing assessments of the *moat trend*. A firm's moat trend is *positive* in cases where we think its sources of competitive advantage are growing stronger; *stable* where we don't anticipate changes to competitive advantages over the next several years; or *negative* when we see signs of deterioration.

2. **Estimated Fair Value**

Combining our analysts' financial forecasts with the firm's economic moat helps us assess how long returns on invested capital are likely to exceed the firm's cost of capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period than the returns of narrow-moat firms, and both will fade slower than no-moat firms, increasing our estimate of their intrinsic value.

Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return to all capital providers—we discount future cash flows using a weighted average of the costs of equity, debt, and preferred stock (and any other funding sources), using expected future proportionate long-term, market-value weights.

3. **Uncertainty around that fair value estimate**

Our Uncertainty Rating is intended to capture a range of likely potential intrinsic values for a company and we use it to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the Fair Value Estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, and other company-specific factors.

Our Uncertainty Ratings for our qualitative analysis are low, medium, high, very high, and extreme.

- **Low** – margin of safety for 5-star rating is a 20% discount and for 1-star rating is 25% premium.
- **Medium** – margin of safety for 5-star rating is a 30% discount and for 1-star rating is 35% premium.
- **High** – margin of safety for 5-star rating is a 40% discount and for 1-star rating is 55% premium.
- **Very High** – margin of safety for 5-star rating is a 50% discount and for 1-star rating is 75% premium.
- **Extreme** – margin of safety for 5-star rating is a 75% and for a 1-star rating is 300% premium.

Morningstar Star Rating for Stocks

Once we determine the fair value estimate of a stock, we compare it with the stock's current market price daily, and the star rating is automatically re-calculated at the market close on every day the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow, and, based on thorough and ongoing analysis, raise or lower their fair value estimates as warranted.

Please note, there is no predefined distribution of stars. That is, the percentage of stocks that earn 5 stars can fluctuate daily, so the star ratings, in the aggregate, can serve as a gauge of the broader market's valuation. When there are many 5-star stocks, the stock market is more undervalued, in our opinion, than when very few companies garner our highest rating.

We expect that if our base-case assumptions are true the market price will converge on our fair value estimate over time, generally within three years (although it is impossible to predict the exact time frame in which market prices may adjust).

The Morningstar Star Ratings for stocks are defined below:

Five-Stars -- We believe appreciation beyond a fair risk-adjusted return is highly likely over a multiyear time frame. Scenario analysis developed by our analysts indicates that the current market price represents an excessively pessimistic outlook, limiting downside risk and maximizing upside potential.

Four-stars -- We believe appreciation beyond a fair risk-adjusted return is likely.

Three-stars -- Indicates our belief that investors are likely to receive a fair risk-adjusted return (approximately cost of equity).

Two-stars -- We believe investors are likely to receive a less than fair risk-adjusted return.

One-star -- Indicates a high probability of undesirable risk-adjusted returns from the current market price over a multiyear time frame, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

For more detail information about our methodology, please go to www.global.morningstar.com/equitydisclosures.

Analysis Performed on Mutual Funds and Exchange-Traded Funds

The cornerstone of our investment research of mutual funds and exchange-traded funds is the Morningstar Analyst Rating™ and the Morningstar Quantitative Rating™

The Morningstar Analyst Rating for Funds and the Morningstar Quantitative Rating are forward-looking analyses of a fund. The Ratings do not express a view on a given asset class or peer group; rather, they seek to evaluate each fund within the context of its objective, an appropriate benchmark, and/or peer group.

Morningstar Analyst Rating™

We have identified three key areas that we believe are crucial to predicting the future success of funds before fees: *People, Parent, and Process*. 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.

The Morningstar Analyst Rating methodology was updated in 2019. For all funds rated on or after November 1, 2019:

- For actively managed strategies, people and process each receive a 45% weighting in their analysis, while parent receives a 10% weighting.
- For passive strategies, process receives an 80% weighting, while people and parent each receive a 10% weighting.
- For both active and passive strategies, performance has no explicit weight as it is incorporated into the analysis of people and process; price at the share-class level (where applicable) is directly subtracted from an expected gross alpha estimate derived from the analysis of the other pillars.
- The impact of the weighted pillar scores for people, process and parent on the final Analyst Rating is further modified by a measure of the dispersion of historical alphas among relevant peers.
- For certain peer groups where standard benchmarking is not applicable, the modification by alpha dispersion is not used.

People Pillar

The overall quality of a fund's investment team is a significant key to its ability to deliver superior performance relative to its benchmark and/or peers. Evaluating a fund's investment team requires that analysts assess, among other things, the individuals who make the key decisions on the portfolio; if there is more than one person in charge; how conflicts are resolved; resources that directly support the managers' work on the strategy; other resources that are not part of the team; the expertise and relevance of available resources to the strategy; and how incentive pay influences decision-making and team stability. Relevant personnel are judged along experience and ability, fit and structure, workload, communication/information flow, temperament, alignment of interests, key-person risk, and team stability.

Process Pillar

Our analysts are style-agnostic, meaning that, for equity strategies, we do not prefer value to growth or momentum, or vice versa. For fixed-income strategies, both high-quality and credit-sensitive styles are viable. For multi-asset strategies, a wide range of approaches to asset allocation can succeed. We look for strategies with a performance objective and investment process (for both security selection and portfolio construction) that is sensible, clearly defined, and repeatable. It must also be implemented effectively. In addition, the portfolio should be constructed in a manner that is consistent with the investment process and performance objective. We seek to understand the context in which managers think about risk and how this is expressed when constructing the portfolio. Our analysts make extensive use of Morningstar's global database and holdings-based analytical capabilities to evaluate the portfolio. We look for strategies with a process distinctive enough to generate standout results in the future.

More specifically, we seek to understand:

- The investment philosophy that underpins the strategy;
- The key "edge" of the process as executed by the manager;
- Elements that are systematic and repeatable, if any;
- The fit of the process with the resources backing the strategy and with the size of the asset base tied to the strategy (including all vehicles across all domiciles);
- Whether the process has been consistently applied, as demonstrated by the composition of the portfolio over time;
- The risks entailed in the process, from a portfolio-bias point of view and from an ability-to-execute point of view;
- The managers' approach to risk management;
- Our expectations for performance in different market environments assuming the process is adhered to;
- Whether or not we believe the process can add value across the cycle versus the relevant benchmark or category on a risk-adjusted basis;
- The suitability of the strategy for different types of investors given the risks we would expect to see in its portfolio; and
- Any historical changes in approach or style, and the reasons for those changes.

Parent Pillar

We believe the parent organization is important in evaluating both active and passive funds. Although other factors may have more immediate impact, they would not be sustainable without backing from the asset-management firm. Further, the asset manager and its management set the tone for key elements of our evaluation, including capacity management, risk management, recruitment and retention of talent, and firmwide policies, such as incentive pay, that drive or impede the alignment of the firms' interests with those of fund investors.

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. The former tends to operate within their circle of competence, do a good job of aligning manager interests with those of investors in their funds, charge reasonable fees, communicate well with strategy investors, and treat investors' capital as if it were their own. Firms oriented to putting their own interests too much to the fore might be characterized by their view of investors as sales opportunities—they tend to offer faddish products in an attempt to gather assets and have higher charges and incentive programs that do a poor job of aligning managers' interests with those of investors. Although relatively few firms fall obviously at one extreme or another, determining where an asset manager falls on the spectrum is a key part of our parent research approach.

Key areas of evaluation include recruitment and retention of talent, organizational structure, capacity management, organizational and business strategy, quality of product lineup, alignment of interests with investors, regulatory compliance, and investment/group culture.

Performance Pillar

We do not believe past performance is necessarily predictive of future results. For funds rated prior to November 1, 2019, this factor received a relatively small weighting in our evaluation. For fund rated on or after November 1, 2019, this factor receives no explicit weighting in our analysis but is referenced instead in our evaluation of people and process. When considering past performance, we strive not to anchor on short-term results and instead focus on long-term return and risk patterns.

The broad principles behind our evaluation of performance are as follows:

- We should have clear expectations for performance in different market environments based on our analysis of the strategy's process and portfolio.
- These expectations are checked against actual performance in such environments.
- Trailing returns and calendar-year returns are of interest, but they are insufficient in themselves as they are end-point dependent and

somewhat arbitrary. We consider many periods and performance aspects to build as comprehensive a picture as possible.

- It is extremely important that performance be viewed within the context of risks taken, with a focus on downside risk.
- Performance is viewed relative to the standard index assigned to each strategy vehicle's Morningstar Category and category peers. Other benchmarks deemed of interest by the analyst and rating committee may also be considered.
- Performance attributions are evaluated to determine whether the sources of outperformance match our expectations and if they appear to be sustainable.
- Performance is reviewed in the context of notable changes in assets under management—specifically, if performance tails off as assets grow or if the bulk of outperformance came when a strategy was very small, it is cause for concern.

Price Pillar

Morningstar and independent academic research has shown that expenses are one of the better predictors of future outperformance even when evaluating net-of-fee returns. Given this, costs form a critical part of our analysis.

For funds rated prior to November 1, 2019, to reflect actual investor experience, price is evaluated within the context of the relevant market or cross-border region. In recognition of differences in scale and distribution costs in various markets, the level at which a fund is penalized for high fees or rewarded for low fees can vary with region. In Europe, for example, funds 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 annual expense ratios, but in the case of funds with performance fees, expenses are evaluated excluding any performance fees and then the structure of the performance fee is evaluated separately.

For funds rated on or after November 1, 2019, to accurately reflect investor experience, rated vehicles are directly penalized by the amount of their fee, inclusive of any performance fee charged, when we assign the rating. Fees are assessed at the level of the vehicle at which they are charged, in the case of open-end funds, for example, this occurs at the share-class level. Vehicles with multiple classes with different fees are therefore likely to have differentiated ratings reflecting the different impact of their fees on our expected net alpha.

Morningstar Quantitative Rating™

Morningstar's quantitative fund ratings consist of: (i) Morningstar Quantitative Rating (overall score), (ii) Quantitative Parent pillar, (iii) Quantitative People pillar, and (iv) Quantitative Process pillar, which are calculated monthly and derived from the analyst-driven ratings of a fund's peers as determined by statistical algorithms. Morningstar, Inc. calculates a Morningstar Quantitative Rating for a fund when an analyst rating does not exist as part of its qualitative coverage.

Morningstar Quantitative Rating (Overall Score)

Intended to be comparable to Morningstar's Analyst Ratings. Morningstar calculates the Morningstar Quantitative Rating using a statistical model derived from the Morningstar Analyst Rating our fund analysts assign to open-end funds and ETFs.

Quantitative People Pillar

Intended to be comparable to the People pillar scores, which provides our analyst's opinion on the fund manager's talent, tenure, and resources. The Quantitative People pillar is calculated using an algorithm designed to predict the People pillar score our fund analysts would assign to the fund. The quantitative rating is expressed as Positive, Neutral, or Negative.

Quantitative Parent Pillar

Intended to be comparable to the Parent pillar scores, which provides our analyst's opinion on the stewardship quality of a firm. The Quantitative Parent pillar is calculated using an algorithm designed to predict the Parent Pillar score our fund analysts would assign to the fund. The quantitative rating is expressed in both a rating and numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Quantitative Process Pillar

Intended to be comparable to the Process pillar scores, which provides our analyst's opinion on the fund's strategy and whether the management has a competitive advantage enabling it to execute the process and consistently over time. The Quantitative Process pillar is calculated using an algorithm designed to predict the Process pillar score our fund analysts would assign to the fund. The quantitative rating is expressed in both a rating and numerical value as High (5), Above Average (4), Average (3), Below Average (2), and Low (1).

Morningstar Analyst Ratings™ and Morningstar Quantitative 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 fund; the difference between them corresponds to differences in the level of analyst conviction in a fund's ability to outperform its benchmark and peers through time, within the context of the level of risk taken. Morningstar Analyst Ratings and Morningstar Quantitative Ratings are not made available to the issuer of the security prior to publication.

Morningstar Quantitative Ratings are also assigned on a five-tier scale running from Gold to Negative. The top three ratings, Gold, Silver, and Bronze, all indicate that the algorithm used to predict the score our fund analysts would have assigned to the fund calculated a rating of Gold, Silver, or Bronze. Like the Morningstar Analyst Rating, the difference between them corresponds to differences in the level of conviction in a fund's ability to outperform its benchmark and peers through time, within the context of the level of risk taken.

For funds who received a Morningstar Analyst Rating prior to November 1, 2019, ratings should be interpreted as follows:

Gold

Represents funds that our analyst has the highest conviction in for that given investment mandate. By giving a fund 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 fund must distinguish itself across the five pillars that are the basis for our analysis.

Silver

Represents funds our analyst has high conviction in, but not in all the five pillars. With those fundamental strengths, we expect these funds 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 funds that have advantages that clearly outweigh any disadvantages across the pillars, giving analyst the conviction to award them a positive rating. We expect these funds to beat their relevant performance benchmark and/or peer group within the context of the level of risk taken over a full market cycle (or at least five years).

Neutral

Represents funds in which our analysts don't have a strong positive or negative conviction. In our judgment, these funds 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 funds 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 funds 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 may also use one other designations in place of a rating:

Under Review

This designation means that a change that occurred with the fund or at the fund company requires further review to determine the impact on the rating.

For funds who received a Morningstar Analyst Rating on or after November 1, 2019, ratings should be interpreted as follows:

Gold

Represents our highest-conviction funds within their Morningstar categories. By giving a fund 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. To earn a Gold rating, a fund must distinguish itself across the pillars that are the basis for our analysis. Our evaluation of these funds in the context of the fees charged at the share-class level ranks them in the top 15% of all vehicles with expected positive net-of-fee alpha in their category for actively managed funds or relative to category median for passively managed funds.

Silver

Represents funds have a high conviction in, but not in all the pillars. With those fundamental strengths, we expect these funds will outperform their relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term. Our evaluation of these funds in the context of the fees charged at the share-class level ranks them in the next 35% of all vehicles with expected positive net-of-fee alpha in their category or relative to category median for passively managed funds.

Bronze

Represents funds that have advantages that clearly outweigh any disadvantages across the pillars, giving analyst the conviction to award them a positive rating. We expect these funds to beat their relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term. Our evaluation of these funds in the context of the fees charged at the share-class level ranks them in the bottom 50% of all vehicles with expected positive net-of-fee alpha in their category or relative to category median for passively managed funds.

Neutral

Represents funds in which our analysts don't have a strong positive or negative conviction. In our judgment, these funds are not likely to deliver standout returns, but they aren't likely to seriously underperform their relevant performance benchmark and/or peer group either. Our evaluation of these funds in the context of the fees charged at the share-class level ranks them in the top 70% of all vehicles with net-of-fee alpha less than or equal to zero in their category or relative to category median for passively managed funds.

Negative

Represents funds 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 funds 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 the long term. Our evaluation of these funds in the context of the fees charged at

the share-class level ranks them in the bottom 30% of all vehicles with expected net-of-fee alpha that is less than or equal to zero in their category or relative to category median for passively managed funds.

Morningstar may also use one other designations in place of a rating:

Under Review

This designation means that a change that occurred with the fund or at the fund company requires further review to determine the impact on the rating.

Special Cases

- Strategic beta funds are rated in the active distribution with passives' pillar weighting.
- Target date allocation offerings are ranked and rated by share class type instead of by individual share classes. Each class in a series consequently has the same rating. Target date ratings use actives' pillar weighting, and share classes are defined as having net-of-fees alpha above 0.
- Separately Managed Accounts (SMAs) are rated using the methodology for actively managed investments, but no fees are deducted as the fee paid by SMA investors is not known. To derive the rating, we rank the expected gross-of-fees alpha across all strategies to form the ratings distribution.
- Funds that are in categories with no clearly defined benchmark index (primarily alternatives categories) use a weighted pillar-sum score instead of alpha. Price is ranked across all share classes in a Morningstar category, then cut into quintiles. These are assigned a weight of 0.2 and subtracted from the previously calculated gross-of-fee weighted pillar score to obtain a net-of-fees Price pillar score. To obtain a Gold rating, funds in these categories must earn a High score for either the Process or People pillar and a Above Average score for the other of the two.

For more information about our Rating methodologies please go to <http://global.morningstar.com/managerdisclosures>

Morningstar Sustainability Rating™

The Morningstar Sustainability Rating™ is intended to measure how well the issuing companies of the securities within a fund's portfolio holdings are managing their financially material environmental, social and governance, or ESG, risks relative to the fund's Morningstar Global Category peers.

The Morningstar Sustainability Rating calculation is a five -step process. First, each fund with at least 67% of assets covered by a company-level ESG Risk Score from Sustainalytics receives a Morningstar Portfolio Sustainability Score. The Morningstar Portfolio Sustainability Score is an asset-weighted average of company-level ESG Risk Scores. The Portfolio Sustainability Score ranges between 0 to 100, with a higher score indicating that a fund has, on average, more of its assets invested in companies with high ESG Risk.

Second, the Historical Sustainability Score is an exponential weighted moving average of the Portfolio Sustainability Scores over the past 12 months. The process rescales the current Portfolio Sustainability Score to reflect the consistency of the scores. The Historical Sustainability Score ranges between 0 to 100, with a higher score indicating that a fund has, on average, more of its assets invested in companies with high ESG Risk, on a consistent historical basis.

Third, the Morningstar Sustainability Rating is then assigned to all scored funds within Morningstar Global Categories in which at least thirty (30) funds receive a Historical Sustainability Score and is determined by each fund's Morningstar Sustainability Rating Score rank within the following distribution:

- High (highest 10%)
- Above Average (next 22.5%)
- Average (next 35%)
- Below Average (next 22.5%) and
- Low (lowest 10%)

Fourth, we apply a 1% rating buffer from the previous month to increase rating stability. This means a fund must move 1% beyond the rating breakpoint to change ratings.

Fifth, we adjust downward positive Sustainability Ratings to funds with a high ESG Risk scores. The logic is as follows:

- If Portfolio Sustainability score is above 40, then the fund receives a Low Sustainability Rating
- If Portfolio Sustainability score is above 35 and preliminary rating is Average or better, then the fund is downgraded to Below Average
- If Portfolio Sustainability score is above 30 and preliminary rating is Above Average, then the fund is downgraded to Average
- If Portfolio Sustainability score is below 30, then no adjustment is made.

The Morningstar Sustainability Rating is depicted by globe icons where High equals 5 globes and Low equals 1 globe. Since a Sustainability Rating is assigned to all funds that meet the above criteria, the rating it is not limited to funds with explicit sustainable or responsible investment mandates.

Morningstar updates its Sustainability Ratings monthly. The Portfolio Sustainability Score is calculated when Morningstar receives a new portfolio. Then, the Historical Sustainability Score and the Sustainability Rating is calculated one month and six business days after the reported as-of date of the most recent portfolio. As part of the evaluation process, Morningstar uses Sustainalytics' ESG scores from the same month as the portfolio as-of date.

Investment Consulting

Manager Due Diligence Analysis Process

Our manager due diligence process is consistent with the process described in the below Fund Selection section.

Fund Selection

We begin the process by developing a *blueprint* in consultation with the Institutional Client. During this development phase, various items are determined including, but not limited to, the universe of Funds from which we are to choose from, the asset classes to be addressed, the number of Fund selections per asset class, the intended users of the list, and the intended account type (e.g., taxable or tax-deferred) Once the *blueprint* has been created, we apply quantitative screens (e.g., manager tenure, portfolio exposures, and risk and return characteristics) to the available investment universe to narrow the list. Funds passing those initial quantitative screens are then subject to a qualitative analysis. During that analysis, we are assessing each Fund on its own merits including looking at the Morningstar Analyst Rating assigned to it, giving preference to those that have a Gold, Silver, or Bronze Rating (see the *Analysis Performed on Mutual Funds and Exchange-Traded Funds* section above for details of the Morningstar Analyst Rating and process). During the qualitative analysis phases, we are also assessing how the Fund compares to other Funds in its asset class as well among all the asset classes paying attention to diversification of investment approach within each asset class and overall.

We monitor the Funds on a list typically on a quarterly basis following the same process used for the initial selection. Changes that we believe may negatively affect a Fund's long-term prospects will lead us to put that Fund on watch while we continue to monitor it. Generally, a Fund's watch period is two to four quarters at which point we will make a recommendation to remove the Fund from the select list or to take it off watch.

Scorecard Scoring Framework

Scorecards use a quantitative scoring framework to compare similar mutual funds and ETFs based on investment type, active/passive, and category using a variety of characteristics that we believe impact their risk-adjusted return potential. This information can be used by Institutional Clients to enhance their fund review

process and reflects the interrelationship of 12 data points that represent characteristics of a fund's process, performance, people, parent, and price. Since performance doesn't hinge on a single variable, our process combines interrelated factors using proprietary scoring models based on our five-pillar research framework and data-driven analysis. Scorecards are delivered monthly and include embedded screens, filters, and sorting tools to help navigate the results.

A fund's score is the result of aggregating 12 scoring factors using a weighted average calculation. In order to combine different scoring factors, raw data values are adjusted to percentile rankings to appear on the same scale. The percentile rankings multiplied by a weight assigned to each factor and the 12 factors are added together to calculate the fund's score. Once the fund's score is determined, it is ranked within its peer group, and the peer group's rankings are divided into quartiles.

Six Scorecards are made available, and each Scorecard's rankings are determined by 12 scoring factors. The 12 scoring criteria and weights used vary across the six Scorecards. Price contributes most to the overall score as we feel it is the most reliable indicator of a fund's future return potential. Relatively small importance is placed on past performance. If the data for a scoring factor is unavailable, the value is removed from the calculation and the remaining scoring factors are reweighted proportionally to total 100%. Funds with at least 50% representation of their respective scoring factors, at least one year of performance, and placement in a peer group with three or more funds is required for a fund to appear in a Scorecard, along with additional eligibility criteria that varies depending on each Scorecard. Funds in undefined categories or those whose objective does not aim to provide high risk-adjusted returns are excluded. Examples of excluded categories include those related to money market funds, commodities, alternatives and leveraged or inverse funds. Funds in these categories account for a very small percentage of assets in U.S. mutual funds and ETFs.

Risk Warning

Investments in securities are subject to market, risk of loss and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved.

We do not represent or guarantee that our investment recommendations (including Morningstar Star Rating for Stocks and Morningstar Analyst Ratings) can or will predict future results, will successfully identify market's highs and lows, or will protect its clients from losses. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost.

Our recommendations are made without taking into consideration any retail investor or investors specific facts and circumstances including potential tax consequences. We are unable to predict or forecast market fluctuations or other uncertainty that may affect the value of any investment. While we intend for our investment research to be valuable information and useful in making an informed decision, the investor is responsible for determining the appropriateness of a security based on their own facts and circumstances, including their cash flow needs, time horizon, risk appetite, and tax consequences. We encourage investors to review and take into consideration all other available information on a given security (e.g., prospectus or an equivalent).

Morningstar Star Rating for Stocks should not be used as the sole basis for investment decisions. Morningstar Star Rating for Stocks factors in an analyst's current fair value estimate for a stock; therefore, involves unknown risks and uncertainties that may cause their estimate to differ significantly from actual results. We do not represent the Morningstar Star Rating for Stocks to be guarantees nor should they be viewed as an offer or solicitation to buy or sell a Security.

Morningstar Analyst Ratings are subjective in nature and should not be used as the sole basis for investment decisions. Morningstar Analyst Ratings are based on our analysts' current expectations about future events and therefore involve unknown risks and uncertainties that may cause our expectations not to occur or to differ significantly from what was expected. We do not represent the Morningstar Analyst Ratings to be guarantees nor should they be viewed as an assessment of a fund's or the fund's

underlying securities' creditworthiness. Morningstar Analyst Ratings should not be considered an offer or solicitation to buy or sell the Fund.

The Morningstar Quantitative Ratings are not statements of fact and should not be used as the sole basis for investment decisions. We do not guarantee the completeness or accuracy of the assumptions or models used in determining the ratings. In addition, there is the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions. A change in the fundamental factors underlying the quantitative fund ratings can mean that the recommendation is subsequently no longer accurate. We do not represent the Morningstar Quantitative Ratings to be guarantees nor should they be viewed as an assessment of a fund's or the fund's underlying securities' creditworthiness. Morningstar Quantitative Ratings should not be considered an offer or solicitation to buy or sell the Fund.

The Morningstar Sustainability Ratings are holdings-based, not performance based. They do not reflect a fund's performance on either an absolute or risk-adjusted basis, nor are they a qualitative Morningstar evaluation of a fund's merits. Morningstar Sustainability Ratings should not be the sole basis for an investment decision.

Item 9. Disciplinary Information

We are required to disclose all material facts regarding any legal or disciplinary events that would influence a potential client to engage us. Morningstar Research Services does not have any such legal or disciplinary events to disclose.

Item 10. Other Financial Industry Activities and Affiliations

Morningstar Research Services is a wholly-owned subsidiary of Morningstar. Our offerings center around the production of Investment Research Reports and Investment Consulting services to financial institutions/institutional investors who themselves are registered with and governed by a regulatory body. Other than what is described in Item 4 above, we are not actively engaged in any other business activity.

Affiliations – Registered Entities

Morningstar has an investment management group that consists of various subsidiaries across the globe each being registered with and governed by the applicable regulatory body or bodies in that country ("Morningstar's Investment Management group"). We are not part of Morningstar's Investment Management group. We mitigate conflicts of interests between us and Morningstar's Investment Management group by such things as:

- Maintaining separate legal entities;
- Maintaining separate reporting/organization lines;
- Maintaining physical separation (e.g., occupying separate floors);
- Maintaining technology separation;
- Maintaining a committee structure (i.e., very limited unilateral decisions); and
- Monitoring personal trading activity of employees.

Two such subsidiaries are located in the United States; they are Morningstar Investment Management LLC and Morningstar Investment Services LLC, both of whom are registered as investment advisers under the Investment Advisers Act of 1940. Morningstar Investment Services is additionally registered with the Securities and Exchange Commission as a broker-dealer and a member of Financial Industry Regulatory Authority (FINRA).

Morningstar's Investment Management group may engage us to perform investment manager due diligence and/or fund selection services as more fully described under the Investment Consulting section within Item 4 above. On such

occasions, we will be compensated for services rendered via an intercompany charge. The services and compensation will be governed by an intercompany agreement. This compensation will likely be lower than compensation negotiated with non-affiliated financial institutions/institutional investors for same or similar services. Our employees who are engaged to provide manager due diligence and/or fund selection service are prohibited from using non-public/confidential information obtained because of its engagement in its Investment Research Reports and/or Investment Consulting services to Non-Affiliated Clients.

Morningstar's Investment Management group has and maintains model portfolios that are available under various investment advisory programs. Those model portfolios consist of open-end mutual funds, exchange-traded funds or equity securities. Investment decisions relating to these model portfolios are solely those of Morningstar's Investment Management. We may issue Investment Research Reports on or recommend to Institutional Clients one or more of the securities Morningstar's Investment Management group may utilize in one or more of its model portfolios. If we become aware of investment decisions related to the program, it is after such decisions have been made and trade instructions been issued. Conflicts of interest resulting from this are mitigated through the review of personal trading account activities of both Morningstar's Investment Management group's and Morningstar Research Services access persons by Morningstar's compliance department.

Morningstar Investment Management serves as an investment adviser to investment companies registered under the Investment Company Act of 1940. To mitigate conflicts of interest, we do not prepare qualitative analysis on nor recommend as part of our Investment Consulting Services any investment company Morningstar Investment Management is an investment adviser to. We have affiliates who are in other countries and who produce and issue investment research on equity securities or that country's equivalent to mutual funds (e.g., collective investment schemes). As such, our senior managers and certain supervisors within our equity and manager research teams may have supervisory responsibilities over certain employees of those non-U.S. entities ("Supervisors"). While we don't believe, such arrangements present conflicts of interests or compromises the integrity of the investment research produced by these non-U.S. registered entities (or ours), we are mindful that such arrangement does give Supervisors the potential to be exposed to yet-to-be published views and analysis and/or changes in estimates of these non-U.S. registered entity's equity and manager research analysts (i.e., their confidential information). To mitigate sharing and/or using such confidential/non-public information, we have in place a policy prohibiting such practice and the compliance department monitors Supervisors and their immediate families personal trading accounts.

Affiliations – Morningstar, Inc.

Morningstar, our parent company, is a publicly traded security (Ticker Symbol: MORN). We may produce Investment Research Reports on or recommend a Fund(s) that holds a position in Morningstar's publicly traded stock. We mitigate any actual or potential conflicts of interests by not factoring Morningstar's publicly traded stock into our qualitative or quantitative analysis nor in our investment consulting recommendations.

Morningstar has and maintains accounts which they invest in accordance with investment strategies created and maintained by Morningstar Investment Management. Those investment strategies are deployed using equity securities. We may issue Investment Research Reports on one or more of the securities Morningstar may hold in those strategies. Investment decisions relating to those accounts are those Morningstar Investment Management, who is acting as Morningstar's discretionary investment adviser. If we become aware of such investment decisions, it is after such decisions have been made by Morningstar Investment Management and trade instructions being issued. Conflicts of interest resulting from this are mitigated through the review of personal trading account activities of both Morningstar Investment Management and Morningstar Research Services access persons by Morningstar's compliance department. Conversely, we do not share any yet-to-be published views and analysis and/or changes in estimates (i.e., their confidential information) with Morningstar Investment Management personnel on any security they may hold in connection with the above-mentioned investment strategies.

Certain exchange-traded funds use a Morningstar index as its tracking index. We mitigate any actual or potential conflicts of interests resulting from that by not producing qualitative analysis on any such exchange-traded fund as well as imposing informational barriers (both technology and non-technology), having separate organizational reporting lines between us and Morningstar's index team, and monitoring by the compliance department.

We may make our Non-Affiliated Clients aware of various products and services offered by Morningstar or its affiliates. We do not receive compensation for that introduction. Conversely, Morningstar and its affiliates may make their clients aware of services we provide. We do not provide any compensation to Morningstar or its affiliates for that introduction.

Morningstar hosts educational events and conferences and may provide us the opportunity to suggest invitees or offer (proactively or upon request) discounted or waived registration fees. We mitigate any actual or potential conflicts of interest this may introduce by using pre-defined criteria to select Clients for these opportunities.

Morningstar offers various products and services to retail and institutional investors. Some of its clients may be sponsors of Funds that we may recommend to our Institutional Clients or whose publicly traded stock is covered by our equity analysts. We mitigate any actual or potential conflicts of interests resulting from this fact through such measures as informational barriers (both technology and non-technology), organizational reporting lines, monitoring by the compliance department, and not factoring in such relationships with Morningstar into our qualitative or quantitative analysis.

As a wholly-owned subsidiary, we use the resources, infrastructure and employees of Morningstar to provide certain support services including in such areas as technology, procurement, human resource, accounting, legal and compliance. We do not believe such arrangement present a conflict of interests to us in terms of our producing investment research reports or providing investment consulting services.

Affiliations – Morningstar, Inc.'s Subsidiaries

Equity and manager research analysts based outside the U.S.A. are employed by various wholly-owned subsidiaries of Morningstar ("Non-U.S. Analysts"). These Non-U.S. Analysts follow the same investment methodologies and process as we do as well as being held to the same conduct standards as our equity and manager research analysts are held to including those items noted in Item 11 below. As a result, we do not believe this structure causes actual or a potential for a conflict of interests.

Affiliations – Credit Rating Agency

We are affiliated with Morningstar Credit Ratings LLC and DBRS, Inc. (collectively "DBRS Morningstar"), credit rating agencies registered with the Securities and Exchange Commission as Nationally Recognized Statistical Rating Organizations (NRSRO). DBRS is also registered with and governed by applicable regulatory body or bodies in other countries around the globe. In producing qualitative analysis on certain equity securities, we may use the publicly available credit rating and analysis issued by DBRS Morningstar. Because of our use of DBRS Morningstar publicly available information, we do not believe there is an actual or potential conflicts of interest that arises from such use. Conversely, we make available to DBRS Morningstar a company's economic moat and the underlying details for use in their determination of a credit rating issued at the company level. Information provided to DBRS Morningstar is information what we have already made publicly available; therefore, we do not believe DBRS Morningstar use of such information creates an actual or a potential for a conflict of interests.

Item 11. Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

Code of Ethics

We have in place a code of ethics pursuant to Rule 204A-1 under the Investment Advisers Act of 1940 ("Code of Ethics"). Our Code of Ethics strives to uphold the highest standards of moral and ethical conduct, including placing our clients' interest ahead of our own. Our Code of Ethics covers all our employees as well as other persons who have access to our non-public information (collectively "Access Persons"). Our Code of Ethics addresses such topics as professional and ethical responsibilities, compliance with securities laws, integrity of investment research, and the personal trading practices. Our Code of Ethics also addresses receipt and/or permissible use of material non-public information and other confidential information our Access Persons may be exposed and/or have access to given their position within Morningstar Research Services. The Code of Ethics is provided upon hire and at least annually thereafter and at each time, the Access Person must certify in writing that she or he has received, read, and understands the Code of Ethics and that they agree to or have complied with its contents.

A copy of our Code of Ethics is available to existing and prospective clients by sending written request to compliance@morningstar.com.

Interest in Client Transactions

We do not engage in principal transactions (transactions where we, acting in our own account or in an affiliated account, buy a security from or sell a security to a client's account) nor do we engage in agency cross transactions (transactions where we or our affiliate executes a transaction while acting as a broker for both our client and the other party in the transaction).

Interest in Securities that we may be Recommended

Morningstar Research Services

Morningstar Research Services does not have a proprietary trading account and thus, as a firm, does not invest in any security that we may produce Investment Research Reports on or recommend under our Investment Consulting services.

Morningstar Research Services' Affiliates

Morningstar's Investment Management group has and maintains model portfolios that it makes available under investment advisory programs. Those model portfolios use open-end mutual funds, exchange-traded funds or equity securities. Investment decisions relating to the model portfolios are solely those of Morningstar's Investment Management group. We may issue Investment Research Reports on or recommend to Institutional Clients one or more of the securities used in one or more of the model portfolios. If we become aware of investment decisions, it is after such decisions have been made by them and trade instructions been issued. Conflicts of interest resulting from this are mitigated through the review of personal trading account activities of both Morningstar's Investment Management group and Morningstar Research Services access persons by Morningstar's compliance department.

Morningstar Investment Management serves as an investment adviser to investment companies registered under the Investment Company Act of 1940. To mitigate the conflict of interest, Morningstar Research Services does not prepare/produce qualitative analysis on nor recommend as part of its Investment Consulting Services any investment company Morningstar Investment Management is an investment adviser to.

Morningstar, our parent company, is a publicly traded security (Ticker Symbol: MORN). We may produce Investment Research Reports on or recommend a Fund(s) that holds a position in Morningstar's publicly traded stock. We mitigate any actual or potential conflicts of interests by not having ownership in Morningstar as a factor or a requirement in our investment manager due diligence and/or fund selection process and not factoring in such holdings in Morningstar's publicly traded stock into our qualitative or quantitative analysis of equities and Funds.

Morningstar has and maintains accounts which they invest in accordance with investment strategies created and maintained by Morningstar Investment Management. Those investment strategies are deployed using equity securities. Morningstar Research Services may issue Investment Research Reports on one or more of the securities Morningstar may hold in those strategies. Investment decisions relating to those accounts are those Morningstar Investment Management, who is acting as Morningstar's discretionary investment adviser with respect to those investment strategies. If we become aware of such investment decisions, it is after such decisions have been made by Morningstar Investment Management and trade instructions being issued. Conflicts of interest resulting from this are mitigated through the review of personal trading account activities of both Morningstar Investment Management and Morningstar Research Services access persons by Morningstar's compliance department.

We may issue Investment Research Report(s) on exchange-traded fund(s) that uses an index created and maintained by Morningstar as the exchange-traded fund's tracking index. We mitigate any actual or potential conflicts of interests resulting from this through such measures as not producing qualitative analysis on such exchange-traded funds as well as imposing informational barriers (both technology and non-technology), having separate organizational reporting lines, and monitoring by the compliance department.

Morningstar has an investment management group that consists of various subsidiaries across the globe each being registered with and governed by the applicable regulatory body or bodies in that country ("Morningstar's Investment Management group"). We are not part of Morningstar's Investment Management group. We mitigate conflicts of interests between us and Morningstar's Investment Management group by such things as:

- Maintaining separate legal entities;
- Maintaining separate reporting/organization lines;
- Maintaining physical separation (e.g., occupying separate floors);
- Maintaining technology separation;
- Maintaining a committee structure (i.e., very limited unilateral decisions); and
- Monitoring personal trading activity of employees.

Personal Trading by Access Persons

Our Code of Ethics is designed to ensure that Access Persons and their immediate family's personal trading activities does not interfere with our clients' interests. While our Access Persons (and their immediate family) may maintain personal investment accounts; they are subject to certain restrictions. Most notably:

- equity analysts (and their immediate family) are prohibited for holding or transacting in a security that the analyst covers and they (and their immediate family) cannot initiate a transaction on an equity security that they don't cover while such security is on our company-wide restricted list.
- While fund analysts (and their immediate family) can invest in mutual funds and/or exchange-traded funds that the fund analyst covers, they (and their immediate family) are prohibited from holding or transacting in a publicly-traded security in a company that derives a substantial portion of its revenue from mutual funds and/or exchange-traded funds.

Our Code of Ethics includes policies designed to prevent Access Persons from trading based on material non-public information. Access Persons in possession of material non-public information may not trade in securities which are the subject of such information and may not tip such information to others. In certain instances, we employ information blocking devices such as restricted lists to prevent illegal insider trading. Morningstar's compliance department monitors the activities in the personal accounts of our Access Persons upon hire and

thereafter. Access Persons are required to pre-clear IPO and private placement transactions with Morningstar's compliance department.

Item 12. Brokerage Practices

As primarily a provider of Investment Research Reports and non-discretionary investment consulting services, we do not place trades in the market and thus do not select or recommend broker-dealers for client transactions.

Item 13. Review of Accounts

As primarily a provider of Investment Research Reports and non-discretionary investment consulting services, we do not review accounts of our Institutional Client's clients.

As explained in Item 4, our Institutional Client's may engage us to perform periodic monitoring and when deemed necessary, provide updated recommendations.

Item 14. Client Referrals and Other Compensation

We may make direct or indirect payments to our Affiliated Clients for recommending our services as described in Item 4 above. If such payments occur, they will be done pursuant to Rule 206(4)-3(a)(2)(ii) of the Investment Advisers Act of 1940. We have not entered into client referral arrangements with any non-affiliated person or financial institution.

Item 15. Custody

As primarily a provider of Investment Research Reports and non-discretionary investment consulting services, we do not take custody of any assets or funds.

Item 16. Investment Discretion

As primarily a provider of Investment Research Reports and non-discretionary investment consulting services, we do not provide discretionary portfolio management services.

Item 17. Voting Client Securities

As primarily a provider of Investment Research Reports and non-discretionary investment consulting services, we do accept nor have any proxy voting authority.

Item 18. Financial Information

We are required to provide you with certain financial information or disclosures about our financial condition. We do not have any financial commitment that impairs our ability to meet our contractual commitments nor have we've been the subject of any bankruptcy proceedings.



Morningstar Research Services LLC Form ADV Part 2B: Brochure Supplement

Investment Consulting Services – Manager Selection

22 West Washington Street, Chicago, IL 60602
Phone: 312.696.6000
www.corporate.morningstar.com

March 12, 2020

This Brochure Supplement provides information about Morningstar Research Services LLC's manager selection team, who have significant responsibility for Morningstar Research Services' Investment Consulting Services.

Please contact the Compliance Department at 312.696.6000 or compliance@morningstar.com if you did not receive a copy of our Firm Brochure, if you have questions about the content of this Brochure Supplement. In your request, please indicate the name of the company (Morningstar Research Services) and the type of service (Investment Consulting.)

Peter Di Teresa – Head of Manager Selection Team

Business Experience and Educational Background

As head of the manager selection team, Peter leads, directs and oversees the team activities. Peter has headed up the manager selection team for the last six years. Prior to that, Peter was part of Morningstar's Investment Management group for twelve years, most recently as a Portfolio Manager and Senior Investment Consultant. Born in 1963, Peter holds an A.B. with honors from the University of Chicago and a M.A. from Harvard University.

Joshua Charlson, CFA - Director

Educational Background and Business Experience

Joshua has been part of the manager selection team since 2017. Prior to that, Joshua was the Director of Manager Research, Alternative Strategies for three years and Strategist, Multi-Asset Strategies for Morningstar, Inc. for fourteen years. Born in 1968, Joshua has a B.A. from the University of Michigan and a M.A. and Ph.D. from Northwestern University.

Daniel Farkas - Director

Educational Background and Business Experience

Daniel has been part of the manager selection team for the last six years. Prior to that, Daniel was part of Morningstar's Investment Management Group for nine years, most recently as a Senior Investment Consultant. Born in 1972, Daniel has a B.A., Economics, University of Illinois and an MBA from the University of Chicago - Booth School for Business.

Brian Killian - Director

Educational Background and Business Experience

Brian has been part of the manager selection team for the last six years. Prior to that, Brian was part of Morningstar's Investment Management group for twelve years, most recently as a Senior Investment Consultant. Born in 1976, Brian has a B.A. in finance and computer applications from the University of Notre Dame and a master's degree in business administration with concentrations in finance and strategy, execution and valuation from DePaul University.

Shannon Zimmerman - Director

Business Experience and Educational Background

Shannon has been part of the manager selection team for the last four years. Prior to that, Shannon was with Morningstar, Inc. for three years as a manager research analyst. Born in 1964, Shannon has a B.A. in English from Rollins College, M.A. from University of Georgia and Ph.D. from University of Georgia.

Sanjiv Patel – Director

Business Experience and Educational Background

Sanjiv is a director of manager selection. Sanjiv has been part of the manager selection team for the last three years. Prior joining Morningstar, Sanjiv was an Investment Analyst for BP America – Trust Investments group for seven years. Born in 1982, Sanjiv has a B.S. in Finance from University of Illinois.

Disciplinary Information, Other Business Activities, and Compensation

None of the individuals listed above have any disciplinary information to disclose.

The individuals listed above do not participate in any other investment-related businesses nor is are they engaged in any non-investment related business activities or occupation that involve a substantial amount of time or pay.

The individuals listed above do not receive compensation from anyone other than Morningstar Research Services. They do not receive compensation, including bonuses, based on what investment recommendations they or the manager selection team makes to a client. They do not receive non-cash compensation based on what investment recommendations they or the manager selection team makes to a client.

Supervision of the Manager Selection Team

Peter Di Teresa is the head of the manager selection team and thus leads, directs and oversees the individuals identified above. As part of his supervisory duties, Peter oversees the investment recommendation process including ensuring the recommendations made by the above individuals to clients are consistent with the manager selection team's documented methodology and process.

**The Chartered Financial Analyst (CFA) designation is an international professional certification offered by the CFA Institute. To become a CFA charterholder, candidates must pass three six-hour exams, possess a bachelor's degree, and have 48 months of qualified, professional work experience. CFA charterholders are also obligated to adhere to a strict Code of Ethics and Standards governing their professional conduct. The CFA is a qualification for finance and investment professionals, particularly in the fields of investment management and financial analysis of stocks, bonds and their derivative assets. The program focuses on portfolio management and financial analysis, and provides a general knowledge of other finance areas.*