

Morningstar Manager Research Integrity Policy

Effective August 2018

We expect the highest ethical behavior from Morningstar analysts. In addition to Morningstar's companywide Code of Ethics, we expect analysts to abide by the Code of Ethics published by the CFA Institute (<http://www.cfainstitute.org/ethics/codes/ethics/Pages/index.aspx>). Morningstar's Manager Research group also has established its own policy below, regarding our work and the avoidance of conflicts of interest.

Please note this Morningstar Manager Research Integrity Policy ("Policy") is in addition to all other relevant Morningstar policies, including but not limited to Morningstar's Code of Ethics, News Media Policy, Social Media Policy, Guidelines for Disclosing Information about Morningstar, and Information Security Policies & Standards.

This Policy is applicable to all Morningstar companies that produce ratings and investment research on collective investment schemes and separately managed accounts. In certain jurisdictions, such ratings/investment research is considered a regulated activity and must be provided through an appropriately licensed Morningstar entity. These entities are subject to certain regulatory requirements, which generally are (i) to refrain from engaging in unfair, coercive, or abusive business practices, (ii) to effectively manage conflicts of interests, (iii) to have an effective program in place to identify and manage conflicts of interest, and (iv) to properly secure confidential information. Such Morningstar regulated entities have developed and implemented policies and procedures consistent with the regulatory requirements of that jurisdiction. This Policy is intended to be consistent with those policies and procedures; where discrepancies exist, the policies/procedures of the Morningstar regulated entity supersede this Policy.

Terminology

- *Analyst*: Person primarily responsible for or contributing in a substantial way to the Universally Distributed Research of a specific collective investment scheme or separately managed account.
- *Conflict of Interest*: Situations in which an analyst has a competing professional or personal interest(s) that is inconsistent with its user's interests and/or makes it difficult for an analyst to fulfill his or her duties impartially.
 - Such situations present a possible appearance of impropriety that may undermine the user's confidence in the analyst and Morningstar, even if no unethical or improper act results from the conflict.
- *Universally Distributed Research*: Research that is distributed through one of Morningstar's software platforms (e.g., Morningstar Direct) or a Morningstar sponsored website the content of which is solely on the merit of the investment collective scheme or separately managed account (i.e., generic/impersonal investment advice).
- *Investment Conclusions*: Ratings derived from a qualitative process and includes, but is not limited to, Morningstar Analysts Ratings, Morningstar Quantitative Ratings, 529 Plan Ratings and Target-Date Series Ratings along with the component scores of those ratings, that are made available through Universally Distributed Research.
- *Investment Analysis*: Any data, quantitative analysis, qualitative analysis, and/or opinions an Analyst draws upon to support an Investment Conclusion, in Universally Distributed Research or in ratings notes drafted in support of such published research.
- *Manager Research*: All members of Morningstar's manager research teams who report to the global head of Manager Research.
- *Manager Research Services (Analyst Access)*: A service in which Analysts respond to a specific question or questions from licensing clients via phone call or email that relates to their published research and Investment Conclusions and/or Investment Analysis.

- *RPS*: Morningstar's report publishing system.
- *Manager Research Clients*: Financial advisers, fund broker/dealer platforms, consultants, institutional investors, portfolio managers, and other parties subscribing to Manager Research Services.
- *Other Institutional Clients*: Customers of Morningstar's software products, data offerings, licensing services, and/or clients of the Investment Management group.
- *Issuer-Paid Research*: Research that is specifically commissioned by an asset management group (either independent or captive subsidiary) to be conducted on its behalf by a third-party independent of itself.
- *Ratings Committee*: A committee comprised of Manager Research's most-senior analysts and experts in each asset class, which reviews and vets the conclusions reached by analysts.

Protecting the Objectivity of Morningstar Manager Research

Producing the best possible, objective, investor-focused research is the primary goal of Morningstar's research efforts. Morningstar Manager Research provides safeguards against undue influence through the use of its strict policies, ratings committees, team structure, and editing processes.

If an Analyst wishes to assign an Investment Conclusion to an investment vehicle, the Ratings Committee(s) review and vet the Conclusions. The purpose of that committee-based review process is to ensure the rigor and objectivity of the analyst's Investment Conclusion; to prevent undue influence on the analyst's Investment Conclusion by any other individual; and to ensure Manager Research is applying its ratings methodologies fairly and consistently. Those Ratings methodologies and these Ratings Committee processes are described in corresponding methodology documents.

All Manager Research employees are responsible for safeguarding the integrity of their work and should report any attempts to inappropriately influence research conclusions and information to their direct supervisor immediately.

To ensure the objectivity of its research staff, Morningstar's Code of Ethics specifically details:

"Most importantly, there must never be any explicit or implied pressure applied by anyone outside the relevant analyst group to influence or change the opinions or conclusions reached in analyses (including editorial content) or research projects."

Members of Manager Research are also prohibited from explicitly or implicitly pressuring an Analyst to deviate from the documented investment research process or applying improper pressure on the Analyst to change his or her opinions, analysis, or qualitative ratings. Analysts are to notify their direct supervisor promptly if the above occurs. Morningstar encourages and expects interaction and debate between an analyst and his or her direct supervisor as well as within Ratings Committees, which may lead to changes in an analyst's opinions, analysis, or qualitative ratings.

Morningstar will not enter into any Issuer-Paid arrangements to provide Universally Distributed Research.

Manager Research shall not create or implement any compensation, incentive, or advancement schemes that reward analysts or their supervisors for producing non-objective research or inappropriately influencing Investment Conclusions or Investment Analysis.

Analysts are strictly prohibited from plagiarizing.

Analysts may not directly or indirectly offer favorable Investment Conclusion(s) or opinions expressed in Investment Analysis or delay changing an Investment Conclusion(s) or opinion as consideration or inducement for the receipt of business of a Prospective Client or a User procuring additional products/services from Morningstar.

Analysts are to ensure that they properly distinguish facts from opinions within their Investment Analysis and that the analysis is clear and complete and in no way misleading or deceptive. Analysts' supervisors are to diligently review and, where applicable, fact-check analyses and other analyst output for accuracy and objectivity.

Related Party Products and Services

Analysts do not provide analyst-driven ratings or opinions that are derived from a qualitative process for:

- Investable collective investment schemes that track Morningstar indexes;
- Investable collective investment schemes where a Morningstar investment management subsidiary performs discretionary advisory services including, but not limited to, asset allocation, portfolio construction, or security selection of the investable product;
- Model portfolios where a Morningstar investment management subsidiary performs discretionary advisory services; or
- Suites of investable products, such as 529 college savings plans or target-date fund series, where one or more of the underlying investments tracks a Morningstar index or a Morningstar investment management subsidiary performs discretionary advisory services including, but not limited to, asset allocation, portfolio construction, or security selection.

Morningstar Indexes

As stated above, certain exchange-traded funds use a Morningstar index as its tracking index. We mitigate any actual or potential conflicts of interests resulting from this 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 Manager Research and Morningstar's index team, and monitoring by the compliance department.

Anything that reflects an (1) opinion, (2) recommendation, or (3) judgment would be considered "qualitative". Simply including an ETF that tracks a M* index in a table of all funds within a category, for instance, or making factual references does not trigger the "qualitative analysis" label.

Investment Advice

Analysts are prohibited from providing investment advice that is specific to a retail investor's financial and/or personal facts and circumstances (i.e., personalized investment advice). *For avoidance of doubt*, this prohibition does not pertain to communication an Analyst may have with a retail investor about the Analyst's published Investment Conclusions or Investment Analysis. However, Analysts must keep such communication general and not communicate information that is or would reasonably be viewed as a recommendation or call to action based on the retail investor's specific facts and circumstances.

From time-to-time and under a contractual agreement, a Morningstar entity with the proper regulatory license may be engaged by an institution to provide investment research and/or recommendations that are specific to that institution's situation, needs and/or goals. Analysts asked to participate in such engagement must follow the principles laid out in the Policy, Morningstar Inc.'s Code of Ethics and any other policies Analysts in that particular jurisdiction are subject to.

When providing Manager Research Services, Morningstar analysts must deal fairly and objectively with all clients.

Specifically, Morningstar Manager Research analysts must ensure that they disseminate Investment Conclusions fairly to all audiences. Analysts must disclose and support changes to or initiations of Investment Conclusions in one or more pieces of Universally Distributed Research.

Analysts may not discuss Investment Conclusions with anyone outside of Manager Research until the Investment Conclusions are contained in a Universally Distributed Research:

- Ratings Committee discussions, ratings in process, and any other internal discussions about pending Investment Conclusions may not be shared outside of Manager Research.
 - Examples of groups that reside outside of Manager Research and therefore should not be granted access to Investment Conclusions before they are published in Universally Distributed Research include Morningstar's Investment Management group, Morningstar equity researchers, Morningstar sales teams, members of the media, fund companies, fund managers, Manager Research Services clients, Morningstar customers, or prospects.
- Directors in Manager Research may discuss Investment Conclusions as necessary with Morningstar employees in groups outside of Manager Research, but members of those groups are subject to these same restrictions until the analyses discussing the Investment Conclusions have been universally distributed.

Manager Research supports multiple audiences, and not all Investment Analysis will be shared with all audiences.

The level of depth and detail provided to a client depends on the service level. However, every client will receive consistent Investment Conclusions. It's acceptable to give Manager Research clients more detailed explanations that support Investment Conclusions. Analysts also may present ideas to some Manager Research clients in a format other than a published report (access to a conference call, for example) as long as these ideas support universally distributed conclusions. It's not acceptable to give some Manager Research clients a new Investment Conclusion while delaying its release to other Manager Research clients. All clients paying for the same level of service should have access to the same information.

Internal/external presentations, marketing decks, and other materials used for in-person or other client-specific meetings do not need to be published through RPS, but must be consistent with all published Investment Conclusions and not introduce new, material information that could affect an analyst's Investment Conclusions.

Personal Trading

The rules in this Section apply to members of Manager Research and their immediate family.

Internal Disclosure of Holdings. A new member of Manager Research must provide Morningstar's Compliance department within ten business days of her or his date of hire a list of all of her or his and their immediate family's investment holdings and the brokerage firms they have accounts with. Investment holdings include, but are not limited to, stocks, bonds, options, ETFs, hedge funds, closed-end funds, and any managed or separate account programs he or she or his or her immediate family members participate in. This information is to be submitted in such form and in such manner (which may include via a web-based system) as shall be specified by the Compliance department. Access to an individual's information is limited to that individual and the Compliance department.

Trade Information. Members of Manager Research and their immediate family members must submit brokerage account trade information in form and in such manner (which may include, among other things, a direct electronic data feed from a brokerage firm, manual entry into a web-based system, or direct delivery of duplicate hard-copy trade

confirmations) as shall be specified by the Compliance department. This applies to any accounts, including purchases made within the brokerage window of Morningstar's 401(k) plan or similar retirement plans outside of the United States, where the Manager Research member or their immediate family member have beneficial ownership.

Manager Research Analysts Prohibited from Owning Money Management Firms. Members of Manager Research and their immediate family are prohibited from holding securities issued by publicly traded companies that derive a material portion of their revenue from managing mutual funds and which are included on a list of such companies made available via The Pond (Restricted List for Manager Research Analysts). Manager Research members who are unable to access the Restricted List for Manager Research Analysts because of telecommuting arrangements or technical problems are still responsible for determining whether or not a particular security is on the Restricted List prior to making any transactions.

Working with Manager Research Clients and Morningstar's Sales Team

Morningstar has earned a reputation as a source of trusted independent investment research. Investors, advisers, and fund selectors of all types value Morningstar's manager research because it is unbiased and motivated by a desire to serve investors first. Asset managers value Morningstar research partly because it is seen as credible by fund selectors. Morningstar's objectivity and willingness to criticize will inevitably cause some unhappiness, but it ultimately gives the company's praise more meaning.

To help maintain the integrity of Morningstar's investment research, there is a strict functional separation between the manager research and equity research groups (including for this purpose any employee who produces editorial content), on the one hand, and the company's sales teams, on the other. Except as described below in this paragraph, sales personnel are not to contact Analysts directly. Again, maintaining objectivity and editorial freedom is essential for Morningstar to keep its position of respect in the investment community.

1) Morningstar salespeople will inevitably field questions from asset managers about research matters.

Morningstar's commercial relationships with Other Institutional Clients should not be discussed with analysts below

the associate director level in Manager Research. For Manager Research Services clients, analysts may know the names and research interests of clients, but not the contract terms. Salespeople are prohibited from contacting analysts directly; they should direct queries to local Manager Research heads.

- If a salesperson contacts an analyst directly on behalf of an Other Institutional Client, the analyst should:
 - Ask the salesperson to direct the client to a Director in Manager Research.
 - Forward the salesperson's initial communication to the analyst's Director.
- Analysts should immediately alert their direct supervisor if they feel pressure to change an opinion based on a business relationship.

2) Manager Research's clients may be affiliated with or consult for the fund companies whose products Manager Research rates.

Manager Research clients will likely include investment advisers, broker/dealer fund platforms, and investment consultants, including those within Morningstar's Investment Management group. These clients may use or sell funds offered by asset managers that Manager Research rates or provide consultation, distribution, or other services to those asset managers.

Manager Research analysis must be generated independently of any business relationships Morningstar maintains. As a result, Manager Research:

- Issues ratings and grades using the same methodologies regardless of the distribution channel or the end user.
- Does not rate any product in which another group within Morningstar has a management or decision-making role.
- Does not accept Issuer-Paid Research engagements to provide fund-, strategy-, or firm-level research.

Although Morningstar cannot police or dictate what Manager Research clients can or cannot do, Manager Research clients that in turn serve financial services firms or asset managers that Manager Research covers should not:

- Disclose their end-client relationships with Morningstar analysts, except with directors where necessary in the normal course of business.
- Provide their end-clients with preferential or unmediated access to Manager Research analysts. Manager Research analysts should immediately alert their manager if Manager Research clients attempt to reach out directly to them on behalf of their end clients.

3) Manager Research has sole discretion on whether or not to cover an investment.

Manager Research's goal is to help investors make better decisions. Manager Research is constantly evaluating its coverage list to ensure sufficient and relevant breadth and depth, and reviews queries for coverage on an ongoing basis. Morningstar's coverage is subject to change, and while the Manager Research team will review queries for coverage from users of its Universally Distributed Research, the team reserves the right to initiate or suspend coverage on any funds or firms. Morningstar is dedicated to covering the funds/strategies most relevant to investors, including those of significant investor interest or those the Manager Research team believes to have investment merit.

Analysts are free to take/listen to input from their users (including internal users such as Morningstar's Investment Management group) as to what fund(s) to add to or drop from the coverage list or a report(s) that they deemed would be useful as a supplement to the published research.

- While analysts are free to receive such input, analysts are prohibited from agreeing to the user's request or providing output in response to a user's request on their own.
- Analysts must promptly forward all requests to his or her direct supervisor.
- All decisions about whether or not to accept the user's request will be determined by the global head of Manager Research or his or her designee, including a committee that he or she has established to evaluate

- user requests.
- Morningstar will universally distribute any such user-requested research.

Avoiding Personal Conflicts of Interest

If for any reason Analysts think they may not be able to provide an objective opinion on a security, they should alert their supervisor and be removed from that coverage assignment, as well as any oversight to the ratings process.

Examples of conflicts of interest that could preclude an Analyst from covering a security could include the following:

- The Analyst or someone in his or her family has a personal or business relationship with someone at the company.
- The Analyst has worked for that company or interviewed for a position at that company within the past five years.
- The Analyst has received a favor or the offer of a favor from a company (for example, a corporate manager offers to write a recommendation for an MBA program or approaches the analyst about a potential job opportunity).

In addition, Analysts are prohibited from:

- Accepting gifts, including dinners, transportation, or lodging, worth more than \$100 without supervisor approval.
- Publishing Morningstar research on their own websites, blogs, and so on, without written permission.

Morningstar's Code of Ethics forbids employees from competing with Morningstar unless the employee has the necessary approval. This applies to, among other things, managing money for a fee. Manager Research analysts must disclose to their manager and to Human Resources any arrangement that involves managing money for other people outside of their immediate family, even if that arrangement does not involve a fee.

Addressing Violations of This Policy

If a violation occurs, Morningstar will immediately correct and republish any applicable Investment Conclusions in Universally Distributed Research.

If a member of the Manager Research team observes or is made aware of unethical behavior of another member of the team, including behavior contrary to this Policy, that member should immediately notify his or her direct supervisor or the global head of Manager Research if the direct supervisor is not available.

If the reporting member's direct supervisor is exhibiting such conduct, he or she must immediately notify the global head of Manager Research or the Global Chief Compliance Officer.

If the reporting member is uncomfortable speaking directly to his or her direct supervisor, the global head of Manager Research, or the global Chief Compliance Officer, he or she may use the confidential Morningstar Ethics Hotline to report such behavior. The Morningstar Ethics Hotline is available 24 hours a day, seven days a week at <https://www.integrity-helpline.com/morn.jsp>.