



International Fund Awards Methodology, Germany

Morningstar Methodology Paper
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2013

Morningstar International Fund Awards Methodology

Statement of Purpose

The objective of the quantitatively driven Morningstar International Fund Awards program is to recognise those funds and fund groups that have added the most value within the context of a relevant peer group for investors over the past year and over the longer-term. The program is distinct from the qualitative awards issued by Morningstar's research team.

The awards are annual, so we believe it is appropriate to emphasise a fund's one-year performance. However, we do not wish to be in the position of giving awards to funds that have posted a strong one-year return, but have otherwise not delivered good results for investors. We also recognise that investors often use awards as a "buy" signal, and we do not wish to steer them to offerings that may not be good longer-term investments.

The awards methodology therefore emphasises the one-year period, but funds must also have delivered strong three-and five-year returns after adjusting for risk within the awards peer groups in order to obtain an award. Further, they must have been at least in the top half of their respective peer groups in at least three of the past five calendar years. We believe this combination will ensure that the awards are given to funds which have earned strong one-year results, and have also shown they have the ability to earn strong long-term returns without undue risk.

Types of Award

There are two types of Morningstar Fund Award: Morningstar Category Awards and Morningstar Fund House Awards.

Morningstar Category Awards:

These awards are given to the funds with the best risk-adjusted performance within their Morningstar Categories or groupings of Morningstar Categories, subject to qualitative review.

Morningstar Fund House Awards:

These awards are given to the fund groups with the strongest performing fund line-ups on a risk adjusted basis. Fund performance is evaluated within the Morningstar Categories.

Eligible Universe

Awards will be determined for each individual national fund market.

Only funds that are recorded in the Morningstar database as available for sale in a given market will be eligible to receive an award in that market.

For the Morningstar Category Awards only: In order to ensure Morningstar analysts can carry out effective qualitative checks for potential winners, only funds that have reported at least four complete portfolios to Morningstar between 1 September 2011 and 31 December 2012 are eligible for an award.

The following fund types are excluded from the universe: Insurance funds, closed-end funds. Currency-hedged share-classes of funds are also excluded unless they are in a category specifically for currency-hedged funds and classes.

The smallest 10% of funds in each category are excluded from the awards based on the latest June end portfolio size expressed in Euros. In lieu of this measure, analysts may also exclude funds with less than € 10 million in assets at 30 June or the nearest date for which assets are available.

Morningstar Category Awards Methodology

Categories Eligible for Awards

Equity:

- ▶ Germany Large-Cap Equity
- ▶ Global Equity (All style categories and Flex-Cap Equity included)
- ▶ Europe Large-Cap Equity (All style categories included)
- ▶ Europe Small/Mid Cap Equity (Includes Europe Small-Cap Equity and Europe Mid-Cap Equity)
- ▶ US Large-Cap Equity (All style categories included)
- ▶ Asia-Pacific Equity (Includes Asia Pacific incl. Japan and Asia-Pacific ex-Japan)
- ▶ Global Emerging Markets Equity
- ▶ Germany Small/Mid Cap Equity

Fixed Interest:

- ▶ EUR Government Bond
- ▶ EUR Corporate Bond
- ▶ EUR High Yield Bond
- ▶ Global Bond
- ▶ Global Emerging Markets Bond

Allocation:

- ▶ EUR Moderate Allocation

In addition, each market may opt to give further Morningstar Category Awards, with the following caveats:

The total number of Morningstar Category Awards in a market is not to exceed 18.

The following categories are excluded from the awards:

- ▶ All non-equity Commodities categories
- ▶ All non-equity Property categories
- ▶ All Alternatives categories
- ▶ All "Other" categories, e.g. Other Europe Equity, etc.
- ▶ All Money Market categories
- ▶ Capital Protected
- ▶ Guaranteed
- ▶ Target Date 2000-2014
- ▶ Target Date 2015+

Scoring System

Each fund in a relevant grouping will be scored as follows:

Return Score = 80% of total score

One year: 30% of total score, based on 1-year return percentile rank in Morningstar Category
Three- and five-year: 50% of total score, of which
40% = 3-year return percentile rank in Morningstar Category
60% = 5-year return percentile rank in Morningstar Category
(Note: 3-year and 5-year scores are scaled to represent 40% and 60% of the long-term portion of the return score, respectively. The 3-year return score constitutes 20% of the total score, and the 5-year return score constitutes 30% of the total score.)

Risk Score = 20% of total score

Of the risk score:

40% = 3-year Morningstar Risk percentile rank in Morningstar Category
60% = 5-year Morningstar Risk percentile rank in Morningstar Category
(Note: 3- and 5-year scores are scaled to represent 40% and 60% of the total risk score, respectively. The 3-year risk score constitutes 8% of the total score, and the five-year risk score constitutes 12% of the total score.)

Based on above weights, the effective weight of each year in the calculation is as follows, including both risk and return (figures are rounded to nearest whole number):

Past one year	48%
Second year out	18%
Third year out	18%
Fourth year out	8%
Fifth year out	8%

The weights are designed to place due emphasis on the most recent year given that the awards are annual in nature, but are also meant to favour those funds that have delivered risk-adjusted outperformance on a sustained basis over the longer term.

Qualitative Review

Based on the above calculations, the 10 funds with the lowest scores in each Morningstar Awards Category will be reviewed by Morningstar's qualitative research analysts in that market.

The analysts will complete the following checks:

- ▶ All institutional share classes will be removed unless readily available to retail investors.
- ▶ Funds that are deemed inaccessible to local market investors will be excluded.
- ▶ If an analyst has reason to believe that a fund cannot continue to outperform, he will submit his concerns to the heads of Morningstar's European Research, and they can elect to remove the fund from consideration at their discretion.
- ▶ Any fund that is deemed to have deviated from its stated mandate will be removed from consideration.
- ▶ Any fund that has not outperformed its Morningstar category median in at least three of the past five calendar years will be removed from consideration unless Morningstar's qualitative analysts believe a fund has exceptional merit that the criteria fails to capture.

Award Selection

Upon the completion of the following screens, the fund with the **lowest** score in each eligible Morningstar Category or grouping thereof will receive the award for that Morningstar Category or Category grouping.

Morningstar Fund House Awards

The Morningstar Fund House Awards recognise those fund families that have delivered sustained outperformance on a risk-adjusted basis across their fund line-ups.

Award Categories

Morningstar Best Large Equity Fund House Award: Fund houses with at least 20 equity funds with Morningstar Ratings available for sale in a given market are eligible.

Morningstar Best Large Fixed-Interest Fund House Award: Fund houses with at least 15 fixed-interest funds with Morningstar Ratings available for sale in a given market are eligible. Money markets are not eligible for inclusion.

Morningstar Best Specialist Equity Fund House Award: Fund houses with five or more, but fewer than 20 equity funds with Morningstar Ratings available for sale in a given market are eligible.

Morningstar Best Specialist Fixed-Interest Fund House Award: Fund houses with three or more, but fewer than 15 fixed-interest funds with Morningstar Ratings available for sale in a given market are eligible. Money markets are not eligible for inclusion.

Morningstar Best Multi-Asset Fund House Award: Fund houses with at least 5 equity funds with Morningstar Ratings and 5 fixed-interest funds with Morningstar Ratings are eligible. Money markets are not eligible for inclusion.

Eligible Funds

Only those funds with five-year Morningstar Ratings are eligible for inclusion in the scoring (see below). Thus, funds without five-year records or funds in unrated Morningstar Categories are excluded from the scoring process.

Scoring System

For each of the above five groups, Morningstar will calculate a House Score using the following methodology:

Determine the five-year Morningstar Risk-Adjusted Return (MRAR) for each share class of each fund run by a given house, and the percentile rank of that return score within its Morningstar Category.

Determine the average percentile rank of each *fund's* MRAR by taking the mean MRAR percentile rank of all its classes.

Determine the mean percentile rank of each fund house's MRAR by taking the mean of its funds' MRAR percentile ranks (the lower a group's mean percentile rank, the better its performance).

Adjust the score using the following probability function to compensate for difference in fund house sizes. The adjustment enables us to account for the fact that the number of funds varies

from one group to another and therefore makes it possible to compare the different mean scores of the competing groups.

The probability function of the mean score of a group is described and can be shown to approximate to a normal distribution with a mean of 50 and a standard deviation of $\frac{100}{\sqrt{12 * n}}$, meaning $\frac{28.868}{\sqrt{n}}$ with n the number of funds of the group.

The adjusted mean score is defined from the statistics as follows:

$$\text{Adjusted Mean Score}_{\text{group p}} = 50 + \frac{\text{Mean Score}_{\text{group p}} - 50}{\frac{28.868}{\sqrt{n}}}$$

$$\text{The ratio } R_{\text{cr}} = \frac{\text{Mean Score}_{\text{group p}} - 50}{\frac{28.868}{\sqrt{n}}} \text{ enables to centre and reduce the probability laws}$$

of the mean of all the fund groups, such that we are able to compare them with a normal law of mean 0 and a standard deviation 1 and thus compare the groups against each other. By moving towards the centre of R_{cr} by adding 50, (the mean of the probability law of the mean score), the ratio is more in accordance with a scale of the scores.

Qualitative Review

Our qualitative analysts across Europe will review the scoring results and may disqualify a firm if there are extenuating circumstances. These might include (but are not limited to) the loss of a group of talented managers, substantial increases to fund expenses, non-availability of the house's funds to retail investors in the relevant market, or being taken over by another group. Each disqualification must be approved by the heads of Morningstar's European Research. The review is intended to prevent giving an award on the basis of performance that we believe is unlikely to be repeated due to structural factors.

Awards Selection

The remaining fund firms with the lowest score in each of the above groups will receive the relevant Morningstar Fund House Award. There will only be one award in each of the five categories listed above (large equity, large fixed-interest, specialist equity, specialist fixed-interest, and multi-asset). If there are fewer than three eligible groups in any of these categories, no award will be made in that category.