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Investment-Provider Data for Funds Methodology

Morningstar Methodology Paper
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Contents

Introduction	3
Average Morningstar Rating	4
Percentage of Assets by Morningstar Rating	5
Success Ratio	7
Morningstar Risk-Adjusted Success Ratio	8
Average Manager Tenure (Longest)	9
Asset-Weighted Manager Tenure (Longest)	10
Percentage of Assets by Longest Manager Tenure	11
5-Year Manager Retention Rate	12
Percentage of Assets by Manager Investment Level	13
Average Fee Level	14
Percentage of Share Classes by Fee Level	15

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Introduction

Morningstar provides data on individual securities registered in dozens of countries, but researchers evaluating those investments often have a need to study groups of investments as they're branded in a local market. The Investment-Provider Data combines data on securities that belong to the same fund firm so researchers can assess and compare relative strengths and weaknesses among families of securities.

The term Investment Provider is an identifier in Morningstar's database that groups funds and other investments under the fund firm that offers them. In the United States, usually all of a firm's funds fall under the same Investment Provider. For example, Fidelity Investments is the Investment Provider that links the hundreds of Fidelity funds offered by the firm.

Sometimes, Investment Providers cover more than one brand name of funds that are offered by the same parent company. Legg Mason, for instance, is an Investment Provider covering the firm's funds offered by Legg Mason Capital Management, Clearbridge, and Western Asset, but not the firm's Royce brand. The Royce funds have their own Investment Provider identifier.

Outside the U.S., the same fund firm often has multiple Investment Providers. In Europe, fund firms usually are assigned a unique Investment Provider for their firm in each country in which they distribute funds. For this reason, most of the calculations described in this paper apply to U.S. and Canadian Investment Providers. In those countries, Morningstar's data structure most accurately represents the spirit of these calculations.

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Average Morningstar Rating

Morningstar calculates overall three-, five-, and 10-year Morningstar Ratings on open-end mutual funds. Rolling up these ratings by Provider Company will show the average star rating of a Provider Company's funds and show Morningstar's customers at a glance--using proprietary data--whether a fund company's offerings have been successful on a risk-adjusted basis relative to their peers. By ranking this data, for example, an institutional fund buyer could compare firms' relative success. And by storing this data in a time series, fund buyers and researchers could tell whether a fund firm's risk-adjusted performance improved or deteriorated over time.

Morningstar provides the following data points:

- Firm Average Morningstar Rating Overall
- Firm Average Morningstar Rating 3-Year
- Firm Average Morningstar Rating 5-Year
- Firm Average Morningstar Rating 10-Year

Below is an example of a calculation for average overall Morningstar rating. All above calculations will follow this structure.

[1] $$\frac{1}{n} \bullet \sum_{i=1}^{n} r_i$$

Where

r	=	Share class Morningstar Rating
n	=	The total number of share classes assigned to the Investment Provider for which a Morningstar Rating is available

The calculation identifies the overall Morningstar Rating assigned to all open-end share classes. The calculation sums star ratings of share classes under the Investment Provider and divides that sum by the total number of share classes with star ratings with each Investment Provider. Share classes with no Morningstar Ratings are excluded from this calculation.

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Percentage of Assets by Morningstar Rating

Morningstar calculates three-year, five-year, 10-year, and overall Morningstar Ratings for open-end mutual funds. Rolling up the percentage of a Provider Company's assets by Morningstar Rating will show the extent to which a company's funds have outperformed their peers on a risk-adjusted basis. Morningstar's customers, particularly institutional fund buyers, will be able to easily ascertain whether most of a Provider Company's assets are in peer-beating 4- and 5-star offerings or whether the firm has produced less-successful funds overall.

This calculation also will show what percentage of a Provider Company's assets is in nonrated funds, which presumably are too young to earn the rating. If a fund firm is able to attract assets to younger share classes, these funds could be new share classes or existing, successful funds, or they could be new gimmicky funds that investors choose because they reflect a hot trend, not necessarily investing prowess. Either way, these data tell an important story about a fund company's distribution strategy and relative success.

Morningstar provides the following data points:

- % of assets, 3-Year Rating 1 Star
- % of assets, 3-Year Rating 2 Stars
- % of assets, 3-Year Rating 3 Stars
- % of assets, 3-Year Rating 4 Stars
- % of assets, 3-Year Rating 5 Stars
- % of assets, 3-Year Rating Null
- % of assets, 5-Year Rating 1 Star
- % of assets, 5-Year Rating 2 Stars
- % of assets, 5-Year Rating 3 Stars
- % of assets, 5-Year Rating 4 Stars
- % of assets, 5-Year Rating 5 Stars
- % of assets, 5-Year Rating Null
- % of assets, 10-Year Rating 1 Star
- % of assets, 10-Year Rating 2 Stars
- % of assets, 10-Year Rating 3 Stars
- % of assets, 10-Year Rating 4 Stars
- % of assets, 10-Year Rating 5 Stars
- % of assets, 10-Year Rating Null
- % of assets, Overall Rating 1 Star
- % of assets, Overall Rating 2 Stars
- % of assets, Overall Rating 3 Stars
- % of assets, Overall Rating 4 Stars
- % of assets, Overall Rating 5 Stars
- % of assets, Overall Rating Null

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Percentage of Assets by Morningstar Rating, Cont.

An example of a calculation for percentage of assets that receive a three-year, 1-star rating is below. All the above calculations will follow this structure.

[2] $$\frac{\sum_{i=1}^{m} s_i}{\sum_{i=1}^{n} s_i}$$

Where

s	=	Share class assets
n	=	Number of share classes assigned to Investment Provider
m	=	Number of share classes that receive a three-year, 1-star Morningstar Rating

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Morningstar Success Ratio

Morningstar Success Ratio evaluates whether an Investment Provider's OE funds have been successful based on their status of active or obsolete, which indicates whether the fund has been merged or liquidated, and their total return category rank, which compares returns of funds with similar strategies. This ratio will show at a glance—using Morningstar's proprietary data—whether fund families have delivered sustainable, peer-beating returns over longer periods. The ratio will be of interest to institutional fund buyers who want to partner with successful firms.

Morningstar provides the following data points:

- Morningstar Success Ratio 3-year
- Morningstar Success Ratio 5-year
- Morningstar Success Ratio 10-year

The example calculation below show the 3-Year Morningstar Success Ratio. The above calculations follow this structure.

[3] $\frac{m}{n}$

Where

m	=	Number of share classes assigned to Investment Provider that are active and have a total return category rank of less than 50, for the three-year period
n	=	Number of share classes assigned to the Investment Provider 36 months to the previous month-end date. Includes share classes that are obsolete by the end of the period.

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Morningstar Risk-Adjusted Success Ratio

Morningstar Success Ratio evaluates whether an Investment Provider's open-end funds have been successful based on their status of active or obsolete, which indicates whether the fund has been merged or liquidated, and their Morningstar risk-adjusted return category rank, which compares risk-adjusted returns of funds with similar strategies. This ratio will show at a glance—using Morningstar's proprietary data—whether fund families have delivered sustainable, peer-beating risk-adjusted returns over longer periods. The ratio will be of interest to institutional fund buyers who want to partner with successful firms.

Morningstar provides the following data points:

- Morningstar Risk-Adjusted Success Ratio 3-year
- Morningstar Risk-Adjusted Success Ratio 5-year
- Morningstar Risk-Adjusted Success Ratio 10-year

The example calculation below shows the 3-Year Morningstar Risk-Adjusted Success Ratio. The above calculations follow this structure.

[4] $\frac{m}{n}$

Where

m	=	Number of share classes assigned to Investment Provider that are active and have a Morningstar risk-adjusted return category rank of less than 50, for the three-year period
n	=	Number of share classes assigned to the Investment Provider 36 months to the previous month-end date. Includes share classes that are obsolete by the end of the period.

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Average Manager Tenure (Longest)

Morningstar collects manager tenure data on open-end mutual funds. Rolling up this tenure data by Provider Company will show the average manager tenure of a Provider Company's funds and will show Morningstar's customers at a glance whether a fund company's offerings are run by long-tenured managers. This data point also gives users an idea of how high or low manager turnover on the funds has been on a relative basis compared with other firms.

[5] $$\frac{1}{n} \bullet \sum_{i=1}^{n} t_i$$

Where

t	=	Longest manager tenure for a fund
n	=	The total number of funds assigned to the Investment Provider

The calculation is based on the start date of the longest-tenured manager on a fund.

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Asset-Weighted Manager Tenure (Longest)

Provider Company Asset Weighted Manager Tenure complements Investment Provider Average Manager Tenure. Like Average Manager Tenure, this data point gives users of the report an idea of how high or low manager turnover and manager experience on the funds have been on relative basis compared with other shops. This data point will also give an alternate view of manager tenure within a shop compared with the straight-average, highlighting whether tenure is consistent across a shop or skewed toward smaller or larger funds.

[6] $\sum_{i=1}^{n} w_i t_i$

Where

t_i	=	Longest manager tenure for a fund
w_i	=	Asset weighting of a fund (fund assets divided by total firm open-end fund assets)
n	=	The total number of funds assigned to the Investment Provider

The calculation is based on the start date of the longest-tenured manager on a fund.

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Percentage of Assets by Longest Manager Tenure

Percentage of Assets by Manager Tenure takes a more granular view of manager tenure than Average Manager Tenure and Asset-Weighted Manager Tenure. These data points break out the firm's assets by how long the manager has been on the fund, split into three-year increments.

Morningstar provides the following data points:

- % of assets, with longest manager tenure 0-3 years
- % of assets, with longest manager tenure 3-6 years
- % of assets, with longest manager tenure 6-9 years
- % of assets, with longest manager tenure 9-12 years
- % of assets, with longest manager tenure 12-15 years
- % of assets, with longest manager tenure 15+ years

An example calculation is below, for percentage of assets with longest manager tenure of 0-3 years. The above calculations will follow this structure.

[7] $$\frac{\sum_{i=1}^{m} f_i}{\sum_{i=1}^{n} f_i}$$

Where

f	=	Fund assets
n	=	Number of funds assigned to Investment Provider
m	=	Number of funds with a longest manager tenure figure of greater than zero years but less than or equal to three years.

The calculation is based on the start date of the longest-tenured manager on a fund.

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5-Year Manager Retention Rate

The 5-year Manager Retention rate measures an investment provider's aptitude at keeping portfolio managers at the firm on a long-term basis. This data point is distinct from manager tenure because it measures tenure at the firm, rather than tenure on a fund.

This calculation is completed in two steps; see below. Equation [8a] describes calendar-year manager retention rate for 2010, while Equation [8b] annualizes this into a five-year manager retention rate.

[8a] $1 - \frac{m}{n}$

Where

n	=	Total number of distinct managers at the firm who have manager start dates on at least one of the Investment Provider's funds prior to year-end 2009, and manager end dates on at least one of the Investment Provider's fund after January 1, 2010.
m	=	Total number of distinct managers who have manager start dates on a fund prior to year-end 2009 and manager end dates on a fund after January 1, 2010, but are not a listed manager on any of the Investment Provider's funds at year-end 2010.

To find the 5-year Manager Retention Rate, find the calendar-year manager retention rate for the previous five calendar years and annualize to get a five-year figure. Below, Equation [8b] finds the 5-year Manager Retention Rate as of year-end 2010.

[8b] $\sqrt[5]{r_{2010} \bullet r_{2009} \bullet r_{2008} \bullet r_{2007} \bullet r_{2006}}$

Where

r	=	Calendar-year manager retention rate

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Percentage of Assets by Manager Investment Level

Morningstar collects data on US open-end fund manager ownership of fund shares as it is disclosed in funds' annual Statement of Additional Information filing with the SEC. Rolling up these ratings by U.S. Investment Provider will show the extent to which fund managers at a given fund family are invested in the funds they manage. Morningstar's research has shown a correlation between manager ownership of fund shares and stronger longer-term, risk-adjusted returns.

Morningstar provides the following data points:

- % of Assets with Manager Investment of over $1 million
- % of Assets with Manager Investment of $500,001 to $1 million
- % of Assets with Manager Investment of $100,001 to $500,000
- % of Assets with Manager Investment of $50,001 to $100,000
- % of Assets with Manager Investment of $10,001 to $50,000
- % of Assets with Manager Investment of $1 to $10,000
- % of Assets with Manager Investment of $0
- % of Assets with No Data on Manager Investment

An example of a calculation is below, for fund assets in which the manager invests more than $1 million. The above calculations all follow this structure.

[9] $$\frac{\sum_{i=1}^{m} f_i}{\sum_{i=1}^{n} f_i}$$

Where

f	=	Fund assets
n	=	Number of funds assigned to Investment Provider
m	=	Number of funds in which the manager invests more than $1 million in the fund.

In cases in which a fund has multiple managers, this calculation is based on the manager with the highest level of ownership as reported to the SEC. Funds in which the base currency is not USD or funds that are exclusively used by insurance products, retirement plans, fund of funds, and funds used exclusively within the Investment Provider are excluded from the calculation.

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Average Fee Level

Morningstar calculates supercategory fee percentile ranks and fee level scores for US open-end funds. Rolling up these ratings by Investment Provider will show the extent to which a fund family offers competitively priced funds. Morningstar's research has shown a correlation between lower expenses and stronger longer-term, risk-adjusted returns.

This data point will be offered as a fee level percentile rank. A mapping of fee level percentile ranks to fee levels is below.

Average fee percentile rank	**Fee level**
Between 1 and 20	Low
Between 21 and 40	Below Average
Between 41 and 60	Average
Between 61 and 80	Above Average
Between 81 and 100	High

[10] $$\frac{1}{n} \bullet \sum_{i=1}^{n} p_i$$

Where

p	=	Share class fee level percentile rank
n	=	The total number of share classes assigned to the Investment Provider for which a Fee Level Rank is available

Share classes with no fee level percentile ranks are excluded from this calculation.

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Percentage of Share Classes by Fee Level

Percentage of Share Classes by Fee Level takes a more granular view of relative fund expenses than expense ratio and Average Fee Level. These data points break out an Investment Provider's assets by whether they are inexpensive, comparable, or more expensive than their supercategory peers. This data also shows whether a firm's assets are concentrated in reasonably priced offerings or pricey strategies.

Morningstar provides the following data points:

- % Share Classes in Low Fee Level
- % Share Classes in Below Average Fee Level
- % Share Classes in Average Fee Level
- % Share Classes in Above Average Fee Level
- % Share Classes in High Fee Level

An example of a calculation is below, showing the percentage of share classes with a Fee Level of Low. The above data points follow the same structure.

[11] $\frac{m}{n}$

Where

n	=	Number of share classes assigned to an Investment Provider
m	=	Number of share classes with a Fee Level of Low

Share classes with no fee level percentile ranks are excluded from this calculation.

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