THE LIPPER LEADER RATING SYSTEM INTERNATIONAL METHODOLOGY

TOTAL RETURN

CONSISTENT RETURN

DDESEDVATION

EXPENSE

AN INTRODUCTION TO THE LIPPER LEADER RATING SYSTEM Overview

The Lipper Leader Rating System is a toolkit that helps guide investors and their advisors in selecting funds that suit individual investment styles and goals. The Lipper Leader Rating System uses investor-centred criteria to deliver a simple, clear description of a fund's success in meeting certain goals, such as preserving capital or building wealth through consistent, strong returns. The strength of Lipper Ratings are their use in conjunction with one another. They can be used together to identify funds that meet the particular characteristics of the investor.

The Lipper Ratings are derived from highly sophisticated formulae that analyse funds against clearly defined criteria. Those funds that truly stand out relative to their peers are awarded Lipper Leader status. Each fund, registered for sale in a given country, is ranked against its peers based on the metric used (such as Total Return or Expense). The highest 20% of funds in each peer group are named Lipper Leaders, the next 20% receive a rating of 4, the middle 20% are rated 3, the next 20% are rated 2, and the lowest 20% are rated 1. Performance data utilised for Lipper Leaders are calculated using local currency. While Lipper Leader Ratings are not predictive of future performance, they do provide context and perspective for making knowledgeable fund investment decisions.

The ratings are subject to change every month and are calculated for the following periods: three-year, five-year, ten-year, and overall*. The overall calculation is based on an equal-weighted average of percentile ranks for each measure over three-, five-, and ten-year periods (if applicable).

* If applicable based on data available. Newer markets with insufficient data may be calculated over one and two year periods

Lipper Ratings for Total Return

Lipper Ratings for Total Return reflect funds' historical total return performance relative to funds in the same Lipper Global Classification.

A Lipper Leader for Total Return may be the best fit for investors who want the best return, without looking at risk. This measure alone may not be suitable for investors who want to avoid downside risk. For more risk-averse investors, Total Return ratings can be combined with Preservation and/or Consistent Return ratings to make a risk-return tradeoff decision.

Lipper Ratings for Consistent Return

Lipper Ratings for Consistent Return reflect funds' historical risk-adjusted returns relative to funds in the same Lipper Global Classification.

A Lipper Leader for Consistent Return may be the best fit for investors who value a fund's year-to-year consistency. Investors are cautioned that some peer groups are inherently more volatile than others, and even a Lipper Leader for Consistent Return in a volatile group may not be well-suited to shorter-term goals or less risk-tolerant investors.

Lipper Ratings for Preservation

Lipper Ratings for Preservation reflect funds' historical loss avoidance relative to other funds within the same asset class.

Investors are cautioned that equity funds have historically been more volatile than mixed asset or bond funds and that even a Lipper Leader for Preservation in a more volatile asset class may not be well-suited to shorter-term goals or less risk-tolerant investors.

Lipper Ratings for Expense

Lipper Ratings for Expense reflect funds' expense minimisation relative to other funds within the same Lipper Global Classification.

A Lipper Leader for Expense may be the best fit for investors who want to minimise their total cost and can be used in conjunction with Total Return or Consistent Return ratings to identify funds with above-average performance and lower-than-average cost.

ABOUT LIPPER

Lipper provides independent insight to asset managers and institutional investors on global collective investments, including mutual funds, retirement funds, hedge funds, and fund fees & expenses. Lipper offers premiumquality data, fund ratings, analytical tools, and global commentary through specialized product offerings. Bolstered by the resources and knowledge of our parent company Thomson Reuters, Lipper provides unparalleled expertise and insight to the funds industry.





EXAMPLES OF USE

The following examples are for demonstration purposes only. They are not exhaustive and do not represent every type of short-, medium-, or long-term investment horizon. The strength of the Lipper Leader Rating System is that it can be used with varying degrees of relevance to arrive at a level that suits individual goals.

Many investors with short-term horizons list preservation of capital as their primary concern. Therefore, these investors might consider funds with a Lipper Leader for Preservation rating. They may also be concerned with expenses. These Lipper Ratings could be included in an investor's screen with varying degrees of importance. For instance, Investor A, an investor with a short-term horizon who is primarily interested in preservation of capital and, to a lesser degree expenses, might screen for funds with a Lipper Leader for Preservation distinction and for funds listed as 3 or better for Expense.

Investor A: Selection Criteria



Preservation

LOWEST

Sample Funds That Meet Investor A's Selection Citeria

Consistent

Return

FUND A: FUND B:



Total Return





Expense









EXAMPLES OF USE

Or consider a long-term investor (Investor B) who believes, "you get what you pay for," and doesn't mind paying relatively more for fund management. In this case, screening for funds with an Expense rating of 1 or 2 would be appropriate. This investor may place higher emphasis on measures of performance, thus selecting funds that are Lipper Leaders for Total Return and Consistent Return.

Investor B: Selection Criteria



LOWEST

HIGHEST

Sample Funds That Meet Investor B's Selection Criteria

FUND C:









LIPPER RATINGS FOR TOTAL RETURN

Introduction

The Total Return measure is primarily a decision- making tool for advisors and individual investors

Total return is defined as the return after (net of) expenses and includes reinvested dividends. Total return is commonly used to evaluate performance and is part of the risk-return trade-off in Modern Portfolio Theory (MPT). Fund managers use it in conjunction with fundamental or quantitative analysis when choosing stocks, and individuals who engage in momentum investing frequently use total return as their primary screen.

Lipper Ratings for Total Return can be used as a standalone tool or in conjunction with other Lipper Ratings.

Calculation and Rating

Lipper Ratings for Total Return reflect funds' historical total return performance, measured in local currency, relative to peers. Funds registered for sale in a given country are selected, then ratings for Total Return are computed for all Lipper Global Classifications with five or more distinct portfolios. These calculations span both equity, mixed asset and bond funds. The ratings are subject to change every month and are calculated for the following periods: three-year, five-year, ten-year, and overall. The overall calculation is based on an equal-weighted average of percentile ranks for the Total Return metrics over three-, five-, and ten-year periods (if applicable). The highest 20% of funds in each classification are named Lipper Leaders for Total Return, the next 20% receive a rating of 4, the middle 20% are rated 3, the next 20% are rated 2, and the lowest 20% are rated 1.

LIPPER RATINGS FOR CONSISTENT RETURN Introduction

The Consistent Return measure is a more sophisticated risk-adjusted mutual fund return performance measure than others currently available in the marketplace. It takes into account both short- and long-term risk-adjusted performance relative to fund classification. The measure is based on the Effective Return computation. Effective Return is a risk-adjusted return measure that looks back over a variety of holding periods (measured in days, weeks, months, and/or years).

Calculation and Rating

Lipper Ratings for Consistent Return reflect funds' historical risk-adjusted returns, measured in local currency, relative to peers. Funds registered for sale in a given country are selected, then ratings for Consistent Return are computed for all Lipper Global Classifications with five or more distinct portfolios.

These calculations span both equity, mixed asset and bond funds. The ratings are subject to change every month and are calculated for the following periods: three-year, five-year, ten-year, and overall.

The overall calculation is based on an equal-weighted average of percentile ranks for the Consistent Return metrics over three-, five-, and ten-year periods (if applicable).

The highest 20% of funds in each classification are named Lipper Leaders for Consistent Return, the next 20% receive a rating of 4, the middle 20% are rated 3, the next 20% are rated 2, and the lowest 20% are rated 1.







Lipper Ratings for Preservation Introduction

Economist Irwin Friend (1970)* noted that the value of a single-parameter calculation of performance rests not only on its ability to measure investment management skill and market forecasting proficiency, but also its utility to the investor in delivering pertinent and sensible information. The utility of popular tools such as the Sharpe ratio may not be high for investors whose investment decisions are a function of absolute loss avoidance. The Preservation measure aims to help investors at various levels of risk averseness by providing a distinctive one-parameter measure of downside risk.

Preserving Capital

The Preservation model is defined as the sum of negative monthly returns over three-, five-, and ten-year performance periods, or:

For ease of use, the Preservation model assumes that the investor is more concerned about negative performance than below-target returns (because "target" is broadly defined). In fact, a 1996 Investment Company Institute survey found that 51% of mutual fund investors think of risk as the chance of losing money.

The Preservation measure is calculated from three broad asset classes (equity, mixed asset, and bond funds) instead of from the investment classification level.

Calculation and Rating

Lipper Ratings for Preservation reflect funds' historical loss avoidance, measured in local currency, relative to peers. Funds registered for sale in a given country are selected, then ratings for Preservation are computed from three broad asset classes—equity, mixed asset, and bond funds. The ratings are subject to change every month and are calculated for the following periods: three-year, five-year, ten-year, and overall. The overall calculation is based on an equal-weighted average of percentile ranks for the Preservation metrics over three-, five-, and ten-year periods (if applicable). The highest 20% of funds in each classification are named Lipper Leaders for Preservation, the next 20% receive a rating of 4, the middle 20% are rated 3, the next 20% are rated 1.

*Friend, I. and Blume, M., 1970, Measurement of portfolio performance under uncertainty, The American Economic Review, 60, 561-575.





HIGHEST Expense Expense Expense LOWEST **Expense**

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Lipper Ratings for Expense Introduction

The Expense measure is primarily a decision-making tool for advisors and individual investors. Its purpose is to rate mutual funds in terms of their level of expenses relative to peers.

Investors often use expenses as a criterion to choose or sort funds. One of the reasons given for looking at expenses (in conjunction with other measures such as total return, risk-adjusted return, etc.) is that higher costs could lead to lower net returns and hence poorer performance, unless they are more than offset by higher gross performance.

In an unpublished study (available at his Web site: http://www.stanford.edu/~wfsharpe/home.htm), Nobel laureate and Stanford professor William Sharpe found that the average Sharpe ratio for funds with the smallest expense ratios was over 75% greater than that of funds with the greatest expense ratios.

Though Professor Sharpe's study was not exhaustive (it did not include funds that were in existence at the start of the test period but "died" before the end of the test period), it is fair to say that at least directionally, funds with higher expenses add more (and possibly far more) to expenses than they add to performance. Lipper ratings for Expense, then, differentiate funds that have minimised expenses compared to competing funds.

These costs are subtracted directly from a fund's return, so if two funds have equal returns before expenses, the lower-cost fund will deliver higher net returns to an investor.

Calculation and Rating

Lipper Ratings for Expense reflect funds' expense minimisation relative to peers. Funds registered for sale in a given country are selected, the ratings for Expense are computed for all Lipper Global Classifications with five or more distinct portfolios. These calculations span both equity, mixed asset and bond funds. The ratings are subject to change every month and are calculated for the following periods: three-year, five-year, ten-year, and overall. The overall calculation is based on an equal-weighted average of percentile ranks for the Expense metrics over three-, five-, and ten-year periods (if applicable). The highest 20% of funds in each classification are named Lipper Leaders for Expense, the next 20% receive a rating of 4, the middle 20% are rated 3, the next 20% are rated 2, and the lowest 20% are rated 1.

Expense Data

Lipper Leaders for Expense are currently available for funds registered for sale in: Australia; Austria; Belgium; Switzerland; Germany; Denmark; Spain; Finland; France; UK; Hong Kong; Italy; Netherlands; Norway; Singapore; Sweden; Luxembourg. All expense ratios used for Lipper Leader calculations are provided by Lipper Fitzrovia. Lipper Fitzrovia is a leading independent investment fund research company. Based in London, the company's research covers over 37,000 investment funds and share classes worldwide. Over 85% of the leading fund promoters worldwide subscribe to Lipper Fitzrovia's research.



