Scope Mutual Fund Rating Methodology
Liquid Alternatives

April 2022

Contents

Contact

Said Yakhloufi, CEFA
Group Managing Director
+49 69 6677389-32
s.yakhloufi@scopeanalysis.com

Andreas Köchling, CEFA
Director
+49 69 6677389-34
a.koechling@scopeanalysis.com

1. Introduction

Scope's Mutual Fund Rating is an established method of evaluating the management quality of open-end funds and how this contributes to outperformance and risk minimisation compared with the peer group. The analysis is based on the track record of the fund and uses both quantitative and qualitative criteria.

For funds with a track record of less than six months, the initial analysis within the various categories is entirely qualitative and based on an extensive set of criteria. Thus, the shorter the fund's track record, the greater the influence of the qualitative data on the rating. As the fund's track record increases (from six months), the qualitative criteria become supplemented, and eventually replaced, by a system of quantitative indicators.

2. Scope Mutual Fund Rating

2.1. Objective

The steadily rising number of funds and their growing diversity makes selecting an investment a complex task.

The fund ratings aim to assist in this process, based on pre-defined investment objectives and focuses. These must be clearly defined because the relative nature of the fund ratings means no conclusions can be drawn on the development of an entire segment; the ratings merely evaluate a fund's relative quality in relation to its segment.

2.2. Benefits

The rating concept can be used to support the advisory process at various levels. It can, but does not have to be, regarded as a single rating. Every indicator used in the rating is evaluated and disclosed separately. This gives investors, investment advisers and fund distributors a diverse range of indicators with which fund quality can be analysed.

The first step is to create market transparency for retail investors, and the standardised process enables a systematic comparison of different funds without having to know the details. At the rating level, Scope's Mutual Fund Rating is therefore a simple decision-making aid for product selection and portfolio reviews.

Fund ratings now also play an important role in the pre-selection of funds by institutional investors. In many companies, funds only undergo in-depth analysis if their ratings meet a minimum requirement.

Investment advisors and banks also focus on examining and selecting products. The various rating indicators provide a differentiated overview of the various funds. This transparency enables investors to take into account the individual opportunity/risk profile when selecting funds. Investment advisors and fund-of-fund managers can drill down into the various rating criteria of a fund, depending on how specific their information requirements are.

Lastly, the fund rating provides key sales arguments for fund distributors. A rating by an independent third party (i.e. a rating agency) adds credibility to the quality of the product. Complex information is converted into a single rating. Fund distributors benefit from investors' perception of the objectiveness and competence of the rating agency.

Scope Mutual Fund Rating — benefits pyramid		
Who?	**What?**	**How?**
Retail investors		https://funds.scopeanalysis.com **Media**
Investment advisors	Rating result Rating indicators	https://funds.scopeanalysis.com **Rating reports**
Institutional investors	Rating data and detailed information	https://funds.scopeanalysis.com **Client-specific analyses**

3. Methodology

The Mutual Fund Rating comprises performance and risk indicators, each of which is composed of the weighted total of various sub-indicators.

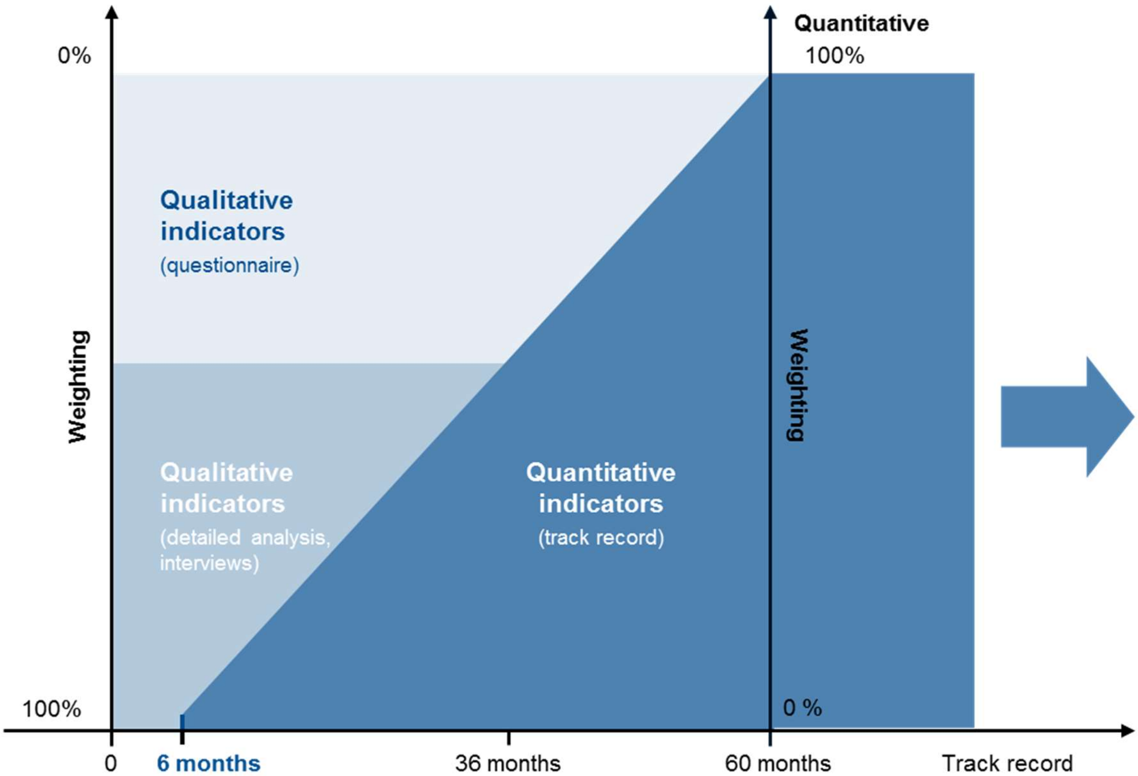
If a fund's track record is less than six months, the indicators are initially evaluated on a qualitative basis only, using an extensive set of criteria. The qualitative evaluation is performed once yearly. As the fund's track record increases (from six months), the qualitative criteria are supplemented, and eventually replaced, by quantitative indicators. The quantitative indicators are updated monthly along with their weighting (linear adjustment) in the overall rating.

Once the fund has a five-year track record – and provided the investment approach and management team both remain unchanged – only quantitative indicators are taken into account. The dynamic weighting of the qualitative and quantitative indicators therefore ensures the Mutual Fund Rating remains consistent over time.

Since the qualitative assessment requires deep insight into the fund management company's operations, funds with a track record of less than five years are only rated at the request of the fund management company. Funds with a longer track record do not need a request from or consultation with the fund management company.

Qualitative ratings are only undertaken for funds that can be assigned to a peer group with at least 20 funds (i.e. funds with a track record of least five years, an unchanged investment approach and unchanged management team).

The Mutual Fund Rating is a relative rating. In other words, funds are always rated in relation to a pre-defined peer group.



4. The rating process

The assessment of a fund's quality is based on a multi-dimensional model that uses both performance and risk indicators. The performance indicator has a 70% weighting and comprises relative performance, long-term earning power and stability of performance. The risk indicator (30% weighting) assesses the timing risk, loss risk and behavioural risk of the fund. There are interdependencies between the performance and risk indicators in both the quantitative and, if included, the qualitative assessment. High outperformance is usually accompanied by a high tracking error. However, this in turn weakens the assessment of behavioural risk. The more active the manager is, the higher behavioural risk is usually considered to be.

Performance contribution (70%)	Risk minimisation (30%)
• Relative performance • Long-term earning power • Stability	• Timing risk • Loss risk • Behavioural risk

Chart: Categories used to evaluate management quality

5. Qualitative rating

Alongside our proprietary database, the documents used for the qualitative evaluation include:

- Questionnaires and checklists
- Company product presentations
- Information from management interviews
- Flow charts and organisational structures
- Resumes of fund managers and other relevant people
- Research reports

5.1. Performance contribution

5.1.1. Stability

The stability parameter evaluates the corporate structure, the business strategy, including ethical aspects, the continuity of fund management, and the stability of the investment process.

The experience/expertise of the fund management company, the rigour of the organisational structure, the existence of synergies, the continuity of the business strategy and the integrity of the relevant employees are used to evaluate the **stability of the corporate structure**. Fund-specific criteria are also analysed; therefore the assessment of this criterion may differ when rating different funds managed by the same fund management company. The relevant track record and fund size are analysed in relation to the corresponding peer group and determine the evaluation of fund-specific criteria.

The stability of the management team and ownership structure takes into account the executives' company tenure and the company's ownership structure. In addition, overlaps between areas of responsibility and potential conflicts of interest within the company's management are examined. Further analytical elements include the strength and consistency of the staff structure, the rigour/scope and quality of customer support, investors' ability to obtain information, and the quality of the information available.

The key factor for the **continuity of the fund management** is stability within the fund management team. Consequently, staff fluctuation over various periods is tracked. The weighting of the time periods is determined by the track record of the fund to be evaluated. In addition, deputisation and succession rules are examined. Questions in this regard include: Who would be responsible for portfolio management in the absence of the fund manager? How is the experience and expertise of the potential deputy evaluated and how long has this person been involved in portfolio management as of the rating date, or to what extent is the person concerned involved in the day-to-day business? On a fundamental level, the smoothest possible continuity or handover of portfolio management must be ensured.

The **stability of the investment process** looks at the efficiency and rigour of the investment process in terms of process structure, the alignment of interfaces, process workflows for investment decisions, and pre-defined investment restrictions. The quality of the research process comprises an evaluation of the experience and qualifications of research staff, the qualitative and quantitative research process, and the quality and documentation of research findings. With regard to performance measurement and control, Scope Fund Analysis checks the structure of performance controls and the suitability of the parameters and benchmarks applied. The investment philosophy is evaluated on the basis of the strategies applied and the asset class, taking into account the relevant characteristics of the portfolio structure such as management approach, investment focus and turnover ratio.

5.1.2. Relative performance

The relative performance evaluates the superiority of the fund management and the fund design.

The **superiority of fund management** is measured by the fund management's experience, qualifications, and other areas of responsibility or activity. If external advisors are involved in the investment process, this collaboration and the associated costs are included. Further criteria are monetary and non-monetary incentives for the fund manager, i.e. fixed salary and variable remuneration structures. Fluctuation in management and the influence of corporate structure on management performance also play key roles. Criteria include the extent to which the organisational structure gives management the freedom to make decisions and whether the company makes available all necessary technical and human resources. The evaluation also includes the organisation and how it is integrated into the risk monitoring of cash management. Scope Fund Analysis examines whether sufficient attention is paid to the risk/return profile and how efficiently investments are managed.

The **superiority of the fund design** is determined by workflow organisation and the rigour of the investment concept. In this context, the investment philosophy defined by the fund management and the innovativeness of the fund product provide an insight into the superiority of the fund design. The evaluation also includes cost structure. Both absolute and relative fees are taken into account, and the cost structure is evaluated in relation to competitors in the relevant peer group. Investment restrictions under the fund concept are also included.

5.1.3. Long-term earning power

Long-term earning power is an assessment of the earning potential resulting from the structure and implementation of the investment process.

The **earning potential resulting from the structure of the investment process** is first derived by determining the contribution made by research to performance. The criteria here are the experience and qualifications of research staff, organisation of the areas of responsibility, communication of the results, and the organisation and design of interfaces. Other factors in the analysis are the efficiency and rigour of the investment process, which includes an examination of communication and collaboration with other investment teams, process design, the decision-making process, and documentation of the results. The investment style and investment philosophy are also relevant.

The **earning potential resulting from implementation of the investment process** comprises the performance contribution made by human and technical resources. The evaluation of the staff contribution to the performance of the fund takes into account the skills and specialisation of fund management members, especially regarding liquid alternative strategies (including short selling), succession planning and deputisation arrangements, and staff continuity (including for the head of the team). The evaluation of the contribution made by technology to the fund's performance includes technical support for analysis, and trading and performance metrics based on the underlying fund.

5.2. Risk minimisation

5.2.1. Timing risk

The **volatility resulting from the structure of the investment process** is determined, among other things, by the existence of volatility limits. Scope Fund Analysis evaluates operational freedom with regard to the alignment of the fund concept. This assessment is based on information obtained from fund management, the actual volatility of the fund, and the realised volatility of the fund compared with the peer group's average. The risks arising from the investment style are derived from, among other things, the restrictions, the target risk profile, allocation requirements, the long-term nature of the fund's investment approach, restrictions on long and short exposures, currency risks, capacity limits for the fund volume and, where applicable, hedging instructions.

The **volatility resulting from implementation of the investment process** comprises criteria already used in the evaluation: the stability of fund management, staff fluctuation, the stability and organisation of executive management, and the company's ownership structure. These criteria are therefore analysed in terms of their contribution to both performance and risk minimisation.

5.2.2. Loss risk

The **loss risk resulting from the portfolio structure** is derived from the ability to liquidate the portfolio, taking into account the specific asset class and an evaluation of sales discipline. In addition, this criterion determines the risk aversion of the fund concept. In this context, the risk objectives are examined at portfolio level and evaluated both in absolute terms and relative to the peer group. Alongside the quality of the risk criteria, the type and scope of the risk metrics is decisive for the analysis. Scope Fund Analysis evaluates the independence of risk monitoring and the risk monitoring strategies, as well as their organisation, the use of risk management systems, and the pre-defined risk management activities.

The criterion **risks resulting from IT structure** comprises an assessment of the strategy, IT organisation including structural measures to avoid data loss, the process workflow, and the IT infrastructure. Responsibility within the IT function should be appropriately defined and documented, and the IT components used should be aligned as needed.

5.2.3. Behavioural risk

The **risk resulting from active management** is determined by the existence of specifications for volatility, value at risk, maximum tolerated risk, etc. The assessment includes the defined specifications and the actual values compared with those of the relevant peer group. A fund manager with ample freedom results in a lower risk rating and increases the risk relating to active management. Furthermore, this criterion specifically analyses the fund management's behaviour with regard to asset classes.

The overview of the **risks resulting from the fund design** examines the diversification of the portfolio. This looks at how restrictive the fund manager is in terms of the portfolio's risk profile. The cost structure and turnover ratio of the fund are also used in the evaluation of this criterion.

5.3. Scoring

To derive the overall quantitative rating, all criteria are assigned an individual score from 1 to 100 and the weighted scores are aggregated.

6. Quantitative rating

6.1. Performance contribution

6.1.1. Stability

The stability sub-indicator is derived, on the one hand, from the probability of outperformance relative to the index, and on the other, from the peer group average. The calculation is based on a rolling three-month performance over the relevant track record. The probability of outperformance versus the peer group index and peer group average only takes account of the frequency of success; no significance is assigned to the extent of the outperformance.

6.1.2. Relative performance

The relative performance evaluation looks at a fund's potential for outperforming its peer group and benchmark. Fund performance is compared with the peer group index and the average performance rating within the peer group. Outperformance versus the index takes into account the extent of outperformance or underperformance. The performance of a fund relative to its peer group is reflected in the fund's position measured by the average ranking. Calculating the average ranking indicates whether a fund is either continuously or only occasionally in the upper segment of the peer group.

6.1.3. Long-term earning power

The long-term earning power is derived from the longest period of gains in conjunction with the shortest loss period generated by the fund, in months. The valuation reflects If a fund has an above-average long period of consistent gains or a short period of losses compared with the peer group. For example, if a fund has a negative difference, this shows that it loses relatively more in downward phases than it gains in upward phases.

6.2. Risk minimisation

6.2.1. Timing risk

The timing risk is determined primarily by the semi-volatility of the fund relative to its peer group index. Semi-volatility is a established metric for measuring and evaluating the exposure of asymmetric portfolio strategies to fluctuations.

6.2.2. Loss risk

The loss risk is determined by the maximum moving loss, the probability of a loss over a month, the average loss in a month and the negative elasticity of the fund versus the average for the peer group. The maximum loss within six months shows the highest percentage drop by the fund during a rolling period of (at most) six months within the time period evaluated. The probability of loss and maximum loss also provide information on how well the fund management dealt with this issue in the past. The negative elasticity shows the proportionate drop in the fund price when the underlying peer group drops.

6.2.3. Behavioural risk

Behavioural risk is defined by fund's average time to recovery. It shows the average number of months a fund needs on average to recoup the biggest loss made within six-month period. This shows the extent to which far larger losses represent an additional risk.

6.3. Scoring

To determine the overall qualitative rating, all criteria are assigned a score of 1-100 as outlined below and the weighted scores are aggregated. For scores that should be maximised (e.g. outperformance vs. index):

$$\text{Score} = \left[\frac{\text{Value-(Median-Volatility)}}{\text{2.Volatility}}\right].80+10$$

For scores that should be minimised (e.g. risk indicator):

$$\text{Score} = \left[\frac{\text{(Median+Volatility)-Value}}{\text{2.Volatility}}\right].80+10$$

Median: the median of the scores for comparable funds (minimum 20)

Volatility: the volatility of the scores for comparable funds (minimum 20)

If the score calculated for a criterion is above 90, it is rounded up to 100. Conversely, if the score is less than 10, it is rounded down to 1.

7. Explanation of the overall Mutual Fund Rating

There are interdependencies between the performance and risk indicators in both the qualitative and the quantitative rating. Normally, a high outperformance (see relative performance and stability on the performance side) correlates with greater exposure to volatility. However, this also gives a lower score for behavioural risk. The more active the manager, the weaker the behavioural risk in general.

In view of its forward-looking nature, Scope's Mutual Fund Rating allows a future-oriented view of the attractiveness of a fund. This is an assessment of the trend, not an accurate performance forecast. A fund rated A or B has a higher probability of outperformance than a fund with a lower rating. The underlying evaluation system is designed to produce the most stable results possible while maximising flexibility. This allows timely visibility of changes in the quality of the fund without generating excessive volatility.

Criterion	Qualitative indicators	Quantitative indicators
Relative performance	• Superiority of fund management • Superiority of fund design	• Outperformance vs. index p.a. • Average ranking - 3-months rolling
Long-term earning power	• Earning potential resulting from structure of investment process • Earning potential resulting from implementation of investment process	• Longest period of gains - in months • Shortest period of gains - in months
Stability	• Stability of corporate structure • Continuity of fund management • Stability of investment process	• Probability of outperformance vs. index - 3-months rolling • Probability of outperformance vs. peer group - 3-months rolling

Chart: Comparison of qualitative & quantitative performance criteria

Criterion	Qualitative indicators	Quantitative indicators
Timing	• Volatility of investment process structure • Volatility of investment process implementation	• Semi-volatility
Loss	• Risk of loss resulting from portfolio structure • Risks resulting from IT structure	• Max. rolling loss over 6 months • Probability of loss month • Average loss in loss month • Elasticity (-) vs. peer group
Fund behaviour	• Risk resulting from active management • Risk resulting from fund design	• Average time to recovery

Chart: Comparison of qualitative and quantitative risk minimisation criteria

8. Rating classes

The Scope Fund Analysis rating process allocates the funds to one of five rating classes.

Rating	Evaluation	Score
A	Very good	100–78
B	Good	77-60
C	Average	59-41
D	Below average	40-23
E	Poor	22-1

A highly rated fund, i.e. at A or B, is expected to achieve a stable, above-average performance with relatively low risk in the medium term.

Following a summary of the criteria for the individual components and the overall evaluation of the funds, the score is allocated to one of the five rating classes, ranging from A (very good) to E (poor). For each criterion, the fund is assigned a score of 1-100 relative to its competitors (in the same peer group). If a specific indicator for a fund is line with the median for its segment, it scores 50 for this indicator. The total score of relevance for the rating comprises the weighted score for the individual criteria. If there is a major change in the fund management team, the fund rating will be flagged “ur” for “under review”.

Scope Fund Analysis GmbH

Berlin
Lennéstraße 5
D-10785 Berlin
Phone +49 30 27891 0

Frankfurt am Main
Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main
Phone +49 69 6677389 0

info@scopeanalysis.com

www.scopeanalysis.com

www.scopeexplorer.com