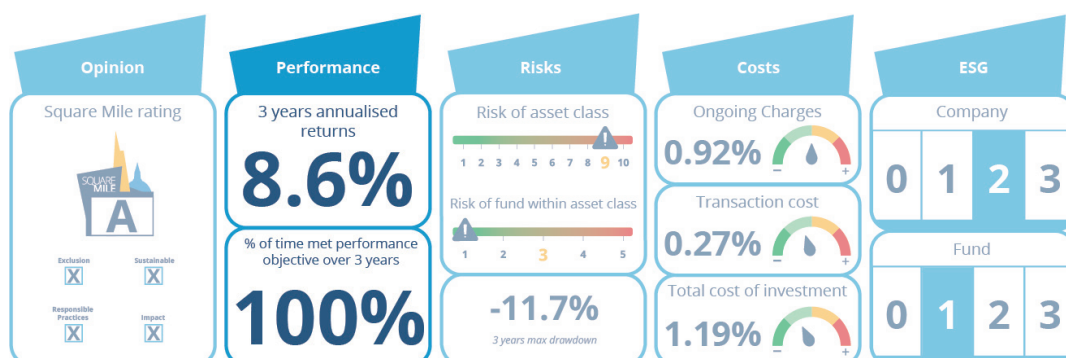


FOR PROFESSIONAL INVESTORS ONLY

Fund Dashboard: Performance Methodology

FUND DASHBOARD: PERFORMANCE METHODOLOGY



Source: Square Mile

The following methodology was created in order to provide insight into the fund's historic success rate relative to the fund's objective. The diversity of different fund objectives matches a range of different investment needs. It is therefore important to capture this diversity and put it into a framework which would enable a useful comparison between different funds' objectives and their historic ability to produce their desired result.

The success rate calculation follows the following steps:

The fund's objective is sourced from either the formal fund objective or if the formal objective does not provide sufficient or clear enough metrics, the expected outcome as defined by Square Mile.

1. The objective is analysed and then mapped to one of eight basic objective types
2. The fund's historic performance is measured against a relevant benchmark
3. This paper will describe each step with an insight into various data inputs.

Objective description

The first step of the success rate calculation involves assigning an appropriate objective or expected outcome to a fund. By default, the fund's formal objective is used with the successive calculations being based on this. However, when the fund's formal objective is too vague and therefore impossible to derive any objective type then Square Mile's Expected outcome is assigned, and the calculation will be based on this.

For example, a vague objective could be worded as: "The fund aims to achieve capital appreciation". In this event, the fund would be analysed to identify an expected outcome, which in its description would include specifics including but not limited to benchmark, performance target, investment time horizon and risk boundaries.

When the fund presents multiple objectives, rather than attempting to describe how to weight the importance of each outcome, the primary objective is highlighted and used in further analysis steps. For example, funds which are dedicated to income distribution will tend to be given an objective of either targeted or relative yield.

Objective analysis

In order to make the success rate calculation relevant and easier to interpret, for each fund the objective or the expected outcome is broken down into one of eight different objective types. These objective types are comprehensive enough and can be applied to a range of funds spanning different strategy types such as equity, fixed income, multi-asset, absolute return, tracking and risk targeted funds. The range of different objective types can be seen below.

Objective type	Example description of what strategy is trying to achieve.
Target Return	The fund targets a return of 5% p.a.
Relative Return	The fund seeks to achieve a return higher than the benchmark.
Target Yield	The fund targets an income of 5% p.a.
Relative Yield	The fund seeks to achieve an income higher than the benchmark.
Target Volatility	The fund seeks to keep the volatility risk below 5% p.a.
Relative Volatility	The fund seeks to provide lower volatility than the market.
Track Performance	The fund aims to track the benchmark.
Risk-adjusted performance	The fund aims to provide greater risk-adjusted returns than the benchmark.

All objective types except for “Track Performance”, are based on a specific timeline which can be described as the suggested investment time horizon for the fund e.g. 5 years or 3 to 5 years. When the time horizon is stated as a range, the longer of the two time frames is used depending on the relevant history of the fund. For example, for a fund with a relevant history of 4 years with a time horizon of 3 to 5 years, the calculations would be based on a 3 year time frame until it has a 5 year history available. The time frame used in the calculations is shown in the text, found above the percentage figure, as: “% of time met performance objective over X years”.

Objective success calculation

Each success rate is reported as a simple percentage figure calculated as:

$$\text{Success Rate} = \frac{\text{(Times the fund met the stated objective)}}{\text{(Total relevant fund history)}}$$

Since the success rate is not normalised to any peer group or alpha generation method it can give the perception of considerable success or failure. It is therefore important to understand what the fund aims to achieve through the fund’s formal objective or Square Mile’s expected outcome, as certain objectives or outcomes might be more challenging to achieve. For example, a target of achieving performance greater than the market is considered to be more challenging than matching the performance of said market.

The calculations for each objective type, shown in the table above, are done differently but can be broadly grouped into five classes depending on the category of the time series used in the calculations.

On occasion, when the fund has changed its mandate significantly, and therefore its objective or outcome has been changed, only the most recent and relevant fund history is used for success rate calculations.

Total return, accumulation calculations

The accumulation objectives such as “target return” and “relative return” compare funds’ total return net of costs to either an absolute return target or a return relative to a benchmark, respectively. The benchmark’s return is calculated using a total return time series where the benchmark is an index. If the data for the right index is unavailable, the next most suitable time series is used, which may be a tracker fund’s total return net of costs data.

The success of these objectives is considered when the performance has been greater or equal to an absolute or relative target return. The calculation is repeated every month for each time period stated within the objective or the expected outcome.

Yield, income calculations

The income objectives such as “target yield” and “relative yield” compare the fund’s yield to either an absolute yield target or target relative to a benchmark, respectively. The success of these objectives is considered for both fund and benchmark (where applicable) using a 12 month dividend yield net of tax (not costs). The calculation is repeated every month for each 12 month rolling period.

Volatility, risk targeted calculations

The risk targeted objectives such as “target volatility” and “relative volatility” compare a fund’s historic volatility to either an absolute volatility target or single volatility limit(s) which may be relative to a benchmark. The total return net of costs is used for each fund’s volatility calculation, whereas benchmark volatility is calculated using a total return time series where the benchmark is an index. On occasion, when the data for the right index is unavailable, the next most suitable time series is used, which may be a tracker fund’s total return net of costs data.

The success of these objectives is considered, when the fund’s volatility is not greater than the volatility target, or when the fund’s volatility is not greater than the stated limits, respectively. The calculation is repeated every month for each time period stated within the objective or the expected outcome.

For risk targeted calculations involving the Square Mile expected outcome, the volatility limits have been based on the long-term capital market assumptions for risk, sourced from the fund providers themselves. These assumptions are then translated into volatility bands relative to the global equity markets and are declared within the Square Mile expected outcome, for example: “We believe a reasonable expectation for the fund is to achieve capital growth whilst providing an annualised level of volatility, over five years, of between 30% to 50% of global equity volatility”.

Risk-adjusted metric, risk-adjusted calculations

The risk-adjusted objectives compare a ratio of the fund’s return to volatility with the benchmark’s ratio of return to volatility. The total return net of costs is used for a fund’s return and volatility calculation, whereas the benchmark’s return and volatility is calculated using total return time series where the benchmark is an index. On occasion when the data for the right index is unavailable, the next most suitable time series is used, which may be a tracker fund’s total return net of costs data. The success of this objective is considered, when the fund has been providing equal or greater risk-adjusted return than the benchmark. The calculation is repeated every month for each time period stated within the objective or the expected outcome.

Daily tracking difference, tracker calculations

The tracking objectives measure the fund’s daily tracking difference relative to a tracked index. The fund’s return is calculated using total return series whereas the benchmark’s return is calculated using total return time series. The success of this objective is considered, when the fund’s 30 day average tracking difference has not exceeded the limit set for that fund’s asset class. The asset class tracking difference limits were set based on Square Mile analysts’ understanding of factors influencing fund’s tracking performance in various asset classes.

The calculation is repeated every day for each 30 day rolling period.

Share class selection

For each fund there could be as few as one investable share class or as many as 30 different share classes, each with different costs and investor outcomes. The performance analysis is performed on a single chosen share class for each fund deemed the most widely available to advisers, as defined by platform availability within the appropriate peer group. This is done to make comparisons more relevant as well as to avoid funds with many share classes skewing the performance analysis for less represented funds.

The rules for share class selection are listed as follows, in the order of importance:

- Share class is required to be "Clean" and sterling denominated.
- Distribution, for fixed income funds preference is given to income distribution share classes.
- Platform availability, share classes which are more widely available receive preference.
- History length, funds with longer history are favoured.
- Cost, cheaper share classes, as determined by "Total cost of investment" are preferred, however the cheapest share class might not necessarily be selected due to other stated reasons by the Asset manager i.e. minimum subscription.

The share class which satisfies the majority of these criteria is selected and used to construct appropriate peer group. On occasion, when the chosen share class becomes "closed" or restricted to fewer investors, the next recommended share class is selected.

The chosen share class for each fund is referenced and can be seen when viewing funds on the [Academy of Funds website](#).



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