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FE Crown Fund Ratings

Methodology

FE Crown Fund Ratings are calculated by building up a score. The score is made up of three parts, and each part is calculated by reference to a benchmark for the fund. The calculations only have meaning if that benchmark provides a good basis for understanding the performance of that fund.

The process starts with finding a benchmark
FE has used approximately 300 well-known benchmarks, including sector averages and indices, to find a 'best-fit' for each fund. Where sectors are homogenous and not too diverse, we have retained use of the sector average as a benchmark for all funds. However for more diverse sectors a best-fit, appropriate benchmark is assigned. This best fit is compared to the best-fit two years ago, to assess the persistency of the fit, and rules are applied to resolve any lack of consistency.

No fund can be expected to have a 100% correlation to its benchmark. We use the r squared coefficient to determine how much of a funds performance is explained by the benchmark. We use this value to weight our Alpha component, the remainder is calculated using the sortino ratio which has no requirement for a benchmark. For a fund with a perfect correlation to its benchmark the result is the Alpha value, and for a fund with a zero correlation the result is the Sortino ratio. Results in-between are done on a sliding scale based on their r squared correlation. The appropriateness of a fund's benchmark will be reviewed every two years. If it then seems that a change is appropriate, the persistency rules will still apply, to minimise changes arising from small shifts in different benchmarks' r-squared.

Next, three tests are applied – analysing alpha, volatility and consistency
Once the benchmark has been assigned, FE then applies three tests to the total return history of the fund. Note that three years of history is required to carry out these scores, so any fund with less history than this will not qualify for a rating.

- **The alpha test**

We calculate the alpha generated over the last three years, and then adjust this for the volatility of the fund. We thus make the alpha of funds more comparable, notwithstanding volatility differences, which can inflate alpha. A score is assigned on this basis.

As perfect correlation to a benchmark is not possible in most cases we use the Sortino ratio to calculate the remaining uncorrelated performance. Although similar to Sharpe ratio, Sortino measures the return to "bad" volatility without need of a benchmark, this allows a measurement of the risk adjusted returns to be made.

- **The volatility test**

We compare the volatility of the fund over the last three years with that of the chosen benchmark and assign a score.

- **The consistency test**

We look at the extent to which a fund consistently manages to outperform its benchmark over successive quarterly periods over the last three years. This is also scored, giving us three numbers to work with.

Calculating the score

Funds are grouped into eleven sub-asset classes, and for each of the tests, the raw scores are spread out in an array from zero (worst) to 100 (best).

The rescaled scores are set in proportion to the position of a fund's raw score in relation to the highest and lowest raw scores.

So there tends to be a clustering in the middle with distinctive under- and over-performers.

For each fund the rescaled results for each test are then added together.

Note that for extremely low volatility funds where minuscule volatility can seem proportionately large – Money Market, Gilts, and Index Linked Gilts – the volatility component is ignored.

Assigning an FE Crown Fund Rating

Within each grouping, funds are given FE Crowns based on their total scores, according to the following distribution:

- the top 10% of scores in each grouping	- five FE Crowns
- the next 15%	- four FE Crowns
- the next 25%	- three FE Crowns
- the next 25%	- two FE Crowns
- the bottom 25%	- one FE Crown

Exclusions

Funds which fit the below criteria are excluded for technical reasons:

- funds with short history

The following sectors are also excluded:

- Unclassified
- Personal Pensions
- Protected funds and Structured Products

The Protected and Structured Product category is the most sizeable, due to the recent launch of numerous products. These are not suited to an FE Crown Fund Rating.