Feature

KEY POINTS

- Funds have multiple, complex risks.
- These risks are often summarised in short-form which may be inaccurate or incomplete.
- This can lead to charges of misrepresentation.

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It is dangerous to use pithy terms to describe the complex risks of a fund

For marketing purposes, the complex and multiple risks of a fund are often summarised in catchy terms which ultimately are inaccurate or incomplete. This can lead to a charge of misrepresentation and censure by the regulator and litigation by the investors.

INTRODUCTION

La Trobe Financial Asset Management Limited, an asset manager in Australia, described one of its funds as "capital stable". La Trobe admitted that:

> "... by using the phrase 'capital stable', it represented that any capital invested in the Fund would be 'stable' in the sense of there being no risk of substantial loss of that capital ..."

In his judgment, Justice O'Bryan agreed with this interpretation (para 47, *ASIC v La Trobe Financial Asset Management Limited* [2021] FCA 1417).[1] The judgment stopped short of defining the circumstances under which such terms could be used or identifying which parameters are relevant to consider.

LOSS: DEBT INSTRUMENTS

The funds in question invested in loans secured by first mortgages, deposits and cash. These assets would appear to be low risk and in one sense, they are – the value of the assets is unlikely to be volatile on a day-to-day basis. However, there are risks: default of the borrowers and deposit takers, and lack of liquidity to sell assets should an investor wish to redeem their capital from the fund.[2] Both of these risks are binary: either there is a default or not, or at the time of the intended sale there is sufficient market interest in buying the asset or not. The difficulty is that should either of these events occur, the loss could be substantial. A brief description such as *capital stable* may be fair from the perspective of one risk but wholly inappropriate from the perspective of a different risk.

LIKELIHOOD OF LOSS: VOLATILE ASSETS

The judgment raises the question of how a consistent and robust risk categorisation method can be devised for funds.

There are many ways in which a portfolio of assets can be analysed. Two questions dominate this analysis:

- "how volatile are the assets?"; and
- "what returns can be expected in the future?".[3]

Only the former question is of relevance here, namely, the issue of the riskiness of a portfolio.

Put simply, the volatility of a portfolio is the extent to which its value has historically moved up and down over a defined period of time. Several points need to be emphasised:

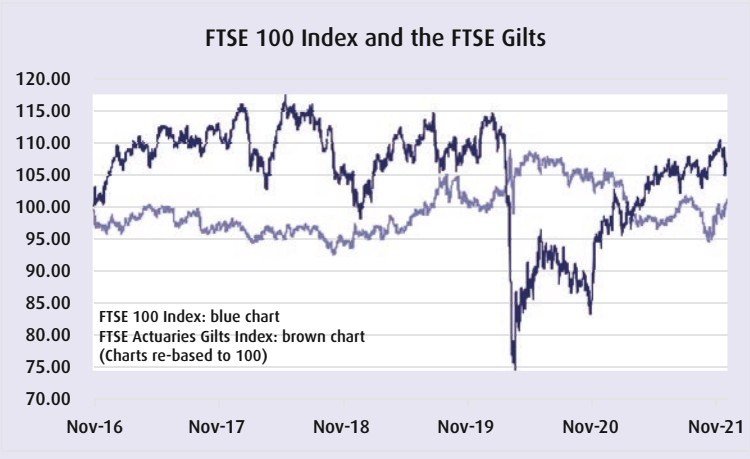
- it is not a question of whether the portfolio was profitable or not, but only the extent to which its value gyrated;
- it is only an historical analysis of the value of the portfolio, since its future values cannot be known; and
- the extent of the volatility change is dependent on the time period of the analysis. The core underlying premise is that the more volatile a portfolio, the greater the risk.

Chart 1 shows the values of two portfolios: the FTSE100 index (blue line), the bell-weather index of the 100 largest companies quoted on the London Stock Exchange, and the FTSE Actuaries UK Conventional Gilts All Stocks (brown line) which comprises the issued debt of the UK government.[4] It can be seen by observation that the FTSE 100 is more volatile than the Gilts.

The critical question is how much more volatile, and, therefore how much riskier, is the FTSE 100.

One straightforward approach would be to look at the daily percentage changes in the value of the portfolios and determine the range of the daily changes: the largest daily

CHART 1: FTSE 100 INDEX AND THE FTSE GILTS



Biog box
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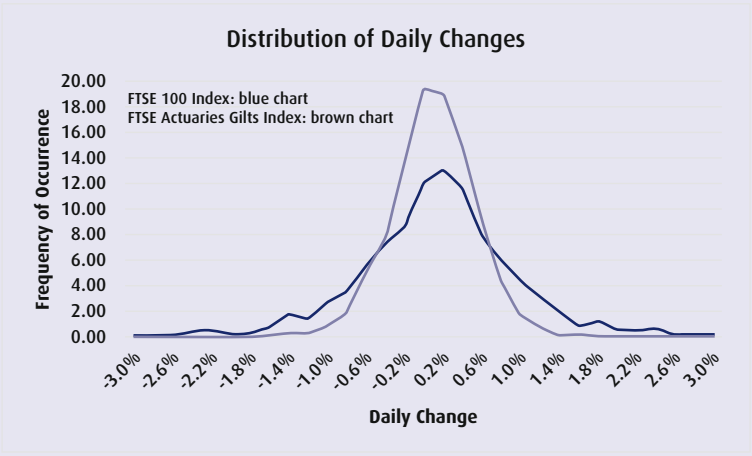
fall to the largest daily gain. This is shown in Table 1 below:

TABLE 1: THE RANGE OF THE DAILY CHANGES

	FTSE 100	GILTS
Largest Daily Fall	-10.9%	-3.4%
Largest Daily Gain	9.1%	5.0%
Range	19.9%	8.4%

CHART 2: DISTRIBUTION OF DAILY CHANGES



The range confirms the visual analysis that the FTSE 100 is more volatile than the Gilts. This analysis can be taken further by looking at the frequency with which the daily changes in the values of the portfolio occur within a narrow range. This is done for the FTSE 100 and the Gilts in Chart 2 opposite.

The distribution is broader for the FTSE 100 (blue chart) when compared to the Gilts (brown chart). In other words, the likelihood of a large daily change (up or down) in the value of the FTSE 100 is greater than that for Gilts – broad distributions are riskier than narrow distributions. With a broad distribution there is a greater likelihood of large changes in the value of the portfolio and, therefore this constitutes a greater risk. This is consistent with the range analysis above.

Conveniently, statisticians have a measure for the breadth of a distribution of daily changes: standard deviation.[5] The standard deviations for the FTSE 100 and the Gilts are 1.05% and 0.48%, respectively. Using the standard deviation is more useful than just determining which is the riskier portfolio.

Mathematically, "one standard deviation" is written as σ (the Greek letter "sigma") and "two standard deviations" as 2σ, and so on. For the FTSE 100, σ is 1.05% and 2σ is 2.10%. It just so happens that on 68.3% of the days (170 days in a trading year of 250 days) the daily change in the portfolio value will be between -σ and +σ. Translating this to the FTSE 100 it means that on 170 days in any one year the daily variation will be between -1.05% and + 1.05%.[6] Similarly, for the Gilts, the daily change will lie in the -0.48% to +0.48% range for 170 days in any year. Similarly, the daily change will lie in the -2.10% and + 2.10% range on 239 days (95.5%), if the 2σ range is taken. Thus, the standard deviation is a good measure or indicator of the risk of a particular portfolio.

Furthermore, the standard deviation is easily calculated. It is generally calculated by most funds given its importance in assessing their performance, for example, it is required when calculating the Sharpe Ratio, a popular measure of the risk-adjusted return of a portfolio.[7]

USE OF THE STANDARD DEVIATION OR A SIMILAR MEASURE TO CATEGORISE FUND RISKINESS

Standard deviation is used here as an example measure, albeit one that is widely used, of how portfolios' risks can be quantitatively determined and compared. No matter which quantitative measures are used, the raw figures need to be interpreted for the wider, non-technical investor. Pithy descriptions such as *capital stable*, as has become apparent, pose litigation risk for money managers. This risk can at least be mitigated if these are cross-referenced to quantitative criteria the calculations for which are well-defined. This naturally points to a traffic light approach to categorising fund riskiness.

The riskiness of a portfolio forms a continuum and any form of classification into a traffic light system requires boundary lines to be drawn. Who should draw these boundaries is open to debate. There are four possibilities:

- the asset manager;
- the asset management industry;
- the regulator; or
- a judge.

IS A MEASURE SUCH AS STANDARD DEVIATION SUFFICIENT TO DEFINE THE RISK OF A PORTFOLIO?

A risk metric based on the daily changes in the value of a portfolio measures only one aspect of risk. As exemplified by *La Trobe*, there are other risks such as default and a lack of liquidity.

Taking the example of a default, daily changes in prices may not indicate that a default is in the offing, which can be abrupt and substantially change the value of the asset. Evergrande, a Chinese real estate developer, has issued a number of US dollar denominated bonds. One such bond[8] broadly traded between 90 and 100 for the year prior to June 2021, however as news of its possible default percolated through the market the price fell precipitously to around 20 by the end of September 2021. Such binary risks are not captured by measures such as standard deviation.[9]

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CONCLUSION

Multiple different risks are inherent in every fund, for example volatility, default and liquidity risks. A low rating for one type of risk does not imply a low rating for the other types of risk. A summary, accurate description of the risks of a fund, let alone a pithy statement, may not be possible and could expose the fund to claims of misrepresentation. ■

1 https://download.asic.gov.au/media/avshq4oa/21-319mr-21-asic-v-la-trobe-2021-fca-1417.pdf

2 See warning on La Trobe's website: "You risk losing some or all of your capital. The return of your capital, if you want to withdraw your investment, is dependent on the liquidity of the Investment Account that you have chosen, and in particular, borrowers repaying their loans". Paragraph 44 of the judgment.

3 For example, Haugen, R A, *Modern Investment Theory*, Prentice-Hall International.

4 The values have been re-based to 100 to allow ease of comparison. The data is from 4 November 2016 to 3 December 2021 (five years).

5 The description of the calculation of the standard deviation is beyond the scope of this article. Microsoft Excel has a number of functions that calculate the value (all in the form "STDEV"). Further details may be found in any standard textbook on statistics.

6 For this to be exactly correct, the Distribution of Daily Changes must be a "Normal" distribution – a type of probability distribution. No real-world distribution will be exactly equal to a Normal distribution, however in most cases this serves as a good approximation.

7 Devised by William Sharpe, an economist, the ratio seeks to measure the excess return of the fund (above the risk-free return) per unit of risk (as measured by the standard deviation). The formula for its calculation can be found in Haugen (n 3).

8 8.75% US dollar bond due 2025. Source: *Bloomberg*.

9 Debt instruments are often rated by companies such as Standard & Poor's and Moody's which grade their credit quality.

Further Reading:

- Liquidity of private fund interests: an investor perspective (2020) 3 JIBFL 173.
- Prudential consolidation under the IFPR: the connected undertakings conundrum (2021) 10 JIBFL 705.
- LexisPSL: Financial Services: Precedents: Risk warnings.