Too many stocks spoil the portfolio

By Terry Smith

Beware of 'diworsification'

Portfolio diversification is a good thing. Right? Whether you reach that conclusion intuitively from the simple adage "don't put all your eggs in one basket" or have heard of modern portfolio theory, you know it makes sense.

The concept of modern portfolio theory is that a collection of investment assets has lower risk than any individual asset. This is possible because different types of assets often change in value in opposite or different ways.

But like many concepts in finance, portfolio diversification requires more than superficial examination if you are not going to get some unintended or downright poor results from applying it.

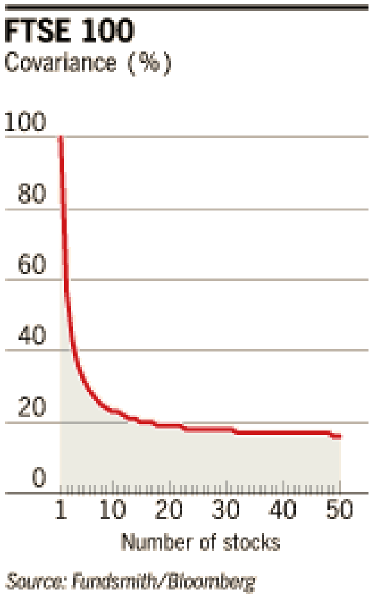
Covariance is a measure of the degree to which returns on assets move in tandem. A positive covariance means that returns move together. A negative covariance means returns move inversely. The lower the covariance number, the less risk.

Unsurprisingly, the covariance of a portfolio of FTSE 100 stocks falls as the number of stocks in the portfolio increases, but the covariance – or risk – does not fall in a straight line. The risk falls sharply as the portfolio increases in number from just one stock, but by the time it has reached about 20 to 30 stocks most of the reduction in risk that can be attained has already been achieved.

The problem is that increasing the number of stocks beyond this not only fails to achieve any significant further risk reduction, it also leads to other problems. In "Sorting the wheat from the chaff" on March 15, I wrote about why it is important to invest in good companies. But there is a severe limit to the number of good companies available and the more stocks you own the more you are likely to have to compromise on quality.

It is also a fact that the more stocks you own the less you know about each of them and I have never found a theory of investment that suggests that the less you know about something, the more likely you are to generate superior returns.

There is even a term for this: "diworsification" which was coined by the legendary fund manager Peter Lynch in his book *One Up On Wall Street*. He suggested that a business that diversifies too widely risks destroying itself, because management time, energy and resources are diverted from the original investment. Similarly, adding more investments to a portfolio can lead to diworsification.



Ultimately, if you own too many stocks your performance will match that of the benchmark or index which is composed of those stocks. There is no point in managing a portfolio or paying a fund manager to do so if you are going to do this. It is cheaper to simply buy an index fund.

Given this limitation to the benefits of diversification, why do so many fund managers own far more stocks than are necessary to obtain optimal diversification? A study from the US in 2008 (Security Concentration and Active Fund Management: Do Focused Funds Offer Superior Performance? by Travis Sapp and Xuemin Yan) showed that the average mutual fund manager owned a portfolio of 90 stocks, and the 20 per cent of fund managers with the most diversified portfolios owned an average of 228 stocks.

The answer is that most fund managers perceive the biggest threat to their job is not whether they lose investors' money but whether they differ from their peers. If they own so many stocks that they hug the index they feel that they cannot be criticised.

The problem is that this behaviour, when combined with high fees for so-called active management plus over trading, leads to an inevitable outcome: the fund underperforms the index. But this is the subject for another article.

Terry Smith is chief executive of Tullett Prebon and of Fundsmith LLP. This is the fourth in a five-part series on the fundamentals of investing

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