OUR TWO CENTS

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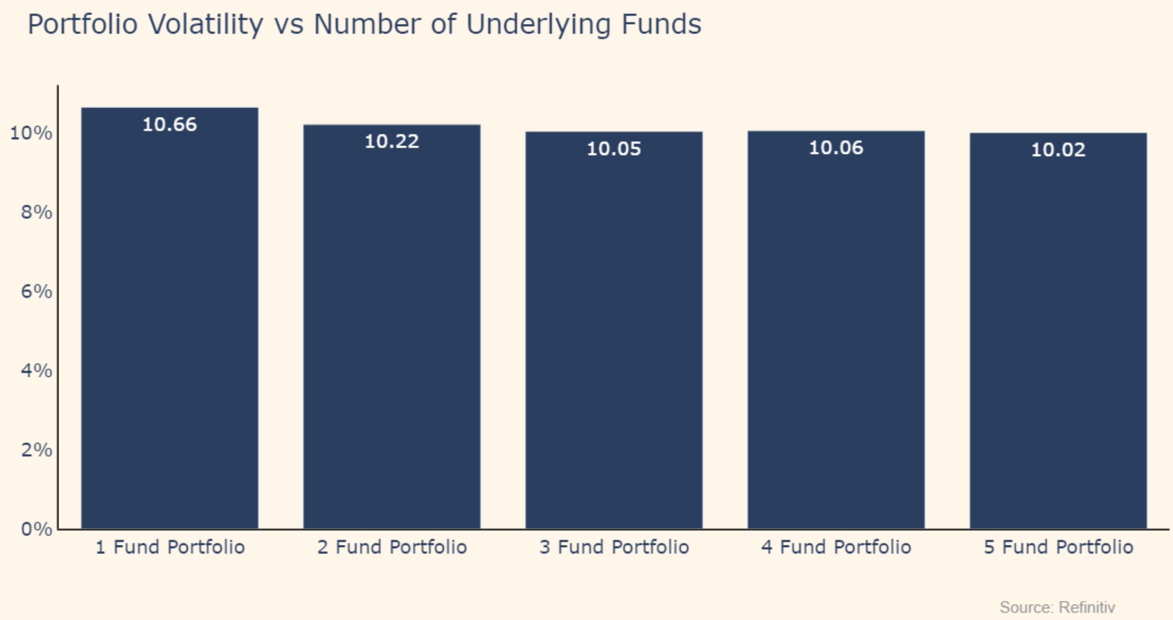
After graduating as a chemical engineer, Garrett pursued his master's degree in finance and investments and is currently writing his CFA exams. Garrett gained experience in the modelling and optimisation of financial data through his postgraduate research. As one of the newest members of the New Road Capital team, he enjoys his role as an investment analyst, where he gets to follow his passion in solving challenging problems using mathematics and technology. In his free time, Garrett never misses a Grand Prix, and has been doing Brazilian Jiu Jitsu for more than 10 years.

Diversification in Model Portfolios

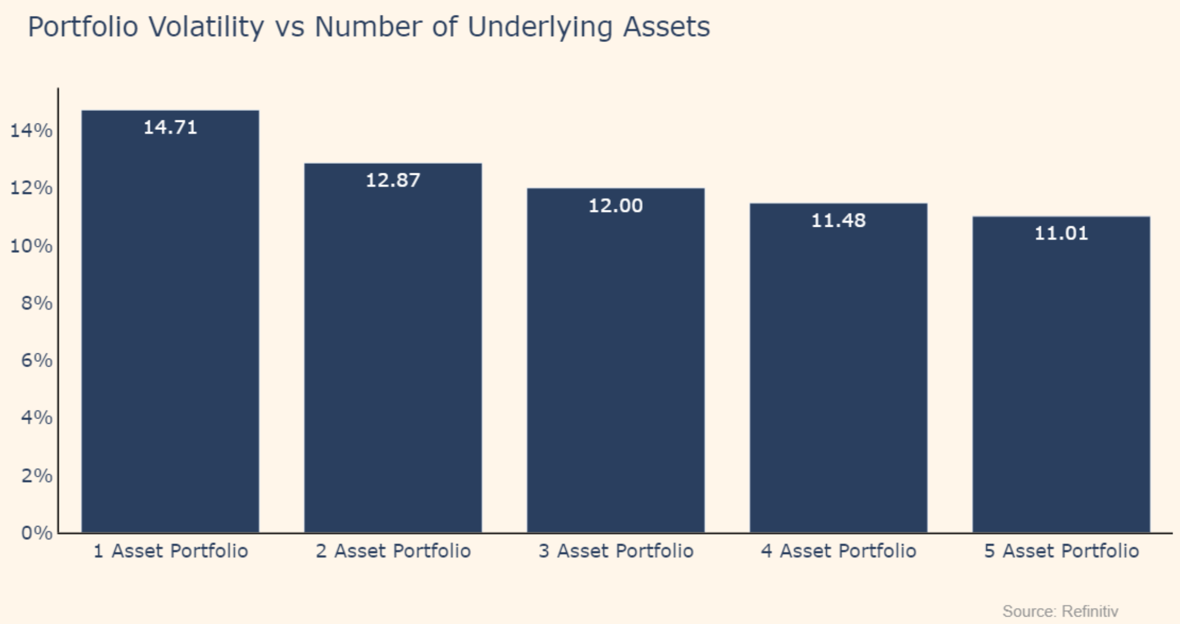
By Garrett Nel

In the construction of model portfolios, it is not uncommon to see a combination of multiple funds within the same risk category, e.g., multiple High Equity funds used to form a balanced portfolio. The reasoning behind the use of more than one fund could be to diversify manager exposure, similar to how an investor would diversify across asset classes to lower overall risk. However, the diversification benefit within this reasonably homogenous group may not be as powerful as one may think.

The following example illustrates this idea, where a number of funds within the ASISA South African High Equity category are randomly selected for inclusion in a portfolio. The simulated portfolios give an equal weight to each component within the portfolio. Over the past five years, the average volatilities of the portfolios are given below, based on the number of funds used. The reduction of risk is minimal—a 5-fund portolio reduces volatility on average by only 6% from 10.66% per year to 10.02% per year compared to using a single fund.



In contrast to the previous example, consider the effect of including multiple asset classes in a portfolio, shown below. By naively equal weighting up to 5 asset classes, the average portfolio volatility is brought down by 25%, from 14.7% per year to 11% per year. This difference has a tangible effect on portfolio risk, and may be exploited even further through optimisation techniques. The reason for the superior risk management effects of asset class diversification versus manager diversification is that correlations between asset classes are significantly lower than correlations between funds in a specific ASISA category.



When constructing a portfolio, one should carefully consider whether using a model portfolio with multiple funds is worth the additional administrative requirements, as well as the tax implications of rebalancing. An investment vehicle such as a Fund of Funds combines the asset allocation expertise of a professional fund manager with the ease of lowered administrative and rebalancing needs to give a holistically complete investment product. Far more benefit may be obtained by partnering with a high quality manager that has strong portfolio construction processes instead of needlessly hedging one's bets with too many similar funds in one portfolio.