**

*Why diversification pays off*

*Using a diversification ratio could lead to more performance, and less risk*

By Bayani S Cruz - 29/09/2017

ALTHOUGH there is no direct link between the diversification and the performance of an investment portfolio, by using an investment strategy that relies on a diversification ratio, a portfolio can consistently outperform its market cap-weighted benchmark.

“Our job is to make sure that the portfolio’s risk is contributed to by all the available risk factors in the investment universe. If we manage to do that, we are completely diversified. If we are completely diversified, we will deliver less risk and more return,” explains Christophe Roehri, deputy CEO of TOBAM.

TOBAM, which stands for “Think Outside the Box Asset Management”, is a Paris-headquartered boutique asset manager specializing in smart beta, with a total of US$8.5 billion in assets under management.

TOBAM was set up in 2006, originally as part of the defunct Lehman Brothers incubator programme. When Lehman crashed in 2008, TOBAM became independent and later became part of the California Public Employees Retirement System (CalPERS) manager development program. CalPERS started with an allocation of US$150 million in TOBAM but this has now grown to US$1 billion. CalPERS and Amundi are shareholders of TOBAM.

TOBAM’s smart beta strategy, which focuses on portfolio diversification away from market cap-based benchmarks, is a strategy that is favoured not only by CalPERS but also by other institutional investors. The strategy was invented by TOBAM founder Yves Choueifaty and is a patented quantitative approach known as “Maximum Diversification.” It has patents in Australia, Japan, and the US.

The methodology is different from traditional smart beta strategies because it moves away from the forecasting approach, which essentially bets on specific factors such as value, low volatility, quality, momentum, etc.

“Our approach belongs to the smart beta world in the sense that it’s quantitative, it’s systematic, and it doesn’t follow the market cap weighted logic. But it’s very different from all the traditional smart beta approaches because we are removing ourself from the forecasting approach. We are quite different from everybody else,” says Roehri.

The strategy focuses on determining the diversification ratio of a portfolio. The ratio is basically a mathematical formula that determines the level of diversification of a particular portfolio.

“Imagine the MSCI Emerging Market index with about 800 stocks. What we are going to do is look at the 800 stocks, then we are going to determine what are the ways in which we need to put this universe of stocks into the portfolio for this measure (the diversification ratio) to be the highest, to be maximized,” Roehri explains.

This means that TOBAM needs to determine what the weighting of each of the stocks should be in the portfolio for the diversification ratio to be maximized. This is determined by the volatility of each stock and the correlation between the stocks.

“If one compares the diversification ratio of our portfolio, and the diversification ratio of the benchmark, for the MSCI Emerging Markets universe for example, you will observe that the diversification ratio squared (DR²) of the index is roughly 5.0, and if you compute the diversification ratio squared of our portfolio, it is roughly 10.0. This means that the benchmark is only capturing 50% of the available diversification. Hence, if you buy the MSCI EM today you are only capturing 50% of the diversification you could achieve, because the MSCI EM is today biased in favour of technology stocks,” says Roehri.

In terms of sector allocation, the MSCI Emerging Markets index is currently heavily in favour of technology stocks (26.8%) and financials (23.9%).

“If you look at our portfolio, the sector allocation is much more balanced. It’s not completely equally weighted in sectors. Not all sectors have the same diversifying capabilities, but you are going away from this large concentration in IT and financials,” says Roehri.

TOBAM is, however, quick to admit that a higher level of diversification does not translate to higher performance in a portfolio. “There is no direct link between the diversification ratio and the level performance. There is, however, always the same relationship between our performance on any given investment universe and the performance of the benchmark,” says Roehri.

“By diversifying and allocating to all available sources of risk, over the long-run, the benefits of our approach are more performance and less risk. Our approach has found an echo with institutional investors in particular, but we observe this trend towards smart beta solutions to spread to the rest of the investors, ” adds Roehri.