

INDEX FUNDS

An efficient index in inefficient markets

ANDREW FRANCIS charts the development of fundamental indexation.

Traditional market capitalisation index funds were first developed in the early 1970s with the underlying belief that markets are efficient and stock prices reflect all known information and thus price is equal to fair value.

Today, trillions of dollars globally are invested in index funds and they are growing rapidly, both in Australia and overseas. The appeal has been the lower cost, lower turnover and broad market representation of these types of funds.

Market efficiency is an underlying assumption that is certainly questionable, particularly in the current climate.

In the past two decades we have witnessed the global financial crisis, the technology bubble, the Asian financial crisis and the rise and fall of Japan.

It is hard to argue markets are efficient when we have seen the prices of single stocks, sectors and countries fluctuate wildly from their underlying fundamentals.

Given markets are not always efficient, and prices don't always reflect fair value, this can have a significant impact on traditional index funds.

Traditional index funds link the size of investment to price, which means that as companies become more expensive, an index fund will buy more of these companies.

Similarly, as companies become cheaper, index funds will buy less of these companies. In other words, an index fund overweights the overvalued companies and underweights the undervalued companies, which cause a performance drag as prices revert to fair value.

So, is there a better way of building

an index and not linking the portfolio weight to price?

This was the question posed to Rob Arnott, the founder and chairman of Research Affiliates. Arnott and Jason Hsu, Research Affiliates chief investment officer, sought to answer this question by researching a way of breaking the link between price and portfolio weights while maintaining many of the benefits of index funds. The approach they developed is known as fundamental indexation.

Fundamental indexation relieves the performance drag inherent in market capitalisation by weighting a company according to its economic footprint: sales; cash flow; dividends; and book value based on five-year historical numbers.

The table below highlights the original research of Arnott and Hsu in the US market.

The US market has been widely

recognised as one of the more efficient markets in the world. The research showed that by weighting to any of the four fundamental factors, there was the prospect that it could have delivered 1.5 per cent to 2.3 per cent per annum of excess return relative to the price index, with the composite delivering 1.9 per cent per annum of excess return with lower volatility. The price index was the outlier.

The research then tested the fundamental index concept across sectors, market capitalisation bands, countries and regions and found, over the longer term, it was possible to add value versus a traditional market capitalisation approach. The more inefficient the market, the greater the potential excess return over the longer term relative to a market capitalisation index.

Like any new idea that challenges orthodoxy, fundamental indexation has its critics.

One criticism is that five-year historical data is backward looking.

Historical data is used deliberately

to break the link between price and portfolio weights.

If nearer term numbers were used, there would be a higher degree of correlation with price.

Five-year numbers have broadly corresponded to past business cycles avoiding peaks and troughs of company earnings.

Another common criticism is that fundamental indexation is just a value strategy. Fundamental indexation does have a value tilt, however, this is an outcome of the process rather than the purpose of the process and is due to the natural growth bias in market capitalisation indices.

The extent of the value tilt is dynamic through time and the strategy has shown the ability to outperform value indices (as well as market capitalisation indices) over time.

Fundamental indexation is a powerful strategy that overcomes the performance drag inherent in market capitalisation approaches.

By doing so, it aims to achieve an annual return of 2-3 per cent better than that achieved by the equivalent cap-weighted index over the long term, which is competitive versus active managers. It can be an efficient way of indexing for an inefficient market.

Since launching the strategy over four years ago, Research Affiliates Fundamental Index (RAFI) methodology is used to manage over \$22 billion (including about \$1.5 billion from Australia) for some of the largest pension funds in the world.

Clients are using the approach both as an alternative index strategy and as an alternative to active management within their portfolios.

Andrew Francis is the chief executive of Realindex Investments.

Table: US simulated data 1962-2008

	Ending value of \$1	Annual return	Volatility
S&P 500*	\$57	9.0%	15.0%
Book	\$107	10.5%	14.9%
Cashflow	\$133	11.0%	14.9%
Sales	\$152	11.3%	15.8%
Gross dividend	\$114	10.6%	13.6%
RAFI composite	\$130	10.9%	14.7

Source: Research Affiliates LLC

*All figures except the S&P 500 are hypothetical or simulated performance results (non actual), which have certain inherent limitations. Unlike actual performance records, simulated results do not represent actual or anticipated trading.

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