Money Management

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Taking the emotion out of investing

GRAHAM HAND compares fundamental indexing to the more traditional cap-weighted model of indexing.

Imagine an asset management world comprised only of active stock pickers: thousands of talented analysts who research stocks and try to choose the winners and losers.

An investor realises that the sum of all active managers must produce the same as the overall market return, and it is too difficult to identify which of these asset managers will be consistently skilled enough to outperform the rest.

The investor then has a radical idea – offer diversified exposure to the market, at relatively low cost, with low turnover, and, on average, an investor should outperform due to the lower costs. Let's call this 'index investing'. Investopedia defines an index as "a statistical measure of change in an economy or a securities market".

Neat idea, but how should you construct such an index? The possibilities are limited only by the imagination.

The basic features of an index are that it should be objective, formulaic, replicable, and transparent, and even better if it is supported by finance theory.

One approach is to buy assets in exactly the same proportion as their market weighting. This capitalisation-weighted approach is totally price-driven, and its efficacy depends on the market price accurately reflecting the intrinsic or fair value of a company. But it is generally accepted that the market is inefficient, and there can be no more testimony to this than the recent wild gyrations on Wall Street, where the entire market could move 10 per cent in an hour based on the latest piece of news, rumour and gossip.

Leading asset consultant Watson Wyatt states: "In reality, the fair value of almost all stocks is simply unknowable; we do not know what the future will bring ... active investors in aggregate will make errors when pricing stocks."

So how do we construct an index that ignores the noise inherent in the market price?

One way is to examine the economic footprint of each company, using measures such as sales, book value, cash flows, and dividends. These reflect the fundamentals of each company's performance. Backed by additional research, if these basic measures can be further enhanced by quality checks relating to debt levels and the quality of reported earnings, an index can be constructed that potentially seeks to avoid references to the emotion of market price.

This is how fundamental indexing developed as an alternative to cap-weighted indexing, and it is attracting much attention and debate.

A potential problem with cap weighting is that it overweights overvalued stocks and underweights undervalued stocks, and as prices revert to fair value there may be a performance drag on the portfolio.

In other words, in a cap weighted portfolio, a company that is expensive is potentially given a higher weighting while cheap companies are sold off, and this is arguably the reverse of what most investors may be seeking to achieve.

The dotcom bubble of the late 1990s provides vivid examples of how cap-weighting can lead to sub-optimal portfolio results.

In the US markets in 1997, Cisco was 0.4 per cent of the S&P 500 index with a price/earnings (P/E) of 30. By late 1999, Cisco had reached a P/E of 130 and had become 4 per cent of the S&P 500. We saw the same situation with many other tech stocks, including Nokia and Ericsson in Scandinavia and Nortel in Canada.

In all of these markets, as prices rose to higher and higher multiples, the cap-weighted strategy devoted more and more portfolio weights to the overvalued stocks. The rise and fall of these companies is shown in the graph.

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A US investor who purchased a cap-weighted index fund put over a third of their portfolio into the highly valued technology sector. In an attempt to purchase passive exposure and diversification, investors actually ended up with a very strong sector bet and heavy allocation to many overvalued securities. As the market reverted to fair value for these companies, there was a substantial performance drag on investment returns.

The way fundamental factors rectify the return drag problem is intuitively straightforward. The return drag exists when market prices do not reflect fair value and pricing errors mean-revert over time. Suppose at any given point in time 10 companies in a portfolio are overvalued and 10 are undervalued. An active manager will attempt to seek out and purchase those undervalued shares. To the extent the manager is skilful, they can invest in a focused portfolio and outperform the market.

The cap-weighted portfolio, on the other hand, will invest in stocks according to their market prices. Thus, it will overweight all 10 of the overvalued stocks and underweight all 10 of the undervalued stocks.

Finally, a portfolio weighted by fundamental factors will simply randomise these mistakes. It will not attempt to identify the undervalued or overvalued shares as the active manager does; rather, it settles for moderation.

By randomising the pricing errors across portfolio weights, the fundamental index will, on average, overweight five of the overvalued stocks and underweight five of the overvalued stocks. Similarly, it will overweight five of the undervalued stocks and underweight five of the undervalued stocks. This ensures there are no systematic mistakes in the portfolio weights – underweights and overweights will cancel each other out.

Fundamental factors break the link between pricing error and portfolio weight. This successfully randomises the underweights and overweights across misevaluations and eliminates the return drag. It is important to emphasise that the fundamental metrics do not serve as a better guess at true value than market capitalisation. Their primary purpose is to eliminate the return drag and not to serve as a better basis for valuation.

These variables also provide a good measure of the footprint of a company in the broad economy. By allocating more dollars to companies with high sales, cash flows, dividends, and book values, we allocate our portfolio according to a measure of economic importance and allow the portfolio to participate proportionally in the growth of the economy.

No less a figure than the father of Modern Portfolio Theory, Nobel Prize winner Harry Markowitz, wrote: "As long as capitalisation weighting has errors relative to fair value and prices revert toward fair value, capitalisation weighting will suffer this drag relative to fair value weighting."

The leading name in fundamental indexing is Rob Arnott, the founder of Research Affiliates and former chairman of First Quadrant.

Arnott and his large research team are supported by an advisory panel that includes Markowitz, Peter Bernstein, Burton Malkiel, and Jack Treynor, each a finance industry luminary. Back-tested to 1962, the Research Affiliates Fundamental Index (RAFI) methodology generates 2 to 3 per cent additional return over cap-weighted strategies with lower volatility.

RAFI has been used around the world to manage over US$20 billion of assets since its implementation in 2004. Table 1 shows the returns of Enhanced RAFI International compared with a traditional global market cap index, the MSCI EAFE (Europe, Australasia and Far East) Index.

RAFI funds are now available through Realindex Investments in Australia. They include global equity, Australian equity, and small company options, and combine four fundamental measures of company size:

- sales – company sales averaged over the previous five years;
- cash flow – company cash flow averaged over the previous five years;
- book value – company book value at the review date; and
- dividends – total dividend distributions averaged over the previous five years.

These metrics seek to represent objective measures of economic size and five-year data samples are used to limit the impact of short-term peaks and troughs.

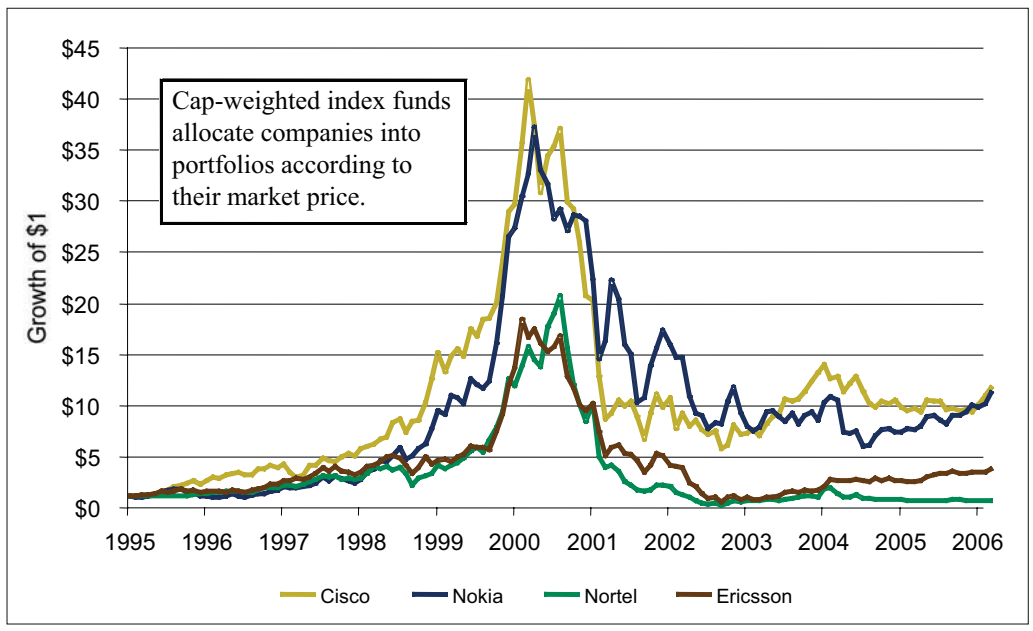
Any method that challenges orthodoxy is not without its critics, and the most common criticism is that fundamental indexing is simply a value play. Its supporters acknowledge a value bias usually comes from relying on economic fundamentals, but it can be demonstrated that the value bias is dynamic, in that the value exposure of RAFI funds vary over time.

Furthermore, a RAFI portfolio holds many growth stocks and only about half the value-add of the method can be ascribed to a value effect.

Other critics argue RAFI should not be called an index because it is not cap-weighted. Arnott is not overly worried about the semantics of what to call RAFI, as long as it carries the advantages of an index, such as broad market exposure, low turnover, and relatively low cost, and delivers on performance.

In the US, Schwab Investor Services has the exclusive rights to distribute RAFI equity mutual funds. Across its entire business, Schwab manages over US$1 trillion of assets for millions of clients, and its founder and chairman, Charles R. Schwab, wrote: "Indexing is a powerful force in the investing industry and I'm not a man to question success, but to my mind the fundamental index method represents too good of an improvement to ignore."

Graham Hand is Colonial First State general manager, funding and alliances. Realindex Investments is a wholly owned subsidiary of Colonial First State.



Source: Research Affiliates, based on data from Bloomberg.

TABLE 1

To October 31, 2008	Annual average returns (% per annum)		
Index	1 year	3 year	Since inception*
Enhanced RAFI® International, LP	-42.4	-2.1	-0.3
MSCI EAFE Index	-46.4	-5.3	-2.8

Inception: July 2005. Returns are shown in US$ before fees and taxes. This fund is based in the US. Past performance is no indication of future performance. It is important to note that this performance history does not represent how the newly established Australian-based funds will perform.