Anyone for Scrabble?

When is an Index-Tracker Really an Index-Tracker?

Firstly, imagine yourself taken back to New Year's Day 1964.

You have $200 to invest.

In 1964 the first retail index fund was still 11 years away*, but for the sake of this article, say that you could invest in a market cap-weighted index fund like the S&P 500 index tracker, and that's where you put your first $100.

*(John Bogle's newly-formed Vanguard Group started the First Index Investment Trust on 31st December, 1975).

With the remaining $100 you decide to have a bit of fun.

As an avid fan of Scrabble, you choose to invest it in a quirky new index fund that's weighted according to the Scrabble score of each stock's ticker. (A ticker is the three- or four-letter code assigned to every stock. So, for example, AAPL (for Apple) scores 6 and XOM (Exxon Mobil) scores 12, so Exxon would have twice the weight of Apple.)

Should you have forgotten them, the Scrabble tile letter values are below.

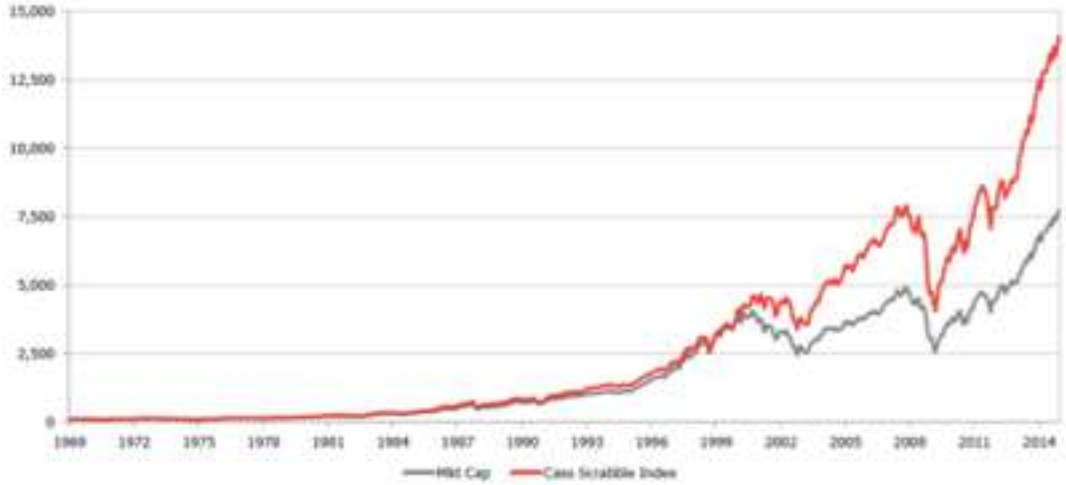
- A E I O U L N S T R (1 Point)
- D G (2 Points)
- B C M P (3 Points)
- F H V W Y (4 Points)
- K (5 Points)
- J X (8 Points)
- Q Z (10 Points)

At the end of each year, both the cap-weighted index and the Scrabble-score weighted index are rebalanced.

Half a century later, at the end of December 2014, your original $100 investment in the cap-weighted S&P 500 Index fund would have been worth $7,718 (Not bad). But the $100 invested in the Scrabble index would have grown to a whopping $14,108 - Almost double the benchmark index!

That was one of the extraordinary findings of research conducted by a team from Cass Business School at the City, University of London.

A graph to illustrate the Cass Scrabble Index growth vs the Market Cap Index is below.



For the record, Cass Business School is a business school with a gold standard 'triple-crown' accreditation from the world's largest and most influential business school accreditation organisations, Cass and its world-class programmes are consistently ranked among the best in the world, so this research shouldn't be taken too lightly.

The researchers at Cass also compared the performance of the cap-weighted index with eight alternative types of indexing, including equal weighting, i.e. assigning the same weighting to every stock in the index, and inverse volatility, which entails giving the stock with the least volatility the biggest weighting and the most volatile stock the smallest.

Astonishingly, like the Scrabble index, all eight alternative indices outperformed the index based on market capitalisation.

Studies like this remind me why evidence-based approach to investing is great.

Evidence is never set in stone. New evidence is being produced all the time. True, it mostly confirms what we already know, but every now and again there comes a study which surprises even those of us who have been in the financial services industry for a long time.

Surprising as it may be, it also improves everyone's understanding of how best to construct an investment portfolio - which of course is continuously evolving.

The Cass study does beg the question - Where does the additional performance delivered by these alternative indices come from?

The researchers concluded that the principal reason the alternative indices delivered better outcomes was, simply, their bias toward both small and value stocks - factors which have been shown to deliver higher returns, albeit with greater risk and volatility, over the long term.

The researchers also argued that standard tracker funds, such as those that track the FTSE 100, are tracking stock prices inefficiently because they prioritise past performance over other factors.

That's because when most trackers are built - for example the FTSE 100 tracker – the manager will just buy the shares that are in the FTSE 100 companies in the weightings that are as per the FTSE 100. Therefore, the companies that are worth the most will represent a bigger portion of a given index in the UK, America, or wherever you are investing.

Taking Apple as an example again;-

If Apple continues to be successful as one of the biggest companies in the world, their shares will make up a increasingly bigger portion of the index. The result is that your portfolio, if you buy an index tracker, becomes over-exposed to Apple, and could result in possibly buying shares within the tracker at a high price. Of course, if Apple then suffers a downturn, this will result in selling low.

Monkeys, Typewriters & Shakespeare

But it's not just that! Cass Business School also re-examined data from 2013, where they created 10 million random portfolios, thereby evoking the old adage involving monkeys, typewriters and Shakespeare.

If you are not familiar with this term, it is called "The infinite monkey theorem". It states that a monkey hitting keys at random on a typewriter keyboard, for an infinite amount of time, will almost surely (eventually) type any given text, such as the complete works of William Shakespeare.

These 'monkey-constructed indices' also beat a market cap-weighted approach on all but 0.12% of occasions!

By using a completely scattergun approach by doing something like attributing random numbers to stocks using their ticker and then weighting them by their Scrabble tile scores, you can possibly double your return over 50 years over the preferred methodology of the industry!

These findings should present a challenge to those many advocates of market-cap weighting, and particularly to Vanguard, one of the world's largest investment companies, its biggest champion for a long time now.

But let's face it, the reality is that most of these Scrabble type indexes and their potentially remarkable results are really just down to random choice – You could just as easily lose everything using this methodology.

As I just said, around the world there are many big fans of market cap weighting - And there's a reason for that.

It does, after all, represent the market consensus. It is easy to understand; and, crucially, it entails the least turnover and the lowest cost, by simply buying one equal numbers of each share in the index. But no, it's not perfect. There are infinite ways of designing an index, and each will have its own strengths and weaknesses.

But the 'not perfect' market cap weighting system does have one great benefit in that it provides a good balance between risk and return, and this is exactly why most people use it.

And finally, please remember that I did start this article by saying that the second $100 was invested to have a bit of fun – And there's no harm in that occasionally.

Scrabble anyone?