Risk-return relationship has been upended

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Increasing use of benchmarking distorts markets, study suggests

Investors are rewarded for taking risks. They receive a risk premium when they invest, and higher risk investments, in the long run, deliver better returns. This is a cornerstone of market theory, and it is common sense. If not, why would anyone ever invest in higher risk securities?

The problem is that in practice the opposite occurs, at least in recent decades. Academic evidence is that low-risk stocks outperform riskier ones.

This suggests deeply distorted markets, with capital badly misallocated. And it is mystifying. But a new theory may explain it: the relationship between risk and return has been distorted by the steadily growing practice of benchmarking by fund managers.

The inversion is clear. From 1970 to 2011, fund manager GMO shows that the 25 per cent of US stocks with the highest sensitivity to the market logged an average annual return of 7.2 per cent, with double the
Risk (defined by their volatility) of the 25 per cent of stocks with the lowest sensitivity to the market – which logged an annual return of 10.6 per cent. The risk-return relationship had been stood on its head.

Since 1984, figures for global equities show an even more pronounced inversion, with the least market-sensitive stocks averaging a 10.1 per cent return, against 4.1 per cent for the most market sensitive.

This is a recent phenomenon. Using data back to 1926, the risk-return trade-off is flat but not inverted – with the highest-risk stocks averaging 11.6 per cent returns, against 10.92 per cent for the lowest risk. Since 1968, there has been a deep inversion.

The biggest change in the way money is invested over those years is that capital allocation is now controlled by large institutions, not individuals. They have increasingly used benchmarking. This is not just about passive index-tracking, which is a sensible way to minimise costs. It is standard practice to measure “active” managers against a benchmark, which is made public. They are required to keep their deviation from the index within certain bounds, to avoid the risk of embarrassing underperformance.

Benchmarking therefore exacerbates the already strong human urge to move in herds. But Paul Woolley and Dmitri Vayanos of the London School of Economics and Andrea Buffa of Boston University now demonstrate in a new paper that it is also a force to up-end the relationship between risk and return.

Benchmarked managers must control how far the composition of their portfolio departs from the index. To show how important the index is to their thinking, note that managers these days rarely say they “own” or “do not own” a stock. Instead they say they are “underweight” or “overweight”.

The biggest problem, Mr Woolley points out, comes with underweight positions in stocks with large weights in the index, and volatile prices. Why? Because if a stock doubles in price and the investor is half-weight, the mismatch compared to the index doubles; but if the manager is double-weighted and the price halves, the mismatch halves also.

Benchmarking therefore gives managers a huge incentive to stay fully weighted in large, risky securities. This eliminates any risk premium these stocks might have had, and leads to the inversion of risk and return. The effect is strongest when an entire sector or asset class is involved as happened with the Nasdaq bubble that peaked in 2000. Many managers who avoided the bubble (including Mr Woolley in his days as a fund manager), suffered for it commercially, as money poured out and went to their peers.
This is a persuasive explanation for the risk-return anomaly. It is also a strong case against benchmarking, and hence for root and branch reform of fund management. But what can replace it? In most industries, benchmarking is good practice. If funds are not to benchmark against their peers, or against an index, then how should we judge them?

For Woolley, the answer is to do a “much fuller diagnostic”, checking that managers continue to invest on the basis of value, that their turnover does not increase and so on. Critically, they should not be rewarded for one-year performance; bonuses should be rewarded over much longer terms. In this way, he suggests, a “sensible herd” can start to replace the “silly herd”. Maybe investors can start to be dolphins, not wildebeest or lemmings.

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