

Active Management: Feast and famine

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The ability to generate alpha might be a skill, but the amount of alpha available from the market is not a constant. Martin Steward asks how we might measure the alpha opportunity and whether investors should vary the risk budget they allocate to active management as a result

The debate about active and passive portfolio management is often carried on as though the potential returns to active management were static. But this is a little like comparing the success of two agriculturalists without taking into account the fact that one has been working with lush soil during a time of abundant rainfall while the other has been toiling in stony ground and a drought.

Like farmers, alpha generators will be more differentiated if they work in times of abundant available alpha.

“In global equities, the median manager still outperforms, but to a lesser extent than before the financial crisis,” observes Lucy Macdonald, CIO of global equities, [Allianz](#) Global Investors. “The alpha is compressed.”

Unless we think that the asset management world has grown collectively dumber, that must have something to do with the structure of the market – its ‘alpha richness’.

Two observations suggest themselves as a result of this. First, investors shouldn’t simply give up on active management just because they see active managers as a group struggling to generate significant excess return – this may be more to do with the market environment than the ability of active managers. But second, it may pay to vary the amount of risk budget they devote to active management – investors should make hay when the sun shines.

“If the cross-sectional volatility of the equity market is zero, meaning that all stocks perform exactly the same, then all active portfolio returns equal the benchmark’s return regardless of a manager’s active bets,” as David Schofield, president of Intech International puts it. “To preserve richness of alpha in lower cross-sectional volatility environments, it would seem advisable to increase the active share of a portfolio in a risk-controlled way.”

Conversely, an investor may respond to an ‘alpha-poor’ environment by simply doing more investment passively, to cut fees.

Ratio

But how should we measure ‘alpha richness’? Schofield refers to cross-sectional volatility – or ‘dispersion’. This is the extent to which the volatility of individual stocks in the market differs from one another; it is higher if the stocks are all oscillating by similar amounts, and lower if they are oscillating by very different amounts.

Others would point towards cross-sectional correlation – the extent to which individual stocks tend to move in the same direction as one another.

“Following the financial crisis, high levels of correlation made it tough for active managers to add value,” as Liad Meidar, managing partner at consultant Gatemore Capital Management, puts it. “Correlations coming down have created more room to add alpha.”

At a glance

- Alpha richness in markets fluctuates through the future, but is the market alpha rich today?
- Correlation says yes, dispersion says no – but the diversification ratio suggests the balance is in favour of alpha richness.
- Can we predict alpha richness and adjust risk budgets accordingly?

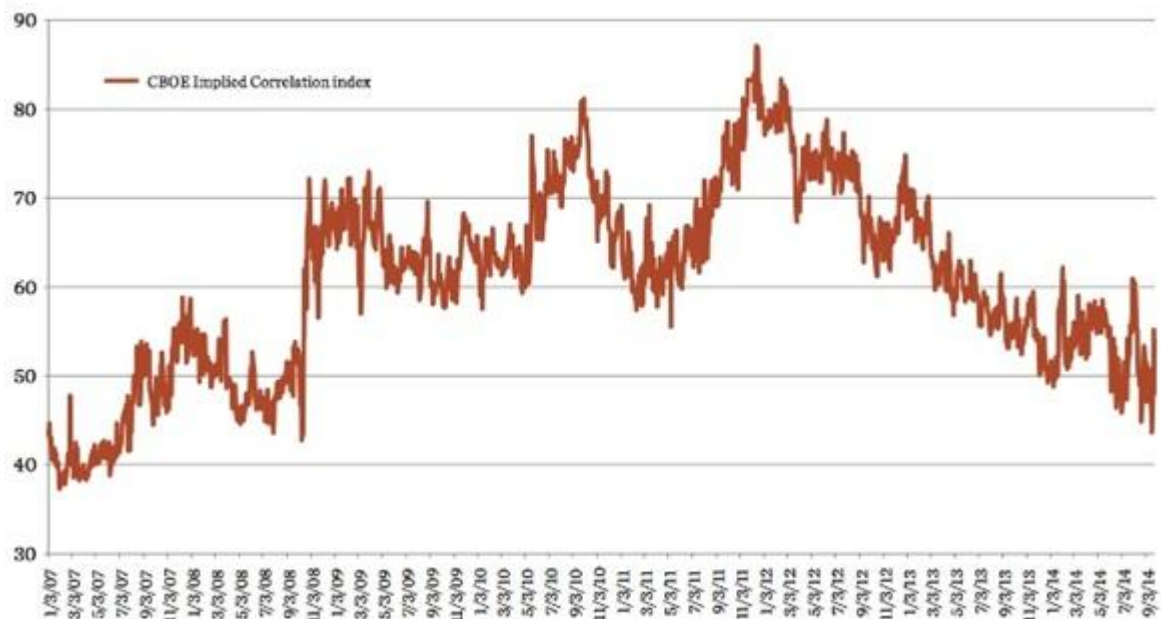
Intuition might suggest that the two measures ought to agree, roughly, on the level of ‘alpha richness’. But for the past three years they have both moved steadily downwards. While stocks in the market have been moving more and more independently of one another, creating more opportunities to take bets with returns different from the market’s, the amplitude of each stock’s movement has been continually compressing.

“At the moment, we are seeing all-time lows in cross-sectional volatility across all markets,” observes Sorca Kelly-Scholte, managing director in client strategy and research at [Russell Investments](#). “That would suggest that it’s a poor time for active managers to differentiate themselves.”

Craig Lazzara, senior director in index investment strategy at S&P Dow Jones Indices, agrees, and says that this explains the “difficulty active managers have been experiencing recently”, despite falling correlation.

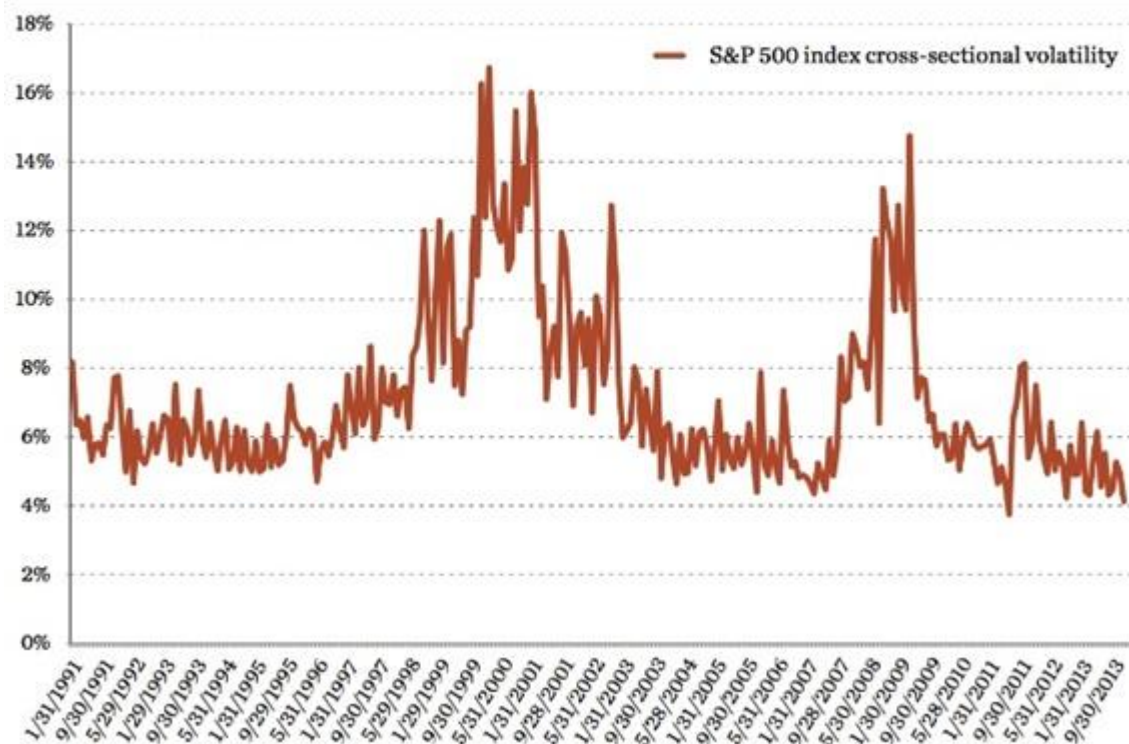
“Correlations might be low, but the correct metric for stock-selection opportunity is dispersion, which is close to all-time record lows in almost every market we look at,” he says.

1. While implied correlation between stocks has been falling for three years...

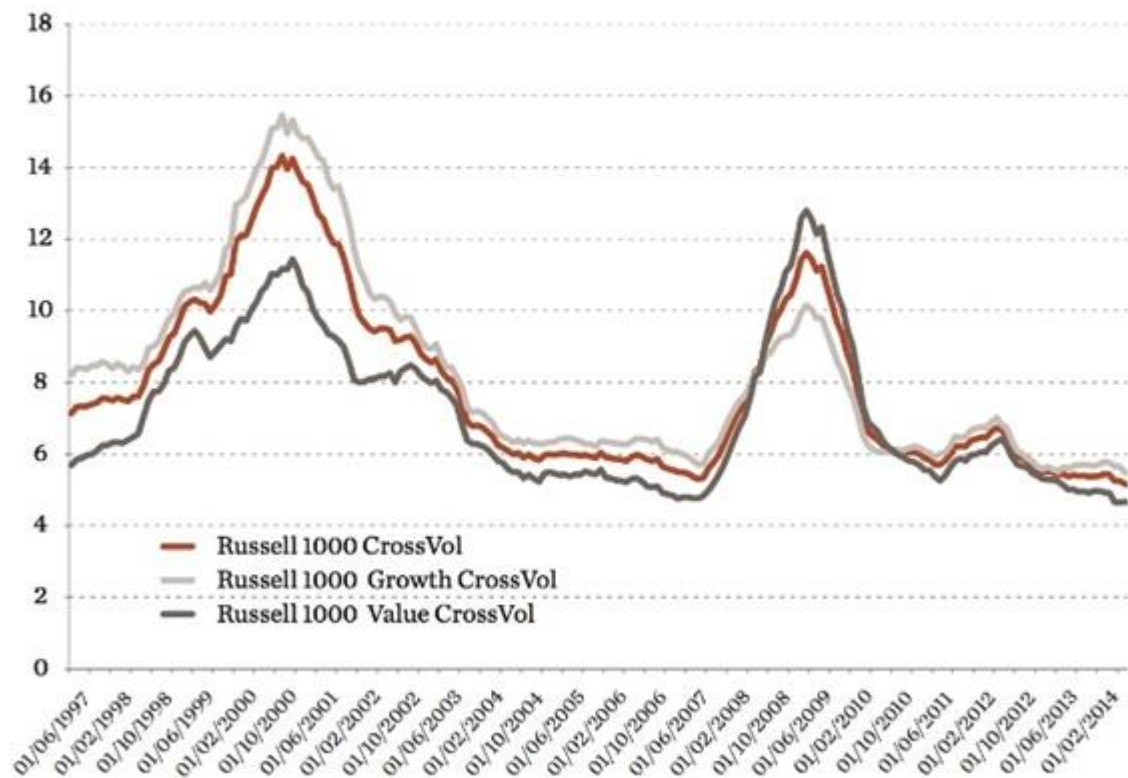


Source: CBOE

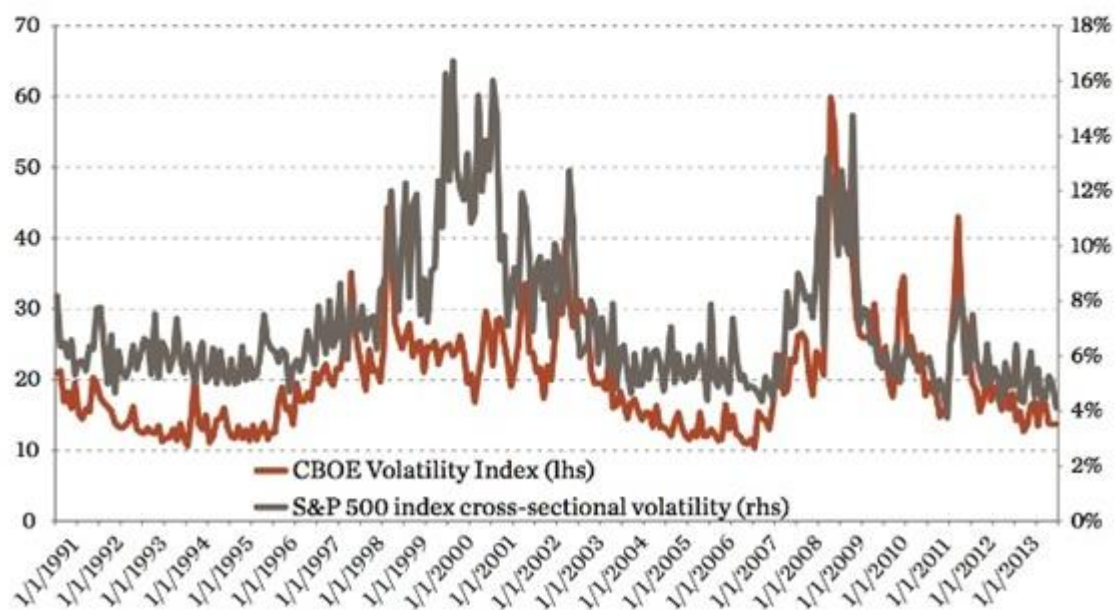
2a. ... dispersion of stock movements has also been falling in the S&P 500...



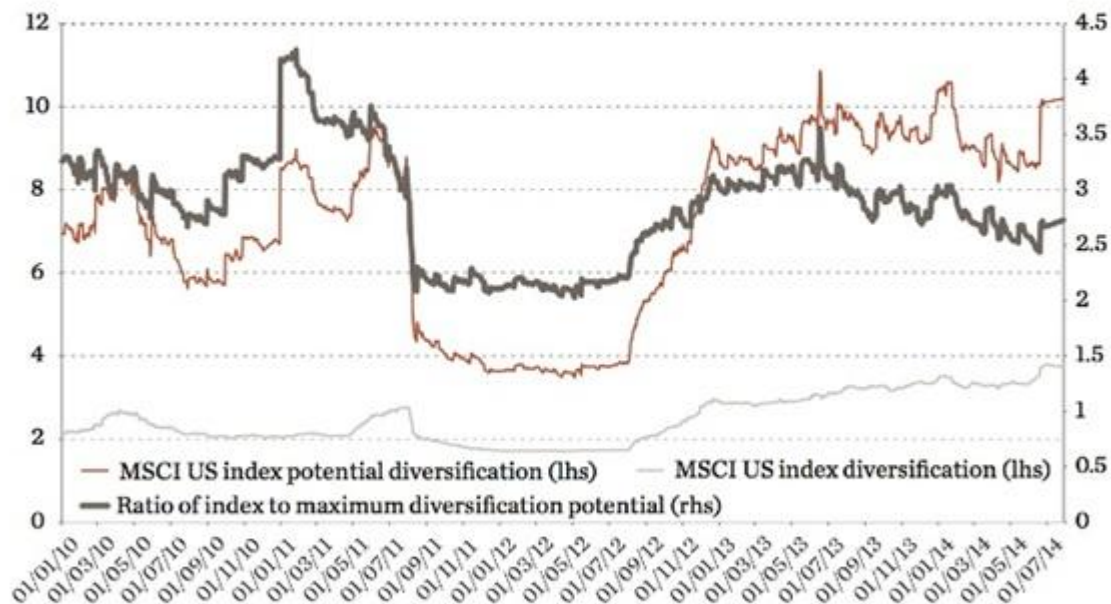
2b. ... and the Russell 1000



3. However, this could just be a function of suppressed volatility

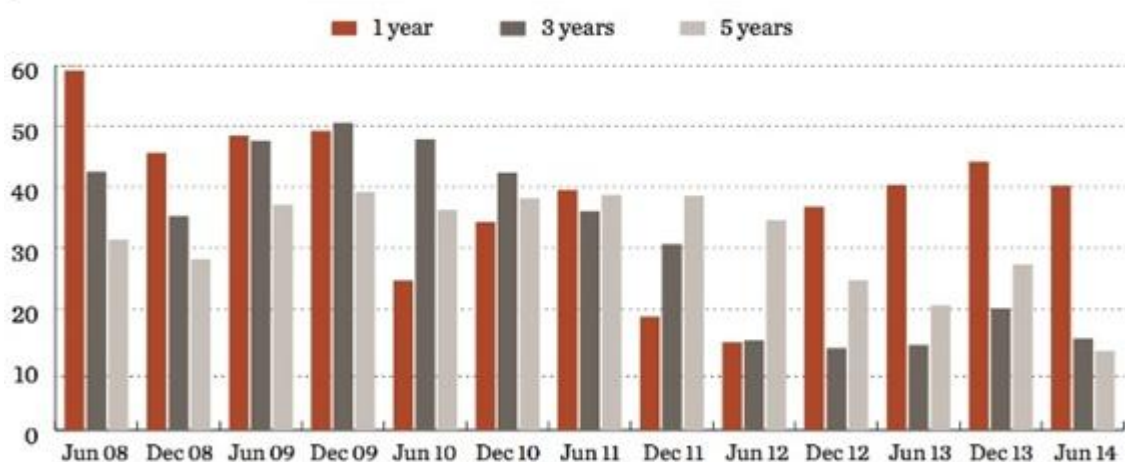


4. Meanwhile, the ‘diversification ratio’ suggests an improving opportunity set



Source: TOBAM

5. And realised excess returns appear to tell the same story



Source: S&P Dow Jones Indices

There are times when a similar reading for cross-sectional volatility and correlation signals a great time to bet against the market: in extreme situations when volatility goes through the roof, correlation will generally follow it – and at that point, when everyone else is selling, it will probably be great for your long-term relative returns if you are buying.

But the picture is not so clear when both readings are relatively low. Low cross-sectional volatility is simply a result of low overall volatility. Stock prices are not being allowed to move very far from the mean before the abundant liquidity in markets pushes them back again.

Nonetheless, they are moving, and correlations show they are moving differently. Putting on alpha-generating positions is easier now than it was three years ago, but the excess return from those positions will be lower. So the question is, can we benefit enough from lower correlations to offset the reduction in volatility?

Yves Choueifaty, president of [TOBAM](#), thinks we can. “If you only look at cross-sectional volatility you will despair at your ability to differentiate,” he says. “The good news is that correlations are low as well, and that has mitigated a part of the lower volatility.”

The ‘diversification ratio’ set out by Choueifaty and Yves Cognard – the ratio of the weighted average volatility of a universe of stocks with the overall volatility of that universe – can help us here, precisely because it is an expression of both volatility and correlation. As a measure of available diversity – the number of bets you can take that look different from all the other bets you could take – it is also, by definition, a measure of alpha richness.

Figure 4 shows the diversification ratio for the [MSCI](#) US index clearly rising since 2012. The way Choueifaty expresses it, the number of dimensions across which one can diversify has doubled. That seems positive for active management.

But something even more interesting comes up when we trim the universe of stocks by optimising for the highest possible diversification ratio – as TOBAM does for its ‘anti-benchmark’ portfolios. The extent to which the diversification ratio for the ‘anti-benchmark’ portfolio is higher than that of the index is a further measure of ‘alpha richness’. As figure 4 shows, while the diversification ratio of the index has doubled since 2012, that of the most-diversified portfolio has almost tripled.

“The benchmark used to be able to capture about 50% of the available diversification, but now it is only capturing one quarter of it,” Choueifaty explains. “The main lesson of that is not only that there is room for diversification again, but that the benchmark has never been as concentrated as it is today when compared with the available room for diversification. The euro-land benchmark shows this at its most extreme.”

Pull correlation and volatility together, in other words, and the picture looks pretty good for active managers. Do empirical observations support this? Results from the regular ‘S&P Dow Jones Indices Versus Active’ reports suggest that they might

Figure 5 shows that while the number of active managers outperforming over longer-term horizons remains disappointingly low, the data for the one-year time horizon shows the industry climbing back towards the highest post-crisis levels of success. Or, to put it another way, 2010-12 looks to have been alpha poor, but 2013-14 shows growing alpha richness.

Coin-toss

This is all very well, but does an alpha-rich environment today increase the probability of an alpha-rich environment tomorrow? We need the answer to this in order to vary our active management risk budget through time.

“Changes in the risk structure of the market are rarely unannounced, due to the underlying stability in the capital structure among stocks,” says Richard Yasenchak, a client portfolio manager at Intech. “As risk increases in the market, an investor can tweak their portfolio to account for the new, riskier decisions. They could take from their equity allocation and increase their bond allocation, or become more passive if they feel there is less risk for active management.”

However, while there is little doubt that changes in market structure tend to occur more gradually than changes in market direction, our charts of correlation and dispersion show that these things can turn on a dime.

“There’s no way of knowing what the next 12 months are going to bring because correlations can spike up suddenly, and they tend to take a longer time to come back down again,” says Meidar. “Trying to create flexibility around when to be active and when to be passive means loading some market timing on top of what is already active management.”

Chris Jones, head of public markets and alternatives at Bfinance, agrees. “Events can happen that really snap things back to a top-down regime,” he warns. “I don’t think anyone is brave enough to say, ‘Now is the time for active management’ or ‘Now is the time to go passive’.”

This is, by far, the majority view. However, some are prepared to suggest that additional signals might be deployed to back up the ex-post observations of market dispersion, correlation and diversification.

Melissa Brown, senior director in applied research at Axioma, suggests looking at the dispersion of specific factors in addition to general stock dispersion – particularly if those factors are important for your active management strategy.

“If you are a value investor, you’d want to know if P/E ratios are tightly-clustered or not, for example,” she says. “If P/Es are tightly-clustered it’s clearly more difficult to find the stocks that have low P/E. Maybe P/B measures are more broadly-spread than P/E – as a value investor, you might tilt your strategy towards low P/B rather than low P/E. Then, to determine the attractiveness of active management in the future, you could compare the dispersion of forward-looking metrics, such as forward P/E ratios. Predicting the future of dispersion is likely to be tough nut to crack, but there are some measures today that might give some indication.”

At factor-based investment specialist AQR Asset Management, they are not so sure. “Our single most intuitive way to think about timing, given that we are factor-based investors, is the spread within those factors,” confirms Cliff Asness, the firm’s founding principal. “When valuation spreads are wider, that’s an indicator – but it’s

not as cut-and-dried as the sort of signal you get from spreads in, say, convertible arbitrage. It's a lot noisier than that."

While there is limited scope to use the suggested measures of alpha richness as a signal to change behaviour or risk budgeting, that doesn't render the concept useless. Jones at Bfinance suggests that it is a good corrective against making bad decisions: if your active manager is underperforming but these measures suggest that the environment is rich in alpha, that should inform against giving up on active management altogether and make you think, instead, about changing your manager.

Similarly, Macdonald at Allianz suggests that, if your manager is piling on active risk in order to maintain tracking error in an environment of alpha poverty, that should warn you to expect realised risk to spike should the regime shift into something more alpha-rich.

And of course if you are prepared to forego the promise of assessing alpha richness through time, you can still put the concept to work in allocating your risk budget across different markets. One thing everyone agrees on is that smaller-company markets and less-developed markets are both more alpha rich, structurally, than those filled with liquid large-caps.

There are obvious reasons why seeking out alpha richness this way is easier than trying to do it through time. Kelly-Scholte talks about the process of "alpha mapping" at Russell, which assesses five different market characteristics: degree of broker coverage; the number of stocks available; the degree of concentration by market-cap; liquidity; and cross-sectional volatility.

"The first four tend to be stable over time and the last one is the one that fluctuates, and the most important are broker coverage, breadth and liquidity," she says. "Cross-sectional volatility is important, but definitely comes behind those others in the hierarchy."

This all stands to reason. After all, if you were choosing the place to scatter your seed, you would look at the quality of the soil before you looked at the weather: the soil is pretty much a constant; the probability of rain today, tomorrow or this month is a bit more of a coin-toss.

Nonetheless, awareness of the concept of alpha richness can help to frame decisions in this area – and further research may improve the timing signals that ex-post observations offer us. Then, of course, all we need to bear in mind is the question of skill. Or, as Choueifaty puts it: "There is a difference between alpha availability and the ability to generate it."