

Style, Risk, Performance Surprises and the Need for Style Benchmarks and Style Mandates

We all know that portfolio Style “leanings” introduce risk. After all, it is well understood that a Style tilt within a portfolio does introduce a systematic performance divergence against market performance. (This is, in fact, related to one of the defining criteria for the relevance of Styles within markets.) But generally that is not considered a problem. We most likely wanted the Style tilt; it was probably part of a systematic investment decision process (or a systematic sales process); and, besides, we are confident that our sophisticated risk analysis systems will enable us to control the risk to within acceptable parameters.

But what is not so widely appreciated is that portfolio Style tilts frequently introduce systematic errors in the calculation of the very statistics that we trust most to control risk. And the experiences of each of the past 2 years clearly demonstrate how awkward this can be, with many portfolios recording acceptable ex ante, or forward-looking, tracking errors of between 2% to 3%, yet performing at wide variances to these supposed limits, and more consistent with tracking errors of 2 or even 3 times these estimates.

The problem has to do with the way ex ante (forward-looking) tracking error is calculated and quoted. Calculations are based on the analysis of covariance matrices of historic monthly returns of securities, usually over a period of 4 to 5 years. As a result, the tracking error first calculated is actually based on the measured variation of historic *monthly* returns. But that is not what most managers want to quote to clients. After all, what use is a monthly tracking error estimate of, say, 0.7% per month? So we all quote this at an annual rate using a “convention” which multiplies the monthly estimate by the square root of 12 (in this case to arrive at 2.4%, a much more intelligible figure).

But, really this is usually not justified. To support the simplified root 12 annualization technique, we must be able safely to assume that the expected monthly relative performance numbers of the portfolio, over the coming year, will be all totally unrelated. That is, we must presume that there will be no discernable trend in the relative performance of the portfolio over the year ahead. But this is certainly a problem. Although risk analysts may be comfortable with this (after all it is the embodiment of the “past performance is no guide to future performance” mantra), managers will not. The very worth of active managers depends on their ability to deliver reliable relative outperformance, *trend* outperformance. So why then do we analyse risk on the assumption that there will be no trend performance when portfolios are actively managed to deliver trend performance?

The answer is that despite this clear paradox, usually trend outperformance is such a transient will-o’-the-wisp in portfolio management that it really doesn’t matter. The practical evidence does not usually reveal a problem.

However, over the past 2 years there has been very definite trend outperformance of a number of popular Styles. This is clear simply from looking at the evidence from the

return patterns of these Styles themselves (a simple variance ratio test, designed to detect such behaviour, conducted on attribute-sorted portfolios reveals strong, and statistically significant, mean averting trending of a number of popular Growth factors over the past 3 years). And any portfolio tilting either toward or away from these factors would experience just the trend behaviour that would confound the usual, popular, annualized estimates of ex ante tracking error.

As a result, it looks as though Style management may be a very unsettling proposition. To the extent that Styles display systematic performance trends (and most often they will; usually related to the various cycles operating within a market/economy), Style-based portfolio management appears to invite systematic underestimation of tracking error statistics. Maybe Style-based managers should be more careful about the tracking errors they quote and, perhaps they should further restrict their bets so as not to experience unwanted underperformance (or outperformance) surprises.

But this would be the wrong conclusion. Certainly Styles may introduce risk traps when Style-based portfolio returns are assessed against Style neutral benchmarks. But what about Style-based portfolio returns assessed against Style specific benchmarks. Then it is an entirely different situation. And it is worthwhile exploring this further.

While Growth, and many Value, orientated portfolios will perform well outside their tracking error based performance expectations because of the trend, or persistence, feature of their returns relative to a Style neutral benchmark, when an appropriate performance benchmark is used, this anomalous behaviour disappears. Annualized ex ante risk estimates of Growth portfolios against Growth benchmarks and similar estimates of Value portfolio risk against Value benchmarks have, over the past few years, been rather good reckoners of the actual ex post relative performance experience. And this is not at all surprising. It occurs because the problematic trending, that causes the annualization process to go awry, disappears when relative returns are considered. The Style return persistence is within both the performance of the benchmarks and that of the portfolios, and so it drops out of the relative analysis.

So if Style-based portfolios are assessed relative to Style-specific benchmarks the ex ante risk measures are better, the return outturns are less variable and the performance shocks become less unnerving. However, somehow it seems there has been a sleight of hand. We cannot say that a fund's overall risk has been reduced simply because of the change of benchmark for a specific Style-orientated sub-portfolio. But where has the persistence risk trap gone?

Looked at another way, it is easy to see that the risk hasn't disappeared; it's just been put into a more appropriate place, where it can be more easily identified as Style thematic, and more directly diversified. By appointing complementary managers, such as Value and Growth, and by assigning each its suitable benchmark, investment sponsors successfully diversify the Style-based persistence risk - since any trend that may favour one Style will, by construction, affect the other in an exactly compensating way.

Furthermore, since the benchmarks are appropriate to each manager's Style, this practical structure also avoids the associated risk/return surprises at the manager level.

Managers have certainly become more Style-based, or thematic, in their investment strategies. And from this there should be no turning back. Style management permits focused skill allocation, provides clearer product definition, and enables broader and more informed sponsor choice. But, as we have observed, without appropriate benchmarks in place, this will also invite systematic performance surprises. It would be wrong to impose further restrictions on active Style-based managers in what would still be a doomed attempt to rein in tracking error relative to an inappropriate benchmark. Rather it is required that we rapidly agree to adopt and use relevant Style-orientated benchmarks for thematic investment mandates. And we must recognize that Style risk is best addressed through the appointment of Style complementary managers with complementary Style benchmarks.

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