

Visit **Benefits and Pensions Monitor** magazine online at: <http://www.bpmmagazine.com>

An Alpha-driven, Risk-controlled Approach To Portfolio Construction

By: Mark Schmeer

When it comes to equity **investment** management, much of the spotlight around what portfolio managers do centres around their most promising individual stocks. We see it in media coverage through stock pick profiles and experience it in meetings with potential **investors** and clients. While outperformance of a benchmark is often primarily attributed to superior stock selection, it is the portfolio in its entirety that will ultimately deliver success on behalf of **investors**. Understanding how individual stocks work in combination with each other to derive diversified sources of alpha is key to enhancing returns and mitigating risk at the level of the overall portfolio.

'Alpha Scores'

To illustrate this point, let's examine the construction of a U.S. large cap value strategy. We start by applying a multi-factor sector model to a universe of more than 1,000 stocks. The model ranks stocks by their 'alpha scores,' essentially measuring each stock's capacity for excess return. The attributes in the model that form the basis for a stock's alpha score are:

- Valuation
- Management quality
- Wall Street sentiment
- Timeliness
- Accelerating fundamentals
- Earnings growth
- Investor recognition

In addition to quantifying attributes, such as management quality and timeliness, the model appropriately weights the seven categories to create a single alpha number.

The top third of each sector can then be subjected to model-verification analysis to help identify the 65 to 85 stocks that will typically reside in the portfolio. Given that portfolio construction is driven by quantitative factors, the magnitude of model-verification efforts may come as a surprise.

Most important is the identification of any unquantifiable risks associated with a particular investment. While the numeric penalties assigned to risks such as stock option expensing and macroeconomic factors are subjective, their value has been borne out over time. Model-verification analysis is also appropriate when we anticipate a company's reported earnings will not meet expectations, and for ongoing evaluations. The need for this was shown in 2005 when a leading consumer goods company acquired one of its main competitors. The model gave a sell signal based on a negative alpha revision that reflected a dilution factor inherent in the acquisition process, but managers who overrode the sell signal ended up with holdings in the merged entity, which was, in fact, a solid performer over the past two years.

To optimize risk at the portfolio level, a second quantitative process is necessary to evaluate stocks according to constraints such as volatility and correlation, thus ensuring the portfolio is diversified by sector and industry. Recognizing that it is the alpha factors that make stocks move, this process goes further, diversifying the portfolio among the alpha generators themselves, while still keeping industry weights within four percentage points of a benchmark such as the Russell 1000 Index.

Markets Can Be Fickle

Alpha diversification works because markets can be fickle. In 2002, the market suffered double digit losses and investors flocked to high-quality stocks. The following year, low-quality stocks led the rebound. Not long after, attention shifted to value-oriented stocks and, by 2005, contributions from growth and value were roughly equal. Portfolios which are managed using alpha diversification should have performed well in each of these markets.

To appreciate how these seven factors can work together, it is important to underscore that the proper weights for one industry category may differ considerably from those of another industry. Whereas Wall Street Sentiment is the single most important driver of investment performance within the merchandizing sector, it is almost negligible within the financial sector. Valuation, on the other hand, affects financial stocks to a far greater extent than merchandizing stocks. This latter point fits with standard intuition that in faster growing sectors, paying a high multiple for a stock can be fully justified by subsequent earnings performance.

While the initial description of the methodology applies to a portfolio created from scratch, real-world success depends on adjusting the portfolio as market conditions change. Alpha scores tend to degrade over time as Wall Street estimates change, earnings surprise, or share prices rise. To keep the overall alpha score high, it is necessary to monitor the alpha scores regularly and rebalance the portfolio when necessary.

Risk management is key to rebalancing efforts. It is, of course, virtually impossible to outperform the market without taking some risks. In fact, risk is the currency with which returns are purchased. The goal is to optimize the portfolio between the competing factors of alpha and risk (a balance especially relevant to quantitative investors) to ensure that there are no unintended risks.

We believe the portfolio that results from this kind of approach will stand out, not merely because of the stocks in it, but rather, by how much of specific stocks are owned, when they are owned, and in what combinations.

Mark Schmeer is senior vice-president, North American equities, Manulife Financial, and chief investment officer, MFC Global Investment Management, U.S.