

# Factor-based challenges

There are so many elements to consider when building factor-based solutions it can be overwhelming. We've highlighted two case studies of investors tackling these challenges.



Aniket Das is responsible for LGIM's research in the field of factor-based investing and client solutions development.



David Barron is Head of Index Equity and Factor Based Investing. He focuses on research and strategy in addition to overseeing the team responsible for index equity implementation.

The growing investor appetite for factor-based index solutions is well documented. Gaining factor exposure can help deliver specific objectives such as higher returns, lower risk or greater diversification in a cost-efficient way. However, meeting these goals requires thoughtful understanding of strategy selection and portfolio construction. The number of factor-based products is continually increasing and it is becoming harder for investors to distinguish between them and select the most appropriate ones for their aims.

We examine two case studies of pension schemes which sought factor exposure, examining the issues they faced and how a portfolio can be structured to take advantage of the opportunities that factor-based investing can present.

## THE DANGERS OF A BOLT-ON APPROACH

One of the key problems of factor-based products is that there can be significant performance differences between strategies with similar names. Multi-factor investing is the latest area of innovation where a number of different factors are combined together in order to diversify the risk of any single factor underperforming. Commonly, different factor-based indices that are constructed independently are chosen, with an equal weight assigned to each.

This was the approach adopted by a UK local government pension scheme. The investor had invested into a value factor index a number of years ago. Once more comfortable with the premise of factor-based investing, the investor expanded to include quality and low volatility factor indices. Eventually they chose to equally weight each in order to create their own multi-factor strategy.

However, problems with this approach emerged as the value index was highly diversified and carried low factor exposure while the other two were more concentrated, delivering much higher factor exposure. Moreover, given cross-factor interactions present (i.e. a factor index having exposure to the other two factors), the combined effect resulted in a negative exposure to the value factor at a portfolio level – an outcome the investor was certainly not expecting. Further to this, since the strategy had not been rebalanced for over two years the portfolio had shifted away from its equal weight position (to have even less value factor exposure).

This highlights a number of the key challenges that investors face, certainly when adopting a 'bolt-on' approach to building a multi-factor portfolio. The decision of which factors to choose, their definitions, their weights and the resultant region, sector and currency exposure can all serve to complicate matters. A multi-factor portfolio that is constructed in concert, blending factor exposure to meet the desired risk profile, can help achieve an investor's objectives while avoiding some of the issues the investor here faced.

### **IMPROVING ON MARKET-CAP RETURNS**

A large DB pension scheme had been invested in market capitalisation-weighted indices though were seeking better risk-reward outcomes. In conversations with the scheme we took a first principles approach, building a multi-factor solution that is best suited to meet the client's stated needs. We were looking to achieve a generally balanced exposure across the selected factors: quality, low volatility, value and size. After selecting the factors we then chose to diversify across two stock weighting schemes: equal-weighting and equal risk-weighting. These diversified stock weighting schemes also helped deliver for the scheme relatively diversified sector positions.

By outsourcing the design and implementation of the multi-factor portfolio solution, the scheme was also able to benefit from our regional allocation process. For this investment, we select this global portfolio's regional weights in order to diversify risk, another potential benefit over market-cap weighted indices, which we believe can lead to better risk-reward outcomes. The team also considers currency exposure, choosing to hedge certain currencies in order to harness correlation effects between currencies and equity markets which should help to lower volatility while not compromising returns over the long-term. Overall, having made these design choices in our multi-factor solution, we believed that this strategy can outperform a similar regional mix of market-cap weighted indices over the long term with a lower level of risk.

### **BOTTOM LINE**

There are many ways to construct a multi-factor portfolio – from a static allocation to factors, to a completion portfolio or to a fully dynamic solution. The 'right' approach is dependent on the specific needs and objectives of the investor. Investors need to understand not just which factor exposures they are looking for, but also how they will interact with each other in a portfolio. Through careful analysis and thought, pension schemes can make sure that they achieve from their factor-based solution the outcome that's right for them.

## CONTACT US

For further information, please contact Adam Willis, Head of Index and Multi-Asset Distribution:

 0203 124 3207

 adam.willis@lgim.com

 www.lgim.com

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Legal & General Investment Management Asia Limited, Unit 5111-12, Level 51, The Center, 99 Queen’s Road Central, Central, Hong Kong.  
www.lgim.com.

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