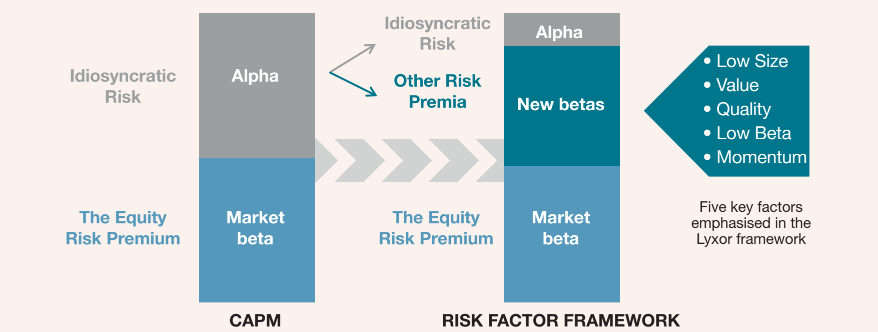
A dynamic approach to factor investing

By François Millet, Product Line Manager for ETFs & Indexing, Lyxor Asset Management

Risk factors help explain systematic sources of return in equity markets. Armed with the right tools, investors can now capture these factors in order to enhance portfolio performance.

Factor investing offers investors a new framework for efficient asset allocation. While traditional finance theory suggests that there is only one equity market risk premium, research indicates that other factors also help explain systematic return patterns in equity markets. François Millet, Product Line Manager for ETFs & Indexing at Lyxor Asset Management, explains why a dynamic allocation strategy between these factors can generate outperformance.

Figure 1: Evolution from CAPM to the Risk Factor framework



Source: Lyxor

What is Smart Beta?

Lyxor's definition of Smart Beta is simple: a rules-based investment strategy that deviates from conventional market capitalisation index weights. Based on this definition, Smart Beta falls into two broad categories.

The first is alternatively weighted indices. These strategies are constructed with a specific outcome in mind, such as targeting stocks by economic footprint, or reducing portfolio volatility. For this reason, they can often act as strategic stand-alone solutions.

François Millet, product specialist at Lyxor Asset Management

The second category of Smart Beta focuses on risk factors. Factor indices are designed to deliberately capture a single common risk factor, such as low size, value or momentum. They are more tactical in nature, and should ideally be diversified and allocated with other factors.

Today, investors can implement Smart Beta strategies using cost-efficient vehicles like ETFs. These tools can help replicate the goals of active managers in a more transparent and systematic way.

The risk factor framework

Traditional finance theory – namely Sharpe's Capital Asset Pricing Model – suggests that investment returns contain two main sources of risk. The first is systematic or market risk (beta), and cannot be diversified away by adding more and more stocks in a portfolio. The second is idiosyncratic risk, which refers to the risk specific to an individual company.

Active managers seek to generate alpha by managing idiosyncratic risk. However, years of research have shed light on 'other' risk factors in addition to Sharpe's beta. Indeed, factors such as low size, value, quality, low beta and momentum are significant contributors to portfolio returns, meaning the true alpha component of investment returns has shrunk significantly. Indeed, studies by Brinson, Hood and Beebower (1986) suggest that less than 10% of portfolio return is explained by stock picking and market timing, while Ang, Goetzmann and Schaefer's report on the Norwegian Government Pension Fund Global (2009) indicates that risk factors represent 99.1% of the Fund's return variation.

This growing body of research has led to the emergence of a new framework for asset allocation. Because risk factors dominate what we previously thought was alpha, and because they are weakly correlated with one another, the risk factor framework offers new allocation methods and broader diversification opportunities compared to the traditional approach.

Which factors matter?

There is a veritable zoo of factors appearing in modern financial literature. Investment providers are erroneously labelling all sorts of market anomalies and sources of return as risk factors, often through data mining and back-testing. These potentially misleading marketing tactics can be confusing and overwhelming.

To help investors navigate this growing factor zoo, Lyxor has identified five 'core' equity factors that have solid theoretical support and are backed by decades' worth of empirical evidence:

- **Low size:** the small capitalisation segment of equity markets
- **Value:** stocks perceived to be underpriced vis-à-vis their peer group
- **Quality:** companies showing the highest fundamental quality standards
- **Low beta:** stocks showing the lowest beta to the market cap index
- **Momentum:** the fastest rising shares over the recent period

Why these five? Because together with 'classic' market beta they have been shown to represent the bulk of portfolio returns. Additionally, these five core factors exhibit weak correlation levels between each other, offering attractive diversification opportunities for investors.

Be local, not global

When implementing factor investing in equity portfolios, investors crucially need to be aware of the non-additive nature of regional risk factors.

While the total market risk premium of, say, Europe and Asia Pacific is simply the combination of their individual market risk premia (for example a portfolio invested in their respective market cap weighted indices), the same logic does not apply to their factor exposures.

LYXOR, EXPERTS IN SMART BETA

Smart Beta has its roots in financial theory and quantitative fund management. Lyxor Asset Management has a solid research base and expertise in developing quantitative investments, with a focus on risk-based portfolio construction and factor investing. As of March 31st 2015, we manage over US$13 billion for clients in such strategies via segregated mandates, index funds and ETFs.

For clients, partnering with Lyxor means direct access to the authors of smart beta models and multifactor strategies, with the possibility of tailoring solutions to meet individual requirements.

If you have any enquiries for Lyxor, please contact **Robin Kooijman, Director, ETF Institutional Sales, the Netherlands** at robin.kooijman@sgcib.com or **François Millet, Product Line Manager for ETFs & Indexing** at francois.millet@lyxor.com.

Momentum cycles for instance are not synchronous between the US, Europe and Japan: a global momentum strategy currently has a disproportionately heavy regional bias towards US stocks. Therefore, on a global level, this factor strategy doesn't capture the essence of the momentum factor.

The solution is to be local, not global. By targeting factors within a homogenous universe of stocks such as European equities, investors can ensure they are capturing them with precision. Diversified global coverage can subsequently be achieved by combining several regional factor portfolios.

In line with this approach, Lyxor is launching a range of factor ETFs offering exposure to the five core factors within the European equity universe. The underlying factor indices were selected by Lyxor due to their high factor content.

A dynamic multifactor approach

As mentioned previously, risk factor indices are not stand alone investment solutions. They are however powerful tools for investors wishing to implement a multifactor allocation strategy. Why is dynamic multifactor allocation important? Because of two critical properties of risk factors: their time-varying nature and their short term persistence.

The time-varying feature of risk factors has repeatedly been observed in historical equity return patterns. For instance, the performance of the MSCI Europe Index over the past 15 years shows that while value was the winning strategy during the lead up to the 2008 crisis, momentum and quality have since fared better during the long route to recovery. The lesson here is that factors may exhibit periods of either underperformance or outperformance versus the market cap, depending on the market cycle or other macroeconomic conditions.

Additionally, studies by Lyxor have shown that risk factor returns exhibit persistence in the short term. Investors can hence exploit these short term return patterns by dynamically rotating between factors.

The key takeaway is that although a static, equal weighting between factors already delivers a significant level of diversification, a dynamic tactical allocation can add even more value in terms of portfolio performance. «

- **Traditional asset allocation offers limited diversification opportunities**
- **The ingredients of 'alpha' are dominated by risk factors**
- **The five core factors are low size, value, quality, low beta and momentum**
- **Factor strategies are irrelevant on a global level – you have to be local**
- **A dynamic, multifactor approach offers significant opportunities for outperformance**