

Factor investing: a different approach to seeking market performance

Factor investing has overhauled the way investment professionals explain market performance, manage risk and capture returns. Building a diversified factor investing portfolio provides investors with a powerful tool to take full advantage of market cycles aiming to generate stronger risk-adjusted returns over the long-term.

"If we can build a multi-factor portfolio which is well diversified and well balanced, across different factors, we will be better equipped to navigate the equity market," outlined Bruno Taillardat, Global Head of Smart Beta & Factor Investing at Amundi.

In a webinar hosted by Amundi titled "Smart Beta & Factor Investing: Where do we stand?" Taillardat explained that investment portfolios based on factors such as value, low volatility, momentum, size and quality can help investors capture different risk premia in the market. These factors provide explicit exposure to underlying risk factors and help investment professionals obtain market beta more efficiently while allowing them to plan for consistent alpha generation.

The different characteristics of each factor and the fact they are driven by different selection criteria means they can work together to produce an optimal exposure for investors. For example, the momentum factor is driven by information on price movements while fundamental criteria are more related to quality concerns. Furthermore, factors like

value tend to be higher risk than low volatility for example, which is more defensive and rewards investors during turbulent times.

"Factor investing is a very efficient way of managing risk and we believe that risk management leads to better performance over the long term," Taillardat stated.

The varying nature of the factors identified brings complementarity for investors

with a diversified portfolio, meaning that factors can bring different performance contributions at different times in the market cycle. "Primarily, factor investing is a tool for generating higher returns and to achieve long-term performance. This is delivered through the power of risk factor-based diversification as it allows the portfolio to be well balanced on a practical dimension. Portfolio construction is crucial in factor investing" Taillardat explained.



Factor performance during the pandemic

Although the Covid-19 crisis did see quantitative investment strategies struggle overall, Taillardat emphasizes there is investment rationale behind each factor's performance - the surprises in this regard were sparse.

The value factor, for example, underperformed throughout most of 2020, until showing a recovery towards the end of the year as a result of the Pfizer vaccine being announced. This performance was expected since it's a risky factor which has high correlation with credit risk.

The size factor also behaved as typically expected in a crisis due to the strong focus on highly liquid stocks.

Taillardat noted that the underperformance of the low volatility factor was somewhat unexpected.



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"Low volatility outperformed in the first part of the year when the market was turbulent but then didn't deliver protection as it should in a bear market. Furthermore, during the market relief that followed, low volatility lagged due to the lack of exposure to concentrated names like big tech stocks."

Arguably, the lacklustre performance of low volatility strategies was driven by the unprecedented circumstances arising from the Covid-19 outbreak and the subsequent policy response to the crisis. The momentum and quality factors performed quite well throughout 2020.

Cyclicality, performance and risk

Hamza Bahaji, Head of Engineering and Solutions at Amundi highlighted how the global picture has changed dramatically in 2021. He explained the way factors behave and the features of these market patterns.

"Cyclicality is a noticeable feature in the factor dynamic. For instance, the performance of the value factor can be clearly distinguished by smooth, repetitive peaks and troughs," Bahaji notes.

Although cyclicality is identified within all factors, each one follows a different cycle. This leads to factor performance being de-correlated, which highlights their complementary nature – a second crucial

element of the factor dynamic. It is their ability to provide returns at different points in the market cycle that results in the diversification benefits indicated earlier.

Ultimately, factor investing has shown significantly positive risk-adjusted returns. This means there are long-term premia associated with these factors, which is the third important feature of factor investing and makes it an efficient tool to hedge against the market turbulence seen since the mid-point of 2021.

The critical aspect of successful factor investing lies in the way portfolios are constructed. "In a volatile and uncertain

market context, the best way to harness global equity performance is to invest in a well-diversified portfolio across different factors", states Taillardat. He noted that one of the potential benefits of a multifactor portfolio is to deliver consistent performance over time, within a governance structure which is straightforward and easy to understand.

Amundi has mapped the way different factors should behave within different market scenarios. For example, within a bear market, defensive factors like low volatility and quality are expected to perform. This allows for more robust portfolio construction and the potential for predictable returns.

ESG as a new factor

Taillardat then addressed the question of whether it is possible to consider ESG as a new equity factor. Looking at an empirical analysis of ESG as an additional risk factor in the Eurozone and in the US over the last six years shows that ESG integration has proven to be a driver of alpha. The research looked at the performance attribution of ESG

over the period, comparing an ESG portfolio with a non-ESG portfolio. Today, there is greater evidence that ESG is a source of additional performance.

Returning to how factors are defined (cyclicality, complementarity, and long-term risk premia), Taillardat explained that for ESG

to be considered a factor, "it has to deliver positive risk-adjusted returns, but it also has to be different or at least complementary to other factors already being used by investors."

When considering the performance of stocks according to their ESG scores, the period prior to 2014 showed little differentiation

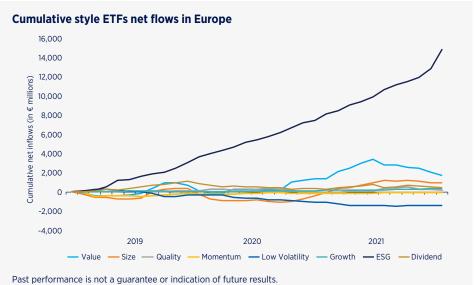


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in the analysis. This changed in 2014 when the names in the top quintile of ESG scoresranked stocks began to outperform. It was this distinction which drove Amundi to consider ESG as a new investment factor.

The complementary nature of ESG as a factor further emerged as a result of the positive inflows into passive ESG ETPs.

However, for ESG to stand its ground as a factor, it also must provide added value within a multi-factor portfolio, as mentioned earlier. The analysis indicated higher systematic effects and significant diversification in the ESG portfolio. When considering the performance attribution, ESG accounted for a significant portion of market return, even when presented alongside other factors.

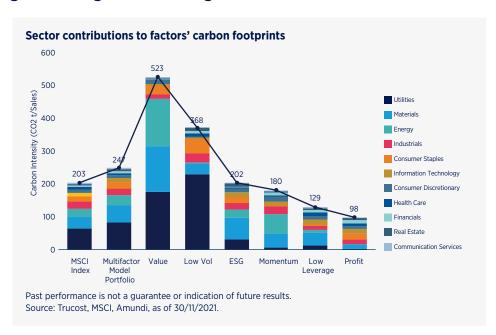


Sources: Factset, Amundi analysis as of 31/12/2021.

Is there a role for factor investing in tackling climate change?

Bahaji discussed the ability for factor portfolios to also account for climate change and take into consideration the carbon footprint of the investments, "Combining carbon intense factors (value and low volatility) with others - like momentum, quality and even ESG - in a multi-factor portfolio, with a fairly balanced factor exposure, investors end up with a portfolio which has a higher carbon footprint than the benchmark. This comes as a result of higher exposures to some carbon-intense stocks and sectors such as utilities.

However, this risk can be managed without affecting the central investment objective of an active multi-factor strategy. The portfolio can continue to provide balanced and diversified exposure to underlying factors. "The reduction of the carbon emissions intensity within the final portfolio can be gradually obtained without affecting its overall factor exposure. This would be done through a non-uniform reduction of the contributions of each of those carbon contribution-based stock 'buckets,'" Bahaji concludes, noting that it is possible to significantly reduce the carbon emissions intensity from the portfolio while maintaining a similar factor exposure compared to the initial multifactor portfolio.



Taillardat concluded with a summary of Amundi's clear convictions on factor investing:

- · Factor investing and multi-factor portfolios can be an efficient way to manage risks
- Requires strong convictions around risk management and diversification
- Risks must be considered multifaceted
- A disciplined portfolio construction process is required to manage risks efficiently for reward



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