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Do factor investing and ESG go together?

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Executive summary

Investor demand for strategies that combine robust financial performance with measurable sustainability outcomes has grown substantially in recent years.

Multifactor strategies seek to harvest persistent style premia such as Momentum, Quality, Value and Low Volatility. ESG strategies aim to improve portfolio sustainability characteristics, to be better positioned for energy transition scenarios, and to reduce exposure to long-term, financially material risks such as climate, regulatory, operational and governance failures.

Increasing demand for this combination of multifactor and ESG investing raises three important questions:

1. How do factors and ESG interact?
2. Is it possible to combine multifactor and ESG approaches and achieve meaningful factor exposure while meeting ESG objectives?
3. Can combining multifactor investing and ESG objectives deliver stronger, more diversified results?

Our research indicates that the answer to questions two and three is 'yes', highlighting the complementary nature multifactor and ESG investing. This paper provides a structured, empirical assessment of the benefits of combining multifactor and ESG methodologies. The findings demonstrate that with the proper index design, a combined multifactor ESG approach can seek to:

1. Preserve the return potential of rewarded style premia
2. Meet sustainability objectives such as improving ESG scores and reducing carbon intensity
3. Draw on complementary, low correlated sources of return

These results support the case for multifactor ESG indices as compelling tools for investors seeking to achieve both financial and sustainability objectives in a systematic, rules-based framework.

How do factors and ESG interact?

Factor investing aims to use time-tested and research-backed strategies that systematically capture persistent sources of returns over the long run. This means allocating to certain investment styles (or 'factors'), such as Value, Momentum, Quality and Low Volatility. One feature of factors is that they can be expected to be uncorrelated sources of risk and return. While individual factors often exhibit short-term cyclicality, a risk controlled, market capitalisation (cap) aware multifactor approach can help smooth these cycles and deliver more stable returns.

Adding ESG and climate objectives to the mix introduces a third dimension to portfolio construction (see Figure 1) – one that extends beyond traditional risk/return considerations to incorporate sustainability objectives such as higher ESG scores and alignment with carbon reduction pathways.

Figure 1. From 2-dimensional to 3-dimensional investing.

Source: L&G. ***For illustrative purposes only.***

In the analysis that follows, we examine the long-term performance of multiple global systematic strategies constructed using L&G's established ESG and factor frameworks:

Single factor

Four different strategies that target Value, Quality, Momentum and Low Volatility factors

Multifactor

A diversified combination of four style premia – Value, Quality, Momentum and Low Volatility – constructed using a risk parity framework, where each single factor sleeve is weighted in proportion to the inverse of its ex-ante active risk to ensure a balanced contribution to overall portfolio risk

ESG

Based on our established Future World framework, which allocates capital proportionally to the L&G ESG score and embeds a decarbonisation pathway

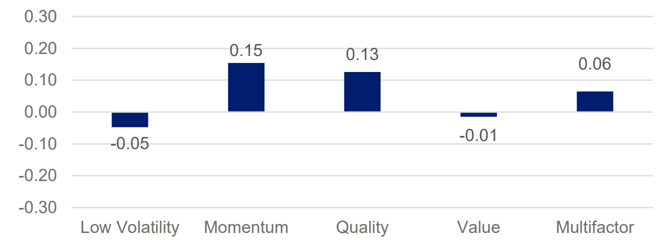
Multifactor ESG

A combined approach that integrates ESG and factor signals to create a multifactor ESG portfolio that seeks to achieve balanced factor exposure while improving ESG and climate characteristics

The first question we address is whether the returns of traditional style factors are correlated with the returns of an ESG strategy. Figure 2 highlights the relationships between the four style factors – Low Volatility, Momentum, Quality and Value – and the ESG signal. These correlations provide an important insight into how ESG behaves relative to traditional style premia and why the combination of multifactor and ESG investing leads to diversification benefits.

The key takeaway from the table is that ESG shows very low correlation with the standard equity style factors.

Figure 2. Long-term active return correlation between factors and ESG

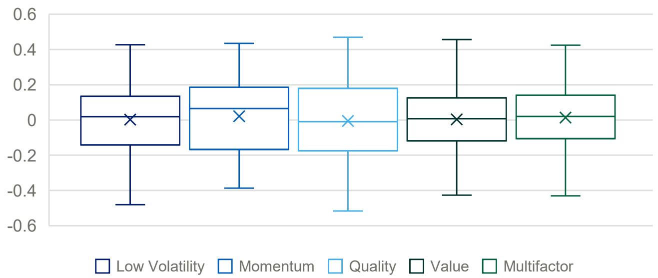


Source: STOXX, L&G. Correlations of global factor indexes daily active returns (vs Stoxx AC World, USD gross), starting from March 2009 to November 2025.

We note that correlations are not static and change over time depending on market conditions and the economic cycle. In Figure 3, we show the three-year rolling correlations of single-factor portfolios with ESG portfolio active returns.

The range-bound correlations for each factor show that ESG has no persistent linkage to style factors, underscoring that ESG is not a repackaged factor bet. Indeed, the correlation between multifactor and ESG is mostly bounded between -0.1 and +0.15 (interquartile range).

Figure 3. Three-year rolling correlation distribution of single and multifactor versus ESG



Source: STOXX, L&G. Distribution of three-year rolling correlations between ESG scores and the active returns of single and multifactor equity portfolios, from March 2009 to October 2025. Each box plot summarises the variability and central tendency of the correlation series. Horizontal line inside each box represents the median correlation and 'X' marker inside each box denotes the mean correlation.

The low correlations between ESG and style factors confirm that ESG adds almost orthogonal information, and combining them can increase diversification.

These patterns confirm ESG as a distinct, complementary source of returns, aligned more with industry tilts and structural transitions than with style premia, and help explain the very low correlation between ESG only and multifactor only active returns – potentially delivering diversification when combined.

Philosophically, we can also make a distinction between the information both approaches tend to utilise, which could also explain why the correlation between multifactor and ESG investing is observed to be relatively low:

- Multifactor approaches tend to use historical and contemporary fundamental and price data as inputs to measure exposure to individual factors
- ESG approaches use a mixture of quantitative and qualitative sources of information (which can be historical, contemporary and forward-looking) to measure exposure to long-term forward-looking systemic risks

Therefore, with the two approaches utilising largely different sources of information, different signals would be measured and captured. In this case, with the correlation between multifactor and ESG close to zero, the signals are somewhat independent.

> "The low correlations between ESG and style factors confirm that ESG adds almost orthogonal information, and combining them can increase diversification."

From 2-D to 3-D investing – combining multifactor and ESG

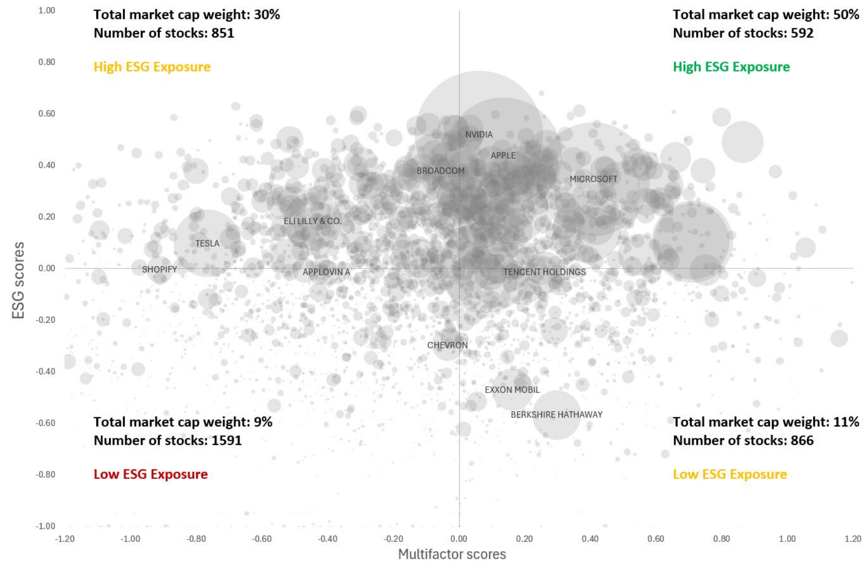
We have shown empirically in the section above that multifactor investing and ESG investing can be complementary to each other. In this section we describe how careful index design is required when combining factor and ESG signals together.

Figure 4 shows a global market cap index mapped to L&G multifactor and ESG scores. The x-axis shows the multifactor scores, where 0 is neutral exposure, and the y-axis shows the ESG scores, where 0 is a neutral score. The size of the bubbles represent the relative market cap of each company in the index.

The top-right quadrant shows companies with high ESG scores and high factor scores, which equates to 592 companies or 50% of the total market cap of the index. Ideally, we would want to maximise exposure to this quadrant as companies possess both desirable multifactor and ESG properties. On the other hand, the bottom-left quadrant shows the companies with low ESG scores and low factor scores, which equates to 9% of the total market cap of the index. Ideally, we would want to minimise the exposure to this quadrant as companies possess both undesirable multifactor and ESG properties.

The other two quadrants are where trade-offs come into play. These quadrants either have desirable multifactor characteristics with undesirable ESG characteristics or vice versa. This is illustrated in Figure 5.

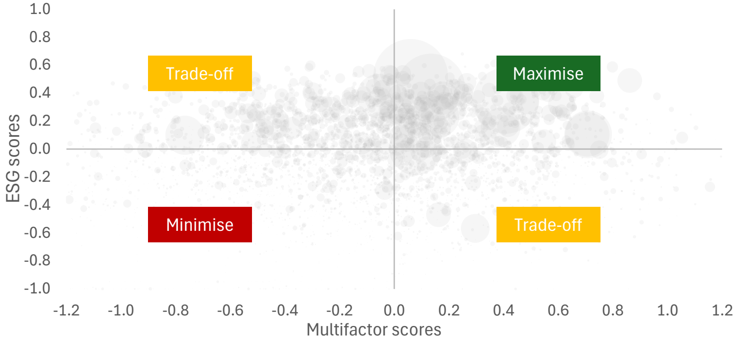
Figure 4. A global market cap index measured against multifactor and ESG scores



Source: L&G, STOXX. Data latest as of Jan 2026. L&G Multifactor and ESG scores. The total weight is based on the sum of the market cap weights of each security within each quadrant. Size of each bubble signifies the market cap weight of each stock in the Stoxx AC World Index.

For illustrative purposes only. Reference to a particular security is on a historic basis and does not mean that the security is currently held or will be held within an L&G portfolio. The above information does not constitute a recommendation to buy or sell any security.

Figure 5. Considerations when designing a multifactor ESG strategy



Source: L&G, STOXX. Data latest as of Jan 2026. L&G Multifactor and ESG scores.

These challenges can be addressed through thoughtful strategy/index design. By integrating both signals systematically, it is possible to construct a multifactor ESG portfolio that captures desirable factor premia while simultaneously improving ESG characteristics. Importantly, we can exploit the weak correlation between the two to improve diversification and potentially offer better risk-adjusted returns.

Figure 6 shows the constituents and corresponding weights of a live strategy (iStoxx L&G Global Multifactor ESG Index). The strategy has been successful at maximising the top-right quadrant (showing an increase from the starting universe weight of 50% to 71% in the strategy), while minimising the weight to the bottom-left quadrant (a reduction from 9% to 3%). The weights in the other quadrants are also somewhat reduced. With a large opportunity set, we show that it's possible to create a well-diversified multifactor ESG strategy with a high weighting to the top-right quadrant.

An important question then arises – does the multifactor ESG strategy become skewed to certain factors once we combine multifactor and ESG characteristics?

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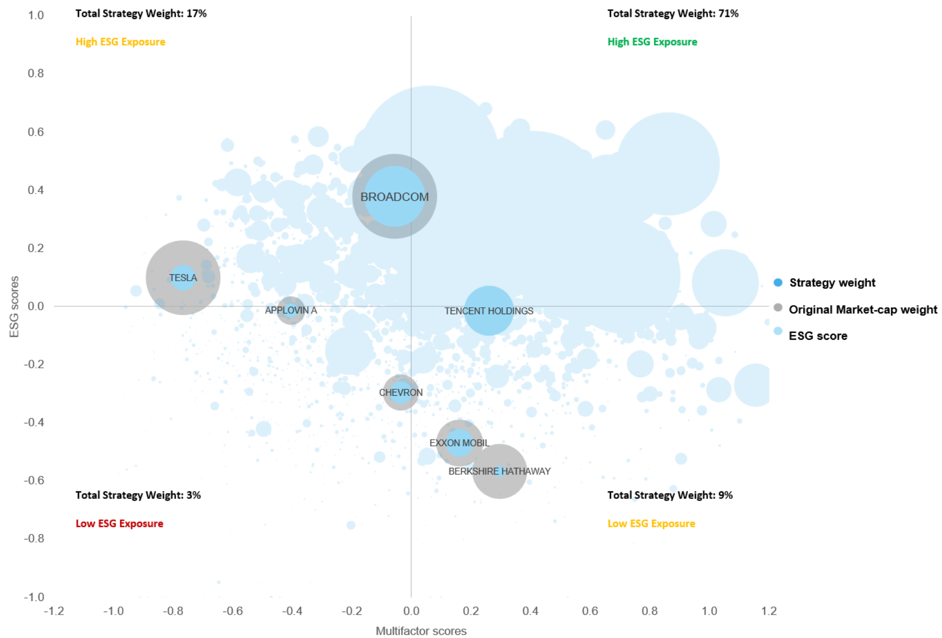
Figure 6. A live multifactor ESG strategy measured against multifactor and ESG scores



Source: L&G, STOXX. Data latest as of Jan 2026. L&G Multifactor and ESG scores.

The total weight is based on the sum of the market cap weights of each security within each quadrant. The size of each bubble signifies the market cap weight of each stock in the Stoxx L&G Global Multifactor Index and the Stoxx AC World Index.

The left-hand chart in Figure 7 shows a point-in-time factor exposures for a multifactor strategy and an ESG strategy. We observe that the multifactor strategy has a balanced active exposure to all four factors. However, we see the ESG strategy can exhibit factor skews, such as negative exposure to Value. If left uncontrolled, the multifactor ESG strategy would also then skew the Value exposure downwards. However, it can be possible to mitigate this and achieve positive balanced exposure to all four factors, as shown in the right-hand chart in Figure 7.

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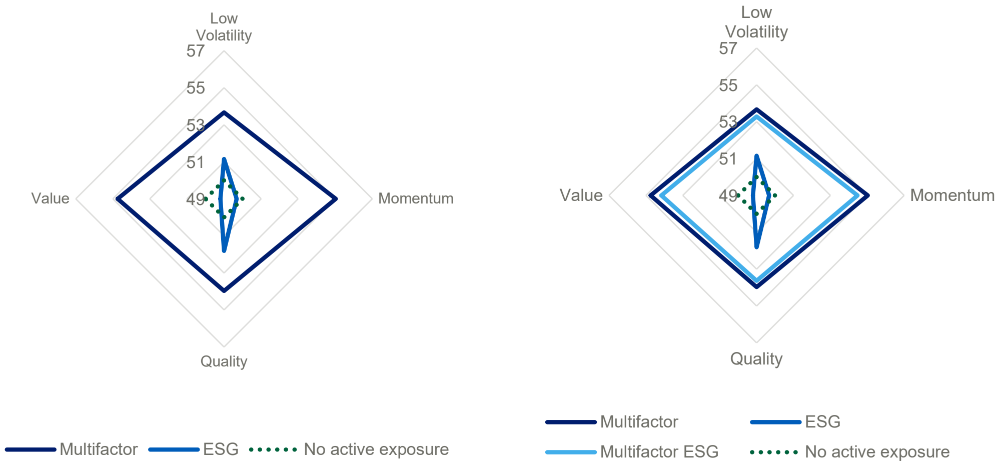
Figure 7. Point-in-time factor exposures



Sources: STOXX, L&G, as at October 2025. ***For illustrative purposes.***

The final multifactor ESG portfolio brings together the strengths of both underlying sleeves: it maintains high, balanced exposure to the targeted style factors while fully embedding the ESG constraints of the standalone ESG portfolio. By successfully designing a 3D investment solution, we seek to deliver positive impact on both financial factors and ESG metrics.

> “By successfully designing a 3D investment solution, we seek to deliver positive impact on both financial factors and ESG metrics”

Enhanced factor exposure relative to market cap

	STOXX World AC Benchmark	Multifactor ESG Index	Relative Difference
Value	49.8	54	8.4%
Quality	51.1	55.1	7.8%
Low Volatility	51.1	54	5.7%
Momentum	50.5	53.9	6.7%
Multifactor	50.6	54.4	7.5%

Enhanced ESG/carbon overview

	STOXX World AC Benchmark	Multifactor ESG Index	Change (%)
Carbon Intensity (Scope 1 + 2) / $m EVIC	121.8	48.22	-60.4%
Potential Emissions Intensity (Carbon Reserves)	1764.25	278.38	-84.2%
ESG Score	58.31	61.53	5.5%

Source: STOXX, L&G as at February 2026. Based on live index data, iSTOXX L&G Global Multi-Factor ESG.

Analysing performance and return drivers

In this section we show the long-term risk and returns of multifactor ESG strategies. We also break down the performance via regression analysis to confirm that multifactor ESG returns are typically driven by a combination of multifactor and ESG return drivers.

First, we show the long-term risk and returns of multifactor ESG strategies. All three strategies – multifactor, ESG and multifactor ESG – delivered strong and consistent performance relative to the market cap benchmark, each achieving better risk-adjusted returns.

	Market cap	Multifactor	ESG	Multifactor ESG
Annualised return (%)	12.4	13.1	13.6	13.4
Annualised risk (%)	14.5	14.0	15.0	14.0
Sharpe ratio	0.85	0.93	0.91	0.95

	Multifactor	ESG	Multifactor ESG
Annualised active return (%)	0.67	1.22	0.97
Annualised active risk (%)	1.53	1.80	1.51
Information ratio	0.44	0.68	0.64

Source: STOXX, L&G. USD gross from March 2009 – November 2025. Performance figures are based on backtested results and are hypothetical. Market cap benchmark is the Stoxx World AC Index. ***Backtested performance does not guarantee future results and may differ from actual, real world outcomes.***

The combined multifactor ESG portfolio achieved the highest Sharpe ratio and second-highest information ratio, demonstrating that integrating ESG and factors delivered strong active returns close to both standalone strategies, but with lower absolute and active risk.

The results provide compelling evidence that combining multifactor and ESG approaches has the potential to create a more efficient portfolio than either strategy alone. In addition, the multifactor ESG strategy is shown to generate higher excess returns per unit of active risk compared with multifactor only.

Measuring return drivers

A common approach to measuring return drivers is linear regression analysis, which describes the relationship between a dependent variable (multifactor ESG returns) and explanatory variables (multifactor and ESG standalone strategies). We need to be careful that the explanatory variables are not highly correlated, as highly correlated variables render regression analysis useless. However, we have shown in the first section that the multifactor and ESG active returns typically exhibit low correlation over time.

Although the multifactor ESG strategy is not a linear mix of the two underlying strategies, we can estimate its effective 'exposure' to each component using a straightforward returns based multivariate regression. In this framework, the monthly return of the multifactor ESG portfolio minus the risk-free rate serves as the dependent variable, while the monthly return of the market minus the risk-free rate and the active monthly returns of the standalone multifactor and ESG portfolios act as independent variables. This is shown in the equation below.

$$\left(R_{MF_{ESG}} - R_F\right) = a + \beta_{MKT}(R_{MKT} - R_F) + \beta_{MF}(R_{MF} - R_{MKT}) + \beta_{ESG}(R_{ESG} - R_{MKT}) + e$$

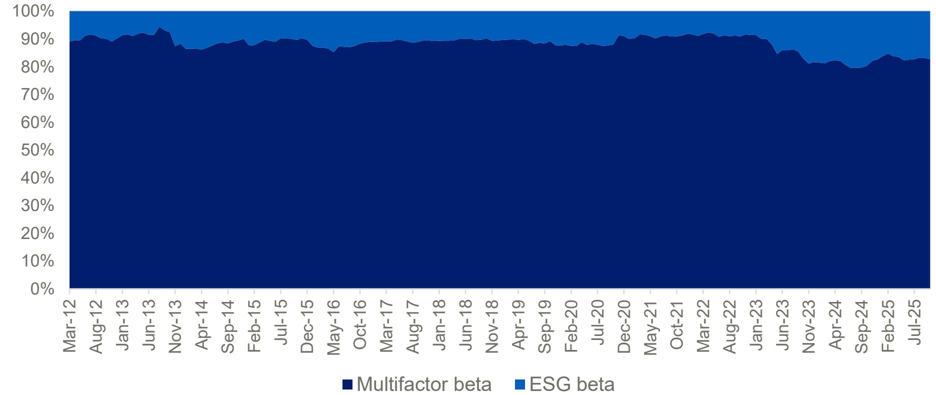
Explanatory Variable	Coefficient	T-Statistic	P-Value
β_{MKT}	0.99	455.4	0.00
β_{MF}	0.91	47.6	0.00
β_{ESG}	0.13	7.2	0.00

Source: STOXX, L&G. Multivariate OLS regression on monthly returns (gross, USD) from April 2009 – October 2025, where the Multifactor ESG is the dependent variable and the Market returns, Multifactor excess returns and ESG excess returns are the regressors. Performance figures are based on backtested results and are hypothetical. Market cap benchmark is the Stoxx World AC Index. ***Backtested performance does not guarantee future results and may differ from actual, real-world outcomes.***

Over the full time period (April 2009 to October 2025), the results are intuitive and compelling: the regression loads 0.91 on multifactor and 0.13 on ESG, with both coefficients statistically significant. An adjusted R^2 of 99.9% indicates that the vast majority of the multifactor ESG portfolio's active return can be explained by these two building blocks. In other words, the combined portfolio reflects a balanced blend of factor premia and ESG-driven effects.

To understand how the contributions of each sleeve evolve through time, we compute the regression coefficients on a three-year rolling basis, shown in Figure 8. The exposures to the standalone multifactor and ESG portfolios naturally vary over the sample. Yet despite this ebb and flow, the two betas remain broadly similar in magnitude throughout, reinforcing the hypothesis that the multifactor ESG portfolio consistently draws from both components, with the multifactor component explaining the majority of excess returns.

Figure 8. Three-year rolling multifactor ESG exposure to multifactor and ESG components



Source: STOXX, L&G. Three-year rolling regression coefficients (normalized to 100%). Multivariate OLS regression on three-year rolling regressions using monthly returns (gross, USD) from April 2009 – October 2025, where the Multifactor ESG is the dependent variable and the Market returns, Multifactor excess returns and ESG excess returns are the regressors. ***Performance figures are based on backtested results and are hypothetical. Market cap benchmark is the Stoxx World AC Index. Backtested performance does not guarantee future results and may differ from actual, real-world results, estimated using the Multifactor ESG portfolio's monthly active returns as the dependent variable and the Multifactor and ESG portfolios' monthly active returns as independent variables.***

Closing remarks

In this paper we have explored if factor investing and ESG go together. We summarise below the main findings in response to the three important questions that were raised at the beginning:

1. **How do factors and ESG interact?**

   We have shown that ESG exhibits very low correlation with the standard equity style factors. ESG can serve as a distinct, complementary source of returns, aligned more with industry tilts and structural transitions than with style premia. This helps to explain the very low correlation between ESG-only and multifactor-only active returns – potentially delivering diversification when combined.

2. **Is it possible to combine multifactor and ESG approaches and achieve meaningful factor exposure while meeting ESG objectives?**

   Yes, with thoughtful strategy/index design. By integrating both signals systematically, it is possible to construct a multifactor ESG portfolio that captures desirable factor premia while simultaneously improving ESG characteristics.

3. **Can combining multifactor investing and ESG objectives deliver stronger, more diversified results?**

   We empirically observe that combining multifactor investing and ESG objectives resulted in better risk-adjusted returns, and based on our findings, believe that both multifactor and ESG can be consistent return drivers over time.