SEEYOND

Equity Insights

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ESG: FROM HETEROGENEITY TO RISK FACTORS

Summary of Part II:

- *A risk factor calculated from a single provider is problematic when it comes to objectifying ESG risk in the market given the low correlation level between ESG ratings from different providers*
- *A composite ESG rating allows a more reliable and objective calculation of ESG risk in the market*
- *Securities with a high rating but a rating that does not reach consensus among multiple providers would not extract an ESG risk factor from the market*
- *The ESG factor is also found to be increasingly correlated to the main statistical drivers explaining the equity market behavior*

In the first part of this research paper, we showed the significant differences that exist between the ratings from different ESG providers. We concluded that the creation of a composite score reduces this initial heterogeneity while maintaining a high correlation with each individual rating.

In this second part, we seek to answer the following question: is there an ESG risk factor? The existence of such a risk factor would imply that ESG discriminates equities between one another. In order to answer this question, we use the ESG composite score to measure the effect of ESG on European equity market's returns. As a quantitative manager, it seems indeed natural to us to assess the impact of ESG on financial markets through a more objective ESG rating.

PART II: THE EXISTENCE OF AN ESG RISK FACTOR

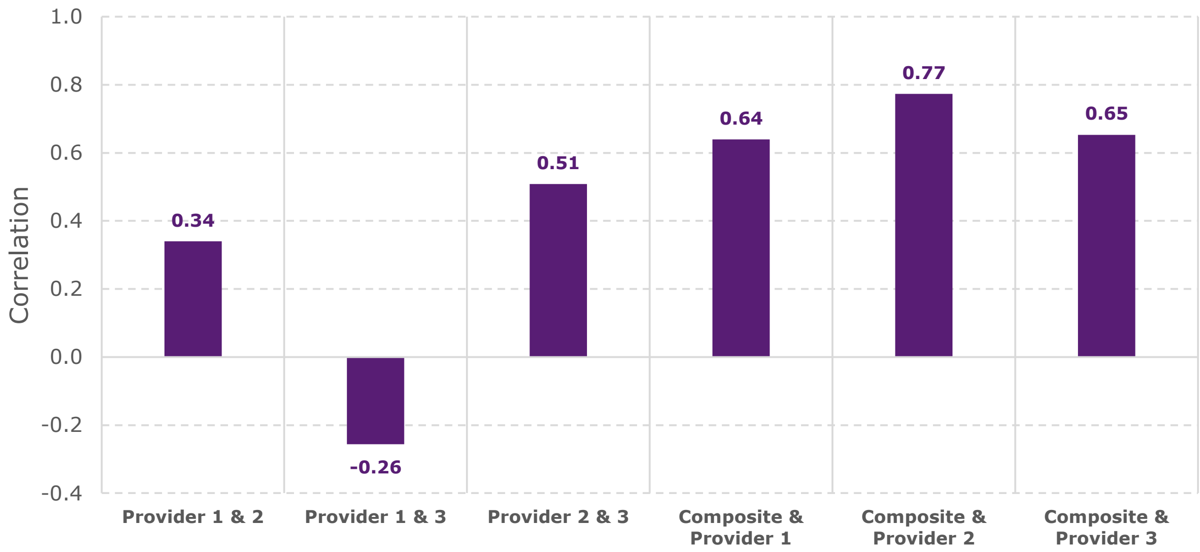
Is there an ESG risk factor?

ESG ratings help to distinguish between the most virtuous practices and those that are less so. **But does the ESG characteristic show itself in the market by impacting the returns of "virtuous" securities differently from those that are not?**

A common way of considering this question is to **evaluate a risk factor such as the performance of a long/short portfolio**. A group of stocks can indeed perform in a similar way because they share a fundamental characteristic other than an "obvious" characteristic, such as belonging to the same sector. When investors show interest in this other characteristic, it reinforces the connection within this group of stocks and results in an enhanced correlation in the returns of stocks in the group. In this case, the other fundamental characteristic constitutes **a risk factor that must be taken into account for any equity portfolio, since it may constitute both an opportunity for outperformance or a risk of underperformance**.

We therefore construct our ESG risk factors as buying a basket of the most virtuous securities and selling a basket of the least virtuous securities (first quintile vs fifth quintile). We use the ESG ratings of three providers taken separately, and then the composite score referred to above. Chart 3 shows the performance correlations between four different portfolios.

Chart 3: ESG risk factor correlations



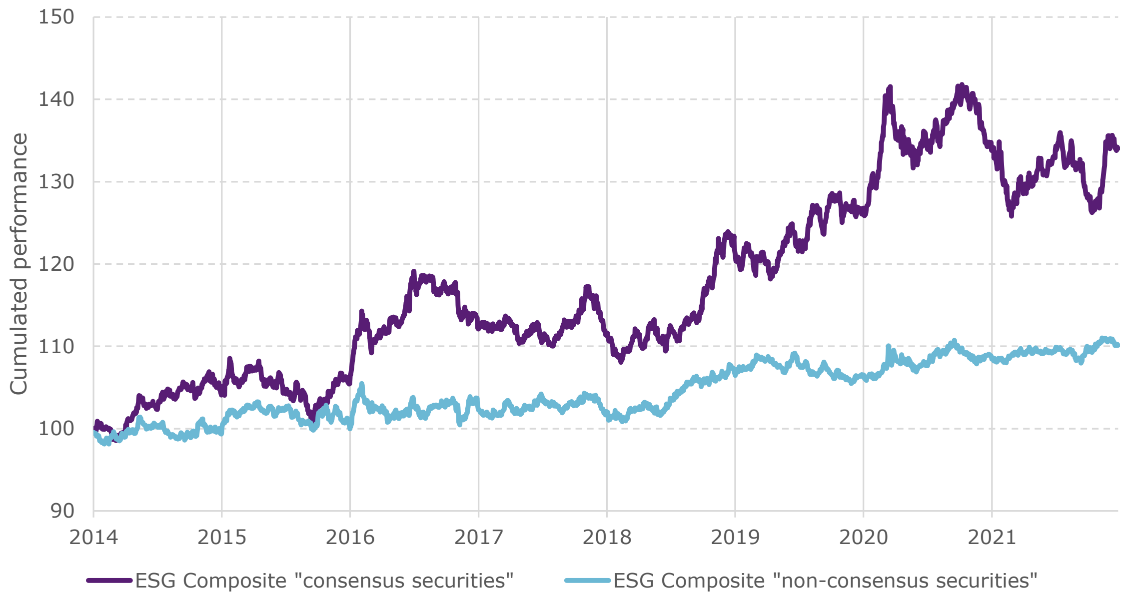
Source: Factset, Seeyond calculations (31/12/2021). Figures mentioned refer to previous years. Past performance does not guarantee future results.

We observed that correlations at the risk factor level are also very low; and may even be negative. The low correlation is problematic, as **it shows that a risk factor estimated from a single provider is not an objective anchor point for assessing the materiality of ESG in the market, i.e. its performance dynamics and risk**.

As is the case with ESG ratings, the risk factor constructed from the composite score, i.e. **from the consensus ESG securities for our three providers**, has a high correlation with the factors calculated for each provider. **The fact that the performances are well synchronised for this factor is key to making an objective assessment of the ESG risk in the market**.

In addition, Chart 4 below shows a comparison of two risk factors' behaviour: one derived from the composite score for "consensus securities" and the other calculated from the "non-consensus securities" (i.e. not belonging to the risk factor obtained from the composite score). We verified that a long/short portfolio containing ESG securities, **respectively very well rated and badly rated by at least one provider but without consensus, generates a performance with a low correlation[1] with our risk factor consisting of "consensus securities".**

Chart 4: Comparison of ESG risk factors in Europe
ESG securities – consensus vs non-consensus



Source: Factset, Seeyond calculations (31/12/2021). Figures mentioned refer to previous years. Past performance does not guarantee future results.

We noted that the risk factor for "consensus securities" behaves in line with market intuition: we recorded a good performance from ESG securities between 2018 and 2020, and a decline in performance in 2021. With the exception of 2018, the behaviour in risk factor performance for "non-consensus securities" is not aligned with market intuition.

The low volatility of the risk factor for "non-consensus securities" and a trend-less performance are symptomatic of the absence of a common factor between these securities.

[1] 0.28

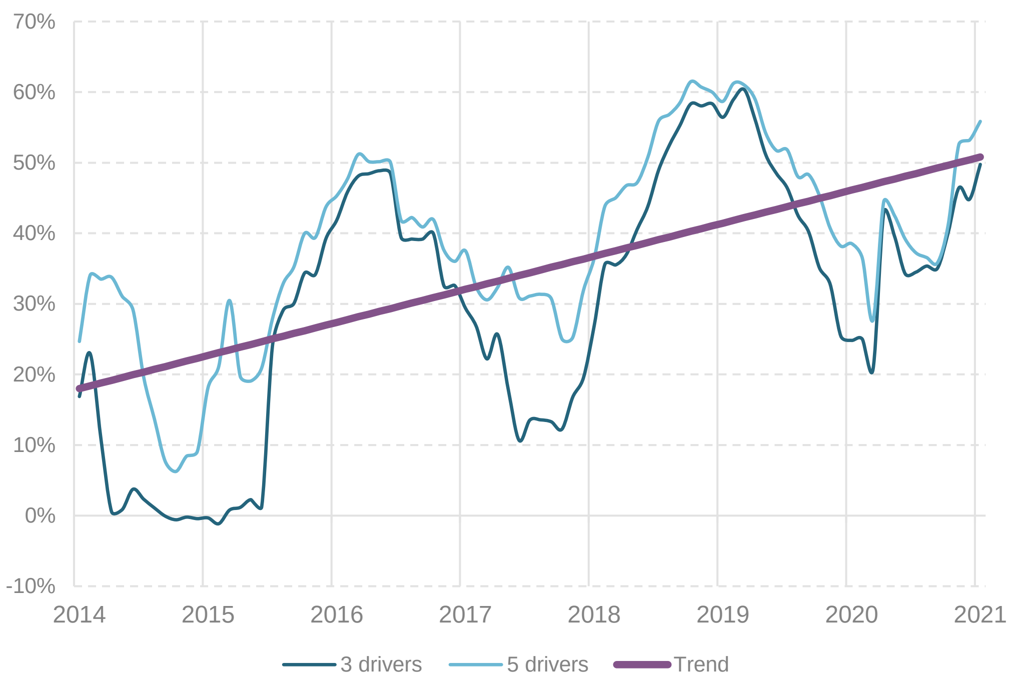
Is the risk factor increasingly present in the market?

Now that we have built a factor that allows us to capture the ESG signal in the market, we can consider its impact. To do this, we looked at **whether the main market risk factors – those that best describe equity correlations – increasingly explain the ESG risk factor.**

The main market factors are statistically estimated using a principal component analysis. This method can identify which factors best explain the correlations between stocks over a given period. We considered the three and five most important statistical factors that we call equity market 'drivers', and we performed the analysis on a 12-month rolling basis. The individual market drivers do not always reflect a similar behaviour, and their performance depends on the economic and financial environment.

Chart 5 below shows the variance in our ESG risk factor, as explained by these main drivers of the European equity markets.

Chart 5: ESG risk factor variance explained by the main market drivers



Source: Factset, Seeyond calculations (31/12/2021). Figures mentioned refer to previous years. Past performance does not guarantee future results.

As the trend clearly shows, the ESG risk factor is **increasingly explained by the main market drivers: from around 20% in 2014, to around 50% in 2021**. This obviously reflects **increasing investor interest in ESG**. As the ESG factor materiality becomes undeniable, its integration into performance and market risk analysis, irrespective of the purely regulatory framework, becomes essential.

We have seen that extracting a risk factor from stocks with a maximum level of consensus among different providers was a good modelling strategy, since it smooths the heterogeneity of ESG ratings. However, we have also noted the recent emergence of alternative data offering relevant and useful information for ESG analysis. In particular, alternative data may enable us to compensate for the lack of responsiveness of ESG ratings real-time information. We will therefore briefly analyse on a third and last part the positioning of such data vis-à-vis more traditional ESG data, and its impacts on the construction of the ESG risk factor.

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Seeyond, a team of 26 recognized professionals with 20 years of industry experience on average, manages EUR 8.6 billion of assets[1]. Seeyond's solutions are marketed by the global Natixis Investment Managers' distribution platform, one of the largest asset managers in the world[2], and via the retail networks of Groupe BPCE, the second largest banking group in France[3].

> For further details:

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1 Source: Seeyond, as of 31/12/2021
2 Cerullli Quantitative Update: Global Markets 2021 ranked Natixis Investment Managers as the 15th largest asset manager in the world based on assets under management as of December 31, 2020.
3 Source : BPCE S.A. – 31/12/2020

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