

ESG materiality matrices and portfolio returns - summary

Sándor Varga-Haszonits

Introduction

Demand for ESG related data and services is rapidly rising among investors as their appetite for sustainable investment grows and as EU policy has begun to emphasize sustainable investment as one of the key factors necessary to achieving the long-term climate change and sustainability goals of the EU. The currently available services have emerged based on rating agencies trying to supply the needs of investors resulting in services that are similar in their overall scope but can have crucial differences in their details leading to various disparities. Currently these services are unregulated and there is a lack of transparency in methodologies used (Autorité des marchés financiers; Autoriteit Financiële Markten , 2020).

Problem Statement

Some evidence shows that in certain sectors like utilities, ESG scores affects returns (La Torre, Mango, Cafaro, & Leo, 2020). ESG methodologies differ between rating agencies and studies have shown disparities in ratings (Berg, F. Koelbel, & Rigobon, 2020). There is evidence in the literature to suggest that good ESG scores reflect positive underlying fundamentals.

Rating agencies use differing materiality matrices to weight the importance of ESG data. Given that materiality matrices (also known as materiality maps) reflect further assumptions about which ESG factors are significant, it would be valuable to test how differences in materiality matrices affect portfolio returns and investor behaviour as the Capstone project sponsor is currently designing a service that is designed to help ESG data users make sense of differing ESG ratings.

Objectives

- Assess how the methodological differences between materiality matrices used by rating agencies affect portfolio returns and potentially affect investor behaviour
- Evaluate what implications if any this may have in terms of the need for regulating sustainability-related service providers

Research design and methods

The period being researched will be between 2014 and 2019 (data limitations also played a role in selecting this period), in order to avoid including the effects of the 2008 financial crisis and the effects of the pandemic in 2020.

Due to limited data availability 2 ESG rating methodologies were compared:

- Refinitiv
- Sustainalytics

Data source for these ratings:

- Refinitiv : EIKON data API
- Sustainalytics : Yahoo Finance Query API

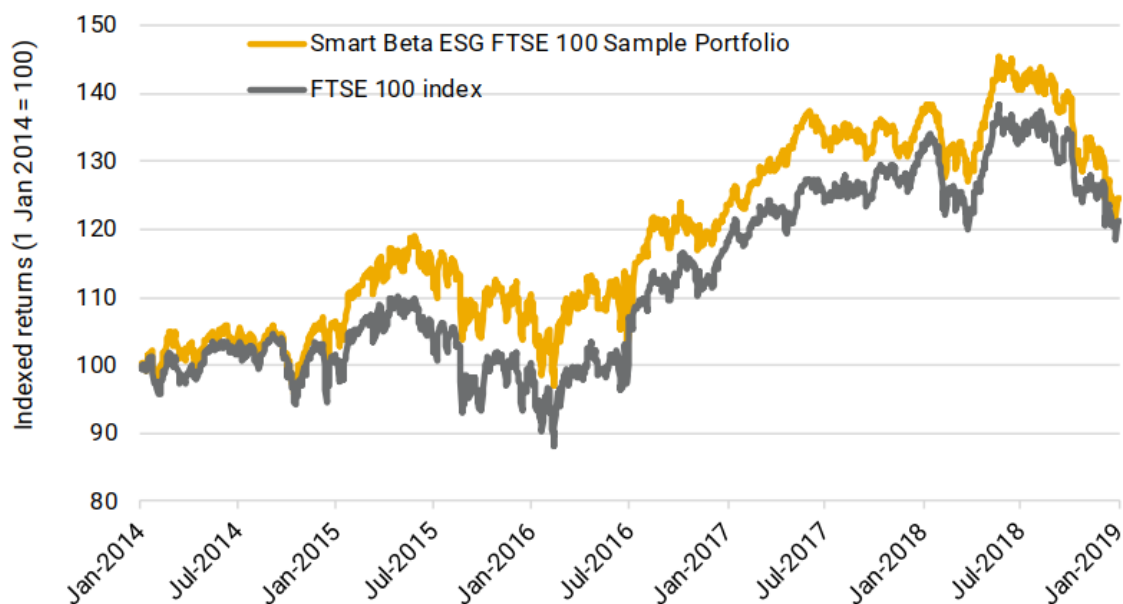
Defining and modelling investor behaviour

Investor behaviour was modelled based on a Smart Beta ESG investing approach outlined in Sustainalytics White paper in order to better reflect typical industry practices.

Sustainalytics Smart Beta ESG

The approach outlined in the white paper involves taking the constituents of the FTSE100 over a 5 year period and replacing weighting by market capitalisation with a combination of ESG scores and fundamental data (dividend yield and return assets). The Sustainalytics found that this approach reliably outperformed the FTSE100.

Figure 11: Smart Beta ESG FTSE 100 Sample Portfolio vs FTSE 100 index



Source: Sustainalytics, Bloomberg Financial, L.P.⁴⁷

This approach was chosen as the basis for modelling investor behaviour in order to compare the impact of using ESG scores from 2 different vendors.

However due to data limitations, portfolio construction was limited to ESG ratings data (the overall score and the pillar scores).

Key differences between ESG methodologies examined

Sustainalytics	Refinitiv
Sustainalytics involves automatic calculations and qualitative analyst assessments	Refinitiv has a purely data driven approach
Sustainalytics differentiates between managed and unmanaged risk which can have significant impact on the final score	Refinitiv does not delineate the extent to which ESG risks are managed
ESG scores are adjusted by so called 'issue betas' which is calculated by the MRF model and is meant to assess the company's exposure to a material ESG issue	Exposure to material ESG issues is assessed relative to other to the score of other industry peers, no additional are layered over the relative score

Results

The portfolio based on the Sustainalytics ESG score outperformed the portfolio based on the Refinitiv ESG score. Other portfolios were also constructed based on the various ESG pillars but no truly significant differences were observed.

From these results it is clear that what ESG score vendor is chosen for portfolio construction have a significant impact on portfolio returns.

From a regulatory standpoint it is not clear how calls for transparency will be reconciled with the incentive of ESG rating companies to protect their intellectual property by not revealing their methodology more than they have to in order to sell their product. After all, if a company's ESG ratings can produce reliably better results in portfolio construction then that company has no incentive to reveal its approach.