

THE IMPACT OF ESG SCORES ON COST OF EQUITY AND FIRM'S PROFITABILITY

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Abstract

In this paper, we empirically investigate the effect of ESG Scores on (1) Cost of equity; (2) Firm's profitability for a sample of firms operating in the Oil & Gas sector. We use a panel of data composed of 182 public firms, from 2002 to 2018 and the main variables of interest are: (1) The Cost of Equity; (2) Return on Assets (ROA).

There is a recently blossoming literature on both theoretical and empirical evidences related to Sustainability Performance and the Cost of Equity (Sharfman & Fernando, 2008; El Ghouli et al., 2018; Suto & Takehara, 2017). Whereas other scholars use well known models such as the CAPM or the Fama and French Model, the added value of our work lays on the use of implied cost of equity measured according to Easton Model (Easton, 2004). The obtained results of this study are in line with the literature, supporting the argument that a better Sustainability Performance generates a reduction in the Cost of Equity (Dhaliwal et al., 2014; Matthiesen & Salzmann, 2017; Gupta, 2018). Whether it is reasonable to say that ESG strategies of firms do contribute to the establishment of a more sustainable business context as envisioned in Waddock (2017), there are substantial doubts about the role of ESG in shaping both profitability and firm value (Lee et al., 2018; Konar & Cohen, 2001; Dowell et al., 2000; Hart & Ahujia, 1996).

More specifically, in the first analysis we estimate firms' ex-ante cost of equity adopting Easton Model, which expresses the share price in terms of one-year-ahead expected dividend per share and one and two-year-ahead expected earnings per share. For the second analysis instead, we use Return on Assets as a proxy for firm's profitability. The ESG Scores used for this study are drawn from Thomson Reuters Datastream. In particular, Datastream considers more than 180 industry-relevant sustainability variables that successively are aggregated into 10 main E, S, G components.

By employing a fixed effect regression model and a parsimonious set of control variables, we show that firms with higher ESG Scores exhibit cheaper equity financing. In particular, our findings suggest that for a 10% increase in the ESG Overall Score, the cost of equity of firms declines by 134 bps. Same inverse association holds for higher Controversies Score, Workforce Score, Product Responsibility Score and CSR Strategy Score which reduce the Cost of Equity, on average, by 50 bps. Among other findings we underline that this relationship is not linear, instead, it has a U-shaped form. This means that the greater attention towards ESG topics is beneficial for firms until they reach a "threshold" in terms of size measured by total assets. Afterwards the relationship becomes positive.

Regarding the Firm's profitability, we employ a fixed effect regression model using the same dataset. We show that better ESG performance is negatively related with Return on Assets. In specific, in the presence of a 10% increase in the ESG Overall Score the Return on Assets of firms in our dataset declines by 0.45%. Same results are observed also for a 10% increase in the Resource Use Score which reduces profitability by 0.09%; for the Social dimension components: Community Score and Workforce Score; the Governance dimension components: Shareholders Score and CSR Strategy Score. The same nonlinear, U-shaped form, relationship persists also in the profitability analysis.

Various robustness tests are implemented: First, we repeat both analyses in order to check whether the same effects hold in more recent times (2010-2018) when the availability of data is greater. The results we obtain are coherent with the previous ones. We find statistically significant results for the same ESG components' score as in the original model. Secondly, we modify the initial dataset by excluding: (1) the 20 biggest firms; (2) the 20 smallest firms, both measured in terms of total assets. Applying these filters, we find that even though the number of observations is smaller, the model provides the same statistically significant outcomes as previously by confirming our results.

Our findings support arguments in the literature that firms with better ESG performance have higher value and lower risk (El Ghouli et al., 2011, 2018; Chen et al., 2009; Hail & Leuz, 2006), and in the same time highlight some peculiarities deriving from industry-level factors (Reverte, 2012; Gregory et al., 2016). In term of future research, we

would like to expand our analysis in other sectors in order to check whether the degree of materiality of ESG scores changes among different industries and different value chains.

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