DOES THE CORPORATE ESG PERFORMANCE REALLY MATTER AS IT HAS BEEN CLAIMED BY SRI INVESTORS[1]?

By Yutong Wu, Nov. 2020

In order to improve investment decisions, socially conscious investors are frequently using Environmental, Social, and Governance (ESG) criteria as a set of standards to measure the sustainability performance of companies[2] during the past decades. Although crisis management has been substituted for sustainability as the top political agenda facing the current COVID-19 global pandemic, an increasing number of investors has stressed the importance of ESG and claimed that the crisis will accelerate the ESG agenda. As it has been claimed by JP Morgan, ESG matters more than ever under the COVID-19 situation.

Does ESG really matter as it has been claimed to by SRI investors? This study finds evidence for positive answers to this long debated question.

A correlation visualization reveals that ESG Score is Negatively Correlated with the Volatility and Weakly Positively Correlated with the Corporate Profitability

Based on 10-year data of 1100 companies, the correlation table below demonstrates the relationship between every two of the following variables—volatility, total assets, ROA, year, and ESG score. Volatility represents the dispersion of returns, which is used to measure the market risk of a security; ROA is the return on assets, a ratio measuring the profitability of a company; Year is the time indicator for 10-year periods, ranging from 2010 to 2019; As a measure of corporate ESG performance, ESG score is calculated by Thomson Reuters, one of the major ESG data providers, based on three dimensions: environmental (including emission, resource use, and innovation categories), social (including work force, human right, product

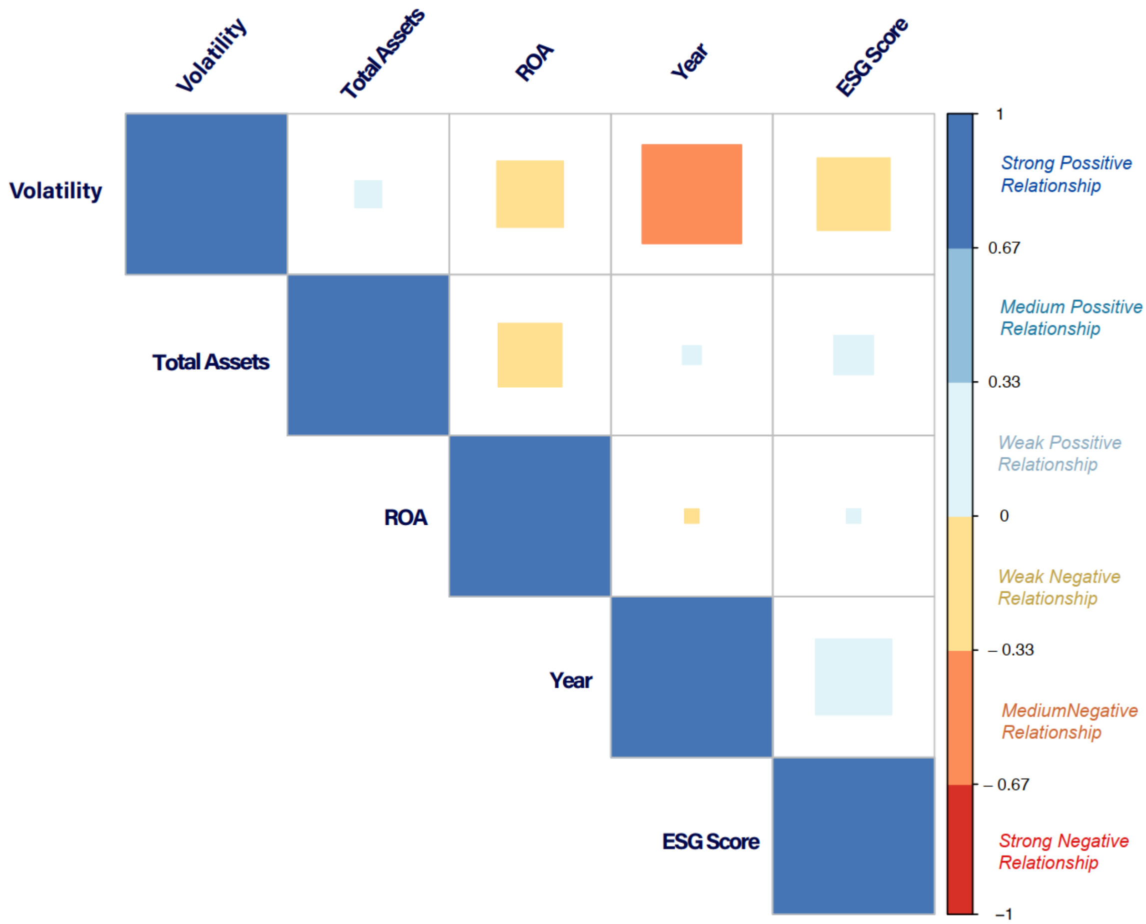
[1] SRI investors are investors who adopt Sustainable and Responsible Investing strategy or who are socially conscious

[2] Chen, J. (2020). Environmental, Social, and Governance (ESG) Criteria. https://www.investopedia.com/terms/e/environmental-social-and-governance-esg-criteria.asp

responsibility, and community categories), and governance (including management, shareholders, and corporate social responsibility strategy categories).

Matrix of Correlation between ESG and Other Factors

The correlation table is based on 10-year data of 1100 comapnies. It appears that ESG Score is positively correlated with corporate total assets, return on asset (ROA), and year, whereas negatively correlated with historical volatility.



Source: Thomson Reuters Datastream

In the correlation table, the color intensity and the square size are proportional to the strength of the relationship. Blue colour represents positive relationship and red colour represents negative relationship. The numerical scale corresponding to the colour scale represents the correlation coefficients (ρ)—ρ close to 1 indicates strong positive relationship and close to -1 indicates strong negative relationship.

The correlation visualization reveals that ESG score is negatively correlated with the volatility, indicating that companies with stronger ESG performance are less likely to have high risk. On the other hand, ESG score tends to have a weak positive relationship with ROA, namely that higher ESG scores are possibly correlated with higher profitability.

The table also reveals some other interesting findings. It appears that corporate ESG scores improve throughout the year, probably a result of increasing attention from investors and regulators on corporate sustainability performance. In addition, total assets tend to have a weak positive relationship with higher ESG scores, suggesting that larger companies are more likely to demonstrate a better ESG performance.

Firms with Higher ESG Scores are More Likely to Demonstrate Larger Size, Lower Risk, and Higher Profitability

To get a clearer result and further support the above findings, ESG data are divided into two groups - firms with higher ESG scores and firms with lower ESG scores. Based on this, a 3-dimension-comparison figure is created as below, which shows how higher-ESG-score firms and lower-ESG-score firms demonstrate different business size (measured by total assets), corporate risk (measured by volatility), and profitability (measured by ROA).

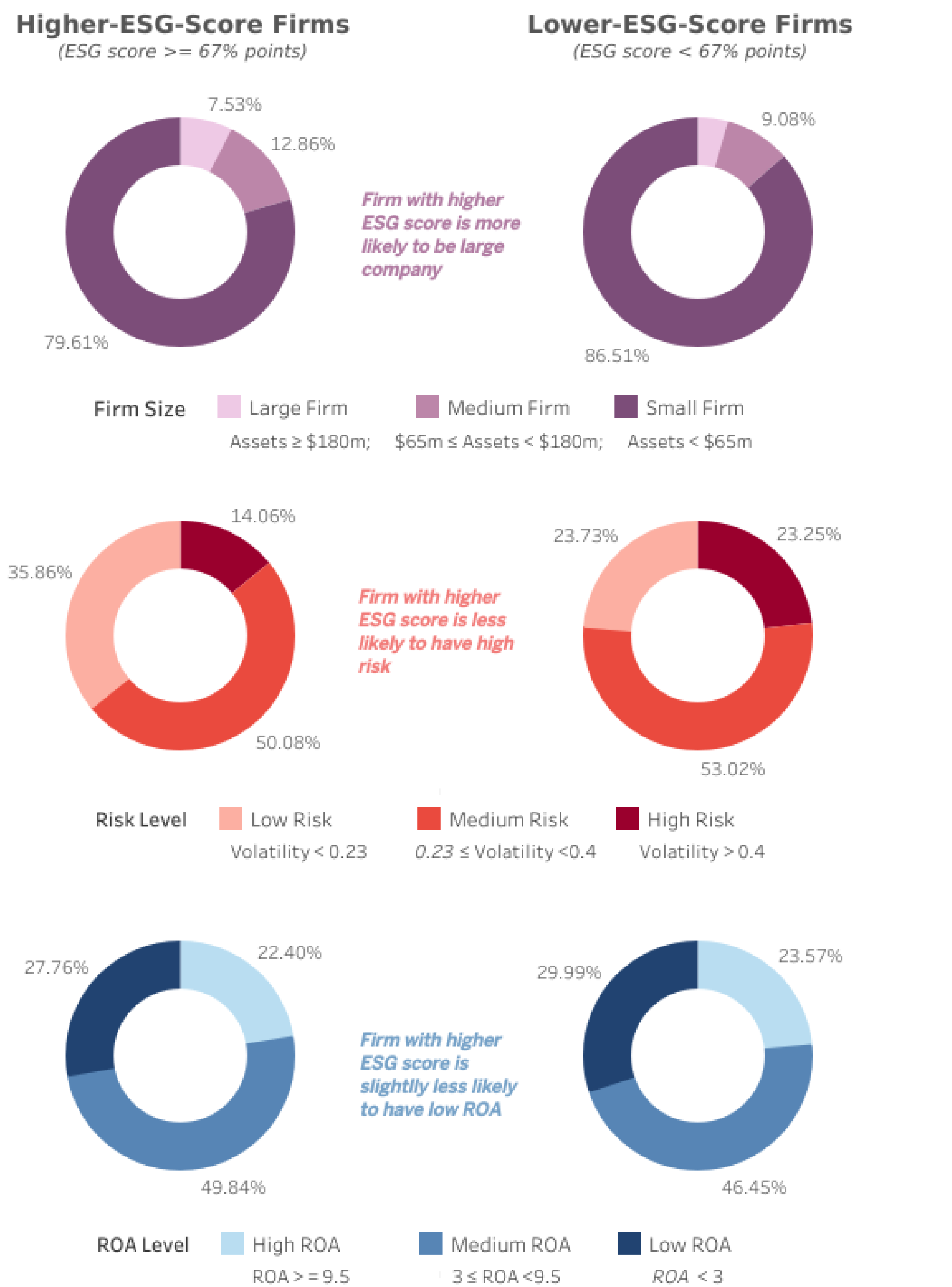
The first comparison in the figure suggests that firms with a higher amount of total assets are more likely to demonstrate higher ESG scores, since 7.5% of higher-ESG-score firms can be classified to the large firm group, compared with around 4% for lower-ESG-score firms.

Similarly, around 36% of higher-ESG-score firms demonstrate low risk (with a volatility lower than 0.23), compared with 24% for lower-ESG-score firms. This suggests that firms with higher ESG scores are less likely to demonstrate higher market risk.

The third-dimension comparison is not as obvious as the previous two. The charts show that 72% companies with higher-ESG-score have at least a median level of ROA, whereas 70% of lower-ESG-score companies reported a high or medium profitability.

Corporate Size/Risk/ROA of Firms with Higher ESG Score vs. Lower ESG Score

This visulization is based on data of 1100 firms across past decade.
ESG score *is ESG Score for individual companies based on 3 dimensions—Environmental (considers company's resource use, emission, and innovation), Social (human right, workforce, community, and product responsibility), and Governance (corporate management, shareholders, and CSR Strategy).* ***Size*** *is based on total annual assets of each firm.* ***Risk*** *is measured by market volatility of each firm.* ***Return on Assets (ROA)*** *measures each company's profitability .*



Data Source: Calculated based on Data from Thomson Reuters Datastream

In summary, companies that have better Environmental, Social, and Governance (ESG) practices are expected to demonstrate higher profitability and lower security risk. Therefore, it is not unreasonable to claim that good ESG performance is possible to safeguard the stock performance from unexpected market crashes, such as COVID-19 pandemic. However, more evidence is still needed to determine the causal relationship between ESG and corporate financial performance or risk.