Abstract

In this thesis, we investigate the relationship between ESG (Environmental, Social, and Governance) scores and stock volatility using panel data analysis. Focusing on data from 2 095 companies from three major stock exchanges - NASDAQ, NASDAQ Nordic, and Johannesburg stock exchange in the time window of 2016-2023, we employ fixed effects and random effects models with robust standard errors. We examine the overall impact of ESG scores on volatility, the influence of individual pillar scores, industry and stock exchange-specific effects, and time-specific effects. The thesis enhances existing literature by exploring three previously unexamined trends: non-linear dynamics between low-ESG score and volatility, the evolution of the trend over time by using an expanding time-window approach, and geographically and market-specific effects by utilizing data from different stock exchanges. The results from our analysis indicate that while the influence of ESG scores on overall stock volatility across the dataset is insignificant, significant correlations were observed in certain industry-specific models. The Technology, Industrials, and Healthcare sectors displayed a significant negative correlation between Governance scores and volatility. Moreover, for stocks listed on NASDAQ Nordic, there was a significant negative effect of Environmental scores and a positive effect of Social scores on volatility, suggesting cross-market heterogeneity.