

seminari di Matematica e Statistica

ESG Data Imputation and Greenwashing

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In recent years, there has been a notable surge of Environmental, Social, and Governance (ESG) investing. This paper provides a simple and comprehensive tool to tackle the issue of missing ESG data. Firstly, it allows to shed light on the failure of ESG ratings due to data sparsity. Exploiting machine learning techniques, we find that the most significant metrics are promises, targets and incentives, rather than realized variables. Then, data incompleteness is addressed, which affects about 50% of the overall dataset. Via a new methodology, imputation accuracy is improved with respect to traditional median-driven techniques. Lastly, exploiting the newly imputed data, a quantitative dimension of greenwashing is introduced. We show that when rating agencies do not efficiently impute missing metrics, ESG scores carry a quantitative bias that should be accounted by market players.

