

## ESG Decision Uncertainty, Donations, and Firm Value: Entropy-Based Evidence from China

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**Abstract:** We measure uncertainty embedded in firms' ESG decisions using an entropy-based index and study its links to corporate donations and firm value for Chinese listed companies from 2010 to 2020. Quantile regressions show that higher ESG-related uncertainty is associated with lower Tobin's Q at the lower quantiles. Firms facing greater uncertainty donate more, and donations are positively related to firm value at the upper quantiles. Bootstrap inference and specifications with financial controls yield consistent results. The evidence is consistent with donations mitigating uncertainty by strengthening stakeholder ties. By centering uncertainty, the study clarifies when donations are most closely linked to firm value and helps reconcile mixed findings on corporate philanthropy.

**Keywords:** Uncertainty, ESG, Entropy, Donations, Firm Value

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