Firm-level uncertainty and corporate (R&D) investment of firms in BRICS countries: a panel autoregression approach

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ABSTRACT

The question whether uncertainty impede or enhance R&D investment and risk-taking have receive considerable attention in economics and finance literatures. This study examines the effect of firm-level uncertainty on R&D investment and corporate risk-taking. The financial data of 2047 corporate firms for BRICS countries over 2009–2020 were used, totaling 24564 observations. The panel vector autoregression (PVAR) provide more robust results and confirms the significant impact of firm-level uncertainty on corporate R&D investment. The result indicate that firm-level uncertainty has a significant negative impact on R&D investment. Conventional wisdom under the real option theory suggest that firms invest less when facing high uncertainty. In order words, an increase in uncertainty leads to a higher value in the firms’ option waiting rather than immediately undertaking irreversible and costly investments. The real option theory supports a negative relationship between uncertainty and investment. This study offers important implications for managers, policymakers, and investors in emerging markets where the relationship has remained ambiguous and applies both theories to analytically investigate the impact of firm-level uncertainty on corporate R&D investment firms in BRICS countries.

Keywords: BRICS, firms, firm-level uncertainty, R&D investment, risk-taking