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Information Technology Investments and Firm Risk Across Industries: Evidence from the Bond Market

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Abstract

This study investigates the effect of information technology (IT) investments on initial bond ratings and yield spreads for U.S. firms. The results indicate that the impact of IT investments on the bond ratings and yield spreads is different across industries, consistent with varying IT risks across industries. The findings suggest that credit-rating agencies and bond investors consider IT investments in automate and informate industries less risky than those in transform industries. We document that IT investments are associated with more volatile future cash flows in transform industries than in automate or informate industries. The findings indicate that bond investors prefer IT investments in automate industries, where the cash flow payoffs to IT investment are smaller but more stable than in transform industries. Overall, these findings provide the important insight that bondholders' perceptions of IT investments vary across industries based on bondholders' aversion to the riskiness and the lack of collateralizability of IT investments. Senior managers should recognize that IT investments are associated with both operational performance and financing costs (e.g., costs of debt) of the firm, and they should consider the potential financial benefits of increased IT capabilities, such as the willingness of corporate bond investors to accept lower financing costs.

Keywords: IT investments, bond market, credit rating, yield spread, IT strategic role