# Firm's Response to Adverse Weather Events: Risk Management or Market Exit?

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**Abstract**

As climate-related adverse events become more frequent and costly, firms across all sectors face growing exposure to sudden and potentially irreversible revenue losses. While some losses can be insured or compensated ex post, their long-run economic effects often persist, raising a fundamental strategic question: should the firm exit the market immediately or invest in risk-mitigation measures that reduce the impact of future shocks while preserving the option to exit thereafter? We formulate this trade-off as an optimal stopping problem in which firm revenue follows a geometric Brownian motion and adverse events arrive according to a Poisson process. We show that the optimal policy is characterized by a disconnected stopping region, a non-standard outcome that reflects the interaction between revenue risk, irreversible losses, and mitigation incentives.

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