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Managing the financial consequences of weather variability

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Abstract

Cool summers or warm winters affect sales of scores of products of all businesses operating in the 70% of activity sectors that are exposed to weather variability. The renewed interest in investigating the role of weather on business activity is prompted by the development of the weather index-based financial market, fostered by increasing weather variability and more reliable weather data. Drawing on the case of a manufacturer of sunscreen products, we model the influence of weather on sales in a way that supports the implementation of index-based financial cover. We evaluate the maximum potential sales loss caused by adverse weather, construct a weather index-based cover, and demonstrate its effectiveness in reducing sales variability. Knowledge of models that link weather and sales allows analysts and asset managers to better understand the

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Appendix

See Tables [7](#) and [8](#).

Table 7 Linear regression using both abnormal temperature and absolute precipitation to explain abnormal sales

Table 8 Analysis of variance of the coefficients for CD60

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