

# Using Google Trends and Baidu Index to analyze the impacts of disaster events on company stock prices 🛒

Ying Liu; Geng Peng; Lanyi Hu; Jichang Dong; Qingqing Zhang

✚ Author & Article Information

*Industrial Management & Data Systems* (2020) 120 (2): 350–365.

<https://doi.org/10.1108/IMDS-03-2019-0190> Article history 🕒

## Purpose

With the ascendance of information technology, particularly through the internet, external information sources and their impacts can be readily transferred to influence the performance of financial markets within a short period of time. The purpose of this paper is to investigate how incidents affect stock prices and volatility using vector error correction and autoregressive-generalized auto regressive conditional Heteroskedasticity models, respectively.

## Design/methodology/approach

To characterize the investors' responses to incidents, the authors introduce indices derived using search volumes from Google Trends and the Baidu Index.

## Findings

The empirical results indicate that an outbreak of disasters can increase volatility temporarily, and exert significant negative effects on stock prices in a relatively long time. In addition, indices derived from different search engines show differentiation, with the Google Trends search index mainly representing international investors and appearing more significant and persistent.

## Originality/value

This study contributes to the existing literature by incorporating open-source data to analyze how catastrophic events affect financial markets and effect persistence.

---

**Keywords:** [Stock market](#), [AR-GARCH](#), [Crash incidents](#), [Search volume index](#)

You do not currently have access to this content.

Sign in

Don't already have an account? [Register](#)

### Client Account

Email address / Username

Password

[Reset password](#)

[Register](#)



Access through your institution

---

Purchased this content as a guest? Enter your email address to restore access.

Email Address

---

Pay-Per-View Access €38.00

Buy This Article

This article is also available for rental through DeepDyve.

