Taylor & Francis
Online

Home ► All Journals ► Mathematics, Statistics & Data Science ► Applied Mathematical Finance
► List of Issues ► Volume 17, Issue 1 ► Short Positions, Rally Fears and Option ....

Papers

Short Positions, Rally Fears and Option Markets

Ernst Eberlein & Dilip B. Madan ✉

66 Cite this article   ↗ https://doi.org/10.1080/13504860903075688

📄 Full Article   🖼 Figures & data   📋 References   66 Citations   📊 Metrics

🖨 Reprints & Permissions   Read this article   ◄ Share

Abstract

Index option pricing on world market indices are investigated using Lévy processes with no positive jumps. Economically this is motivated by the possible absence of longer horizon short positions while mathematically we are able to evaluate for such processes the probability of a rally before a crash. Three models are used to effectively calibrate index options at an annual maturity, and it is observed that positive jumps may be needed for FTSE, N225 and HSI. Rally before a crash probabilities are shown to have fallen by 10 points after July 2007. Typical implied volatility curves for such models are also described and illustrated. They have smirks and never smile.

Key Words:

Spectrally negative processes   implied volatility smiles   two-sided exit problems

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources by email

✉ Sign me up