## Quantitative Finance >

Volume 6, 2006-Issue 5
640110
0
Views CrossRef citations to date Altmetric

## Original Articles

## A multivariate jump-driven financial asset model

Elisa Luciano \& Wim Schoutens
Pages 385-402 | Received 22 Dec 2006, Accepted 05 May 2006, Published online: 18 Feb 2007
S6 Cite this article https://doi.org/10.1080/14697680600806275


## Abstract

We discuss a Lévy multivariate model for financial assets which incorporates jumps, skewness, kurtosis and stochastic volatility. We use it to describe the behaviour of a series of stocks or indexes and to study a multi-firm, value-based default model. Starting from an independent Brownian world, we introduce jumps and other deviations from normality, including non-Gaussian dependence. We use a stochastic time-change techniqua and nmuide the dataile far a Camms rhanan Tha main fastura of the model
is the fa depende surprisir

About Cookies On This Site
We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our Privacy Policy.
†For an extensive discussion of the economic interpretation of time change and its relationship with the market activity, see Geman and Ané (2000).
$\dagger$ Note that in theory we can make the Brownian motions depedent on each other (as in Madan and Seneta (1987)). However, this would lead to a quadratic incerase in the parameters and would generate an estimation problem of the correlation structure, as discussed before.
\#Extensions to common stochastic voltaility time changes can be part of future research.

Related research (i)
People also read
Recommended articles
Cited by 110

About Cookies On This Site
We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our Privacy Policy

## 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
f $x$ in
(ivis)

Taylor \& Francis Group
an informa business

## About Cookies On This Site

## Accept All

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click

