

Econometric Reviews >
Volume 28, 2009 - Issue 5

912 Views | 142 CrossRef citations to date | 0 Altmetric

Original Articles

Structure and Asymptotic Theory for Multivariate Asymmetric Conditional Volatility

Michael McAleer , Suhejla Hoti & Felix Chan

Pages 422-440 | Published online: 26 Feb 2009

Cite this article <https://doi.org/10.1080/07474930802467217>

Sample our
Mathematics & Statistics
Journals

>> [Sign in here](#) to start your access to the latest two volumes for 14 days

Full Article Figures & data References Citations Metrics

Reprints & Permissions

[Read this article](#)

Abstract

Various market risk models, such as the GJR (Glosten, Jagannathan, and Runkle) model, are based on the assumption of constant volatility. However, empirical evidence shows that volatility is not constant but varies over time. This paper develops a multivariate asymmetric conditional volatility model, and shows that the model can be used to evaluate the risk in a portfolio of assets. The model is empirically tested using data from the Japanese market. The results show that the model is superior to the standard GJR model.

evaluate Risk in
develops a
(GARCH)
(old) GJR
including the
expansion, and
empirically
of the
of the

We Care About Your Privacy

We and our 845 partners store and/or access information on a device, such as unique IDs in cookies to process personal data. You may accept or manage your choices by clicking below, including your right to object where legitimate interest is used, or at any time in the privacy policy page. These choices will be signaled to our partners and will not affect browsing data. [Privacy Policy](#)

We and our partners process data to provide:

Use precise geolocation data. Actively scan device characteristics for identification. Store and/or access information on a device. Personalised advertising and content, advertising and content measurement, audience research and services development.

[List of Partners \(vendors\)](#)

I Accept

Essential Only

Show Purpose



Acknowledgments

This is a substantially revised and shortened version of Hoti et al. (2002). The authors wish to thank two referees for very helpful comments and suggestions, Manabu Asai, Massimiliano Caporin, Robert Engle, Thierry Jeantheau, Offer Lieberman, Shiqing Ling, Essie Maasoumi, Marcelo Medeiros, Peter Phillips, and seminar participants at the Bank of Italy, Chiang Mai University, Chinese University of Hong Kong (Finance), Curtin University of Technology, Graduate Institute of International Studies, Geneva, Hong Kong University of Science and Technology (Mathematics, and Information and Systems Management), Kyoto University, Tokyo Institute of Technology, University of Canterbury, University of Florence, University of Hong Kong (Statistics and Actuarial Science), University of Milan, University of Otago, University of Rome “La Sapienza,” University of Tokyo, University of Western Australia, and Yokohama National University for insightful discussions, and the Australian Research Council for financial support.

Notes

Notes: 1
varying
same nu
number
VARMA-
betw
it is sp

and the
ave the
ve the same
hough the
pendence
of Table 1, h



Relate

A Simple Class of Multivariate Generalized Autoregressive Conditional Heteroskedasticity Models >

Robert Engle

Journal of Business & Economic Statistics

Published online: 1 Jan 2012

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 updates by email



Sign up



Copyright

Accessibility

Registered with the Copyright Clearance Center
5 Howick Place

