Accepted Manuscript

Value-at-Risk under Lévy GARCH models: Evidence from global stock markets

Skander Slim, Yosra Koubaa, Ahmed BenSaïda

PII: S1042-4431(16)30089-0

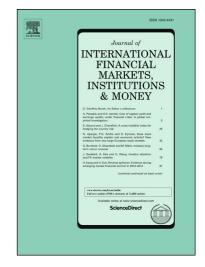
DOI: http://dx.doi.org/10.1016/j.intfin.2016.08.008

Reference: INTFIN 895

To appear in: Journal of International Financial Markets, Institu-

tions & Money

Received Date: 20 October 2015 Accepted Date: 30 August 2016



Please cite this article as: S. Slim, Y. Koubaa, A. BenSaïda, Value-at-Risk under Lévy GARCH models: Evidence from global stock markets, *Journal of International Financial Markets, Institutions & Money* (2016), doi: http://dx.doi.org/10.1016/j.intfin.2016.08.008

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Value-at-Risk under Lévy GARCH models: Evidence from global stock markets

Skander Slim^{a,*}, Yosra Koubaa^a, Ahmed BenSaïda^a

^aLaREMFiQ - IHEC, Sousse University B.P. 40 Route de la ceinture, Sahloul III, Sousse 4054, TUNISIA.

Abstract

The aim of this paper is to reconsider the evidence on the forecasting ability of GARCHtype models in estimating the Value-at-Risk (VaR) of global stock market indices with improved return distribution. The performance of twenty one VaR models that are generated by a combination of three conditional volatility specifications including GARCH, GJR and FIGARCH and seven distributional assumptions for return innovations is investigated. We implement stringent backtesting during crisis and post-crisis periods for developed, emerging and frontier markets. Results show that the skewed-t along with heavy-tailed Lévy distributions considerably improve the forecasts of one-day-ahead VaR for long and short trading positions during crisis period, regardless of the volatility model. However, we find no evidence that a given volatility specification outperforms the others across markets. The relevant models show evidence of long memory in developed markets and conditional asymmetry in frontier markets; whereas the standard GARCH is found to be the best suited specification for estimating VaR forecasts in emerging markets. The inclusion of high volatility period in the estimation sample highlights the predictability of VaR during post-crisis period, where even the normal distribution rivals the more sophisticated ones in terms of statistical accuracy and regulatory capital allocation.

Keywords:

Value-at-Risk, Risk management, Lévy distributions, GARCH model, Asymmetry, Long memory

JEL: C22, G17

^{*}Corresponding author.

Email addresses: slim_skander@yahoo.fr (Skander Slim), yosra.koubaa@yahoo.fr (Yosra Koubaa), ahmedbensaida@yahoo.com (Ahmed BenSaïda)

Download English Version:

https://daneshyari.com/en/article/5101026

Download Persian Version:

https://daneshyari.com/article/5101026

<u>Daneshyari.com</u>