For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Timo TERASVIRTA

Professor Emeritus
Department of Economics and Business Economics
Aarhus University
DENMARK

will give a talk

entitled

TESTING AND MODELLING THE UNCONDITIONAL VARIANCE COMPONENT IN MULTIPLICATIVE TIME-VARYING GARCH MODELS

Abstract

The topic of this presentation is testing the hypothesis of constant unconditional variance in GARCH models against the alternative that the unconditional variance changes deterministically over time. Tests of this hypothesis have previously been performed as misspecification tests after fitting a GARCH model to the original series. It is found by simulation that the positive size distortion present in these tests is a function of the kurtosis of the GARCH process. Adjusting the size by numerical methods is considered. The possibility of testing the constancy of the unconditional variance before fitting a GARCH model to the data is discussed. The power of the ensuing test is vastly superior to that of the misspecification test and the size distortion minimal. The test has reasonable power already in very short time series. It would thus serve as a test of constant variance in conditional mean models. An application to exchange rate returns is included.

It is also possible to turn the whole specification process around and specify the unconditional variance component before considering the GARCH component. Examples of this are given.

on

Monday, April 25, 2016

(Refreshments will be served from 10:15 a.m. outside Room 301 Run Run Shaw Building)

10:30 a.m. – 11:30 a.m.

at

Room 301, Run Run Shaw Building

Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 3917 2466 for parking arrangement.

All interested are welcome