A Comparison of the Standardized Prediction Error Criterion with other ARCH Model Selection Criteria

Evdokia Xekalaki* and Stavros Degiannakis

Department of Statistics, Athens University of Economics and Business, 76, Patission Street, 10434 Athens, Greece

Technical Report no 205, March 2004

Abstract

In this report, two important issues that arise in the evaluation of the standardized prediction error criterion (SPEC) model selection method are investigated in the context of a simulated options market. The first refers to the question of whether the performance of the SPEC algorithm is sensitive to the size of the sample used and the second to that of how the SPEC algorithm compares with other methods of model selection that measure the accuracy of the ARCH models to forecast the realized intra-day volatility.

Keywords and Phrases: ARCH models, Forecast Volatility, Model selection, Option Pricing, Predictability, Standardized Prediction Error Criterion

* Corresponding author. Tel.: +30-210-8203269; fax: +30-210-8238798. E-mail address: exek@aueb.gr.