

A SIMPLE GENERALIZED LONG PERSISTENCE REALIZED VOLATILITY MODEL

Wen-Cheong Chin^a, Zaidi Isa^b and Abu Hassan Shaari Mohd Nor^c

*^aFaculty of Information Technology, Multimedia University,
63100 Cyberjaya, Selangor, Malaysia*

*^bFaculty of Science Technology, National University Malaysia,
43600 Bangi, Selangor, Malaysia*

*^cFaculty of Economic and Business, National University Malaysia,
43600 Bangi, Selangor, Malaysia*

ABSTRACT

This paper investigates the observable (realized) volatility measurement in the Malaysian stock market. The paper proposes a long persistence observable volatility model, which comprises the leverage effect of Autoregressive Fractionally Integrated Moving Average Model (ARFIMAX) with time varying volatility and the inclusion of heterogeneous autoregressive (HAR) components as the contemporaneous variables. The empirical results show that the proposed model provides substantial improvement in the model fitting as well as specification.