Abstract Submitted for the MAR07 Meeting of The American Physical Society

Scaling Exponents in Financial Markets KYUNGSIK KIM, Department of Physics, Pukyong National University, Pusan 608-737, Korea, CHEOL-HYUN KIM, SOO YONG KIM, Department of Physics, Korea Advanced Institute of Science and Technology, Daejeon 305-701, Korea — We study the dynamical behavior of four exchange rates in foreign exchange markets. A detrended fluctuation analysis (DFA) is applied to detect the long-range correlation embedded in the non-stationary time series. It is for our case found that there exists a persistent long-range correlation in volatilities, which implies the deviation from the efficient market hypothesis. Particularly, the crossover is shown to exist in the scaling behaviors of the volatilities.

Kyungsik Kim Department of Physics, Pukyong National University, Pusan 608-737, Korea

Date submitted: 25 Nov 2006 Electronic form version 1.4