

1046-91-94

Ahmet Duran* (durana@umich.edu), University of Michigan-Ann Arbor, Department of Mathematics, 530 Church Street, Ann Arbor, MI 48109. *Sensitivity analysis of asset flow differential equations and a new volatility approach.*

A sensitivity analysis is applied to the dynamical system of nonlinear asset flow differential equations (AFDE). I find that all parameters in AFDE are needed and estimate all parameters of the microeconomic model from market prices and net asset values data. My results are consistent with the previous studies in the asset flow theory developed by Caginalp and collaborators since 1989. Moreover, a new volatility approach is defined and analyzed. After the analytical and numerical findings, I will present my empirical results for the set of 52 closed-end funds (CEFs) trading in US markets by using the daily closing prices during 1 April 1998 to 31 March 2008. (Received July 22, 2008)