

Stock mechanics: predicting recession in S&P500, DJIA, and NASDAQ

Caglar Tuncay

Department of Physics, Middle East Technical University, 06531 Ankara, Turkey

Corresponding author e-mail: caglar@metu.edu.tr

An original method, assuming potential and kinetic energy for prices and conservation of their sum is developed for forecasting exchanges. Connections with power law are shown. Semiempirical applications on S&P500, DJIA, and NASDAQ predict a coming recession in them. An emerging market, Istanbul Stock Exchange index ISE-100 is found involving a potential to continue to rise.

Keywords: Potential and kinetic energy; Equations of motion; Power law; Oscillations; Crashes