The Influence of Signed Order Volume on Stock Prices

AUSTIN GERIG, University of Illinois at Urbana-Champaign, DOYNE FARMER, Santa Fe Institute, FABRIZIO LILLO, Unità di Palermo, SZABOLCS MIKE, Budapest University of Technology and Economics, — Using data from the London Stock Exchange we investigate the influence of signed transaction order volume on current and future price changes. (Buy orders are given a positive sign, sell orders a negative sign). Empirical studies have shown that transaction order signs display long memory. Because buying tends to move the price up and selling tends to move the price down, this creates a puzzle regarding efficiency – if transaction order signs are highly predictable, why aren’t prices predictable? We show that efficiency is maintained by correlated fluctuations in the response of prices to orders. We also study whether or not this is an important effect causing clustered volatility in price changes, i.e. the tendency of the magnitude of price changes to be temporally correlated.