
摘要

我們知道投資者所能觀察到的某一標的的訂單流包含著價格變動的資訊。一筆交易的完成是由買賣雙方完成的，而買賣雙方有的是掌握了有關標的物內部消息的知情者，有的是沒有內部消息的不知情者。交易背後買賣雙方對資訊的不對稱影響著他們的投資決策，進而影響到該投資標的的交易量、價格波動度、市場流動性等市場參數。我們建立一個微觀交易模型來探討交易的組成。我們將採用台灣交易量較大的股票期貨來估計知情交易與不知情交易的達到率，進一步地，我們將根據估計得到的達到率計算內幕交易發生的可能性 (Probability of information-based trading, 後文均用 PIN 表示)，而此 PIN 可以用來計算買賣價差這個市場流動性的測度。我們預測由於股東在股票市場上面臨的限制，期貨市場相比於股票市場將具有更大的 PIN 值。同樣地，我們好奇 PIN 在期貨市場中，對個股期貨開盤買賣價差的解釋能力。

關鍵字：知情交易達到率、不知情交易達到率、內幕交易發生概率、個股期貨

Abstract

We know that investors can observe some information containing in the order flow. A trade is dealt with both sides of buyers and sellers. Some traders have inside information while others may not. The asymmetry of information will apparently inference the investment decision and then affect the stock volume, price volatility and other market parameters such as the market liquidity. We build a microstructure model of trading to discuss the relation between the order flow and the arrival rates of informed and uninformed trades. Then, using the estimated parameters, we calculate the probability of information-based trading(PIN) which can be used to forecast the bid-ask spread. We find that the PIN in the futures market is significantly bigger than that in the stock market. In addition, PIN can not only explain the bid-ask spread in the stock market, but also in the futures market in Taiwan.

Key words: Arrival rates of informed trades, Arrival rates of uninformed trades,

PIN, Stock futures