

台灣發行量加權股價指數 買賣量變動操作策略實證研究

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摘 要

本研究透過日內每分鐘買賣量變動趨勢，配合操作策略，加以投資限制，以實證研究，評估該操作策略績效之良窳，並選擇在不同加權股價指數走勢中，測試該操作策略在不同走勢中之操作績效優劣，是否受到股市多空的影响，並佐以統計方法檢定，以確認該操作策略在不同走勢中何者能有較佳的報酬率。

實證結果顯示，該策略不論在多頭走勢及空頭走勢中，其月平均損益均為正報酬，且日報酬為正的比例遠大於日報酬為負的比例，並經由統計檢定得知，在多頭及空頭的情況皆顯著優於大盤買進持有策略，在空頭期間績效顯著優於多頭時期的績效。

由迴歸分析中得知，不管在多頭或空頭時間，每日累計報酬率可以每日大盤每日漲跌幅度及每日累積買賣張數差跟大盤漲跌之相關係數來預測，但其中與每日大盤每日漲跌幅度為負相關，而與每日累積買賣張數差跟大盤漲跌之相關係數為正相關。

本研究操作策略經敏感度分析，不管從隨機選取之交易日或是在微調樣本時隔或在特別大盤漲幅或跌幅大時，亦可利用該策略操作而獲利。

關鍵詞：買賣量變動、操作策略、統計檢定、相關係數、敏感度分析

The Empirical Research Of The Taiwan Stock Exchange
Capitalization Weighted Stock Index Bid/Ask Volumes Variation
Operation Strategy

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ABSTRACT

The research takes operation strategy through the intra data per minute bid/ask volumes variation trends and set some restrictions of the investments, to empirical the performance of the operation strategy. Then select a different trends in the weighted stock index, to examine performance of the operation strategy in the different trends were affected by the bull or bear market, and accompanied by statistical test, to confirm the operation strategy in the different market whose can have a better rate of return.

The empirical results show that the strategy both in bull and bear trends, its average monthly profit was positive, and the positive daily return was more than negative daily returns, and by the statistical test that at the bull and bear period were significantly better than the buy and hold strategy of the stocks index, The performance in the bull period was better than in the bear period.

By the regression analysis that whether in the bull or bear periods, the daily cumulative return can forecast by the daily index changes and the correlation coefficient of the accumulate bid/ask volumes difference and index change, but negative correlation between the daily cumulative return and the index change, positive correlation between the accumulate bid/ask volumes difference and index change.

The operation strategy by the sensitivity analysis, no matter the trades days was selected by a random sample or adjusted the timing and the sharply change of the index, may also got profit by the operation strategy.

Keywords: bid/ask volume difference, operation strategy, statistical test, correlation coefficient, sensitivity analysis

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參考文獻

中文部份

1. 余明芳(1998)，臺股指數現貨與期貨日內交易型態的實證研究，國立中山大學，財務管理研究所碩士論文。
2. 林育吉(2008)，多種技術分析建立指數股票型基金之交易策略，台灣大學財務金融學研究所碩士論文。
3. 陳柏霖(2010)，成交量之資訊揭露對技術指標獲利能力之探討，東海大學財務金融學系研究所碩士論文。
4. 黃文彥(2003)，股價指數期貨市場日內交易型態與變更交易撮合制度對日內交易型態影響之研究，淡江大學財務金融學系未出版碩士論文。
5. 黃玉娟及徐守德(2000)，台股指數現貨與期貨日內交易形態之比較，交大管理學報，第二十卷第二期，149-171 頁。

英文部份

1. Brock, W., J. Lakonishok, and B. LeBaron ,1992, “Simple Technical Trading Rules and the Stochastic Properties of Stock Returns,” *Journal of Finance*, Vol. 47, pp.1731-1764.
2. Eugene F.Fama and Kenneth R French,1988,Permanent and temporary components of stock price, *Journal of Political Economy* 96,p.246~273.
3. Fama, E. F., 1970, Efficient Capital Markets: A Review of Theory and Work, *Journal of Finance*, 25, pp.383-417.
4. Harris, L.(1986), “A Transaction Data Study of Weekly and Intraday Patterns in Stock Returns,” *Journal of Financial Economics*, Vol.16, No.1, pp.99-117.
5. Metghalchi, M., Y.H. Chang, and J. Marcucci, 2007, Is the Swedish Stock

Market Efficient? Evidence from Some Simple Trading Rules, International Review of Financial Analysis, Article in Press, Corrected Proof.

6. Narasimhan Jegadeesh,(1990), “Evidence of predictable behavior of security returns”, Journal of Finance, vol.45, no.3, pp. 881-898.
7. Pruitt, Stephen W., and Richard E. White (1988), “The CRISMA Trading System : Who Says Technical Analysis Can’ t Beat the Market ? “ Journal of Portfolio Management, pp. 55-58.
8. Wood,R.A.,T.H.McInish and J.K.Ord,1985,”An investigation of transactions data for NYSE stock”, Journal of Finance,40, pp .723~739.
9. Wood,R.A.,T.H.McInish,1991,”Autocorrelation of daily index returns : intraday-to-intraday versus close-to-close intervals ”,Journal of Bankingand Finance,15,North-Holland, pp .193~206.

