



ELSEVIER

Available online at www.sciencedirect.com

SCIENCE @ DIRECT®

Research in International Business and Finance 19 (2005) 384–398

RESEARCH IN
INTERNATIONAL
BUSINESS AND
FINANCE

www.elsevier.com/locate/ribaf

Is technical analysis profitable on a stock market which has characteristics that suggest it may be inefficient?

Ben R. Marshall*, Rochester H. Cahan¹

*Department of Finance, Banking and Property, College of Business, Massey University,
Private Bag 11222, Palmerston North, New Zealand*

Received 12 January 2005; received in revised form 11 May 2005; accepted 15 May 2005

Available online 27 June 2005

Abstract

This paper considers the returns to technical analysis on the New Zealand stock market. The small nature, short-selling constraints, lack of analyst coverage, and loose insider trading regulation suggest that the New Zealand equity market may be less efficient than overseas markets. This raises the possibility that technical analysis is still profitable in New Zealand. Using a bootstrapping technique with common null models for stock returns and 12 popular technical trading rules, we find that the returns to technical analysis in New Zealand follow a similar pattern to those in large offshore markets. Technical analysis is no longer profitable.

© 2005 Elsevier B.V. All rights reserved.

JEL classification: G12; G14

Keywords: Market efficiency; Technical analysis

1. Introduction

Technical analysis, which uses past price movements to predict future price movements, is diametrically opposed to market efficiency (e.g., Fama, 1970). In theory, technical analysis

* Corresponding author. Tel.: +64 6 350 5799; fax: +64 6 350 5651.

E-mail address: B.Marshall@massey.ac.nz (B.R. Marshall).

¹ Unaffiliated.

has no value if prices are weak-form efficient. Early studies of technical analysis by Fama and Blume (1966) and Jensen and Bennington (1970) find that technical rules are unable to reliably predict future returns. However, several more recent studies find the opposite. Brock et al. (1992) demonstrate that a relatively simple set of technical trading rules possess significant forecast power for changes in the Dow Jones Industrial Average (DJIA) over the 1897–1986 period. Numerous studies replicate the Brock et al. (1992) result on other stock markets. Hudson et al. (1996), Bessembinder and Chan (1995), and Detry and Gregoire (2001) find the trading rules produce profits over and above a buy-and-hold strategy on the FTSE 30 index, Asian indices, and European indices, respectively.

Studies that re-test Brock et al.'s (1992) technical trading rules using US data document, a decline in their profitability over time. LeBaron (2000) uses the same data as Brock et al. (1992), but adds another 10 years from 1988 to 1999 (to avoid the 1987 crash). For the later period, he finds that the returns following a buy signal are not significantly larger than the returns following a sell signal. Ready (2002) extends the Brock et al. (1992) data to 2000 (he included 1987) and finds a similar result. Finally, Kwon and Kish (2002) apply Brock et al.'s (1992) rules to the CRSP, NYSE, and Nasdaq indices and also find weakening profits over time. A decline in the profitability of well-documented technical trading rules over time is not unexpected. Once investors become aware that a particular rule can generate trading profits, investors will likely trade away their profitability. Advances in informational technology and the increased ease at which these strategies can be implemented is another explanation for this trend.

This paper considers the changes in the returns to the Brock et al. (1992) technical trading rules on the New Zealand Stock Exchange (NZX) over the 1970–2002 period. The NZX has characteristics that suggest it may not be as efficient as markets where technical trading rules have been previously tested so it is an interesting laboratory for such tests.

The NZX is a very small market. Its market capitalisation on 31 December 2002 was NZD 41.5 billion compared to NZD 18.9 trillion for the NYSE.² The NZX is very similar in size to the emerging markets of Hungary and the Czech Republic. It is slightly bigger than Pakistan, and slightly smaller than Poland and Indonesia. Its size and isolation from major markets means that hedge funds and other professional investors may have less incentive to trade away inefficiencies on the NZX than much larger markets. In addition, short-selling is prohibited on the NZX. This also creates an environment where inefficiencies are more likely to persist (Wang and Cheng, 2004).

The unique rules in New Zealand regarding insider trading are a second reason why technical trading rules may be more profitable on the NZX. Until 1 December 2002, the last month in our sample, only substantial shareholders (those shareholders with over 5% of the company's shares) were required to disclose their trading in a timely fashion and even then only when their holdings had changed by a cumulative 1%, since the previous disclosure. Company directors were required to disclose their trading in the annual report, while executives who were non-board members were not required to disclose their trading at all. There is substantial evidence from the US (e.g., Jaffe, 1974; Seyhun, 1992) that insiders make abnormally large returns from their trades, so timely knowledge of their trading can

² The NZD/USD exchange rate was 0.4150 on 31 December 2002; so, in USD terms, the market capitalisations of NZX and NYSE were 17.22 billion and 7.84 trillion, respectively.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات