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An analysis of trading in target stocks before successful takeover announcements☆

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ABSTRACT

In this paper we examine both informed and contraire trading preceding successful takeover announcements on US target firms from 2001 to 2006. We find that both informed trading and contraire trading exist within the period preceding successful takeover announcements on the stock market, as evident through abnormal returns and trading volumes and on the option market by analyzing only abnormal trading volume. In regard to contraire trading, we investigate possible explanations for its existence. This study finds, through analysis of an unbiased sample of rumored target firms, that deliberate contraire trading appears to be profitable which is likely an explanation for such trading.

1. Introduction

One of the central aims of any financial market is to provide efficiency. While many would argue that in perfect world strong-form efficiency is desirable, in reality, practical limitations and market imperfections provide opportunities for market inefficiencies to exist. Prior research has identified informed trading as a possible source of market inefficiency, as evidenced by abnormal returns and abnormal trading volumes in target stocks during the period prior to takeover announcements (Meulbroek,

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1992). The present study contends that investors may suffer behavioral biases and often over-react to inside information and rumors of takeovers. Thus, in addition to observing evidence of informed trading in the pre-announcement period, it is suggested that there may concurrently be a sizeable amount of 'contraire'[1] trading aimed at exploiting the over-reaction to takeover rumors, thereby earning abnormal returns. If found, such elements of trading would extend the perception of market inefficiency in the pre-announcement period to not only the commonly cited informed trading, but also to the existence of additional investors taking contraire trading positions against overly reactive informed traders.

The principal purpose of this study is to analyze market efficiency through observing trading patterns in successful takeover targets. This will be achieved in two ways – first, by examining target stocks through abnormal returns and trading volumes, and then examining options through trading volumes, for evidence that possible informed and 'contraire' trading in the period prior to successful takeover announcements may be occurring. Second, the profitability (and, hence, the viability) of contraire trading in the context of takeover rumors through an example trading strategy will be examined. This study also investigates the effects firm size and option availability have on market efficiency in the pre-announcement period.

As takeover premiums are generally significantly positive (Dodd, 1980; Asquith, 1983; Jensen and Ruback, 1983; Singh and Agarwal, 2006), there is substantial incentive for investors to identify takeover targets and take long positions before a takeover announcement in order to benefit from the premium, which leads to heightened trading activity. Gao and Oler (2004) indicate that a substantial time–lag exists between abnormal volume and abnormal stock price movement. They argue that this disparity occurs for a period of time because an increase in informed/speculative buying is offset by high net worth, or institutional investors engaging in the profitable arbitrage of shorting against target takeover rumors.[2] Such a phenomenon has important ramifications by adding to the body of knowledge on the extent of market inefficiency, and also has practical implications in terms of exploitative trading strategies. Thus, this hypothesis – as described on the stock market by Gao and Oler (2004) – is re-examined, in addition to identifying the existence of the same phenomenon on the options market. We find that a significant trading volume takes place preceding significant abnormal returns. We further report that taking a short position on the day of a rumor of takeover being published in *The Wall Street Journal* produced significant returns.

This study adopts standard event study methodology, and is largely based on the foundations set by Brown and Warner (1985). The remainder of the paper is structured as follows. Section 2 continues by reviewing the relevant theoretical frameworks and compares and analyzes how prior empirical results fit within these frameworks. Section 3 describes the data collection, filtration and methodology adopted. Section 4 presents the empirical findings of this study, and Section 5 provides a more in-depth discussion of how the findings compare and contrast to prior research. Finally, Section 6 contains the conclusions.

2. Literature review

Market inefficiencies that are not exploitable are consistent with the concept of an efficient market (Jensen, 1978; Mandelker, 1974; Keown and Pinkerton, 1981; Asquith, 1983; Dennis and McConnell, 1986; Franks and Harris, 1989; Gao and Oler, 2004). Mandelker (1974) reports a 13% cumulative abnormal return (CAR) to target firms in the 7 months preceding an announcement, indicating inefficiency and information asymmetry. Franks and Harris (1989) report a 21.3% abnormal return for firms on the day of announcement, however, a 29.7% CAR is reported over the 4 months leading up to and including the announcement day. Brown and da Silva Rosa (1998) find a 25% CAR over the month preceding, and including, the day of announcement. On a somewhat similar note, Anderson et al. (2009) find that

[1] Contraire trading can be defined as evaluating the opinion of the investing public, and when that opinion reaches an unreasonable extreme, investing against it.

[2] In essence, 'contraire' traders are 'betting against' potentially informed traders on the basis that takeover rumors have a higher likelihood of not eventuating, than eventuating.