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The UK equity market around the ex-split date

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ABSTRACT

Using UK stock market data this study unveils positive abnormal returns on and around the ex-split date. These excess returns are partially predictable using the publicly available information prior to the ex-split date. There is also a persistent increase in the post-split volatility of these stocks with the results being robust to the choice of the volatility proxy. Post-split volatility is found to be positively related to trading activity. Contrary to the US findings, volatility dynamics following the stock split are better captured by changes in the daily trading volume rather than by the number of trades.

1. Introduction

Some investors may view stock splits as advantageous, but there is little evidence that they are benefited in any meaningful way. In many cases, stock splits are seen as a sign of management optimism and investors appear to share this view. Based on market efficiency these favorable managerial signals should be immediately incorporated in the stock prices. Nonetheless, expectations based on theoretical frameworks are often contradicted by empirical evidence. The question of interest is, therefore, 'how do markets react when it comes to stock splits?' A number of studies have attempted to explain this event and assess both the short- and long-run performance of stock returns/volatility following the corporate announcements.

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Differential behavior between split and non-split stocks has been documented indicating that this non-economic action does affect the shareholders' wealth. Research in the area unveils a rise in risk-adjusted returns following the announcement and ex-split dates (Grinblatt et al., 1984; Ikenberry et al., 1996; Desai and Jain, 1997) as well as an increase in equity return volatility (Ohlson and Penman, 1985; Dubofsky, 1991; Koski, 1998). If such an overreaction persists for a period of time, then concerns are raised regarding the speed of price adjustment to information flow, and potentially invalidate (Fama, 1998) efficient market approach. In parallel, work on corporate events suggests that markets appear to under-react to news (Daniel et al., 1998).

On the theoretical front, four main hypotheses are put forward to explain market reactions to stock splits. The first one, the signaling hypothesis, postulates that such actions aim to reduce information asymmetries between shareholders and management regarding the firm's financial prospects[1]. The second approach, the optimal price range hypothesis, states that managers believe that when shares trade within a certain price range, their decision to split the stocks will enhance their liquidity. This 'optimal' price is typically set at the historical average price of the firm's equity, or of the market/industry as a whole. The third approach, the liquidity hypothesis, can be seen as a hybrid form of the signaling and the optimal price range hypotheses, and posits that post-split liquidity enhancement benefits from both the lower price range and positive signals conveyed on the split announcement. The former is supported by Copeland (1979) who states that there is an optimal price range wherein stocks are most liquid. The fourth approach, the tick size hypothesis, suggests that stock splits increase the tick size relative to the stock price thereby boosting the profitability of market making (Schultz, 2000; Angel, 1997).

On the empirical front, Lamoureux and Poon (1987), Schultz (2000) and Angel et al. (2004) find an increase in institutional ownership following a split, while Ikenberry et al. (1996) and Dennis and Strickland (2003) refute these findings. Examining the equity performance of firms executing stock splits, Fama et al. (1969) and Byun and Rozeff (2003) found insignificant abnormal returns, which contradicts the results of Desai and Jain (1997) and Wu and Chan (1997). Muscarella and Vetsuypens (1996) and Mohanty and Moon (2007) report higher liquidity following the stock splits, while others report the opposite (Copeland, 1979; Murray, 1985; Lamoureux and Poon, 1987). Hwang et al. (2005) observe that an unexpected stock split yields abnormal return within the first 3 months, but the effect disappears over longer horizons for both expected and unexpected splits.

The post-split volatility increase has also received extensive attention in the empirical literature, but there is no consensus as yet on the reasons behind this phenomenon. Some researchers have highlighted the role of market microstructure effects, such as bid-ask spread and price discreteness, which introduce noise in volatility measurement (Ohlson and Penman, 1985; Ball, 1988). Another explanation relies on the impact of splits on trading activity, which places the rise in the daily number of (small) trades as the main driver behind the post-split volatility increase (Jones et al., 1994; Kamara and Koski, 2001).

The literature has put forward a number of reasonable explanations for both the rise in the risk-adjusted returns and their volatility following the split event, but the majority of studies have focused on the US market. Thus the objectives of the present work are as follows. First, this is the first study, to our knowledge, considering the equity behavior around stock splits in the UK market. Focusing on the UK market is crucial since (a) there is a bi-directional trading and investment relationship between the UK and the US, (b) the UK is a financial centre interacting continuously with European, Asian and the American markets, and (c) the extent to which the findings for the US firms hold in another major market can be assessed.

Second, the study looks at the excess returns and equity volatility surrounding the ex-date rather than the announcement date. Anecdotal evidence of ex-date abnormal returns has been the impetus of this research. The occurrence of ex-date excess returns is rather surprising, as this date is known in advance and lacks the material information[2] to justify any abnormal market reaction. Yet ex-date

[1] See Fama et al. (1969), Grinblatt et al. (1984), Brennan and Copeland (1988), McNichols and Dravid (1990), Mohanty and Moon (2007) for relevant discussions.

[2] Information is material if it has an impact on securities prices when it becomes publicly available for the first time. If it has no impact on prices, it is largely irrelevant, although it may cause portfolio adjustments that leave prices unchanged.