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The information content of stock splits

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ABSTRACT

We develop a new methodology that controls for both the timing of annual earnings news (Asquith et al., 1989) and the performance prior to split announcements (Barber and Lyon, 1996) to evaluate the information content of stock splits. In contrast to existing evidence, we find that stock splits in aggregate are followed by positive abnormal future earnings growth, suggesting that stock splits contain information about future, rather than past, operating performance. When we use changes in breadth of institutional ownership as a new metric of information content to corroborate our findings, we find that splits with the greatest increase in breadth experience positive post-split abnormal returns and positive abnormal earnings growth. Together, our results suggest that some splits contain positive information about future performance, and that sophisticated market participants such as institutional investors are able to select these splits.

1. Introduction

Though stock splits appear to have no direct effect on a company's cash flows, their announcements are usually accompanied by significant positive abnormal returns (see Grinblatt et al., 1984; Byun and Rozeff, 2003; Chern et al., 2008). Besides the abnormal returns around announcement, some studies document a post-split announcement drift in returns (see Ikenberry et al., 1996; Desai and Jain, 1997; Ikenberry and Ramnath, 2002). While there is a general agreement on the presence of abnormal returns especially around announcement, there is no consensus on why these abnormal returns exist.

Some researchers believe that managers with favorable information split to signal good news.[1] Brennan and Hughes (1991), Ikenberry et al. (1996), Ikenberry and Ramnath (2002), and Hwang et al. (2008) find supporting evidence for the information hypothesis. More evidence in support of signaling comes from operating performance and continuing abnormal stock returns. Lakonishok and Lev (1987), and Asquith et al. (1989) find that the abnormal earnings growth enjoyed by split firms before stock splits is not reversed after the splits, which is good news for investors who might originally believe the earnings growth to be transitory. Ikenberry and Ramnath (2002) also find that earnings improve in the year of split announcement.

Other researchers believe that stock splits do not signal any information and are poor vehicles for conveying new information. They argue that stock splits may be designed only to improve the marketability of split stocks either because the post-split price meets certain investor specific preferences (see Lakonishok and Lev, 1987; Dyl and Elliott, 2006 for the trading range hypothesis), or because splits provide other market participants such as market makers with more incentives to promote the stocks (see Angel, 1997; and Schultz, 2000 for the optimal tick size hypothesis; and Kadapakkam et al., 2005 for broker promotion hypothesis). Studying splits that are clearly devoid of any information, researchers find support for the non-information or marketability explanation (see Fernando et al., 1999; and Rozeff, 1998 for mutual fund splits; and Muscarella and Vetsuypens, 1996 for American Depository Receipt (ADR) solo-splits). Easley et al. (2001) do not find any reduction in information asymmetry following stock splits, suggesting the absence of information around split announcement. Finally, firms may conduct stock splits for dubious reasons such as to "reward our shareholders."[2]

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[1] Firms also make these claims. For example, Range Resources Corporation noted that the stock split underscores "confidence in our ability to continue to profitably grow production and reserves in the years ahead." (Business Wire, November 10, 2005, "Range Announces Three-for-Two Stock Split with Dividend Increase".)

[2] Business Wire, November 30, 2005, "Access National Announces Stock Split".

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Therefore, the issue of whether stock splits convey information is far from settled. For example, Lin et al. (2009) suggest firms use a stock split to attract more uninformed traders to participate in trading. They find that their measure of probability of no trading decreases significantly after stock splits, and the decrease is larger for the stocks with poor liquidity. They conclude that their evidence of the decrease in latent trading costs after stock splits is inconsistent with the signaling hypothesis. The most direct evidence of the information content is from Lakonishok and Lev (1987), Asquith et al. (1989), and Ikenberry and Ramnath (2002). However, these studies focus on the persistence of pre-split earnings growth, and do not address whether these firms actually perform better in the post-split periods. In this paper, we attempt to resolve the ambiguity about the information content of stock splits by directly examining the post-split earnings performance. We develop a new methodology that combines the method from Asquith et al. (1989), which ensures that post-split-announcement annual earnings information is released only after the split announcement, and the method from Barber and Lyon (1996), which emphasizes the importance of matching on prior performance when evaluating operating performance. We find that split firms significantly outperform their matched sample in the post-split period, even though there is little difference in performance between the split firms and their matched firms before splits. Our results provide direct evidence that splits in aggregate contain information about positive future earnings growth.

We move on to use changes in breadth of institutional ownership as a new metric of information to separate splits with information from those without information. Since there is at least some evidence that stock splits contain information, it implies that certain market participants *must* be able to separate information-based splits from other splits so that there is no significant dilution of information signals. Among all market participants, institutions are generally believed to either possess superior information, or possess superior ability in processing information (Lev, 1988; Cohen et al., 2002; and Gibson et al., 2004). Accordingly, we assume that institutions are more likely to pick splits that convey information.[3] If institutional interest in a particular stock increases following a stock split despite the potential increase in transactions costs due to a lower post-split price, those institutions must believe that there is valuable information conveyed in the split announcement. We anticipate that these stocks are more likely to exhibit improved operating performance after splits and to generate post-split abnormal returns. In contrast, splits with the smallest increase in institutional confidence are less likely to contain information and more likely to be driven by marketability considerations.

We choose breadth of institutional ownership to measure institutional confidence. Badrinath and Wahal (2002) and Sias et al. (2006) suggest that breadth of ownership, which depends on the number of institutions entering and exiting positions in a stock, be a powerful measure of institutional confidence. We adjust changes in institutional breadth of split stock with those of matching firm to derive the abnormal change in breadth. This measure represents the increase in confidence of institutional investors caused by split announcements rather than by firm specific characteristics or by the rising trend in the universe of institutions over time. Our empirical results support these predictions based on changes in breadth of institutional ownership. First, we document that institutional investors are able to separate splits with information from the other splits by showing that post-split abnormal returns monotonically increase in abnormal changes in breadth. Splits with the largest increases in breadth relative to their matches experience an abnormal returns of about 13% for the 6-month and 18% for the 12-month period following split announcements. On the other hand, splits with the smallest increases in breadth do not show any significant positive abnormal returns over the same periods. This result prevails when we examine sub-samples based on size, value/growth and momentum characteristics.

More importantly, we find that the portfolio with the greatest increase in breadth has the best earnings performance in the year immediately following the split announcement. On the other hand, split firms with the smallest increase in breadth are no different from their control firms in terms of future earnings growth. These results do not depend on size, value/growth, or momentum characteristics of the split firms. Further, our results are robust when we repeat our analysis using industry-adjusted growth to control for industry-wide factors. Overall, our results suggest that institutional investors are able to anticipate firm future operating performance.

In regression analysis, we show that abnormal changes in breadth of ownership for split firms exhibit a significant positive relation with future abnormal earnings growth and future abnormal returns. This result holds after we control for different characteristics of split firms, suggesting that institutions are attracted by future earnings potential rather than past performance. Our robust analyses show that our results survive even when we measure returns after ex-date month, and the results are consistent over different sub-periods.

We contribute to the literature in several ways. First, our results based on our new approach on earnings performance suggest that stock splits in aggregate contain information about future growth, as oppose to past growth. We find that when conditioned on prior performance, split firms perform better than their matched firms in the 2 years after splits. Second, our results support the notion that institutional investors are able to and do distinguish splits with information from splits without information. We find much sharper results once the splits have been separated into information-based and non-information-based splits using changes in institutional interests. Stocks where institutional interest has increased following splits outperform other stocks. On the other hand, splits with the smallest increase in institutional interest do not exhibit any positive abnormal future stock return performance or positive abnormal future earnings performance. We argue that the conflicting and mixed results in previous research may be a consequence of combining both kinds of splits into a single sample. For example, Schultz (2000) finds that there are more large sell orders than buy orders around stock splits suggesting that institutions make incorrect decisions. We show that not all splits contain information. Institutions may be able to draw correct inferences and purchase only stocks with better future performance. Finally, while an increase in breadth of ownership may relax short-selling constraints (Chen et al., 2002), our results suggest that it is also a good indicator of institutions' confidence in the stock's future performance.

The remainder of the paper proceeds as follows. In the next section, we describe data sources, construction of samples, and various measures of post-split abnormal performance. In Section 3, we discuss breadth of ownership as a measure of institutional interest, and analyze the relationship between abnormal changes in breadth of ownership and post-split abnormal returns and earnings growth. Section 4 conducts robustness analysis. Section 5 contains concluding remarks.

2. Samples and performance results

2.1. Sample of stock splits

We construct our sample of stock splits from the daily stock files of Center for Research in Security Prices (CRSP). We focus

[3] In this paper, we do not attempt to identify the sources of institutional superiority in picking stocks.