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Short selling around dividend announcements and ex-dividend days

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ABSTRACT

We examine short selling around dividend announcements and ex-dividend dates. Contrary to our initial expectation, we do not find abnormally high short-selling activity prior to announced dividend decreases, which runs counter to the argument that short sellers have the ability to acquire private information before its public dissemination. However, we find that the common negative relation between current short selling and future daily returns prior to unfavorable dividend announcements is similar to the negative relation during non-event times, suggesting that dividend announcements do not provide unusual trading opportunities for informed traders (Gonedes, 1978, and Benartzi et al., 1997). Around ex-dividend dates, we do find abnormal short selling, which may be explained by the return pattern around ex-dividend days documented by Lakonishok and Vermaelen (1986), who suggest that demand for a particular stock by dividend capture traders drives stock prices above their fundamental value thus providing a profitable trading opportunity for short sellers. Consistent with this conjecture, we find that both the level of short selling and the return predictability of short selling is markedly higher on and after the ex-dividend day than during non-event times.

1. Introduction

Miller and Modigliani (1961) proposed that dividends are irrelevant. However, empiricists and theorists find that dividends and dividend changes may convey information to the market.[1] In a separate stream of literature, Diamond and Verrecchia (1987) suggest that short sellers are informed regarding a firm's value. This paper combines these two ideas and examines short-selling activity around dividend announcements and ex-dividend days. The objective of our analysis is determine whether short sellers acquire private information prior to negative announcements (Christophe et al., 2004) and whether short sellers attempt to attenuate the downward price movement on and after the ex-dividend date documented in Lakonishok and Vermaelen (1986).

Our first set of tests is motivated by two streams of research. First, Diamond and Verrecchia (1987) argue that negative returns will follow unanticipated increases in short selling. Empirical evidence favorably supports the Diamond and Verrecchia hypothesis (Senchack and Starks, 1993; Aitken et al., 1998; Boehmer et al., 2008; Karpoff and Lou, 2010; Diether et al., 2009). Results in Christophe et al. (2004)) show that short selling prior to unfavorable earnings announcements relates negatively to post-announcement returns, suggesting that short sellers have an ability to acquire private information before it is publicly observed.

The second stream of research that motivates our analyses suggests that dividends contain information about the future performance of the firm (i.e., dividends signal future earnings) or information about the perk consumption of management (i.e., dividends mitigate the free cash flow problem). One implication of this line of past research is that changes in a firm's dividend policy should result in stock price changes in the same direction. Indeed, there is substantial empirical evidence of a direct relation between changes in stock prices and dividend changes. While evidence is mixed as to whether the signaling hypothesis or free

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[1] See, for example, Miller and Modigliani (1961), Bhattacharya (1979), Aharony and Swary (1980), Asquith and Mullins (1983), Easterbrook (1984), John and Williams (1985), Michaely et al. (1995)), Miller and Rock (1985), Jensen (1986), Lang and Litzenberger (1989), Fuller and Blau (2010).

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cash flow hypothesis better explains why firms pay dividends, previous research concedes that dividends contain information about future firm performance.[2,3] If dividend announcements contain information about the future performance of firms, and short sellers are able to acquire information before it is publicly observed, then we expect to find abnormal short selling prior to unfavorable dividend announcements.

Our second set of tests is motivated by research examining the relation between trading behavior and dividend payments (Kalay, 1982; Miller and Scholes, 1982; Lakonishok and Vermaelen, 1986; Koski and Scruggs, 1998). Theory in Brennan (1970) and Lakonishok and Vermaelen (1986) suggests that some investors may prefer to avoid the double taxation of dividends while others may profit by capturing the dividend payment.[4] Empirical results (Michaely and Vila, 1995, 1996; Koski and Scruggs, 1998; Akhmedov and Jakob, 2010) find an increase in trading volume after the dividend announcement and before the ex-dividend date suggesting that some traders engage in dividend capture strategies. Lakonishok and Vermaelen (1986) show positive abnormal returns prior to the ex-dividend day and negative abnormal returns after, suggesting that increased demand for dividend-paying stocks by dividend capture traders drives prices up prior to the ex-dividend day while a reduction in demand, by perhaps the same traders, results in negative returns after the ex-dividend day. Lakonishok and Vermaelen show that ex-dividend return patterns are driven by stocks with larger dividend yields, which are likely stocks that generate the most demand by dividend capture traders. Koski and Scruggs (1998) find abnormal trading activity prior to the ex-dividend date. They conjecture that some traders may choose to short a stock cum-dividend and buy it back ex-dividend if they believe the price decrease on the ex-dividend date will be greater than the dividend paid. This paper provides tests of this contention. In addition, Boehmer and Wu (2009) show abnormal short selling after unfavorable earnings announcements indicating that short sellers help attenuate the post-earnings-announcement drift. Therefore, consistency with Koski and Scruggs' (1998) contention is found if short selling is abnormally high prior to the ex-dividend day while consistency with the idea that short sellers attenuate downward price movements (Boehmer and Wu, 2009) is found if short selling is abnormally high on and after the ex-dividend day.

Using a sample of 777 NYSE-listed firms that pay quarterly dividends during 2005 and 2006, we begin by analyzing short selling around dividend announcements. Similar to prior studies (Christophe et al., 2004, 2009; Boehmer et al., 2008; Diether et al., 2009), we examine the ratio of daily short-sale volume to daily trade volume. In order to test whether short sellers acquire the negative information contained in the upcoming dividend, we partition the data into dividend decreases (negative news) and dividend increases (positive news). We conjecture that abnormal high (low) short selling will occur prior to dividend decreases (increases). However, we find little evidence supporting our contention. The lack of abnormal short selling prior to dividend decreases suggests that either short sellers are not informed about unfavorable dividend announcements, or dividend announcements do not contain information about future firm performance (Gonedes, 1978; Benartzi et al., 1997) and therefore do not provide a profitable trading opportunity for short sellers.

To further determine whether short sellers are uninformed or dividends are uninformative, we test whether short sellers' ability to predict negative returns is enhanced during the pre-announcement period. We find that the common negative relation between current short selling and future returns during the pre-announcement period for unfavorable dividend announcements is statistically similar to negative relation during non-event times. This result suggests that unfavorable dividend announcements do not present unusually high profitable trading opportunities for short sellers.[5] Therefore, our results support the argument that dividend announcements do not provide important short-term information to short sellers about future firm performance.

Next, we examine trading around the ex-dividend day and find abnormally low short-selling activity in the days prior to the ex-dividend day contradicting the argument in Koski and Scruggs' (1998) that some short sellers anticipate that the difference between the stock price cum-dividend and the price ex-dividend will be greater than the amount of the dividend plus any additional transaction costs. In unreported tests, we do observe that daily short volume scaled by shares outstanding instead of daily trade volume is abnormally high prior to the ex-dividend day. However, the ratio of short volume relative to total trade volume is abnormal low prior to the ex-dividend day. Interestingly, we find abnormal short selling on and the few days after the ex-dividend day. This result is driven by stocks with larger dividend yields indicating that short sellers seek to attenuate the downward price drift after the ex-dividend day (Lakonishok and Vermaelen, 1986). In addition, we test whether short selling around the ex-dividend day is better at predicting negative returns than short selling during non-event time periods. Our multivariate results show that the negative relation between current short selling and future returns is stronger around the ex-dividend day than during non-event days. The observed negative relation is also strengthened by the size of the dividend yield, which is consistent with the notion that short sellers target stocks that experience the most pronounce ex-dividend return pattern documented in Lakonishok and Vermaelen (1986).

The main contributions of this study are threefold. First, we provide new evidence showing relatively normal levels of shorting activity prior to unfavorable dividend announcements. This result is inconsistent with the proposal of Christophe et al. (2004) who

[2] See Allen and Michaely (2003).

[3] Fama and French (1998) find that dividends are informative. Similarly, Amihud and Murgia (1997) find that stock price reactions to dividends in Germany, a country where dividends are not tax-disadvantaged, are informative. Brav et al. (2005)) find that managers believe dividends do contain information but are not signaling in nature.

[4] Given the tax law change in 2003, dividends are taxed at the same rate as capital gains (investors "must have held the stock for more than 60 days during the 121-day period that begins 60 days before the ex-dividend date," (IRS Publication 550)) thus reducing the desire by investors to reduce their tax liability and sell shares prior to the ex-dividend date and repurchase them after the ex-dividend date. The dividend capture strategy suggests that traders will buy the stock cum-dividend and sell the stock ex-dividend in attempt to capture the dividend income.

[5] Engelberg et al. (2010)) find evidence that short sellers' return predictability is driven by short selling after negative news events. Observing that shorting prior to dividend decrease announcements does not enhance the return predictability of short sellers' is partially consistent with the idea in Engelberg et al. (2010)) that short sellers are more reactive than proactive.