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Market conditions, governance and the information content of insider trades ☆

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ABSTRACT

We examine the information content of Form-4 filings following extreme market downturns in the pre and post-Sarbanes–Oxley-Act (SOX) periods. We find that the announcement period abnormal returns under extreme market conditions are larger and this effect is stronger in the more tighter disclosure rules in the post-SOX period. Insider rank, corporate governance and proxies for information asymmetry are significantly related to the abnormal returns around the filing date. Overall, our results show that the more timely filing requirement introduced by SOX has been particularly beneficial for investors in firms with higher levels of information asymmetry, poor governance and during market downturns.

1. Introduction

Insider trades can be a valuable source of firm-specific information for investors. Previous research has documented significant stock price effects around the disclosure of such trades (Jaffe, 1974; Lakonishok & Lee, 2001; Rozeff & Zaman, 1988; Seyhun, 1986) and more timely SEC filings in general (Balsam & Paek, 2001; Carter & Soo, 1999).[2] The Sarbanes–Oxley Act[3] (SOX), which was passed by the U.S. Congress in 2002, brought sweeping changes to the disclosure requirements related to trading by corporate insiders, corporate governance standards and reporting requirements for publicly traded corporations. Section 403 of SOX now specifically requires insiders to submit information about their trading activities (purchase or sale) with the Security Exchange Commission (SEC) within two business days of the transaction date. Prior to SOX, trades could be reported anytime up to within ten days after the close of the calendar month in which the transaction occurred.

Brochet (2010) has examined the information content of insider trade filings in the pre- and post-SOX periods and finds a significant increase in the information content of insider trades, more so for purchases than sales. This asymmetry in the information content between purchases and sales, the author notes, is likely driven by the greater litigation risk associated with sales transactions based on private

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2 Corporate insiders have been found to trade their company's shares around important events. For example, Seyhun (1990a) finds that bidder managers increase their net purchases prior to a takeover, Lee et al. (1992) document trading by managers prior to stock repurchases and Seyhun and Bradley (1997) show that sales by insiders increase prior to filing a bankruptcy petition.

3 The Act included provisions to promote independent auditing, increase executive responsibility of financial reporting, and improved internal control system. SOX addresses the issue of insider trading in Section 403, which amends Section 16(b) of the Securities Exchange Act of 1934 by requiring insiders to report their trades on Form 4 to the Securities and Exchange Commission (SEC) within two business days after the insider trade takes place. Section 403 of SOX requires insiders' trades to be filed on a much timelier basis (as of August 29, 2002; the Act was passed on July 30, 2002) and mandates electronic filing (as of June 30, 2003).

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information. He documents reduced selling activity by insiders prior to impending negative news in the post-SOX period.[4]

The Act also introduced significant changes in governance standards by addressing issues related to corporate boards, executive compensation and company anti-trust provisions. Chhaochharia and Grinstein (2007) report significant improvement in firm value for firms that were less compliant with the stricter corporate governance standards of SOX prior to 2002. Better governance is generally associated with low information asymmetry. Together with a more timely disclosure regime after SOX, better governance quality should add to the information content of insider trades.

Previous research also shows that adverse market conditions can affect insider trading activity. Seyhun (1990) finds that the 1987 market crash affected the trading behavior of corporate insiders who ended up buying significant amounts of stock in their firms following the crash. Stocks that were bought more by insiders showed greater returns in the post-crash period. In addition, the SEC has become more vigilant following a market crisis. For example, the number of litigations filed in the post-1987-crash period increased significantly. Information content of insider trades is, thus, also expected to be affected by existing market conditions.

In this paper, we extend Brochet's study by examining the information content of insider trades around extreme stock market conditions. We do this under two different regulatory regimes: pre-SOX and post-SOX. Two distinct extreme market downturns occurred around SOX: the IT Bubble in 2000 that preceded the Act and the Credit Crunch of 2008 that followed it. This setting provides us with an excellent opportunity to study how extreme adverse market conditions under two distinctly different regulatory regimes with differing governance and disclosure standards can affect the information in security prices around the trading activity of the firm's insiders. [5]

Although investments should, in principle, be guided by rationally analyzing available information, research shows that in bear markets in particular, investors are more nervous, cautious and prone to be driven emotionally in their investment decisions (Caplin & Leahy, 1994). Investors also tend to overreact to bad news compared to good news (Barberis, Shleifer, & Vishny, 1998). In a survey following the stock market crash of 1987, Shiller (1987) finds that investor psychology rather than economic fundamentals played an important role in their buy/sell decisions around the crash. Zouaoui, Nouyrigat, and Beer (2011) report that investor sentiment increases with stock market crises. To deal with the increased uncertainty surrounding extreme adverse market conditions, investors are likely to seek more firm-specific information. Filings of insider trades can be a particularly useful source of such information, given the paucity of reliable information available in a volatile market environment.[6] In addition, a stricter regulatory environment is expected to positively impact the informativeness of filings of corporate insider transactions as recent evidence shows (Brochet, 2010). We, therefore, expect that during an extreme market downturn in a stricter regulatory regime, the information content of insider trade filings to be most pronounced, holding all else constant.

We study the information content of Form 4 (the form) filings by insiders in distinctly different regulatory periods that have different governance and disclosure standards and around specific extreme market downturns in these periods. Specifically, these periods are defined by SOX. Additionally, we also examine if the information contained in these filings is related to the rank of the insider.[7] Consistent with Brochet (2010), we find that stock returns are more positive (negative) for purchases (sales) in the post-SOX period. In the pre-SOX period, corporate insiders had up to 40 days to file their transaction. We observe that the shorter the interval between the transaction and the filing, the stronger the market reaction both for purchases and sales. Furthermore, in the pre-SOX period, most transactions are reported with a lag of 20 days or more. Our results also show that the market reaction has become progressively more positive (negative) from the pre-IT Bubble pre-SOX period to the post-Credit Crunch post-SOX period for purchases (sales). Our findings show that filings of corporate insider trades are more informative in extreme market downturns, and this result holds under different regulatory regimes.

In the pre-SOX period, returns are significantly more positive (negative) between the pre- and post-IT Bubble periods for purchases (sales). Similarly, in the post-SOX period, the returns are significantly different between the pre- and post-Credit Crunch periods. We also find that firms with greater information asymmetry (higher R&D spending for example) experience stronger market reaction around the filing date. Consistent with previous research, we note that the rank of the insider is significantly related to the abnormal returns around the filing for both purchases and sales. Finally, using both the Bebchuk, Cohen, and Ferrell (2009) and Gompers, Ishii, and Metrick (2003) governance indices, we observe that the returns are more positive (negative) for purchases (sales) for poorly governed firms compared to firms with good governance structures both in the pre- and post-SOX periods, with the results being stronger in the post-SOX period. Investors in firms with poor governance structures are expected to benefit more from the tighter disclosure rules on insider trades introduced by SOX, and our results show that this is indeed the case.

The remainder of the paper is organized as follows: Section 2 provides a survey of existing work on the insider trading disclosure regulation and on the existing theoretical and empirical literature; Section 3 describes the data and research methodology; Section 4 discusses the sample and the empirical results; Section 5 concludes the study.

2. Previous research on insider trading

The SEC regulates insider trading in the United States. Directors, officers, and principal stockholders (with a stake of 10% or more) have to report most changes in their beneficial ownership to the SEC. Until the passage of SOX, reporting requirements were defined by Section 16(b) of the Securities Exchange Act of 1934, and consisted of filing Form 4 with the SEC within ten days after the close of the calendar month during which the transaction had occurred. This could mean a delay of potentially up to 40 days. Section 403 of SOX amends this provision as of August 29, 2002 by requiring insiders to file the Form 4 with the SEC within two business days of the transaction date. In addition, the new regulations made electronic filings mandatory starting from June 30, 2003.

Agrawal and Jaffe (1995) analyze the pre-merger trades by top management between 1941 and 1961 and find that managers' purchases drop significantly before the announcement of a merger due to the short-swing rule. Jorion, Liu, and Shi (2005) analyze the impact of Regulation Fair Disclosure of 2000 on credit ratings and note that the information effect of insider filings increased. Recently, Brochet (2010) analyzes the information content of insider trades between 1997 and 2006 and finds that it has improved, more so for purchases compared to sales, since the passage of SOX. The author notes that litigation risk associated with sales can explain the differential reactions to purchase

[4] Regulation Fair Disclosure (Reg. FD) of 2000 was also introduced to improve the information environment for investors. Jorion et al. (2005) examine the effect of credit rating changes on stock prices between pre- and post-Reg. FD and find that the information effect is higher in the post Reg. FD period. Sundar (2002) also finds that Reg FD had a stronger impact on firms with high information asymmetry.

[5] It is worth noting that most major regulations have been enacted following market downturns. For e.g., the SEC was itself created after the market crash in the 1930s, Insider Trading Sanctions Act (ITSA) in 1982 and now more recently SOX in 2002.

[6] DeBondt and Thaler (1990) find that professional security analysts are also prone to overreacting when generating longer term earning forecasts, even under normal market conditions.

[7] In most studies, 'insiders' are defined as directors, officers and beneficial owners of more than 10%, who are subject to the filing requirements with the SEC. In this study, we specifically identify the rank of the insider. Rank1 represents top executives like Chairman, CEO, President, COO, and CFO, while all other insiders are categorized as Rank2.