Information leakage in family firms: Evidence from short selling around insider sales

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ABSTRACT

Using a novel insider trading and short selling dataset from the Hong Kong Stock Exchange (HKEx), we investigate potential information leakage from corporate insiders to short sellers, particularly in family firms. Even without the presence of market makers in the HKEx, we document a significant increase in short selling volume before insider trades are released to the public. The non-monotonic relationship between the short selling intensity and family control contributes to the debate on whether family presence facilitates or limits information leakage. In addition, trading by non-family insiders is more likely to convey private information, as compared to family insiders.

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1. Introduction

Information leakage, where material and non-public information is selectively revealed to a group of investors, is common in capital markets. This largely explains abnormal market reactions such as abnormal institutional trading, short selling and option trading ahead of earnings surprises, analyst recommendations, and other major corporate events (e.g., Christophe et al., 2004, 2010; Irvine et al., 2007; Hao, 2016). However, it is difficult to clearly identify the sources of information leakage in major capital markets such as the US, due to the involvement of both investors placing their trades and financial intermediaries executing the trades.

Brokerages, as financial intermediaries handling the trades, are in a privileged position to access non-public trading information given their ability to observe both the size and directions of order flow before trade execution. Following trade execution, a delay is allowed before reporting the trade to the public, offering them a further opportunity to tip information. For instance, the US Securities and Exchange Commission (SEC) charged Merrill Lynch a $7 million penalty for its inadequate policies and procedures for

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1 According to the SEC, trade execution is not instantaneous. SEC regulations do not require a trade to be executed within a set period of time. But if firms advertise their speed of execution, they must not exaggerate or fail to tell investors about the possibility of significant delays. https://www.sec.gov/reportspubs/investor-publications/investorpubstradeexechtm.html.

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controlling the access to institutional customer order flow. The confidential information in “squawk boxes,” which are internal intercom systems used by broker-dealers to broadcast institutional customer order information, was leaked to day traders in other firms who then traded ahead of the orders placed by Merrill Lynch’s customers (SEC, 2009).

Corporate insiders are another source of private information leakage given their in-depth knowledge of the firm. Market regulators are trying to limit insiders’ scope to leak non-public and material information. For example, the SEC has run a series of campaigns against the rise of so-called “expert networks”; in which corporate insiders are hired as expert consultants from $300 to $1000 an hour to speak confidentially to hedge fund managers. That expertise, however, can sometimes cross the line into material and non-public information (e.g., Zuckerman and Pulliam, 2010; Thompson, 2013).

Given the difficulties in isolating these two potential channels, and given that the literature mainly points to the leakage from financial intermediaries (e.g., Khan and Lu, 2013; Chakrabarty and Shkilko, 2013; McNally et al., 2017), it is worthwhile seeking a unique setting in which only one channel (corporate insiders) exists. This specific channel needs to be better understood. Thus, in this paper, we investigate whether information leakage still exists in a market without the presence of financial intermediaries to identify the leakage from corporate insiders, particularly insiders from family firms. Our study offers insight into the internal governance of corporate insiders, especially for family firms where external discipline is difficult to implement.

We base our study on the Hong Kong Stock Exchange (HKEx). Unlike the US stock market, which is facilitated by dealers/market makers, the HKEx is a pure order-driven system, standing out as an ideal representative for trading mechanisms without market makers. In addition, the HKEx is a global financial hub with sophisticated investors, such as short sellers. The presence and engagement of short sellers can facilitate our identification of abnormal market reactions as they are more likely to be better informed than average investors (e.g., Boehmer et al., 2008; Christophe et al., 2004, 2010; Karpoff and Lou, 2010; Engberg et al., 2012). Furthermore, a significant number of Hong Kong firms are family owned and controlled (Claessens et al., 2000; Jaggi et al., 2009). The 10 most prominent families in Hong Kong control around 32.1% of all corporate assets (Tsui and Stott, 2004) and approximately half of Hong Kong’s firms are family controlled (Jaggi et al., 2009).

Specifically, we study potential information leakage from corporate insiders to short sellers by examining abnormal short sales around insider transactions. Our results suggest that short sellers initiate their short positions before insider sales are publicly reported (i.e., ahead of average investors), indicating the potential for information leakage. Interestingly, in family controlled firms, the intensity of short selling exhibits a non-monotonic function of family control rights: it increases with family control in general, but weakens for firms with higher levels of family control. After distinguishing insider sales placed by family members from those placed by non-family insiders, we find that transactions by non-family insiders trigger larger abnormal short sales than those by family insiders. Furthermore, following Cohen et al. (2012), we conduct a sub-sample analysis by distinguishing between routine and opportunistic insider trades, as opportunistic ones are more likely to result from private information. We find greater abnormal short selling volume for opportunistic trades for weakly controlled family firms and by non-family insiders.

Our study makes several contributions to the literature. First, we study information leakage under a trading system that is fundamentally different from that the ones prevailing in the US. Trading systems with financial intermediaries acting as market markers assure liquidity and facilitate price discovery, yet pay a price of lower transparency compared to a pure order-driven system (e.g., Madhavan, 1992; Pagano and Roell, 1996; Malinova and Park, 2013). Recent studies in the US (e.g., Khan and Lu, 2013; Chakrabarty and Shkilko, 2013; McNally et al., 2017) show that short sellers can obtain private price-relevant information from brokerages who execute insider sales. This indicates that the involvement of market makers could undermine market fairness through leaking private information, resulting in wealth transfers among investors.

Second, our study suggests that the insider channel for information leakage should not be neglected. Although Anderson et al. (2012) highlight that corporate insiders in family firms can be motivated to engage in informed trading, which helps explain the abnormal short sales around negative earnings surprises, they are not able to present direct evidence as their dataset does not flag insider trades. Our data allows us to identify each corporate insider through monitoring their trades. We, thus, provide direct evidence that private information leakage can originate from the investors making the trading (i.e., corporate insiders). Understanding this channel emphasizes the need to focus on the underlying governance of a firm, rather than simply building a Chinese Wall such as the Regulation Fair Disclosure when regulating insider trading.

Finally, prior literature on informed trading in family firms (e.g., Chan et al., 2010; Anderson et al., 2012) focuses mainly on the contrast between family and non-family firms. It overlooks the stark heterogeneity in that family ownership and control vary substantially across family firms. The significant variations in family control and involvement in Hong Kong provide us with a rare opportunity. Given these features, we explore whether the desire of a controlling family to limit information leakage can be moderated by its relative control over the firm and document a non-monotonic relationship between family control and the intensity of information leakage. Furthermore, the literature on potential conflicts between the controlling family and non-family employees (e.g., Pérez-González, 2006; Bennedsen et al., 2007; Bertrand et al., 2008) calls for compelling empirical evidence. Our data enables us to locate each insider’s identity. This helps us examine whether the affiliation to the family influences their likelihood of leaking information, thus explicitly manifesting the potential conflicts of interest.

2 The experts can be company executives, directors and professionals (e.g., doctors, engineers and technology experts).

3 Family firms dominate economic activities around the world, controlling about one-third of the S&P 500 firms in the US and over two-thirds of the firms in East Asia and Europe (Stiefler and Vishny, 1986; Claessens et al., 2000; Faccio and Lang, 2002; Anderson and Reeb, 2003; Anderson et al., 2009, 2012). Also, prior literature illustrates that family insiders are well informed, as a result of their dominant control over the firm (e.g., Ali et al., 2007; Chen et al., 2008; Anderson et al., 2009).

4 According to summary statistics, family voting rights vary from 30% to 80%, and family board seats vary from 0 to 7 among family firms.
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