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Adverse selection and corporate governance☆

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ABSTRACT

This paper examines the impact of corporate governance on the adverse selection component of the bid-ask spread of stocks listed on the Singapore Exchange. These companies have been identified by Credit Lyonnais Securities Asia (CSLA) with the highest level of corporate governance among 25 emerging markets. We measure corporate governance by several criteria: discipline, transparency, independence, accountability, responsibilities, fairness, and social awareness. The results show that corporate governance has an inverse relationship with adverse selection. However, only the transparency dimension exhibits a significant inverse relationship with adverse selection. In addition, Government-Linked Companies (GLCs) are shown to have a smaller adverse selection component than non-GLCs.

1. Introduction

Finance theory and empirical findings suggest that the bid-ask spread can be partitioned into three components: order processing, inventory holding, and adverse selection (e.g., Glosten & Harris, 1988; Huang & Stoll, 1997). Early spread decomposition studies focused on theoretical and econometric issues. Subsequent studies estimate spread components and identify relations among the individual components and firm-specific attributes such as trading volume, trade size, and market capitalization. However, few studies have investigated the relationship between a stock's adverse selection component and the firm's corporate governance. This article adds to the literature by estimating the bid-ask spread components of public-listed firms in Singapore and providing analyses on how the quality of corporate governance affects the adverse selection component.

Bid-ask spread theories are largely based on the notion of an intermediary or market maker who must cover three trading-related costs. Demsetz (1968) and Tinic (1972) argue that spreads arise to compensate market makers for carrying and managing inventories to meet the requirements of investors who demand immediacy. This is known as the *order processing cost*. Amihud and Mendelson (1980) and O'Hara and Oldfield (1986), among others, formally model the inventory cost component of spreads. Bagehot (1971) suggests that market makers lose when they transact with traders possessing superior information. This encourages the modeling of the asymmetric information cost component by Copeland and Galai (1983) and Glosten and Milgrom (1985), who propose that market makers must charge a price to cover the possibility that they might be trading against informed traders.

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We decompose the bid-ask spread into adverse selection, order processing, and order persistence components using the Lin, Sanger, and Booth (1995) methodology, and adverse selection, order processing and inventory holding components using the Huang and Stoll (1997) methodology. Spread components are estimated for a sample of 37 firms using a total of 1,565,343 observations from October 4, 2002 to October 31, 2003. When a regression of the adverse selection component is run against the corporate governance criteria ratings from CLSA (2001), the results show that corporate transparency exhibits a significant inverse relationship with adverse selection. In addition, we find that Government-Linked Companies (GLCs) have a lower adverse selection component and higher corporate governance ratings compared to non-GLCs.

The rest of the paper is organized as follows. Section 2 reviews the pertinent research and Section 3 discusses the development of corporate governance in Singapore. Section 4 presents the institutional background of the Singapore Exchange. Section 5 describes the sample selection procedure and details the research methodology. Our empirical findings are presented in Sections 6 and 7 concludes.

2. Literature review

2.1. Bid ask spread and its decomposition

Current market microstructure theory is largely developed within the framework of quote-driven dealer markets. Within this context, Huang and Stoll (1997) estimate spread components using a two-way and three-way decomposition approach. Their data are taken from 19 large and actively traded stocks on the NYSE. However, bid-ask spread is not unique to quote-driven dealer markets. Cohen, Maier, Schwartz, and Whitcomb (1981) establish the existence of the bid-ask spread in a limit order market when investors face transaction costs of assessing information, monitoring market, and conveying orders to the market. Glosten (1994) shows that the limit-order market will have a positive bid-ask spread arising from the possibility of trading on private information.

In an order-driven market, limit order traders supply liquidity just like market makers in quote-driven markets. However, the main difference between the two is that limit order traders do not need to make a fair and orderly market. Hence, it is plausible to consider that there are no inventory costs in an order-driven market. Order persistence can be thought of as forming the third component. According to Hasbrouck (1991), order persistence is the bid-ask spread component that describes the phenomenon that buy (sell) orders tend to follow buy (sell) orders. Brockman and Chung (1999) investigate the bid-ask spread components in an order-driven market based on a sample of 6,084,811 observations from the Stock Exchange of Hong Kong. They estimate a median adverse selection component of 33%, a median order processing component of 45%, and a median order persistence component of 22% of the spread.

2.2. Adverse selection and corporate governance

The issue of corporate governance has received wide attention and press coverage in recent years. Nonetheless, the term itself lacks a clear definition. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000) define it as a set of mechanisms which protect outside investors against expropriation by corporate insiders. The Corporate Governance Committee of Singapore (2001), hereafter CGC, defines corporate governance as the processes and structures by which the businesses and affairs of the company are directed and managed in order to enhance long term shareholders' value through improving corporate performance and accountability, while taking into account the interests of other stakeholders.

Various types of governance mechanisms have been widely documented in the corporate governance literature. These mechanisms can be categorized into those that are firm specific or those that are country specific. Country specific mechanisms comprise of the legal environment, cultural environment, accounting standard setting, and accounting practice. Firm specific mechanisms include ownership structure, board composition, and competition for corporate control.

Few studies conclusively identify the relationship between adverse selection and corporate governance. Relevant studies have found that firm-specific corporate governance mechanisms affect the level of voluntary disclosures. In turn, the level of voluntary disclosures should determine the adverse selection component of stocks. The prior literature indicates that an increase in insider ownership would increase the adverse selection component. Jensen (1993) suggests that managerial shareholdings act as a corporate governance mechanism by aligning the interests of managers with shareholders. Sarin, Karen, & Kuldeep (2000) propose that firms with larger insider holdings face higher adverse selection costs. This is because higher managerial ownership may increase the probability of insider trades and, since insiders are expected to be informed, market makers would incorporate a larger adverse selection component into the bid-ask spread. Chung and Charoenwong (1998) report that market specialists maintain larger spreads for stocks with a greater extent of insider trading and when transactions are large.

In a related study, Krishnamurti and Thong (2008) find that decreases in bid-ask spreads due to lockup expirations in IPOs are due primarily to the reduction in the adverse selection component of spreads. Contrary to their expectations, they find that a reduction in the adverse selection component is associated with an increase in insider selling. Such a finding can be explained if corporate insiders trade in a transparent manner that is in line with good corporate governance.

Institutional owners generally refer to related companies, banks, statutory boards or the government. In Singapore, when government shareholdings of a firm equal or exceed 20%, such firms are referred to as Government-Linked Companies (GLCs). Shleifer and Vishny (1986), Admati, Pfleiderer, and Zechner (1993), and Noe (1997) argue that institutional ownership acts as a