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A dynamic estimation of governance structures and financial performance for Singaporean companies

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ABSTRACT

In this study, a sample of 257 Singaporean domiciled non-financial listed companies is investigated using a system generalised method of moments (system GMM) estimator. This approach allows for controlling the potential sources of endogeneity which are inherent in the performance–governance relationship. Our findings strongly support the proposition that the relationship between corporate governance structures and firm performance is dynamic by nature. Moreover, our results show that the internal corporate governance structures do matter in Singapore, where the market for corporate control is relatively poor. This study is novel as it is the first to explore the corporate governance–firm performance nexus using a dynamic approach for the Singapore market. This study significantly contributes to a better understanding of international diversity on corporate governance by providing further empirical evidence from an emerging market characterised by the best corporate governance practices in the Asian region.

1. Introduction

One of the biggest challenges in corporate governance empirical studies is how to deal with the endogeneity of corporate governance variables. It is well documented in the corporate governance literature that endogeneity problems may arise from two main sources: (i) unobservable characteristics across companies, and (ii) simultaneity. However, theoretical studies by Harris and Raviv (2008); Hermalin and Weisbach (1998), and Raheja (2005), among others, imply that the relationship between corporate governance and firm performance is dynamic in nature. The dynamic nature of this relationship suggests that corporates' contemporaneous performance and governance characteristics are influenced by their past financial performance. In other words, there is another potential source of endogeneity in the corporate governance–performance nexus, namely dynamic endogeneity (Wintoki et al., 2012). Empirically, the study undertaken by Wintoki et al. (2012) for the US market confirms that the dynamic relationship between current governance and past firm performance does exist. This also implies that if the dynamic endogeneity problem is not fully controlled, it is impossible to make causal interpretation from the econometric estimations. Taking the dynamic endogeneity problem into consideration, Wintoki et al. (2012) suggest that the internal corporate governance structures have no significant impact on firm performance, and the causal relationships uncovered by previous studies using traditional ordinary least squares (OLS) or fixed-effects estimations are spurious.

It is noteworthy that such a suggestion is drawn from an institutional context where the market for corporate control operates well. In cases where internal corporate governance structures do not have impact on firm performance, we may expect that the markets for corporate control, such as takeover markets, will play a compensatory role as the external governance mechanism for monitoring managerial behaviour. This has potential to mitigate agency problems and ultimately lead to better performance. However, it is not clear whether the findings of Wintoki et al. (2012) can be generalised in the context of Asia where the market for corporate control is generally not an effective external corporate governance mechanism. In other words, when dynamic endogeneity is taken into account, we ask whether the internal corporate governance structures impact on the financial performance of firms in Asian markets characterised by ineffective markets for corporate control.

As a robustness measure, this study aims to re-examine the corporate governance–performance nexus of Singaporean publicly listed companies in order to address the above research question. The Singapore

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market provides a perfect platform to undertake this study for at least two important reasons. First, while Singapore is widely-known for its good corporate governance system which matches the similar standard of mature markets such as Australia and the US (see Background section for details), it is evident that Singapore has a weak market for corporate control which is typical for Asian markets (Mak, 2007; Mak and Li, 2001; Phan and Yoshikawa, 2004; Witt, 2012). Second, corporate governance practices in Singapore are based on the principle-based approach which is heavily borrowed from Western jurisdictions. Together, these unique institutional characteristics facilitate comparing our findings with those from Australian and US markets and addressing the question regarding the role of internal corporate governance structures in determining performance in the Singaporean context.

To the best of our knowledge, the work of Mak and Kusnadi (2005) is the only empirical study focussing on the corporate governance–firm performance relationship in Singapore. Our study differs from theirs in the way we deal with the endogeneity problems. Specifically, we re-examine the corporate governance–firm performance relationship in a dynamic framework by using the system GMM estimator. This panel-data approach improves on traditional pooled OLS and fixed-effects estimations used by previous studies when controlling for potential sources of endogeneity.

Interestingly, contrary to the findings of Wintoki et al. (2012), among others, our study finds that the significant effects of board structures and ownership structure on performance in Singapore remain valid even after controlling for unobserved heterogeneity, dynamic endogeneity, and simultaneity. Our finding therefore supports the view of Yabei and Izumida (2008) that in the absence of effective markets for corporate control, corporate governance structures appear to play a considerably important role in disciplining management and determining performance. Our study significantly contributes to the extant non-US literature on corporate governance by providing further empirical evidence from an emerging market characterised by the best corporate governance practices in the Asian region.

The rest of this paper is organised as follows. First, we briefly discuss the background of corporate governance practices in Singapore. Second, we provide a review of the relevant literature to develop our research hypotheses. Data, data sources, and method are described next. We finally present the empirical results and conclude the paper with the discussion and limitations of the study.

2. Background

Singapore is recognised as having the best corporate governance system in the Asian region (CLSA, 2010). In fact, Singapore has the highest average country score of corporate governance when compared with the rest of the Association of Southeast Asian Nations (ASEAN) region (Chuanrommanee and Swierczek, 2007). Furthermore, a recent survey undertaken by CLSA (2012) shows that corporate governance practices in Singapore achieve top ranking across Asia. Although the legal and corporate governance system of Singapore has been borrowed from Western jurisdictions, there remain some important differences regarding the institutional environment between Singapore and developed Western countries, including:

(i) There is a high concentration of ownership in Singapore (Kimber et al., 2005; Mak and Li, 2001; Witt, 2012), but the rights of minority shareholders are still well protected (Witt, 2012; World Bank, 2013).

(ii) Singapore has a weak market for corporate control (Mak and Li, 2001). It is reported that although friendly mergers sometimes happen, the takeover market is generally inactive in Singapore (Mak, 2007; Mak and Li, 2001; Phan and Yoshikawa, 2004; Witt, 2012). Therefore, unlike the US and the UK, the market for corporate control in Singapore is not an effective external corporate governance mechanism.

(iii) The Singaporean government plays the role of a significant block holder in the business sector (Ang and Ding, 2006; Kimber et al., 2005; Mak, 2007; Witt, 2012).

The Code of Corporate Governance, first promulgated by the Singapore Corporate Governance Committee in 2001, was reviewed in 2005 and became effective from 2007 (hereafter referred to as the Singaporean Code). The Singaporean Code adopts the principle-based approach (also known as 'comply or explain' approach) to develop corporate governance practices. Therefore, compliance with the Singaporean Code is voluntary. The Singapore Exchange Limited (SGX), the regulatory body for publicly listed companies in Singapore, provides two types of exchange market with different listing requirements, namely *Mainboard* and *Catalist*. Under the Singapore Exchange Listing Rules, listed firms are required to disclose their corporate governance practices and explain non-compliance in their annual reports.

3. Literature review and hypothesis development

This section reviews the theoretical and empirical literature of the corporate governance–performance nexus to develop appropriate research hypotheses for the current study. Agency theory is the predominant theoretical approach in corporate governance studies (Daily et al., 2003; Shleifer and Vishny, 1997). Nevertheless, alternative approaches have been considered in prior research. Eisenhardt (1989) suggests that agency theory depicts only a part of the complicated picture of an organisation. Moreover, agency theory insufficiently presents corporate governance practices in all analytical contexts due to cross-national differences in institutional characteristics (Young et al., 2008). Resource dependence theory, meanwhile, is probably more appropriate for explaining board functions in East Asian companies (see Young et al., 2001 for detail). Following a similar line of argument, Hillman and Dalziel (2003) and Nicholson and Kiel (2007) among others suggest that agency theory should be complemented by resource dependence theory in studies on corporate governance. Therefore, the hypotheses for this study are framed from the combined perspective of both agency theory and resource dependence theory which provides for a breadth of explanatory variables. In addition, we also consider prior empirical evidence in order to adjust our hypotheses to the Singaporean context.

Both agency theory and resource dependence theory predict a positive relationship between board diversity and firm performance. According to agency theory, boards with greater diversity are more independent (Jensen and Meckling, 1976). More independent boards, in turn, may better monitor managerial behaviour, resulting in higher firm performance (Muth and Donaldson, 1998). According to resource dependence theory, increasing the diversity of corporate boards helps to ensure the security of firms' vital resources, and facilitates the connection between companies and their external environment, including prestige and legitimacy (Goodstein et al., 1994; Pfeffer, 1973). Therefore, it can be tested empirically whether board diversity (especially gender diversity) has potential to improve the efficiency of boards' decision-making processes, thus leading to improved firm performance (Rose, 2007).

However, empirical studies on this relationship, predominantly conducted in the US market, provide inconclusive results. Some (e.g., Campbell and Mínguez-Vera, 2008; Dezsö and Ross, 2012; Erhardt et al., 2003) have reported that the relationship is positive; some (e.g., Adams and Ferreira, 2009; Ahern and Dittmar, 2012) have reported that the relationship is negative; while others (e.g., Carter et al., 2010; Rose, 2007) show no significant relationship at all. Importantly, Farrell and Hersch (2005) suggest that females have a tendency to work for better-performing companies. If that is the case, gender diversity should be considered to be endogenously determined in research on the relationship between gender diversity and firm performance. Indeed, recent studies by Adams and Ferreira (2009), Carter et al. (2010), and Dezsö and Ross (2012) among others argue that