The Effects of Corporate Governance and Institutional Environments on Export Behaviour: Evidence from Chinese Listed Firms

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Abstract

- The impact of corporate governance on export decisions is an important yet under-explored research issue. This paper examines this issue with respect to Chinese listed firms. We adopt an analytical framework in which the effects of corporate governance on export decisions are associated with institutional environment. We test several hypotheses derived from this framework.

Key Results

- The sample firm's export propensity and export intensity are found to be positively impacted by CEO ownership share and independent director ratio, and negatively impacted by private/family control.

- The export-promoting effects of CEO ownership share and independent director ratio are found to be positively moderated by a well-established institutional environment.

Key Words

Corporate Governance, Export Behaviour, Institutions, Chinese Listed Firms

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Introduction

Corporate governance has attracted research attention in a wide variety of disciplines. In the field of management, research on corporate governance has grown rapidly and is considered of great potential (Daily et al. 2003, Williamson 1999). Despite the rapid growth of the literature on corporate governance, there has been relatively little work on how corporate governance impacts upon firms' internationalisation decisions. Among the few exceptions, Filatotchev/Dyomina/Wright/Buck (2001) investigated the effects of corporate governance on the export decisions of firms in transition economies within the former Soviet Union (FSU), while Filatotchev/Strange/Piesse/Lien (2007) studied the effects of corporate governance on the foreign direct investment (FDI) decisions of firms in newly industrialized economies. The findings of these studies highlight the important role of corporate governance in the internationalisation decisions of firms in transition economies and newly industrialized economies.

This paper examines the impact of corporate governance factors on export decisions using a sample of 779 manufacturing firms listed on China's stock markets for the period of 2002-2005. China provides an excellent opportunity for an investigation into the impact of corporate governance and institutions on the export decisions of firms in emerging markets. First, with China's WTO entry in 2001, Chinese firms have entered a new era of international competition. Our sample period corresponds to this post-WTO period in which internationalisation has become an important strategic consideration on the agenda of many Chinese companies. Second, China has adopted corporate governance concepts from the U.S. and other developed economies during its reform process. However, the effectiveness of these borrowed "best practices", especially their effects on firm export behaviour, has not been fully studied (Clarke 2006). Third, the gradual reform process in China has created uneven institutional environments across its different regions. In emerging economies, institutions play a pivotal role in firms' strategic decisions (Hoskisson et al. 2000, Wright et al. 2005). However, studies about the effects of institutions on the internationalisation decisions of firms are relatively limited. In particular, there is a lack of research into the moderating effect of institutional environments on corporate governance in terms of internationalisation strategies in the context of emerging economies.

Our paper makes a number of contributions. First, we develop several hypotheses that look into how various corporate governance factors affect export decisions and performance. Specifically, we examine the impact of CEO equity ownership, board composition and ownership structure on the internationalisation of firms in an emerging economy. By incorporating a wide range of corporate governance factors into our study, we are able to provide a better understanding of the links between the detailed characters of corporate governance and internationalisation.

Second, we examine the role of corporate governance in export behaviour in the broad context of China's marketisation and privatisation. This distinguishes our research from existing studies by putting an emphasis on how dynamic changes in institutional environment moderate the effectiveness of corporate governance in an emerging economy. In addition, our study within the context of emerging economies provides a different perspective from those in developed countries, which generates useful contributions to the international business literature (Filatotchev et al. 2001). Hence, by studying the impact of corporate governance on the export decisions of Chinese firms located in regions with different institutional environments, we contribute to the literature by improving our understanding of, and gaining new insights into, how corporate governance interacts with institutional development in influencing the export decisions of firms.

Literature and Hypotheses

Export Behaviour

Exporting is an important activity and often the first stage of internationalisation for firms from emerging economies (Pan/Tse 2000). Exporting is also an important channel to improve firm innovation and productivity (Liu/Buck 2007, Wei/Liu 2006). Exporting plays crucial roles in the world economy. According to the *World Trade Report*, world merchandise exports in 2006 rose by 15.4 per cent to $11.76 trillion, while China's merchandise export expansion remained outstandingly strong. For Chinese firms, exporting has been the most important internationalisation decision as administrative controls on overseas direct investment by Chinese firms have only recently been relaxed (Buckley et al. 2007).

Despite its importance for firm growth, exporting is a relatively rare firm activity. Bernard et al. (2007) found that of the 5.5 million firms operating in the United States in 2000, just 4 percent engaged in exporting. Similar patterns were also found in France (Eaton et al. 2004) and in Colombia (Eaton et al. 2007). In addition to its rarity, exporting was found to be a self-selection process, where exporters were found to be larger, more productive, more skill-intensive and capital-intensive compared with non-exporting firms (Bernard et al. 2007). These findings suggest that exporting is a risky and resource-demanding strategic decision.

There are numerous studies on the determination of firm export behaviour in both international economics literature and international business literature. While economists emphasize macro-level elements, and have investigated factors including comparative advantage, government policies, exchange rate fluctuations, and domestic market characteristics (Hummels/Klenow 2005, Sakakibara/Porter 2001), international business researchers focus on micro-level factors, and have provided evidence from the resource-based view (Aulakh et al. 2000) and agency theory (Filatotchev et al. 2001).

It is only recently that researchers have started to pay attention to the role of corporate

governance in export behaviour (Filatotchev et al. 2001). While it has become the norm in Western literature to adopt agency theory as an appropriate lens for the analysis of corporate governance, theories derived from developed countries may face challenges when applying them to emerging economies (Hoskisson et al. 2000, Wright et al. 2005). In such theories, institutions are often assumed as "background" and taken for granted (Peng et al. 2008). In emerging economies, however, institutional factors were found to have considerable explanatory power and should be taken into account (Hoskisson et al. 2000, Wright et al. 2005). Hence, agency theory plus the resource-based view is not adequate to examine firms' export behaviour in an emerging economy as these perspectives ignore the social contact and institutional environments within which firms' activities and behaviour are embedded. In this study, we follow the literature to consider both the internal and external determinants of the export behaviour of firms, while placing our research focus on the effects of corporate governance in connection with institutional changes. We embrace an integrated framework by incorporating agency theory and institutional theory. Combining these various perspectives yields a richer and more composite understanding of the impact of both internal factors and external institutional environments on export behaviour.

Corporate Governance and Export Behaviour

Corporate governance is the system by which companies are directed and controlled, and centres around the relationships between stockholders, the board of directors, and management (Clarke 2006). According to agency theory, the separation of corporate ownership and control may cause managers to avoid some value-enhancing but risky projects in order to preserve their private benefits (Hirshleifer/Thakor 1992, Holmstrom/Costa 1986). To solve the problem of managers' self-interested risk aversion, the literature suggests that different forms of CEO compensation should be designed to reward or encourage risk-taking decisions that may benefit stockholders. In particular, CEO equity ownership is considered to be an ideal instrument which aligns the interests of CEO with that of stockholders, and helps overcome the problem of 'shortsightedness' as CEOs will still be eligible to future gains from their companies' share price rises even if their tenure terminates (Sanders/Hambrick 2007). Empirical evidence shows that CEO equity ownership has a positive effect on management risk-taking behaviour (Eisenmann 2002, Esty 1997, Zahra 1996). Given that exporting is a risk-taking decision aiming for long-term growth, we establish the following hypothesis:

H1a: *Firms with higher CEO equity ownership are more likely to become exporters and have higher export intensity.*

According to agency theory, the board of directors is considered an essential internal governance mechanism which monitors executives and eliminates agency problems. The role of independent directors and the relative proportion of independent directors in decision making has been extensively studied (Denis/McConnell 2003). A consistent finding with regard to the role of independent directors in corporate governance in

developed economies indicates that a higher proportion of independent directors associates with better strategic decisions concerning such issues as acquisitions, executive compensation, and CEO turnover (Hermalin/Weisbach 2003). According to the resource-based view, independent directors play service and resource acquisition roles in firms besides monitoring executives (Peng et al. 2008). It has been found that the education and experience of independent directors may lead them to have concerns about long-term development strategies such as internationalisation (Tihanyi et al. 2003) and R&D investment (Kor 2006).

The agency theory predicts that an effective board of directors can protect the interests of shareholders by monitoring critical decisions made by a firm's executives, while the resource-based view predicts that independent directors improve executives' ability to pursue risky long-term development strategies by contributing experience and resources. To test whether these predictions apply to export decisions of Chinese firms, we hypothesise:

H1b: *Firms with a higher ratio of independent directors are more likely to become exporters and have higher export intensity.*

Recently, attention has been paid to the relationship between ownership structure and export behaviour (Fernández/Nieto 2006, Filatotchev et al. 2001). Consistent with the resource-based view, private/family controlled firms in developed economies are less likely to export due to limited access to key resources and the lack of capabilities needed for exporting (Fernández/Nieto 2006). For firms in newly industrialised economies, research findings also supported the resource-based view, indicating that that family ownership is negatively related to the possibility and extent of FDI (Filatotchev et al. 2007). Privatisation which occurred in transition economies such as the FSU, provides an important opportunity to improve our understanding of the relationship between ownership structure and export behaviour (Filatotchev et al. 2001). Unlike in the FSU, the privatisation process in China is more gradual and selective and the state continues to maintain control in large and listed firms after decades of reform (Bai et al. 2006a). It was only in recent years that some family firms or individuals have become the ultimate controller of Chinese listed firms through corporation pyramid and cross-shareholding (Fan et al. 2007). The coexistence of government/state and private/family firms in China provides an ideal setting to test the impact of ownership structure on export decisions. Considering that Chinese private/family firms are still relatively small and face resource and capability constraints (Bai et al. 2006b), we hypothesise:

H1c: *Private/family controlled firms are less likely to become exporters, and are more likely to have lower export intensity.*

Privatisation was designed to eliminate constraints on managerial strategies imposed by state ownership (Filatotchev et al. 2001). A major constraint in state-controlled firms is that government/state ownership makes companies less effective in resolving agency problems. Executives in state-controlled firms have less incentive to pursue long-run

growth (Groves et al. 1994). Governments have an incentive to use their controlling rights to channel benefits away from the firm (Shleifer 1998). In contrast to state-controlled firms, private ownership in private/family firms helps to reduce agency costs by aligning management incentives and owner incentives (Fama/Jensen 1983). In addition, underlying dimensions of "familiness" (e.g. goal congruence, trust) assist family firms in reducing monitoring costs and enable them to perform better (Lubatkin et al. 2005, Anderson/Reeb 2003).

In a study of international expansion of U.S. manufacturing family firms, Zahra (2003) found that internationalisation is significantly and positively associated with the *interaction* of family ownership and family involvement. Examining exporting strategies of a sample of family and non-family firms in Spain, Fernández/Nieto (2006) found that the presence of a corporate blockholder in family firms encourages exporting. These findings reveal that ownership structure not only directly affects internationalisation decisions, but also indirectly by moderating the effects of other corporate governance variables. In this paper, we examine the moderating effect of family/private control on how CEO equity ownership and independent directors impact export decisions, and we hypothesise:

H1d: *Private/family control positively moderates the impact of CEO equity ownership and independent directors on export behaviour.*

Institutional Environments and Export Behaviour

Recent literature emphasises the importance of institutions on firms' strategic choices in emerging economies, and significantly expands our understanding of the strategic behaviour of firms in emerging markets (Hoskisson et al. 2000, Wright et al. 2005). Known as the "rules of the game" (North 1990), institutions directly determine what arrows a firm has in its quiver as it struggles to formulate and implement strategy and to create competitive advantage (Ingram/Silverman 2002). Some studies reveal that institutions are important determinants of firms' investment behaviour (Cull/Xu 2005), performance (Peng/Luo 2000), and diversification (Wan 2005).

In the literature of internationalisation, earlier studies focused on how institutional environments in emerging economies affect the strategic decisions of multinational enterprises (MNEs) from developed economies, such as location and partner choices (Delios/Henisz 2000, Isobe et al. 2000). Recently, increasing attention has been paid to how home country institutional environments affect the internationalisation strategies and performance of firms from emerging economies (Hitt et al. 2006, Wan/Hoskisson 2003)

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As in other emerging economies such as Vietnam (Meyer/Nguyen 2005), the development of institutions, especially informal institutions, is uneven across different regions within China (Wen 2007). In a paper focused on the determinants of Chinese outward FDI, Buckley et al. (2007) found that a strong home institutional environment helped emerging country firms to offset ownership and location disadvantages abroad.

During the reform process in China, differences in institutional environments across regions were reflected in various dimensions of marketisation. Firms located in regions with higher levels of marketisation have better access to key resources and institutional support for internationalisation activities. Thus, we hypothesise:

H2a: *Firms located in regions with higher levels of marketisation are more likely to become exporters and have higher export intensity.*

Recent corporate governance research in finance literature found that different legal systems have significant impact on the structure and effectiveness of corporate governance (Denis/McConnell 2003). For example, Doidg et al. (2007) found that country characteristics explain a large percentage of the variance in corporate governance quality at firm level (ranging from 39% to 73%) for a sample of 25 countries. Similarly, some management studies show that, unlike in developed economies, the institutional context in emerging economies makes the enforcement of agency contracts more costly and problematic (Wright et al. 2005). In studying the moderating effect of home country institutional environments, Wan/Hoskisson (2003) found that intense competition forces firms to develop and sustain competition advantages, and hence, the common negative effect of overdiversification on firm performance is less serious for firms with stronger home country institutional environments. In summary, both finance and management research suggests that the institutional environment not only affects firm strategic decisions directly, but also indirectly through affecting corporate governance.

In transition economies, institutional constraints determine the effectiveness of the impact of improved corporate governance on firms' export decisions. As a major theme in corporate governance, independent directors and CEO equity ownership mechanisms are there to help shareholders solve agency problems. However, the role of independent directors in transition economies may be questionable as those independent directors are not always really independent (Peng et al. 2008). Prior studies failed to find positive links between the proportion of independent directors and financial performance of firms in China and Russia (Peng 2004, Peng et al. 2003), which may be explained by the lack of necessary institutional arrangements for independent directors to play an effective role (Clarke 2006). Institutional constraints are also found to limit the effective application of the CEO equity ownership mechanism in transition economies like China (Firth, et al. 2007). In an overview of China's corporate governance, Clarke (2003) concluded that the effectiveness of the corporate governance system in China depends critically on the presence of other institutions. Recognizing the uneven development of institutions across Chinese regions, we expect that the hypothesised effects of CEO ownership share and independent director ratio on export behaviour (H1a and H1b) depend positively on the institutional environment within which the firm operates. Thus, we hypothesise:

H2b: *The level of marketisation positively moderates the impact of CEO equity ownership and independent directors on export behaviour.*

Data and Variables

Sample

Our study uses a unique dataset on China's listed manufacturing firms which we constructed by combining data from various sources. Data on corporate governance, ownership structure, and financial performance of listed firms was collected from WIND and SinoFin databases.[1] Data on export behaviour was collected from the Customs General Administration of China (CGAC).[2] For our purpose, we matched manufacturing firms listed on China's two stock exchanges (Shanghai and Shenzhen) with firms in the CGAC database by firm name, industry, and registration address.[3] This exercise yielded an unbalanced panel of 2,647 firm-year observations for the period of 2002-2005, among which 1,379 (52%) were exporting observations.[4] For the 779 manufacturing firms listed in Shanghai and Shenzhen stock exchanges at the end of 2005, 459 firms (58.9%) exported in at least one year during the period 2002-2005.

Dependent Variables

Prior studies on international diversification have recommended the use of multiple measures to improve validity (Sullivan 1994). Following this recommendation, we use both export propensity and export intensity as measures of the export behaviour of firms (Fernández/Nieto 2006, Zhao/Zou 2002). Export propensity indicates whether a firm is an exporter. Export intensity is the ratio of export sales to total sales, measuring export performance.

Independent Variables

We measure a firm's corporate governance mechanisms with three variables. The first variable is *CEO equity ownership* which is measured as the percentage of the total equity of a firm that is owned by the CEO. This is commonly used in the literature to capture the extent to which management interests align with those of shareholders (Buck/Shahrim 2005, Eisenmann 2002, Sanders/Hambrick 2007, Wright et al. 2007).

The second variable is the *independent director ratio*, which has been used in the literature to investigate the effect of board structure on investment strategy (Kor 2006) and international diversification (Ellstrand et al. 2002, Tihanyi et al. 2003).[5] The Board of Directors, at the apex of internal control systems, is charged with advising and monitoring management and has the responsibility to hire, fire, and compensate the senior management team (Jensen 1993).

The third variable of corporate governance is ownership structure proxied by a *private/family control* dummy. Most prior studies of ownership structure have focused on immediate ownership - common shares directly owned by individuals or institutions. It has been noticed that immediate ownership is not sufficient for characterizing the ownership

and control structure of East Asian firms, as these firms are generally associated with complicated indirect ownership (Claessens et al. 2000, Fan et al. 2007). In this study, we use the newly available Private Listed Companies Database developed by the SinoFin Information Service to identify private/family controlled listed firms. A firm is private/family controlled if the largest ultimate owner of the listed firm is either a natural person or a private firm.

To capture the *institutional environment* within which Chinese firms operate, we use the NERI marketisation index, which was developed by the National Economic Research Institute (NERI) to measure marketisation levels of Chinese provinces. The index summarizes the development status of market trading mechanisms and other institutions in achieving more efficient market functioning. NERI computes the index using data from the statistical yearbooks, reports from the administration of industry and commerce, and surveys. A score is assigned to each province based on several objective measures such as the ratio of lawyers or the ratio of accountants to the provincial population, which is normalized to a value between 0 and 10 in ascending order of marketisation levels.[6] This index has been widely used in research (Chena et al. 2006, Li et al. 2006, Wen 2007).

Control Variables

We control for several other variables that may affect firm export behaviour. Prior studies have found that FDI in China (from OECD countries as well as Hong Kong, Macau, and Taiwan) brings in international knowledge (Buckley et al. 2002, Fernández/Nieto 2006), which may positively affect firm export propensity and intensity. To account for this effect, we use a variable called *foreign investor participation*, which is the percentage of shares of listed firms owned by foreigners.[7] Prior studies have also found that overseas listing tends to make firms more oriented towards international markets. For example, Pagano et al. (2002) found that European companies become more export oriented after cross-listing in the United States. Chinese companies may issue H shares (traded on the Hong Kong Stock Exchange), N-shares (represented by American Depositary Receipts listed in New York), and shares in other overseas stock markets (Clarke 2006). To capture the export-enhancing effect of an overseas listing, we use a dummy variable which indicates whether a firm has an *overseas listing*.

It is well known that China has a comparative advantage in labour. According to trade theory, China is expected to export goods whose labour intensity is high, or capital intensity is low. We use *capital-labour ratio* to measure capital intensity, which is computed as ratio of fixed assets to labor force. Recent trade literature emphasises the self-selection of firms to become exporters, implying that only firms with higher productivity can cover the fixed cost of exporting, and choose to export (Melitz 2003). To control for this self-selection effect, we use *return on sales* (ROS) as a measure of firm productivity.[8] Following the literature (Filatotchev et al. 2001, Fernández/Nieto 2006), we also control for *firm size* measured by logarithm of the number of employees, and *firm age* measured by logarithm of the number of years since the establishment of the firm.

Methodology and Results

Methods

We test the hypotheses on export behaviour with two empirical models. In Model 1, we adopt a logit model to estimate the effects of hypothesised variables on the firm's decision to be an exporter. In Model 2, we estimate a tobit model to analyze the determinants of export intensity. To deal with the possible reverse causation from the dependent variable to explanatory variables, we follow the same approach as existing studies, using regressors with a one-year lag (Filatotchev et al. 2001). We include industry and year fixed effects in the estimation to account for unobserved industry and time-specific effects.

Table 1 presents the descriptive statistics and correlation matrix. Variable inflation factors do not exceed two in any regressions, so the issue of multicollinearity between regressors is not a concern. On average, CEO equity ownership accounts for 0.27%, which is relatively low by international standards. However, the standard deviation of the variable is 2.3%, and the maximum value is 29%. The ratio of independent directors to the total number of board directors is 25% with a standard deviation of 13.58%. The correlations between the variables have the predicted signs, providing preliminary evidence supporting our hypotheses.

Direct Effects

Results for Model 1 and Model 2 are reported in Table 2 and Table 3, respectively. Regression (1) of Table 2 reports the direct effects of corporate governance and institution variables on firm export propensity. First, we find that *CEO equity ownership* has a positive and statistically significant effect on firm export propensity. One percent increase of CEO equity ownership increases the probability of a firm becoming an exporter by 8.4% ($=e^{0.0811}-1$). Thus, the marginal effect of CEO equity ownership on export orientation is significant, and H1a is supported.

Second, we find that the estimated coefficient of *independent director ratio* is positive and statistically significant at the 5 percent level. One percent increase of independent director ratio increases the probability of a firm becoming an exporter by 1.4 percent ($=e^{0.0138}-1$). Hence, we have obtained evidence which is consistent with H1b.

Third, we find that the *private/family control* dummy has a negative and statistically significant effect on firm export propensity. The estimated coefficient implies that private/family controlled firms are 43.9 percent ($=e^{0.364}-1$) less likely to become exporters than state-controlled firms. We view this as evidence supporting H1c.

Fourth, we find that the *marketisation index*, a measure of the institutional environment, has a positive and significant effect on firm export propensity. The estimated

coefficient indicates that if the marketisation index increases by one, the probability of a firm being an exporter increases by 14.1 percent (=$e^{0.132}$-1). Thus, the result is in line with H2a.

In Table 3, regression (5) reports the direct effects on firm *export intensity*. We find that both CEO equity ownership and independent director ratio have positive and statistically significant estimated coefficients, suggesting that they not only impact on the decision to become exporters, but also the decision of how much to export. However, we find that the private/family control dummy is statistically insignificant. This result indicates that private/family ownership affects export propensity rather than export intensity. We find that the marketisation index has a positive and significant effect on export intensity. Thus our results on export propensity and export intensity are consistent with each other, indicating that the corporate governance and institution variables directly impact the export behaviour of the sample firms.

Moderated Effects

Regressions (2)-(4) in Table 2 estimate the moderated effects of the independent variables on *export propensity*. In regression (2), CEO equity ownership and independent director ratio are moderated by the marketisation index. We find that the moderating effects by the marketisation index on both CEO equity ownership and independent director ratio are positive and significant. The results imply that corporate governance mechanisms, proxied by CEO equity ownership and independent director ratio, have a stronger effect on a firm's decision to export in a well established institutional environment. In regression (3), CEO equity ownership and independent director ratio are moderated by the private/family control dummy. We find that the moderating effects of private/family control on CEO equity ownership and independent director ratio are positive, although the moderating effect on CEO equity ownership is statistically insignificant. Regression (4) includes all moderating effects. The results show that the effect of CEO equity ownership on export propensity increases with the marketisation index, while the effect of the independent director ratio on export propensity is higher in private/family controlled firms.

Regressions (6)-(8) in Table 3 estimate the moderating effects of the independent variables on *export intensity*. Similar to the results on export propensity, all estimated moderating effects are positive, though some of them are statistically insignificant. Thus H1d and H2b are partially supported. Together these results highlight the important interactions between institutional environment and corporate governance, and between different dimensions of corporate governance, in shaping the export decisions and export performance of firms.

Effects of Controls

The estimated effects of control variables are mostly expected. First, we find that *foreign investor participation* makes a firm more likely to become an exporter (Table 2).

However, for a firm that has already exported, foreign investor participation does not raise its export intensity (Table 3). Second, we find that *overseas listing* not only makes a firm more likely to become an exporter (Table 2), but also raises its export intensity (Table 3). China has a comparative advantage in labour, hence firms producing labour-intensive goods (i.e., firms with lower capital intensities) are more likely to be exporters. This prediction is confirmed by negative and statistically significant estimated coefficients on *capital labour ratio*. Consistent with the newly emerging trade theory on the self selection of firms in exporting (Melitz 2003), we find that the estimated coefficients on *return on sales* are positive and statistically significant in export propensity regressions (Table 2), which indicates that firms with higher productivity (proxied by return on sales) are more likely to export. We find there is not a statistically significant correlation between return on sales and export intensity (Table 3), suggesting that firms with higher productivity do not necessarily engage more intensively in exporting.

Interestingly, we find that *firm size* has a positive effect on export propensity (Table 2), but a negative effect on export intensity (Table 3). Larger firms have advantages in overcoming the fixed costs of exploring overseas markets, so they are more likely to become exporters. This prediction has received overwhelming support in the literature (Bonaccorsi 1992, Christensen et al. 1987). On the other hand, the literature offers mixed theoretical predictions and empirical evidence on the relationship between firm size and export intensity. A few studies report a negative relationship between firm size and export intensity (Patibandla 1995). Verwaal/Donkers (2002) argue that the relationship between firm size and export intensity is moderated by the export relationship size (measured by export transaction value per foreign buyer), so the correlation between firm size and export intensity can be either positive or negative depending on this moderating effect.

Finally, we find that the estimated effect of *firm age* is negative. Some existing studies have found a positive effect of firm age on export propensity, and the main reason is that it is well-established firms who endure and survive long-term domestic competition and become exporters (Clerides, et al. 1998). This reasoning may not apply to Chinese firms since there has not been sufficient market competition, resulting in older and more efficient firms surviving as the more productive ones. On the contrary, it is the younger firms in China which have less historical burdens (such as employment burden for state-owned firms) who tend to be more risk-taking. Our result is also consistent with the recent literature on international new ventures or born globals which indicate that young and small/medium-size firms tend to be internationalised more rapidly in the new era of globalization (Almor 2006, Knight/Cavusgil 2004, Oviatt/McDougall 1994).

Discussion and Conclusions

Export is an important step of internationalisation for firms from emerging economies (Pan/Tse 2000). Few studies, however, have examined the effect of corporate governance on export decisions in the context of emerging economies. In this paper, we consider

corporate governance factors as the main determinants of export strategies of Chinese listed firms. We adopt an integrated framework that combines the agency theory and the institutional theory. Within this framework, corporate governance interacts with the institutional environment within which the firm operates to affect the firm's export strategies.

We put corporate governance at the centre of our analysis, and examine the moderating effect of the institutional environment on corporate governance. We hypothesise that in a well-established institutional environment, and for private/family controlled firms, corporate governance has a stronger impact on firms' internationalisation strategies. Firms are more likely to become exporters and export a higher proportion of their products with effective corporate governance. We test the hypotheses using a unique dataset of Chinese listed firms which was constructed by linking the data on corporate governance variables with the export transaction data.

We focus on the export behaviour of Chinese firms during the period 2002-2005. China's export policy changed gradually along with the process of its economic reforms. Before the economic reforms, only specially designated state agencies had the right to import and export. In the earlier stages of reform, the government managed exports through issuing export licences. After China joined WTO at the end of 2001, all firms were entitled to obtain direct export rights (Loo 2004).

During the sample period, Chinese firms faced increasing challenges from international competition along with increasing opportunities to engage in internationalisation. Corporate governance has become a key management issue emphasized by the Chinese government. These changes have provided a unique opportunity to explore the effects of corporate governance on export decisions in connection with institutional changes in a large emerging economy.

We find that the two key corporate governance variables, CEO equity ownership and independent director ratio, are positively associated with export decisions and export intensity, whereas private/family ownership negatively affects export decisions. The finding shows that corporate governance in Chinese listed firms plays an important role in internationalisation strategy. CEO compensation is an important mechanism through which risk-averse CEOs are motivated to make strategic decisions on behalf of shareholders. CEO equity ownership is only a recent phenomenon in China but it is an increasing trend, although CEO equity ownership is still relatively low by international standards. Our result on CEO equity ownership, which is quite similar to that in developed countries, provides evidence of the extent to which marketisation and corporate governance convergence between an emerging economy and the west has taken place (Buck et al. 2007). It may reflect the fact that market-oriented CEO compensation has induced CEOs' loyalty, and hence their willingness to make risky and longer-term decisions such as exporting (Kato/Long 2006).

The variable of independent director ratio has a positive impact on export decisions and export intensity. The result may suggest that independent directors are likely to have favourable views on internationalisation strategy, hence positively influence export decisions because of their education and career background. A study based on a random sample of 500 listed Chinese companies found that 45% of independent directors in these companies were university professors or researchers from reputable research institutes (Yue 2004). The finding implicitly indicates that the character of the independent directors, such as their international vision and experience, generates an export-promoting effect.

The variable of private/family control is found to have a significantly negative association with export decisions, suggesting that private/family controlled firms are less likely to be exporters. The finding is consistent with those based on developed countries and newly industrialised economies (Fernández/Nieto 2006, Filatotchev et al. 2007). The result may indicate that private /family controlled firms are still in a relatively weak position and face resource and capability constraints. Hence, private/family ownership discourages internationalisation (Bai et al. 2006b).

The institutional environment is positively associated with exporting strategies. This result shows that a stronger institutional environment plays a supportive role in firms' internationalisation. Conversely, a weaker institutional environment may constrain firms' investment choices. We have further investigated the moderating effect of institutional factors and ownership structure on CEO equity ownership and independent directors. Our findings show that the effectiveness of the two corporate governance factors is moderated by the degree of marketisation and ownership structure. Specifically, we have found that the level of marketisation positively moderates the export-promoting effects of CEO equity ownership and independent directors. Private/family controlled firms also experience the larger export-promoting effects of improved corporate governance.

Our findings shed light on the interrelationship between corporate governance, institutional environments and exporting in the context of emerging economies. These findings show that the degree of marketisation and privatisation helps strengthen the effect of corporate governance on the internationalisation of local firms. The identification of crucial links between corporate governance, institutional environments and export behaviour has implications for government policy which aims to adopt the best practices of Western corporate governance in the emerging economy context. Our results suggest that corporate governance needs strong institutional support in order to increase its effectiveness. Hence, establishing effective and supportive institutional environments within different regions is a crucial task facing the governments in emerging economies.

We should acknowledge some limitations of the study. First, the study was limited to Chinese listed firms in manufacturing industries. Further research should be extended to other transition and emerging economies where marketisation and developing export promoting strategies are important features, but variations in governance regimes and institutional environments suggest scope for comparative, international analysis. Second,

our research is based on secondary data. The data availability constrained our measures for the character of corporate governance. For example, we have only measured and tested the impact of the proportion of independent directors. Future research should examine explicitly how the human capital and international experience of independent directors affect firms' internationalisation strategies.

Notes

1 WIND is a leading financial data vendor located in Shanghai, China. SinoFin Information Service is specialized in providing corporate governance data of Chinese listed firms. Corporate governance data from these two sources has been used in previous studies (Chang/Wong 2004, Kato/Long 2006).

2 The CGAC data has an important advantage in that it exclusively covers all export records of Chinese exporting firms. This dataset allows us to construct measures for export propensity, export intensity and potentially other export characteristics of Chinese listed firms.

3 This follows a recent trend in international trade research that links firm-level data with transaction- level trade data. Bernard, et al. (2007), Eaton, et al. (2004), and Eaton, et al. (2007) used such linked data to study export behaviour of firms in U.S., France, and Colombia, respectively.

4 The CGAC data is available only for the period 2000-2005, so we focus on export behaviour of Chinese listed firms during the period. Manufacturing exports account for 93.5 percentage of China's exports in 2005 (*Chinese Statistics Yearbook* 2005), so we focus on listed firms from the manufacturing sector.

5 According to the SinoFin data description, only individuals who do not have any occupation other than board director in the listed firm, and who have no such a kind of relationship with the listed firm that may affects these individuals' subjective and independent judgments, are classified as independent directors. This is the definition of independent director used in Tian/Lau (2001).

6 NERI (2002) provides a detailed description of the approach to construct the NERI index.

7 Foreigners may buy B shares of Chinese listed companies. B shares are denominated in U.S. dollars in Shanghai Stock Exchange and Hong Kong dollars in Shenzhen Stock Exchange.

8 It has been pointed out that there are problems with measuring firms' assets in transitional economies (Filatotchev, et al. 2001), so we use ROS rather than ROA as a proxy for productivity.

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Table 1. Descriptive Statistics and Correlation Matrix

		MEAN	STDV	1	2	3	4	5	6	7	8	9	10	11
1	Export propensity	0.52	0.49											
2	Export intensity	0.14	0.18	--										
3	CEO equity ownership	0.27	2.34	0.08***	0.12***									
4	Independent director ratio	25.15	13.58	0.05***	0.03	0.08***								
5	Marketisation index	6.67	1.83	0.12***	0.12***	0.10***	0.13***							
6	Private/family control dummy	0.17	0.38	-0.06***	0.02	0.20***	0.17***	0.10***						
7	Foreign investor participation	0.06	0.25	0.08***	0.06**	-0.01	0.02	0.15***	0.03					
8	Overseas listing	0.02	0.15	0.10***	0.03	-0.02	-0.03	0.04**	-0.05***	-0.04***				
9	Capital labour ratio	0.37	1.43	-0.06***	0.00	-0.02	0.05***	0.06***	0.02	0.07***	-0.01			
10	Return on sales	0.22	0.15	0.02	0.04	0.09***	-0.01	-0.11***	0.14***	0.03	-0.01	0.04**		
11	Firm size	7.59	1.04	0.09***	-0.05	-0.07***	-0.03	-0.03	-0.18***	-0.08***	0.22***	-0.31***	-0.13***	
12	Firm age	2.02	0.43	-0.09***	-0.11***	-0.12***	0.19***	0.16***	0.07***	-0.12***	0.08***	0.07***	-0.10***	0.01

Note: Pearson correlation coefficients are reported; ***p<0.01, **p<0.05.

Table 2. Regression Results on Export Propensity

	(1)	(2)	(3)	(4)
Direct Effects				
CEO equity ownership	0.0811***	0.0211	0.0710**	0.0282
	(0.029)	(0.044)	(0.032)	(0.046)
Independent director ratio	0.0138**	0.0138**	0.0138**	0.0140**
	(0.005)	(0.006)	(0.005)	(0.006)
Private/family control	-0.364***	-0.405***	-0.374***	-0.414***
	(0.120)	(0.120)	(0.120)	(0.120)
Marketisation index	0.132***	0.131***	0.133***	0.133***
	(0.025)	(0.025)	(0.025)	(0.025)
Moderated Effects				
(CEO equity ownership × Private/family control)/100		14.30 (9.22)		10.30 (8.01)
(Independent director ratio × Private/family control)/100		3.18** (1.52)		2.93* (1.50)
(CEO equity ownership × Marketisation index)/100			0.755* (0.440)	0.898* (0.450)
(Independent director ratio × Marketisation index)/100			0.078* (0.041)	0.069 (0.053)
Effects of Controls				
Foreign investor participation	0.618***	0.626***	0.620***	0.628***
	(0.190)	(0.190)	(0.190)	(0.190)
Overseas listing	1.498***	1.440***	1.461***	1.413***
	(0.330)	(0.330)	(0.330)	(0.330)
Capital labour ratio	-0.130*	-0.129*	-0.130*	-0.128*
	(0.001)	(0.001)	(0.001)	(0.001)
Return on sales	0.740**	0.729**	0.713**	0.693**
	(0.340)	(0.340)	(0.340)	(0.340)
Firm size	0.174***	0.171***	0.172***	0.170***
	(0.050)	(0.050)	(0.050)	(0.050)
Firm age	-0.493***	-0.483***	-0.494***	-0.485***
	(0.110)	(0.110)	(0.110)	(0.110)
Observations	2632	2632	2632	2632
χ^2	295.61	303.11	303.28	309.17
Log likelihood	-1673.91	-1670.161	-1670.07	-1667.13
Pseudo R-squared	0.0811	0.0832	0.0832	0.0849

Notes: Estimation uses a logit model. All regressions include industry and year dummies. Standard errors are reported in parentheses; ***p<0.01, **p<0.05, *p<0.1.

Table 3. Regression Results on Export Intensity

	(5)	(6)	(7)	(8)
Direct Effects				
CEO equity ownership	0.004**	-0.001	0.002	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)
Independent director ratio	0.002***	0.002***	0.002***	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)
Private/family control	-0.002	-0.003	-0.003	-0.003
	(0.014)	(0.015)	(0.014)	(0.015)
Marketisation index	0.013***	0.013***	0.013***	0.013***
	(0.003)	(0.003)	(0.003)	(0.003)
Moderated Effects				
(CEO equity ownership × Private/family control)/100		0.733***		0.662**
		(0.270)		(0.320)
(Independent director ratio × Private/family control)/100		0.0542		0.021
		(0.110)		(0.110)
(CEO equity ownership × Marketisation index)/100			0.027*	0.006
			(0.018)	(0.015)
(Independent director ratio × Marketisation index)/100			0.003	0.003
			(0.002)	(0.002)
Effects of Controls				
Foreign investor participation	0.022	0.023	0.022	0.022
	(0.018)	(0.018)	(0.018)	(0.018)
Overseas listing	0.104***	0.103***	0.103***	0.102***
	(0.026)	(0.026)	(0.026)	(0.026)
Capital labour ratio	-0.024*	-0.025*	-0.024*	-0.025*
	(0.013)	(0.013)	(0.013)	(0.013)
Return on sales	-0.019	-0.018	-0.019	-0.021
	(0.047)	(0.047)	(0.047)	(0.047)
Firm size	-0.016***	-0.016***	-0.017***	-0.017***
	(0.006)	(0.006)	(0.006)	(0.006)
Firm age	-0.048***	-0.047***	-0.048***	-0.048***
	(0.012)	(0.012)	(0.012)	(0.012)
Observations	1375	1375	1375	1375
χ^2	221.45	229.17	226.9	231.19
Log likelihood	-476.58	-480.44	-479.31	-481.45

Notes: Estimation uses a tobit model. All regressions include industry and year dummies. Standard errors are reported in parentheses; ***p<0.01, **p<0.05, *p<0.1.