BAD DEBTS, OWNERSHIP CONCENTRATION, AND BOARD COMPOSITION: EVIDENCE ON THE QUALITY OF CORPORATE GOVERNANCE OUTCOMES IN CHINA'S LISTED NON FINANCIAL COMPANIES

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Abstract

This study analyses the relationships between performance metrics and the corporate control and governance characteristics of a sample of China's listed non financial companies in order to assess the influence of corporate governance structures on the quality and independence of corporate decision making. We use a panel data set covering the years 2001 to 2005 comprised of a stratified sample of A, AB and AH non financial companies listed on China's Shanghai and Shenzhen stock exchanges. We find that concentration of ownership, including state and foreign ownership, and board size and independence are significant factors in determining performance outcomes, and by association the quality and independence of corporate policy decisions, as measured in the form of firm bad debt to total asset and bad debt to receivables ratios. Our findings support claims of continued inadequacies in the operation and effectiveness of China's institutions of corporate governance, especially with respect to the effectiveness of the supervisory board.

Keywords: Corporate Governance; Corporate Control; China

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1. Introduction

Establishment of the sets of institutions dealing with macroeconomic stabilisation, social insurance, conflict management, property rights, and the regulatory environment for business is often given priority in transition economies (Rodrik, 2000). The priority given to these institutional structures reflects a concern to create an environment conducive to sustainable long-term growth under a post-transition market-oriented economic system. Institutions covering property rights and the legal and regulatory environment are particularly important in transition economies as these are enabling factors in the reform of state-owned enterprises (SOEs). Sound institutional choices assist in ensuring the separation of government from the management of SOEs and in the successful restructuring of SOEs in corporate form (Beim and Calomiris, 2001; Zhu, 1999; OECD, 2000; Jevons Lee, 2001). At issue are the forms taken by the corporate control and governance structures of these enterprises.

For China the core of the framework for corporate regulation consists of *The Company Law* (proclaimed December 1993), *The Securities Law* (proclaimed December 1998), and *The Code of Corporate Governance for Listed Companies in*

China (*The Code*) (issued January 2002 by the Chinese Securities Regulatory Committee (CSRC) and the State Economic and Trade Commission (SETC)) *(see endnote 1)*. Given the importance of this set of institutions it is not surprising that, as well as having established the core of the framework and also its establishment of the CSRC in 1992, China has been active in evolving its regulatory environment. Since 1992, over 300 laws and directives have been issued that relate to the securities and futures markets (Lin, 2004).

Market-based governance is considered a priority due to its positive association with productivity improvement and through this growth in real output. This reflects the impact of governance on the efficiency with which individual firms utilise resources internally (Tadesse, 2004). On the other hand, inappropriate institutional choices may allow former SOEs, privatised and listed, to engage in corporate governance practices associated with misuse or misappropriation of state and corporate assets. For China, the latter outcome is an apparent problem. Questions exist as to the quality and effectiveness of its institutional choices and the outcomes that they generate. Following the establishment of the Shanghai and Shenzhen stock exchanges in 1990 and 1992, respectively, agency

problems have emerged in relation to ownership structure and corporate governance in China. These include evidence of the ineffectiveness of supervisory boards of listed companies in China (Dahya *et al.*, 2003; Lin, 2004), and also of the weak independence of boards of directors and impact on minority shareholders of high levels of ownership concentration (Lin, 2004).

The objective in this paper is to develop and test a set of hypotheses related to the impact of the corporate control and governance characteristics of listed, non financial Chinese companies on the quality and independence of corporate policy decision making. The first set of characteristics is the level of concentration in and type of ownership. The second set of characteristics relate to the composition and independence of the Board of Directors and Supervisory Board under China's two-tier board structure. Of interest are the impact in these companies of high levels of ownership concentration, particularly government and foreign ownership, and expertise and independence of the boards. The quality and independence of corporate policy decisions is measured in terms of the sampled firms' bad debt to total asset and bad debt to accounts receivable ratios. This study addresses a gap in the literature in relation to the impact on corporate governance outcomes in China of both high concentrations in ownership and board size and composition under China's two-tier board system.

The structure of the paper is as follows. Section 2 provides a brief review of literature on the nature of institutions and on the institutions central to corporate governance in China, and also develops the set of hypotheses to be tested. Section 3 outlines the research methodology and describes the data. Section 4 presents the results of the analysis and a discussion of these results. Section 5 is comprised of a brief conclusion.

2. Literature and Hypotheses

The study of governance is a study of incentives and contractual relations or, as per Williamson (2000), a study of the 'play of the game'. Under consideration in the study of governance are the impact of such matters as board structure and compensation, accounting standards, and transparency and disclosure in corporate reporting. This places the study of governance as a sub-set within the broader field of study of the economic, political and social institutions that impact economic decisions and outcomes *(see endnote 2)*. These forms of institution impact on resource allocation and employment outcomes, the focus for neoclassical economics and agency theory. Thus the establishment of institutions appropriate to the efficient operation of markets is a principal determinant in the success of reforms in transition economies. The importance of institutional structures and choices is that they establish the boundaries

within which economic agents operate as they attempt to maximise the values of their utility or welfare functions. Institutions therefore define the set of economic decisions that are possible, and thus the outcomes that may be achieved by a particular economic system (North, 1990).

The difficulties for analysis implied by the suggested scope of the definition of institutions may be overcome through a focus on what institutions do. That is, what institutions achieve, more so than what is stated or intended, is the matter of interest. Institutions, including those of governance, may be seen as the structures that determine the outcomes available from interactions between multiple goal-oriented decision makers (Nelson, 2007). From this perspective institutions represent the set of rules that society has established to impose limitations on free behaviour by these decision makers (Redek and Sušjan, 2005). Thus, a review of particular economic outcomes, including outcomes resulting from corporate policy decisions, allows inferences to be drawn regarding the quality or success of specific institutional arrangements in limiting adverse behaviours (or, alternatively, in promoting beneficial behaviours).

In the case of China, the core of the institutional framework for corporate governance (*gongsi zhili*) is comprised of the *Company Law of the People's Republic of China (The Company Law)* (proclaimed December 1993, revised in 2005), the *Securities Law of the People's Republic of China (The Securities Law)* (proclaimed December 1998, revised in 2005), and the *Code of Corporate Governance for Listed Companies in China* (*The Code*) (issued January 2002 by the CSRC and the State Economic and Trade Commission (SETC), and also revised in 2005) *(see endnote 3)*. *The Code* is the primary government document specifically dealing with corporate governance. Its intended role is to provide a set of guidelines that allow companies and their investors to conduct a self-evaluation of whether (or not) good corporate governance is in place; a "measuring standard" specifying good practice *(see endnote 4)*. Thus, for example, it requires all listed companies in China to "act in the spirit of *The Code*" in their efforts to improve corporate governance" (*The Code*, 2005), rather than providing a legally enforceable piece of legislation or regulation.

Consistent with the *Company Law*, *The Code* outlines a number of requirements in relation to the corporate control and governance characteristics of listed Chinese companies. Chapter 2 of *The Code*, in particular, deals with the responsibilities of controlling shareholders with respect to the company and other shareholders. Its intent is that controlling shareholders act in the interest of both the company and minority shareholders, and be prevented from advantaging themselves at the cost of these other parties. Chapters 3 and 4 of *The Code* deal with the matters related to the board of directors and the supervisory board present under China's two-tier

board structure. Chapter 3 covers the duties, responsibilities, composition and independence of the board of directors. Chapter 4 outlines requirements for the supervisory board, including roles, reporting responsibilities, and requisite skill set. Of primary importance are guidelines regarding the quality of expertise of members of each of the boards, the independence between the board of directors and the supervisory board, and the ability of the supervisory board to monitor the performance of the company and board of directors.

It is apparent that China has put in place a set of institutional structures that evidence a desire to create (or provide) an institutional environment conducive to good corporate governance. However, it is with respect to this environment that transition economies such as China's frequently display weaknesses. These weaknesses come in the form of deficiencies in institutional capacity, and thus the potential for institutional failure. Institutional failure leads these institutions to either undertake or discharge the functions for which they are designed inappropriately (Šević, 2005). Poor clarification of ownership and control rights preclude the enforceability of contractual obligations. Poorly developed accounting standards and a lack of transparency and disclosure in corporate reporting reduce the effectiveness of corporate governance mechanisms in aligning incentives of managers with those of enterprise owners. Poor accounting and disclosure practices will allow recognition of problems in financial performance to be deferred or hidden (Šević, 2005). Such systemic deficiencies are likely to be particularly problematic for transition economies, as they act to prevent the "low-cost transacting and credible commitment" required to support the creation of efficient markets (as per North, 1997).

In the case of China, a number of potential deficiencies in institutional capacity may be identified. These relate to corporate ownership and control, the independence of the board of directors, and to performance of the supervisory board. Each may be recognised as relating to an aspect of the agency problem. In this case institutional failure implies that the agency problem, as it relates to corporate governance, has not been adequately addressed at these multiple levels *(see endnote 5).*

2.1. Ownership, Majority Shareholders and Corporate Control

The typical listed company in China has five classes of ownership: state shares, legal person shares, employee shares, domestic minority shares, and foreign institutional and/or foreign investor shares (Sun and Tong, 2003; Wei *et al.*, 2005; Firth *et al.*, 2007; Wei, 2007). When considering the impact within the corporate governance context of these different classes of ownership concentration and composition are key aspects. The degree of ownership

concentration determines the distribution of power. Contrary to the widely accepted views of Berle and Means (1932), large corporations face problems in the separation of ownership and control because they are managed by controlling shareholders and not by their professional managers (La Porta *et al.*, 1999). Concentrated ownership of companies may reduce managers' freedom to take risks, make strategic decisions and take advantage of opportunities. High levels of concentration in ownership are expected to affect management incentives and corporate policy choices through the pressure that these investors can exert on managers (Brickley *et al.*, 1988; Pound 1988; Bushee 1998). Thus while a group of shareholders with a large total share of the equity might be more effective at monitoring management, their powers must be restrained to prevent them taking advantage of other shareholders (Clarke, 1998). High ownership concentration provides both incentive and opportunity for controlling shareholders and managers to engage in expropriation (Morck *et al.*, 1988; Shleifer and Vishny, 1997; La Porta *et al.*, 1999).

In China, majority shareholders are typically very strong and individual minority shareholders are relatively weak. In many cases minority shareholders are regarded as speculators with an expectation of gaining a "free ride" based on the performance of the firm (Lin, 2004). Thus minority shareholders in China are unable to counter the influence of majority shareholders. Contrary to *The Code*, related-party transactions between controlling shareholders may be detrimental to minority shareholders, and controlling shareholders may act so as to advantage themselves at the cost of minority shareholders. This suggests that China's corporate governance is potentially relatively ineffective in the matter of protecting minority shareholders' rights, and the first of our hypotheses:

H_1: *High levels of concentration in ownership in listed Chinese firms will be associated with poorer corporate policy decisions and performance.*

In addition to concentration in ownership, government ownership is a feature of the ownership structure of many listed companies in China. This reflects their history as state-owned enterprises prior to being listed (Xiang, 1998). Such state ownership has been associated with a negative impact on firm performance (Wei *et al.*, 2005; Gunasekarage *et al.*, 2007) *(see endnote 6).* In this case agency problems may arise due to the differences in objectives between state and non state shareholders. For example, in the case of the state (central or local), maintenance of employment may take preference over profitability. Thus our second hypothesis is that:

H_2: *High levels of state ownership in listed Chinese firms will be associated with poorer corporate policy decisions and performance.*

With respect to corporate policy decisions and performance our third hypothesis deals with the impact of high levels of foreign ownership in these listed Chinese companies. This is:

H_3: High levels of foreign ownership in listed Chinese firms will be associated with improved corporate policy decisions and performance.

That a high level of foreign ownership may be a factor in improving corporate governance and, more broadly, accounting standards, reflects that international investors have an incentive to push for improvements in these areas. This is in order to better guarantee their interests (Šević, 2005; Krzywda *et al.*, 1995). Thus we conjecture that this pressure will, on average, have a positive effect on those firms in which foreign investors have significant control.

2.2. Board Independence and Expertise

As noted above, China has adopted a two-tier board system as a means to promote better governance. This choice was made in the early 1990s partly because many enterprises and their directors were perceived to be engaging in questionable related-party transactions. *The Code* gives particular attention to two aspects of these boards. The first is the independence of directors on the board of directors. The second is the qualifications and knowledge of members on the supervisory board.

Since 2003 at least one-third of directors on the board of directors have been required to be independent. Independence is required from both the listed company that employs them and its major shareholders. It also requires that their role in the listed company is limited to that of independent director. Independence may be argued to be important due to its behavioural motivations. From this perspective, independent directors work in the best interests of the minority shareholders in order to maintain their good reputation in society (Fama and Jensen, 1983) *(see endnote 7)*. This suggests that both larger boards and those with a higher proportion of independent directors will have more individuals with these incentives, improving corporate policy decisions. Thus our fourth set of hypotheses is that:

H_{4A}: An increase in the number of board members that are independent in listed Chinese firms will be associated with improved corporate policy decisions and performance.

H_{4B}: An increase in the size of the board in listed Chinese firms will be associated with improved corporate policy decisions and performance.

Under China's two-tier board structure the supervisory board has the responsibility of and duty for oversight of both the board of directors' and senior managements' performance. They are also required to protect the company's and stakeholders' rights and interests. Under *The Company Law* they have the power to investigate their company's operating status without interference and to report directly to the CSRC and other related regulatory authorities. Xiao *et al.* (2004) argue that several key characteristics of the supervisors determine the role of the supervisory board. These include the proportion of supervisors who are insiders and shareholders, and the professional knowledge or work experience of the supervisors. With respect to these final characteristics, the professional knowledge and experience of supervisors would be prerequisite to an ability to identify issues related to financial and managerial performance. Dahya *et al.* (2003) also highlight the importance of the capacity of the supervisory board to its ability to fulfil its stated functions. In doing so they identify four types of behavioural roles that supervisory boards can engage in, depending on the independence and capacity of the board members *(see endnote 8).* These roles are: honoured guest, friendly advisor, censored watchdog, and independent watchdog. If the supervisory board takes on the role of honoured guest, friendly advisor or censored watchdog, its annual supervisory board report is unlikely to provide useful information to minority shareholders and investors. Thus the role of independent watchdog requires that members on the supervisory board have the necessary capacity in terms of knowledge and experience to act with independence and expertise. Logically those supervisory boards that have a higher number of members with appropriate professional knowledge or work experience should be in better position to improve corporate policy decision making. Larger supervisory boards may also be better able to ensure that they have a combination of members with the requisite set of skills and/or experience. This leads to our final set of hypotheses:

H_{5A}: An increase in the number of supervisory board members with professional knowledge or work experience in listed Chinese firms will be associated with improved corporate policy decisions and performance.

H_{5B}: An increase in the size of the supervisory board in listed Chinese firms will be associated with improved corporate policy decisions and performance.

3. Research Methodology

3.1. Research Schema

The hypothesized relationships between the variables in this study are depicted in Figure 1. The theoretical perspective underlying the relationships is agency theory as it relates to ownership structure and the composition of the two boards of listed Chinese companies. The empirical schema for this study identifies these two classes of factors as primary influences of the bad debt ratios (defined as the values of bad debts to total assets and bad debts to accounts receivables). Additionally, the time since listing of the firm (Firm Age) is used to moderate the ownership structure factors. The choice of Firm Age as the moderating variable reflects the recognition of several important features likely to be present in China's privatisation process. Prior to listing significant improvements in the structure of the balance sheet and firm performance are required, given

requirements for profitability, especially for state-controlled flagship firms. This suggests that these firms may start in a good balance sheet position in relation to our dependent variables. Thus problems due to state control/influence may only become apparent with the passage of time. For firms with high levels of foreign ownership, however, this need not be the case. China's focus on building a set of large,

internationally competitive companies, especially in key industries such as telecommunications, energy, transport, etc., may suggest that it has allowed weaker companies to come under foreign control. Thus a particular concern is that, should foreign ownership exert a positive influence, performance may only be impacted gradually over time.
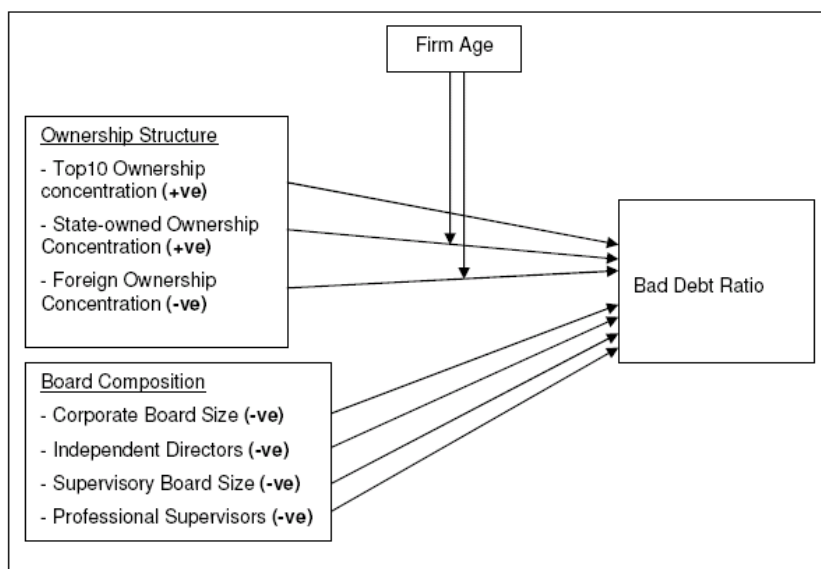

Figure 1. Empirical Schema

The choice of bad debt ratios as indicators of the quality of corporate policy decisions reflects a number of factors related to the core characteristics of bad debts. The first is the likelihood that this item will be impacted by management decisions. This reflects that the board of directors, in consultation with management, ultimately has responsibility for decisions on credit policy with respect to standards and terms. Thus, along with the firm's management, it can determine corporate practice with respect to credit policy, as reflected in initial credit evaluation, ongoing credit monitoring and collection, and forgiveness of delinquency and default. Where problems arise in any of these areas, action would be expected from the supervisory board. The second is that as this item will be impacted by management decisions (i.e., internal decisions), this suggests that that while there may be common trends/cycles in bad debts over time, much of the variation in bad debts between different enterprises should largely reflect firm-specific influences and decisions.

3.2. Sample and Data

This study focuses on non financial A-share firms listed on either the Shanghai Stock Exchange or the Shenzhen Stock Exchange. In order to test the effects of various types of ownership—that is, high levels of

state and foreign investor ownership—the sample of companies is divided into three groups: A-share, AB-share, and AH-share companies. A-share companies are companies that have issued A-shares only, and are listed on the domestic stock exchanges. AB-share companies are those that have issued both A-shares *(see endnote 9)* and B-shares, *(see endnote 10)* with an initial A-share offering. They are also listed on the domestic stock exchanges in China. However, AH-share companies are those that have issued both A-shares and H-shares, *(see endnote 11)* and have floated their shares simultaneously on the Hong Kong Stock Exchange and one of China's two mainland stock exchanges.

A sample size of 120 companies was selected from the currently listed companies in China's Shanghai SSE180 *(see endnote 12)* and Shenzhen SSE100 *(see endnote 31)* for the period from 2001 to 2005. This was achieved through use of a stratified sampling method. As shown in Figure 2, 46 companies *(see endnote 14)* were randomly selected from the A-share group, and 42 companies were randomly selected from the AB-share group. There were only 32 companies listed on both the Hong Kong Stock Exchange and one of the two mainland Chinese stock exchanges. For this reason, all of these companies were selected for our sample.
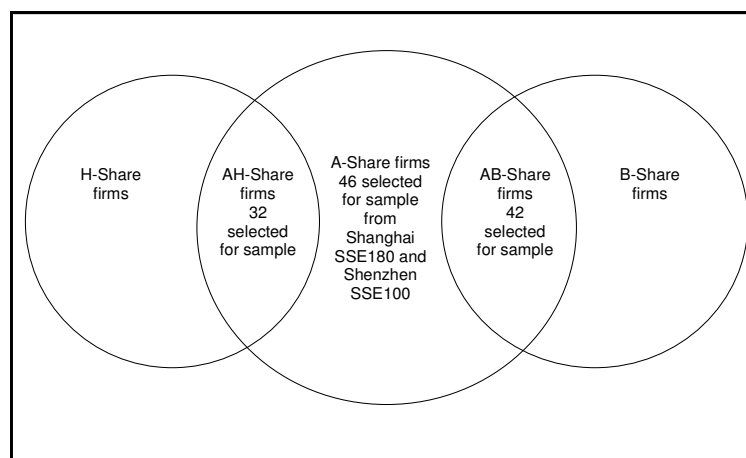
Figure 2. Sampling Frame

Table 1. Composition of Sample

Share Type	No. of Sample	Percentage of Sample	No. of observations	Percentage of observations
A	45	38.46	191	35.37
AB	42	35.90	210	38.89
AH	30	25.64	139	25.74
Total	117	100.00	540	100.00

Finally, as shown in Table 1, the final sample of non-financial companies consists of 117 companies listed on the Shanghai and Shenzhen stock exchanges *(see endnote 15)*. Over the five-year period from 2001 to 2005 this has resulted in 540 observations *(see endnote 16)*.

3.3. Model Development and Variable Measurement

According to the hypotheses and empirical schema discussed above, the theoretical model to be formed is as follows:

$$BDRATIO_{i,t} = \alpha + \sum_{P=1} \beta_P (Ownership\ Structure\ Factors \times Moderator)_{i,t}$$
$$+ \sum \beta_P (Board\ Composition\ Factors)_{i,t} + \varepsilon_{i,t}$$

(1)

The panel data regression models to be empirically investigated in this study are stated as follows:

$$BDRATIO_{i,t} = \alpha + \beta_1 TOP10_{i,t} + \beta_2 STOP10_{i,t} + \beta_3 STOP10_{i,t} * AGE_{i,t} ($$
$$+ \beta_4 FORTOP10_{i,t} + \beta_5 FORTOP10_{i,t} * AGE_{i,t} + \beta_6 INDP_{i,t} +$$
$$\beta_7 BSIZE_{i,t} + \beta_8 TSB_{i,t} + \beta_9 PROFSB_{i,t} + \varepsilon_{i,t}$$

2)

The variables are in each model comprised of three types: one dependent variable, seven independent variables, and one moderating variable. The definition and measurement for each of the variables in this study are listed Table 2.

Table 2. Definition and Measurement of Variables

Variable Acronym	Definition	Expected Sign	Measurement
Dependent:			
BDTA *BDRA*	The bad debt ratio measured relative to total assets (BDTA) or accounts receivable (BDAR)	N/A	Either $$BDTA_{i,t} = \frac{Bad\ Debts_{i,t}}{Total\ Assets_{i,t}},$$ or $$BDAR_{i,t} = \frac{Bad\ Debts_{i,t}}{Accounts\ Receivables_{i,t}}.$$ Where: *Bad Debts* = total bad debts at the end of a reporting year; Receivables = value of accounts receivable at the end of a reporting year; *Total Assets* = book value of total assets at the end of a reporting year; *i* = sampled company; and *t* = year.

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Independent:			
TOP10	Overall ownership concentration	+ve	Proportion of total shares held by the top 10 shareholders
STOP10	State ownership concentration	+ve	Proportion of shares held by the state in those held by the top 10 shareholders
FORTOP10	Foreign ownership concentration	-ve	Proportion of shares held by foreign owners from those held by the top 10 shareholders
INDP	Independent directors	-ve	Number of independent directors on the corporate board
BSIZE	Board of directors size	-ve	Number of directors on the board
TSB	Supervisory board size	-ve	Number of members of the supervisory board
PROFSB	Professionalism of the supervisory board	-ve	Number of supervisory board members with professional knowledge or work experience
Moderating:			
AGE	Firm age	N/A	Years since initial listing

4. Results

4.1. Descriptive Statistics

Table . Descriptive Statistics on Variables

Variable	Mean	Median	Min	Max	Standard Deviation
Sample:	2001-2005		Observations:	540	
BDTA	0.0347	0.0076	0.0000	1.3494	0.1129
BDAR	0.2609	0.0959	0.0000	13.1147	0.8403
TOP10	0.6550	0.6616	0.2145	0.9967	0.1627
STOP10	0.6486	0.7067	0.0000	1.0000	0.3078
FORTOP10	0.1408	0.0398	0.0000	0.5906	0.1670
INDP	2.9259	3.0000	0.0000	6.0000	1.3762
BSIZE	10.4130	10.0000	5.0000	19.0000	2.4217
TSB	4.5889	5.0000	2.0000	12.0000	1.6697
PROFSB	1.8593	2.0000	0.0000	5.0000	1.0385
AGE	6.7259	9.0000	0.0000	14.0000	3.4906

The descriptive statistics in Table 3 provide a profile of the corporate governance characteristics of the listed A-share, AB-share and AH-share Chinese companies in our sample. First, the mean ownership concentration (i.e., TOP10) is 65.5 per cent, with a range of 21.45 per cent to 99.67per cent. This is consistent with previous studies by Xu and Wang (1999) and Deng and Wang (2006) that show high ownership concentration in listed companies in China. As argued by Deng and Wang (2006) this supports the potential for larger shareholders to dominate listed firms in China. Second, the mean concentration of state ownership in the top 10 company shareholders (i.e., STOP10) is 64.86 per cent, with a range from zero to 100 per cent. This supports the argument that the state has maintained a dominant role in the operation of many previously SOEs. Third, the mean concentration of foreign ownership in the top 10 company shareholders (i.e., FORTOP10) is only 14.08 per cent, with a range from zero to 59.06 per cent. Fourth, with respect to board composition, the mean number of independent directors (i.e., INDP) is 2.93, with a range of zero to six. The minimum reflects that appointment of independent directors was rare before the year 2002. However, effective from 2003 CSRC guidelines have required at least one-third of the board directors to be independent. Fifth, the mean number of professional supervisors (i.e., PROFSB) is 1.86, with a range from zero to five. The lower value of the range reflects the period prior to the 2002 issue of *The Code* by the CSRC, which requires that supervisors have professional knowledge or work experience in such areas as law and accounting.

4.2. Multivariate Analysis and Hypothesis Testing

Generalized least squares (GLS) fixed effects methods are used in this study. A panel regression model (see equation (2)) was estimated using the three ownership structure variables (with two of them moderated by Firm Age) and the four board composition variables for each of the measures of the dependent variables. The possible existence of multicollinearity was tested. Gujarati (2003) argues that correlations between the independent variables should not be deemed harmful for multivariate analysis unless they exceed 0.8.

Table 4. Correlation Matrix for Independent Variables

	STOP10	FORTOP10	TOP10	TSB	PROFSB	BSIZE	INDP	AGE
STOP10	1.0000							
FORTOP10	-0.3979**	1.0000						
TOP10	0.1252**	0.4396**	1.0000					
TSB	0.1720**	0.0322	0.1857**	1.0000				
PROFSB	0.1185**	0.0830*	0.2721**	0.6160**	1.0000			
BSIZE	-0.0116	0.1953**	0.0855*	0.4096**	0.2032**	1.0000		
INDP	-0.0655	0.2018**	0.1535**	0.2483**	0.2237**	0.4517**	1.0000	
AGE	-0.1407**	0.0294	-0.3722**	-0.0627	0.0113	-0.1424**	0.0672	1.0000

Note: * significant at the 5% level; ** significant at the 1% level.

As shown in Table 4, there are no correlations between independent variables that reach this level. However, a certain degree of multicollinearity can still exist even when none of the bivariate correlation coefficients is very large. The reason is one independent variable may have a linear function with a set of several independent variables (Gujarati, 2003). Hence, multicollinearity is also tested for using the Variance Inflation Factor (VIF) *(see endnote 17)*. The result, not reported in the tables, is that the largest VIF is 1.92 and that the VIFs of all other independent variables are below 1.86. Thus, there is no serious multicollinearity problem present in the regression model.

Tables 5 and 6 provide the panel regression results to test the five hypotheses. These reveal a high adjusted-R^2 of 0.63 for the panel regression using BDTA as the dependent variable, and an adjusted-R^2 of 0.35 for the panel regression using BDAR as the dependent variable. The F statistics for each of the regression models indicate that a statistically significant component of the variation in the chosen measure of the bad debt ratio is explained by variation in the set of independent variables. The discussion that follows examines the results in Tables 5 and 6 in terms of the five hypotheses established earlier.

Table 5. Panel Regression Results BDTA

Dependent variable:		Bad Debt Ratio – BDTA		
Sample:		2001 – 2005		
Cross-sections:	117	Panel obsv:	540	
Adjusted-R^2:	0.63	R^2:	0.72	
F significance:	0.00	F-statistic:	8.01**	
Independent variables:	Expected sign[a]	Coefficient	Standard error	*t*-statistic
Constant	N/A	-0.0016	0.0216	-0.0744
Overall ownership concentration – *TOP10*	+	0.0281	0.0131	2.1411*
State ownership concentration – *STOP10*	–	-0.0553	0.0247	-2.2349*
State ownership concentration moderated by firm age – *STOP10*AGE*	+	0.0058	0.0021	2.7069**
Foreign ownership concentration – *FORTOP10*	+	0.0913	0.0290	3.1519**
Foreign ownership concentration moderated by firm age – *FORTOP10*AGE*	–	-0.0161	0.0029	-5.6107**
Independent directors on the corporate board - *INDP*	–	-0.0021	0.0005	-4.2001**
Directors on the corporate board – *BSIZE*	–	0.0036	0.0016	2.2228*
Supervisors on the supervisory board – *TSB*	–	-0.0009	0.0015	-0.6056
Qualified and experienced supervisors on the supervisory board – *PROFSB*	–	0.0025	0.0020	1.2572

Notes: [a] Giving consideration to the arguments associated with the use of the moderator variable (AGE).
* Statistically significant at the 5% level.
** Statistically significant at the 1% level.

Table 6. Panel Regression Results BDAR

Dependent variable:		Bad Debt Ratio – *BDAR*		
Sample:		2001 – 2005		
Cross-sections:	117	Panel obsv:	540	
Adjusted-R^2:	0.35	R^2:	0.50	
F significance:	0.00	*F*-statistic:	3.30[**]	
Independent variables:	Expected sign	Coefficient	Standard error	*t*-statistic
Constant	N/A	-0.4247	0.2545	-1.6688
Overall ownership concentration – *TOP10*	+	0.7163	0.2407	2.9755[**]
State ownership concentration – *STOP10*	–	-1.0485	0.1705	-6.1502[**]
State ownership concentration moderated by firm age – *STOP10*AGE*	+	0.1517	0.0198	7.6741[**]
Foreign ownership concentration – *FORTOP10*	+	0.3903	0.1954	1.9977[*]
Foreign ownership concentration moderated by firm age – *FORTOP10*AGE*	–	-0.0671	0.0118	-5.6683[**]
Independent directors on the corporate board - *INDP*	–	-0.0365	0.0180	-2.0302[*]
Directors on the corporate board – *BSIZE*	–	0.0381	0.0132	2.8932[**]
Supervisors on the supervisory board – *TSB*	–	0.0099	0.0150	0.6604
Qualified and experienced supervisors on the supervisory board – *PROFSB*	–	-0.0364	0.0142	-2.5695[*]

Notes: [a] Giving consideration to the arguments associated with the use of the moderator variable (AGE).
[*] Statistically significant at the 5% level.
[**] Statistically significant at the 1% level.

The first hypothesis (H_1) states that a higher level of ownership concentration is associated with poor corporate policy decisions and performance. In this specific case poor corporate performance is defined in terms of a higher level of the bad debt ratio. This negative effect on firm performance in this area arises from poor corporate policy decisions that result from the agency conflict between majority and minority shareholders. The ownership concentration measure is assumed to reflect the distribution of power within in a firm. The results of Tables 5 and 6 show a positive relationship between ownership concentration (TOP10) and our alternative measures of the bad debt ratio. This is consistent with the perspective of Shleifer and Vishny (1997), that agency problems involve expropriation from minority by majority shareholders. They refer to this case as "tunnelling", and determine that it is likely to be a significant problem in emerging market economies. Thus, we find support for the first hypothesis.

The second hypothesis (H_2) implies that where a greater percentage of shares are held by the state sector this is associated with a higher level of the bad debt ratio. This reflects that the corporatisation of former SOEs in China via share issue has not effectively dealt with the agency problems associated with public ownership (Chen, 2004). In the case of higher levels of state control (STOP10) we find that, in contrast to our initial hypothesis, the coefficient is negative. This would suggest that rather than increase the bad debt ratio higher levels of state ownership reduce it. However, as argued above, consideration needs to be given to the financial requirements required of SOEs prior to listing in China. Thus, in considering our initial hypothesis we also focus on the coefficient on the level of state control combined with our moderator variable (STOP10*AGE). For this variable the coefficient for the impact over time of

high levels of state ownership on the bad debt ratio is positive. As newly listed former SOEs will start with a relatively clean bill of financial health, we would expect a relatively low initial level for the bad debt ratio, and thus potentially a negative coefficient on STOP10. Given this good start, it is important to our second hypothesis that high levels of state ownership are associated with an increase in the level of the bad debt ratio over time (STOP10*AGE). We therefore find support for our second hypothesis, based on the impact of our moderation variable, and accept it. This suggests that agency problems still exist within our sample firm set due to a misalignment between shareholder and state objectives for these firms.

The third hypothesis (H_3) implies that where there is a greater percentage of shares held by foreign investors (FORTOP10) this will be associated with a lower level of the bad debt ratio. The expectation is that, in the case of China, improving corporate governance and, more broadly, accounting standards, is in the interests of international investors. However, we find that the coefficient on FORTOP10 is positive, suggesting that foreign ownership increases the level of the bad debt ratio. Again, as when considering the impact of high levels of state ownership, we find that when we focus on the share of foreign ownership in the top ten shareholders is moderated by firm age (FORTOP10*AGE), the coefficient has the expected negative sign. This lends support to our third hypothesis, which we cautiously accept *(see endnote 18)*. We thus suggest that rather than having an immediate impact on corporate governance, the impact of foreign ownership occurs progressively over time.

The fourth set of hypotheses (H_{4A} and H_{4B}) argue that the larger the number of independent directors on the board and the larger the corporate board the lower will be the bad debt ratio. The results

in Tables 5 and 6 indicate that there is a negative relationship between the alternative measures of the bad debt ratio and the number of independent directors, supporting the first of these hypotheses. This adds weight to the agency argument of Fama and Jensen (1983) that independent directors are motivated to work in the best interests of shareholders in order to maintain their good personal reputation. However, when considering board size, we the opposite results to that hypothesized for the coefficients in each regression. Rather than having a beneficial impact on the bad debt ratio, it appears that larger boards worsen corporate policy making being associated with a higher level of the bad debt ratio. While this latter result may reflect that the requirement that at least one-third of board members has only been in place since 2003, an issue for further consideration and research, we must reject the second of our fourth set of hypotheses.

The fifth set of hypotheses (H_{5A} and H_{5B}) state that the higher the proportion of supervisory board members with relevant professional knowledge or work experience and the larger the supervisory board the lower will be the bad debt ratio. The argument in the first case is that the supervisory board will require high professionalism from its members to effectively carry out its role of overseeing the performance of the corporate board and management and protecting stakeholders' rights and interests. However, the coefficients for supervisory board size (TSB) in Tables 5 and 6 are not significant. Additionally, while the coefficient on the skills of the supervisory board (PROFSB) is of the hypothesized sign and statistically significant in the case where BDAR is the dependent variable, this is not the case for the coefficient where BDTA is the dependent variable. This clearly suggests that further research into the matter is required, as is consideration of chosen performance metrics. We thus conclude that based on our results, the effectiveness of supervisory board in improving corporate governance may be questioned. This is consistent with Dahya *et al.* (2002), who find that because of the transitional nature of the Chinese economy supervisory board effectiveness is limited. It may be speculated that supervisory boards of listed companies in China have tended to become "censored watchdogs" in the words of Dahya *et al.* (2003), during a period when rapid corporate expansion and the dominance of the corporate board has occurred. Thus, given the conflict between the results of our two alternative panel regressions, we reject our fifth set of hypotheses.

5. Conclusions

The paper has argued that the priority given to establishment of institutional structures reflects their importance in establishing an environment appropriate to a post-transition, market-oriented economic system. Sound institutional choices with respect to the legal and regulatory environment are particularly important to the reform of SOEs, as they assist in the separation of government from SOE management, restructuring of SOEs, and thus the effectiveness of corporate governance frameworks in the transition economy. Assessment of these institutions requires that we consider whether they assist (or are effective) in producing outcomes consistent with their stated intent.

In the case of China the corporate governance structures charged with shaping corporate decision-making behaviour consist of *The Company Law*, *The Securities Law*, and *The Code* (the last being a code of good practice rather than a legal requirement). Thus a key issue to address in China is whether these corporate governance structures have led to good corporate governance outcomes, or potential deficiencies in the capacity of these institutions may be identified. These outcomes relate to: corporate ownership and the exercise of control by majority shareholders at the expense of minority shareholders; the independence of the board of directors and the quality of their decisions; and to performance of the supervisory board in protecting the company's and stakeholders' rights and interests. Failure in any of these areas suggests that corporate governance structures have not properly addressed an aspect of the agency problem.

In this context this paper has examined the relationship between corporate policy decisions, as measured by our proxies for performance, and the corporate control and governance characteristics of listed, non financial Chinese companies. The characteristics explored related to both ownership and board structure under China's two-tier board system. The corporate control characteristics are the level of concentration in and type of ownership, particularly high levels of government and foreign ownership, and thus potential for abuse of a majority shareholder position. With respect to governance characteristics, as reflected in the composition of companies' boards, there are the matters of board size, expertise and independence, the latter being specific matters dealt with under China's corporate governance structures. To represent the quality of corporate policy decisions we chose two alternative measures of the bad debt ratio. These were the bad debt to total asset and bad debt to accounts receivable ratios. The choice of performance metrics related to bad debts reflect that the sample firms' boards and management have direct influence over a range of practices that influence this variable. These include the ability to determine corporate practice with respect to credit policy, as reflected in initial credit evaluation, ongoing credit monitoring and collection, and forgiveness of delinquency and default.

To assess the impact of these characteristics within the Chinese institutional structure we used an unbalanced panel data set covering the years 2001 to 2005. This was comprised of a stratified sample of

observations for 117 A, AB and AH non financial companies listed on the Shanghai and Shenzhen stock exchanges. We hypothesized that due to agency problems that high levels of concentration in firm ownership, and high levels of state control of enterprises, would be associated with poorer quality corporate decision making and thus higher levels of the bad debt ratio. High levels of foreign ownership, high levels of independent directors on the corporate board, and high levels of skill and experience on the supervisory board were hypothesized to decrease bad debt ratios.

Our results suggest that concentration of ownership in general, and high levels of state ownership in particular, are associated with an increase in the bad debt ratio. However, in the latter case it is apparent that, rather than state dominated firms starting with a poorer balance sheet position, state influence has a negative impact over an extended period. Such an outcome suggests that in some cases state objectives rather than those of non state shareholders may dominate in the decision making process. Similarly, consistent with the likely objectives of foreign investors, high levels of foreign ownership are found to impact the bad debt ratio over an extended time; in this case, acting to reduce the bad debt ratio.

Board size and independence are found to be significant factors in determining the ratio of bad debts to total assets for these listed Chinese firms. Independence of the board was shown to be a significant factor in reducing the bad debt ratio. However, rather than a larger board leading to improved performance, we find that increases in the size of the board are associated with higher bad debt ratios. We have argued that this may reflect that it is only relatively recently (i.e., in 2003) that requirements regarding board independence in China were established. Thus this warrants further exploration of the panel data set and its properties, and must be recognised as one of the limitations of this study. Thus future research in the area should seek to increase the size and scope of the sample utilised, in order to address concerns related to the sample size and the length of period covered.

In common with previous research we have failed to find support for the importance of the size of the supervisory board in corporate policy decision making. However, with respect to the impact of the professionalism of the supervisory board on corporate policy decision making we have produced conflicting results. While one of our regression models suggests that no statistically significant impact is present, in the other the qualifications and professionalism of the board had a significant and negative effect on the level of the bad debt ratio. While rejecting support for the importance of this factor, due to the conflict in our results, we recognise this as another limitation of this study. Again we recognise the need to further explore the panel data set, and choice and properties of performance metrics used in this study.

Overall our results are suggestive of the need for China to continue to address the underlying effectiveness of its corporate governance framework. Given our mixed results we suggest that it must continue to act to ensure that the supervisory board's effectiveness is enhanced. This is in order that it becomes an independent watchdog (as per Dahya *et al.*, 2003). Furthermore, it must ensure that its corporate governance model addresses the issue of majority shareholder influences on firm decision making. This is especially the case with the strong links that still appear to remain between the state and formerly state-owned enterprises.

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Endnotes

[1] Each of these laws/codes was revised in 2005.

[2] As well as governance, the definition of institutions usually covers polity, the judiciary and legal system, economic policy, rules, regulations, etc. For example, the Country Policy and Institutional Assessment Index developed by the World Bank provides an indication of the diversity of the political, social and economic structures defined as institutions. It is comprised of 16 components grouped under four broad categories: economic management; structural policies; policies for social inclusion/equity; and public sector management and institutions. Economic management includes macroeconomic management, fiscal policy, and debt policy. Structural policies cover trade policy, financial sector regulation, and the business regulatory environment. Policies for social inclusion/equity cover matters dealing with gender equality, the equity of public resource use, building human resources, social protection and labour, policies and institutions for environmental sustainability, and property rights and rule-based governance. Public sector management and institutions refers to the quality of budgetary and financial management, efficiency of revenue mobilization, quality of public administration, and transparency, accountability, and corruption in the public sector (World Bank, 2004).

[3] To this may be added a variety of other laws, including the *Audit Law* (1994), *Accounting Law* (1999), etc.

[4] *The Code* is based on the OECD (2004), *OECD Principles of Corporate Governance*.

[5] While examining the development of the Chinese capital markets, Qiang (2003) also recognises the presence of multiple agency problems. Many of these are caused by direct and indirect government influence on corporate governance matters in China's listed companies.

[6] Gunasekarage, Hess and Hu (2007) also find weak indication of a negative effect for high ownership concentration.

[7] While independent from the company as defined in *The Code*, the effectiveness of the corporate board in China may differ from that of Western corporate boards. This is because of the close connection between controlling investors and the central or provincial government. The government may influence the appointment of directors and senior managers, and even interfere with the decision-making of a listed firm (Firth, Fung and Rui (2007).

[8] Dahya, Karbhari, Xiao and Yang (2003) utilise qualitative research based on interviews of supervisory board members to gain these insights into the behaviour and functioning of supervisory boards in China.

[9] A-shares are common stock issued by mainland China firms, subscribed and traded in RMB, listed on the mainland stock exchanges, and are reserved for trading by Chinese citizens. The A-share market was launched in 1990 in Shanghai.

[10] B-shares are issued by mainland China firms, traded in foreign currencies, and listed on the mainland stock exchanges. The B-share market was launched in 1992 and was restricted to foreign investors before 19 February 2001.

[11] H-shares are securities of companies incorporated in mainland China and nominated by the Chinese Government for listing and trading on the Hong Kong Stock Exchange, being quoted and traded in HKD. There are no restrictions on holdings by international investors.

[12] Shanghai SSE180 Index was created by restructuring and renaming the SSE30 Index. Through scientific and objective methods it selects constituents that best represent the market. The SSE is a benchmark index reflecting the Shanghai market and serves as a performance benchmark for investment and a basis for financial innovation.

[13] The Shenzhen SSE100 is a benchmark index reflecting performance in the Shenzhen market and serves as a performance benchmark for investment and as a basis for development of financial innovations.

[14] These samples are randomly selected from A-share companies included in the Shanghai SSE180 and the Shenzhen SSE100 after removing dual listed companies (these being either AB-share companies or AH-share companies).

[15] One company found to be a financial company and two companies listed after 2005 have been removed. This results in 117 companies being present in the final sample.

[16] 45 observations for which the data was incomplete have been excluded, resulting in 540 observations.

[17] The critical value of the VIF to test for multicollinearity is 10. Gujarati (2003) suggests that there is no evidence of multicollinearity unless the VIF of a variable exceeds 10. All values used in this study were well below this critical level.

[18] This caution recognises that additional information is required to properly explain why firms with high levels of foreign ownership may initially be expected to have higher levels of bad debts relative to total assets.