SYMBOLIC VS SUBSTANTIAL CORPORATE RESTRUCTURINGS

PENGJI WANG

NATIONAL UNIVERSITY OF SINGAPORE

2011

SYMBOLIC VS SUBSTANTIAL CORPORATE RESTRUCTURINGS

A thesis presented by

Pengji Wang

to

The Department of Strategy and Policy

NUS Business School

For the degree of Doctor of Philosophy in Management

National University of Singapore

March, 2011

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my advisor Prof. Ishtiaq Mahmood, for his continuous support in the Ph.D. program. Prof. Ishtiaq Mahmood was always considerate and willing to offer advice and help on my research and my life. He taught me how to ask questions and express my ideas. He showed me different ways to approach a research problem and the need to be persistent to accomplish any goal. He taught me how to write academic papers in a more scientific way. He has been most responsible for helping me complete the writing of this dissertation as well as the challenging research that lies behind it. Without his expert guidance, encouragement and constant guidance, I could not have finished this dissertation.

I also would like to thank the two committee members during my Phd thesis proposal: Prof. Chi-Nien Chung for his insightful suggestions and warm encouragement, and Prof. Jane Lu, who have given me valuable comments which help to improve my dissertation.

Many people on the faculty and staff of the NUS Business School assisted and encouraged me in various ways during my course of studies. I would like to thank to the friendly professors in business faculty: Prof. Qiang Fu, Prof. SangChan Park, Prof. Meijun Qian, and Prof. Xiaohui Lu. They were so kind as to spend a lot of time with me discussing my dissertation and giving me good ideas and guidance on how to proceed with my research.

Last, but not least, I thank my family: my husband and my parents. They have been always there to support me and encourage me with love and patience.

ABSTRACT

When organizations restructure their business portfolio, capital structure, and organizational structure to respond to external pressure, the restructurings may be genuine in that they are aimed at improving efficiency, or be merely symbolic in that they are aimed at satisfying institutional pressure and do not change the firm's internal routines. Despite of the popularity of the symbolic restructurings in both developed and developing economies, relatively less attention has been directed to how the institutional environment shapes firms' symbolic restructuring choice and its implications on post-restructuring performance. To address such important issues, this dissertation investigates when and how institution environment shapes the decision and performance of firms' substantial and symbolic restructurings. The empirical analysis of this dissertation is based on the listed firms that report negative net profit in Chinese securities market from 1998 to 2004.

After giving measurement for the substantial restructuring and symbolic restructuring, as well as providing the institutional background in China in chapter II, I further conduct two empirical studies in the context of China with institutional variations across 31 provinces in chapter III and chapter IV. In chapter III, I draw on transaction cost theory and institutional theory to understand the underlying channels by which the institutions (including local legal system and local government support) across provinces in China shape firms' choice between substantial vs. symbolic restructuring. The results suggest that the choice is actually a combination of legitimacy and efficiency concerns.

In chapter IV, I examine the performance implication of substantial restructuring and symbolic restructuring in emerging economies, as well as how the local government support moderates the performance after substantial and symbolic

restructurings. Drawing on transaction cost theory, institutional theory and soft-budget theory, the study unravels the mechanisms through which local government participation leads to the success or failure of corporate restructuring.

The findings have implications for research on the corporate restructuring, symbolic action, and the role of government in transition economies.

SYMBOLIC VS SUBSTANTIAL CORPORATE RESTRUCTURINGS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter I

Introduction

Organizations often restructure their business portfolio, capital structure, and organizational structure to respond to external pressure (Duhaime & Grant, 1984; Hitt, Harrison, & Ireland, 2001; Markides, 1992). However, although some restructurings may be genuine in that they are aimed at improving efficiency, others are merely cosmetic in that they are aimed at satisfying institutional pressure and do not change the firm's internal routines. While there has been a considerable research focus on attempting to understand the antecedents and outcomes of restructuring, little work has been done to investigate if the causes and results of restructuring vary according to whether the restructuring is substantial or symbolic.

In theory, a failure to differentiate between substantial restructuring and symbolic restructuring may result in an important contingency between corporate restructuring and firm performance being missed. Moreover, while more substantial or fundamental restructurings are expected to lead to better firm performance, they are also associated with higher implementation costs (March, 1991; Tushman & Nelson, 1990). Hence, it is difficult to pinpoint exactly how the performance implication varies between substantial and symbolic restructuring. Accordingly, it is unclear whether the choice between substantial and symbolic restructuring is merely a legitimacy concern, is an efficiency concern, or is a combination of the two (Martinez & Dacin, 1999). In practice, if firms use symbolic restructurings as a ceremony to attract support from the regulatory agency and investors, rather than to improve actual efficiency, they will lead to information

asymmetry and the misallocation of resources within firms or even across the market as a whole (Miglo, 2007; Misallocate & Stubben, 2008). As a result, understanding the nature of symbolic restructuring is the first step in establishing laws and policies that recognize and regulate this form of restructuring and in protecting investors from inefficient investment.

This dissertation examines the antecedents and consequences of substantial restructuring and symbolic restructuring in the context of China, where a significant number of listed firms use restructuring plans as a symbolic response to delisting pressure rather than to improve the efficiency of their operations. It makes several novel contributions to the literature.

First, it considers how best to measure the symbolism and substantiveness of restructurings. Little effort has been made to investigate symbolic corporate restructurings due to the difficulty of identifying them. Prior studies mainly consider whether or not the policy has been implemented after being adopted to define and measure substantial or symbolic actions (e.g., Westphal & Zajac, 1994; Stevens, Steensma, Harrison, & Cochran, 2005). This method cannot be applied to the case of symbolic restructuring, which represents a continuum: firms not only adopt a restructuring strategy, but also implement it as they come under institutional pressure; yet the implementation phase is superficial as it does not address the internal routines that are pertinent to the spirit of the institutional requirement. This type of continuum of symbolic action is more prevalent than substantial restructuring because it is hidden from constituents to a greater degree. Hence, it is necessary to formulate a new way to

define and measure such a continuum of symbolic action. In this dissertation, corporate restructurings conducted within one year are defined as more symbolic when they bring about fewer changes to internal routines related to efficiency. Such changes to internal routines include a refocusing of the firm's business portfolio, a change of ultimate controller, avoiding related party transactions, and avoiding manipulation of end-of-year earnings. Factor analysis is used on these items to develop a measure of the symbolism of corporate restructuring. The reverse of the symbolism index is the substantiveness index that describes the substance of corporate restructurings.

Second, this dissertation focuses on the role of institutions as a predictor of symbolic vs. substantial restructuring. The institutional context can affect both the choice of form of restructuring and restructuring performance. There are two alternative institutions: market and government. The market facilitates and monitors transactions through the legal system, which includes codifed laws and formal enforcement mechanisms. In transitional economies where there is no well-developed market institution, the government controls and allocates resources, as well as is intimately involved in economic decisions. Failure to consider either of them as a predictor would bias the effect of restructuring on performance.

I focus on local-level institutions rather than central-level institutions. This is because large economies often have more than one layer of institutional arrangements (e.g. China, India, and Indonesia in Asia, Mexico in Latin America, Nigeria in Africa, the USA, etc.), as central government decentralizes power to local governments to a greater or lesser degree to enable them to develop local policies. Local government can

therefore shape organizations' responses to the central authority. Yet most research focuses solely on country-level institutions established by the central government to understand symbolic actions or corporate restructuring performance (Claessens & Djankov, 1997; Earle & Estrin, 1997; Levin, 2006). Institutional variation across different regions of the same country is ignored due to data availability. The question of why organizational restructurings show different patterns in response to the same state-level policy remains unanswered. It is therefore more interesting to investigate the institutions formed by the local government.

This dissertation takes advantage of the institutional variation across 31 provinces, municipalities, and autonomous regions in China to investigate how the choice of substantial vs. symbolic restructuring at the provincial level is shaped by (a) the provincial-level legal system; and (b) provincial-level government support in terms of subsidies to local firms, preferential credit access, and local protectionism. Moreover, I examine how the choice of substantial vs. symbolic restructuring at the firm level is shaped by the interaction between firm-level characteristics and provincial-level institutions. Specifically, I examine how the effect of provincial-level institutions on firms' restructuring choice is contingent on: (1) the complexity of the restructuring, which refers to the complex issues that prevent firms from exiting their existing production arrangements and establishing new production arrangements. Such issues include diversified input, redundant labor and obsolete physical assets; and (2) auditor independence, which refers to the independence or objectiveness of the external auditor employed by the firm. Examining the interaction between provincial-level institutions

and firm-level characteristics such as these two enables us to understand the underlying channels by which institutions shape firms' choice of substantial vs. symbolic restructuring.

I show that both the legal system and local government support shape firms' substantial/symbolic restructuring choice by affecting implementation costs and supervisory pressure. The local legal system promotes more substantial restructurings among firms that have more complex issues involved in restructurings and less independent auditors. In contrast, local government support promotes more symbolic restructurings among firms with more complex issues involved in restructurings and more independent auditors. Thus, I address the conundrum of how firms choose between substantial and symbolic restructuring by showing that the choice is actually driven by a combination of legitimacy and efficiency concerns.

Finally, I investigate the performance implication of substantial vs. symbolic restructuring in emerging economies. More importantly, I investigate how the local government support moderates the performance implication of substantial and symbolic restructurings. Recognizing that the substantial vs. symbolic restructuring choice is endogenous, I employ a propensity score matching method to obtain a matched symbolic restructuring as the counterpart for each substantial restructuring. I examine whether their post-restructuring efficiency scores diverge using the difference-in-difference approach. The results show that substantial restructurings leads to greater efficiency improvements than symbolic restructurings only when there is a well-developed legal system or when the firm has obtained local government support.

Furthermore, I investigate those aspects of the firm's arrangements in which local government support contributes to the success of substantial restructuring. The results show that local government support enhances substantial restructuring only when it deals with ownership arrangements, rather than business refocusing. Hence, the study unravels the mechanisms through which local government participation leads to the success or failure of corporate restructuring.

Overall, this dissertation advances our understanding of symbolic and substantial restructurings. I show that the choice between substantial and symbolic restructuring is driven by a combination of legitimacy and efficiency concerns, at least in transitional economies. This is because substantial restructuring is associated with high implementation costs that cannot be offset without well-developed legal institutions and appropriate government intervention. This result sheds light on research on both corporate restructuring and symbolic action, suggesting that it is important to incorporate institutions into the analysis in seeking to understand the corporate restructuring choice, restructuring performance, and symbolic action.

The rest of the dissertation is organized as follows. Chapter II defines and measures the substance/symbolism of corporate restructuring. I then provide some background on the Chinese institutional context before giving some evidence that both symbolic restructurings and institutions vary across provinces and over years in China and that there are some links between them. Chapter III draws on transaction cost theory and institutional theory to investigate how institutional variation across provinces in China shapes firms' choice between substantial and symbolic restructuring. In Chapter IV, I

examine the performance implications of substantial restructuring and symbolic restructuring. Chapter V summarizes the key findings of this dissertation and highlights its theoretical contributions and managerial implications. I also suggest several directions for further research on symbolic vs. substantial restructurings.

CHAPTER II

Symbolic vs Substantial Restructuring: Evidence from China

INTRODUCTION

Symbolic action refers to a firm adopting a policy as a symbol to meet the institutional requirement while keeping internal routines away from the external institutional requirement (Meyer & Rowan, 1977). There is a fair amount of institutional theory literature on symbolic action. Prior studies have defined and addressed symbolic action in the form of decoupling, selective adoption and modification.

In early studies, scholars held an economic perspective. They suggested that institutional requirement has nothing to do with, or even is conflicting with the technical efficiency of the firm. Symbolic action is defined in terms of decoupling or separation of institutional requirement and internal technical concerns (Drazin & Van de Ven, 1985: 516-517; Meyer & Rowan, 1977; Gupta, Dirsmith, & Fogarty, 1994). In recent studies, scholars from a behavioral perspective proposed that to protect their interests or political concern, managers may symbolically adopt some strategies by completely decoupling the implementation and the adoption of the strategies required by institutional pressure. For example, Westphal and Zajac identified the symbolic adoption of long-term incentives in executive pay (1994) and stock repurchases (2001) in which managers adopt, but do not implement, plans in these areas. In either of the cases, symbolic action is a complete decoupling between the institutional requirement and the firms' implementation of the requirement. Symbolism is thus measured by a dummy variable equal to 1 if the plan is not implemented after adoption and 0 otherwise.

Another type of symbolic actions is that firms sometimes selectively adopt only several dimensions of a strategy (or a new practice). But it is not always because they simply want to adopt it symbolically, but because they need to choose only specific dimensions that work in their firm specific (or institution specific) context. For example, Levin (2006) showed firms symbolically adopt Total Quality Management (TQM) by selectively implementing several, but not all, dimensions of the TQM required by the regulation. The extent of symbolism is thus measured by the ratio of the number of dimensions implemented to the total number of dimensions of the strategy mandated by the institutional environment.

The premise underlying both the complete decoupling and the selective adoption is not continuous. They just consider the issue of "implementation or not" in one or multiple dimensions. However, there is the third type of symbolic action, in which firms act symbolically by modifying the required strategies or practices to suit their own context. For example, Westphal and Zajac (2001) suggested an example as earnings manipulation. Firms implement the accounting standard pressured by regulation in their operation and accounting practice. However, they modify the value of some accounting items to manipulate their earnings. Another example is in China, listed firms appoint independent directors to meet the requirements of regulation (*Guiding Opinions On The Establishment Of Systems Of Independent Outside Directors By Listed Companies* (August, 2001)) and market investors. Independent directors are required to supervise managers and protect minority shareholders by issuing opinions on important decisions. However, in many listed firms, although independent directors issue opinions, their

opinions do not really challenge managers' decisions. Thus, the listed firm superficially implements the governance requirements by modifying the activity of the independent director. In the two cases, the firm's symbolic action is a continuum rather than discrete. Such a continuum of symbolic action may be more favored by firms, as it is complex and difficult to identify. Examining it is therefore likely to be an interesting exercise. However, tools that can be used to define and measure this continuum of symbolic action have not yet been developed.

In this study I investigate one symbolic action of continuum modification: symbolic corporate restructurings conducted to manipulate earnings rather than to improve efficiency. In the real world, complete decoupling, selective adoption and modification are difficult to separate clearly. No matter which types are involved, there is one rule that has been followed by those firms who have done some symbolic actions: there is discrepancy between the spirits of institutional requirement and firms' real behavior. Therefore, I differentiate more symbolic corporate restructurings from more substantial corporate restructurings and give definitions and measures for the symbolism/substantiveness of corporate restructurings based on this rule.

I then introduce the institutional background that has led to the popularity of symbolic corporate restructurings in China. I argue that symbolic restructurings are not easily prevented because they are rooted in the central-level and local-level institutional arrangements that prevail in China. At the central level, the delisting system established by the central government creates a contradiction between legitimacy and efficiency. Although the spirit of the delisting system is to push firms to restructure to improve

efficiency, the delisting decision is simply based on firms' accounting performance. Firms have the incentive to use symbolic restructurings to polish their accounting performance and respond to the immediate legitimacy crisis. At the local level, decentralization in China allows local governments to establish local institutions including legal and government support systems. These institutions can reshape the contradiction between efficiency and legitimacy, thus affecting the substantiveness of corporate restructurings.

In the final part of this chapter, I give some evidence on symbolic restructurings and its potential link with institutions. I give evidence of symbolic restructurings over the years and across provinces in China, showing that in comparison with substantial restructurings, symbolic restructurings lead to better accounting performance in the short term but result in less pronounced efficiency improvements and poorer accounting performance in the long term. As for the link between symbolic restructuring and institutions, I find that a well-developed state-level legal system or local enforcement mechanism will alleviate the efficiency-legitimacy contradiction and thus promote more substantial restructurings among firms. Financing support from local government triggers more symbolic restructurings, while non-financing measures taken by local government may promote more substantial restructurings.

Defining Symbolic vs Substantial Corporate Restructurings

Corporate restructuring has been a popular means for organizations to respond to threats and opportunities in their business environments (Duhaime & Grant, 1984; Hitt, Harrison, & Ireland, 2001; Markides, 1992). The restructuring can be conducted within

or beyond a firm's boundary. Within the boundary, a firm can use internal resources to manage its budget and capital structure, or to reconfigure its processes, procedures, and organizational structure. Alternatively, firms can draw in external resources to restructure their operations. To draw in external resources, a firm needs to participate in transactions beyond its boundary. Restructurings conducted beyond the firm's boundary can involve different types of transactions such as divestment (including selling assets, divisions, or subsidiaries to another corporation or a combination of corporations or individuals), acquisition (including buying shares or assets), ownership restructuring (including transferring the equity of the main shareholders and equity expansion), and debt restructuring (including debt forgiveness, debt rescheduling, and/or conversion of a portion of debt into equity). In this study, I focus on restructurings conducted beyond the firm's boundary.

Most of the prior studies in the literature show that firms can conduct restructurings to respond to technological opportunities or threats. For example, firms conduct restructurings to update their technology, to refocus on more promising sectors, and for similar purposes (Singh & Chang, 1992). Some studies suggest that restructurings have also been used as a response to institutional pressure over the last several decades. For example, Bartov (1993) shows that managers conduct assets sales to smooth earnings, thus satisfying the requirements of market investors. Levin (2006) shows that hospitals conduct internal procedure restructurings to adopt total quality management practices and thus meet regulatory requirements. This study follows the second strand of the literature and examines the use of corporate restructurings as a means to respond to

institutional pressure.

When corporate restructuring is used as a means to respond to institutional pressure, the nature of the restructuring undertaken can range from substantial to symbolic. On the one hand, firms can restructure substantially to make fundamental changes to inefficient internal routines, thus conforming to the spirit of institutional requirements for restructurings. For example, firms participate in acquisitions and divestitures to develop new business lines, to achieve economies of scale, to increase market share through geographical diversification, to realize vertical integration, or to reduce risks (Singh & Chang, 1992). These steps allow the firm to improve its inefficient operations. The firm reshapes its organizational structure, including its management teams and ownership structure, to increase the efficiency and effectiveness of the management (Bowman & Singh, 1993). These fundamental changes improve firms' productive efficiency and accounting performance in the long term. However, fundamental changes of this type are associated with high implementation costs. For example, firms that seek to improve their inefficient business portfolios need to cut obsolete production lines, shed labor, and get rid of non-productive assets. They also need to make a major investment in the introduction of new product lines, processes, and technologies. To improve their organizational structure, firms need to break the political balance among their entrenched powerful parties. This necessitates not only financial and technological support, but also managers with good judgment of investment opportunities, adequate incentives, and the entrepreneurial skills required to support new projects.

On the other hand, firms can restructure superficially for the sole purpose of

manipulating earnings. For example, firms can sell peripheral assets or stock held by their subsidiaries to generate sufficient cash to meet their debt obligations (Kaplan & Weisbach, 1992). Firms may sell stock or assets or acquire profitable assets from affiliates solely to increase their below-the-line items such as non-operating revenue and investment revenue (Ding, Zhang & Zhang, 2007; Jiang & Wang, 2003; Jian & Wong, 2006; Liu & Lu, 2007). By doing so, they can increase their profit and avoid accounting loss. This allows them to provide a symbol to the regulatory agency, market investors, and other stakeholders indicating that they are improving performance through restructuring while leaving the internal routines that hurt their efficiency untouched. In this sense, there is a degree of divergence between the symbolism and substance of corporate restructurings. As symbolic restructurings do not bring fundamental changes to the firm's portfolio or management, they are associated with a lower implementation cost than are substantial restructurings. However, to carry out a symbolic restructuring, the firm needs to undertake the risk of being detected by the regulatory agency or market constituents (Levin, 2006). When there is a high degree of supervisory pressure on firms to restructure, it is costly for firms to undertake symbolic restructurings.

To summarize, I define corporate restructurings as more symbolic if they are conducted to polish the firm's accounting performance and allow it to meet the institutional requirement; however, restructurings of this type do not change the internal routines that really hurt the firm's efficiency, which is the spirit of the institutional requirement. In contrast, I define corporate restructurings as more substantial if they are conducted to address the inefficiency of internal routines, thus conforming to the spirit

of the institutional requirement, i.e., improving firm efficiency.

EMPIRICAL SETTING: CHINA

In China, corporate restructuring is a commonly used means of responding to institutional pressure, especially among poorly performing listed firms. According to Tan (1999), many of the poor performers in the Chinese securities market undergo symbolic restructurings to polish their accounting performance. These symbolic restructurings lead to information asymmetry and misallocation of resources (Miglo, 2007; Misallocate & Stubben, 2008). Although the regulatory agency has established a series of laws and rules to regulate symbolic restructurings, restructurings of this type are not easily prevented. Symbolic restructurings are rooted in the institutional arrangements that prevail in China.

Institutional Arrangements from Central Government: Delisting System

In China, the first cause of the decoupling of substance from symbolism in corporate restructurings is the delisting system established by the central government, represented by *China Securities Regulatory Commission* (CSRC)[1]. The Shanghai and Shenzhen stock exchanges were launched in 1990 and 1991 respectively. To assure stable and manageable stock market development, the central government imposed a quota system in regulating the listing of firms in the market. Under the system, the central government set a target for total proceeds to be raised in the stock market, and then this total amount would be allocated across provinces who have the authority to

[1] Initially, the governments of Shanghai and Shenzhen were principally responsible for the supervision of the exchanges. At this stage no national supervisory body existed. In 1992 the China Securities Regulatory Commission (CSRC) was created to address perceived failings of the previous supervision. However, it was not until 1998 that supervision was fully centralized in the CSRC as part of securities reform that led to the promulgation of China's first Securities Law.

recommend the list of public offerings. After April 1 2001, the approval system took the place of the quota system. Within the new system, a company must obtain approval from CSRC to be listed in the exchanges. Within the tight listing system, the listing quota is a valuable and scare resource for the firms.

To protect the investors and encourage listed firms to improve their operational efficiency, the central government had established a delisting system based on firms' accounting earnings since 1994. According to the Article 157 of *The Firm Law of the People's Republic of China* that started to take effect from January 1 1994, the firms with losses for three consecutive years should be suspended from trading by the securities regulatory body under the State Council. In 1996, firms with losses for two consecutive years began to emerge. From January 1 1998, the Listing Rules by Shenzhen and Shanghai Stock Exchanges prescribed that such firms should be under special treatment (ST). Trading in the shares of ST firms is regulated such that price volatility is limited to within +5% daily. ST firms' interim reports should be audited. In 1998, firms with losses for three consecutive years appeared. To address the new problems, Shenzhen and Shanghai Stock Exchanges promulgated the Regulations Concerning Suspension of Trading on June 16, 1999, requiring that all firms with losses for three consecutive years should be suspended from trading and their shares should be labeled as "PT" (i.e. particular transfer). PT shares can be traded only on Fridays. The price increase in a PT share is limited to no more than 5% on any trading day to prevent insider manipulation. However, the price of a PT share is allowed to fall without limit. Moreover, PT shares can be removed from listing at the discretion of the Stock

Exchange manager. From Dec. 4, 2001, the PT system was abolished. Instead, firms with losses in three consecutive years are delisted automatically within 10 days of announcing the final loss in their annual report.

The rationale for basing ST, PT and delisting decisions on accounting earnings is that firms reporting consecutive losses are poor performers in the long run. It is necessary to restrict or delist them to enhance market liquidity and to guarantee the allocation of resources to productive undertakings, thereby protecting investors' interests. Ideally, the delisting system would tend to pressure listed firms into performing well over the long term, an outcome that can be achieved only through improving productive efficiency.

However, basing the delisting decisions on firms' accounting performance actually generates a contradiction between efficiency and institutional legitimacy. On the one hand, a considerable number of loss-makers have lost competitiveness in their core businesses. Although these loss-makers would like to undertake more substantial restructurings to improve their productive efficiency, substantial restructurings are too costly and risky for them and must be implemented over a long period (Lee & Xue, 2004). On the other hand, the pressure the delisting system placed on loss-makers to achieve legitimacy is never far from the surface. This contradiction between efficiency and legitimacy encourages firms simply to report better accounting performance in a symbolic gesture designed to meet the institutional requirement and protect the listing quota, while neglecting the substance of the institutional requirement: improving efficiency.

Institutional Arrangements from Local Government

China is characterized by its decentralized economic structure (Cai & Treissman, 2006; Clarke, 1991; Jin, Qian, & Weingast, 2005). Local government has been delegated economic and political powers to create local institutional arrangements (Dong, 2007). Therefore, enterprises operating in different regions are subject to different institutional environments. This section reviews decentralization in the economic and political arenas in China and shows that decentralization may push local government to help firms in their substantial or symbolic restructurings.

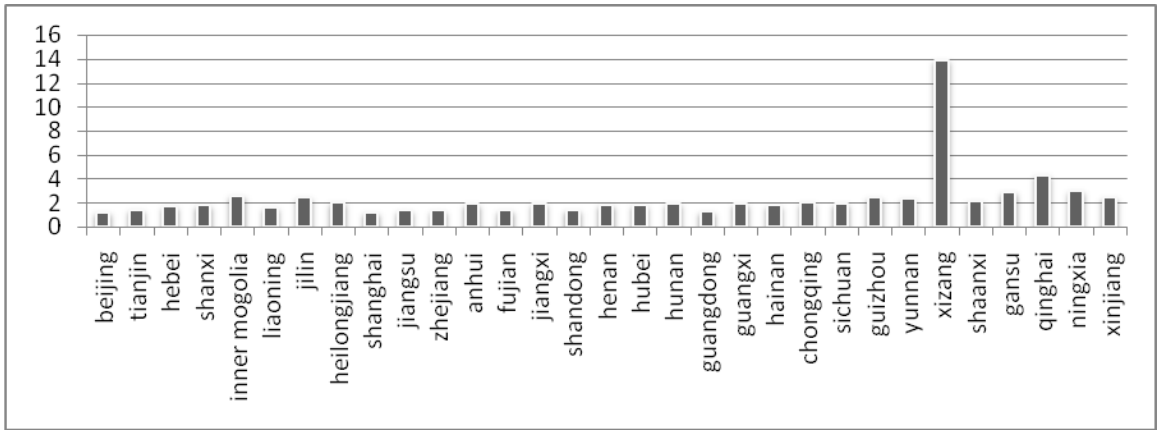
Decentralization of economic power

The decentralization of economic power is firstly reflected by the decentralized fiscal system. A tripartite tax system took effect in China from 1994 in which taxes are classified into three categories: central, local, and shared. A more detailed division of taxes is shown in Appendix 1. Under this system, local revenue includes budgetary revenue from local taxes and the local portion of shared taxes, as well as extra-budgetary revenue consisting of tax surcharges and user fees levied by central and local government agencies and some SOE earnings[2] (Bahl, 1999; Jin, Qian, & Weingast, 2005). Although this system of fiscal decentralization specifies how revenue is to be assigned, it does not specify how expenditure is to be assigned. Therefore, the fiscal decentralization process has increased budgetary imbalances and imposed further fiscal stress on local governments (Wong, 2000). Evidence of this can be seen in Figures 2.1a and 2.2b. Figure 2.1a shows the ratio of budgetary expenditure to budgetary income

[2] Extra-budgetary revenue emerged in the 1950s, but only became institutionalized after the reform period began. Unlike local budgetary revenue, local extra-budgetary revenue does not have to be shared with the central government.

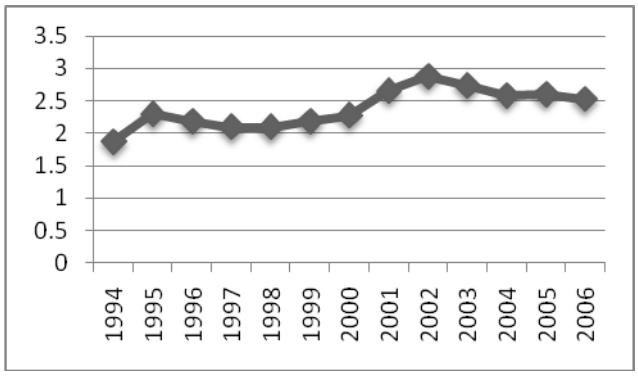
within each province. The Y axis is the ratio of budgetary expenditure to budgetary income. Figure 2.1b shows the average ratio of provincial budgetary expenditure to provincial budgetary income from 1994 to 2006. As Figure 2.1a shows, the ratio of budgetary expenditure to budgetary income within each province is always higher than 1[3]. Figure 2.1b shows that the average ratio of provincial budgetary expenditure to provincial budgetary income increased continuously from 1994 to 2006. However, as the local government cannot set the tax rate, adjust the tax collection base, or introduce new taxes, the only way to satisfy the requirements of the public and individuals is to build a more solid tax base among enterprises within the region.

Figure 2.1a Budgetary Expense/Budgetary Income Across Provinces



[3] In Xizang, the ratio of budgetary expense to budgetary income is much higher than those in other provinces. This is because the economy in Xizang is quite under-developed. The tax base in Xizang is quite low. However, to promote Xizang's economic growth, Chinese central government has made a lot of transfer payment to Xizang to support the projects such as Qinghai-Xizang railway, Ali airport, and other infrastructure to provide water, electricity and communication. Over 90% of the budgetary expense is supported by the transfer payment from the central government, including general transfer payment, special transfer payment and transfer payment to minority region.

Figure 2.1b Budgetary Expenses/Budgetary Income Over the Years



The second aspect of the decentralized nature of economic power is that the careers of local government officials are tightly linked to local economic growth to give local government more of an incentive to develop the local economy. Local government officials in China undergo detailed performance reviews carried out by their superiors. Promotions, demotions, and job-related benefits all depend on such reviews, which have become increasingly formal (Tsui & Wang, 2004). Li and Zhou (2005) and Maskin and Xu (2001) offer evidence that economic growth is one of the most important criteria in such reviews.

The third aspect of the decentralization of economic power is that local government is given policy tools enabling it to help local enterprises. The provinces have delegated powers to approve investment projects, capital construction projects, technical renovation projects, the use of foreign exchange, and the reduction and waiver of taxes on business, pricing, and wages (Dong, 2006). Other than these general measures, the central government has also implemented some specific policies to encourage local government to help firms grow. For example, the *Basic Specifications to Build Modern Enterprises Systems and Strengthen Management for State-owned Large and Medium-sized Enterprises (Trial Regulation 2000)* specify that the local government

should help to build a modern enterprise system by resolving historical problems such as redundant labor or an underdeveloped security system, establishing models of modern enterprises, and appointing members of supervision committees. Therefore, local governments have the ability to provide various forms of support to enterprises within their jurisdiction.

The decentralization of economic power encourages local government to focus on listed firms for several reasons.[4] First, given the tight quota system for company listings, local governments choose firms that make the largest contributions in determining listing nominations. These firms are often the pillars of the local economy and are linked with many other unlisted firms. They are the engine of the local economy because they pay more tax, provide more employment, and create more investment opportunities. Second, the listing quota itself is valuable because it brings in capital from the equity market, a form of finance that is less costly than debt. Third, many listed firms are among the first batch of firms to have adopted the modern enterprise system pushed by the Chinese government (Mooderjee & Yu, 1999). They are regarded as political achievements of local government officials. As a result, local governments are interested in helping listed firms to recover from losses and thereby protect their listed status. The usual way of helping listed firms is to support their restructuring.

However, although the decentralization of economic power pushes each region to maximize local economic growth, it does not necessarily support national economic efficiency. Excessive Concerns over local economic growth often lead to regional

[4] I do not discuss unlisted firms in detail in this chapter. The contribution of unlisted firms is not trivial, although listed firms play a more important role in the overall economy.

protectionism, duplicative investment, and misallocation of resources (Young, 2000). This issue is particularly serious because the political careers of regional leaders are closely tied to the economic performance of their own region vis-à-vis that of other regions (Li & Zhou, 2005) and local government budgets are tight. In this study, the central government hopes that local government will use measures that improve the efficiency of listed firms. The local governments, on the contrary, may be more concerned about the listing quota than they are about efficiency. They may use support measures to help listed firms avoid urgent crises and obtain immediate benefits while tolerating inefficiency.

Decentralization of Political Power

In this study, the decentralization of political power refers mainly to the central government's delegation of legislative and enforcement powers to local government. In respect of legislative powers, the Chinese Constitution passed in 1982 gives the People's Congress and its Standing Committee of each province, autonomous region, and municipality the power to formulate local regulations in light of the Constitution, laws, and administrative regulations. Further, the *Organic Law on the People's Congresses and Governments at All Levels* authorizes the provincial capitals and some other large cities to formulate local regulations. Under this system, when the central government establishes a new law or regulation, it depends on local governments to issue supporting laws, rules, and regulations that further specify how to implement the central law or regulation.

In respect of enforcement powers, the court system must theoretically be independent of local government and immune to its pressure. Some scholars even suggest putting the entire court system under a vertical system of leadership (Clarke, 1991). However, in reality, the cooperation of local authorities is needed to facilitate the enforcement of central policy and regulations for three reasons (Clarke, 1991). First, courts often lack sufficient bureaucratic clout to enforce their judgments against administrative units. Second, courts are dependent on local government for their financing and personnel. Third, the formal power to appoint and dismiss court personnel is lodged with the local people's congresses. Sometimes, the central government even makes it clear that it depends on local government to enforce policy. For example, the CSRC states in almost all of the documents it issues that it depends on representative agencies of the CSRC and local government to jointly monitor listed firms on such aspects as corporate governance, information disclosure, restructuring procedure, and risk disclosures on delisting. Therefore, local government has the power to affect the quality of local enforcement.

In summary, the decentralization of economic and political power has several consequences. The first is that local government has the incentive to protect listed firms from being delisted. Second, local governments may place a greater emphasis on the listing quota than they do on the efficiency of listed firms as they have limited resources and need to obtain immediate benefits. Third, local governments have the ability to provide support to local enterprises. Fourth, local governments have established their

own legal systems (in terms of both legislation and enforcement) as an extension of state-level institutions to facilitate and monitor behaviors of firms.

Therefore, listed firms located in different regions are subject to different institutional arrangements. These institutional arrangements will shape the implementation costs of and the supervisory pressure brought to bear on corporate restructurings and thus determine the substantiveness of corporate restructurings.

EMPIRICAL EVIDENCE

In the previous sections of this chapter, I define symbolic corporate restructuring and identify the institutional arrangements that encourage restructurings of this type. In this section, I develop measures of the symbolism/substance of corporate restructurings in the Chinese context, and then provide some empirical evidence of symbolic and substantial restructurings in China. I also present evidence of institutional variation across provinces and of the potential link between institutional variation and the substantiveness of corporate restructurings. Before discussing measurement and the empirical evidence, I first describe the sample and data used both in this chapter and in the rest of the dissertation.

Sample and Data

In this study, I use listed firms that report a loss (loss-makers hereafter) in their annual financial report in the Chinese securities market as the empirical context. This is an ideal context for two reasons. First, in contrast with profitable firms, loss-makers are under state-level pressure from the CSRC to be delisted. They have an incentive to restructure in response to this pressure. To meet the listing requirements, they have to

improve their financial performance as soon as possible. However, they may lack the ability to restructure substantially to improve efficiency in a short period. Thus, they often manipulate earnings without improving efficiency substantially. Their restructurings tend to be symbolic. Second, the loss-makers spread across the 31 provinces, municipalities, and autonomous regions of mainland China and are subject to pressure from local governments, including governments at the provincial level and below. Empirical evidence shows that Chinese institutions differ dramatically over time and across provinces in terms of legal system and local government intervention (Brandt & Li, 2003). This variance in institutions provides us with an opportunity to examine the effect of institutional variation on firms' symbolic restructuring.

A four-step selection process is followed to determine the sample. Firstly, the loss-makers in the A-share market[5] from 1998 to 2004 are identified from the *China Stock Market Accounting Research database* (CSMAR). Loss-makers are listed firms that report a negative net profit in their annual financial report. A restructuring could be a response to losses in two consecutive years. I treat the last year in which a firm reports a loss (the loss year hereafter) before the focal restructuring year as the unique loss year.

Second, because loss-makers' own assets, technologies, and other resources are often obsolete, they are incapable of improving performance by adjusting operations

[5] There are three types of stock in the Chinese stock market: A, B, and H shares. Both the A and B markets are based in mainland China. A shares, which are denominated in RMB, are traded exclusively by Chinese citizens. B shares, which are denominated in US dollars on the Shanghai Stock Exchange and in HK dollars on the Shenzhen Stock Exchange, were allowed to be traded by foreign investors only before February 2001. From February 2001, the B market was opened up to Chinese citizens who have deposit accounts in foreign currencies. H shares are traded on the Hong Kong Stock Exchange and are denominated in HK dollars. I do not include firms listed on the B-share or H-share market, as these markets are for foreign investors and have stricter regulations than those applicable to the A-share market in mainland China.

internally. Therefore, most of them have to turn to external resources to accomplish restructurings. This study thus focuses on restructurings conducted beyond the loss-makers' boundary. I examine all corporate restructuring announcements made by the loss-makers within the first and the second year after the loss year. The restructuring announcements are mainly obtained from the CSMAR and *China Center for Economic Research* (CCER) databases and the retrieval system of Chinese listed firms (http://220.194.35.3:8080/zq/ggcx/ggcx.htm). Such restructurings include business restructurings such as asset sales, asset acquisitions, and asset swaps; organization restructurings, such as ownership restructurings; and financial restructurings, such as debt restructurings. The two-year window adopted is appropriate for examining the strategies firms adopt in response to delisting pressure. According to the *Listing Rules of the Shenzhen and Shanghai Stock Exchanges*, firms with losses for three consecutive years face the threat of being delisted (before Dec. 4, 2001) or would be directly delisted without warning (after Dec 4, 2001). Loss-makers have an incentive to improve their accounting performance through restructurings within two years to avoid a loss for a third consecutive year. All the restructuring announcements made in each year are viewed as a one-year restructuring plan (restructuring plan hereafter). For example, firm A reported a loss in 1999. I treat the 3 restructurings in 2000 as one restructuring plan and the 4 restructurings in 2001 as another restructuring plan. This approach is appropriate for considering all the decision points. For firm A, the restructuring decision in 2000 was made in response to the loss in 1999. The firm was then obliged to face the consequence in 2000 (by reporting either a loss or a profit). The restructuring decision

made in 2001 was actually based on the outcome in 2000 rather than on the performance in 1999. Taking 2 years of restructurings as a whole would result in an important decision point being missed, i.e., the decision made at the end of 2000. Examining one year of restructurings as a whole does not present such a problem.

Third, I collect financial data, market performance data, and state pressure data from the CSMAR database and corporate governance data from the CCER database.

Fourth, I choose the province as the unit with which to analyze local institutional variation, because the province is the bridge between central and local power in China (Dong, 2007). In economic affairs, the central government issues directives or assigns tasks at the provincial level to be either directly implemented or relayed to lower levels. In the political sphere, the new Constitution passed in 1982 gave the provinces, autonomous regions, and municipalities the power to formulate local regulations in accordance with the Constitution, laws, and administrative regulations. Therefore, the province is an appropriate analytical level at which to examine variation in local institutions. I obtain the institution and economic information for each province from the CSMAR regional economy database and NERI Index of Marketization of China's Provinces (Fan & Wang, 1999 & 2006). Moreover, I obtain the information on provincial legal system from the *China Law Info Database* (Chinalawinfo.com) developed by Chinalawinfo Co., Ltd., who is a hi-tech legal information company established by the prestigious Peking University on the basis of its Legal Information Center.

The sample comprises 512 unique A-share listed firms from 1998 to 2004. Among

these firms, 215 reported losses more than once, while 297 reported losses only once. Four hundred and eight firms conducted a total of 666 one-year restructuring plans during the first or second year following their reported losses. The distribution of loss-makers and restructurings is shown in Table 2.1.

Table 2.1 Distribution of Restructurings Over the Years

Loss year	Loss-makers	Restructuring year	Restructuring announcements	Restructuring plans
1998	51	1999	65	30
		2000	112	30
1999	58	2000	31	15
		2001	165	50
2000	52	2001	71	24
		2002	113	41
2001	97	2002	150	58
		2003	248	77
2002	100	2003	158	54
		2004	192	70
2003	95	2004	104	41
		2005	239	74
2004	79	2005	189	64
		2006	97	38
Total	532	Total	1934	666

Note: 1. Loss-makers denotes the number of listed firms that reported negative net income in each loss year.
2. Restructuring year denotes the two consecutive years after each loss year.
3. Restructuring announcements shows the number of restructurings in each of the two consecutive years after the loss year.
4. Restructuring plans denotes the number of 1-year restructuring plans in each of the two consecutive restructuring years.
5. The total number of loss-makers in the table, 532, differs from the number of unique loss-makers because some firms reported a loss in more than one year during the 1998-2004 period.

Measurement of Symbolism/Substantiveness of Corporate Restructuring

As noted earlier in this chapter, symbolic corporate restructuring is a continuum of symbolic action in which the restructuring policy has been implemented but the implementation process is superficial. Hence, I cannot consider the issue of "implementation or not" in measuring symbolism.

Some prior studies avoid addressing the "implementation or not" issue in evaluating the symbolism of corporate restructuring. Instead, they use the restructuring

outcome, i.e., to what extent the restructuring helps improve below-the-line items, rather than operating revenue, to proxy the symbolism of the restructuring or earnings manipulation (Lee & Xue, 2004; Jian & Wong, 2004). Such a proxy actually measures divergence between the sources of profits earned by firms and the source required by the spirit of the institutional requirement. However, to respond to the delisting pressure near the surface, firms may conduct restructurings to improve efficiency while at the same time manipulating profits. By simply looking at the divergence of the profit source from the source demanded by the institutional environment, efficiency improvements could be ignored and thus the symbolism of the firm's restructuring could be overestimated.

To solve this problem, a way needs to be found out to directly examine whether the restructuring improved efficiency. My solution is to identify the internal routines that destroy a firm's efficiency, which reflects the spirit of the institutional requirement, and then examine whether the restructuring brought about changes to those internal routines.

To recognize the internal routines that destroy the efficiency of listed firms, the meaning of "efficiency" firstly needs to be understood. Efficiency is taken to refer to productive efficiency in this study. Productive efficiency, also called technical efficiency, refers to the ability and willingness of an economic unit to produce the maximum possible output from a given combination of inputs and technology, regardless of the market prices of outputs, inputs, and demand (Farrell, 1957). Productive efficiency is composed of pure technical efficiency and scale efficiency. Pure technical efficiency (PTE) refers to a firm's technological ability to use the given resources. Scale efficiency (SE) refers to a firm choosing its production level when the marginal cost equals the

output price. Furthermore, X-efficiency theory suggests that productive inefficiency may be caused by lack of motivation and pressure (Leibenstein, 1966). Therefore, productive efficiency requires that a firm operate using the best technological, scale, and managerial processes. By improving these processes, a firm can extend its production possibility frontier outward and further increase its productive efficiency.

In China, listed firms are inefficient because of some of their internal routines. First, they suffer from technical inefficiency because they have obsolete technology and equipment (Woetzel, 2008). Second, they are subject to scale inefficiency because they undertake political tasks (Woetzel, 2008). For example, SOEs have broad social obligations in areas such as health care and workers' pensions, keeping the employment rate high, and developing important industries. These political tasks often lead to firms becoming excessively large or over-diversified, resulting in scale inefficiency. Third, listed firms suffer from X-inefficiency because most of them are dominated by an ultimate controller (Claessens, Djankov, & Lang, 2000; La Porta, Lopez-de-Silanes, & Shleifer, 1999). Nominations to the board of directors, officer appointments, and significant business decisions are subject to the approval of the ultimate controller. Entrenched ultimate controllers seek to protect their own power and are unlikely to bring about fundamental changes to the firm.

Therefore, if the firm's restructuring includes changing these internal routines, the restructuring will substantially improve efficiency. If the restructuring does not lead to changes to these internal routines, it is likely that it is being used as a symbol to satisfy the institutional requirement and diverges from the substance of efficiency. I thus

examine several aspects of restructurings and see if they bring about changes in internal routines.

The first aspect to consider is whether the restructuring involves a refocusing effort. A firm can upgrade its technology or refocus on a promising sector/market by adjusting its core assets through asset divestment, asset acquisition, stock acquisition, or stock divestment. The firm's pure technical efficiency will be improved as a result. Such a refocusing also helps to adjust the scale of a product line and thus improves scale efficiency. In contrast, restructurings that do not involve any refocusing effort cannot improve the pure technical efficiency or the scale efficiency of the firm.

The second aspect to consider is whether the restructuring leads to a control power transfer. Restructurings involving a control power transfer will improve the firm's X-efficiency because a new ultimate controller will seek to make more fundamental changes to the management and the firm's business. In contrast, X-inefficiency cannot be overcome if there is no change in the ultimate controller's power.

The third aspect to examine in this context is whether the restructuring is conducted between related parties such as insiders, affiliates, or group members. Djankov, La Porta, Lopez-di-Silanes, and Shleifer (2007) argue that related party transactions often provide direct opportunities for ultimate shareholders to extract resources from listed companies under their control. Such transactions are actually a reflection of the X-inefficiency brought by the ultimate controller. Even if the ultimate controller does not use a related party transaction as a way to hurt the listed firm, it will not bring about much change in inefficient internal routines. For example, restructurings conducted between related

parties will not result in much change to the firm's pure technical efficiency because related parties often have a similar technology and asset profile. They cannot improve the firm's X-efficiency because they are under the control of the same ultimate controller. Such restructurings will not challenge the ultimate controller's power. Therefore, corporate restructurings conducted between related parties tend to be more symbolic.

The fourth characteristic to consider is the timing of the restructuring. Bartov (1993) examines the timing of asset sales and presents evidence that publicly traded U.S. firms take advantage of the acquisition-cost principle to manipulate earnings. Poitras, Wilkins, and Kwan (2002) show that publicly traded Singaporean firms manage earnings through the timing of asset sales. Many Chinese scholars agree that restructurings conducted at the end of the year are more likely to be used to manage earnings (Jiang, 2004; Zhang, 2008). Restructurings targeting earnings manipulation cannot improve productive efficiency because they cannot bring about change in technology, production scale, or the management team. Therefore, corporate restructurings conducted in the final quarter of the year tend to be more symbolic.

Figure 2.1 examines the characteristics of the sample loss-makers' restructurings from 1999 to 2006. Among the 666 one-year restructuring plans initiated by the loss-makers, 80.33% were not associated with a transfer of control, 64.56% did not involve a refocusing effort, 42.64% included at least one transaction between related parties, and 46.10% involved at least one transaction announced in the fourth quarter of the year.

Figure 2.2 Distribution of Restructurings According to Different Characteristics (1999-2006)

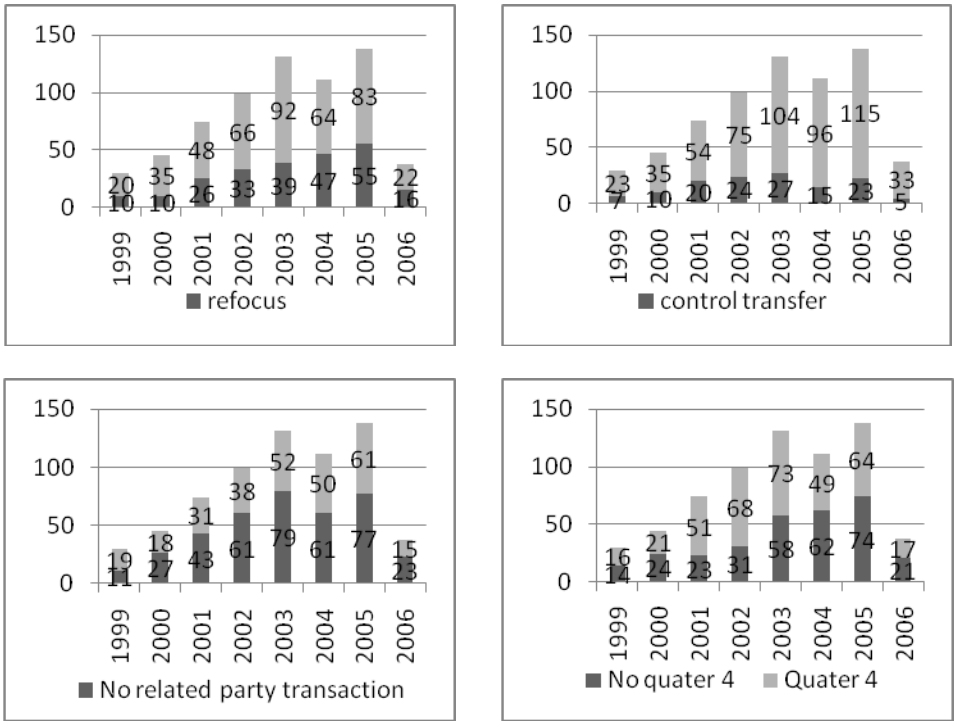


Table 2.2 shows the T-tests to examine the ROA, PTE, and SE scores over the four years after the restructuring with or without each characteristic. ROA refers to the Return on Asset, calculated by dividing a company's annual earnings by its total assets. PTE score and SE score are calculated using Data Envelope Analysis (DEA) following DEAP procedure (Coelli, 1996). The DEA method and the DEAP procedure are presented in Appendix 2. The restructurings involving a transfer of control or a refocusing effort, or not involving related party transactions, or not occurring at the end of the year address inefficient internal routines. The results in all the panels show that restructurings addressing internal routines lead to a lower ROA in the first and second year, but a higher ROA in the third and fourth year in comparison with those not addressing internal routines, although the difference is not significant. In all the panels,

the restructurings addressing the internal routines lead to a significantly higher level of PTE than those not addressing internal routines. In panels 2.2a and 2.2c, the restructurings addressing internal routines lead to a significantly higher level of SE than do those not addressing internal routines. These results suggest that restructurings addressing inefficient internal routines lead to a higher level of efficiency than do those not addressing inefficiency in internal routines. Therefore, it is appropriate to observe whether and how many restructurings have these characteristics in measuring the symbolism of restructurings.

Table 2.2 ROA, PTE, & SE Scores after Restructurings with Different Characteristics

a) Restructuring plans with or without refocusing

	Refocus (A)	No refocus (B)	Difference (A)-(B)
ROA_{t+1}	-.019(.188)	.014(.218)	-.032
ROA_{t+2}	.001(.460)	.066(.433)	-.056
ROA_{t+3}	.017(.203)	.006(.356)	.011
ROA_{t+4}	.006(.142)	.001(.228)	.005
PTE_{t+1}	.602(.070)	.595(.067)	.007†
PTE_{t+2}	.613 (.071)	.603 (.070)	.010*
PTE_{t+3}	.621(.072)	.615(.075)	.006
PTE_{t+4}	.623(.080)	.616(.073)	.007
SE_{t+1}	.962(.053)	.964(.038)	-.002
SE_{t+2}	.962(.055)	.968(.039)	-.004†
SE_{t+3}	.964(.058)	.966(.032)	-.002
SE_{t+4}	.968(.052)	.969(.039)	-.001
N	236	430	

b) Restructuring plans with or without control transfer

	Control transfer (A)	No control transfer (B)	Difference (A)-(B)
ROA_{t+1}	-.046(255)	.019(955)	-.065
ROA_{t+2}	.011(.220)	.056(840)	-.045
ROA_{t+3}	.003(186)	.012(624)	-.009
ROA_{t+4}	.025(156)	-.005(478)	.030†
PTE_{t+1}	.601(.084)	.596(.060)	.005
PTE_{t+2}	.611(.075)	.605(.070)	.006
PTE_{t+3}	.625(.089)	.615(.078)	.010†
PTE_{t+4}	.622(.074)	.617(.072)	.005
SE_{t+1}	.961(.046)	.964(.042)	-.003
SE_{t+2}	.966(.053)	.966(.070)	.000
SE_{t+3}	.969(.044)	.965(.035)	.004
SE_{t+4}	.969(.042)	.969(.033)	.000
N	131	535	

c) Restructurings with or without related party transaction

	No related party transaction (A)	Related part y transaction (B)	Difference (A)-(B)
ROA_{t+1}	-.034(.178)	-.062(.195)	.028*
ROA_{t+2}	-.027(.170)	-.001(.363)	.026
ROA_{t+3}	.024(.576)	-.000(.145)	.024
ROA_{t+4}	-.013(-.024)	.005(.213)	-.018
PTE_{t+1}	.605(.081)	.594(.071)	.011**
PTE_{t+2}	.614(.075)	.604(.070)	.010*
PTE_{t+3}	.619(.070)	.616(.076)	.003
PTE_{t+4}	.622(.074)	.617(.073)	.005
SE_{t+1}	.966(.048)	.962(.047)	.004
SE_{t+2}	.968(.058)	.965(.058)	.003
SE_{t+3}	.976(.038)	.961(043)	.015***
SE_{t+4}	.973(.042)	.967(.044)	.006
N	382	284	

d) Restructuring plans with or without restructurings announced in quarter 4.

	No quarter 4 (A)	Quarter 4 (B)	Difference (A)-(B)
ROA_{t+1}	-.053(.230)	-.049(.185)	-.004
ROA_{t+2}	-.009(.258)	-.015(.463)	.006
ROA_{t+3}	.005(.393)	.038(.265)	-.033
ROA_{t+4}	-.005(.200)	.021(.127)	-.026
PTE_{t+1}	.599(.071)	.594(.070)	.005
PTE_{t+2}	.605(.071)	.608(.075)	-.003
PTE_{t+3}	.620(.081)	.614(.071)	.006†
PTE_{t+4}	.619(.077)	.617(.069)	.002
SE_{t+1}	.966(.048)	.965(.052)	.001
SE_{t+2}	.969(.041)	.964(.065)	.005
SE_{t+3}	.965(.049)	.968(.065)	-.003
SE_{t+4}	.969(.046)	.970(.053)	-.001
N	307	359	

Note: 1. Standard deviations are shown in parentheses.

2. The sample consists of 666 firm-restructuring year observations from 1999 to 2006.

I thus develop five items based on these characteristics and conduct factor analysis on the items. Two factors are obtained to describe the symbolism of a restructuring plan, as shown in Table 2.3. Factor 1 is symbolism of ownership restructuring (Cronbach's alpha = 0.472). Factor 2 is symbolism of business restructuring (Cronbach's alpha = 0.405). As the Cronbach's alpha values are low, I cannot simply summate the items to represent each factor. I thus summate the two factor scores and obtain a symbolism index, and use the reverse of that index as the substantiveness index. I use the substantiveness index to examine the symbolism/substantiveness of corporate

restructuring plans throughout the study. The higher the substantiveness index, the more substantial the restructuring plan. The lower the substantiveness index, the more symbolic the restructuring plan. The factor analysis is discussed in detail in Appendix 3.

Table 2.3 Factor Analysis: Measuring Symbolism of Restructuring Plan

	Symbolism of ownership restructuring	Symbolism of business restructuring
Ratio of ownership restructurings without a control transfer	0.81	-0.09
Ratio of ownership restructurings announced between October and December	0.80	0.13
Ratio of business restructurings without refocusing	-0.04	0.65
Ratio of related business restructurings	0.03	-0.62
Number of business restructurings announced between October and December	0.11	0.57

Note: KMO measure: .505

Bartlett's test of sphericity: .000

Performance after Symbolic/Substantial Corporate Restructuring

I next examine whether the substantiveness index has an effect on loss-makers' ROA, PTE and SE over the four years after the restructuring. The results are shown in Table 2.4. Restructurings are classified as more symbolic (termed symbolic restructurings) where the substantiveness index is lower than the sample mean and as more substantial (termed substantial restructurings) where the substantiveness index is higher than the sample mean. Resutls show that the mean ROA in the year after a substantial restructuring is lower than that after a symbolic restructuring at the 0.1 level. In contrast, the mean ROA in the fourth year after a substantial restructuring is higher than that in the fourth year after a symbolic restructuring at the 0.1 level. These results provide evidence that symbolic restructurings bring about better short-term accounting performance, but worse long-term accounting performance, than substantial restructurings.

Table 2.4 ROA , PTE, and SE Scores after Substantial and Symbolic Restructurings

	Substantial restructurings (A)	Symbolic restructurings (B)	Difference (A)-(B)
ROA_{t+1}	-.017	.019	-.036+
ROA_{t+2}	.007	.014	-.007
ROA_{t+3}	.002	-.016	.018
ROA_{t+4}	.008	-.015	.023+
PTE_{t+1}	.598	.594	.004
PTE_{t+2}	.609	.604	.005
PTE_{t+3}	.617	.613	.004
PTE_{t+4}	.619	.615	.004
SE_{t+1}	.965	.965	.000
SE_{t+2}	.964	.970	-.006+
SE_{t+3}	.961	.974	-.013**
SE_{t+4}	.963	.976	-.013**
N	351	315	

Moreover, table 2.4 shows that the typical PTE score is far lower than the SE score among the loss-makers. These results imply that the inefficiency of the loss-makers is mainly attributable to their pure technical inefficiency. The results also show that PTE scores from year 1 to year 4 after substantial restructurings are higher than those after symbolic restructurings, although the difference is not significant. SE scores from year 2 to year 4 after substantial restructurings are significantly lower than those after symbolic restructurings. These results imply that substantial restructurings may be more effective in improving pure technical efficiency, while symbolic restructurings may be more effective in improving scale efficiency.

The results reported in Table 2.4 thus provide evidence that performance after a symbolic restructuring differs from that achieved after a substantial restructuring. It is reasonable to surmise that loss-makers restructure symbolically to respond to the pressure they face from the delisting system because restructurings of this type bring

about better accounting performance than substantial restructurings in the short term. However, such symbolic restructurings cannot improve firms' long-term performance or pure technical efficiency to meet the wishes of the regulatory agency.

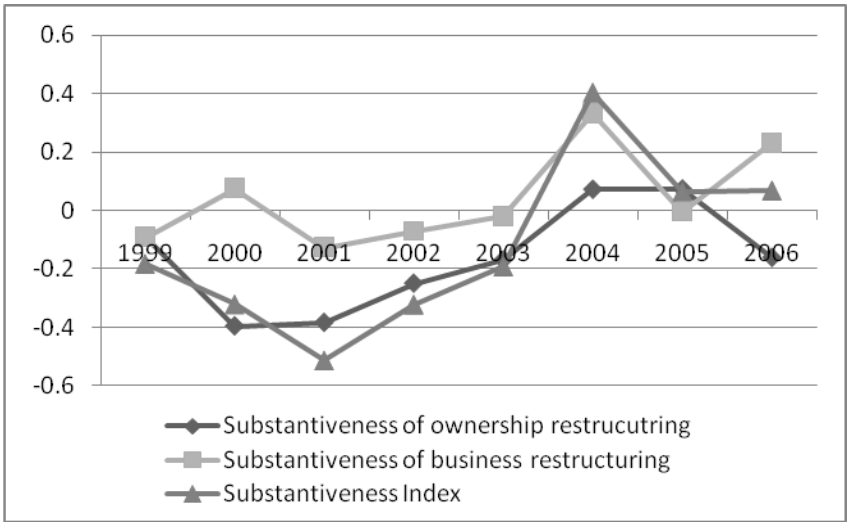
Evidence of Institutional Variation and its Effect on the Substantiveness of Corporate Restructurings

Intuitively, we consider that whether firms restructure in a more substantial or more symbolic way depends on the environment. In an environment where implementation costs of restructurings are low, firms may be willing to implement more substantial restructurings. In an environment where implementation costs of restructurings are high, firms have to undertake more symbolic restructurings to avoid a high level of investment. In an environment where the possibility of or the cost of being detected taking symbolic action is very high, firms are unlikely to take symbolic action. In contrast, if the possibility of or the cost of being detected taking symbolic action is very low, but firms can still gain a lot from symbolic restructuring, at least in the short-term, they may choose to take symbolic action. In this section, I give some evidence that institutional arrangements put in place by the central government and local government affect the substantiveness of corporate restructurings.

On the central government level, although CSRC recognized symbolic restructuring as an important issue in 1997, it did not make much effort to prevent symbolic restructuring until 2001. In 2001, the CSRC revamped the legal system in three areas to regulate restructurings. First, a better accounting standard system was established. This restricted the firms' ability of using symbolic restructuring to manipulate earnings

numbers, and made such action easier to be detected. Second, listed firms were required to disclose more information on corporate restructuring procedure. Restructurings were placed under higher monitoring pressure from both regulatory institutions and market investors. I list the new regulations issued around 2001 in Appendix 4. Third, the CSRC enhanced their enforcement ability as well. Before 2001, the CSRC only required listed firms to keep their restructuring plan as a record after implementation. The listed firms were not subject to much supervision from CSRC regarding the implementation of the plan. From Jan 1, 2001, the CSRC replaced the recording system with an approval system. In the new system, the restructuring plan could not be implemented without approval from the CSRC. Figure 2.2 shows the changes in the annual mean of the substantiveness index for all restructurings implemented by loss-makers from 1998 to 2006. It can be seen that after the central government took the aforementioned measures in 2001, the substantiveness of corporate restructurings in China increased dramatically. The trend suggests that a better state-level legal system prevents loss-makers from carrying out more symbolic restructurings.

Figure 2.3 Substantiveness Index of Loss-makers' Restructurings (1998-2006)



However, even with an obvious trend of substantial restructurings increasing on the whole, the substantiveness of corporate restructurings still varies a lot among provinces. Table 2.5 reports the number of restructurings conducted by loss-makers and the sample mean of the substantiveness index in each province during the 1999-2006 period. As can be observed, not only the number of restructuring plans among loss-makers, but also that the substantiveness of these restructuring plans varies across the thirty one provinces, municipalities, and autonomous regions in China. This evidence suggests that the substantiveness or symbolism of corporate restructuring may be linked to the provincial institutional environment. This could be attributed to the fact that in China, although the central government may have established state-level policies or laws in a certain field, the implementation of these policies and laws depends on local governments. Therefore, firms' symbolic action is further shaped by the institutional arrangements made by local governments. I next give evidence on institutional variation across provinces in China and its potential link to the substantiveness of corporate restructurings.

Table 2.5 Substantiveness Index & Restructurings across Provinces

Province	Restructuring announcements	Restructuring plans	Loss-makers	Substantiveness of business restructuring	Substantiveness of ownership restructuring	Substantiveness
Anhui	34	14	8	0.53	0.16	0.69
Beijing	103	34	20	0.01	0.27	0.28
Chongqing	29	11	8	0.31	0.04	0.35
Fujian	108	32	21	-0.23	0.11	-0.11
Gansu	43	16	9	0.01	0.32	0.33
Guangdong	214	79	56	-0.27	-0.12	-0.39
Guangxi	32	9	6	-0.12	-0.23	-0.35
Guizhou	15	7	5	0.15	-0.62	-0.48
Hainan	71	23	10	-0.01	-0.17	-0.18
Hebei	34	16	8	0.35	-0.14	0.22
Heilongjiang	66	20	12	-0.14	-0.22	-0.36
Henan	53	14	7	-0.25	-0.4	-0.65
Hubei	71	31	19	-0.02	0.19	0.17
Hunan	58	22	16	0.31	0.25	0.56
Inner Mongolia	31	9	4	0.9	-0.17	0.74
Jiangsu	64	25	15	-0.01	0.22	0.21
Jiangxi	13	7	7	0.64	0.38	1.02
Jilin	54	19	12	0.16	-0.04	0.12
Liaoning	85	33	18	-0.22	-0.09	-0.3
Ningxia	29	8	5	-0.48	0.25	-0.23
Qinghai	2	2	2	-1.47	0.44	-1.03
Shaanxi	14	5	4	0.12	0.08	0.19
Shandong	99	34	20	0.28	-0.13	0.16
Shanghai	241	78	44	-0.16	0	-0.16
Shanxi	5	3	3	0.62	0.42	1.03
Sichuan	132	44	29	-0.25	0.17	-0.08
Tianjin	55	17	9	0.08	0.04	0.12
Xinjiang	54	17	9	-0.42	0.09	-0.33
Xizang	19	8	4	-0.01	0.49	0.47
Yunnan	18	8	6	0.14	0.24	0.38
Zhejiang	88	21	12	0.01	-0.23	-0.22

I first examine the quality of the legal system in each province. To measure the quality of provincial legislation, I examine the number of laws, rules and regulations that are established by the provincial government and thus are effective throughout the whole province. Following Acemoglu and Johnson (2005), I classify laws into two types: contracting laws refer to the laws, regulations and rules regulating the contracting behavior of business actors; property right laws refer to the laws, regulations and rules that regulate government behavior, restricting the government from expropriating private resources. The detailed procedure of categorization is presented in Appendix 5. The quality of legislation is measured using the number of each of the two types of laws that

are still in effect up to the focal year. The more laws, rules or regulations established by a province, the higher the law indices and the higher the quality of legislation in the province.[6] To ensure comparability over the years, I follow Fan and Wang (2006) and adjust the number according to the number of laws in place in 1998 as the base. Thus, two law indices are obtained: the contracting law index and the property right law index. To measure the quality of enforcement, some country-level studies use the surveying index, for example, firms' perceptions about the quality of the courts (Kaufmann, Kraay, & Mastruzzi, 2005). I follow this method and use an index that reflects firms' perceptions of the ability of the judicial system to protect their operations. The index was developed by Fan and Wang (1999 to 2005). The higher the index, the better the enforcement mechanism in the province. A detailed description of the measures is given in Appendix 6.

Table 2.6 presents the sample mean of the provincial institution indices during the period from 1998 to 2006. It shows that the quality of provincial legal systems, including contracting laws, property right laws, and enforcement, varies across provinces.

[6] Although there is no detailed requirement for regular checking on local regulations, it is regulated that local governments have the power to enact and promulgate local regulations only when the local regulations do not contravene the Constitution, laws, and administrative regulations. Besides, both central government and local government monitor local rule systems. All local laws and administrative regulations are to be reported to the Standing Committee of the National People's Congress and state council for record keeping. Moreover, a nationwide review of the local regulations was conducted in 1987. There have also been some nationwide reviews of local regulations in specific areas. For example, in 1996, when the administrative punishment law was issued, the State Council initiated a review of local regulations related to the new law. In 2001, to meet the requirements of the WTO, the State Council initiated a review of the local regulations on trading. Furthermore, local governments have their own province-level or below-province level reviews of local regulations from time to time. Through the reviews, local regulations which are against state mandate or are deemed local-protective would be terminated or revised. Up to the end of 2006, 9.99% of local regulations (14,431 out of 144,454 local regulations) had been revised or terminated. This gives evidence to suggest that in the long-term, the more the local regulations are kept, the more the local regulations are consistent with the central regulations. This is a good indicator of the quality of the legislation.

Table 2.6 Institutions in the Provinces

Province	Property right law index	Contract law index	Enforcement index	Fiscal subsidy index	Credit support index	Local protectionism index
Anhui	4.909	4.051	1.976	7.005	3.353	0.733
Beijing	18.495	19.874	6.120	3.602	5.293	5.329
Chongqing	4.765	5.262	3.319	5.782	3.733	0.601
Fujian	9.644	7.441	5.740	5.744	1.579	0.122
Gansu	3.079	3.007	1.174	6.343	6.111	10.648
Guangdong	4.844	5.600	6.628	5.489	2.828	1.019
Guangxi	6.087	6.059	4.081	6.103	4.219	-0.266
Guizhou	2.725	2.735	1.572	6.362	6.322	2.818
Hainan	3.067	3.108	4.844	5.079	3.926	1.612
Hebei	3.919	2.700	4.630	5.772	2.675	2.108
Heilongjiang	7.776	5.770	5.078	8.609	7.491	2.073
Henan	3.399	2.750	2.784	6.441	5.306	1.842
Hubei	5.054	6.458	4.265	5.606	6.483	0.984
Hunan	6.567	4.593	3.958	5.735	3.185	0.211
Inner Mongolia	1.679	1.489	3.532	8.915	5.789	2.523
Jiangsu	6.525	5.975	6.521	5.839	1.184	4.141
Jiangxi	2.965	1.946	3.096	6.745	5.241	1.801
Jilin	3.403	2.091	4.184	10.264	8.171	1.369
Liaoning	2.536	2.859	4.860	6.704	4.738	5.755
Ningxia	2.368	2.322	2.693	8.914	3.758	5.923
Qinghai	1.586	1.110	1.354	6.237	2.814	2.243
Shaanxi	4.744	4.772	3.801	5.96	3.449	0.818
Shandong	5.972	4.573	5.762	5.956	3.265	0.196
Shanghai	9.675	9.892	9.344	8.906	3.299	4.141
Shanxi	3.049	3.331	0.504	5.386	3.447	0.672
Sichuan	4.942	5.734	6.043	6.562	3.641	1.803
Tianjin	4.324	4.819	5.556	8.064	4.057	4.231
Xinjiang	3.137	2.309	5.423	6.16	3.795	0.777
Xizang	0.825	0.888	2.862	6.19	3.81	3.453
Yunnan	3.346	2.131	3.533	6.631	5.729	2.775
Zhejiang	4.691	4.226	7.357	4.266	0.513	0.735

Then I use the mean of each provincial legal system index during 1998 to 2006 to classify provinces into two categories: provinces with a better legal system and provinces with a worse legal system. Table 2.7 shows the T-tests that compare the substantiveness of corporate restructurings between two categories of provinces. Panel 2.7a suggests that the substantiveness of corporate restructurings in the provinces with well-developed contracting laws is not significantly different from that in the provinces with underdeveloped contracting laws. Panel 2.7b shows that the substantiveness of

corporate restructurings in the provinces with well-developed property right laws is not significantly different from that in the provinces with underdeveloped property right laws. Panel 2.7c suggests that in the provinces with better enforcement mechanism, the substantiveness of corporate restructurings is significantly lower than that in the provinces with worse enforcement mechanism at the 0.01 level. These results suggest that provincial enforcement mechanism promotes more substantial restructurings. Combining the results from Table 2.7 with the observation in Figure 2.3, the implication is that the central legal system and the local enforcement system play an important role in alleviating the contradiction between efficiency and legitimacy. On the one hand, a better legal system reduces the cost of implementing substantial restructurings, which depend on external market transactions to a great extent. On the other hand, a better legal system provides for effective overseer of the firms' restructurings. The cost of undertaking symbolic restructurings increases under a stronger legal system. Thus, the contradiction between long-term efficiency and short-term legitimacy is reduced and firms will be less inclined to engage in symbolic restructurings.

Table 2.7 Substantiveness of Restructuring and Provincial Legal System

a) T-test on substantiveness of restructurings and provincial contracting law index

	Low contracting law (A)	High contracting law (B)	Difference (A)-(B)
Substantiveness	.026	-.040	.066
Contracting law index	.305	.367	-.062**
Restructuring plans	402	264	
No. of firms	289	135	

b) T-test on substantiveness of restructurings and provincial property right law index

	Low property right law (A)	High property right law (B)	Difference (A)-(B)
Substantiveness	.019	-.034	.053
Property right law index	.352	.389	-.037†
Restructuring plans	451	215	
No. of firms	261	163	

c) T-test on substantiveness of restructurings and provincial enforcement index

	Low enforcement (A)	High enforcement (B)	Difference (A)-(B)
Substantiveness	.055	-.031	.086**
Enforcement	3.369	6.970	-3.601***
Restructuring plans	294	372	
No. of firms	203	235	

Note: 1. The sample consists of 666 firm-restructuring year observations from 1999 to 2006.

2. The number of firms may be different from the number of unique firms because I categorize provinces based on the mean of the legal system index during the 1999 to 2006 period. Some provinces could be in the low-quality legal system category in some years and in the high-quality legal system category in other years. Accordingly, one firm located in one province could be in both categories.

I next look into the variation in government support across provinces. The most important type of provincial government support is to finance enterprises to settle bad debt, to upgrade technology and assets, or to make redundancy arrangements. Provincial government can provide such financing by giving fiscal subsidies or preferential access to credit. Other than financing, provincial governments also provide non-financial support. The local protectionism measure represents one form of non-financial support. For example, the government may rescue a firm suffering from sales difficulties by imposing administrative restrictions on imports or erecting a deterrent barrier to ease pressure from competitors from other areas. Therefore, I use three indices to proxy three types of government support: fiscal subsidies, preferential access to credit, and local protectionism. I use fiscal subsidies to enterprises divided by provincial GDP to proxy fiscal subsidies. Fiscal subsidies to enterprises are calculated by aggregating enterprise innovation subsidies, subsidies granted for policy reasons, and subsidies paid to loss-making enterprises. The higher the subsidy index, the more support the local government provides. I use the marketization index of the financial system developed by Fan and Wang (1999-2005) to proxy preferential access to credit. This index is

calculated as the ratio of bank loans to state-owned enterprises (SOEs) to total bank loans. A higher share of bank loans received by SOEs in a province indicates that the local government plays a more active role in helping firms gain access to financial resources. I use the local protectionism index developed by Fan and Wang (1999-2005) to proxy non-financial support. This index is measured by the number of trade protection measures initiated by the provincial government divided by provincial GDP. The higher the local protection index, the more support the provincial government provides. To ensure comparability over the years, I follow Fan and Wang (2006) and adjust the indices according to the indices in place in 1998 as the base. A detailed description of the measures employed can be found in Appendix 6.

Table 2.6 presents the sample means of the provincial government support indices in each province during the period 1998 to 2006. It shows that government support varies across provinces in mainland China. I then use the mean of each provincial government support index to classify the provinces into two categories: provinces with a high level of government support and provinces with a low level of government support. In Table 2.8, I use T-tests to compare the substantiveness of corporate restructurings in these two categories of provinces. Panel 2.8a shows that the substantiveness of restructurings in the provinces with high fiscal subsidies is not significantly different from that in the provinces with low fiscal subsidies. Panel 2.8b shows that the substantiveness of restructurings in the provinces with greater access to credit is significantly lower than that in the provinces with less access to credit at the 0.1 level. Panel 2.8c shows that the substantiveness of restructurings in the provinces with more

local protectionism measures is significantly higher than that in the provinces with less local protectionism measures at the 0.05 level. These results suggest that provincial government support affects the substantiveness of corporate restructurings. However, the effect may vary across different forms of support. As financing support immediately brings more cash to the firm, it may trigger more symbolic restructurings. Because non-financing measures require a longer period to take effect and address aspects of business operations, they may be used to promote more substantial restructurings.

Table 2.8 Substantiveness of Restructurings and Provincial Government Support

a) T-test on substantiveness of restructurings and provincial fiscal subsidy index

	Low subsidies (A)	High subsidies (B)	Difference (A)-(B)
Substantiveness	.011	-.023	.034
Fiscal subsidies	5.556	8.462	-2.906***
Restructuring plans	594	280	
No. of firms	341	167	

b) T-test on substantiveness of restructurings and provincial credit access index

	Low credit access (A)	High credit access (B)	Difference (A)-(B)
Substantiveness	.056	-.070	.126†
Credit access	1.271	6.646	-5.375***
Restructuring plans	486	388	
No. of firms	299	253	

c)T-test on substantiveness of restructurings and protectionism index

	Low protectionism (A)	High protectionism (B)	Difference (A)-(B)
Substantiveness	-.069	.104	-.173*
Local protectionism	.394	4.086	-3.692***
Restructuring plans	528	346	
No. of firms	332	205	

Note: 1. The sample consists of 666 firm-restructuring year observations from 1999 to 2006.

2. The number of firms may be different from the number of unique firms because I categorize provinces based on the mean of the provincial government support index during the 1999 to 2006 period. Some provinces could be in the low-level government support category in some years and in the high-level government support category in other years. Accordingly, one firm located in one province could be in both categories.

CONCLUSION

In this chapter, I build theoretical and empirical foundations enabling us to understand what a symbolic restructuring is and how a symbolic restructuring is driven by the institutional arrangements that prevail in China.

I first define more substantial restructurings as those addressing internal routines related to efficiency and more symbolic restructurings as those not addressing internal routines. I further show that symbolic restructurings bring about better accounting performance than substantial restructurings in the short term, but lead to lower efficiency improvements and worse accounting performance than substantial restructurings in the long term.

I then argue that the central government's delisting system generates an efficiency-legitimacy contradiction. This contradiction pushes firms to focus on accounting performance to regain short-term legitimacy while ignoring efficiency improvements. I next show that the decentralization of power to local government allows local government to establish local institutions including legal systems and support for listed firms. These institutional arrangements shape the substantiveness of corporate restructurings. I show that a well-developed state-level legal system or provincial enforcement mechanism will alleviate the efficiency-legitimacy contradiction and thus promote more substantial restructurings among firms. Financing support from provincial government triggers more symbolic restructurings, while non-financing measures from provincial government may promote more substantial restructurings.

This study contributes to institutional theory. It examines a continuum of symbolic action whereby although economic actors undertaking symbolic restructurings both adopt restructuring plans and implement them, they implement them at a superficial level in that the internal routines that hurt efficiency are decoupled from the external institutional requirement. Prior studies have not addressed this continuum of symbolic action because it is complex and difficult to define and measure. This study is among the first group of studies to define and measure such a continuum of symbolic action using factor analysis.

The study also has some practical implications for both policy-makers and managers. For policy-makers, this study provides evidence that symbolic restructurings lead to worse productive efficiency. This offers a rationale for policy-makers to regulate symbolic restructurings. Second, the study provides a framework for identifying symbolic restructurings that can be used as a basis for establishing laws and policies aimed at identifying symbolic restructurings and preventing firms and local government from participating in them. Third, the study suggests that the delisting system may not be effective in regulating listed firms' behavior and protecting investors' interests as it leads to the contradiction between efficiency and legitimacy. This institutional contradiction encourages firms to engage in more symbolic restructurings, which in turn hurt investors' interests. Hence, there is a need for measures designed to improve the delisting system and to enhance supportive regulations in China. Specifically, more national level regulations and better local enforcement mechanisms are necessary to support the delisting system and prevent symbolic restructurings.

For managers, the results suggest that although more substantial restructurings lead to worse short-term performance due to their high implementation costs, they lead to higher efficiency in the long term. Therefore, when deciding how to respond to institutional pressure, managers should balance the benefits of restructurings against their costs.

This chapter offers some basic evidence that the institutional arrangements developed by provincial governments may be a predictor of the substantiveness of corporate restructurings. In the next chapter, I seek to unravel which provincial institutional arrangements play the strongest predictive role and how they affect the substantiveness of corporate restructurings.

CHAPTER III

Institutions and the Substantiveness of Corporate Restructurings

INTRODUCTION

When facing external pressures, organizations can undertake substantive reforms to conform to social purposes, or they can symbolically adopt formal policies, plans, and programs that outwardly appear to have the same effect while persisting with internal routines decoupled from external pressures (e.g., Meyer & Rowan, 1977; Westphal & Zajac, 2001). Such disparity between substance and symbolism can range from extreme forms—the non-implementation of formal policies that affect the core of the organization—to relatively subtle forms—taking actions that are inconsistent with the spirit of a formal policy, although are perhaps still consistent with the letter of the plan (Westphal & Zajac, 2001). Although much effort has been devoted to examining why firms choose symbolism over substantiveness, most prior studies assume the institutional environment to be homogenous. Little attention has been paid to whether and how institutional variation contributes to the symbolism-substantiveness decision.

Organizations' symbolism-substantiveness decisions are an important theme in institutional theory (Meyer & Rowan, 1977; Westphal & Zajac, 1994; Zajac & Westphal, 1995). Existing studies suggest that managers encourage more symbolic actions to respond to external institutional pressure because of two reasons. First, studies from economic perspective suggest that symbolic actions are less costly to implement than substantial actions (Suchman, 1995). Second, studies based on behavioral perspective

symbolic actions protect managers' own interests and power from the impact of institutional pressure. The literature accordingly shows that some organizational factors—managers' voting power, networks, educational background, the organization's experience of conducting symbolic action, and the complexity of organizational activities—can predict firms' symbolic actions (e.g. Westphal & Zajac, 1994; Zajac & Westphal, 1995; Stevens, Steensma, Harrison & Cochran, 2005).

These studies pose a puzzle: if what they predict is true, managers will always choose symbolic action over substantial action in responding to institutional pressure. However, in the real world, some firms respond to institutional pressure by taking symbolic action, while others take more substantial action. This puzzle arises because the institutions examined in these studies are homogenous and were simply treated as a given research context. However, within different institutional environments, organizations are subject to different levels of supervisory pressure and implementation costs. Symbolic action is not necessarily less costly than substantial action. The manager's payoff function is thus affected and constructed by the institutional environment (DiMaggio & Powell, 1991; Friedland & Alford, 1991). Ignoring the effect of institutions would make managers' decisions on whether to take symbolic or substantive action unwarranted. Therefore, it is necessary to bring institutions into play to understand symbolic-substantive decisions among organizations (Friedland & Alford, 1991).

Understanding how institutions affect organizations' decisions on substantive vs. symbolic action requires that a heterogeneous institutional environment be chosen as the

research setting. However, most prior studies are based on the US institutional environment in which organizations are subject to relatively stable and homogenous institutional pressure. Only a few studies examine how institutional variation over time affects firms' symbolic actions. For example, Levin (2006) uses the change of the state-level monitoring system over time as the proxy for institutional variation. He shows that firms' symbolic use of total quality management is a function of the effectiveness of the monitoring system.

China provides us with an ideal context in which to examine the effects of institutional variation on firms' symbolic or substantive actions. In China, the Central Government sets state-level requirements and establishes the supportive legal system to guarantee the local governments and business actors act as the central government desires. As the state-level legal system is imperfect, the Central Government depends on local governments to implement central policies by allowing the local governments to establish a local regulatory system and to provide various forms of support. Thus, the institutional arrangements made by the Local Government as reflected in the quality of the local legal system and local government support vary across the 31 provinces, municipalities, and autonomous regions (provinces hereafter), or even across cities or counties. My research is thus embedded in the Chinese context. Drawing upon transaction cost theory and institutional theory, I argue that local institutions determine the implementation costs of restructuring and supervisory pressure, thus shaping business actors' reactions to central authority, whether by way of symbolic reaction or substantial acquiescence.

The theoretical concerns are tested with a subtle form of symbolic action not previously studied in the literature: symbolic corporate restructurings undertaken by Chinese firms reporting losses (loss-makers). The corporate restructurings conducted within one year are defined as more symbolic when such restructurings bring less change to internal routines related to efficiency. Such change to internal routines may involve a refocusing of the firm's business portfolio, a change of ultimate controller, avoiding related party transactions, and avoiding end-of-year earnings manipulation. Factor analysis is conducted on these items to develop a measure of the symbolism of corporate restructuring. The reverse of the symbolism index is the substantiveness index, a measure describing the substantiveness of corporate restructurings.

I develop and test four sets of hypotheses. The first two sets of hypotheses examine the effect of provincial legal system and provincial government support on the substantiveness of corporate restructurings in a province. I examine three dimensions of the provincial legal system. Property right law refers to the laws that regulate government behavior. Contracting law refers to the laws that regulate business actors' behavior. Enforcement refers to the judicial system designed to protect business operations. I examine three dimensions of provincial government support: subsidies to enterprises, preferential credit access, and local protectionism. I test the hypotheses using fixed effect models and instrumental variable estimation based on province-level data, and find that the existence of well-developed property right laws and contracting laws in a province leads to more substantive restructurings. Provincial government support through subsidies promotes more substantive restructurings when property right

laws or contracting laws are well developed, while promoting less substantive restructurings when property right laws or contracting laws are underdeveloped.

The third and fourth hypotheses examine the interaction effect of provincial institutions and firm-level characteristics. Such firm-level characteristics include (1) the complexity involved in restructuring, which refers to the complex issues that prevent firms from exiting their existing production arrangements and adopting new production arrangements. Such issues of complexity include diversified input structure, redundant labor force, and obsolete asset; and (2) the independence of the auditor employed by the firm. I use Heckman selection models based on firm-level data to test the hypotheses. I find that firms with a higher level of complexity due to diversified input structure will benefit more from a well-developed provincial legal system and engage in more substantial restructurings. The positive effect of provincial legal system on the substantiveness of firms' restructuring is weaker for firms audited by international-affiliated auditors than for firms audited by domestic auditors. These results support the argument that provincial legal system promotes firms' substantial restructurings by reducing implementation costs and increasing monitoring pressure. However, provincial government support enables firms with a higher level of complexity due to redundant labor force to undertake less substantial restructurings. The international-affiliated auditors will weaken the negative effect of the provincial government support in providing preferable credit on the substantiveness of firms' restructurings. These results suggest provincial government support tend to avoid dealing with high implementation cost unless the monitoring pressure from either local

legal system or international auditors is high.

This study makes several contributions to the prior literature. First, most prior research has treated institutional pressure as homogeneous and has viewed the decision on whether to take symbolic or substantive action as a subjective one made by managers. I combine transaction cost theory and institutional theory to unravel the mechanism governing how local institutions shape symbolic action among organizations. Thus, the study contributes to institutional theory by responding to the call from Friedland and Alford (1991) to "bring institutions back" in seeking to enhance the understanding of organizations' behavior. Second, the study also contributes to the literature on enterprise restructuring in a transitional economy. Although local governments have been recognized as an important engine promoting enterprise restructuring in transitional economies, the overall effect of local government on enterprise restructuring is not clear (Boisot & Child, 1996; Boycko, Shleifer, & Vishny, 1996; Kornai, 1979, 1980; Kornai, 1979, 1980; Shleifer & Vishny, 1994). This study shows the conditions under which a local government may help firms to pursue either symbolic or substantive restructuring, which adds to our understanding of how local governments help in the process of economic transition.

THEORETICAL UNDERPINNINGS

In its 1998 publication *Institutions Matter*, the World Bank defines institutions as "formal and informal rules and their enforcement mechanisms that shape the behavior of individuals and organizations in society". Formal institutions are legal institutions including laws, regulations, and formal enforcement mechanisms (courts, the judiciary,

and the legal profession); informal institutions are trust, ethics, and political norms. This study focuses on formal legal institutions and one of the informal institutions: local government intervention.

Although it is not a question that has been deeply explored, some of the prior literature gives us a number of clues on how institutions shape firms' symbolic actions. Studies of institutional theory suggest that firms conduct symbolic action because they need to conform to various forms of institutional pressure including regulatory pressure, normative pressure, and cognitive pressure. Based on this theory, institutions will affect firms' symbolic restructurings through shaping the monitoring mechanism. For example, Levin (2006) shows that firms' symbolic use of total quality management (TQM) is a function of the effectiveness of the monitoring system. When there is a more effective monitoring system, the possibility of being detected and punished for conducting symbolic TQM is high, leading firms to engage in more substantial TQM. Stevens, Steensma, Harrison and Cochran (2005) show that firms are more dependent on market constituents than on non-market constituents for different kinds of resources. If symbolic action is detected by market constituents, the firm is exposed to more severe sanctions. Therefore, monitoring from market constituents is more effective than monitoring from non-market constituents. Accordingly, pressure from market constituents will have a stronger effect in pushing firms to substantially implement codes of ethics. Based on these studies, I argue that institutions shape firms' symbolic action through influencing the effectiveness of the monitoring system.

Suchman (1995) suggests that firms may conduct symbolic action because they

cannot undertake the high implementation cost of substantial action. This argument is based on transaction cost theory: because substantial actions are associated with larger investments and higher uncertainty, they will lead to higher internal and external transaction costs. Such internal or external transaction costs may arise from obtaining and processing market information (Alchian & Demsetz, 1972), negotiating contracts (Coarse, 1937; Williamson, 1985), monitoring agents (Bardhan, 1989; Eswaran & Kotwal, 1985), evaluating performance (North, 1989), and enforcing contracts (North, 1989; Milgrom, North, & Weingast, 1990; Greif, 1993; Fafchamps, 1996). When there are no proper institutions to reduce these costs, the cost of implementing substantial action will be too high, especially for firms facing a legitimacy crisis and thus having few affiliations through which to obtain resources. In this case, firms have to choose symbolic action because they cannot afford either the high implementation cost of a substantial action or the ill-effects of doing nothing. In a similar vein, Peng and Heath (1996) suggest that when the rules of the game are highly uncertain, organizations are not able to invest in new capabilities and skills and will therefore continue in their old ways rather than bringing in substantial changes. Whitley and Czaban (1998) maintain that in a setting where the state has no coherent set of policies, short-term ad hoc adjustments to immediate pressure may be more rational than undertaking relatively large-scale and highly risky changes in pursuit of long-run strategic objectives. Therefore, transaction cost theory suggests that institutions affect symbolic action among firms through shaping transaction costs or the implementation costs of such action.

In the next section, I integrate institutional theory and transaction cost theory and develop hypotheses designed to enhance our understanding of how provincial institutions affect both monitoring pressure and implementation costs and thus shape the substantiveness of corporate restructurings.

HYPOTHESES

Do Provincial Institutions Matter for the Substantiveness of Corporate Restructuring?

The first channel through which provincial government shapes business action is development of the local legal system. Two aspects of a legal system can be evaluated: legislation and enforcement. Legislation provides codified resolutions—laws—governing transactions. I follow Acemoglu and Johnson (2005) by classifying laws into two types according to the object of regulation. The first type is "contracting law" regulating contracting behavior among business actors. The second type is "property right law" regulating government behavior. These two types of legal institutions will affect the behavior of local business actors through different mechanisms.

When contracting law is well developed, there is a clearer template for participants involved in restructuring plans to engage in their evaluation, pricing, contracting, and implementation, and in the resolution of disputes over such plans (Ricardo & Mohamad, 2000). For example, rules and regulations on corporate governance arrangements, financial accounting and auditing rules, debt covenants, and bankruptcy procedures are established to govern transactions in financial markets. Regulations on the tenure profile

of wages, dismissal rules and procedures, or regulations governing collective action are established to resolve disputes in the labor market. Firms can depend on the market to deal with such issues as obsolete assets, redundant labor, and bad debts, or to obtain investment and professional managers at a lower transaction cost. Thus, firms are more capable of engaging in more substantive restructurings. The second advantage of well-developed contracting law is that restructurings will be implemented under more effective supervisory and evaluation arrangements. Firms will be forced to disclose more information regarding the procedure of restructurings. Agencies responsible for valuing assets will be subject to more objective regulations and be more independent. Thus, business actors will have less space to manipulate the state's mandate and will be obliged to pursue more substantial restructurings. For example, on October 30, 2003, the Sichuan Government published and implemented *Guidance On Regulating and Promoting the Restructuring of Listed Companies*. In this guidance, the government clarified several issues on restructurings of listed companies: the criteria for selecting transaction parties, the procedure for evaluating restructuring plans, the reporting and approval procedure, who monitors the restructuring procedure, and what aspects of the restructuring procedure should be monitored. The guidance ensured that restructurings were conducted, disclosed, and evaluated according to articulated rules. This made it much easier for participants to fulfill their transaction obligations within the market. At the same time, restructuring plans have been subject to a higher level of supervisory pressure from both the regulatory agency and the public. As a result, the number of substantial restructurings has shot up since 2004. Based on these arguments, I propose

that the existence of well-developed contracting law will push firms to engage in more substantial restructurings:

Hypothesis 1a: The better the contracting law in a province, the more substantive corporate restructurings in the province will be

Well-developed property right law restricts the power of the government, of politicians, and of elites, safeguarding private business from predation by the state, for example through outright expropriation, or less dramatically, from corrupt officials demanding bribes in exchange for favors to the firm or individual (Fernandes & Kraay, 2007). Most of the listed firms have formal or informal connections to government in China (Mooderjee & Yu, 1999; Woetzel, 2008). To engage in substantial restructuring, business actors need to make large investments to deal with their government-owned assets or to obtain local government approval. Without well-developed property right law, it is impossible to write credible contracts with the government to prevent future expropriation given that the government, with its monopoly over legitimate violence, is the ultimate arbiter of contracts (Acemoglu & Simon, 2003). Substantial investments will be too costly for business actors to make. Hence, well-developed property right law is necessary to provide private business actors with secure property rights enabling them to make investments. For example, in June 2000, the government of Hainan province issued the *Notice on Managing Arbitrary Fines and Various Fees*. This notice prevented local governments from expropriating firms' resources at their own discretion, thus giving firms more of an incentive to make substantial changes to their operations. The number of substantial restructurings has increased since this notice was issued. I thus

propose that well-developed property right law is important in reducing transaction costs and promoting more substantive restructurings among firms.

Hypothesis 1b: The better the property right law in a province, the more substantive corporate restructurings in the province will be

Having laws on the books is not sufficient in itself. The enforcement mechanism is equally crucial as it guarantees that laws will be effectively implemented. The enforcement mechanism includes criminal penalties such as imprisonment, as well as civil law and financial penalties. It forces individuals and organizations to follow resolutions endorsed by the legal system. The effectiveness of the enforcement mechanism depends on an independent court structure, an independent and competent judiciary, and the legal profession. With an effective and independent enforcement mechanism, contracts can be executed in a timely and successful manner at a low cost. Restructurings implemented through series of contracts are less costly. Moreover, penalties are more likely to be imposed for illegal conduct. The level of supervisory pressure will be higher. Hence, I propose that a strong enforcement mechanism is needed to promote more substantive restructurings:

Hypothesis 1c: The better the enforcement mechanism in a province, the more substantive corporate restructurings in the province will be

Other than formulating the legal system, provincial government can also shape the payoff function of substantive and symbolic restructuring by providing various forms of support. In transitional economies such as China, the legal system has not been fully established. There are a number of institutional voids in the labor market, the capital

market, and the commodity market. For example, there is no developed set of social security institutions in China, making it difficult to deal with laid-off workers in the labor market. Nor is there any platform for evaluating and exchanging property owned by the government. Thus, firms bear high transaction costs in transitional economies. These transaction costs are magnified even further by the legitimacy crisis faced by loss-makers. As loss-makers are often burdened with a lot of bad debt, redundant labor, and obsolete assets and technologies, they are viewed as inefficient and incapable of providing value, and are regarded as highly uncertain. They therefore face a legitimacy crisis. This legitimacy crisis leads transaction partners to disassociate themselves from loss-makers to avoid the high degree of uncertainty involved in dealing with them (Suchman, 1995). For example, banks will not offer credit to loss-makers, and suppliers will be unwilling to meet orders. Therefore, it will be too costly for loss-makers to obtain resources from the external market. Loss-makers do not have the ability to undertake substantial restructurings. Instead, local government can fill the institutional void and alleviate loss-makers' burden. For example, local government can use executive orders to write off their bad debt. It can also make arrangements for redundant labor by providing subsidies or assigning redundant staff to other firms. It can provide a platform enabling loss-makers to exchange their equity and thus deal with their obsolete technology and assets. With fewer burdens, potential partners will become more willing to build connections with loss-makers. Loss-maker can be involved in transactions in the external market and bring about substantive changes to their business and organizational structures at a lower cost.

On the other hand, local government can collude with local firms to shield them from monitoring pressure. First, local government can help firms to achieve the outcome required by the Central Government. Chen, Li, and Lee (2003) give evidence that local governments often help firms to polish their financial reports by providing subsidies. Second, local government can reduce the monitoring pressure firms face from supervisory agencies. Dai, Lao and Yang (2000) and Chan, Lin and Mo (2006) find that in China, local government often push local audit firms to allow local listed firms to fail to disclose earnings manipulation to the CSRC. Local government thus provides some degree of shelter from state regulatory agencies and allows firms to conduct more symbolic restructurings in response to state regulation.

Therefore, it appears that local government support can lead to either more substantive restructuring or more symbolic restructuring. I argue that the effect of local government support depends on the quality of the legal system.

In this regard, I first look at the contracting legal system. As predicted in hypothesis 1, when contracting law is well developed, restructuring procedures can be monitored and evaluated more effectively. Even if the local government provides support to business actors, business actors have to follow the articulated procedure. The opportunistic tendency of business actors to escape from institutional pressure exerted by the state will become less pronounced. For example, although the level of local government support in Sichuan was quite high before 2003, loss-makers tended to engage in more symbolic restructurings. In 2003, the *Guidance* was issued and clarified several aspects: transaction partners should meet certain requirements; a competitive

mechanism was required for the selection of transaction partners; restructuring procedures had to be reported in detail. The local government thus had to take more substantive measures to help with restructurings. For instance, the local government needed to help firms to find more efficient and promising transaction partners rather than introducing whoever had the cash. As a result, although the level of local government support did not change much after 2003, loss-makers in Sichuan tended to pursue more substantial restructurings after that.

I next consider the property right laws. When property right law is well developed, the limit of the local government's authority is clearly defined according to the central government requirement. Local governments will be restrained from acting contrary to the central government's wishes. For example, in Sichuan, the 2003 *Guidance* clearly defined the local government's obligation to supervise firm restructurings. The local government had to follow the guidance and monitor local firms as the central government desired. Therefore, although the level of local government support in Sichuan did not change too much from 1998 to 2006, loss-makers tended to engage in more substantial restructurings after 2003 than they did before 2003.

Finally, I look at the enforcement mechanism. As local government agencies ultimately enforce the law, local government can easily intervene in the execution of laws if there is no effective and independent enforcement mechanism. With the intervention of local government, business actors are actually buffered from the law codes. They can act in a manner contrary to the central regulatory requirement. Therefore, an effective and independent enforcement mechanism is required to

guarantee that local government helps business actors with substantive restructurings as the central government desires.

In summary, within a well-developed legal system, the level of supervisory pressure on both business actors and local government is higher. Local government has to follow articulated codes and be more consistent in implementing the central government's requirements when supporting restructuring among firms. Hence, I propose the following hypotheses:

H2a: More provincial government support will lead to more substantive restructurings when contracting law is well developed in a province than when contracting law is under developed.

H2b: More provincial government support will lead to more substantive restructurings when property right law is well developed in a province than when property right law is under developed.

H2c: More provincial government support will lead to more substantive restructurings when the enforcement mechanism is well developed in a province than when the enforcement mechanism is under developed.

Which Firms Are More Susceptible to Provincial Institutional Pressure?

To unravel the mechanism governing how institutions affect the substantiveness of corporate restructurings, I next examine the following research question: which types of firm will receive a higher level of support from institutions to carry out more substantial restructurings over symbolic restructurings?

According to transaction cost theory, institutions firstly shape firms' restructuring

decisions by affecting implementation costs. The feasibility of substantial restructurings hinges on the existence of sound institutions that provide a proper transactional framework. However, not every firm depends on institutions to the same extent to deal with transaction costs. To complete a corporate restructuring, a loss-maker needs to exit an existing production arrangement before reentering a new production arrangement. However, to exit the existing production arrangement, a loss-maker needs to resolve a series of complex issues related to obsolete input, including assets or labor, by relying on the external market. The more complex issues the restructuring procedure is associated with, the more the loss-maker depends on external institutions to complete a more substantial restructuring.

The complexity firstly comes from the firm's diversified input structure. Extant studies show when a firm is associated with a more diversified input sources (Blanchard & Kremer, 1997; Konings, 1998; Konings & Walsh, 1999; Recanatini & Ryterman, 2000), it will encounter higher transaction costs when participating in transactions beyond its boundary. During normal operation, a firm requiring more diversified inputs needs to contract with more intermediate goods producers to deliver its output. When the firm is not running well and going to restructure, it needs to deal with more types of intermediate inputs, including inventories and fixed assets, in corresponding markets through contracting or government arrangement. In such cases, the firm is more dependent on well developed institutions to achieve a successful restructuring.

Second, the complexity of restructuring further comes from the obsolescence of its resources, including major investment in physical assets and redundant labors. Physical

assets lead to complexity because they are associated with a certain technology (Hambrick & Lei, 1985; Harrigan, 1981). The organization dedicates project resources to producing a certain range of goods using a certain process, and therefore builds specificity with respect to a certain technology. To fundamentally upgrade its technology and business portfolio, the loss-maker needs to find a way to shed its obsolete assets. To deal with obsolete physical assets, the firm has to depend to a higher degree on a well-developed commodity or asset market supported by the legal system or on financial support or executive orders from the government.

Complexity of restructuring could also be caused by redundant labor force or obsolete labor force. In China, most listed firms were originally SOEs. According to Shleifer and Vishny (1994), political control tends to create labor redundancy in firms because politicians may require a firm to hire more workers than needed or to maintain excess employment in order to avoid the social instability that could arise as a result of high unemployment. Therefore, it is not rare for listed firms to have some redundant labor, even during periods of normal operation (Huyghebaert & Wang, 2010). Moreover, the resources invested in training workers, building a technological base, and building up organizational capital are embodied in labor – both individually and as a group (Caballero & Hammour, 2000). To substantially change the technology portfolio and the organizational structure in the firm, it is necessary to upgrade the labor force. However, it is probably not possible to adapt existing human resources and employment relationships to the new project, thus making them obsolete and redundant. In this case, downsizing is a necessary step for smooth restructurings. However, downsizing would

lead to unemployment, which will lead to opposition from employees and government. This makes it difficult for labors to exit existing contracts, which in turn makes it more difficult to complete a restructuring. Such complexity related to redundant labor force is reflected in the regulatory environment in China: restructuring announcements must address how redundant staff are to be dealt with. To deal with the redundant labors, the firm has to depend to a greater extent on a well-developed labor market and social security system supported by the legal system or the government.

In sum, when the restructuring procedure is associated with a higher level of complexity due to diversified input structure and obsolescence of physical assets and labor force, the firm depends to a greater extent on the legal system or local government support to complete substantial restructurings. Hence, I propose the following hypothesis:

H3a: Provincial legal system will have a stronger positive effect on the substantiveness of corporate restructurings for more complex firms than for less complex firms.

H3b: Provincial government support will have a stronger positive effect on the substantiveness of corporate restructurings for more complex firms than for less complex firms.

Institutional theory suggests that symbolic action is promoted by an ineffective monitoring system (Levin, 2006; Stevens, Steensma, Harrison & Cochran, 2005). The effectiveness of the monitoring system depends on perfect information disclosure, which hinges on the independence of the firm's auditors. In China, audit firms may depend on local government and local clients. Prior to 1998, due to the lack of capital, most audit

firms were established and sponsored by local government agencies. Auditors' assessments and the type of audit report issued were often affected by the local government agencies sponsoring them (Tang, 1999; Zhong, 1998). In 1997, the Ministry of Finance and the CSRC issued regulations to disaffiliate audit firms from their sponsoring government agencies. Since the reform was implemented in 1998, although audit firms have severed their official ties with their government sponsors in the areas of finance and organizational linkage, their personnel (who are former government-affiliated auditors) still maintain close relationships with local governments for three reasons. First, many local audit firms are able to find new clients or retain existing clients because of their close relationships with local governments (MOF, 2000). Second, local governments can also provide administrative advantages to their auditors via either government agencies or the public utilities they control. Third, for the majority of audit firms that are licensed to provide services to listed companies, their services tend to be locally oriented (Chan, Lin & Mo, 2002). The lack of mobility and narrow geographical dispersion among auditors reduce their ability to resist client pressure. Therefore, auditors in China have incentives to report in harmony with the desires of local bureaucrats and local clients (Chan, Lin & Mo, 2002; Hofstede, 2001). These incentives are further increased by the rather small probability of legal action against auditors for issuing inappropriate audit opinions in China (DeFond, Francis & Wong, 2000) and the fact that most audit firms in China are limited liability companies.

In China, audit firms are composed of two types: domestic audit firms and

internationally affiliated audit firms.[7] I argue that in comparison with domestic audit firms, internationally affiliated audit firms should be more independent for two reasons. First, international audit firms have a larger stock of resources in terms of professional knowledge, good reputation, and so on. These resources can help them gain access to clients without the help of local government. In 2001, the Yin Guang Sha event led to the breakup of Zhong Tian Qin, a domestic audit firm.[8] This event led to a loss of credibility among the domestic CPA profession as a whole. In contrast, internationally affiliated audit firms are more attractive to Chinese listed firms. Hence, the internationally affiliated audit firms are less dependent on local government for clients. Second, internationally affiliated audit firms have more incentives to maintain a good reputation for professional and honest auditing. For these international service companies, a good reputation is the most important asset because misconduct will have too much of an externality effect on their global market. Therefore, internationally affiliated audit firms are less willing to assist with illegitimate behavior among clients.

Based on the above argument, firms audited by the internationally affiliated audit firms cannot hide as much information as firms audited by domestic audit firms. The international affiliated audit firm thus acts as a substitutive monitor and regulator for legal system to push firms to do more substantial restructurings. Legal system will be not as important in regulating those firms' restructurings. As a substitutive regulator, the international affiliated auditor gives firms less space to manipulate the restructuring

[7] According to China's WTO Commitments on Professional Services, foreign accounting firms are permitted to affiliate with Chinese firms and enter into contractual agreements with their affiliated firms in other WTO member countries (WTO Web site).

[8] In 2001, Yin Guang Sha was detected to have inflated its profit. Its auditor, the Zhong Tian Qin accounting firm, was accused of issuing an audit report including a serious misrepresentation. The Yin Guang Sha event led to the Zhong Tian Qin accounting firm being broken up.

procedure (by, for example, over- or under-valuing debt and assets, or hiding critical information related to restructuring). Local government is thus obliged to help firms engage in more substantial restructurings. In contrast, firms audited by domestic auditors can avoid monitoring pressure at a lower cost. The monitoring through the legal system will be more important to push firms' more substantial restructurings. Local government can put pressure on domestic audit firms to manipulate the restructuring procedure. Hence, I propose the following hypotheses:

H4a: Provincial legal system will have a weaker positive effect on the substantiveness of corporate restructurings for the firms audited by internationally affiliated auditors than for the firms audited by domestic auditors.

H4b: Provincial government support will have a stronger positive effect on the substantiveness of corporate restructurings for the firms audited by internationally affiliated auditors than for the firms audited by domestic auditors.

METHOD

Sample and Data

To address the theoretical concern, I select the loss-makers in the Chinese securities market as the empirical context. This is an ideal context because firstly, the loss-makers are under state-level pressure from the CSRC to be delisted, they often conduct restructuring solely to manipulate earnings without improving efficiency substantially. Secondly, the loss-makers spread across the 31 provinces, municipalities, and autonomous regions of mainland China and are subject to differing institutional arrangements from local governments, including local legal system and local

government intervention. This variance in institutions provides us with an opportunity to examine the effect of institutional variation on firms' symbolic restructuring.

The loss-makers in A-share market from 1998 to 2004 are identified from the *China Stock Market Accounting Research database* (CSMAR). Loss-makers are listed firms who report a negative net profit in their annual financial report. A restructuring could be a response to two consecutive years' losses. I treat the latest loss year before the focal restructuring package as the unique loss year.

All the corporate restructuring information is obtained from CSMAR, *China Center for Economic Research* (CCER) database and the retrieval system of Chinese listed firms (http://220.194.35.3:8080/zq/ggcx/ggcx.htm). Such restructurings include asset sales, asset acquisitions, asset swaps and ownership restructurings. I examine the sample loss-makers' restructuring announcements in the 2 years following the loss year. The restructuring announcements in each year are together viewed as a 1-year restructuring plan. For example, firm A reported losses in 1998. Then it announced 3 restructurings in 1999 and 4 restructurings in 2000. Thus the 3 restructurings in 1999 are treated as a restructuring plan. The 4 restructurings in 2000 are seen as another restructuring plan.

The data on province institutions are obtained from the CSMAR region economy database, NERI Index of Marketization of China's Provinces (Fan & Wang, 1999 & 2006) and China Law Info Database. Financial data, corporate governance data, market performance data and state pressure data are collected from the CSMAR and CCER database.

Measure

Dependent Variable

Substantiveness of 1-year restructuring plan.

As firms often conduct a series of restructurings, I look at the restructuring announcements within each year as a package and measure the symbolism of the one-year restructuring package. I conduct factor analysis on changes of internal routines, including refocusing of business portfolio, change of the ultimate controller, avoiding related party transactions, and avoiding using end-of-year earnings manipulation. Two factors are obtained: symbolism of business restructuring and symbolism of ownership restructuring. The procedure of the factor analysis is described in the Appendix 3. I summate the factor scores of business restructuring symbolism and ownership restructuring symbolism as the index indicating the symbolism of the restructuring procedure.

Based on the symbolism indices, I develop both firm level and provincial level substantiveness indices as dependent variables. The firm level substantiveness indices are obtained by taking the reverse of symbolic indices (calculated as symbolism indices time -1). The indices are continuous variables. The higher the substantiveness indices, the more substantive the restructuring package. The lower the substantiveness indices, the more symbolic the restructuring package.

The province level substantiveness index is calculated as following:

$$\textit{Annual average substantivnesse index}_{i,t} = \frac{\sum_{j=1}^{n} S_{itj}}{n}$$

Where S_{itj} is the substantiveness index for each 1-year restructuring plan in

province *i* year *t*. *n* is the number of the 1-year restructuring plans in province *i* year *t*.

Independent Variable

Contracting Law Index.

I examine all the regulations that are established by the provincial government and thus are effective throughout the whole province. To measure the quality of contracting law, I examine the objectives of regulation and identify the laws, rules and regulations governing business actors as contracting laws, rules and regulations. I obtain the accumulated count of effective province contracting laws, rules and regulations up to the focal year. As local legal systems are established based on- and as a support system to state legal systems, a larger count measure indicates that the province contracting laws are more sufficiently and consistently in accordance with the state-level legal system.

Property right law Index.

Similarly, I examine the objectives of provincial laws, rules and regulations and identify those regulating the behavior of government as the property rights legal institution. I obtain the count of property right laws, rules and regulations.

Enforcement Index.

Prior country-level studies use the surveying index. For example, firms' perceptions about the quality of the courts (Kaufmann, Kraay, & Mastruzzi, 2005). I follow this method and use an index that reflects the firms' perceptions of the judicial system to protect their operations. The index has been developed by Fan and Wang (1999 to 2005)[9].

[9] Fan and Wang calculated the index based on a sampling survey. In the survey, the sample firms are required to evaluate the "quality of the jurisdiction system to protect the firms' operation". The evaluations

To make the legal system indices comparable over the years, I follow Fan and Wang (2006) and scale them according to the indices in 1998 as the base.

$$\textit{Provincial legal system index}_{i,t} = \frac{N_{i,t} - \min N_{i,1998}}{\max N_{i,1998} - \min N_{i,1998}} \times 10$$

$N_{i,t}$ is the legal system index in province *i* and in year *t*.

$N_{i,1998}$ is the legal system index in province *i* and in year *1998*.

Year 1998 is taken as the base year.

Legal System Index.

It is calculated as the sum of scaled property right law index, contracting law index, and enforcement index.

Government support

The government often helps business actors in three ways. I use three indices to measure the three ways of government support.

Subsidy Index.

The first type of government support is by fiscal means, in the form of subsidies from the state budget or of tax concessions, including remission, reduction or postponement of tax obligations (Kornai, Maskin & Roland, 2003). I use fiscal subsidies to enterprises divided by the GDP of the province to proxy the fiscal subsidy index. The fiscal subsidy to enterprises is calculated by adding together the subsidies on innovation, subsidies granted for policy considerations and subsidies to loss-making enterprises. The higher the subsidy index, the more support the local government provides.

Credit Access Index.

---

are summated for each province's index. Due to data availability, Fan and Wang used the frequency of lawsuits which is defined as the number of business or economic lawsuits scaled by a location's GDP in constant RMB to measure the quality of legal enforcement from 1999 to 2000.

The second method of government support involves preferential access to credit. I use the marketization index of financial systems developed by Fan and Wang (1999-2005) as a proxy. The index is calculated by taking the ratio of bank loans received by state-owned enterprises (SOEs) to the total bank loans. A higher share of bank loans received by SOEs in a province indicates that the local government plays a more active role in helping firms with their access to financial resources.

Local Protectionism Index.

A third method of government support consists of various indirect methods of support. For example, the state may rescue a firm suffering from sales difficulties by imposing administrative restrictions on imports or erecting a deterrent tariff barrier to ease pressure from foreign competitors. I use the local protectionism index developed by Fan and Wang (1999-2005) to proxy the indirect methods of local government support. The index is measured by the sum of trade protection measures initiated by the local government divided by the GDP of the province. The higher the local protectionism index, the more support the local government provides.

To make the government intervention indices comparable over the years, I follow the method of Fan & Wang (2006) to scale them into indices:

$$\textit{Provincial government support index}_{i,t} = \frac{N_{i,t} - \min N_{i,1998}}{\max N_{i,1998} - \min N_{i,1998}} \times 10$$

$N_{i,t}$ is the government support index in province *i* and in year *t*.

$N_{i,1998}$ is the government support index in province *i* and in year *1998*.

Year 1998 is taken as the base year.

Government Support Index.

It is calculated as the sum of scaled provincial subsidy index, credit access index and local protectionism index.

Complexity from diversified input structure

Due to the difficulty to obtain the actual input composition for individual firms, I measured the input complexity of each sector that a firm is operating in. The assumption is that during normal operation, a firm in a sector requiring n inputs contract with n intermediate goods producers to deliver the outputs. When it is not running well and going to restructuring, it needs to deal with n types of intermediate inputs, including inventories, fixed assets, in corresponding market through contracting or government arrangement.

Data on input complexity comes from the 42-sector input-output table for 2002[10] provided by Chinese statistical bureau. I thus measure an industry's complexity by computing the Herfindahl index of intermediate use shares in industry j (Levchenko, Lewis & Tesar, 2010).

$$\text{Input Herfindahl Index}_{j} = \sum_{i=1}^{n} \left(\frac{\text{Intermediate use}_{i}}{\sum_{i=1}^{n} (\text{Intermediate use}_{t})} \right)^{2}$$

In which, Intermediate use_i = intermediate use of sector *i* product in sector j, *i*=1,2,3,…n.

[10] It is the fourth such I-O table following the 1987, 1992 and 1997 tables. These tables are based on large-scale input-output survey across the country and the First Economic Census of China 2004. There are 42-sector and 122-sector input-output table for 2002. 42 sector I-O table reports the input-output based on a broader categorization for sectors (addressing first or second level of industry category in CSRC), while 122-sector I-O table is calculated based on a more detailed categorization for sectors (addressing third or fourth level of industry category in CSRC). I chose to use the 42-sector I-O table because most of our sample firms report their sectors at the first or second level of industry category in CSRC (only 16 out of 666 report their industry in the fourth level of CSRC. This may suggest that most of the firms are operating in broader business portfolios in a sector). Therefore, it is more reasonable to adopt the 42-sector I-O table based on the broader category. This table is valued at producers' prices, which is calculated by deducting wholesale and retail margin, and transportation cost from the purchasers' prices value.

If the firm is operating in an industry with a low input Herfindahl index, it has a diversified input structure in terms of sectors or markets. The firm has to come into more factor markets when conducting restructuring. The firm will incur higher implementation cost. It is less likely to do substantial restructuring. If the firm is in an industry with a higher input Herfindahl index, the firm has more concentrated input sources in terms of sectors or markets; it needs to participate in fewer factor markets when conducting restructuring. It will incur lower implementation cost and can do more substantial restructuring. However, if the firm is in an industry with a too high input Herfindahl index, it implies that the firm has an extremely concentrated resource endowment, making it difficult to divert its operating area substantially. Therefore, I predict there is an inverted U-shape relation between the firm's input Herfindahl index and the substantiveness of restructuring.

Complexity from obsolete inventories

It is measured by the inventory turnover rate. Low inventory turnover can indicate poor liquidity, possible overstocking, and obsolescence. But it may also reflect a planned inventory buildup in the case of material shortages. However, in the case of loss-makers, low inventory turnover is more likely an indicator for obsolescence. Therefore, I use the relative inventory turnover to proxy the obsolescence of the firm's assets. I firstly calculate each firm's absolute inventory turnover:

$$\text{Inventory turnover}_{i,t} = \frac{\text{Cost of sales}}{(inventory_{t-1} + inventory_t)/2}$$

Then I scale it using the industry average level and obtain the firm's relative inventory turnover.

$$\text{Relative inventory turnover}_i = \frac{\text{Inventory turnover}_i}{\left(\sum_{i=1}^{n} \text{Inventory turnover}_i\right)/n}$$

In which, *i*=1,2,…,n, the number of listed firms in industry j. The relative inventory turnover is expected to be negatively related with the substantiveness of a firm's restructuring.

Complexity from redundant labors

I measure the labor redundancy using the labor productivity relative to industry average labor productivity. Labor productivity lower than industry level suggests either the labor has obsolete skills or there are too many excessive labors. In either situation, the obsolete labor or excessive labor force needs to be arranged in order to improve the firms' efficiency. I calculate the labor productivity following the formula:

$$\text{Labor productivity} = \frac{\text{Log (Value added)}}{Log(\text{number of employees})}$$

In which the value added is the difference between operating revenue and material cost. I further calculate the average labor productivity for each industry. The relative labor productivity of each firm is calculated as:

$$\text{Relative labor productivity}_i = \frac{\text{labor productivity}_i}{\left(\sum_{i=1}^{n} Labor\ \text{productivity}_i\right)/n},$$

In which, *i*=1,2,…,n, the number of listed firms in industry j. The relative labor productivity is expected to be positively related with the substantiveness of a firm's restructuring.

Independence of Auditor.

Prior studies suggest that an economic dependence on clients creates incentives for auditors to compromise their independence (DeAngelo, 1981). Most of the studies

measure economic dependence based on client size relative to the total clientele of an audit firm (e.g. DeAngelo, 1981; Francis & Wilson, 1988; Lys & Watts, 1994; Stice, 1991). Chan, Lin and Mo (2006) measure independence using a dummy coded as 1 if the auditing firm is in the same location as its client, and 0 otherwise. I extend Chan, Lin and Mo's idea (2006) and argue that international background is a factor affecting economic dependence. I use a dummy variable coded as 1 if the auditor is an international affiliated auditing firm. It is coded as 0 if the auditor is a domestic auditing firm. International affiliated auditing firms are those having an international Big Four auditing firm as the partner[11]. I predict that the international affiliated auditor is more independent and will push firms to do more substantial restructuring.

RESULTS

H1&H2: Do Provincial Institutions Matter to the Substantiveness of Corporate Restructuring?

I first use the provincial data to test which provincial institutions matter for the substantiveness of corporate restructuring in a province. I use a fixed-effect model to test the hypothesis. In the fixed-effect models, I introduce one dummy variable for each province and suppress the intercept. Fixed-effect models offer a conservative test of the hypotheses because they model only within-province variation over time and eliminate across-province variation. All across-province variation is captured in the effect estimates of the dummy variables. The model is as following.

$$Y_{it} = \beta_0 + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X1_{it} X2_{it} + \beta_4 Z_{it} + \alpha_i + \mu_{it}$$

[11] International BIG FOUR auditing firm include: KPMG, PricewaterhouseCoopers (PWC), and Deloitte Touche Tohmatsu, and Ernst & Young.

Where: Y_{it}*:Annual average substantiveness index in province i in year t*

$X1_{it}$*: legal system in province i in year t*

$X2_{it}$*: government support in province i in year t*

Z_{it}*: control variables in province i in year t*

$\alpha_{i,}$ is the unobserved individual effect, and μ_{it} is the error term.

The dependent variable is the annual average substantiveness index from 1999 to 2006 in each province. Other than the main variables, I also control other variables that could affect the substantiveness of corporate restructurings in a province. I first control provincial GDP and provincial long-term debt ratio as proxies for the provincial resource endowment. Standardized province GDP is controlled because the higher the provincial GDP, the more resourceful the province is in general. Provincial long-term debt ratio is calculated as the average long-term debt to equity ratio of all the listed firms in each province in each year. When the provincial long term debt ratio is high, it indicates that firms in that particular province have more difficulties in meeting long term debt obligations. The banking system faces a higher risk of liquidity. Hence, banks will have stricter policies when approving loans to firms, making it difficult for firms in the province to obtain loans for substantial restructurings. I next control the pressure from the province. GDP growth is controlled because a higher growth suggests the province is promoting more changes. The firm is under higher pressure from local government to do more substantial restructurings. GDP growth is calculated as $\frac{\mathrm{GDP}_{i,t-1} - \mathrm{GDP}_{i,t-2}}{\mathrm{GDP}_{i,t-2}}$. I next control the average total factor productivity of all the listed firms in each province. I predict that the more productive the firms in a province are, the more capable the firms

will be of carrying out substantial changes. At the same time, the less productive the firms in a province are, the more incentive the firms will have to conduct more substantial changes. Off-tax burden is calculated as the ratio of off-tax burden in the province to the total sales in the province, developed by Fan & Wang (1999 to 2005). The higher the off-tax burden, the more resources will be expropriated from the firm. The firm will be less willing and less capable of making substantial changes. The dependent variable is measured at the restructuring year *t*. The independent variables and the control variables are measured at the end of year *t*-1. The measures and the sources of the variables are presented in Appendix 6. The descriptive statistics and correlation matrices are shown in Table 3.1. Some observations are dropped due to missing variables. Finally, there are 197 province-year observations.

**********Insert Table 3.1 around here**********

The results are shown in table 3.2 and table 3.3.

**********Insert Table 3.2 around here**********

**********Insert Table 3.3 around here**********

In table 3.2, models 1a, 1b and 1c test the effect of an aggregated provincial legal system and aggregated provincial government support. Model 1a is the base model showing the main effects of the provincial legal system index and provincial government support index. Model 1b incorporates the interaction between the provincial legal system index and the provincial government support index. Results show that the main effect of provincial the legal system index is positively significant in model 1a (β = 0.04, p < 0.1). None of the main effects of the provincial legal system index, the provincial

government support index or their interaction is significant in model 1b.

Then I more closely examine the legal system in model 2a to model 4b. Because two of the three provincial legal system indices, (i.e., contracting law index and property right law index) are highly correlated (correlation coefficient = 0.97), I put them into models separately. Models 2a and 2b test how contracting laws affect substantiveness index. Models 3a and 3b test how property right laws affect the substantiveness index. In model 2a, contracting law index shows a positive significance (β = 0.1, $p < 0.05$). None of the main effects of the contracting law index, provincial government support index or their interaction is significant in model 2b. In model 3a, the property right law index shows a positive significance (β = 0.15, $p < 0.01$). None of the main effects of the property right law index, provincial government support index or their interaction is significant in model 3b. Models 4a and 4b test how the enforcement mechanism affects the substantiveness index. None of the main effects of the enforcement index, provincial government support index or their interaction shows significant result. The results lend support to our hypotheses 1a and 1b, suggesting that property right laws and contracting laws promote more substantial restructurings in firms. However, the results fail to support hypothesis 1c, which predicts that a better enforcement mechanism promotes substantive restructuring.

In table 3.3, I further unpack the effects of provincial legal system and provincial government support simultaneously. Models 5a and 5b test how the contracting law index and each provincial government support index affect the substantiveness index. In model 5a, the main effect of the contracting law index is positively significant (β =

0.10, $p < 0.1$). None of the main effects of provincial government support indices shows significance. In model 5b, the main effect of contracting the law index is not significant. The main effect of the subsidy index is negatively significant (β = -0.29, $p < 0.05$). The interaction between the contracting index and subsidy index is positively significant (β = 0.03, $p < 0.1$). Such results lend support to hypothesis 2a, suggesting that when contracting laws are well developed, provincial government subsidies encourage firms to conduct substantial restructurings. In contrast, when contracting laws are underdeveloped, more provincial government subsidies encourage less substantial restructurings. Results also show the main effect of the credit access index is not significant. However, the interaction between the contracting law index and credit access index is negatively significant (β = -0.02, $p < 0.1$). Such a result is contrary to our prediction in hypothesis 2a.

Models 6a and 6b test how the property right law index and each provincial government support index affect the substantiveness of corporate restructurings in a province. In model 6a, the main effect of the property right law index is positively significant (β = 0.14, $p < 0.05$). None of the main effects of the provincial government support indices shows significance. In model 6b, the main effect of the property right law index is not significant. The main effect of the subsidy index is negatively significant (β = -0.31, $p < 0.05$). The interaction between property right law index and subsidy index is positively significant (β = 0.04, $p < 0.05$). None of the main effects of credit access, local protectionism or their interactions with the property right law index is significant. Such results suggest that when property right laws are well developed,

more provincial government subsidies encourage firms to carry out more substantial restructurings. In contrast, when the property right laws are underdeveloped, more provincial government subsidies encourage less substantial restructurings. Hypothesis 2b gets supported.

Models 7a and 7b test how the enforcement index and each provincial government support index affect the substantiveness index. In model 7a, the main effect of the enforcement index is not significant. The main effect of the credit access index is negatively significant (β = -0.06, $p < 0.1$). Neither the subsidy index nor local protectionism index shows significance. In model 7b, none of the main effects of the enforcement index, subsidy index, credit access index, local protectionism index or the interaction terms is significant. The results fail to support hypothesis 2c.

Other than the main independent variables, results show that the provincial long-term debt ratio shows negative significance in all the models as predicted. GDP growth shows positive significance as predicted. Productivity shows negative significance in all the models. Thus, the result supports the argument that in less productive provinces, firms have more incentive to carry out more substantial restructuring. Off-tax burden shows positive significance in several models, conflicting with our predictions. However, this could be explained by seeing the off-tax burden index as an indicator for government intervention. It shows how local governments expropriate resources from local business actors. Local governments may have funneled these expropriated resources to the focal loss-makers, because these firms are the most significant for local economies. With more resources, loss-makers can carry out more

substantial restructurings.

Robustness Test: Instrument Variable Estimation

Institutions include legal systems and local government support. I measure the legislation using the accumulated number of laws up to the focal year. As the local legislation is documented and easily monitored by the central government, it is not easily manipulated by firms or local governments. To treat it as exogenous to firms' decision-making is appropriate, at least over a short period. However, some literature suggests that enforcement is endogenous. For example, the material view suggests that organizations can affect the implementation phase of a law by lobbying the jurisdiction (Edelman & Suchman, 1997). In our case, it is possible that to facilitate firms' substantial or symbolic restructurings, the local jurisdiction will be influenced by local firms or the local government to enhance or relax the monitoring on firms' restructuring procedure. This could cause a simultaneity bias.

It might be even more inappropriate to treat local government support as exogenous. Firstly, there is also simultaneity bias. On the one hand, more local governments may affect the firms' tendency to do more or less substantial restructurings. On the other hand, it could be that a local government provides more support because it expects local firms to conduct substantial restructurings. Secondly, there might be an omitted variables bias. Local government support can be related to some institutions that are not included in the regression. These institutions may also relate to the substance of restructurings in a province. Such institutions could be informal institutions such as culture, history, etc. These issues cause OLS to be biased and inconsistent. I test the endogeneity problem

following the Wu test (1973). The results show credit access is endogenous.

To deal with these endogeneity problems, I use Instrumental Variable estimation (IV) as the robustness test. To be safe, I treat all the provincial government support indices and the provincial enforcement index as endogenous. IV estimation requires two conditions. First, there is a set of instrumental variables that are correlated with the endogenous variables, i.e., enforcement and local government support. Second, the instrumental variables are uncorrelated to the dependent variable. Specifically, the incentive of provincial government intervention are included as instrumental variables: imbalance between budgetary income and budgetary expenditure, budgetary income, budgetary off-budget income, administration fee, officers' salary compared with provincial average salary, number of listed firms, size of government, GDP in year t-2, growth of GDP from year t-2 to year t-1, and ratio of managers' time in dealing with the government to their total working hour in the province. All the instrumental variables are measured in year t-2.

IV estimation consists of two stages. In the first stage, I regress enforcement and local government support indices in year t-1 on instrumental variables and covariates in year t-2. Because instrumental variables are exogenous and uncorrelated to the substantiveness of corporate restructuring in a province, the predicted institution based on IV captures the variation in institutions not caused by unobserved variables or substantive corporate restructuring. In the second stage, I regress the substantiveness of corporate restructuring in year t on the predicted enforcement and local government support indices, as well as covariates in year t-1.

Table 3.4 shows the second stage results from IV estimation. The main effect of legal systems does not show significance as predicted in hypothesis 1. However, in model 8b, the interaction between contracting laws and credit is positively significant (β = 0.04, $p < 0.1$). In model 9b, the interaction between property right laws and credit is positively significant (β = 0.04, $p < 0.1$). Such results support the hypotheses 2a and 2b.

**********Insert Table 3.4 around here**********

H3&H4: Which Types of Firms Are More Susceptible to Provincial Institutional Pressure?

I use firm-level data to examine which firms are more susceptible to institutional pressure to conduct substantial restructurings rather than symbolic restructurings.

I use the firm-level substantiveness index as the dependent variable. Although more than half of the loss-makers have reported losses more than once during the sample years, they have often avoided reporting losses in consecutive years. This is because firms reporting losses for two consecutive years are labeled "ST" (explain what ST stands for) firms. This adds new restrictions to the trading of their shares. Firms reporting losses for three consecutive years are delisted. Therefore, I treat the sample as pool data, rather than panel data.

As I only have the substantiveness index for the loss-makers who have restructured, the loss-makers who have not conducted restructuring are excluded from the sample. A sample bias could exist if firms that conduct restructurings get more government support, or if firms in the provinces with better legal systems do not conduct restructurings. The

OLS results may not be generalizable. Therefore, I employ Heckman Selection Models to correct the potential sample bias (Wesphal & Zajac, 2001). The model is as follows:

$$P_{it} = \beta_0 + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{jt} + \beta_4 X4_{jt} + \beta_5 X1_{it} X3_{jt} + \beta_6 X1_{it} X4_{jt} + \beta_7 X2_{it} X3_{jt} + \beta_8 X2_{it} X4_{jt} + \beta_9 Z1_{jt} + \beta_{10} Z2_{it} + \mu_{it}$$

$$Y_{it} = \beta_0 + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{jt} + \beta_4 X4_{jt} + \beta_5 X1_{it} X3_{jt} + \beta_6 X1_{it} X4_{jt} + \beta_7 X2_{it} X3_{jt} + \beta_8 X2_{it} X4_{jt} + \beta_9 Z1_{jt} + \beta_{10} Z2_{it} + \mu_{it}$$

Where: P_{it}: *Adoption of restructuring package*

Y_{it}: *Substantiveness index of firm j in province i in year t*

$X1_{it}$: *legal system in province i in year t*

$X2_{it}$: *government support in province i in year t*

$X3_{jt}$: *complexity in firm j in year t*

$X4_{jt}$: *auditor independence in firm j in year t*

$Z1_{jt}$: *control variables in firm j in year t*

$Z2_{it}$: *control variables in province i in year t*

μ_{it} : *the error term.*

In the Heckman Selection Model, the first (selection) equation estimates the likelihood of adoption of restructuring package with an event history model for the full sample, and the hazard rate from that model is then included in a second-stage regression model to estimate the degree of substance of restructuring (i.e., among the reduced sample of firms that have adopted a restructuring package). Thus, parameter estimates from the event history model, which are based on information from all firm-years in the sample, are included in the second-stage models.

In the Heckman Selection Models, the independent variables include the institution indices, complexity and auditor independence. Other than the main independent variables, I also control several sets of firm characteristics that could affect the substantiveness index following prior studies (Chen, Li, & Lee, 2003; Stevens, Steensma, Harrison & Cochran, 2005; Westphal & Zajac, 1994; Westphal & Zajac, 2001; Zajac & Westphal, 1995). The first set is firms' inertia indicator, proxied by age and size. Age is calculated as the calendar years since the firm's IPO. Size is measured by the log of total asset. I predict that the older or the larger the firm is, the less substantial restructuring the firm will perform. The second set is the firm's connection with local government and central government, proxied by two dummies: the provincial or below-province government owner dummy and central government owner dummy. The third set is the external pressures for substantial change, proxied by ST dummies and negative recommendations from financial analysts. The fourth set is the internal pressures for substantial change, proxied by ROA, debt ratio, ultimate controller's ownership, dual role of CEO and board chairman, and a dummy indicating that the restructuring is conducted in the second year after the firm reports loss. Besides, I also control a dummy variable indicating if the firm is in the regulated industry. The regulated industry dummy is 1 if the firm primarily operates in the fields of natural resources (the mining, metal, or petroleum industries), public utilities, finance, transportation, electricity or the telecommunications industry, and 0 otherwise (Fan, Wong, & Zhang, 2005; Fan, Wong, & Zhang, 2007; Li, Zhang, & Zhou, 2005). If the firm is in the regulated industry, it is more subject to the local government's pressure to

serve social purpose and less likely to go through a substantial restructuring of refocusing or control power transfer. I also control the provincial GDP and the number of listed firms in the province. If a province has a high GDP, it has a better resource endowment and can help with the firm to a greater extent. If a province has many listed firms, one single listed firm will be not as important as in those provinces where there are only several listed firms. The provincial government will not divert many resources to it to protect the listing quota. Finally, I control the industry and the time period.

When using the Heckman Selection Model, an exclusion restriction is required to generate credible estimates. There must be at least one variable that appears with a non-zero coefficient in the selection equation but does not appear in the equation of interest, essentially an instrument. If no such variable is available, it may be difficult to correct for sampling selectivity. Therefore, in the selection model, I incorporate mimetic pressure (i.e. the prior restructurings by other firms) and learning effect (i.e. the prior restructurings conducted by firms themselves) as predictors. These variables are positively correlated with the adoption of restructuring packages, while having no effect on the substantiveness of the restructuring package. In the models, there are 1000 firm-restructuring year observations, with 619 observations by 354 firms who have done 1-year restructuring plans, and 381 observations by 100 firms who have not done any 1-year restructuring plans. The descriptive statistics and correlation matrix are presented in table 3.5.

**********Insert Table 3.5 around here**********

Tables 3.6 and 3.7 report the results from the Heckman Selection Model. In table

3.6, “legal system” refers to provincial contracting law index in models 11a and 11b, provincial property right law index in models 12a and 12b, and provincial enforcement index in models 13a and 13b. In table 3.7, government support refers to provincial subsidy in models 14a and 14b, province credit access in models 15a and 15b, and local protectionism in models 16a and 16b.

**********Insert Table 3.6 around here**********

**********Insert Table 3.7 around here**********

Model 11a tests the main effect of the contracting law index. Model 11b tests the interaction between contracting law index and complexity indicators, as well as auditor independence. In model 11a, the main effect of contracting law index is positively significant (β = 0.01, $p < 0.1$). Among all the complexity indicators, the main effect of herfindahl index shows positive significance (β = 4.1, $p < 0.05$). The squared term of herfindahl index shows negative significance (β = -6.08, $p < 0.05$). In model 11b, the main effect and the squared term of the Herfindahl index are positively and negatively significant (β = 6.16, $p < 0.01$; β = -7.5, $p < 0.01$). The interaction between the contracting law index and herfindahl index is negatively significant (β = -0.27, $p < 0.001$). Such results suggest that within a province with well-developed contracting laws, firms who have more diversified input structure will be more likely to carry out substantial restructurings than those with less diversified input structure. The results support hypothesis 3a. The main effect of international affiliated auditor is positively significant (β = 1.22, $p < 0.05$). The interaction between contracting laws and the international affiliated auditor is negatively significant (β = -0.28, $p < 0.001$). Such a

result suggests that the effect of contracting laws on pushing firms to do more substantial restructuring is weaker if firms are connected to international affiliated auditors, compared with firms connected to domestic auditors. This result is conforming to the prediction in hypothesis 4a.

Model 12a tests the main effect of the property right law index. Model 12b tests the interaction between the property right law index and complexity indicators, as well as auditor independence. In model 12a, the main effect of the property right law index is positively significant (β = 0.02, $p < 0.1$). The main effect and the squared term of the Herfindahl index are positively and negatively significant respectively (β = 4.12, $p < 0.05$; β = -6.09, $p < 0.05$). In model 12b, the main effect of the property right law index is postively significant (β = 0.17, $p < 0.1$). The main effect and the squared term of the Herfindahl index are positively and negatively significant respectively (β = 6.75, $p < 0.001$; β = -7.99, $p < 0.01$). The interaction between the property right law index and the herfindahl index is negatively significant (β = -0.32, $p < 0.001$). Such results suggest that within a province with well-developed property right laws, firms with more diversified input structure will be more likely to perform more substantial restructurings than those with less diversified input structure. The results lend support to hypothesis 3a. The main effect of international affiliated auditor is not significant. The interaction between property right laws and international affiliated auditors is negatively significant (β = -0.25, $p < 0.001$). Such a result suggests that the effect of property right laws on pushing firms to do more substantial restructuring is weaker if firms are connected to international affiliated auditors, compared with firms connected to domestic auditors.

This result is conforming to the prediction in hypothesis 4a.

Model 13a tests the main effect of the provincial enforcement index. Model 13b tests the interaction between the provincial enforcement index and complexity indicators, as well as auditor independence. In model 13a, the main effect and the squared term of the Herfindahl index are positively and negatively significant respectively (β = 4.19, p < 0.05; β = -6.17, p < 0.05). In model 13b, only the squared term of the herfindahl index is negatively significant (β = -6.35, p < 0.05).

Model 14a tests the main effect of the provincial subsidy index. Model 14b tests the interaction between the provincial subsidy index and complexity indicators, as well as auditor independence. In model 14a, the main effect of subsidies is not significant. The main effect and the squared term of the Herfindahl index are positively and negatively significant respectively (β = 3.95, p < 0.05; β = -5.91, p < 0.05). In model 14b, only the squared term of the herfindahl index is negatively significant (β = -6.28, p < 0.05). None of the other main effects or interaction effects we are concerned about show significance.

Model 15a tests the main effect of the provincial credit access index. Model 15b tests the interaction between the provincial credit access index and complexity indicators, as well as auditor independence. In model 15a, the main effect of credit access is not significant. The main effect of subsidies is not significant. The main effect and the squared term of the Herfindahl index are positively and negatively significant respectively (β = 4.09, p < 0.05; β = -6.08, p < 0.05). In model 15b, the main effect

of credit access is negatively significant (β = -0.21, $p < 0.05$). The squared term of the herfindahl index is negatively significant (β = -7.76, $p < 0.01$). Although the main effect of relative labor productivity is not significant, the interaction between credit access and relative labor productivity is positively significant (β = 0.17, $p < 0.05$). Such results suggest that in a province where the provincial government provides more preferable financial access, only the firms who have less redundant labors (indicated by a higher labor productivity) tend to do more substantial restructurings, while the firms who have more redundant labors (indicated by a lower labor productivity) will do less substantial restructurings. The results go against hypothesis 3b. The main effect of international affiliated auditors is negatively significant (β = -1.17, $p < 0.05$). The interaction between credit access and international affiliated auditors is positively significant (β = 0.22, $p < 0.01$). Such results suggest that preferable financial access pushes firms audited by international affiliated auditors to conduct more substantial restructurings. Such results conform to the prediction in hypothesis 4b.

Model 16a tests the main effect of the local protectionism index. Model 16b tests the interaction between the local protectionism index and complexity indicators, as well as auditor independence. In model 16a and 16b, the main effect and the squared term of the Herfindahl index are positively and negatively significant respectively (β = 3.96, $p < 0.1$; β = 4.13, $p < 0.05$; β = -5.92, $p < 0.05$; β = -5.38, $p < 0.05$). None of the other main effects or interaction effects is significant.

DISCUSSION

Prior institutional theory literature proposes that there are different types of institutional pressures, such as coercive pressure, normative pressure, and mimetic pressure (DiMaggio & Powell, 1983) and organizations response to the pressures by either taking some cosmetic gesture or conducting substantial changes (Oliver, 1991). Despite the importance of institutions in determining firms' symbolism-substantiveness choices, theoretical and empirical studies that seek to examine how institutional variation affects firms' symbolism-substantiveness choices are still limited. This could be attributed to the fact that most prior studies were conducted in the United States, where firms face relatively stable and homogenous institutional pressures. This chapter has attempted to add to the understanding of this issue. I focus on one type of pressure, i.e., coercive pressure imposed by the government (including local government). This type of pressure is expected to have the strongest effect on organizational conformity because the government has the legal power to impose sanction for noncompliance. By combining transaction cost theory and institution theory, this chapter enhances the understanding of which institutions established by government affect firms' symbolic restructurings undertaken in response to state pressure and how they do so.

This chapter embeds the research in China, where business actors are subject to institutional arrangements from both central and local government. On the one hand, the central government wishes to use the delisting system and a supportive legal system to pressure firms to improve their efficiency through restructuring. On the other hand, the central government delegates power to local government to develop local regulations and provide support for local business. Business actors' pay-off function for substantive

vs symbolic restructurings thus depends on local institutions, which vary across provinces. Hence, to gain a better understanding of the substantiveness of corporate restructurings, it is important to analyze the sources of institutional variations: local legal systems and local government support.

This chapter first separates laws into contracting and property rights laws, then shows that strong local laws promote more substantial restructurings among firms (Acemoglu & Johnson, 2005). As the two types of laws regulate different actions, they affect firms' substantive restructuring in different ways. Strong contracting law not only reduces the implementation costs of substantive restructurings, but also increases the monitoring pressure on symbolic restructurings. Hence, it pushes firms to engage in more substantive restructurings. Property rights law protects firms from local government expropriation, thus giving them an incentive to engage in more substantive restructurings.

This chapter then shows that the relation between local government support and the substantiveness of corporate restructurings hinges on the quality of the local legal system. Both contracting and property rights laws provide a clear template for monitoring and evaluating the behavior of business actors and local government. Local government has less space to help business actors to act against central government requirements. Hence, local government support, mainly in the form of subsidies and credit access, promotes more substantive restructurings when laws are well developed, while promoting less substantive restructurings when laws are underdeveloped.

This chapter further unravels the mechanism governing how the legal system and

local government support shape the substantiveness of corporate restructurings. The results show that loss-makers with a higher level of complexity due to diversified input structure benefit more from a well-developed legal system: they are pushed to implement more fundamental changes than are loss-makers with a lower level of complexity. This provides evidence that the legal system promotes more substantive restructurings by resolving high implementation cost caused by complexity issues.

However, this chapter shows that local government financial support promotes less substantive restructurings among loss-makers with a more complex restructuring procedure due to more redundant labors. This result suggests that out of central government's expectation, local government support may not really be used as a substitutive institution to deal with complexity issues, which is the main hindrance for fundamental changes among firms. Rather, local government support helps firms to take short cuts in responding to central government pressure by conducting symbolic restructurings. This phenomenon is an example of how the policy implementation process has not resulted in the satisfactory achievement of policy objectives in China. In transitional economies such as China, this could be explained as a result of local government acting as a participant in economic operations rather than as an outside regulator. Local government has its own interests to look after. On the one hand, it has an incentive to help firms out of delisting pressure and can choose to do so by helping them with either substantial or symbolic restructurings. On the other hand, it is limited by the resources available to it. To handle immediate crises and protect its own interests, local government chooses to help firms engage in symbolic restructurings. These

findings help to explain why so many inefficient government-connected firms continued to exist during the period of economic transformation. Complex issues related to history lead to rigidity in core economic activities. These core rigidities lead to entrenchment behavior among incumbents. Such entrenchment is further encouraged by local government tolerance. Therefore, many government-connected enterprises in transitional economies, especially large state-owned enterprises that have become corporate dinosaurs, become entrenched in old behavior and are unable to take the first steps to adapt to a radically changed environment (Dixon, Meyer & Day, 2009).

This chapter also finds that international-affiliated auditing firms provide a substitutive institution for legal system in monitoring firms' restructuring procedure. Therefore, the positive effect of legal system on the substantiveness of firms' restructuring becomes weaker when the firm is under the co-regulation from international-affiliated auditors. International-affiliated auditors further act as a substitutive monitor and regulator for domestic legal system to orient provincial government support to help firms do more substantial restructurings. Such results support the argument that both provincial legal system and provincial government support affect the substantiveness of firms' restructuring through shaping the monitoring pressure.

CONCLUSION

This chapter examines how institutional variation across provinces in China shapes firms' symbolic restructuring. It contributes to institutional theory in four ways. First, most prior studies suggest that symbolic actions are determined by managers' power,

educational background, network, or experience. Few have provided a mechanism for determining whether and how institutions affect firms' symbolic actions. This could be due to the empirical context in which most prior studies are set—the United States—which is characterized by a relatively stable and homogenous set of institutional pressures across the whole country. This chapter employs China as the empirical context and shows that local institution variation is an important predictor in explaining firms' symbolic response to state-level institutional pressure. Results show that a strong legal system (including contracting and property rights laws) promotes more substantial restructurings. Moreover, government support promotes more substantive restructurings when laws are well developed, while promoting less substantive restructurings when laws are underdeveloped.

Second, by combining transaction cost theory and institutional theory, the chapter has unraveled the mechanism governing how institutions affect firms' decisions on whether to implement a more substantial restructuring or a more symbolic one. The first part of this mechanism shapes the implementation costs of restructuring. Results show that a strong legal system helps firms to deal with the high transaction costs associated with complexity. Thus, firms with more complexity will benefit more from a well-developed legal system and engage in more substantial restructurings. In contrast, local government support provides a buffer for inefficiency. Thus, local government support promotes more symbolic restructurings among more complex firms. Another part of this mechanism shapes monitoring pressure. Results show that internationally affiliated auditors serve as a substitutive institution for legal system and both legal

system and international affiliated auditors will increase the monitoring pressure and promote local government to help firms with more substantive restructurings.

Thirdly, this study can shed some light on the role of local government in facilitating enterprise restructurings. In most large economies such as China, the government is often not a single entity; it often has multiple or different interests (Evan, Rueschemeyer & Skocpol, 1985), for example, between different levels of local governments as in the case of this study. These differences sometimes lead the local government to allow some room for its constituents including local firms to symbolically implement the central mandate, as it advances the local government's own interests. In other words, the local government can be an enabler as well as a hindrance of substantive change. For example, some empirical studies suggest that local government has been an important engine promoting enterprise restructuring (Boisot & Child, 1996), whereas other studies show that local governments provide soft budgets and allow for inefficient restructuring (Kornai, 1979, 1980; Shleifer & Vishny, 1994; Boycko et al., 1996). Hence, the role of the local government in promoting enterprise restructuring is not entirely clear. This chapter shows local government can shape firms' restructuring behavior by establishing local institutional arrangement: building legal infrastructure and acting as a regulator, as well as direct intervening in economic activities as a market participator. Our results suggest that building legal infrastructure can lead to more efficient restructuring, while the effect of direct intervention depends on the quality of legal infrastructure.

Despite the advances this chapter makes, it is subject to some limitations. First, I use

the total number of regulations regulating government behavior to proxy the quality of property rights legislation in a province. I also use the total number of laws regulating contracting behavior to proxy the quality of local contracting legislation. These measures may overstate the extent of local legislation. For example, laws regulating government behavior include several sub-categories such as elections, government intervention, legislation, the judiciary, fiscal matters, administrative reviews, planning and statistics, public affairs, taxation, and urban construction. Laws regulating contracting behavior include laws on trading, competition, real estate, private enterprise, business administration, contracting, and quality and technology supervision. Among all these sub-categories, not all of them contribute equally to facilitate or regulate firms' restructurings. Future research should further examine which sub-categories of property rights laws and contracting laws are more effective when it comes to encouraging local governments and firms to implement substantial restructurings.

Second, because this study includes only loss-makers in the sample, there might be an element of sample bias. Sample bias could lead to a lack of generalizability and alternative explanation issues. When loss-makers are used as the sample, restructurings are reactive response to the delisting pressure. They have to do restructuring in some way. Besides, as loss-makers are lack of internal resources for growth and restructuring, local institution where they are embedded in is especially important for the decision and the success of substantial restructuring. However, this is not the case for profitable firms. For profitable firms, their restructuring are management's voluntary decision, rather than a reaction to delisting pressure. Their goal could be improving efficiency, reducing risks,

or smoothing firms' earnings. Examining if the decision on substantial vs. symbolic restructuring varies across different motivations could be interesting. Besides, profitable firms usually have some internal resources (either financial, knowledge, or network) to accomplish the restructuring. The quality of local institutions may have a weaker effect on the profitable firms' substantial restructuring. In terms of the mechanism that the institutions affect profitable firms' restructuring decision, supervision pressure may be more important than reducing implementation cost. Future research on profitable firms could test whether such an alternative experience is borne out in reality.

Moreover, in this study, low inventory turnover in loss-makers implies more obsolescence of assets. Thus it can be used to proxy a higher level of complexity in restructuring procedures. In profitable firms, a low level of inventory turnover could reflect a planned inventory buildup in the case of material shortages. Low inventory turnover cannot be generalized to measure the obsolescence of assets in the case of profitable firms. However, I have also used two other measures for complexity, i.e., diversified input structure and redundant labor. Those two measures are applicable to both loss-makers and profitable firms. They can provide us with relatively robust results.

Despite its limitations, this chapter provides a number of insights for policy makers and investors. For policy makers, some scholars argue that in transitional economies in which the legal system is severely underdeveloped, government intervention could be a substitutive institutional arrangement for the legal system. However, this chapter shows that government intervention may not have the expected effect as, for example, it promotes symbolic restructuring and thus perpetuates inefficiency. I attribute it to that in

the process of decentralization, local government is delegated the power to promote local economic growth. When government acts as a market participant, it has to balance its own benefits and costs. In this context, without well-specified legal system or some substitutive institutions provided by foreign investors, both business actors and local government will act against the central government's desire and pursue their own short-term interests (by conducting or supporting symbolic restructurings). Hence, a legal system developed to an appropriate extent and an appropriate degree of decentralization is prerequisites to the implementation of state policy.

Table 3.1 Descriptive Statistics and Correlation (Province-level; N=197)

		1	2	3	4	5	6	7	8	9	10	11	12
1	Provincial average substantiveness index	1											
2	subsidy index	-0.02	1										
3	credit access index	-0.02	0.2787*	1									
4	local protection index	0.12*	0.04	0.39*	1								
5	property law index	0.07	-0.23*	-0.45*	-0.24*	1							
6	contracting law index	0.08	-0.25*	-0.41*	-0.17*	0.97*	1						
7	enforcement index	0.06	0.03	0.04	-0.10*	0.16*	0.19*	1					
8	long-term debt ratio	-0.03	-0.17*	-0.09	-0.05	-0.02	-0.03	-0.18*	1				
9	productivity	-0.09	-0.05	-0.27*	0.05	0.21*	0.20*	0.04	0.01	1			
10	province GDP	-0.04	-0.19*	-0.49*	-0.52*	0.43*	0.38*	0.25*	-0.06	0.03	1		
11	GDP growth	0.04	-0.13*	-0.50*	-0.17*	0.42*	0.41*	-0.22*	0.05	0.09	0.03	1	
12	off-tax burden	0.09	0.06	0.58*	0.50*	-0.53*	-0.48*	0.16*	-0.08	-0.10	-0.34*	-0.56*	1
	Mean	-0.09	6.41	4.55	2.29	4.69	4.40	4.79	0.25	-0.84	0.85	0.13	1.37
	S.D	0.87	1.54	3.10	2.49	3.77	3.92	2.28	0.28	0.73	1.23	0.07	3.76
	Min	-4.50	2.20	-2.22	-0.87	0.37	0.27	0.00	0.05	-3.00	-0.60	0.02	-5.95
	Max	1.91	12.14	10.00	14.22	22.87	24.73	10.00	2.55	1.00	6.68	0.61	10

Note: * significant at .1 level.

Table 3.2 Do institutions have an effect on the average substantiveness of restructurings? Fixed Effect Models

The coefficients are estimated using fixed effect model. The dependent variable is the annual average substantiveness index for the period 1999 to 2006 in each province. The dependent variable is measured in year t. The independent variables are measured in year t-1. Standard errors are in the parentheses.

	Model 1a	Model 1b	Model 2a	Model 2b	Model 3a	Model 3b	Model 4a	Model 4b
Legal system	**0.04+**	0.04						
	(0.03)	(0.03)						
a) Contracting law			**0.1***	0.04				
			(0.05)	(0.07)				
b) Property right law					**0.15****	0.1		
					(0.05)	(0.07)		
c) Enforcement							-0.08	0.06
							(0.05)	(0.12)
Government support	-0.02	-0.03	-0.02	-0.03	-0.01	-0.02	-0.03	0.01
	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)
Government support × legal system		0.001						
		(0.003)						
a)Government support × contracting right law						0.01		
						(0.01)		
b)Government support × property right law				0.01				
				(0.01)				
c)Government support × enforcement								-0.01
								(0.01)
Provincial long-term debt ratio	-0.73*	-0.73*	-0.8**	-0.83**	-0.84**	-0.88**	-0.88**	-0.9**
	(0.29)	(0.29)	(0.29)	(0.29)	(0.28)	(0.28)	(0.3)	(0.3)
Productivity	-0.21*	-0.22*	-0.21*	-0.22*	-0.23*	-0.25*	-0.19+	-0.19+
	(0.10)	(0.10)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
GDP	-0.16	-0.14	-0.17	-0.14	-0.24	-0.2	-0.09	-0.13
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.16)	(0.16)
GDP growth	1.97	2.00	1.94	2.16	1.96	2.11	2.24	2.39+
	(1.40)	(1.40)	(1.39)	(1.4)	(1.37)	(1.37)	(1.4)	(1.4)
Off-tax burden	0.06+	0.06+	0.06+	0.07+	0.08*	0.08*	0.05	0.05
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Constant	-0.68	-0.67	-0.5	-0.49	-0.82	-0.87	0.42	-0.15
	(0.62)	(0.62)	(0.53)	(0.53)	(0.55)	(0.55)	(0.53)	(0.69)
F	2.49*	2.19*	2.69*	2.53*	3.24**	3.07**	2.34*	2.26*
N	197	197	197	197	197	197	197	197
F test (u_i=0)	1.61*	1.60*	1.68*	1.73*	1.82*	1.87**	1.72*	1.78*

Note: *** Significant at .001 level; ** significant at .01 level; * significant at .05 level; + significant at .1 level. Two-tailed tests for all variables.

Table 3.3 Which elements of provincial legal system and provincial government support affect the average substantiveness of restructuring? Fixed Effect Models

The coefficients are estimated using fixed effect model. The dependent variable is the annual average substantiveness index for the period 1999 to 2006 in each province. Because two of the three legal system indices, i.e., property right law index and contracting law index are highly correlated, they are put into models separately. Legal system refers to contracting law in models 5a and 5b, property right law in models 6a and 6b, and enforcement in models 7a and 7b. The dependent variable is measured in year t. The independent variables are measured in year t-1. Standard errors are in the parentheses.

DV: provincial substantiveness	Contracting law		Property right law		Enforcement	
	Model 5a	Model 5b	Model 6a	Model 6b	Model 7a	Model 7b
Legal system	**0.10+**	-0.02	**0.14***	-0.04	-0.07	-0.001
	(0.05)	(0.11)	**(0.06)**	(0.11)	(0.05)	(0.18)
Subsidy	-0.06	**-0.29***	-0.05	**-0.31***	0	-0.07
	(0.09)	**(0.14)**	(0.09)	**(0.14)**	(0.09)	(0.2)
Credit	-0.04	0.05	-0.03	0.05	**-0.06+**	-0.04
	(0.04)	(0.05)	(0.04)	(0.05)	**(0.04)**	(0.1)
Local protection	0.09	0.07	0.08	0.07	0.08	0.15
	(0.07)	(0.08)	(0.07)	(0.08)	(0.07)	(0.12)
Subsidy×legal system		**0.03+**		**0.04 ***		0.0001
		(0.02)		**(0.02)**		(0.02)
Credit×legal system		**-0.02+**		-0.01		-0.004
		(0.01)		(0.01)		(0.01)
Local protection×legal system		0.02		0.01		-0.02
		(0.01)		(0.01)		(0.02)
Provincial long-term debt ratio	-0.87**	-0.79**	-0.90**	-0.84**	-0.98**	-0.97**
	(0.29)	(0.29)	(0.29)	(0.29)	(0.3)	(0.31)
GDP	-0.21	-0.29	-0.32+	-0.27+	-0.21	-0.21
	(0.17)	(0.18)	(0.18)	(0.18)	(0.17)	(0.18)
GDP growth	2.77+	3.96*	2.67+	3.68 *	3.24*	3.01+
	(1.51)	(1.59)	(1.49)	(1.58)	(1.49)	(1.54)
Productivity	-0.22*	-0.18+	-0.23*	-0.21*	-0.2*	-0.2+
	(0.10)	(0.1)	(0.10)	(0.10)	(0.1)	(0.1)
Off-tax burden	0.05	0.06	0.06	0.07 *	0.04	0.04
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Constant	-0.36	0.56	-0.62	0.52	0.08	0.24
	(0.66)	(0.87)	(0.67)	(0.90)	(0.69)	(1.18)
F	2.46*	2.65*	2.82**	2.92**	2.2*	1.72+
N	197	197	197	197	197	197
F test (u_i=0)	1.70*	1.96*	1.81*	2.04**	1.70*	1.62*

Note: *** Significant at .001 level; ** significant at .01 level; * significant at .05 level; + significant at .1 level. Two-tailed tests for all variables.

Table 3.4 Robustness Test: Instrumental Variable Estimation

This table reports the results from IV estimation. The dependent variable is the substantiveness index of each loss-maker's 1-year restructuring plan. Because two of the three legal system indices, i.e., property right law index and contracting law index are highly correlated, they are put into models separately. The dependent variable is measured in year t. The independent variables are measured in year t-1. Enforcement, subsidy, credit and local protectionism are treated as endogenous variables. Instrumental variables include imbalance between budgetary income and budgetary expenditure, province government's budget income and off-budget income, administration fee, officers' salary compared with social average salary, number of listed firms in the province, size of government, province GDP in year t-2, growth of province GDP from year t-2 to year t-1, and ratio of managers' time in dealing with the government to their total working hour. All the instrumental variables are measured in year t-2. Due to limited space, I only report the second stage of IV estimation. Standard errors are in the parentheses.

	Contracting law		Property right law		Enforcement	
	Model 8a	Model 8b	Model 9a	Model 9b	Model 10a	Model 10b
Legal system	-0.12 (0.15)	0.26 (0.23)	-0.17 (0.17)	0.34 (0.27)	-0.22 (0.23)	-0.64 (1.29)
Subsidy	0.68 (0.45)	0.99+ (0.53)	0.69+ (0.41)	1.12* (0.53)	0.61* (0.31)	0.17 (2.19)
Credit	-0.29+ (0.17)	-0.29 (0.2)	-0.32+ (0.18)	-0.32+ (0.19)	-0.14 (0.11)	-0.43 (0.55)
Local protectionism	0.25 (0.21)	0.31 (0.25)	0.22 (0.21)	0.27 (0.27)	0.3 (0.21)	0.88+ (0.47)
Legal system*subsidy		-0.06 (0.04)		-0.08 (0.05)		0.05 (0.24)
Legal system*credit		**0.04+ (0.03)**		**0.04+ (0.03)**		0.07 (0.08)
Legal system* Local protectionism		-0.01 (0.03)		-0.01 (0.03)		-0.1 (0.07)
Long term debt ratio	-0.96+ (0.52)	-0.86+ (0.5)	-0.97+ (0.52)	-0.86+ (0.5)	-0.99* (0.47)	-0.83+ (0.46)
Productivity	0.21 (0.17)	0.23 (0.18)	0.2 (0.18)	0.24 (0.18)	0.29+ (0.18)	0.35* (0.17)
GDP	-0.41 (0.32)	-0.39 (0.32)	-0.34 (0.32)	-0.35 (0.32)	-0.5 (0.31)	-0.38 (0.39)
GDP growth	4.24 (3.07)	2.62 (2.62)	4.04 (3.01)	2.15 (2.63)	4.07 (2.77)	2.84 (3.64)
Off-tax income	-0.03 (0.08)	-0.1 (0.07)	-0.03 (0.08)	-0.1 (0.07)	-0.06 (0.08)	-0.1 (0.08)
Constant	-2.91 (2.32)	-5.28+ (2.97)	-2.49 (2.21)	-5.91+ (3.04)	-2.52 (2.08)	0.55 (12.24)
R squared	0.01	0.01	0.01	0.01	0.01	0.01
OBS	183	183	183	183	183	183

Note: *** Significant at .001 level; ** significant at .01 level; * significant at .05 level; + significant at .1 level. Two-tailed tests for all variables.

Table 3.5 Descriptive Statistics and Correlation (Firm-level; N=619)

		1	2	3	4	5	6	7	8	9	10	11	12	13
Substantiveness	1	1.00												
Contracting law	2	0.05	1.00											
Property right tlaw	3	0.06	0.97*	1.00										
Enforcement	4	-0.12*	0.34*	0.31*	1.00									
Subsidy	5	-0.01	-0.12*	-0.08*	0.15*	1.00								
Credit	6	-0.05	-0.34*	-0.36*	-0.17*	0.13*	1.00							
Local protectionism	7	0.03	0.19*	0.15*	0.01	0.14*	0.23*	1.00						
Herfindahl index	8	-0.01	-0.05	-0.04	-0.06*	0.16*	0.13*	0.02	1.00					
Relative labor productivity	9	0.03	0.04	0.02	-0.02	0.00	-0.03	0.10*	-0.01	1.00				
Relative inventory turnover	10	0.05	0.02	0.02	0.02	-0.03	-0.03	0.05	-0.01	0.03	1.00			
Local government owner	11	-0.06	-0.15*	-0.15*	-0.04	0.07*	0.08*	-0.05	0.02	-0.08*	-0.02	1.00		
Central government owner	12	0.08*	0.16*	0.12*	0.01	0.03	0.01	0.06	0.01	0.00	0.06	-0.49*	1.00	
Ultimate ownership	13	0.14*	0.07*	0.06	0.00	0.04	0.02	0.01	0.08*	-0.08*	0.03	0.10*	0.22*	1.00
Dual position of CEO	14	-0.07*	-0.08*	-0.08*	-0.02	0.01	0.03	-0.07*	-0.02	-0.03	-0.01	-0.03	-0.04	-0.08*
International affiliated auditor	15	0.01	-0.07*	-0.07*	0.08*	0.10*	0.08*	0.02	0.04	-0.05	-0.03	0.03	0.03	0.12*
ROA	16	0.12*	0.01	0.01	-0.01	0.02	0.03	0.0716*	-0.05	0.06	0.20*	0.01	0.07*	0.09*
Debt ratio	17	-0.15*	-0.04	-0.06	0.02	0.00	-0.06*	-0.05	-0.02	-0.04	-0.13*	0.04	-0.07*	-0.06
Size	18	0.13*	0.10*	0.10*	0.04	0.10*	-0.09*	-0.05	-0.02	-0.16*	0.04	0.04	0.15*	0.20*
Regulated industry	19	-0.03	0.03	0.04	0.01	-0.05	0.04	-0.05	-0.06	0.12*	-0.02	-0.09*	0.09*	-0.06
Age	20	-0.09*	0.07*	0.06	0.06	0.03	-0.25*	-0.23*	-0.12*	0.06	-0.03	-0.12*	-0.07*	-0.36*
ST	21	-0.03	-0.01	0.01	0.03	0.08*	-0.04	-0.03	0.00	0.02	-0.02	-0.03	-0.01	-0.10*
Negative recommendation	22	0.08*	0.14*	0.13*	0.03	0.00	-0.05	0.01	0.00	-0.03	-0.02	0.01	0.04	0.03
2nd year after loss	23	-0.11*	0.00	0.00	0.01	0.00	-0.03	0.01	-0.03	0.01	-0.07*	0.07*	-0.02	0.04
GDP	24	-0.04	0.26*	0.27*	0.41*	-0.11*	-0.35*	-0.63*	-0.03	-0.10*	0.01	0.00	0.01	0.05
No. of listed firms	25	-0.09*	0.44*	0.37*	0.70*	0.07*	-0.30*	-0.12*	-0.05	0.02	0.01	-0.04	0.03	0.05
Mean		-0.01	5.68	5.76	5.62	6.47	4.08	2.14	0.18	0.97	0.90	0.53	0.17	37.78
Std. Dev.		1.40	4.39	4.17	2.30	1.69	3.11	2.36	0.12	0.18	0.57	0.50	0.38	16.24
Min		-4.85	0.27	0.37	0	2.20	-1.49	-0.87	0.04	0.57	-5.21	0.00	0.00	1.97
Max		2.73	24.73	22.87	10.00	12.14	10.00	14.22	0.74	2.43	11.05	1.00	1.00	84.97

Note: * significant at 0.1 level

Table 3.5 Descriptive Statistics and Correlation (Cont') (Firm-level; N=619)

		14	15	16	17	18	19	20	21	22	23	24	25
Dual position of CEO	14	1.00											
International affiliated auditor	15	0.01	1.00										
ROA	16	-0.03	0.05	1.00									
Debt ratio	17	0.08*	-0.04	-0.56*	1.00								
Size	18	0.02	0.17*	0.18*	-0.08*	1.00							
Regulated industry	19	0.04	-0.01	0.03	-0.06*	0.01	1.00						
Age	20	0.08*	-0.05	-0.06*	0.15*	-0.05	0.12*	1.00					
ST	21	0.07*	0.09*	-0.03	0.32*	-0.23*	-0.07*	0.11*	1.00				
Negative recommendation	22	-0.03	-0.03	0.03	-0.03	0.10*	0.03	0.03	-0.05	1.00			
2nd year after loss	23	0.07*	0.07*	0.10*	0.12*	-0.09*	-0.02	0.09*	0.13*	0.00	1.00		
GDP	24	-0.03	0.00	-0.04	0.03	0.10*	0.02	0.20*	0.01	0.01	-0.02	1.00	
No. of listed firms	25	-0.07*	0.02	-0.06	0.06*	0.08*	-0.04	0.12*	0.02	0.02	-0.02	0.65*	1
Mean		0.13	0.03	-0.09	0.68	20.68	0.20	9.96	0.12	0.02	0.55	17.57	5.13
Std. Dev.		0.34	0.17	0.17	0.50	0.94	0.40	3.32	0.32	0.16	0.50	0.87	3.69
Min		0	0	-1.75	0.01	17.71	0	2	0	0	0	14.14	0.26
Max		1	1	0.20	8.50	24.45	1	21	1	2	1	19.23	12.72

Note: * significant at 0.1 level

Table 3.6 What types of firms are more affected by provincial legal system? Heckman Selection Models (OBS: 1000, Censored: 381, Uncensored: 619)

The coefficients are estimated using Heckman selection models. The dependent variable is the substantiveness index of each loss-maker's 1-year restructuring plan. Institution refers to province contracting law index in models 8a and 8b, province property right law index in models 9a and 9b, and province enforcement index in models 10a and 10b. Other than the control variables listed in the table, I also control the industry dummies and year dummies. Standard errors are in the parentheses.

	Contracting law		Property right law		Enforcement	
	Model 11a	Model 11b	Model 12a	Model 12b	Model 13a	Model 13b
Legal institution	0.01+ (0.01)	0.06 (0.07)	0.02+ (0.01)	0.17+ (0.09)	-0.01 (0.03)	-0.21 (0.14)
Government support	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Herfindahl index of input	4.1* (2.02)	6.16** (1.85)	4.12* (2.01)	6.75*** (1.86)	4.19* (2.03)	2.65 (2.21)
Squared Herfindahl index	-6.08* (2.55)	-7.5** (2.52)	-6.09* (2.54)	-7.99** (2.47)	-6.17* (2.57)	-6.35* (2.47)
Relative labor productivity	0.27 (0.34)	0.41 (0.61)	0.27 (0.34)	0.87 (0.64)	0.26 (0.34)	-0.34 (0.72)
Relative inventory turnover	0.02 (0.07)	-0.21 (0.27)	0.02 (0.07)	-0.1 (0.28)	0.02 (0.07)	-0.27 (0.37)
Legal system* relative inventory turnover		0.03 (0.03)		0.01 (0.03)		0.03 (0.04)
Legal system*relative labor productivity		-0.03 (0.07)		-0.11 (0.08)		0.13 (0.13)
Legal system*Herfindahl index		-0.27*** (0.07)		-0.32*** (0.08)		0.3 (0.19)
Legal system*international affiliated auditor		-0.28*** (0.07)		-0.25** (0.08)		-0.16 (0.14)
Provincial government owner	-0.27*** (0.08)	-0.22** (0.08)	-0.26*** (0.08)	-0.21** (0.08)	-0.27*** (0.08)	-0.28*** (0.08)
Central government owner	-0.17+ (0.1)	-0.18* (0.09)	-0.17+ (0.09)	-0.16+ (0.09)	-0.16+ (0.1)	-0.17+ (0.1)
Ultimate ownership	0.01* (0)	0.01* (0)	0.01* (0)	0.01* (0)	0.01* (0)	0.01* (0)
Dual position of CEO & board director	-0.44* (0.2)	-0.46* (0.2)	-0.45* (0.2)	-0.46* (0.2)	-0.44* (0.2)	-0.41+ (0.21)
International affiliated auditor	-0.14 (0.48)	1.22* (0.62)	-0.14 (0.48)	1.09 (0.67)	-0.14 (0.48)	0.97 (1.05)
ROA	0.3 (0.66)	0.4 (0.66)	0.3 (0.66)	0.39 (0.67)	0.31 (0.65)	0.38 (0.63)
Debt ratio	-0.24 (0.21)	-0.22 (0.21)	-0.23 (0.21)	-0.21 (0.21)	-0.24 (0.21)	-0.25 (0.2)
Size	0.15** (0.05)	0.11* (0.05)	0.14** (0.05)	0.1* (0.05)	0.15** (0.05)	0.14** (0.05)
Regulated industry	0.09 (0.56)	0.13 (0.6)	0.07 (0.57)	0.27 (0.68)	0.12 (0.58)	0.12 (0.48)
Age	-0.02 (0.02)	-0.02 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.02 (0.02)	-0.02 (0.02)
ST	0.04 (0.22)	0.02 (0.22)	0.04 (0.22)	0.02 (0.23)	0.05 (0.22)	0.02 (0.21)
Negative recommendation	0.39 (0.43)	0.41 (0.4)	0.39 (0.43)	0.41 (0.41)	0.42 (0.43)	0.39 (0.42)
2nd year after loss	-0.2* (0.09)	-0.23** (0.09)	-0.2* (0.09)	-0.22** (0.09)	-0.2* (0.09)	-0.19* (0.08)
GDP	-0.03 (0.11)	-0.03 (0.11)	-0.04 (0.11)	-0.03 (0.11)	-0.04 (0.11)	-0.05 (0.11)

No of listed firms	-0.04** (0.01)	-0.04* (0.02)	-0.04** (0.01)	-0.04* (0.01)	-0.03 (0.02)	-0.03 (0.02)
Constant	-2.78 (2.2)	-2.28 (2.26)	-2.68 (2.19)	-2.83 (2.27)	-2.49 (2.17)	-1.13 (2.28)
Log pseudo likelihood	-1659.12	-1651.92	-1659.13	-1652.65	-1657.00	-1654.42
Wald test (rho = 0)	5.92*	4.86*	5.90*	4.47*	4.19*	4.34*
First stage: Restructuring						
Legal system	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.05+ (0.03)	0.05+ (0.03)
Herfindahl index	-0.5 (0.33)	-0.49 (0.33)	-0.51 (0.33)	-0.5 (0.33)	-0.4 (0.33)	-0.41 (0.33)
Relative labor productivity	-0.09 (0.3)	-0.09 (0.3)	-0.09 (0.3)	-0.09 (0.3)	-0.12 (0.31)	-0.13 (0.31)
Relative inventory turnover	0 (0.03)	0 (0.03)	0 (0.03)	0 (0.03)	0 (0.03)	0 (0.03)
Government support	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.01)	0.02 (0.01)
Local government owner	0.04 (0.1)	0.04 (0.1)	0.04 (0.1)	0.04 (0.1)	0.06 (0.1)	0.06 (0.1)
Central government owner	0.11 (0.14)	0.11 (0.14)	0.11 (0.14)	0.11 (0.14)	0.12 (0.14)	0.12 (0.14)
Ultimate ownership	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Dual position of CEO & board chairman	-0.2 (0.14)	-0.2 (0.14)	-0.2 (0.14)	-0.2 (0.14)	-0.21 (0.13)	-0.21 (0.13)
International affiliated auditor	-0.24 (0.26)	-0.24 (0.26)	-0.24 (0.26)	-0.23 (0.26)	-0.27 (0.25)	-0.27 (0.25)
ROA	-0.1 (0.36)	-0.1 (0.36)	-0.1 (0.36)	-0.1 (0.36)	-0.1 (0.36)	-0.1 (0.36)
Debt ratio	-0.08 (0.06)	-0.08 (0.06)	-0.08 (0.06)	-0.08 (0.06)	-0.09 (0.06)	-0.09 (0.06)
Size	-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)	-0.01 (0.05)	-0.01 (0.05)
Regulated industry	-0.08 (0.1)	-0.08 (0.1)	-0.08 (0.1)	-0.08 (0.1)	-0.07 (0.1)	-0.07 (0.1)
Age	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)
ST	-0.23* (0.12)	-0.23* (0.12)	-0.24* (0.12)	-0.24* (0.12)	-0.24* (0.12)	-0.24* (0.12)
Negative recommendation	-0.04 (0.18)	-0.04 (0.18)	-0.03 (0.18)	-0.04 (0.18)	-0.03 (0.19)	-0.03 (0.19)
2nd year after loss	0.23** (0.07)	0.23** (0.07)	0.23** (0.07)	0.23** (0.07)	0.23** (0.07)	0.23** (0.07)
GDP	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	-0.04 (0.07)	-0.04 (0.07)
Prior restructuring by other firm	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Prior restructuring by the firm	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)
Constant	-0.05 (1.75)	-0.06 (1.76)	-0.07 (1.75)	-0.08 (1.76)	0.82 (1.69)	0.83 (1.69)

Note: *** Significant at .001 level; ** significant at .01 level; * significant at .05 level; + significant at .1 level. Two-tailed tests for all variables.

Table 3.7 What types of firms are more affected by provincial government support? Heckman Selection Models (OBS: 1000, Censored: 381, Uncensored: 619)

The coefficients are estimated using Heckman selection models. The dependent variable is the substantiveness index of each loss-maker's 1-year restructuring plan. Institution refers to subsidy in models 14a and 14b, credit access in models 15a and 15b, local protectionism in models 16a and 16b. Other than the control variables listed in the table, I also control the industry dummies and year dummies. Standard errors are in the parentheses.

	Subsidy		Credit		Local protectionism	
	Model 14a	Model 14b	Model 15a	Model 15b	Model 16a	Model 16b
Government support	-0.01 (0.03)	-0.24 (0.18)	-0.02 (0.02)	-0.21* (0.09)	-0.03 (0.04)	-0.2 (0.18)
Legal system	0 (0)	0 (0)	0.01 (0)	0.01 (0)	0.01 (0)	0.01 (0)
Herfindahl index of input	3.95* (2)	3.01 (2.34)	4.09* (2)	3.45 (2.26)	3.96+ (2.07)	4.13* (2.02)
Squared Herfindahl index	-5.91* (2.53)	-6.28* (2.62)	-6.08* (2.54)	-7.76** (2.73)	-5.92* (2.59)	-5.38* (2.65)
Relative labor productivity	0.28 (0.33)	-0.81 (1.08)	0.28 (0.34)	-0.37 (0.4)	0.28 (0.34)	-0.18 (0.49)
Relative inventory turnover	0.02 (0.07)	-0.26 (0.47)	0.02 (0.07)	0.09 (0.08)	0.03 (0.07)	-0.12 (0.21)
Government support* relative inventory turnover		0.03 (0.05)		-0.04 (0.05)		0.03 (0.03)
Government support* relative labor productivity		0.17 (0.16)		0.17* (0.08)		0.18 (0.18)
Government support* Herfindahl index		0.18 (0.2)		0.29 (0.18)		-0.18 (0.16)
Government support *international affiliated auditor		-0.11 (0.2)		0.22** (0.08)		-0.25 (0.17)
Provincial government owner	-0.27*** (0.08)	-0.27*** (0.07)	-0.27*** (0.08)	-0.23** (0.08)	-0.28*** (0.08)	-0.27*** (0.07)
Central government owner	-0.18+ (0.1)	-0.17+ (0.1)	-0.17+ (0.1)	-0.15 (0.1)	-0.19+ (0.1)	-0.18+ (0.1)
Ultimate ownership	0.01* (0)	0.01* (0)	0.01* (0)	0.01* (0)	0.01* (0)	0.01+ (0)
Dual position of CEO & board director	-0.43* (0.2)	-0.43* (0.2)	-0.44* (0.2)	-0.42* (0.2)	-0.45* (0.2)	-0.46* (0.2)
International affiliated auditor	-0.13 (0.5)	0.68 (1.62)	-0.14 (0.49)	-1.17* (0.58)	-0.18 (0.48)	0.41 (0.7)
ROA	0.29 (0.66)	0.36 (0.68)	0.29 (0.66)	0.36 (0.66)	0.32 (0.67)	0.51 (0.7)
Debt ratio	-0.23 (0.21)	-0.23 (0.22)	-0.23 (0.21)	-0.22 (0.22)	-0.23 (0.22)	-0.18 (0.23)
Size	0.14** (0.05)	0.14** (0.05)	0.14** (0.05)	0.1* (0.05)	0.14** (0.05)	0.12* (0.05)
Regulated industry	0.05 (0.55)	0.09 (0.59)	0.06 (0.56)	-0.14 (0.34)	0.07 (0.52)	0.02 (0.48)
Age	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)
ST	0.02 (0.23)	0.02 (0.22)	0.02 (0.23)	0 (0.23)	0.02 (0.23)	-0.02 (0.24)

Negative recommendation	0.38 (0.43)	0.38 (0.42)	0.39 (0.43)	0.38 (0.43)	0.37 (0.43)	0.37 (0.42)
2nd year after loss	-0.2* (0.09)	-0.2* (0.09)	-0.2* (0.09)	-0.22* (0.09)	-0.2* (0.09)	-0.21* (0.09)
GDP	0.01 (0.09)	0 (0.09)	0.01 (0.08)	-0.01 (0.08)	-0.06 (0.14)	-0.07 (0.13)
No of listed firms	-0.04** (0.02)	-0.04** (0.02)	-0.05*** (0.01)	-0.05*** (0.01)	-0.04* (0.02)	-0.04* (0.02)
Constant	-3.32+ (1.98)	-1.8 (2.27)	-3.41+ (1.92)	-1.55 (1.91)	-2.36 (2.52)	-1.24 (2.74)
Log pseudo likelihood	-1658.65	-1657.71	-1658.77	-1653.65	-1652.51	-1649.79
Wald test (rho = 0)	4.65*	4.67*	5.33*	3.49+	5.99*	4.06*
First stage: Restructuring						
Government support	0.02 (0.04)	0.02 (0.04)	0 (0.02)	0 (0.02)	0.1*** (0.03)	0.1*** (0.03)
Herfindahl index	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0 (0.01)	0 (0.01)
Relative labor productivity	-0.43 (0.33)	-0.43 (0.33)	-0.4 (0.31)	-0.4 (0.31)	-0.45 (0.33)	-0.45 (0.33)
Relative inventory turnover	-0.1 (0.31)	-0.1 (0.31)	-0.1 (0.3)	-0.1 (0.3)	-0.1 (0.3)	-0.1 (0.29)
Government support	0 (0.03)	0 (0.03)	0 (0.03)	0 (0.03)	0 (0.03)	0 (0.03)
Local government owner	0.05 (0.1)	0.05 (0.1)	0.05 (0.1)	0.05 (0.1)	0.06 (0.1)	0.06 (0.1)
Central government owner	0.13 (0.14)	0.13 (0.14)	0.13 (0.14)	0.13 (0.14)	0.13 (0.14)	0.13 (0.14)
Ultimate ownership	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Dual position of CEO & board chairman	-0.2 (0.14)	-0.2 (0.14)	-0.19 (0.14)	-0.19 (0.14)	-0.16 (0.14)	-0.16 (0.14)
International affiliated auditor	-0.22 (0.26)	-0.22 (0.26)	-0.21 (0.26)	-0.21 (0.26)	-0.25 (0.26)	-0.24 (0.26)
ROA	-0.09 (0.36)	-0.09 (0.36)	-0.09 (0.36)	-0.09 (0.36)	-0.11 (0.35)	-0.11 (0.35)
Debt ratio	-0.09 (0.06)	-0.09 (0.06)	-0.08 (0.06)	-0.08 (0.06)	-0.1 (0.06)	-0.1 (0.06)
Size	-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)
Regulated industry	-0.09 (0.1)	-0.09 (0.1)	-0.1 (0.1)	-0.1 (0.1)	-0.1 (0.11)	-0.1 (0.11)
Age	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.01 (0.01)	-0.01 (0.01)
ST	-0.26* (0.12)	-0.26* (0.12)	-0.25* (0.12)	-0.25* (0.12)	-0.26* (0.11)	-0.26* (0.11)
Negative recommendation	-0.08 (0.19)	-0.08 (0.19)	-0.08 (0.19)	-0.08 (0.19)	-0.02 (0.2)	-0.02 (0.2)
2nd year after loss	0.21** (0.07)	0.21** (0.07)	0.21** (0.07)	0.21** (0.07)	0.22** (0.07)	0.22** (0.07)
GDP	-0.05 (0.05)	-0.05 (0.05)	-0.06 (0.05)	-0.06 (0.05)	0.14* (0.06)	0.14* (0.06)
Prior restructuring by other firm	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Prior restructuring by the firm	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)
Constant	1.42 (1.49)	1.42 (1.49)	1.58 (1.36)	1.56 (1.36)	-2.06 (1.61)	-2.06 (1.62)

Note: *** Significant at .001 level; ** significant at .01 level; * significant at .05 level; + significant at .1 level. Two-tailed tests for all variables.

Chapter IV

Performance of Substantial vs Symbolic Restructuring in Emerging Economies

INTRODUCTION

Corporate restructuring involves firms making changes to their portfolios and their organizational and financial structures, and is often conducted through a sequence of asset divestment, asset acquisition, asset swapping, and ownership restructuring. It is one of the most important aspects of transitional economies because the extent of the restructuring and its effect on firm performance is a fundamental determinant of economic growth (Djankov & Murrell, 2002).

A significant body of research has been undertaken to explore the reasons for the success or failure of corporate restructurings. For example, some studies point to the mismatch between acquirers and their target companies as one of the reasons for poor performance after corporate restructurings (Hubbard, 1999; Machhi, 2005; Weber & Camerer, 2003). Some studies show that managers may make wrong decisions because of agency problems, CEO hubris, and diversification mistakes (Chandra, 2001; Haleblian & Finkelstein, 1999; Hariharan, 2005). However, these studies attribute the failure of corporate restructurings to factors specific to the enterprise. Institutional factors—especially government intervention—seldom form part of the analysis, because the empirical context of these studies is a developed market with a mature legal system that facilitates market operations. In such a context, restructuring performance depends on managers' decisions and market discipline, and government is of little importance in facilitating corporate restructurings.

However, the situation is different in transitional economies. In transitional economies, the government—particularly the local government—is an important engine that boosts the corporate restructurings. One theoretical argument from institutional theory and the transaction cost view is that in the absence of a codified legal system, the local government can provide the institutions necessary for facilitating restructurings and promoting efficiency (Li, Meng, Wang & Zhou, 2008). An opposing argument from the "soft-budget" view is that governments or government officials may have "personal" goals such as providing economic security for enterprise employees, supplying social services (Kornai, 1979, 1980), or meeting politicians' private needs (Shleifer & Vishny, 1994; Boycko, Shleifer, & Vishny, 1996). Therefore, the government may bail out firms when their revenues do not cover costs. Government bailout measures may discourage firms from making the fundamental changes necessary to improve efficiency (Djankov & Murrell, 2002). Hence, studies on how local government intervention affects the success of corporate restructurings provide inconsistent theoretical predictions and empirical evidence.

An endogeneity issue arising from the traditional research design adopted in this field of study further obscures the real effect of government intervention on success in corporate restructuring. Most existing research directly investigates the relation between government intervention and post-restructuring performance (Djankov & Murrell, 2002). However, the relation between government intervention and corporate performance can work in both directions (Djankov & Murrell, 2002). On the one hand, government intervention may cause good or bad performance after a corporate restructuring. On the other hand, it may be firm performance that dictates government

action. Poor performance among firms may predict more government intervention because only poorly-performing firms, and not successful firms, need to be bailed out. Researchers have addressed this problem in various ways. The methods adopted include consideration of pre-restructuring levels of dependent variables (Claessens & Djankov, 1997), the use of statistical techniques such as simultaneous estimation models (Claessens & Peter, 1997), adopting instrumental variables such as incentives of decision makers (Earle & Estrin, 1997), and the use of cohorts of firms with similar levels of performance before restructuring (Roberts, Gorkov, & Madigan, 1998). However, none of these approaches is entirely satisfactory (Djankov & Murrell, 2002).

This study thus attempts to establish the real causal relation between government intervention and corporate restructuring performance. To tackle the reverse causal relation, this study focuses on both theoretical and empirical aspects of the nexus. Theoretically, this study seeks to unravel which mechanisms governments use to intervene in corporate restructurings. However, due to data availability, it is difficult to look directly into how governments intervene in corporate restructurings. Instead, this study follows an indirect route by looking at the differing nature of various kinds of restructurings. The argument is that firms restructure to a differing extent: some engage in substantial restructurings to bring about fundamental change in inefficient internal routines; others pursue symbolic restructurings with the sole objective of manipulating their short-term accounting performance and do nothing to address their basic routines. Firms restructure different aspects of their operations: some seek to improve property right arrangements, whereas others look to optimize their business

portfolio. Consequently, by looking at what types of restructurings can be successful with government support, this study will be in a position to unravel the mechanisms governing the success or otherwise of restructuring initiatives.

Empirically, listed firms that report a negative net profit in their annual financial report (loss-makers hereafter) are used as the empirical context. Thus I can have a cohort of poor-performers that have similar opportunities to obtain government support. Moreover, these loss-makers are located in 31 provinces, municipalities, and autonomous regions. Although they are subject to the same state-level laws in China, they are also subject to different local institutions including the local legal system and local government intervention. This heterogeneity in institutions provides an opportunity to test the effects of institutions on corporate restructuring performance.

To test the theoretical concern, I first differentiate substantial restructuring from symbolic restructuring. Given that the nature of restructuring itself is endogenous to the firm's decision, a non-random sample selection issue might arise due to the possibility that firms' own characteristics determine whether or not they engage in substantial restructurings. I therefore use propensity score matching to obtain a matched symbolic restructuring as the counterpart for each substantial restructuring. I examine whether the efficiency scores of the matched pair after restructuring diverge using the difference-in-difference approach. The empirical findings confirm the key prediction of institutional theory and transaction cost theory on post-restructuring performance: substantial restructuring results in a greater improvement in efficiency when there is a well-developed legal system. The substance of a restructuring can therefore be taken as an indicator of institutional dependence.

I next use the substance of restructurings to understand how local government financial support affects post-restructuring efficiency improvement. I argue that local government support can either help substantial restructuring among firms by acting as an institutional substitute or help symbolic restructuring among firms by acting as a cash provider. I find that firm efficiency improves to a greater extent when local government support helps with substantial restructurings than when it helps with symbolic restructurings.

I further uncover the performance-enhancing mechanisms of local government support by dissecting substantial (symbolic) restructurings into two sub-categories: substantial (symbolic) business restructurings and substantial (symbolic) ownership restructurings. Substantial (symbolic) business restructurings refer to restructurings involving more (less) of an emphasis on refocusing the business portfolio. Substantial (symbolic) ownership restructurings refer to restructurings that involve more (less) of an emphasis on the transfer of control power. Results show that greater efficiency improvements can be achieved when local government support helps to implement a substantial ownership restructuring than when it helps to implement a symbolic ownership restructuring. However, local government support for substantial business restructurings does not promote efficiency improvements.

HYPOTHESES

Substantial/Symbolic Restructuring and Efficiency

Prior studies suggest that firms implement change to differing degrees. The first type of change is radical change (also known as revolutionary or frame-breaking

change) (Dewar & Dutton, 1986; Tushman, Newman & Romanelli, 1986; Damanpour, 1991). Such radical change brings fundamental shifts in the activities, technology or structure of the organization. It represents a clear departure from existing practice. Radical change is positive because it creates the momentum required to overcome the inevitable inertia that builds up over time (Miller & Chen, 1994). In this study, radical change is deemed to occur when a firm restructures to bring about substantial change in internal routines that hurt the firm's efficiency. For example, a firm involved in acquisitions and divestitures may refocus its business portfolio (Singh & Chang, 1992) to bring about fundamental change in its inefficient operations. The firm reshapes its organizational structure, including its management team and ownership structure, to improve the efficiency and effectiveness of management (Bowman & Singh, 1993). Substantial restructuring thus can be expected to improve productive efficiency.

The second type of change is incremental change (also called evolutionary or frame-bending change) (Dewar & Dutton, 1986; Tushman, Newman & Romanelli, 1986; Damanpour, 1991). Such change results in minor modifications to existing practices. In this study, incremental change is deemed to occur when a firm engages in symbolic restructuring. To manipulate its earnings and meet the requirements of external stakeholders including debt holders, investors, and regulatory agencies, a firm can simply participate in peripheral asset swaps, asset sales, or asset disposals, or can rearrange its debt. This type of change allows the firm to increase investment revenue gains (Lee & Xue, 2004; Haw, Qi, Qu & Wu, 2005) or non-operating income (Bertrand, Mehta, & Mullainathan, 2002; Ding, Zhang, & Zhang, 2007; Lee & Xue, 2004; Haw, Qi, Qu & Wu, 2005). However, it does not involve a departure from

inefficient internal routines such as obsolete operations or ineffective governance, and cannot bring about any real improvement in efficiency. The following hypothesis is therefore proposed:

H1: Substantial restructuring can bring about a greater improvement in efficiency than symbolic restructuring.

Legal System

Different degrees of restructuring are associated with different levels of costs. Prior studies suggest that radical changes are much harder to undertake (March, 1991; Tushman & Nelson, 1990) because firms that seek to overcome inertia not only need to bear the high sunk cost of withdrawing existing resources, but also have to make a significant investment in initiating new projects. For example, when a firm conducts a substantial restructuring to improve an inefficient business portfolio, it needs to cut obsolete production lines, shed labor, and rid itself of unproductive assets. The firm also needs to introduce new product lines, processes, and technology, and will require new investments. This means that the firm will need not only financial support and technology, but also professional managers with good judgment of investment opportunities and adequate incentives. All these resources are quite beyond the internal capacity of any firm. In contrast, incremental changes, or symbolic restructurings, are much less costly. The firm needs only adjust some aspects of its operations that are peripheral to the organization, such as by selling some peripheral assets or investments (Green, 2004).

Therefore, to obtain the resources it needs to complete the restructuring initiative, the firm has to turn to external markets such as the property rights market, the labor

market or the capital market. To complete the restructuring process through these external markets, the firm has to enter into a series of contracts to carry out transactions such as mergers and acquisitions, asset sales, and asset swaps. According to institutional theory and transaction cost theory, the efficiency of the contracting process depends on the quality of the institutions governing transaction processes in the market. These institutions include the codified legal system providing for the resolution of transaction-related issues. For example, rules and regulations on corporate governance arrangements, financial accounting and auditing rules, debt covenants, and bankruptcy procedures are established to govern transactions in financial markets. Regulations on the tenure profile of wages, dismissal rules and procedures, and regulations governing collective action are established to resolve disputes in the labor market. With a well-developed legal system to govern contracting processes in external markets, there will be more symmetrical information, orderly agencies responsible for valuing assets, and a clearer template for contracting, business implementation, and dispute resolution (Ricardo & Mohamad, 2000). These institutions allow for corporate restructurings to be completed at a lower cost.

Prior studies have shown that the institutional environment is especially important for more institutionally-dependent organizations or activities (Blanchard & Kremer, 1997; Konings, 1998; Konings & Walsh, 1998; Recanatini & Ryterman, 2000). For example, Blanchard and Kremer (1997) hypothesize that the need for contractual enforcement is most critical for enterprises with more complex input requirements. Such enterprises perform relatively poorly after abandoning contractual enforcement through planning but before the creation of an effective alternative.

Recanatini and Ryterman (2000) find that growth is lower in enterprises that previously received the highest level of institutional support from central planning, one interpretation being that this variable is a proxy for some institutional need. In this study, as substantial restructurings are more dependent on external resources to reduce cost than are symbolic restructurings, I argue that with a better legal system, substantial restructuring outperforms symbolic restructuring to a greater extent. I therefore propose the following hypothesis:

H2: Substantial restructuring outperforms symbolic restructuring to a greater extent in a better legal system.

Government Support

Next, I examine how local government support affects post-restructuring performance.

In transitional economies such as China, local government plays an important role in corporate restructuring. Institutional theory and transaction cost theory suggest that in the absence of a codified legal system, local government may act as an alternative institution provider to facilitate transactions in two ways (Allen, Qian, & Qian, 2005; Boisot & Child, 1996; Clarke, 1991). First, local government can fulfill the role of a contracting institution. Local government can provide information, help find restructuring partners, or provide a platform to facilitate equity exchange. It can give firms preferential access to financial resources. Local government can also alleviate the problems of labor redundancies by providing subsidies or assigning redundant workers to other firms. Second, local government can use its executive powers to facilitate contractual enforcement, thereby alleviating a problem caused by

the weakness of the court system (Du, Lu, & Tao, 2008). By these means, local governments can reduce transaction costs associated with restructurings, leading to more significant post-restructuring efficiency improvements.

Soft budget theory suggests that to enlarge politicians' own political constituency or to provide economic security for enterprise employees and supply social services, local governments can act as cash providers and bail out firms when the their revenues do not cover their costs (Boycko, Shleifer, & Vishny, 1996; Kornai, 1979, 1980; Shleifer & Vishny, 1994). There is some evidence of local governments acting as cash providers, either through directly injecting funds or in some indirect ways. For example, Chen, Lee, and Li (2003) show that local governments directly provide fiscal subsidies to help firms polish their financial reports. Wu (2001) shows that to protect local interests, local governments push local auditing firms to overvalue focal firms' assets, thus enabling such firms to falsify their financial reports by selling assets at an unfairly high price.[12] Whether provided in a direct or indirect manner, local government support promotes more symbolic changes and is unlikely to lead to post-restructuring efficiency improvements.

Hence, I propose that whether local government support promotes more significant efficiency improvements depends on the way in which the government intervenes in a restructuring. As there is not a means of establishing the exact channel of local government intervention for the focal firm, I indirectly examine the types of restructurings with which local government helps. When the local government helps

[12] Wu (2001) examines a typical example in his study. In the restructuring of Qiongminyuan Company, there was a distinct difference between four valuations of total assets and net assets, ranging from 0.98 billion yuan to 1.669 billion yuan and from 0.73 billion yuan to 1.069 billion yuan, respectively. This great discrepancy did not seem to be explained by operating methods.

with more substantial restructurings that rely to a significant extent on institutions, it acts as an institution provider and promotes more significant efficiency improvements. In contrast, when the local government helps with less substantial restructurings, its role is that of a cash provider and it will tolerate inefficiency. I therefore propose the following hypothesis.

H3a: Local government support will lead to more significant efficiency improvements when the local government helps with substantial restructurings than when the local government helps with symbolic restructurings.

Local governments may intervene in various aspects of firm restructurings. For example, they may help to improve property right arrangements by facilitating the transfer of shares. They may also help with firms' operating issues by participating in the selection and reshaping of the firm's business focus.

However, like any organization, government has its own core competencies and weaknesses. Core competencies are defined as activities that provide a strategic advantage to an organization. Qian (2000) proposes the core competencies of government including the provision of public goods, regulation, and the allocation of power. Waddell (2002) gives a more comprehensive description of government competencies. He suggests that the public sector possesses resources such as regulatory and taxation powers, enforcement apparatus, specialized policy-impact knowledge, and government reputation. Based on these resources, the public sector has core competencies in areas including rules-focused activity, creation of a "level playing field", redistribution of benefits, infrastructure development, public policy development, enforcement skills, and government agency networks. On the other

hand, he also notes that government has some weaknesses including inflexibility in the application of rules, slow decision-making, complexity of jurisdictions/levels, difficulty in internal coordination, and a desire to control other sectors. These core competencies and weaknesses imply that government is more capable and effective in some aspects of its activities than it is in others.

I argue that competencies in areas such as the allocation of power and government agency networks allow the government to tackle property rights issues effectively and maintain a political balance. First, in China, if control power is to be transferred from the government to a non-state entity, the ownership restructuring plan must be authorized by the local government. If a firm can get support from the local government, it can utilize the local government's networks to facilitate the approval process. Second, substantial ownership restructurings are often associated with major changes in upper-level management. Participation of the local government will reduce resistance to restructuring among top managers, who have often been appointed by or have connections with the local government (Qian, 1996). Therefore, local government can promote more thorough and efficient ownership restructuring.

In contrast, acting as a market participant by leading business operations is not one of the core competencies of the government. Government officials are not professionals when it comes to dealing with market issues. They are not as sensitive as business professionals in understanding the commercial environment and technological possibilities. In addition, some government weaknesses make things worse. For example, government is slow to complete the decision-making process. The participation of government in business operations will make the organization

less responsive to market competition. The government has sovereignty over business actors. It has an incentive to exploit its power while bypassing market rules. Local government support for a fundamental business restructuring will not be as effective as local government support for property rights issues in promoting efficiency. I therefore propose the following hypothesis:

H3b: Local government support will lead to more significant efficiency improvements when the local government helps with substantial ownership restructuring than when it helps with substantial portfolio restructuring.

METHOD

Sample and Data

I use listed firms that report a negative net profit in their annual financial report (loss-makers hereafter) as the empirical context. Thus I can have a group of poor-performers that have similar opportunities to obtain government support. Moreover, these loss-makers are located in 31 provinces, municipalities, and autonomous regions in mainland China. Although they are subject to the same state-level laws, they are also subject to different local institutions including the local legal system and local government intervention. This heterogeneity in institutions allows us to investigate how the institutions affect corporate restructuring performance.

All the corporate restructuring information is obtained from the *China Stock Market Accounting Research database* (CSMAR), *China Center for Economic Research* (CCER) database and the retrieval system of Chinese listed firms

(http://220.194.35.3:8080/zq/ggcx/ggcx.htm). I examine the sample loss-makers' restructuring announcements in the two years following the loss year. The restructuring announcements in each year are together viewed as a one-year restructuring plan. The data on province institutions are obtained from the CSMAR region economy database, NERI Index of Marketization of China's Provinces (Fan & Wang, 1999 & 2006) and China Law Info Database. Financial data, corporate governance data, market performance data and state pressure data are collected from the *CSMAR* database.

Variables

To test the performance divergence between substantial restructuring and symbolic restructuring, I use the two technical efficiency scores after restructuring. Technical efficiency is a typical operational performance. It refers to the ability and willingness of an economic unit to produce the maximum possible output from a given combination of inputs and technology, regardless of market prices of outputs, inputs and demand (Farrell, 1957). It is composed of pure technical efficiency and scale efficiency. Pure technical efficiency refers to a firm's technological ability to use the available resources. Scale efficiency refers to a firm choosing its production level when the marginal cost equals the output price.

To calculate technical efficiency scores, I adopt an input-oriented Data Envelope Analysis (DEA) because of the excessive production inputs (e.g. excessive staff and excessive obsolete assets) in many Chinese loss-makers (Zheka, 2005). I use DEAP version 2.1 to run the standard constant returns to scale (CRS) and variable returns to scale (VRS) models. To run the DEA analysis, output and input of the firm need to be

used. Following previous studies (Zheka, 2005), I measure output as sales revenue (adjusted by change in final product inventory) minus total material costs in RMB using log values. I measure labor input as the log of the number of employees in the firm. I measure capital input as the log value of fixed assets in RMB. The DEA generates three efficiency scores: technical efficiency, pure technical efficiency and scale efficiency scores. The procedure of DEA is introduced in more details in Appendix 1. I use pure technical efficiency score (PTE) and scale efficiency score (SE) as the performance indicators.

I use substantiveness indices to differentiate substantial restructuring from symbolic restructuring. To obtain the substantiveness indices of one-year corporate restructuring plan, factor analysis is conducted on the changes of internal routines to obtain two components: symbolism of business portfolio changes and symbolism of ownership restructurings. I summate the two factor scores as the index to indicate the symbolism of the restructuring procedure. The factor analysis is presented in Appendix 3. The symbolism indices are continuous. The larger they are, the more symbolic (or the less substantial) the restructuring is. I multiply the indices by -1 and form the three indices for the substantiveness of a restructuring: substantiveness index, substantive ownership restructuring index, and substantive business restructuring index. Thus, the higher the substantiveness indices are, the more substantial the restructuring package is.

Based on the continuous substantive indices, I create three dichotomy variables. Substantive restructuring is coded as 1 when the substantiveness index is higher than the sample mean, and 0 when the substantiveness index is lower than the sample mean.

Substantive ownership restructuring is coded as 1 when the substantive ownership restructuring index is higher than the sample mean, and 0 when the substantive ownership restructuring index is lower than the sample mean. Substantive business restructuring is coded as 1 when the substantive business restructuring index is higher than the sample mean, and 0 when the substantive business restructuring index is lower than the sample mean

To predict the likelihood of firms choosing to perform substantial restructurings vs. symbolic restructurings, several firm indicators are included. New bank loan is measured by the standardized amount of new bank loan obtained by the loss-makers in the restructuring year. Ultimate controller's ownership is the shareholdings held by the ultimate controller of the firm. Dual position is a dummy indicating if the same person holds the CEO and board chairman positions. International auditor is measured by a dummy coded as 1 if the auditor is an international affiliated auditing firm. It is coded as 0 if the auditor is a domestic auditing firm. International affiliated auditing firms are those having an international Big 4 audit firm (KPMG, PricewaterhouseCoopers (PWC), and Deloitte Touche Tohmatsu, and Ernst & Young) as the joint venture partner. Debt ratio is defined as total debt divided by total assets. Firm age measures the calendar years since each firm's IPO. Firm size is measured by the log of total assets. Firms' connections with local and central government are proxied by three dummy variables: provincial and below-province government owner dummies and the central government owner dummy. The ST dummy is coded as 1 when the firm is labeled as "special treatment" by the restructuring year. Negative recommendation is the count of negative recommendations from financial analysts

obtained by the firm. The second year after loss is coded as 1 when the restructuring is conducted in the second year after the firm reports loss, and 0 otherwise. The regulated industry dummy is 1 if the firm primarily operates in the fields of natural resources (the mining, metal, or petroleum industries), public utilities, finance, transportation, electricity or the telecommunications industry, and 0 otherwise (Li, Zhang, & Zhou, 2005).

In order to examine the importance of institutions (including legal systems and local government support) to a firm's restructuring and its subsequent post-restructuring performance, I rely on China Law Info Database to measure the provincial contracting legislation. I examine the objects of local laws, rules and regulations and categorize those regulating business actors' contracting process as contracting laws. As local regulations are established based on and to support the state legal system, a larger count measure indicates that the local laws are better specified according to the state legal system. I thus use the count of contracting laws in the province to classify provinces into two types: provinces with low-level legal systems and provinces with high-level systems.

Local government can provide support in many ways. I focus on support provided through preferential credit access. This is because given the large market share of state-owned banks in China (71.4% in 2000 and 51.0% in 2006), the local government often allows loss-makers to access credit from the state owned banks (Gao & Schaffer, 1998). To measure the individual firm's preferential access to finance, I follow Abdelati and Claessens (1996) and Coricelli and Djankov (2002) and trace back the amount of new bank loans the loss makers received after they reported

financial losses. In the sample, among 598 loss-makers, only 170 firms obtained new bank loans in the 2 years after reporting losses. I obtain a dummy variable coded as 1 when the firm obtained a new bank loan during the restructuring year, and 0 when the firm did not obtain any new bank loans.

Other than providing new bank loans, financial support can be traced back to the prior long-term debt because politically-favored firms typically have greater access to long-term bank loans (Fan, Morck, Huang, & Yeung, 2008; Fan, Rui & Zhao, 2006). Hence, I use the superior access to the long-term debt (Fan, Rui & Zhao, 2006) as another proxy for government support. Long-term debt ratio is measured by long-term debt over total assets. I thus constitute an index to indicate such superior access by comparing the focal firm's long-term debt ratio to the provincial long-term debt ratio. Thus, superior access to the long-term debt is coded as 1 if a firm's financial leverage is above the average leverage of all firms in the same province, and 0 otherwise.

Then I use both the new bank loan dummy and the superior access to the long-term debt to classify the sample into two sub-samples: firms with high and low government support.

The descriptive statistics and correlation matrix are presented in table 4.1.

**********Insert Table 4.1 around here**********

Difference-In-Difference Estimation and Propensity Score Matching Methods

In order to more solidly identify the move (the restructuring) as being directly responsible for the efficiency improvement, I turn to a "difference-in-differences" research design. Difference-in-difference allows us to distinguish between the components of the post-move efficiency improvement that are more likely due to the

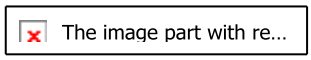
"treatment" (attributable to the restructuring) from the component that is instead due to "selection" (attributable to the kind of loss-makers that is more likely to move).

This comparison, however, remains vulnerable to problems of non-random sample selection -- that is, the possibility that the treatment (the implementation of a substantial restructuring) is selected by the loss-makers' own characteristics. In order to address this selection issue, I have calculated the propensity score of substantial restructuring using a Probit model, and constructed a matched pair between the treated group (consisting of substantial restructurings) and the control group (consisting of symbolic restructurings).

The idea behind propensity score matching can be explained as follows: the control group is so similar to the treated group that their possibilities to do substantial restructuring are almost the same. As I can determine which firms belong to a "treatment group" that conduct a substantial restructuring plan, the main issue is how to construct the "control group" that is most similar to the treatment group. In order to resolve this issue, I first must define what I mean by "similarity". Each firm in the dataset has many observable characteristics that may influence the substantial restructuring decision. Therefore, in order to compare different firms, a single dimensional similarity metric must be constructed from a multi-dimensional characteristic vector. The propensity score is a well-defined construct that satisfies the qualifications for such a similarity measure. According to Rosenbaum and Rubin (1983), "the propensity score is the conditional probability of assignment to a particular treatment given a vector of observed covariates. Both large and small sample theories show that adjustment for the scalar propensity score is sufficient to

remove bias due to all observed covariates." The propensity score used in the study is calculated via the predicted probability from the following Probit estimation for the substantial restructuring:

$$y_{it} = X_{it}\beta + \varepsilon_{it}$$



in which y_{it} is a dummy variable that equals 1 if the restructuring plan is a substantial one, and 0 otherwise; X_{it} is a vector of observable characteristics for firm i in year t that includes firm age, firm size, ownership structure, financial leverage, CEO dual-position, ST, second year after loss, international auditors, negative recommendations and a regulated industry dummy; ε_{it} is the error term, which is assumed to be normally distributed; and $\Phi(\bullet)$ is the cumulative normal distribution function.

After matching based on the predicted probability, I track the changes in Pure Technical Efficiency Score and Scale Efficiency Score for the three years after restructuring, and compare the changes since the restructuring year between the treatment group and control group. I then divide the sample into high/low legal system and high/low government support firms and apply the same methodology to evaluate the hypotheses.

RESULTS

Propensity Score Matching

Propensity scores are estimated by running Probit regressions on a set of observed covariates. Table 4.2 shows the Probit regression result of the estimation of

substantial restructuring using 874 observations over the 1998-2004 period based on the loss-makers in the A-share market in China. Three dichotomy variables -- substantive restructuring, substantive ownership restructuring and substantive business restructuring, respectively – are used as the treatments. I estimate the Probit models using whole sample, high/low legal system sub-samples, and high/low local government support sub-samples respectively. Despite being run on different samples, these regressions show remarkably consistent results with one another. Therefore, I report the models using whole sample. Model 1 reports the coefficients from the regression using substantive restructuring as the treatment. Model 2 reports the coefficients from the regression using substantive ownership restructuring as the treatment. Model 3 reports the coefficients from the regression using substantive business restructuring as the treatment.

**********Insert Table 4.2 around here**********

In model 1, it turns out that when a loss-maker has lower financial leverage, or is younger or larger, it will most likely conduct a substantial restructuring. If the loss-maker is controlled or owned by the local government, it is less likely to conduct a substantial restructuring. If the loss-maker is labeled as "Special Treatment", the firm is more likely to do substantial restructuring. If the restructuring is conducted in the second year after the firm reporting loss, the restructuring is less likely to be substantial.

In model 2, it turns out that the older the loss-maker is, the more likely it is to conduct a substantial ownership restructuring. If the loss-maker is controlled or owned by the central government, it is less likely to conduct a substantial ownership

restructuring.

In model 3, it turns out that the lower the financial leverage, the more likely a loss-maker is to conduct a substantial business restructuring. If the restructuring is conducted in the second year after the firm reporting loss, the business restructuring is less likely to be substantial.

I then impose a caliper matching method to obtain the matching sample for each substantial restructuring plan. For each loss-maker's substantial restructuring plan, the caliper matching estimator searches for its closest control match in terms of the propensity score but only if the control's propensity score is within a certain distance (caliper). Imposing a caliper works in the same way as allowing for replacements. Bad matches are avoided and hence the matching quality rises. After imposing the matching condition of propensity score caliper being 0.01, there are 283 cases of symbolic restructurings matching as the counter factual value for 309 substantial restructuring cases. Figure 4.1a, 4.1b and 4.1c plot the kernel densities of the propensity score before and after matching. As can be seen, while kernel densities show significant differences before matching, they are more similar after matching.

**********Insert Figure 4.1 around here**********

Performance Improvement after Substantive vs. Symbolic Restructuring

I then employ the difference-in-difference method to compare the performance after substantial restructuring and symbolic restructuring based on the matching samples. Table 4.3a shows the results from the difference-in-difference estimation, which captures the differences in the pure technical efficiency estimates for substantial restructuring plans and symbolic restructuring plans. The results

demonstrate that in the first year after restructuring, the symbolic restructurings, on average, enjoy a 0.61% greater increase in pure technical efficiency than the substantial restructurings with similar observed characteristics. However, this estimate is not significant. Two years after restructuring, the difference increases to 2.82%, significant at 0.01 level. Three years after restructuring, the difference decreases to 0.99%, but is not significant.

**********Insert Table 4.3 around here**********

I further examine the difference in the scale efficiency score between substantial restructuring and symbolic restructuring over three years in table 4.3b. The results demonstrate that in the first year after restructuring, the substantial restructurings, on average, enjoy a 0.3% greater increase in scale efficiency than the symbolic restructurings with similar observed characteristics. However, the difference is not significant. Two years after restructuring, the symbolic restructurings enjoy a 0.13% greater increase in scale efficiency than the substantial restructurings, but the difference, again, is not significant. Three years after restructuring, the symbolic restructurings enjoy a 1.02% greater increase in scale efficiency than the substantial restructurings, significant at the 0.05 level.

All these results are contrary to the prediction in Hypothesis 1. They suggest that substantial restructuring leads to greater increase in pure technical efficiency and scale efficiency than symbolic restructuring. However, this can be attributed to the fact that substantial restructuring is more costly than symbolic restructuring in transition economies, where the institutions are not yet perfectly established.

Relationship to the Legal System

To test the argument that substantial restructurings under-perform when compared to symbolic restructurings because of underdeveloped institutions, I further investigate the efficiency improvement in subsamples of well developed and poorly developed contracting legal systems.

Table 4.3a also shows the pure technical efficiency differences between the substantial restructurings and symbolic restructurings in subsamples of well developed and poorly developed legal systems. The substantial restructurings enjoy 1.53%, 0.99% and 2.70% greater increases in pure technical efficiency than symbolic restructurings in environments with well-developed legal systems in the first, second and third years after the restructuring. The differences in the first and third years are significant at the 0.05 level. However, in environments with underdeveloped legal systems, symbolic restructurings enjoy 1.42%, 1.82% and 1.22% greater increase in pure technical efficiency than substantial restructurings in the first, second and third years after the restructuring. The differences in the first and third years are significant at the 0.1 level. Such results support Hypothesis 2, which suggests that substantial restructuring can bring about greater improvements in pure technical efficiency than symbolic restructuring when the contracting legal system is well developed, but that substantial restructurings will under-perform when compared to symbolic restructurings in improving pure technical efficiency when the contracting legal system is underdeveloped.

Table 4.3b also shows the scale efficiency differences between substantial restructuring and symbolic restructuring in subsamples of well developed and

underdeveloped legal systems. For the sub-sample of well-developed legal systems, substantial restructurings enjoy a 0.73% greater increase in scale efficiency than symbolic restructurings in the first year after the restructuring, significant at the 0.05 level. However, symbolic restructurings enjoy a 1.25% greater increase in scale efficiency than substantial restructurings in the second and third years after the restructuring. These differences are significant at the 0.05 level. For the sub-sample of underdeveloped legal systems, symbolic restructurings enjoy 0.06%, 0.71% and 2.00% greater increases in scale efficiency than substantial restructurings in the first, second and third years after the restructuring. The difference in the third year is significant at the 0.05 level. Such results do not lend support to hypothesis 2. They suggest that symbolic restructuring can bring greater scale efficiency improvements than substantial restructuring. This could be attributed to the fact that improving scale efficiency is relatively less costly, and therefore less dependent on institutions than improving pure technical efficiency. The quality of the legal system is not critical to facilitating substantial restructuring to improve scale efficiency.

Relation to Local Government Support

I then examine whether local government support is an effective tool in contributing to the success of restructurings.

Table 4.3a also shows the pure technical efficiency differences between the substantial restructurings and symbolic restructurings in subsamples of high and low levels of local government support. Two indicators, namely new bank loans and superior long-term debt, are used to separate samples. When using new bank loans to separate samples, results show that for the firms that obtain new bank loans, their

substantial restructurings enjoy 4.06%, 4.70% and 6.59% greater increases in pure technical efficiency than symbolic restructurings in the first, second and third years after restructuring. These differences are significant at the 0.05 and 0.01 levels. In contrast, for the firms that did *not* obtain new bank loans, symbolic restructurings enjoy 1.12%, 2.63% and 2.45% greater increases in pure technical efficiency than substantial restructurings in the first, second and third years after restructuring. The differences for the second and third years are significant at the 0.05 and 0.1 levels. Such results imply that local government support through providing access to financial assistance does help firms undergoing substantial restructuring to improve their pure technical efficiency. The results also support Hypothesis 3a, which suggests that local government support leads to greater efficiency improvements when helping with substantial restructuring than when helping with symbolic restructuring.

Table 4.3a also shows that for the firms that obtain superior long-term debt, the increase in pure technical efficiency of substantial restructuring and symbolic restructuring does not differ significantly in the first, second and third years. In contrast, for firms that have *not* obtained superior long-term debt, symbolic restructurings enjoy 1.84%, 3.68% and 4.97% greater increases in pure technical efficiency than substantial restructurings in the first, second and third years after the restructuring. These differences are significant at the 0.05 level. Such results do not support hypothesis 3a. However, they suggest that without financial support from the local government, substantial restructurings cannot improve scale efficiency more than symbolic restructurings.

Table 4.3b also shows the scale efficiency differences between substantial and

symbolic restructuring in subsamples of high and low levels of local government support. For the firms that obtained new bank loans, substantial restructuring shows a 0.29% greater increase in scale efficiency than symbolic restructuring in the first year, but this differences is not significant. Symbolic restructuring enjoys a 0.78% and 3.86% greater increase in scale efficiency than substantial restructuring in the second and third years, with this difference being significant at the 0.1 level in the third year. In contrast, for the firms that did *not* obtain new bank loans, the increase in scale efficiency after symbolic restructuring and substantial restructuring does not differ significantly in any of the three years. For the firms that have or have not obtained superior long-term debt, the increase in scale efficiency of the substantial restructuring and symbolic restructuring does not differ significantly in the first, second or third years. Such results suggest that local government support through providing access to financial assistance does not help substantial restructuring to improve scale efficiency any more than it does symbolic restructuring. The results fail to support hypothesis 3a.

S***ubstantial Business Restructuring or Substantial Ownership Restructuring***

Next, in tables 4.4 and 4.5, I investigate Hypothesis 3b: in which areas does local government support help to improve efficiency? I use substantive ownership restructuring and substantive business restructuring as treatments, estimate the two propensity scores and obtain the matching samples respectively. Tables 4.4a and 4.4b show the difference-in-difference analysis of pure technical efficiency and scale efficiency based on matching samples. Tables 4.5a and 4.5b show the difference-in-difference analysis of pure technical efficiency and scale efficiency

based on matching samples.

**********Insert Table 4.4 around here**********

**********Insert Table 4.5 around here**********

Table 4.4a shows the difference-in-difference analysis of pure technical efficiency of substantial ownership restructuring and symbolic ownership restructuring. For the whole sample, symbolic ownership restructuring enjoys a 1.62% greater increase in pure technical efficiency improvements than substantial ownership restructurings in the third year, significant at the 0.1 level. Table 4.4b shows symbolic ownership restructuring enjoys 0.41% higher increase of scale efficiency than substantial ownership restructuring in the first year, significant at the 0.1 level.

Table 4.4a also shows that for the firms obtaining new bank loans, substantial ownership restructurings enjoy a 1.98% greater increase in pure technical efficiency than symbolic ownership restructurings at the 0.1 level. For firms *not* obtaining new bank loans, symbolic ownership restructurings enjoy a 1.54% greater increase in pure technical efficiency than substantial ownership restructurings in the third year at the 0.1 level. For firms who have obtained superior long-term debt, substantial ownership restructurings enjoy a 3.33% greater increase in pure technical efficiency than symbolic ownership restructurings in the second year at the 0.1 level. For firms who did *not* obtain superior long-term debt, symbolic ownership restructurings enjoy 2.30% and 4.20% greater increases in pure technical efficiency than substantial ownership restructurings in the second and third years at the 0.05 and 0.01 levels. Such results suggest that when the local government uses financial support to help with substantial ownership restructuring, there will be a greater improvement in pure technical

efficiency than when the local government helps with symbolic ownership restructurings.

In table 4.4b, for firms obtaining new bank loan, substantial ownership restructurings enjoy 2.07%, 1.85% and 2.33% greater increases in scale efficiency than symbolic ownership restructurings in the first, second and third years at the 0.01, 0.05, and 0.1 levels. For firms who have or have not obtained superior long-term debt, there is no difference in the increase of scale efficiency between substantial ownership restructuring and symbolic ownership restructuring in any year. Such results suggest when the local government provides new bank loans to help substantial ownership restructuring, scale efficiency can be improved more than when the local government helps with symbolic ownership restructuring.

In table 4.5a, for the whole sample, the increase in pure technical efficiency between the substantial business restructuring and symbolic business restructuring does not differ significantly. Moreover, for both the firms obtaining new bank loans and the firms *not* obtaining new bank loans, the increase of pure technical efficiency between the substantial business restructuring and symbolic business restructuring does not differ significantly. For firms who have obtained superior long-term debt, symbolic business restructurings enjoy a 3.14% greater increase in pure technical efficiency than symbolic business restructurings in the second year at the 0.1 level. For firms who have *not* obtained superior long-term debt, symbolic business restructurings enjoy a 1.24% greater increase in pure technical efficiency than substantial business restructurings in the first year at the 0.1 level. Such results suggest that when the firms conduct more substantial business restructuring, local

government support through providing access to financial assistance does not help to improve pure technical efficiency.

In table 4.5b, for the whole sample, the increase in scale efficiency of substantial restructurings is higher than that of symbolic restructurings at the 0.1 level in the first year. For the firms obtaining new bank loans, symbolic business restructurings enjoy a 1.56% greater increase in scale efficiency than substantial business restructurings in the first year at the 0.1 level. For firms *not* obtaining new bank loans, substantial business restructurings enjoy a 0.42% greater increase in scale efficiency than symbolic business restructurings in the first year at the 0.1 level. For firms who have obtained superior long-term debt, symbolic business restructurings enjoy a 2.13% greater increase in scale efficiency than substantial business restructurings in the second year at the 0.1 level. For firms who have *not* obtained superior long-term debt, the increase in scale efficiency does not differ significantly between symbolic business restructuring and substantial business restructuring in any year. Such results suggest that when the firms conduct more substantial business restructurings, local government support through providing access to financial assistance does not help to improve scale efficiency.

Therefore, results in tables 4.4 and 4.5 together lend support to hypothesis 3b.

DISCUSSION AND CONCLUSION

Despite the importance of government intervention in determining the course of corporate restructurings and economic growth in transitional economies, theoretical and empirical studies that seek to examine how government intervention affects

corporate restructuring performance still show inconsistent results. These inconsistent results are further complicated by the fact that the research design traditionally adopted cannot satisfactorily deal with the reverse causal relation between government intervention and performance after a corporate restructuring. I suggest that to tackle the reverse causal relationship, we need to unravel the mechanisms through which the government intervenes in corporate restructurings.

As it is difficult to look directly into how the government intervenes in corporate restructurings, I first introduce the nature of restructurings. I show that some firms conduct restructurings to bring about substantial change to their internal routines to improve efficiency, while others merely polish their figures superficially without implementing fundamental changes. Given the theoretical prediction that substantial restructuring leads to greater efficiency, it is interesting to examine why many firms choose symbolic restructurings over substantial restructurings. The results show that substantial restructuring leads to less improvement in terms of pure technical efficiency and scale efficiency. I attribute this to the fact that substantial restructuring is more dependent on the existence of adequate institutions. In transitional economies where institutions are underdeveloped, substantial restructurings are associated with higher costs.

To test the institutional dependence argument, I further show that a good legal system is important to the success of a more substantial restructuring. I find that given the existence of a well-developed contracting legal system, substantial restructuring leads to a greater improvement in pure technical efficiency than does symbolic restructuring. However, in the presence of an underdeveloped contracting legal system,

substantial restructuring underperforms symbolic restructuring in improving pure technical efficiency. This supports my argument that substantial restructurings are more dependent on institutions than are symbolic restructurings. This result is consistent with those of previous studies, which show that institutions are more important to activities that involve higher transaction costs (Blanchard & Kremer, 1997; Konings, 1998; Konings & Walsh, 1999; Recanatini & Ryterman, 2000). The substance of restructurings thus can be taken as an indicator of institutional dependency.

I then show that local government can act as an alternative mechanism promoting efficiency improvements. When a loss-maker obtains more local government support in, for example, the form of new bank loans, substantial restructuring leads to a greater improvement in pure technical efficiency than does symbolic restructuring. When a loss-maker does not obtain local government support, such as where it is denied a bank loan or superior long-term debt, substantial restructuring will underperform symbolic restructuring. This suggests that local governments act as institution providers and reduce the transaction costs of substantial restructurings. However, local governments may also act as cash providers. They may bail out firms by simply promoting symbolic restructuring. In this situation, local governments will bring about less substantial improvements in pure technical efficiency than when they help with more substantial restructurings.

Finally, I show that local government support for substantial ownership restructurings facilitates greater improvements in pure technical efficiency and scale efficiency than those achieved when local government supports symbolic ownership

restructurings. However, local government support does not alleviate the negative effects of substantial business restructuring on efficiency improvements. These results suggest that local government has its own core competencies in areas including the allocation of power (Qian, 2000) and government agency networks (Waddell, 2002). Helping with the settlement of property rights arrangements is within the scope of the government's core competencies, while participating in operational decisions is beyond the ambit of the government's key skills.

This study thus unravels the mechanisms through which local government participation leads to the success or failure of corporate restructuring. It contributes to the literature on government intervention and corporate restructuring in transitional economies.

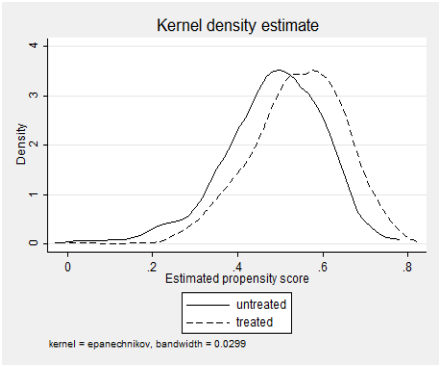
Moreover, this study contributes to the literature on corporate restructuring in China. Prior studies suggest that in China, some firms engage in corporate restructuring to bring about fundamental changes in their operations and organizational structures, thus helping to improve efficiency. However, more firms restructure to manipulate their accounting performance or stock market price. With the expectation that substantial restructuring leads to higher efficiency, a question arises: why do so many firms choose symbolic restructuring over more substantial restructuring? I answer this question by showing that substantial restructuring has a negative effect on efficiency when institutions are underdeveloped, as has often been the case in China.

This study also has practical implications for both policy makers and managers. For policy makers, I first show that firms choose to engage in less rather than more

substantial restructuring due to institutions being underdeveloped. Therefore, I conclude that to regulate symbolic restructuring in China effectively and promote efficient restructuring, the government needs to provide better institutions to help reduce the cost of restructuring. Second, my results provide evidence that the contracting legal system has an impact on the success of corporate restructuring. In the absence of a proper contracting legal system, local government intervention is an alternative mechanism through which corporate restructuring can be facilitated. This suggests that there might not be a definitive institutional model for promoting economic growth. If it takes a long time to establish and give effect to a codified legal institution in transitional economies, depending on local government intervention may be a viable solution (Allen & Qian, 2008; Boisot & Child, 1996; Clarke, 1991; Xu, 1997). Third, I show that local governments are more effective at dealing with property rights arrangements than they are at participating in business operations. Thus, I imply that governments should position themselves appropriately when engaging in economic activity. My results also suggest that managers may reduce the cost of substantial restructuring by taking advantage of their local government connections.

Figure 4.1a Propensity Scores of Treated (Substantial Restructuring) and Untreated (Symbolic Restructuring) Groups Before and After Matching

Before matching



After matching

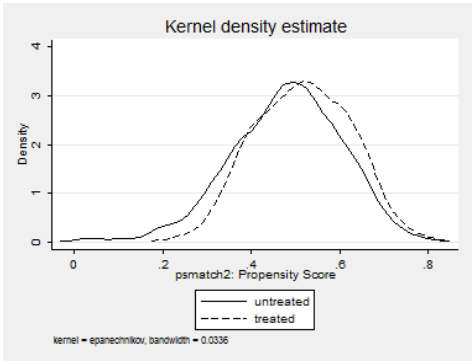
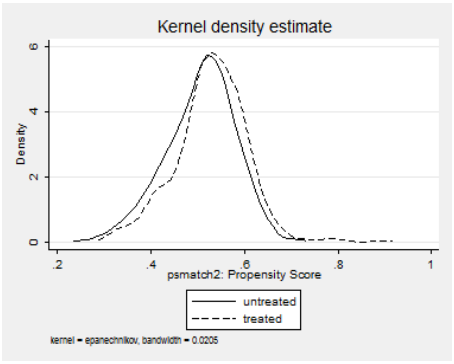


Figure 4.1b Propensity Scores of Treated (Substantial Ownership Restructuring) and Untreated (Symbolic Ownership Restructuring) Groups Before and After Matching

Before matching



After matching

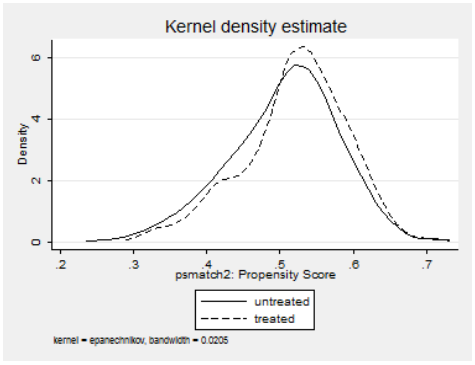
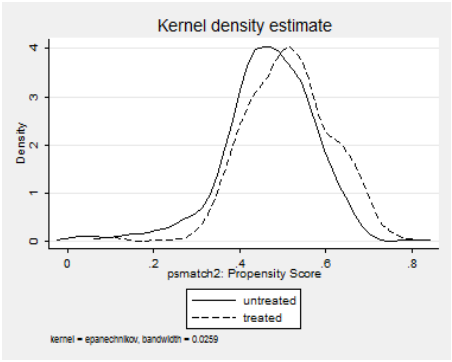


Figure 4.1c Propensity Scores of Treated (Substantial Ownership Restructuring) and Untreated (Symbolic Ownership Restructuring) Groups Before and After Matching

Before matching



After matching

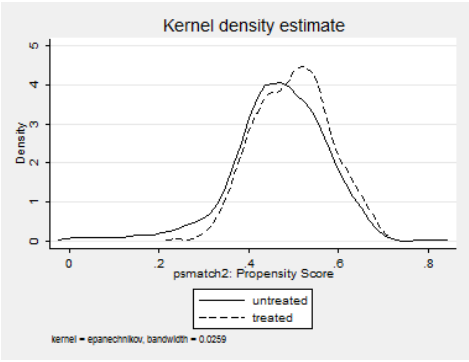


Table 4.1 Descriptive Statistics and Correlation (OBS: 592)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Substantial restructuring	1																
2	Substantial ownership restructuring	0.18*	1															
3	Substantial business restructuring	0.59*	-0.23*	1														
4	New bank loan	0.03	-0.03	0.03	1													
5	Negative recommendation	0.04	-0.02	0.06*	0.07*	1												
6	Ultimate ownership	0.10*	0.00	0.06*	0.01	0.00	1											
7	Dual position	-0.07*	-0.03	0.00	-0.02	-0.01	-0.07*	1										
8	International auditor	0.02	-0.04	0.04	0.10*	0.00	0.10*	-0.03*	1									
9	Debt ratio	-0.12*	-0.01	-0.10*	-0.01	0.00	-0.03	0.03*	0.00	1								
10	Log(age)	-0.12*	0.06*	-0.08*	-0.06*	0.04*	-0.38*	0.01	-0.01	0.03*	1							
11	Size	0.11*	0.04	0.04	0.18*	0.02*	0.19*	-0.05*	0.29*	-0.08*	0.16*	1						
12	Below provincial government owner	-0.08*	-0.03	-0.04	-0.01	-0.04*	0.11*	-0.02	-0.03	-0.01	-0.03	0.04	1					
13	Provincial government owner	-0.06*	-0.03	-0.03	-0.01	0.04	0.07*	-0.05*	0.03	-0.01	-0.10*	0.03	-0.16*	1				
14	Central government owner	0.03	-0.05	0.05	0.07*	0.05*	0.19*	-0.03	0.04	-0.01	-0.10*	0.13*	-0.14*	-0.23*	1			
15	ST	0.00	0.00	-0.02	-0.05*	0.00	-0.06*	0.03*	0.01	0.26*	0.16*	-0.15*	-0.01	0.05*	-0.03	1		
16	2nd year loss	-0.10*	-0.03	-0.10*	-0.02	-0.04*	-0.03	0.06*	-0.05*	0.03	0.19*	-0.13*	-0.02	0.01	-0.02	0.15*	1	
17	Regulated industry	0.01	-0.04	0.00	0.06*	0.02*	-0.09*	-0.01	0.02*	-0.01	0.06*	0.11*	-0.07*	-0.06*	0.02	-0.03*	0.01	1
	Mean	0.51	0.53	0.50	0.00	0.00	37.81	0.12	0.07	0.58	1.88	20.98	0.09	0.21	0.17	0.04	0.61	0.16
	Std. Dev.	0.50	0.50	0.50	1	0.07	16.18	0.32	0.25	7.52	0.67	1.05	0.29	0.41	0.38	0.21	0.49	0.37
	Min	0	0	0	-0.18	0	1.06	0	0	-0.127	0	12.31	0	0	0	0	0	0
	Max	1	1	1	23.87	2	84.97	1	1	877.26	3.22	29.65	1	1	1	2	1	1

*p < 0.1

Table 4.2 Probit Model to Obtain Propensity Scores (full sample)

	Substantial restructuring		Substantial ownership restructuring		Substantial business restructuring	
	Model 1		Model 2		Model 3	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
New bank loan	-0.69	0.59	1.06	0.65	-0.71	0.6
Ultimate ownership	0.01	0	0	0	0	0
Dual position of CEO	-0.18	0.14	-0.09	0.14	0.06	0.14
International auditor	-0.16	0.27	-0.37	0.27	0.22	0.27
Debt ratio	-0.36**	0.13	0.06	0.1	-0.46**	0.14
Log(Age)	-0.25+	0.15	0.32*	0.14	-0.23	0.14
Size	0.13*	0.05	0.05	0.05	0.02	0.05
Below provincial government owner	-0.49**	0.17	-0.27	0.16	-0.23	0.16
Provincial government owner	-0.32**	0.12	-0.14	0.12	-0.15	0.12
Central government owner	-0.19	0.14	-0.24+	0.14	0.05	0.14
ST	0.35*	0.15	0	0.15	0.21	0.15
Negative recommendation	0.10	0.29	-0.1	0.29	0.38	0.29
2^{nd} year after loss	-0.22*	0.1	-0.08	0.1	-0.2*	0.1
Regulated industry	0.05	0.12	-0.13	0.12	0.02	0.12
Constant	-1.97+	1.16	-1.44	1.15	0.3	1.15
LR chi2	47.79***(14)		17.53(14)		35.71**(14)	
Pseudo R2	.05		0.02		.03	
OBS	743		743		743	

Note: + p < .1, * p < .05, ** p < .01, *** p < .001

Table 4.3 Efficiency Improvement After Substantial vs Symbolic Restructurings

4.3a PTE at time t (%) and its changes over time (%)

Whole Sample				
Year	t	t+1	t+2	t+3
Substantial	57.81	2.41	3.11	5.77
Symbolic	57.72	3.02	5.93	6.76
ATT	0.10	-0.61	-2.82**	-0.99
S.E.	0.49	0.72	1.01	1.36
# Matches	592	592	592	592

Well-developed contracting law				
Year	t	t+1	t+2	t+3
Substantial	58.52	3.44	3.68	5.69
Symbolic	59.66	1.91	2.69	2.98
ATT	-1.14	1.53*	0.99	2.70*
S.E.	.94	1.06	1.16	1.50
# Matches	237	237	237	237

Under-developed contracting law				
Year	t	t+1	t+2	t+3
Substantial	57.51	2.50	4.91	8.07
Symbolic	56/85	3.92	6.74	9.29
ATT	6.65	-1.42+	-1.82+	-1.22
S.E.	5.98	1.13	1.44	1.93
# Matches	328	328	328	328

New bank loan				
Year	t	t+1	t+2	t+3
Substantial	57.22	4.85	4.35	7.61
Symbolic	57.51	0.79	-0.35	1.02
ATT	-0.29	4.06*	4.70**	6.59**
S.E.	1.44	2.09	2.09	2.26
# Matches	77	77	77	77

No new bank loan				
Year	t	t+1	t+2	t+3
Substantial	58.38	1.89	3.20	5.50
Symbolic	57.66	3.01	5.83	7.96
ATT	0.72	-1.12	-2.63*	-2.45+
S.E.	0.58	0.78	1.11	1.59
# Matches	505	505	505	505

Superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	57.89	2.38	4.68	7.86
Symbolic	55.99	3.33	8.96	8.06
ATT	1.90	-0.95	-4.28	-0.20
S.E.	1.25	1.90	2.89	3.19
# Matches	143	143	143	143

No superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	57.51	1.18	2.51	5.18
Symbolic	57.62	3.02	6.19	10.16
ATT	-0.11	-1.84**	-3.68**	-4.97**
S.E.	0.61	0.86	1.35	2.17
# Matches	330	330	330	330

4.3b SE at time t (%) and its changes over time (%)

Whole Sample				
Year	t	t+1	t+2	t+3
Substantial	97.04	0.37	0.10	-0.55
Symbolic	96.48	0.07	0.23	0.47
ATT	0.57*	0.30	-0.13	-1.02*
S.E.	0.36	0.36	0.48	0.62
# Matches	592	592	592	592

Well-developed contracting law				
Year	t	t+1	t+2	t+3
Substantial	97.07	0.82	-0.36	-0.17
Symbolic	96.71	0.09	0.89	1.09
ATT	0.36	0.73	-1.25*	-1.25*
S.E.	0.65	0.60	0.54	0.78
# Matches	237	237	237	237

Under-developed contracting law				
Year	t	t+1	t+2	t+3
Substantial	96.93	0.34	-0.17	-0.78
Symbolic	96.29	0.40	0.54	1.21
ATT	0.64	-0.06	-0.71	-2.00*
S.E.	0.45	0.53	0.74	0.85
# Matches	328	328	328	328

New bank loan				
Year	T	t+1	t+2	t+3
Substantial	97.71	0.17	-0.26	-3.25
Symbolic	97.36	-0.12	0.52	0.62
ATT	0.35	0.29	-0.78	-3.86+
S.E.	0.87	0.93	1.02	2.92
# Matches	77	77	77	77

No new bank loan				
Year	t	t+1	t+2	t+3
Substantial	96.79	0.14	-0.14	-0.81
Symbolic	96.41	-0.29	-0.20	-0.20
ATT	0.38	0.43	0.06	-0.61
S.E.	0.42	0.38	0.53	0.69
# Matches	505	505	505	505

Superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	95.71	0.16	-0.79	-2.03
Symbolic	96.88	-0.75	-1.17	-1.35
ATT	-1.16	0.90	0.37	-0.67
S.E.	1.07	1.03	1.40	2.12
# Matches	143	143	143	143

No superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	97.12	0.36	0.36	-0.29
Symbolic	96.61	0.14	0.61	0.13
ATT	0.51	0.23	-0.25	-0.42
S.E.	0.49	0.47	0.55	0.89
# Matches	330	330	330	330

Table 4.4 Efficiency Improvement after Substantial vs Symbolic Ownership Restructuring

4.4a PTE at time t and its changes over time (%)

Whole Sample				
Year	t	t+1	t+2	t+3
Substantial	58.43	2.45	3.89	5.62
Symbolic	57.66	2.73	5.03	7.24
ATT	0.77*	-0.28	-1.14	-1.62+
S.E.	0.47	0.68	0.91	1.24
# Matches	592	592	592	592

New bank loan				
Year	t	t+1	t+2	t+3
Substantial	56.10	3.92	3.57	4.82
Symbolic	58.35	1.94	3.04	7.05
ATT	-2.25*	1.98+	0.53	-2.22
S.E.	1.23	1.83	1.95	2.60
# Matches	85	85	85	85

No new bank loan				
Year	t	t+1	t+2	t+3
Substantial	58.47	2.22	3.85	5.91
Symbolic	57.53	2.38	4.53	7.45
ATT	0.95*	-0.17	-0.68	-1.54+
S.E.	0.53	0.69	0.97	1.43
# Matches	505	505	505	505

Superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	57.29	4.51	9.07	7.08
Symbolic	57.25	3.81	5.74	7.16
ATT	0.04	0.71	3.33+	-0.08
S.E.	1.34	1.78	2.90	2.49
# Matches	146	146	146	146

No superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	57.65	2.07	2.80	4.74
Symbolic	57.99	2.85	5.10	8.94
ATT	-0.34	-0.78	-2.30*	-4.20**
S.E.	0.60	0.98	1.23	2.00
# Matches	388	388	388	388

4.4b SE at time t and its changes over time (%)

Whole Sample				
Year	t	t+1	t+2	t+3
Substantial	96.96	-0.09	0.06	-0.03
Symbolic	96.61	0.31	0.15	0.02
ATT	0.35+	-0.41+	-0.09	-0.05
S.E.	0.33	0.32	0.45	0.60
# Matches	592	592	592	592

New bank loan				
Year	t	t+1	t+2	t+3
Substantial	96.44	1.88	1.66	1.50
Symbolic	97.33	-0.19	-0.18	-0.84
ATT	-0.89	2.07**	1.85*	2.33+
S.E.	1.03	0.83	1.08	1.46
# Matches	85	85	85	85

No new bank loan				
Year	t	t+1	t+2	t+3
Substantial	96.87	0.11	0.23	-0.14
Symbolic	96.49	0.04	0.12	0.15
ATT	0.38	0.08	0.11	-0.29
S.E.	0.36	0.34	0.49	0.59
# Matches	505	505	505	505

Superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	96.28	0.32	-0.70	-0.42
Symbolic	96.23	0.48	-0.88	-1.91
ATT	0.05	-0.17	0.17	1.49
S.E.	0.95	1.01	1.34	1.83
# Matches	146	146	146	146

No superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	96.86	-0.27	0.50	0.26
Symbolic	96.86	-0.09	0.03	-0.54
ATT	0.00	-0.18	0.47	0.80
S.E.	0.37	0.45	0.48	0.76
# Matches	388	388	388	388

Table 4.5 Efficiency Improvement after Substantial vs Symbolic Business Restructuring

4.5a PTE at time t and its changes over time (%)

Whole Sample				
Year	t	t+1	t+2	t+3
Substantial	58.08	2.58	4.13	6.24
Symbolic	58.02	2.63	4.97	6.93
ATT	0.06	-0.05	-0.84	-0.68
S.E.	0.48	0.67	0.95	1.29
# Matches	592	592	592	592

New bank loan				
Year	t	t+1	t+2	t+3
Substantial	58.19	6.11	5.96	8.63
Symbolic	56.59	3.39	4.69	5.23
ATT	1.60	2.73	1.27	3.40
S.E.	1.62	2.96	2.72	3.07
# Matches	83	83	83	83

No new bank loan				
Year	t	t+1	t+2	t+3
Substantial	58.02	2.22	4.49	6.60
Symbolic	58.16	2.76	5.06	7.46
ATT	-0.14	-0.54	-0.57	-0.86
S.E.	0.54	0.75	1.11	1.59
# Matches	505	505	505	505

Superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	57.78	3.79	4.44	7.18
Symbolic	57.21	4.04	7.58	6.39
ATT	0.57	-0.25	-3.14+	0.79
S.E.	1.14	1.84	2.47	2.94
# Matches	143	143	143	143

No superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	57.92	1.86	3.88	6.96
Symbolic	57.88	3.10	4.21	5.93
ATT	0.04	-1.24+	-0.33	1.03
S.E.	0.57	0.94	1.27	1.80
# Matches	388	388	388	388

4.5b SE at time t and its changes over time (%)

Whole Sample				
Year	t	t+1	t+2	t+3
Substantial	96.86	0.24	-0.10	-0.42
Symbolic	96.71	-0.13	0.19	0.13
ATT	0.15	0.37+	-0.29	-0.55
S.E.	0.34	0.33	0.39	0.60
# Matches	592	592		

New bank loan				
Year	t	t+1	t+2	t+3
Substantial	97.44	-0.03	0.45	-0.18
Symbolic	96.72	1.53	0.30	0.22
ATT	0.72	-1.56+	0.14	-0.40
S.E.	1.15	1.35	1.14	1.51
# Matches	83	83	83	83

No new bank loan				
Year	t	t+1	t+2	t+3
Substantial	96.81	0.20	-0.21	-0.69
Symbolic	96.49	-0.22	-0.15	0.03
ATT	0.32	0.42+	-0.06	-0.71
S.E.	0.39	0.35	0.55	0.67
# Matches	505	505	505	505

Superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	96.81	0.16	-0.25	-2.10
Symbolic	96.51	0.18	-0.64	0.04
ATT	0.30	-0.02	0.39	-2.13+
S.E.	1.00	0.69	0.88	2.04
# Matches	143	143	143	143

No superior long-term loan				
Year	t	t+1	t+2	t+3
Substantial	97.00	-0.12	0.42	-0.10
Symbolic	96.85	-0.09	0.46	0.04
ATT	0.16	-0.03	-0.04	-0.14
S.E.	0.40	0.44	0.50	0.76
# Matches	388	388	388	388

Chapter V

Conclusion

Despite of the popularity of the symbolic restructurings in both developed and developing economies, relatively less attention has been directed to how the institutional environment shapes firms' symbolic restructuring choice and its implications on post-restructuring performance. This dissertation contributes new insights to understanding this issue by investigating when and how local legal system and local government support shape the decision and performance of firms' substantial and symbolic restructurings. Based on a comprehensive theoretical and empirical analysis, I find that both the legal system and local government support shape firms' substantial/symbolic restructuring choice by affecting implementation costs and supervisory pressure. The local legal system promotes more substantial restructurings among firms that have more complex issues involved in restructurings and less independent auditors. In contrast, local government support promotes more substantial restructurings among firms with less complex issues involved in restructurings or when there is a well-developed legal system. Thus, I show that the choice between substantial and symbolic restructurings is actually driven by a combination of legitimacy and efficiency concerns.

I also find substantial restructurings cannot lead to more efficiency improvement than symbolic restructurings unless there is enough institutional support. Such institutional support could come from a well-developed legal system or local

government intervention. Furthermore, when local government acts as institutional provider to help with firms' substantial restructurings, it does not always lead to efficiency improvement: it leads to more success when helping with fundamental changes in property right arrangement, while it leads to failure of corporate restructurings when helping with fundamental changes in business operations.

By adopting a holistic approach which examines both the legal system and local government support, our study cautions the single use of policy tools to implement central policy, such as regulating symbolic restructuring, and provides abundant implications for policy-makers in emerging economies about how to build effective institution package by combining both the codified legal system and uncodified government intervention at the same time.

I see the study as advancing our understanding of the relationship between institution and symbolic actions, and I propose several extensions for future research. For example, as the dimensions of corporate restructuring are not specified beforehand, I cannot follow prior studies by examining how many dimensions have been implemented to measure the symbolism/substantive of restructuring. My solution is to identify several internal routines that decide firms' efficiency, such as ultimate control, inefficient portfolio, timing, related party transaction, and so on. Then I examine whether the restructuring affects these internal routines. This is because I believe these are the fundamental internal routines that lead to the inefficiency in Chinese listed firms. If restructurings do not change these internal

routines, efficiency cannot be improved substantially. In the future research, there is an opportunity to enrich the symbolism/substantive measure by bringing more internal routines that could affect listed firms' efficiency. Furthermore, such a framework can be employed to measure other forms of continuum symbolic actions, such as an important type of organizational restructuring pressed by regulation -- the adoption and implementation of independent directors. For example, to measure the symbolism of independent directors, we may identify whether independent directors have some negative opinions on decisions that are pertinent to the important internal routines. Another extension could be to investigate how the organizational factors interacted with local institutions shape their response to central government. This may be particularly useful for identifying the underlying process through which managers manipulate local government to help their firms circumvent central authorities.

Given the importance of institutions and the firms' growth through restructuring, I believe that additional studies linking these two topics and enriching our understanding in any of these directions would represent contributions to strategic management research and practice.

APPENDIX 1 CLASSIFICATION OF CENTRAL, LOCAL AND SHARED TAXES

	Classification of Central, Local and Shared Taxes
Central revenue	Customs duty
	Consumption tax
	Value added tax and consumption tax collected by custom houses
	Income tax on centrally managed enterprises
	Income tax on local banks, foreign banks, and banking corporations
	Business tax, income tax, and urban maintenance and construction tax collected via railway authorities, banks headquarters, and insurance companies
	Income tax on the interest on bank savings
Local revenue	Business tax, urban maintenance and construction tax, and personal income tax (excluding central revenue as listed in the previous box)
	Income tax on locally managed enterprises (excluding local banks, foreign banks, and banking corporations in the previous box)
	Urban land use tax
	Tax on taking farming land for non-agricultural purposes
	Land value added tax
	Housing tax
	Urban real estate tax
	Vehicle use tax
	Tax on vehicle plates
	Stamp duty tax
	Contract tax
	Slaughter tax
	Banquet tax
	Bequest tax
Shared revenue	Value added tax (the central government 75%; local governments 25%)
	Natural resources tax (tax paid by ocean oil corporations belongs to the central government)
	Negotiable securities transaction tax (yet to be collected)

Source: Jin Renqing, ed., A Reader on Tax Knowledge for Leaders (Beijing: Chinese Finance and Economy Press, 2000), p. 116.

APPENDIX 2 CALCULATION OF EFFICIENCY SCORES USING DEAP 2.1

I use data envelope analysis (DEA) to compute efficiency scores including the technical efficiency score, the pure technical efficiency score, and the scale efficiency score. DEA can be roughly defined as a nonparametric method of measuring the efficiency of a decision-making unit (DMU) with multiple inputs and/or outputs. In DEA, there are n decision-making units (DMUs) to be evaluated, each of which uses different amounts of m inputs to produce s different outputs. DEA is aimed at identifying which of the n DMUs can be used to determine an envelopment surface. This envelopment surface is called the empirical production function or the efficient frontier. By comparing each DMU to the envelopment surface, their relative efficiency scores are calculated. Units that lie on the surface are efficient, whereas those that do not lie on the surface are inefficient. Under the DEA method, a firm with an efficiency score of unity (100%) is located on the efficient frontier in the sense that its inputs cannot be further reduced without decreasing its output. A firm with an efficiency score of below 100% is relatively inefficient.

Similar to the approach taken by Zheka (2005), I adopt an input-oriented DEA because of the excessive production inputs (e.g. excess staff) in many Chinese loss-makers. I use DEAP version 2.1 to run the standard constant returns to scale (CRS) and variable returns to scale (VRS) models. The use of the CRS specification when not all DMUs are operating at the optimal scale will result in TE measures that are confounded by scale efficiencies (SE). The use of the VRS specification permits

the calculation of TE devoid of these SE effects. Many studies have decomposed the TE scores obtained from a CRS DEA into two components: one due to scale inefficiency and the other due to "pure" technical inefficiency. This may be done by conducting both a CRS and a VRS DEA upon the same data. If there is a difference in the two TE scores for a particular DMU, then this indicates that the DMU has scale inefficiency and that the scale inefficiency can be calculated from the difference between the VRS TE score and the CRS TE score. This calculation is incorporated into DEAP 2.1. It was developed by the Centre for Efficiency and Productivity Analysis (CEPA) and can be downloaded freely from the Internet. Coelli (1996) gives a more detailed introduction to the calculation method.

Ideally, output should be measured in physical units. Because the sample includes different sub-industries, using physical units would make it difficult to compare firm outputs across sub-industries. Hence, following previous studies (Zheka, 2005), I measure output as sales revenue (adjusted by change in final product inventory) minus total material costs in RMB using log values. Labor is computed as the log of the number of employees in the firm. Capital stock is computed as the log value of fixed assets in RMB. All the input and output data are obtained from the CSMAR database.

APPENDIX 3 FACTOR ANALYSIS: MEASURE OF SYMBOLISM OF RESTRUCTURING

As firms often conduct a series of restructurings, I look at one-year restructuring packages to define the symbolism index. I choose several items and conduct factor analysis on the characteristics proposed in section 1.3.3. The items include:

Item 1: the ratio of business restructuring without a refocusing.

To calculate the ratio, I read the original announcement of the restructuring plan. I code the restructuring as a refocusing if the firm stated it was concentrating on its core activities in the restructuring. In the announcement, the refocusing was addressed by all means such as:

(1) Enhancing an existing product line to concentrate on core activities. For example, on May 8, 2005, Nanjing Zhongbei bought 100% of the equity of Jingong Industry held by Nanjing Gas and Oil. Thus, Nanjing Zhongbei was able to expand its core business and increase its market share of taxi operations in Nanjing;

(2) Introducing a new product line or entering a new industry as the new core activity. For example, Zhejiang Yingte swapped its assets relating to the textile industry for the equity of Zhejiang Yingte Medicine Ltd. held by Zhejiang Hualong. Thus, its main business transitioned from traditional textiles to pharmaceuticals (Dec. 30, 2001);

(3) Exiting an existing industry to concentrate on core activities. For example, on July 23, 2003, Zhongyuan Huanbao sold its 90% equity stake in Guangdong Danbaoli Yeast Co., Ltd. to Ersha Industrial Co., Ltd. Through the restructuring, the company exited the biological industry and concentrated on its existing abrasives and grinder

business.

I code the restructuring as not involving a refocusing if the firm did not mention the above types of information at all, but mentioned that the firm would increase cash flow through the restructuring by selling idle or peripheral assets to help the firm out of financial distress, discharge a debt or resolve a bad debt problem to improve its capital structure, or to resolve the problem of an ultimate controller embezzling firm assets. I then sum up all the restructurings with a refocusing statement and obtain a count variable. The refocusing ratio is calculated as:

$$\text{Non-refocusing ratio} = 1 - \frac{\text{Number of business restructurings with refocusing statement}}{\text{Number of business restructurings}}$$

Item 2: the ratio of ownership restructuring without a control transfer.

I identify the identity of the ultimate controllers before and after the ownership restructuring. If they are the same entity, I code the restructuring as one without a control transfer. If they are different entities, I code the restructuring as one with a control transfer. The ratio is calculated as:

$$\text{Non-control transfer ratio} = 1 - \frac{\text{Number of ownership restructurings with control transfer}}{\text{Number of ownership restructurings}}$$

Item 3: the ratio of business restructurings conducted between related parties

I code a business restructuring as one conducted between related parties if the transaction partner is a previous shareholder, an affiliate, a subsidiary or a TMT member (including directors, supervisors or managers) of the firm. The ratio is calculated as:

$$\text{Related business restructuring ratio} = \frac{\text{Number of business restructurings conducted between related parties}}{\text{Number of business restructurings}}$$

Item 4: the ratio of ownership restructurings conducted between related parties

I code an ownership restructuring as one conducted between related parties if the buyer is a previous shareholder, an affiliate, a subsidiary or a TMT member (including directors, supervisors or managers) of the firm.

$$\textbf{Related ownership restructuring ratio} = \frac{\text{Number of ownership restructurings conducted between related parties}}{\text{Number of ownership restructurings}}$$

Item 5: the ratio of business restructurings announced between October and December.

I examine the timing of the business restructurings and identify those conducted between October and December. The ratio is thus calculated as:

$$\text{Ratio of business restructuring in Quarter 4} = \frac{\text{Number of business restructurings conducted in the 4th quater of the year}}{\text{Number of business restructurings}}$$

Item 6: the ratio of ownership restructurings announced between October and December.

I examine the timing of the ownership restructurings and identify those conducted between October and December. The ratio is thus calculated as:

$$\text{Ratio of ownership restructuring in quarter 4} = \frac{\text{Number of ownership restructurings conducted in the 4th quater of the year}}{\text{Number of ownership restructurings}}$$

Item 7: the value of the business restructuring.

I summate the value of all the business restructurings in a year and divide it by the total assets of the firm.

$$\textbf{business restructuring value} = \frac{\textbf{business restructuring value}}{\textbf{total asset}}$$

Factor analysis is conducted using these items. The items “related ownership restructuring ratio” and “value of restructuring” are dropped as they are loaded into

two factors. Two factors are finally obtained and presented in Table 2.3. Factor 1 is the symbolism of ownership restructuring (Cronbach's alpha = 0.472). Factor 2 is the symbolism of business restructuring (Cronbach's alpha = 0.405). As the Cronbach's alpha values are low, I cannot simply summate the items to represent each factor. Thus the factor scores are used as the symbolism indices.

**************Insert Table 2.3 around here***************

The two factors are combined as the index of procedural symbolism. This shows whether the restructuring procedure addresses efficiency aspects. The indices are continuous variables. The higher the indices, the more symbolic the restructuring. The lower the indices, the more substantial the restructuring.

At last, an example is given to illustrate how to obtain the items for a firm's symbolism of restructuring. Zhejiang Int'l Group Co., Ltd. (000411) incurred losses from 1998 to 1999, as shown in Table A. It then conducted a series of restructurings. The ownership restructurings are shown in Table B. The business restructurings are shown in Table C.

Table A Net Profit Ratio of Zhejiang Int'l Group Co., Ltd. (000411)

Year	Net profit ratio
1998	-0.400
1999	-0.864
2000	-0.829
2001	0.394
2002	0.001
2003	0.005
2004	0.004
2005	0.005
2006	0.007

Table B Ownership Restructurings of Zhejiang Int'l Group Co., Ltd. (1999-2002)

Date	Ratio of shareholdings	Seller	Buyer	Buyer's position	Related party
28/09/1999	11.62%	Hangzhou State Asset Management Bureau	Zhejiang Hualong Industrial	2	No
27/09/2000	4.43%	Guanghua Investment Fund	Zhejiang Hualong Industrial	1	Yes
27/09/2000	6.07%	Guanghua Investment Fund	Zhejiang Tongda Property	4	No
13/10/2000	18%	Hangzhou State Asset Management Bureau	Sichuan Taigang Bio Tech	1	No
17/04/2002	18.01%	Sichuan Taigang Bio Tech	Hangzhou Zhuorun Taxi Ltd.	2	No
21/05/2002	6.07%	Zhejiang Tongda Property	Zhejiang Xincheng Trading	4	No

Table C Business Restructurings of Zhejiang Int'l Group Co., Ltd. (1999-2002)

Date	Transaction	Related	Refocus	Value (RMB)
15/6/2000	Acquire 90% equity stake in Guangdong Huiyang Taigang Raising and 90% of Sichuan Wenbang Bio Engineering	Yes	Introducing pharmaceutical assets	142,363,598
27/6/2000	Sell property	No	No	45,570,000
21/11/2001	Zhejiang Yingte swapped its assets related to the textile industry for a 99% equity stake in Zhejiang Yingte Medicine Ltd.	Yes	Transition in main business from traditional textiles to pharmaceuticals	162,775,846
9/11/2002	Sell 49% equity stake in Zhejiang Int'l Pharmaceutical to Kunming Pharmacutical	No	No	91,483,000
31/12/2002	Sell 60% equity stake in Zhejiang Pharmaceutical Commercial Ltd. to Hangzhou Huiyinbi Group Ltd.	No	No	4,440,400

I obtain the information in Table D based on Tables B and C. I calculate the items in Table E based on the information in Table D. These items are used in factor analysis.

Table D Restructuring Information for Zhejiang Int'l Group Co., Ltd. (000411)

	Business restructuring	Refocus	Related business restructuring	Business restructurings in quarter 4	Business restructuring value	Ownership restructuring	Control transfer	Related ownership restructuring	Ownership restructurings in quarter 4	Total assets
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1999	0	0	0	0		1	0	0	0	$4.30*10^8$
2000	2	1	1	0	$1.88*10^8$	3	2	1	1	$2.92*10^8$
2001	3	1	2	2	$1.63*10^8$	0	0	0	0	$5.99*10^8$
2002	2	0	0	2	$9.59*10^7$	2	0	0	0	$6.94*10^8$

Table E Items Used in Factor Analysis

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
	1-(2)/(1)	1-(7)/(6)	(3)/(1)	(8)/(6)	(4)/(1)	(9)/(6)	(5)/(10)
1999	0	0	0	0	0	0	0
2000	50%	66.67%	50%	33.33%	0	33.33%	187,933,598
2001	33.33%	0	66.67%	0	66.67%	0	162,775,846
2002	0	0	0	0	220%	0	95,923,400

APPENDIX 4 REGULATIONS ISSUED BY THE STATE FROM 2000 TO 2001

a) Laws regulating restructuring

June 2000: Regulation of Major Asset Purchases or Sales by Listed Companies Circular (CSRC)

Nov. 2001: Strengthening the Administration of Legal Compliance in the Negotiated Transfer of Non-traded Shares of Listed Companies Circular (CSRC)

Nov. 2001: Absorption of Foreign Capital by Financial Asset Management Companies to Participate in Asset Restructuring and Disposal Tentative Provisions (Ministry of Foreign Trade and Economic Cooperation, Ministry of Finance and People's Bank of China)

Nov. 2001: Several Questions on the Freezing and Auctioning of State-owned Shares and Private Legal Person Shares of Listed Companies Provisions (Supreme People's Court)

Dec, 2001: Several Questions Concerning Major Asset Purchases, Sales and Exchanges by Listed Companies Circular (CSRC)

b) Accounting system

July 2000, revised Accounting Law of the PRC (Ministry of Finance)

Dec. 2000, new China Accounting System for Business Enterprises (Ministry of Finance)

Jan. 2001, revised some accounting standards and issued new accounting standards (Ministry of Finance): debt restructuring, investment, changes in accounting policies and estimates and corrections of accounting errors, non-monetary transactions, intangible assets, borrowing costs, leases

Nov. 2001, revised some accounting standards and issued new accounting standards (Ministry of Finance): interim reporting, inventories, fixed assets

APPENDIX 5 CATEGORIZATION OF LAWS, REGULATIONS AND RULES

To measure the quality of provincial legislation, I examined the number of laws, regulations and rules that are established by the Provincial government and thus are effective throughout the whole province. Following Acemoglu and Johnson (2005), I classify laws into two types based on the objectives of regulation. Contracting laws refer to the laws, regulations and rules regulating the contracting behavior of business actors; property right laws refer to the laws, regulations and rules that regulate government behavior, restricting the government from expropriating private resources.

I consulted a Chinese legal counsel about the categorization based on the categories provided by China Law Info Database developed by Chinalawinfo Co., Ltd.. Contracting laws include laws on trading, competition, real estate, private enterprise, business administration, contracting, quality and technology supervision, protection of the environment, finance and foreign exchange, accounting and auditing, advertisement, pricing, labor, logistics, bill, stock and bonds, company, foreign investment, intelligent property, lease and future, and arbitration. Property rights laws include laws on elections, government intervention, legislation, judiciary, fiscal and administrative reconsidering, planning and statistics, public, taxation and urban construction.

To double check the categorization, I further examined the topic of the afore-mentioned laws, rules and regulations themselves, using key words to identify the objective of the regulation. Terms such as "local government", "officials", "legislation", "enforcement", "election", "judiciary", "fiscal", "administrative", "planning", "public", "taxation" or "urban construction" in titles suggests that the law or regulation has been established to regulate government behavior. Otherwise, it is established to regulate business or individual behavior.

APPENDIX 6 MEASURES OF THE VARIABLES IN THIS STUDY

Variable	Measure	Calculation	Source
Substantiveness index = - (symbolism of business restructurings + symbolism of ownership restructurings)	The symbolism of business restructurings	Ratio of restructurings with a clear industry target / Ratio of related party transactions / Number of asset restructurings announced between October and December	Coded based on original restructuring plan in CSMAR, CCER M&A database, and retrieval system of Chinese listed firms
	The symbolism of ownership restructurings	Ratio of restructurings with a control power transfer / Number of ownership restructurings announced between October and December	
Legal system index	Provincial property right law index	10×(number of provincial property right laws ij – minimum number of provincial property right laws 1998) / (maximum number of provincial property right laws 1998 – minimum number of provincial property right laws 1998) i: year I; j: province j. Provincial property right laws refer to provincial regulations regulating government behavior. 1998 is taken as the base year. Minimum (Maximum) number of provincial property right laws 1998 refers to the minimum (maximum) number of provincial property right laws among all the provinces in 1998.	China Law Info Database. Index is scaled over sample years following Fan & Wang (2006)
	Provincial contracting law index	10×(number contracting laws ij – minimum number of provincial contracting laws1998) / (maximum number of provincial contracting laws1998 – minimum number of provincial contracting laws1998) i: year I; j: province j. Provincial contracting laws refer to provincial regulations regulating the behavior of companies. 1998 is taken as the base year. Minimum (Maximum) number of provincial contracting laws 1998 refers to the minimum (maximum) number of provincial contracting laws among all the provinces in 1998.	China Law Info Database. Index is scaled over sample years following Fan & Wang (2006)
	Enforcement index	Firms' perceptions of the effectiveness of the judicial system in protecting their operations.	NERI Index of Marketization of China's Provinces (Fan & Wang, 1999 & 2006)
Provincial-level government intervention	Subsidies	(subsidies for innovation among enterprises + subsidies granted for policy considerations + subsidies to loss-making enterprises) / provincial GDP	People's Republic of China Statistical Yearbook (1998 to 2006)

	Credit access	Bank loans to SOEs / total bank loans	NERI Index of Marketization of China's Provinces (Fan & Wang, 1999 & 2006)
	Local protection	Number of trade protection measures / provincial GDP	NERI Index of Marketization of China's Provinces (Fan & Wang, 1999 & 2006)
Complexity involved in restructuring	Input diversification	Herfindahl index of input sectors	China Input-Output table 2002
	Relative labor productivity	Log(Value added)/Log(No. of employee) scaled by industry mean	CSMAR accounting database
	Relative inventory turnover	Cost of sales/inventory scaled by industry mean	CSMAR accounting database
Firms' connection with government	Sub-provincial level owner	1 if the ultimate owner is the city- or county-level government and 0 otherwise	CSMAR corporate governance database
	Provincial government owner	1 if the ultimate owner is the provincial government and 0 otherwise	CSMAR corporate governance database
	Central government owner	1 if the ultimate owner is the central government and 0 otherwise	CSMAR corporate governance database
Internal powerful party	Dual role of CEO & board chairman	A dummy indicating that the dual role of CEO and board chair is occupied by the same individual to measure the power of managers	CSMAR corporate governance database
	Ultimate ownership	Ultimate controllers' shareholding	CSMAR corporate governance database
Internal monitoring pressure	International auditor	1 if the auditor is an international affiliated auditing firm. It is coded as 0 if the auditor is a domestic auditing firm. International affiliated auditing firms are those having an international Big 4 auditing firm as the joint venture partner. Big 4 are KPMG, PricewaterhouseCoopers (PWC), and Deloitte Touche Tohmatsu, and Ernst & Young.	CSMAR corporate governance database
Prior restructuring experience	Prior restructuring by other listed firms	Total number of restructurings conducted by all listed firms up to the focal year	CCER M&A database
	Prior restructuring by the focal firm	Total number of restructurings conducted by the focal listed firm up to the focal year	CCER M&A database
External pressure	ST dummy	1 if the firm has ever been designated "ST" or "PT" in the two years window and 0 otherwise	CSMAR ST firm database
	Negative recommendation	Number of financial analyst negative recommendations	CSMAR Report of Financial Analysts Recommendations
Internal performance pressure	ROA	net profit / total assets	CSMAR accounting database
	Debt ratio	ratio of total debt to total assets	CSMAR accounting database
	Second year after loss	1 if the restructuring is conducted in the second year after the firm	CSMAR accounting database

		reports loss, 0 otherwise	
Other firm characteristics	Size	log of total assets	CSMAR accounting database
	Age	number of years after a firm goes public	CSMAR accounting database
	New bank loan	The standardized amount of new bank loan obtained by the loss-makers in the restructuring year	CSMAR database
Province institution	Government support	Subsidy index + credit index + local protection index	
	Legal system index	Contracting law index + property right law index + enforcement index	
Province resource endowment	Provincial GDP	Standardized provincial GDP	CSMAR regional economy database
	Number of listed firms	Number of listed firms in a province	CSMAR accounting database
	GDP growth	Change of GDP from year t-2 to year t-1	CSMAR regional economy database
	Provincial long-term debt ratio	Average long-term debt to equity ratio of all the listed firms in each province in each year	CSMAR accounting database
	Productivity	Total factor productivity of all the listed firms in each province	CSMAR accounting database
Motivation for provincial government intervention	Off-tax burden index	Off-tax burden in province i / sales in province i	Fan & Wang (1999 to 2005)
	Off-budget income	Provincial off-budget income / provincial GDP	CSMAR regional economy database
	Officers' salary	(Salary of provincial government officers) / (average salary in the province)	CSMAR regional economy database
	Government size	(Number of provincial government officers) / provincial GDP	CSMAR regional economy database
	Budget income	(Profit from state-owned assets + income from administration fees + penalties and confiscatory income + special projects income + other income) / provincial GDP	CSMAR regional economy database
	Intervention	Ratio of time managers spend dealing with the government to their total working hours.	Fan & Wang (1999 to 2005)

REFERENCE*

Abdelati, W & Claessens S. 1996. Losses, financing and adjustment of state enterprises in Romania. ***World Bank, mimeo,*** March 1996.

Acemoglu, D & Johnson. S. 2005. Unbundling institutions. ***Journal of Political Economy,***113(5): 949-995

Alchian AA & Demsetz H, 1972. Production, information costs, and economic organization. ***American Economic Review***, 62(5): 777-795

Allen, F. & Qian, J. & Qian, M, 2005. Law, finance, and economic growth in China, ***Journal of Financial Economics***, 77(1): 57-116

Bahl, RW. 1999. ***Implementation Rules For Fiscal Decentralization***, International Studies Program Working Paper Series, at AYSPS, GSU paper9901, International Studies Program, Andrew Young School of Policy Studies, Georgia State University

Bardhan P, 1989. The new institutional economics and development theory: A brief critical assessment. ***World Development***. 17(9): 1389-1395

Bartov E. 1993. The timing of asset sales and earnings manipulation. ***Accounting Review***, 68(4): 840-855.

Bartov, E., D. Givoly & C. Hayn, 2002, The rewards to meeting or beating earnings expectations, ***Journal of Accounting and Economics***, 33, 173-204

Bertrand, M., Mehta, P. & Mullainathan, S. 2002, Ferreting out tunneling: An application to Indian business groups, ***Quarterly Journal of Economics*** 117, 121-148.

Blanchard, O. & Kremer,M. 1997. Disorganization, ***Quarterly Journal of Economics***, 112, 4: 1091-1126, November

Boddewyn JJ. 1988. Political Aspects of MNE Theory. ***Journal of International Business Studies***, 19(3): 341-363

Boisot M & Child J. 1996. From fiefs to clans and network capitalism: Explaining China's emergent economic order. ***Administrative Science Quarterly***. 41: 600 – 628

Bowman, E. & Singh, H. 1993. Corporate restructuring: reconfiguring the firm. ***Strategic Management Journal***. 14: 5-14

Boycko, M., Shleifer, A. & Vishny, R.W. 1996. A Theory of privatisation, ***Economic Journal***, 106, 435: 309-319.

Brandt, L. and Li, H., 2003, Bank discrimination in transition economics: ideology, information, or incentives? ***Journal of Comparative Economics***. 31, 387-413.

Brennan, G., and J. Buchanan. 1980. ***The Power to Tax.*** Cambridge, MA: Cambridge Univ. Press.

Caballero, R J. & Hammour, M L. L., 2000. ***Institutions, Restructuring, and Macroeconomic Performance***. NBER Working Paper Series, Available at SSRN: http://ssrn.com/abstract=232105 (May 2000)

Cai HB & Treisman D, 2006. Did government decentralization cause China's economic miracle?. ***World Politics***. 58(4): 505-535

Chan, KH, Lin, KZ, & Mo, P. 2006. A Political-economic analysis of auditor reporting and auditor switches. ***Review of Accounting Studies.*** 11 (1)

Chandra, P. 2001, ***Financial Management: Theory and Practice***, Tata McGraw-Hill Publishing Company Limited, New Delhi

Chen, X, Lee, CW, & Li, J. 2003. ***Chinese Tango: Government Assisted Earnings Management***. Available at SSRN: http://ssrn.com/abstract=408800 or doi:10.2139/ssrn.408800, (May 2003)

Chubb, J. E. 1985. The political economy of federalism. ***American Political Science Review*** 79:994–1015.

Claessens S & Peter RK, 199. State enterprise performance and soft budget constraints: The case of Bulgaria. ***Economics of Transition***, 5 (2): 305-322

Claessens S, Djankov S, & Lang LHP, 2000. The separation of ownership and control in East Asian Corporations. ***Journal of Financial Economics***. 58(1-2): 81-112

Claessens, S. & Djankov, S. 1954. ***Politicians and Firms in Seven Central and Eastern European Countries,*** Policy Research Working paper Washington DC: World Bank, August.

Clarke, D. 1991. What's laws got to do with it? legal institutions and economic reform in China. ***Pacific Basin Law Journal***. 10: 1-76.

Coarse RH, 1937. The nature of the firm. ***Economica***. New Series, 4(16): 386-405

Coelli TJ.1996. ***A guide to DEAP version 2.1: a data envelopment analysis (computer) program.*** http://www.owlnet.rice.edu/~econ380/DEAP.PDF

Coricelli F & Djankov S. 2002. Hardened Budgets and Enterprise Restructuring: Theory and an Application to Romania. ***Journal of Comparative Economics***. 29(4): 749-763

D'Aunno, T, Sutton, RI,Price, RH. 1991. Isomorphism and external support in conflicting institutional environments: the case of drug treatment units. ***Academy of Management Journal*** 34: 636-661

Dai XM, Lau AH, & Yang JL. 2000. Hooking-up: a unique feature of China Public Accounting Firms. ***Managerial finance***, 26(5): 21-30

Damanpour F, 1991. Organizational innovation: a mega analysis of effects of determinants and moderators. ***Academy of Management Journal***. 34:555-590.

David, P., Bloom, M., & Hillman, A.J. 2007. Investor activism, managerial responsiveness, and corporate social performance. ***Strategic Management Journal***, 28: 91–100.

DeAngelo, L. 1981. Auditor size and audit quality. ***Journal of Accounting and Economics***, 3, 183–199

DeFond, M. L., Wong, T. J., & Li, S. 2000. The impact of improved auditor independence on audit market concentration in China. ***Journal of Accounting and Economics***, 28, 269–305

DiMaggio P.J., & Powell W.W. 1991. ***The New Institutionalism In Organizational Analysis***, (eds). University of Chicago Press: Chicago.

Ding, Y., Zhang, H., Zhang, J., 2007. Private vs state ownership and earnings management: evidence from Chinese listed companies. ***Corporate Governance***, 15, 223-238.

Dixon SEA, Meyer KE & Day M, 2009. Stages of Organizational Transformation in Transition Economies: A Dynamic Capabilities Approach. J***ournal of Management Studies***. 47(3): 416–436.

Djankov, S. & Murrell, P. 2002. Enterprise Restructuring in Transition: A Quantitative Survey. ***Journal of Economic Literature***. 40(3): 739–792.

Djankov, S, La Porta R, Lopez-de-Silanes F, & Shleifer A, 2007, The law and economics of self-dealing, ***Journal of Financial Economics***, forthcoming.Poitras, Wilkins, and Kwan (2002)

Dong L.S. 2007. ***Central-local relations in China: retrospect and prospect***. Discussion Paper 16. China Policy Institute.

Drazin R. & Van de Ven AH. 1985. Alternative forms of fit in contingency theory, ***Administrative Science Quarterly,*** 30(4): 514-539.

Du J & Girma S. 2009. ***Source of Finance, Growth and Firm Size – Evidence from China.*** Research Paper No. 2009/03. wider.unu.edu

Du, JL. & Lu, Y & Tao, ZG, 2008. Economic institutions and FDI location choice: Evidence from US multinationals in China, ***Journal of Comparative Economics***, 36(3): 412-429

Duhaime IM & Grant JH, 1984. Factors influencing divestment decision-making: Evidence from a field study. ***Strategic Management Journal***. 5(4): 301 – 318

Earle, J.S. & Estrin, S. 1997. After Voucher Privatisation: the Structure of Corporate Ownership in Russian Manufacturing Industry', ***mimeo***

Earle, J S, 1998. ***Post-privatization Ownership and Productivity in Russian Industrial Enterprises***, SITE Working Paper 127, University of Stockholm, Sweden

Edelman LB & Suchman MC, 1997. The legal environment of organizations, ***Annual Review of Sociology***, 23: 479-515

Eswaran M & Kotwal A, 1985. A theory of contractual structure in agriculture. ***American Economic Review***, 75(3): 352-367

Evans, P., Rueschemeyer, D. & Skocpol, T. 1985. ***Bringing the State Back In***. New York: Cambridge University Press.

Fafchamps M, 1996. The enforcement of commercial contracts in Ghana. ***World Development.*** 24(3): 427-448

Fan, G., & Wang X. 2001, 2002, 2003, 2005. ***NERI Index of Marketization of China's Provinces.*** Beijing: Economic Sciences Press.

Fan, J. P. H., Morck, R., Huang, J. & Yeung, B. 2008. ***Institutional Determinants of Vertical Integration: Evidence from China***. AFA 2008 New Orleans Meetings Paper. Available at SSRN: http://ssrn.com/abstract=971874(February 2007)

Fan, J., Rui, M., Zhao, M., 2005. ***Rent seeking and corporate finance: evidence from corruption cases***. Working paper, Chinese University of Hong Kong and Bentley College.

Farrell, M.J. 1957. The measurement of productive efficiency. ***Journal of the Royal Statistical Society***. 120(3):253-290.

Fernandes, A., & Kraay, A. 2007. Property rights institutions, contracting institutions, and growth in South Asia: macro and micro evidence. ***South Asia: Growth and Regional Integration.*** Washington DC: World Bank.

Francis, J. & Wilson, E. 1988. Auditor changes: A test of theories relating to agency costs and auditor differentiation. ***Accounting Review***, 63, 663–682

Friedland, R. & Alford, R. R. 1991. Bringing society back in: Symbols, practices, and institutional contradictions. in W.R. Powell and P.J. diMaggio (eds) ***The new institutionalism in organizational analysis*** (232-263). Chicago: University of Chicago Press.

*Galang,R. 2008.****Sovereign enforcer or subordinate enabler: the government in the management literature****, working paper.*

Gao SM & Schaffer MK, 1998. ***Financial Discipline in the Enterprise Sector in Transition Countries: How Does China Compare?*** CERT Discussion Papers 9801, Centre for Economic Reform and Transformation, Heriot Watt University.

Green, S. P. 2004. ***The Privatisation Two-step at China's Listed Firms*** (September 2004). Chatham House, Asia Programme, China Project Working Paper No. 3. Available at SSRN: http://ssrn.com/abstract=598277 or doi:10.2139/ssrn.598277

Greif A, 1993. Contract enforceability and economic institutions in early trade: The Maghribi traders' coalition. ***American Economic Review,*** 83(3): 525-548.

Gupta, P.P., Dirsmith, M.W., & Fogarty, TJ. 1994. Coordination and control in a government agency: contingency and institutional theory perspectives on GAO audits. **Administrative Science Quarterly**, 1994. 39: 64-284.

Haleblian, J., & Finkelstein, S. 1999. The influence of organizational acquisition experience on acquisition performance: a behavioral perspective, ***Administrative Science Quarterly***, 44: 29-56.

Hambrick DC & Lei D. 1985. Toward an Empirical Prioritization of Contingency Variables for Business Strategy. ***Academy of Management Journal,*** 28(4): 763-788

Hariharan, P.S. 2005, Pitfalls in mergers, acquisitions and takeovers (A-Z of merger failures), ***The Management Accountant***, 40(10): 763-6.

Harrigan KR. 1981. Deterrents to Divestiture. ***Academy of Management Journal,*** 24(2): 306-323

Haw, I., D. Qi, D. Wu, and W. Wu. 2005. Market Consequences of Earnings Management in Response to Security Regulations in China." ***Contemporary Accounting Research*** 22: 95-140.

Hitt, Harrison, & Ireland, 2001. ***Mergers and acquisitions: A guide to creating value for stakeholders***. Oxpord University Press

Holm, P. 1995. The dynamics of institutionalization: transformation processes in Norwegian fisheries, **Administrative Science Quarterly**. 40: 398–422

Hubbard, N. 1999, ***Acquisition: Strategy and Implementation***, Palgrave Macmillan, New York.

Huyghebaert N & Wang LH. 2010. ***Agency Problems and Corporate Governance Mechanisms in Chinese Listed Firms***. http://www.fma.org/Singapore/Papers/LihongWangAgencyCostsandCorporateGovernanceMechanismsEmpiricalResultsforChineseListedFirms.pdf

Jian, M., Wong, T. J., 2006. Propping and tunneling through related party transactions. ***Review of Accounting Studies***. forthcoming.

Jiang F. 2004. The demonstration analysis and countermeasure approach of the stock- holding corporation reorganization problems. ***Journal of Beijing Economic Management Institute.*** 2004. 19(1) (In Chinese).

Jiang, G., Wang, L., 2003. ***How far would management go to manage earnings?*** Working Paper, Peking University.

Jiang, GH & Wang, HS. 2008. Should earnings thresholds be used as delisting criteria in stock market? ***Journal of Accounting and Public Policy.*** 27(5): 409-419

Jin HH, Qian YY, & Weingast BR, 2005. Regional decentralization and fiscal incentives: Federalism, Chinese style. ***Journal of Public Economics.*** 89(9-10): 1719-1742

Kam, A., Citron, D., & Muradoglu, G. 2006. ***Restructuring strategies of Chinese firms in distress: Are they value enhancing?*** Cass Business School Research Paper Available at SSRN: http://ssrn.com/abstract=910606

Kaplan SN & Weisbach MS, 1992. The Success of Acquisitions: Evidence from Divestitures. ***Journal of Finance***, 47(1): 107-138

Kaufmann, D, Kraay,A. & Mastruzzi, M. 2005. ***Measuring governance using cross-country perceptions data.*** Washington: World Bank.

Kaufmann, D, Kraay, A. & Mastruzzi, M. 2005. ***Governance Matters IV: Governance Indicators for 1996-2004*** (May 2005). World Bank Policy Research Working Paper No. 3630. Available at SSRN: http://ssrn.com/abstract=718081 or doi:10.2139/ssrn.718081

Konings, J. 1998. ***Firm Performance in Bulgaria and Estonia: The Effects of Competitive Pressure, Financial Pressure and Disorganization***, Davison Institute Working Paper 185, July.

Konings, J., & Walsh, PP. 1998. ***Disorganization in the Transition Process: Firm-Level Evidence from Ukraine,*** CEPR Discussion paper 1928, CEPR, London, July 1998.

Kornai J, Maskin E & Roland,G. 2003. Understanding the Soft Budget Constraint, ***Journal of Economic Literature, American Economic Association***. 41(4): 1095-1136

Kornai, J. 1979. Resource-Constrained versus Demand-Constrained Systems, ***Econometrica***, 7.4.

Kornai, J. 1980. 'Hard' and 'Soft' Budget Constraints, ***Acta Oeconomica***, 25, 3-4: 231-245.

La Porta R, Lopez-de-Silanes F, & Shleifer A, 1999. Corporate Ownership Around the World. . ***Journal of Finance***. 54(2): 471 – 517

Lee, C.W & Xue, S. (2004) ***Earnings management of loss-firms in China***, Working paper, Tulane University and Tsinghua University

Lee, C.W. & Liu, C. 2008. ***Financial analysts and speculative bubble in emerging stock market,*** working paper

Leibenstein H, 1966. Allocative Efficiency vs." X-efficiency". ***American Economic Review,*** 56(3): 392-415

Levchenko, A. A., Lewis, L. & Tesar, L. L., 2010. ***The collapse of International Trade during the 2008-2009 crisis: in search of the smoking gun*** (May 2010). NBER Working Paper Series, Vol. w16006, pp. -, 2010. Available at SSRN: http://ssrn.com/abstract=1612601

Levin, D.Z. 2006. ***Institutionalism, learning, and patterns of selective decoupling: the case of total quality management***. Working paper. http://www.levin.rutgers.edu/research/decoupling-paper.pdf

Li H & Zhou LA. 2005. Political turnover and economic performance: the incentive role of personnel control in China. ***Journal of Public Economics.*** 89(9-10): 1743-1762

Li, HB., Meng, LS., Wang Q, & Zhou, LA. 2008. Political connections, financing and firm performance: Evidence from Chinese private firms. ***Journal of Development Economics***. 87(2): 283-299

Liu, Q., Lu, Z., 2007. Corporate governance and earnings management in the Chinese listed companies: a tunneling perspective. ***Journal of Corporate Finance***, forthcoming.

Lys, T. & Watts, R. 1994. Lawsuits against auditors. ***Journal of Accounting Research***, 32(suppl), 65–102

Machhi, H. 2005, Merger and acquisition, ***Management Accountant***, 40(10):767-70.

March JG, 1991. Exploration and exploitation in organizational learning. ***Organization Science.*** 2:71-87.

Markides CC, 1992. Consequences of corporate refocusing: Ex ante evidence. ***Academy of Management Journal.*** 35(2): 398-412

Martinez, RJ & Dacin, MT. 1999. Efficiency motives and normative forces: combining transactions costs and institutional logic. ***Journal of Management***, 25(1): 75-96

Maskin, E. & Xu, C.G. 2001, Soft budget constraint theories: From centralization to the market, ***Economics of Transition***, 2001.

Mccabe,B.C. & Feiock, R.C.2005, Nested levels of institutions: state rules and city property taxes, ***Urban Affairs Review***, 40(5): 634-654

McNichols MF & Stubben SR. 2008. Does Earnings Management Affect Firms' Investment Decisions?. ***The Accounting Review*** 83 (6), 1571

Meyer, J. W., & Rowan, B. 1977. Institutional organizations: Formal structure as myth and ceremony. ***American Journal of Sociology,*** 83: 340-363.

Miglo, A., 2007. ***Can Earnings Manipulation Create Value?*** (December 2007). AFA 2009 San Francisco Meetings Paper. Available at SSRN: http://ssrn.com/abstract=1107286

Milgrom PR, North DC, & Weingast BR. 1990. The role of institutions in the revival of trade: The law merchant, private judges, and the champagne fairs. ***Economics and Politics.*** Economics and Politics, 2 (1): 1—23.

Miller D & Chen MJ, 1994. Sources and consequences of competitive inertia: A study of the US airline industry. ***Administrative Science Quarterly***. 39: 1-23

Ministry of Finance (MOF), PRC. 2000. ***Notice of the concerns about the administrative interferences on the practices of CPA firms***—Notice [2000] no. 25 (In Chinese)

Mookerjee, R & Yu, Q, 1999. An empirical analysis of the equity markets in China. ***Review of Financial Economics***. 8 (1), 41–60.

Nelson, R. E. 1990. Is there strategy in Brazil? ***Business Horizons***, *33, 15-23*.

North DC, 1989. Institutions and economic growth: an historical introduction. ***World Development.*** 17(9): 1319-1332

North, Douglass C., 1994. Economic performance through time, ***The American Economic Review***, 84:359-368.

O'Toole, L. J., Jr. 1993. American intergovernmental relations: An overview. 2nd ed. In ***American intergovernmental relations: Foundations, perspectives and issues,*** edited by Laurence J. O'Toole, Jr., 1–32. Washington, DC: Congressional Quarterly.

Oliver, C. 1991. Strategic responses to institutional processes. ***Academy of Management Review***. 16(1):145-179

Ostrom, E. 1990. ***Governing the commons***. Cambridge, UK: Cambridge Univ. Press.

Parsons, T. 1960. Three levels in the hierarchical structure of organizations. ***Structure and Process in Modern Societies***: 59-69. New York: Free Press.

Peng MM & Heath PS. 1996. The growth of the firm in planned economies in transition: Institutions, organizations, and strategic choice. ***Academy of Management Review***, 21(2): 492-528.

Peng, M. W. 2001. The resource-based view and international business. ***Journal of Management,*** 27, 6, 803-829.

Powell,W.W. 1991. Expanding the scope of institutional analysis, in Walter W. Powell and Pail J. Dimaggio (eds), ***The new institutionalism in organizational analysis:*** 183-203. Chicago: University of Chicago Press.

Qian YY. 1996. Enterprise reform in China: Agency problems and political control. ***The Economics of Transition***. 4 (2): 427-447

Qian YY. 2000. ***Government Control in Corporate Governance as a Transitional Institution: Lessons from China***. The World Bank. elsa.berkeley.edu. April 2000

Recanatini, F. & Ryterman,R. 2000. ***Transition and Output Collapse: Measuring the Impact of Institutional Change***, Washington D.C.: World Bank, mimeo, August 2000.

Ricardo J. Caballero & Mohamad L. Hammour, 2001. ***Institutions, Restructuring and Macroeconomic Performance***, DELTA Working Papers 2001-03, DELTA (Ecole normale supérieure).

Roberts, B., Gorkov, Y. & Madigan, J., 1998. ***Is privatization a free lunch? New evidence on ownership status and firm performance,*** mimeo, University of Miami

Rosenbaum PR & Rubin DB.1983. The central role of the propensity score in observational studies for causal effects. Biometrika. 70(1): 41-55.

Rynes, S. L., & Shapiro, D. L. 2005. Academy of management journal editors' forum: public policy and the public interest: What if we mattered more? ***Academy of Management Journal,*** 48(6): 925-927.

Scott, W.R.2001. ***Institutions and organizations***. (2nd eds). Sage (Thousand Oaks, CA)

Shleifer, A. & Treisman, D. 2000. ***Without a Map: Political Tactics and Economic Reform in Russia***, Cambridge, MA: MIT Press.

Shleifer, A., & Vishny, R., 1994. Politicians and Firms, ***Quarterly Journal of Economics***, 109, 4: 995-1025, November

Singh H. & Chang, S. 1992. ***Corporate reconfiguration: A resource perspective.*** Working paper. Management Department, The Wharton School, Philadelphia, PA.

Stevens,J.M, Steensma, H.K., Harrison, D.A., & Cochran, P.L. 2005. Symbolic or substantive document? The influence of ethics codes on financial executives' decisions. ***Strategic Management Journal.*** 26: 181–195.

Stice, J. 1991. Using financial and market information to identify pre-engagement factors associated with lawsuits against auditors. ***The Accounting Review,*** 66, 516–533

Suchman.M.C. 1995. Managing legitimacy: strategic and institutional approaches. ***Academy of Management Review***. 20(3): 571-610.

Tang, Y. W. 1999. Issues in the development of the accounting profession in China. China ***Accounting and Finance Review***, 1, 21–36

Tenev, S. & Zhang.C.L. 2002. ***Corporate Governance and Enterprise Reform in China***, World Bank and the International Finance Corporation.

Tsui K & Wang Y, 2004. Between separate stoves and a single menu: Fiscal decentralization in China. ***The China Quarterly.*** 177 : 71-90

Tsui, K.Y.. 2005. Local tax system intergovernmental transfers and China's local fiscal disparities. ***Journal of Comparative Economics*** 33 (1), 173–196.

Tushman ML & Nelson RR, 1990. Introduction: Technology, Organizations, and Innovation. ***Administrative Science Quarterly***. 35(1): 1-8.

Tushman ML, Newman WH & Romanelli E, 1986. Convergence and upheaval managing the unsteady pace of organizational evolution. ***California Management Review.*** 29(1): 29-44.

Waddell, S. 2002. Core competence: a key force in business-government-civil society collaborations. ***Journal of Corporate Citizenship.*** Autumn. 43-56

Weber, R., Camerer, C.F. 2003, Cultural conflict and merger failure: an experimental approach, ***Management Science***, 49(4): 400-15.

Wei, Y.W., ***The role of China securities regulatory commission in corporate governance.*** Working paper

Westphal, J. D., & Zajac E. J. 1994. Substance and symbolism in CEOs' long-term incentive plans. ***Administrative Science Quarterly,*** 39: 367-390.

Westphal, J.D.& Zajac, E. J. 2001. Decoupling policy from practice: the case of stock repurchase programs. ***Administrative Science Quarterly.*** 46(2):202-228.

Whitley R. & Czaban L.1998. Ownership, control and authority in emergent capitalism: changing supervisory relations in Hungarian industry. ***International Journal of Human Resource Management***, 9(1): 99 – 115.

Williamson O, 1983. Organization form, residual claimants, and corporate control. ***Journal of Law and Economics,*** 26(2): 351-366

Williamson, OE. 1985. ***The Economic Institutions of Capitalism: Firms. Markets, Relational Contracting***, New York.

Woetzel JR, 2008. Reassessing China's state-owned enterprises. ***The McKinsey Quarterly.***

Wong C, 2000. Central-local Relations Revisited: the 1994 Tax Sharing Reform and Public Expenditure Management in China. ***China Perspectives***. 31:52–72

Wu DM. Alternative Tests of Independence between Stochastic Regressors and Disturbances ***Econometrica***, 41(4): 733-750

Wu, Z. 2001, An analysis of reasons for M&A failure of enterprises, ***Contemporary Finance and Economy***, No. 12, pp. 65-7.

Xu, X. and Wang, Y. 1999. Ownership Structure and Corporate Governance in Chinese Stock Companies, ***China Economic Review,*** 10, 75–98.

Yang Y., 2006. ***Earnings management as a response to the threat of exchange delisting.*** Working Paper, University of Colorado, Boulder

Yang Y., 2006. ***Earnings management as a response to the threat of exchange delisting***. Working Paper, University of Colorado, Boulder.

Young, A. 2000. The razor's edge: Distortions and incremental reform in the People's Republic of China. Quarterly ***Journal of Economics*** 115(4) 1091-1135.

Young, M. N., Peng, M, Ahlstrom, D. & Bruton. G. 2002. Governing the corporation in emerging economies: A principal-principal agency perspective. ***Academy of Management Annual meeting Electronic Best Paper Proceedings***.

Young, MN, Ahlstrom,D. Bruton,GD, & Chan,ES. 2001. The Resource Dependence, Service and Control Functions of Boards of Directors in Hong Kong and Taiwanese Firms, ***Asia Pacific Journal of Management***, 18(2): 223-244

Zajac, E. & Westphal. J.D. 1995. Accounting for the Explanations of CEO Compensation: Substance and Symbolism. ***Administrative Science Quarterly***. 40: 283-308.

Zhang, J., Li, W. & Zhou, J. 2002, An empirical analysis of performance of the acquisitions in Chinese stock market, ***Nankai Management Review***, No. 6, pp. 51-7.

Zhang X. 2008. Empirical Research on Earnings Management in the Fourth Season of China's Listed Companies with Loss. ***Accounting Researc***h. 4 (In Chinese)

Zheka V, 2005. Corporate governance, ownership structure and corporate efficiency: the case of Ukraine. ***Managerial and Decision Economics***. 26(7): 451 – 460.

Zhong, H. 1998. Analysis of the answers to survey questions by Chinese CPAs. ***CPA News***, No. 1. (In Chinese)