Corporate Governance and Labor Welfare: Evidence from Chinese Private Firms^{*}

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ABSTRACT

Based on a survey of 1,268 Chinese firms, this paper studies the effects of corporate governance on labor welfare. I construct a governance index using the incidence of sixteen structures that protect investors and discipline managers. Labor welfare is measured by a number of indicators including hourly wage, pension coverage, insurance, severance benefits and average tenure. Regressions carried out on a rich set of specifications show that firms with a higher level of corporate governance not only have higher profitability but also provide better labor welfare. Findings of this study suggest that, pursuing private benefits, managers could have a different attitude from shareholders toward labor welfare provisions; while sound corporate governance adjusts managers' decisions on labor welfare in line with the interests of shareholders.

Key Words: Corporate governance, Labor welfare, Firm performance

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Does corporate governance have an effect on protecting employees' interests? I ask this question because investments made by employees can be at risk in much the same way as investments made by shareholders. Employees invest in the employment relationships their human capital as well as off-work related capital such as housing, spouse employment, schools, social relationships, etc. Once they make the investment, they may not be able to control the returns on these capitals, just like shareholders who invest physical capitals in a firm.

Corporate governance deals with such issues originated from the separation of ownership and control. Yet, mainly designed and set up by shareholders, governance primarily serves to protect the owners of physical capitals;ⁱ rather than the owners of human capital. Nevertheless, in line with the interests of shareholders, corporate governance can still affect labor welfare. If managers' attitudes toward labor are different from shareholders', governance structures may reduce their discretion and adjust their decisions on labor's payment.

Managers and shareholders could have different views on how to treat labor. In particular, managers could be entrenched and pursue her private benefits (Jensen and Meckling, 1976). For example, they have an "empire building" desire, pursuing a large company size in terms of sales volume or physical assets. Driven by the desire, they may cut investments on labor, which include wage payment, welfare expenditures, training expenses, etc. Instead, they spend more money on physical investments or on building marketing power, which can contribute to their reputation and influence. In contrast, focusing on profitability and with a long-term perspective, shareholders may prefer to invest more on labors. Better labor welfare would motive employees to work harder. It may also attract high-quality workers, and to motivate existing labors to make more firm-specific investments, such as studying her firm's technology or developing connections in the internal organizations. These investments are usually vulnerable to expropriation and difficult to specify in formal contracts. But they could improve firm productivity and shareholders' value.

This paper examines the effects of corporate governance on both labor welfare and firm performance, using firm-level data of 1,268 Chinese enterprises. The data contains rich information of both internal governance structures and labor welfare measures. Except for 56 firms, all of the sample firms are non-listed enterprises. More importantly, the institutional background of China brings about several advantages in conducting such a study, which examines whether internal governance structures can align managerial decisions on labor welfare with shareholders' interests.

First, an emerging market as China is featured with the absence of a well-functioning market for corporate control. In this context, some mechanisms in developed economy do not exist, which could cause various relationships between corporate governance and labor welfare. For example, Pagano and Volpin (2005a) develop a model in which managers collude with workers by providing them with above market wages to thwart hostile takeover threats. Meanwhile, managers or shareholders may also adjust some governance structures in response to the takeover pressure; so takeover threats could be a factor driving complicated changes in both governance and labor welfare. Nevertheless, since hostile takeovers or proxy fights rarely occur in China, it is not a concern for this study. Neither would stock price boost or institutional investors be a concern for these sample private firms. Institutional investors, such as pension fund managers who would dump a stock moments after bad quarterly news is issued, could affect managers' decisions on labors' payment. So the environment where my sample firms operate is much cleaner to examine the effects of internal governance structures.

Second, China's labor market is featured with weak labor protection and low labor standards. Since the middle 1990s, accompanying with the vast privatization of SOEs and in total 200 millions of migrant workers entering into the urban areas, labor protection has been significantly weakened. The period that my data covers, or 2002 to 2005, witnessed increasing amounts of spontaneous worker protests in China. According to statistics from the Ministry of Public Security, the number of "mass incidents" rose dramatically to 74,000 in 2007. As a response, the Chinese government has institutionalized a series of labor legislations, among which the most important one is the introduction of the newest version of *Labor Contract Law* in 2008. Meanwhile, the government was also promoting the role of labor unions, which

according to Yao and Zhong (2012), have significant yet not large effects in improving workers' welfare. In recent years, even more serious labor issues happened. They include a series of suicides at Foxconn, one of the world's largest OEM producers of electronics, and the strike in Honda plant in which more than ten thousand workers involved. All these suggest how weak external labor markets in China have disciplined internal labor relations. In this context, it is more likely for managers to expropriate labors' interests, and it is also more interesting to study whether internal governance can play a role to counter this trend.

My study starts with constructing a governance index using the incidence of sixteen structures that discipline managers but are not intended to enhance labors' welfare. These governance structures cover aspects such as information disclosure, financial transparency, clearly specified CEO contracts, and the setting up of a board of directors as well as a firm charter. All of them are set mainly to protect investors and to reduce the managerial discretion. I employ a straightforward procedure to construct the index, which assigns one point for the existence of each of the sixteen governance structures and then aggregates these assigned points. My main focus is to estimate the effects of the governance index on three firm-level indicators, namely the EBIT margin, hourly wage, and pension coverage. The baseline results are obtained by estimating a SUR model controlling for a set of baseline control variables that are strongly correlated with governance, performance, and welfare. I find that firms with a higher governance level both have higher profitability and provide better welfare to employees. This suggests that in better-governed firms, not only physical investments but also employees' human capital investment are protected and better rewarded. However, since governance is not randomly assigned to a firm, I cannot make strong claims for the causality just based on these results. To partially mitigate the potential problems that the baseline estimation does not consider, I run several additional specifications.

First, I check the consistency of the governance effect. This is done in two steps. In the first step, I look inside the index by examining the effects of each component. This is to check whether the aggregate governance effect is largely driven by several individual governance structures (Bebchuk, Cohen and Ferrell, 2009). Surprisingly, most of the sixteen governance structures show a significant effect on hourly wage and pension coverage; whereas only several of them are significant in the EBIT margin function. Second, I estimate the effect of the governance index on some other aspects of workers' welfare. It would be natural to expect that governance helps improve other welfare aspects if it improves the hourly wage and pension coverage. Accordingly, I conduct separate regressions for eleven additional welfare indicators covering monthly working hours, the chance of wage arrears, the coverage of various kinds of insurance, severance benefits, amenities, and average tenures of workers and clerks. The governance index is significant in most of these regressions. Especially, it is noteworthy that employees in better-governed firms have a longer average tenure, as the expectation of long-term employment relationships would motivate them to make more firm-specific investments which contribute to firm productivity.

Next, I add extra controls to capture the effects of some external governance mechanisms. External markets imperfectly discipline corporate managers who work contrary to the wishes of shareholders (Demsetz and Lehn, 1985). Moreover, the market competitiveness affects firm performance, labor welfare and job insecurity of managers. To control for their effects, I use variables measuring respectively the firm's domestic provincial market share, potential pressure from foreign production markets (share of exporting), pressure from the stock market (status of public listing), and firm financial characteristics (shares of equity and bank debt in total asset). I find the estimated effects of governance being robust to the addition of these measures.

Finally, I run two sets of regressions to explore the mechanisms behind the major findings. In the first set, I study the growth rates of six operating aspects during 2002 to 2005. Better-governed firms are found to have higher profit growth, higher growth in expenditures on employee welfare, but lower sales growth. Moreover, I find that better-governed firms invest more on trainings. All these evidence support the idea that in weakly governed sample firms, managers could be entrenched – they pursue private benefits with a larger size of sales at the expense of the interests of both shareholders and employees. In the second set of regressions, I find stronger governance effects in firms without a labor union, not allowing collective bargaining or not having collective wage contracts, where labors are more vulnerable to expropriation; in contrast, effects of governance are much weaker in firms with strong labor protection. This evidence supports the idea that sound governance reduces the likelihood of managers to expropriate labors' interests.

This study is related to the long-debated issue of stakeholder versus shareholder. Should governance only take into account the interests of shareholders who supply finance, or should it also be responsible for other stakeholders' interests?ⁱⁱ Starting with the early literature on governance issues (e.g. Berle, 1931; Dodd, 1932), a large number of theoretical papers have engaged in this debate (e.g. Freeman and Reed, 1983; Donaldson and Preston, 1995). Remarkably, the issue remains central today. For example, Tirole (2001), in promoting the stakeholder society concept, argues that since managerial decisions on profit maximization also exert externalities on other stakeholders, corporate governance is "the design of institutions that induce or force management to internalize the welfare of stakeholders." Although the debate is a normative one, the empirical findings of this study could enrich the understanding by exploring the mechanisms in reality through which governance improves other stakeholders' interests. My work is also related to studies on the effects of employee share ownership which is found to benefit both investors and workers (e.g. Kim, 2009) ⁱⁱⁱ and to affect human capital investments (e.g. Robinson and Zhang, 2005); the difference is that I examine a wider range of governance structures that are not directly intended to enhance labors' interests. On the other hand, there are numerous literatures studying the effects of corporate governance or some human capital practices (e.g. Pfau and Cohen, 2003) on firm profitability; in comparison, my work aims to explore the effects of governance on firm performance through adjusting managerial decisions on labor welfare provisions. My findings are potentially important with the changing nature of modern firms. Since human capital is gradually replacing physical assets as the most valuable asset (Zingales, 2000), the returns to labor would be as important as the returns to physical capital in deciding firms' ability to exploit future growth opportunities. It is hence interesting to find corporate

governance could play a role in assuring the suppliers of labor to obtain a fair reward on their human capital investments.

The paper is organized as follows. In Section 2, I introduce the data and present detailed comparisons of firms with different governance levels on major firm characteristics, firm performance and various labor welfare measures. In Section 3, I first present the baseline results of the SUR model, and then conduct several sets of studies to deal with the issues that may confound the baseline results. In Section 4, I explore the mechanisms by conducting three sets of regressions. Section 5 concludes with some further discussions.

I. Data and Descriptive Analysis

A. The Data

The data I use come from a survey conducted by the International Finance Corporation (IFC) on the corporate social responsibility (CSR) of Chinese firms in the spring of 2006. The survey was conducted on 1,268 firms in 12 Chinese cities (from north to south): Changchun, Dandong, Chifeng, Beijing, Shijiazhuang, Xi'an, Zibo, Chongqing, Shiyan, Wujiang, Hangzhou, and Shunde. The choice of the 12 cities was based on the principle of representation rather than on a random basis.^{iv} The National Bureau of Statistics (NBS) was commissioned to carry out the survey. In each city, around 100 firms are selected randomly from the firms that had an annual sales volume larger than 5 million Yuan.^v A stratified sampling strategy was adopted to select the sample firms. The first stratum was firm ownership. Firms were divided into three categories: state-owned enterprises (SOEs), domestic private enterprises (DPEs), and foreign-invested enterprises (FIEs).^{vi} The shares of these three categories of firms in a city were used in the sampling. The second stratum was firm size, which also included three categories: large, medium, and small firms. The definitions of these three size categories were the same as those used by the NBS in its routine statistics, which were defined by the State Economic and Trade Commission (SETC, 2003). The shares of firms of these three size categories in a city were used in the sampling. Using this sampling strategy, we obtained a representative sample for the 12 cities. A questionnaire was administered by the NBS's local offices to the firm managers. Training was provided before the survey. The questionnaire asked questions related to firms' CSR awareness and performance in labor protection, quality control, corporate governance, and environmental protection, etc. It also asked questions about market conditions, management composition, and external finance. In addition, the NBS provided data for the sample firms' annual employment, fixed assets, profits and taxes, sales income, wage expenditure, and expenditure on unemployment insurance during 2002–2005.

B. The Governance Index

I use a straightforward method in constructing a governance index.^{vii} There are sixteen governance-related structures which are all binomial variables and take the value of one if the firm has established the structure (see Panel A of Table I). They all favor protecting investors and reducing managers' discretion, but are not directly related to employees' welfare. Some examples of these variables are: the company's hiring of external auditors, regularly providing shareholders with audited financial sheets, holding a shareholder conference at least once a year, setting up a board of directors and a firm charter with rich contents, or signs a written contract with its CEO with her tenure clearly specified. Detailed definitions of these governance aspects are given in the footnotes of Table I. The index is simply the sum of the values of all of these measures.

Among the sample firms, 33.83 percent receive a score above 12 and are called the "Good-govern Group"; 30.13 percent of firms have a score lower than 9, and are called the "Poor-govern Group"; and the remaining 36.04 percent of firms take a value between 9 and 12, and are called the "Middle Group." Table 1 presents the summary statistics of the three groups. It shows that for all of the sixteen aspects the mean of "Good-govern Group" is the highest whereas that of the "Poor-govern Group" is the lowest; the differences are highly significant. This suggests that the aggregate index represents firms' performance on each individual aspect quite well.

[Table I about here]

Panel B of Table I presents the summary statistics for the three portfolios on some other governance aspects, which are not included in the construction of the index. Panel 1-4 presents the statistics of CEO holding share (a binomial variable) and the number of large shareholders who hold more than ten percent of the company shares. Their effects on protecting investors' interests are vague and could depend on a threshold that is firm-specific and also on the exit mechanisms (e.g. Admati and Pfleiderer, 2009), so they are not included in the index. Yet, since ownership structure is a key factor for any studies on corporate governance, it is worthwhile taking a careful look at them. Notice first that the mean of the number of large shareholder is 2.2, a concentrated structure normally observed in private firms. Moreover, the number is significantly and positively correlated with the governance index. The rationale behind is probably that more large shareholders cause a bigger free-rider problem which requires a higher level of governance being set up. Second, in about 68% of sample firms, CEO holds company share. Unfortunately, the precise share of equity held by CEO is not observable. Yet we can get a rough idea by studying the correlation between the CEO holding share and the number of large shareholders. The correlation is 0.20, significant at 1% level. It suggests that probably only a small portion of CEO hold more than 10% of company share. In this case, although the problem of separation of ownership and control in these private firms is much less severe than that in big public enterprises, it is still considerable -- remember that, in 2005, these firms all have an annual sales volume larger than 5 million RMB, and their average employment is 746 persons.

Part 1-5 presents the statistics for the structure and operational rules of the board. They are not included in the index since only firms that have a board (about 71 percent of the whole sample firms) would have a value for these terms. Furthermore, whether it is good to set the veto right for the largest shareholder and whether the "one-share-one-vote" rule is more efficient than "one-shareholder-one-vote" may also depend on the firm-specific ownership structure.^{viii} What can be read more clearly from these statistics is that, compared with the "Poor-govern Group," the "Good-govern Group" holds board conferences more frequently, has a board that is

less likely to overlap with its management, and its board is perceived by the HR manager to be more useful.

C. Major Firm Characteristics and Control Variables

Corporate governance is determined by some firm-specific factors that shape the contracting environment (Himmelberg, Hubbard, and Palia, 1999). Moreover, firm-level characteristics would also affect firm performance and labor welfare. So before any discussions on governance's effects, it is instructive to compare the three groups of firms on important firm characteristics.

Table II contains the summary statistics of the following variables describing a firm's basic characteristics: capital intensity, employment, management education, employee education, and the share of migrant workers. The footnotes for Table II present the exact definitions of these values. Table II shows that firms of the "Good-govern Group" is larger in terms of employment. Firms in the group have an average total employment of about one thousand; in comparison, "Poor-govern Group" has an average of about 450 persons. Moreover, firms in "Good-govern Group" have higher capital intensity and a higher education level of both management and employees. But the average share of migrant workers in this group is not significantly different from that in the "Poor-govern Group".

[Table II about here]

Subsequently, I will call the five variables the "baseline controls." I understand that many variables in this group may be simultaneously determined with firm profitability and workers' welfare. For example, firms may be simply price takers in the labor market, so they have to treat wages as given and decide on the number of workers to be hired and the level of investment to be made. Nevertheless, I treat this group of variables as the baseline control variables. This is mainly because the equations I estimate for my baseline SUR model represent the first-order conditions in a firm's profit-maximization problem, which at the most basic level determines the firm governance structure (Demsetz and Lehn, 1985), performance, and welfare. First, I effectively estimate the marginal products of capital and labor. In order to do so, it is essential to control for the stocks of capital and labor, or alternatively, to control for the capital intensity and labor as I do here. Second, management and employee education are meant to accomplish several things. The education levels measure the quality of the management and labor force, which is related to a firm's technology level and productivity. In addition, they serve as proxies for employees' firm-specific human capital investment, which could be higher in firms with higher technology and would affect firm ownership and governance (e.g. Grossman and Hart, 1986; Hart and Moore, 1990). They also capture the management's and employees' awareness of labor protection – better-educated managers may be inclined to offer workers better treatment (Mengista and Xu, 2004; Liu, 2010) and better-educated employees are more aware of their rights (Liu, 2010). Third, the share of migrant workers takes into account the institutional setting that migrant workers face discrimination in China's labor market (Zhu, 2004; Wang et al., 2009; Friedman and Lee, 2010). So a firm with a higher share of migrants is more likely to provide worse labor welfare.

Besides this set of "baseline controls", in my econometric exercises, I always control for three sets of dummies: city, industry, and ownership (which I will refer to as "control dummies" subsequently). They are meant to capture the inherent regional, industrial, and historical differences among the sample firms. In the case of the industry dummy, I consider five groups: agriculture, mining, manufacturing, utilities, and services. In the case of the ownership dummy, I consider four groups: SOEs, DPEs, HMTs (Hong Kong, Macao, and Taiwanese firms) (Hong Kong, Macao, and Taiwanese firms), and other FIEs.^{ix}

D. Firm Performance and Labor Welfare

I use the EBIT margin (profit before tax/sales) to measure firms' performance. As shown by the second set of statistics in Table II, better-governed firms have a higher EBIT margin in both 2004 and 2005. Existing literature suggests complicated endogeneity problems in the relationship between corporate governance and firm performance.^x The best way to deal with these problems is to identify a credible instrumental variable which is however difficult in the firm level. Later on, I try to

mitigate the problem by employing various model specifications, adding two sets of extra control variable to test the sensitivity of the main results, and examining the effects of governance in different sub-samples.

[Table III about here]

Table III compares workers' welfare provided by firms in the three different governance groups. It includes five sets of measures. The first set concerns wages and working hours. The survey asked managers about the average monthly wages (total income including salaries, bonuses, and overtime payments) of white-collar and blue-collar workers and their monthly working hours.^{xi} In this paper, I only study the wages and working hours of the blue-collar workers because they consist of the bulk of the employees. I obtain average hourly wages by dividing average monthly wages by monthly working hours. The average hourly wage offered by the "Good-govern Group" is 9.1 percent higher than that offered by the "Poor-govern Group", the average monthly working hours in "Good-govern Group" are about four hours less, and the probability of wage arrears in recent years is seven percent lower. The second set of indicators covers four kinds of insurance including pension, medical, accidents and unemployment. The "Good-govern Group" leads the "Poor-govern Group" by around 0.5, which converts to about ten percent. The remaining four sets of indicators cover severance benefits offered to fired workers, amenities (clinics and childcare centers), employee tenures, and training and accidents. While it is clear that the "Good-govern Group" performs uniformly better than the "Poor-govern Group" across almost all of the indicators, the difference in trainings is worth emphasizing since better training can lead to higher labor productivity and also reflect a long-term perspective on the part of management. In the following regression analysis, I will use hourly wage and pension coverage as the major indicators of workers' welfare. Wages are the most frequently studied welfare indicators in the labor economics literature. Fringe benefits such as pensions are also included in some studies (e.g. Freeman and Medoff, 1984). Some standard compensation wage theory (e.g., Rosen, 1986) predicts that workers will match the mix of wages and fringe benefits with their preference in their decision on job choices and labor supply.

II. Empirical Results

A. The Econometric Model

The model I use is as follows. Let EBIT_i, Wage_i, and Pension_i be the EBIT margin, natural logarithm of average hourly wage, and pension coverage of firm i, respectively. I estimate the following SUR model of three equations for the baseline results:

$$EBIT_{i} = \beta_{E1} + \beta_{E2}G_{i} + \beta_{E3}Z_{i} + \varepsilon_{wi}$$
(1)

$$\log(\text{Wage}_i) = \beta_{w1} + \beta_{w2}G_i + \beta_{w3}Z_i + \varepsilon_{wi}$$
(2)

$$Pension_i = \beta_{p1} + \beta_{p2}G_i + \beta_{p3}Z_i + \varepsilon_{pi}$$
(3)

where G_i is the governance index, Z_i are the "baseline controls" and the "control dummies", β 's are the parameters to be estimated, and ϵ 's are the error terms that are distributed in a trivariate normal with a mean of zero. I mainly use the cross-sectional data in 2005. The reason I do not mainly rely on the panel data is the selection bias inherent in the data — firms with strong governance effects could be more likely to survive and have the most observations. If the effect of corporate governance is stable over a short period of time, using the panel data would magnify the governance effect of the firms that have the most observations.

B. Baseline Results

In Model 1, shown in the first three columns of Table IV, I report the results of the SUR model with only the governance index and the three sets of control dummies of cities, industries and ownership as the right-hand side variables.^{xii} Governance's effects on the three aspects are all significant at the 1% level. The estimates are, with the presence of one more governance structure, that the EBIT margin rises by 0.2 percent, the hourly wage by 1.5 percent, and the pension coverage by 17 percent (converted scale). In the next three columns I report the results of Model 2, which adds the five "baseline control" variables. The effects of governance are considerably reduced on the two welfare indicators to 0.8 percent for wages and 13.8 percent for pension coverage. As for the control variables, higher capital intensities and higher education levels of workers are all associated with both higher firm performance and

better worker welfare whereas a large share of migrant workers has exactly the opposite effects. Higher management education is associated with better welfare. In addition, a larger firm, measured by the number of employees, offers higher wages although the effect is rather small: an addition of 100 workers is only associated with a 0.2 percent increase in hourly wages. I regard this set of results as the baseline results.

[Table IV about here]

In section 1 (Table A.1) of the Appendix, I check for the governance effects in several other econometric models. First, I check in Model 1 results in panel data. The estimates are larger than the baseline results. This is probably due to the selection bias mentioned above. In Model 2, I use a GLS model. The estimated standard errors are slightly different now, yet the significances of all the estimates remain the same. Based on these results, below I only use the cross-sectional data and a SUR model, assuming homoscedasticity. In Model 3, I check the governance effects in the sub-sample of domestic private enterprises. In recent years, many serious labor relation conflicts happened in this kind of Chinese firms, including a series of suicides at Foxconn, one of the world's largest OEM producers of electronics. This makes it worthwhile considering this subsample. The estimates are very close to the baseline results, with governance effects on wage and pension coverage being slightly larger.

C. Consistency of the Governance Effects on Labor Welfare

I next explore the consistency of the governance effect. The analysis consists of two parts. The first relates to Bebchuk, Cohen and Ferrell (2009), who find that six of the twenty-four provisions included in the GIM index (Gompers, Issii and Metrick, 2003) play a significant role in driving the documented correlation between the GIM index and the firm valuation. In this regard, in Table V, I estimate the effects of the sixteen individual governance structures which are aggregated to form the governance index. I only report their estimated effects on the EBIT margin, hourly wage, and pension coverage. The model specification is exactly the same as that of Model 2 in Table IV. Interestingly, most of these governance measures are significant for the pension coverage function; and a majority of them are significant for the wage function. Regarding firm profitability, extensive information disclosure, greater financial transparency, and a clearly specified CEO tenure have a positive impact, consistent with findings such as those of Mitton (2002) and Djankov et al. (2008); however, measures related to the board of directors or to the firm charter do not show a significant effect. In general, the results in this table are out of expectation, suggesting that the role of corporate governance is larger in the protection of employees' interests.

[Table V about here]

Next, Table VI provides the estimation results of governance effects on the eleven other welfare-related indicators examined in Table III. When only the control dummies are included, the governance index is shown to play a positive and significant role in all the indicators except for the chance of wage arrears. When the "baseline controls" are included, its effects on having a clinic in the factory also become insignificant. Other than on the two aspects, the effects of governance are all highly significant.

[Table VI about here]

D. Extra Control Variables:

I then add a set of extra control variables to check for the robustness of baseline results. The set contains variables describing the potential market pressure that a firm is exposed to and its financial characteristics. The detailed definitions and summary statistics of these variables are introduced in Table A.3 in the Appendix.

The first four variables are the provincial market shares, share of export, customer requirement of labor standards, and status of listing. The provincial market share measures a firm's market power. It is a proxy for managerial discretion (Himmelberg, Hubbard, and Palia, 1999), indicating the strength of discipline from competitive product markets on managerial decisions. Moreover, a better position in the market supposedly brings the firm higher profits and allows it to treat workers better. The second and third variables are indicators of the external pressures coming

from the value chain. Exporters may be more likely to comply with certain governance and labor standards as they are subject to some international pressures (e.g. Greenhill, Mosley, and Prakash, 2009). However, in China's case, under intensive competition on the global labor-intensive production markets, exporting firms could have lower profitability and may not offer as much to workers as other firms do. Indeed, some people believe that China as the "world's factory" is the main driver of the "race to the bottom" of global labor standards (Chan and Ross, 2003; Chan, 2009). Thus, the effects of exports on governance, performance and labor welfare need to be determined empirically. Customer requirements for labor standards should have unambiguous effects on firms to improve labor welfare, because in a highly competitive market like the one in China clients have considerable leverage over their suppliers (Ngai, 2005).^{xiii} The effect on firm governance and performance, however, is not clear. The status of listing measures the potential pressures from the stock market, since listed firms are usually exposed to more requirements regarding governance set-up and firm performance. The last two variables are the percentage of equity and bank loans in the total assets. It is well known that some financial instruments such as debt can be a substitute for corporate governance (e.g. Williamson, 1988). A larger share of equity finance or a lower share of bank loans is commonly associated with a higher level of corporate governance. Moreover, higher profitability is commonly associated with less debt finance.

Table VII examines the inclusion of these six variables. The effect of governance on wages declines by 0.1 percent to 0.7 percent; its effect on pension coverage declines by 1.2 percent to 12.6 percent (converted scale). The significance of the effect on firm performance reduces to the 10% level, while the magnitude is almost the same. As for the new control variables, higher provincial market shares are correlated with both higher wages and higher pension coverage. In contrast, more exports in total sales are associated with worse workers' welfare. This finding shows that the labor-intensive nature and intensive production competition dominate the potential international pressures in the exporting firms. The requirements from customers show a positive effect on pension coverage. Public listing and the share of equity finance show no significant effects. However, a larger share of bank loan has a negative effect on both firm performance and hourly wage. This could be due to the monopoly position of China's banks in the bank–firm relations and also to the regulations by China's central bank (PBoC) on bank loan interests.

[Table VII about here]

In section 2 in the Appendix, I check further the robustness of main results by adding another set of variables which capture the characteristics of various constituencies as well as the firm's performance on corporate social responsibility. The effects of corporate governance are robust to the addition of these variables.

III. Governance Effects: Mechanisms

Summarizing the above results, corporate governance has a robust effect on firm performance and labor welfare, even after measures covering a wide range of firm characteristics are added to the regressions. In this section, I conduct two sets of studies to explore the mechanisms.

A. Managerial Entrenchment

I start with exploring the idea of an entrenched manager in weakly governed firms. Jensen and Meckling (1976) suggest that entrenched managers could pursue private benefits at the expense of firm profitability. For example, they could be building an "empire" in terms of physical assets or sales volume, whereas the large size does not lead to higher profitability. To find evidence for this hypothesis, I examine the growth rates of six operating aspects over the 2002-2005 period. They include: employment, fixed assets, EBT (the sum of profits and taxes), sales income, expenditures on wage, and other expenditures on employee welfare.^{xiv} To avoid the complicated selection bias issue in the panel data (please refer to section 1.A in the Appendix), I only use firms that have data for each of the four years. I study the growth rates, which are the values in 2005 divided by those in 2002. The results are reported in Table VIII.

[Table VIII about here]

Firms with a higher governance level have a higher growth rate of both profits

and other expenditures on employee welfare, and a lower growth rate of sales. Yet corporate governance does not show a significant effect on the growth rates of employment, fixed assets or wages. These results suggest that entrenched managers in weakly governed sample firms could pursue non-profit-maximizing personal objectives by expanding the size of their business in terms of sales and meanwhile cutting fringe benefits for their employees.

Second, I examine the effects of governance on trainings. Some studies (e.g. Bontis and Serenko, 2007) indicate that successful organizations constantly enhance employee capability, job satisfaction and commitment through a variety of training and development programs. Table IX examines four measures of trainings as well as the annual per-thousand-worker accident rate. Its results show that better-governed firms are more likely to have a training plan, to organize the pre-post training, and to pay a bigger share of total sales as training fees. On the other hand, these results indicate that managers in firms with a lower level of governance invest less in human capital, which is in line with the idea that these managers are more likely to cut investments on labor and to pursue their private benefits.

[Table IX about here]

B. Weak Labor Protection

If managers do cut labor welfare for short-term targets or for private benefits, and if governance does have an effect on disciplining managers and on adjusting her attitude toward labor, I should expect a *larger* role of governance in firms with *lower* level of labor protection. To that end, I compare governance effects in unionized firms (69%) with those in non-unionized firms (31%); compare firms allowing collective bargaining (53%) with those not allowing that (47%); and firms having collective wage contracts (29%) with those not having the contracts (71%). Regarding union, some recent works (e.g. Lu, Tao and Wang, 2010; Yao and Zhong, 2011) find a significant effect of China's labor unions on improving workers welfare. Regarding collective bargaining and collective contacts, in developed economies, they are viewed as the most important ways to increase workers' wages (e.g., Leontief, 1946;

Blair and Crawford, 1984). In China, although collective bargaining and contracts may not necessarily provide workers with more favorable terms than those specified by China's *Labor Law* and *Labor Contract Law*, they do increase the companies' expected costs from contract violations because the contracts imply legal consequences (e.g. Clarke, Lee, and Li, 2004; Chan, 2009).

[Table X about here]

Table X presents the estimated results. In the group without union, not allowing collective bargaining or not having collective contracts, the governance index has significant effects on both labor welfare and firm performance; while governance only has an effect on improving pension coverage in unionized firms and in firms allowing collective wage contracts. These results suggest that in firms with weak labor protection, managers are more likely to expropriate the interests of labor which hurts firm performance, while governance could at least mitigate the problem.

C. Ownership Structures

Finally, a direct test of the thesis of this study is to examine governance effects in firms with different ownership structures. The problem of manager pursuing private benefits should be mitigated if the CEO becomes a large shareholder herself or if large shareholders have strong incentives to monitor the CEO; so in both cases, I should expect *smaller* governance effects. Unfortunately, as mentioned in part B of section I, the precise share of equity held by CEO is not observable in this data. Furthermore, it is hard to say whether the number of large shareholders is at the optimal level or not. A recent work by Edmans and Manso (2009) shows that while the structure of multiple small blockholders generates free-rider problems, the same co-ordination difficulties strengthen the governance mechanism of exit; and the optimal blockholder structure depends on a bunch of factors, some of which are hard to measure such as the relative effectiveness of manager, blockholder effort, information asymmetry and monitoring costs. What I have tried is to divide the sample firms by both the binomial variable of CEO holding company share and the number of large shareholders (who hold more than 10 percent of company share). By the two measures, sample firms are

set into eight groups. I estimate the governance effects in these subsamples in Table A.4 in the Appendix. While there are some results suggesting that corporate governance do have a stronger effect in firms without CEO holding shares, in general they are mixed.

IV. Further Discussions

Findings of this study suggest that, pursuing private benefits, managers could have a different attitude from shareholders toward labor welfare provisions; while sound corporate governance could discipline managers and adjust their decisions in line with the interests of shareholders. Related to these results, in future studies, it is interesting to know more about what determines the internal corporate governance structures, and whether they have something to do with the interests of labor. Without supporting evidence, I surmise that the laws related to investor and labor protection, and the political process that determines the legal rules (Pagano and Volpin, 2005b) could be a factor affecting the role of governance on labor welfare.^{xv} Recently, Atanassov and Kim (2009) highlight the fact that investor protection and labor laws are intertwined in determining the relative influence of different stakeholders, which in turn shapes corporate governance. My conjecture is that the effects of governance on employees' welfare could be affected by the balance of investor protection and labor protection which is specified by the laws. By and large, corporate governance is about how power is allocated inside a firm (Zingales, 1998), so the laws that grant the power, and political power of various constituencies in a country could fundamentally affect its effects. To test this idea, evidence from international research is needed.

REFERENCES

- Admati, A.R., and Pfleiderer, P., 2009. "The "Wall Street Walk" and shareholder activism: exit as a form of voice," *The Review of financial studies*, Vol. 22, No.7, pp. 2395-2428.
- Aggarwal, R., Erel, I., Stulz, R., and Williamson, R., 2010. "Differences in governance practices between US and foreign firms: Measurement, causes, and consequences," *The Review of financial studies*, Vol. 23, No.3, pp. 3131-3169.
- Atanassov, J., and Kim, E., 2009. "Labor and Corporate Governance: International Evidence from Restructuring Decisions," *Journal of Finance*, Vol. 64, No.1, pp. 341-374.
- Bebchuk, L., Cohen, A., and Ferrell, A., 2009. "What Matters in Corporate Governance?" *The Review of financial studies*, Vol. 22, No. 2, pp. 783-827.
- Becht M., Bolton P., and Röell A., 2003. "Corporate Governance and Control,", in: G.M. Constantinides & M. Harris & R. M. Stulz (ed.), *Handbook of the Economics of Finance*, edition 1, volume 1, chapter 1, pages 1-109, Elsevier.
- Berle, A.A., 1931. "Corporate Powers as Powers in Trust," *Harvard Law Review*, Vol. 44, pp. 1049-1074.
- Blair, D.H., and Crawford, D.L. 1984. "Labor Union Objectives and Collective Bargaining," *The Quarterly Journal of Economics*, Vol. 99, No. 3, pp. 547-566.
- Bontis, N., and Serenko, A., 2007. "The moderating role of human capital management practices on employee capabilities," *Journal of knowledge management*, Vol.11, No.3, pp. 37-51.
- Chan, A. 2000. "Chinese Trade Unions and Workplace Relations in State-owned and Joint-venture Enterprises," In M. Warner, *Changing Workplace Relations in The Chinese Economy*. Basingstoke: Macmillan, pp. 34-56.
- Chan, A., and Ross, J.R. 2003. "Racing to The Bottom: Industrial Trade without a Social Clause," *Third World Quarterly*, Vol. 24, No. 6, pp. 1011-28.
- Chan, A. 2009. "Challenges and Possibilities for Democratic Grassroots Union Elections in China," *Labor studies journal*, Vol. 34, No. 3, pp. 293-317.
- Clarke, S., Lee, C.H., and Li, Q., 2004. "Collective Consultation and Industrial Relations in China", *British Journal of Industrial Relations*, Vol. 42, No. 2, pp. 235-54.
- Demsetz, H., Lehn, K., 1985. "The structure of corporate ownership: causes and consequences," *Journal of Political Economy*, Vol.93, No.6, pp. 1155–1177.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., and Shleifer, A., 2008. "The law and economics of self-dealing," *Journal of Financial Economics*, Vol. 88, No. 3, pp. 430-465.
- Dodd, M., 1932. "For Whom are Corporate Managers Trustees?" *Harvard Law Review*, Vol. 45, No. 7, 1145-1163.
- Donaldson, T., and Preston, L.E., 1995. "The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications," *The Academy of Management Review*, Vol. 20, No. 1, pp. 65-91.

- Dong, X., and Xu, C.L., 2008. "The Impact of China's Millennium Labor Restructuring Program on Firm Performance and Employee Earnings," *Economics of Transition*, Vol. 16, No. 2, pp. 223-245.
- Edmans, A., and G. Manso, 2008. "Governance Through Exit and Voice: A Theory of Multiple Blockholders." Working paper, The Wharton School, University of Pennsylvania.
- Faleye, O., Mehrotra, V., and Morck, R., 2006. "When Labor Has a Voice in Corporate Governance," *Journal of Finance and Quantitative Analysis*, Vol. 41, No. 3, pp. 489-510.
- Fan P.H., Wong T.J., and Zhang T., 2007. "Politically Connected CEOs, Corporate Governance, and Post-IPO Performance of China's Newly Partially Privatized Firms," *Journal of Financial Economics*, Vol. 84, No. 2, pp. 330-357.
- Freeman, R.E., and Reed, D.L., 1983. "Stockholders and Stakeholders: A New Perspective on Corporate Governance," *California Management Review*, Vol. 25, No. 3, pp. 88-106.
- Freeman, R.B., and Medoff, J.L., 1984. What Do Unions Do? New York: Basic Books.
- Friedman, E., and Lee, C.K., 2010. "Remaking the World of Chinese Labour: A 30-Year Retrospective," *British Journal of Industrial Relations*, Vol. 48, No. 3, pp. 507-533.
- Gompers, P., Ishii, J., and Metrick, A., 2003. "Corporate Governance and Equity Prices," *Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 107-155.
- Greenhill, B., Mosley, L., and Prakash, A. 2009. "Trade-based Diffusion of Labor Rights: A Panel Study, 1986–2002" American Political Science Review, Vol. 103, No. 4, pp. 669-690.
- Grossman, S.J., and Hart, O.D., 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy*, Vol. 94, No. 4, pp. 691-719.
- Hart, O., 1995. "Corporate Governance: Some Theory and Implications," *The Economic Journal*, Vol.105, No. 430, pp. 678-689.
- Hart, O., and Moore, J., 1990. "Property Rights and the Nature of the Firm," *Journal of Political Economy*, Vol. 98, No. 6, pp. 1119-1158.
- Himmelberg C.P., Hubbard R.G., Palia D., 1999. "Understanding the Determinants of Managerial Ownership and The Link between Ownership and Performance," *Journal of Financial Economics*, Vol.53, No. 3, pp. 353-384.
- Jensen, M., and Meckling, W., 1976. "Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, October, 1976, Vol. 3, No. 4, pp. 305-360.
- John, K., Litov, L., Yeung, B., 2008. "Corporate Governance and Risk-Taking," Journal of Finance, Vol. 63, Issue 4, Pages 1679-1728.
- Karpoff, J.M., Malatesta, P.H., and Walkling, R.A., 1996. "Corporate governance and shareholder initiatives: Empirical evidence," *Journal of Financial Economics*, Vol.42, No.3, pp. 365-395.

- Kim, E.H., 2009. "Corporate Governance and Labor Relations," *Journal of Applied Corporate Finance*, Vol. 21, No.1, pp. 45-54.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R.W., 1998. "Law and Finance," *Journal of Political Economy*, Vol. 106, No. 6, pp. 1113-1155.
- Leontief, W. 1946. "The Pure Theory of the Guaranteed Annual Wage Contract," *The Journal* of *Political Economy*, Vol. 54, No. 1, pp. 76-79.
- Liu, Q., 2006. "Corporate Governance in China: Current Practices, Economic Effects and Institutional Determinants," CESifo Economic Studies; Vol. 52.2/ 2006, 425-453.
- Liu, M. 2010. "Union Organizing in China: Still a Monolithic Labor Movement?," *Industrial & Labor Relations Review*, Vol. 64, No. 1, pp. 30-51.
- Liu, G.S., Sun, P., and Woo, W.T. 2007. "What Motivate and Constraint Politicians to Privatize? The Case of China," *Economics Letters*, Vol.97, No.1, pp. 81-86.
- Lu, Y., Tao, Z., and Wang, Y. 2010. "Union Effects on Performance and Employment Relations: Evidence from China," *China Economic Review*, Vol. 21, Issue 1, pp. 202-210.
- Mengista, T., and Xu, C.L. 2004. "Agency Theory and Executive Compensation: The Case of Chinese State-Owned Enterprises," *Journal of Labor Economics*, Vol. 22, No. 3, pp. 615-637.
- Mitton, T., 2002. "A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis," *Journal of financial economics*, Vol. 64, No. 2, pp. 215-241.
- Ngai, P., 2005. "Global Production, Company Codes of Conduct, and Labor Conditions in China: A Case Study of Two Factories," *The China Journal*, No. 54, pp. 101-113.
- Pfau, N. B., and Cohen, A. S., 2003. "Aligning human capital practices and employee behavior with shareholder value," *Consulting Psychology Journal: Practice & Research*, Vol. 55, No.3, pp. 169-178.
- Pagano, M. and Volpin, P. F., 2005a. "Managers, Workers, and Corporate Control," *The Journal of Finance*, Vol. 60, No. 2, pp. 841-868.
- Pagano, M. and Volpin, P. F., 2005b. "The Political Economy of Corporate Governance," *The American Economic Review*, Vol. 95, No. 4, pp. 1005-1030.
- Robinson, A., and Zhang, H., 2005. "Employee Share Ownership: Safeguarding Investments in Human Capital," *British Journal of Industrial Relations*, Vol.43, No.3, pp. 469–488.
- Rosen, S. 1986. The Theory of Equalizing Differences, pages 641-692. Handbook of labor economics. Volumes 1. North-Holland; distributed in North America by Elsevier Science, New York, Handbooks in Economics series, no. 5 Amsterdam; Oxford and Tokyo, 1986.
- Roskies, E., and Louis-Guerin, C., 1990. "Job insecurity in managers: Antecedents and consequences," *Journal of organizational behavior*, Vol.11, No.5, pp. 345–358.
- SETC, 2003. *Tentative Standards for Small and Medium Enterprises*, SME Department, SETC, document [2003] No. 143.
- Shen, Y., and Yao, Y. 2009. CSR and Competitiveness in China. Beijing: Foreign Languages Press.
- Shleifer A., and Vishny, R., 1997. "A Survey of Corporate Governance," Journal of Finance,

Vol. 52, No. 2, pp. 737-783.

- Stein, J.C., 1988. "Takeover Threats and Managerial Myopia," *Journal of Public Economics*, Vol. 96, No. 1, pp. 61-80.
- Tirole, J., 2001. "Corporate governance," Econometrica, Vol. 69, No. 1, pp. 1-35.
- Wang, H.Y., Appelbaumb, R.P., Degiulib, F., and Lichtenstein, N. 2009. "China's New Labour Contract Law: is China moving towards increased power for workers?" *Third World Quarterly*, Vol. 30, Issue 3, pp. 485-501.
- Williamson, O.E., 1988. "Corporate Finance and Corporate Governance," *The Journal of Finance*, Vol. 43, No. 3, pp. 567-591.
- Yang, X., and Yao, Y., 2011. "Environmental Compliance and Firm Performance: Evidence from China," *forthcoming* in *Oxford Bulletin of Economics and Statistics*.
- Yao, Y., and Zhong, N., 2011. "Unions and Workers' Welfare in Chinese Firms," Revised and Resubmitted to *Journal of Labor Economics*.
- Zingales, L., 1998. "Corporate governance," in Peter Newman ed,: *The New Palgrave Dictionary of Economics and the Law* (Stockton Press, London).
- Zingales, L., 2000. "In Search of New Foundations," *Journal of Finance*, Vol. 55, No. 4, pp. 1623-1653.
- Zhu, Y. 2004. "Workers, Unions and the State: Migrant Workers in China's labour intensive Foreign Enterprises," *Development and change*, Vol. 35, No. 5, pp. 1011-1035.

Table I

Corporate Governance of Sample Firms

(3) Mean, (1) Mean, (2) Mean, t-statistics: Obv. Good-govern Middle Poor-govern (1) Vs. (3) Group Portfolio Group < 9 Governance Index > 12 [9, 12] 1,268 (proportion of sample firms) (33.83%) (36.04%)(30.13%) 1-1 Information disclosure and financial transparency 0.94 0.82 0.55 13.95 *External_audit* (0,1) 1231 17.58 Balance_sheet (0,1) 1174 0.98 0.88 0.51 *Regular_report* (0,1) 0.99 0.91 0.55 16.61 1154 *Risk_disclosure* (0,1) 1180 0.76 0.55 0.40 10.81 0.70 0.31 20.99 *Share_conference* (0,1) 1268 0.90 1-2 Board and firm charter Board of director (0,1) 1173 0.93 0.79 0.38 19.04 *Charter* (0,1) 1242 1.00 1.00 0.66 13.78 0.97 0.78 0.34 24.10 (1) Decision process 1121 (2) Internal transactions 1114 0.81 0.36 0.08 27.23 (3) Information disclosure 0.30 0.11 26.80 1116 0.83 0.74 29.48 (4) Profit allocation 1120 0.98 0.26 (5) Financial management 1121 0.99 0.89 0.43 21.26 (6) Managers assignment 0.98 0.82 0.35 24.40 1119 (7) Ways of disputes solving 1102 0.92 0.54 0.16 30.45 1-3 CEO contract CEO contract (0,1)0.52 1164 0.77 0.25 16.33 0.63 0.40 0.17 14.55 CEO_tenure (0,1) 1152

Panel A: Governance index and its components

Table I

Corporate governance of sample firms (continued)

	Obv.	Correlation with G_Index	(1) Mean, Good-govern Group	(2) Mean, Middle Portfolio	(3) Mean, Poor-govern Group	t-statistics: (1) Vs. (3)		
Governance Index	1 2 (9		> 12	[9, 12]	< 9			
(proportion of sample firms)	1,208		(33.83%)	(36.04%)	(30.13%)			
1-4 Managerial Ownership and large shareholders								
<i>CEO_share</i> (0,1)	1185	-0.02	0.65	0.71	0.68	0.70		
Nolarge_shareholders	952	0.21***	2.47	2.33	1.68	7.12		
1-5 Board structure and operations	1							
Noindependent_directors	643	0.06	3.68	3.42	3.24	1.13		
One_share_one_vote (0,1)	687	0.10***	0.38	0.30	0.25	2.14		
Veto (0,1)	718	-0.07**	0.73	0.78	0.81	1.57		
Board_conference	756	0.11***	0.71	0.58	0.62	1.81		
$Board_management_overlap(0,1)$	806	-0.13***	0.41	0.44	0.63	4.18		
Board_usefulness (1-4)	800	0.24***	3.59	3.35	3.15	6.56		

Panel B: Governance structures not used in constructing Governance Index

Explanatory footnotes:

1-1 Information disclosure and financial transparency: External_audit takes the value 1 if the firm hires external auditors. Balance_sheet takes the value 1 if the firm provides shareholders with an audited balance sheet. Regular_report takes the value 1 if the firm regularly reports to shareholders on important operating and strategic decisions. Risk_disclosure takes the value 1 if the firm regularly estimates the potentially big risks, informs shareholders, and takes proper actions. Share_conference takes the value 1 if the firm holds a shareholders' conference at least once a year. **1-2** *Board and firm charter*: *Board of director* takes the value 1 if the firm has set up a board. *Charter* takes the value 1 if the firm has a charter. The next seven columns indicate whether the charter contains specifications on the following aspects (1–Yes, 0–No): (1) decision process; (2) internal transactions (e.g. shares transfer); (3) information disclosure; (4) profit allocation; (5) financial management; (6) managers' assignment; (7) ways of solving disputes.

1-3 CEO contract: *CEO_contract* takes the value 1 if the firm signs a written contract with its CEO. *CEO_tenure* takes the value 1 if the tenure of the CEO is clearly specified.

Governance_index is the sum of the values of the above sixteen governance measures.

1-4 Managerial ownership and large shareholders: *CEO_share* is a dummy with the value 1 if the CEO holds company equity. *Large_shareholders* is the number of shareholders who hold more than 10% of the company shares.

1-5 Board structure and operations: No._independent_directors is the number of independent directors. One_share_one_vote is a dummy with the value 1 if the voting rule taken by the board is one share one vote and with the value 0 if the rule is one shareholder one vote. Veto is a dummy with the value 1 if the largest shareholder has the veto right. Board_conference takes the value 1 if the board holds a conference at least once a year. Board_management_overlap takes the value 1 if the board and management of a firm largely overlaps. Board_usefulness is the perceived usefulness of the board answered by the HR manager, with 1–4 indicating not useful at all, kind of useful, useful, and very useful, respectively.

The table also reports the t-statistics for differences in means between the Good-govern Group and the Poor-govern Group.

Table II

	Correlation with G_Index	(1) Mean, Good-govern Group	(2)Mean, Middle Portfolio	(3) Mean, Poor-govern Group	t-statistics: (1) Vs. (3)
2-1 Baseline control variables					
Capital intensity (1 million RMB)	0.06**	0.23	0.15	0.15	1.68
Employment (100 persons)	0.06**	9.81	8.24	4.49	1.77
Management education (1 - 4)	0.18***	2.64	2.35	2.07	6.45
Employee education (1 - 4)	0.14***	1.64	1.46	1.38	4.90
Migrant workers (1 - 5)	0.05	2.07	2.20	1.92	1.58
2-2 Firm Performance					
EBIT margin in 2005	0.09***	0.084	0.077	0.059	2.71
EBIT margin in 2004	0.10***	0.096	0.084	0.062	3.47

Corporate Governance, Major Firm Characteristics and Firm Performance

Explanatory footnotes:

2-1 Baseline control variables: Capital intensity is the per-worker fixed capital (1 million RMB). Employment is the number of workers (100 persons). Management education takes the values 1–4 indicating the share of management with college or higher diplomas of 0–20%, 20–40%, 40–60%, and above 60%, respectively. Employee education is constructed in the same way. Migrant workers is the share of migrant workers, with 1–5 denoting respectively lower than 20%, 20–40%, 40–60%, 60–80%, and 80–100%.

2-2 Firm performance: EBIT margin is (profits + tax)/sales.

The table also reports the t-statistics for differences in means between the Good-govern Group and the Poor-govern Group.

Table III

	Correlation	(1) Mean,	(2)Mean,	(3) Mean,	
	with	Good-govern	Middle	Poor-govern	t-statistics:
	G_index	Group	Portfolio	Group	(1) Vs. (3)
3-1 Wage and working hours					
Hourly wage (Yuan)	0.07**	6.21	5.84	5.69	2.23
Monthly working hours (hours)	-0.05*	178.3	181.9	182.1	1.91
Wage arrears (0,1)	-0.09***	0.11	0.16	0.18	3.09
3-2 Insurance coverage (1-5)					
Pension	0.16***	3.94	3.43	3.27	5.65
Government sponsored medical	0.12***	3.49	2.95	2.92	4.12
Accident	0.12***	4.23	4.00	3.78	3.97
Unemployment	0.10***	3.55	3.30	3.10	3.27
3-3 Severance benefits					
Severance payment (1-4)	0.16***	2.91	2.65	2.40	5.46
Time of advance informing (1-4)	0.15***	2.70	2.57	2.28	5.38
3-4 Amenities					
A canteen in factory (0, 1)	0.12***	0.88	0.85	0.77	4.14
A clinic in factory (0, 1)	0.05**	0.28	0.19	0.23	1.69
3-5 Average tenure					
Workers (years)	-0.03	6.57	5.47	7.04	1.00
Clerks (years)	-0.03	7.37	6.14	7.82	0.90
3-6 Trainings and accidents					
Have a training plan (0,1)	0.23***	0.93	0.89	0.73	7.84
Organizing pre-post training (0,1)	0.08***	0.99	0.97	0.95	2.83
No. of training organized annually	0.06**	6.29	4.10	3.49	1.71
Training fees in share of sale (1-4)	0.12***	1.68	1.50	1.46	4.00
Per-thousand worker accident rates	-0.03	6.36	8.43	7.77	0.88

Corporate Governance and Labor Welfare

Explanatory footnotes:

Pension and other insurance coverage is a variable whose values range from 1 to 5, representing coverage of less than 20%, 20–40%, 40–60%, 60–80%, and 80-100%, respectively. The *severance payment* is reported as a share of monthly salary, with 1–4 denoting, respectively, 0–20%, 20–50%, 50–100%, and over 100%. *Time of advance informing* is reported on the following scale: 1 - a week, 2 - two weeks, 3 - a month, and 4 - over a month. *Training fees* are the answers received from the question regarding a firm's share of training expenditures in its sales, with 1–4 indicating below 0.1%, 0.1–0.2%, 0.3–0.5%, and above 0.5%, respectively. *Accident rate* is the workplace per-thousand-worker accident rates in 2005.

The table also reports the t-statistics for differences in means between the Good-govern Group and the Poor-govern Group.

Table IV

	Model 1 M					
	EBIT	Log	Pension	EBIT	Log	Pension
	margin	(Wage)	coverage	margin	(Wage)	coverage
Governance Index	0.002**	0.015***	0.085***	0.002**	0.008***	0.069***
	[0.001]	[0.003]	[0.011]	[0.001]	[0.002]	[0.012]
Capital intensity				0.054***	0.276***	0.540***
				[0.014]	[0.042]	[0.196]
Employment				0	0.002***	0.002
				[0.000]	[0.000]	[0.002]
Management education	1			-0.002	0.022**	0.189***
				[0.003]	[0.009]	[0.041]
Employee education				0.021***	0.115***	0.175**
				[0.005]	[0.015]	[0.068]
Migrant workers				-0.007**	-0.033***	-0.147***
				[0.003]	[0.009]	[0.042]
Ownership dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
City dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,055	1,055	1,055	1,016	1,016	1,016
Psudo R-square	0.051	0.324	0.222	0.095	0.437	0.275

Baseline Results

Standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%;

Table VEffects of Individual Governance on Firm Performance and Labor Welfare

Panel A: Information disclosure an	nd financial trans	parency	
	EBIT margin	Log (Wage)	Pension coverage
External_audit	0.005	0.080***	0.643***
	[0.008]	[0.024]	[0.113]
Balance_sheet	0.023***	0.044*	0.465***
	[0.009]	[0.025]	[0.121]
Regular_report	0.026***	0.011	0.543***
	[0.009]	[0.027]	[0.130]
Risk_disclosure	0.021***	0.074***	0.241**
	[0.007]	[0.020]	[0.097]
Share_conference	0.006	0.017	0.369***
	[0.007]	[0.021]	[0.101]
Panel B: Board and firm Charter			
	EBIT margin	Log (Wage)	Pension coverage
Board of director	0.009	0.053**	0.471***
	[0.008]	[0.023]	[0.111]
Charter	0.009	0.039	0.536***
	[0.010]	[0.032]	[0.151]
Decision_process	0.003	0.049**	0.389***
	[0.008]	[0.024]	[0.110]
Internal_transactions	-0.002	0.022	0.235**
	[0.007]	[0.021]	[0.097]
Information_disclosure	-0.001	0.016	0.193*
	[0.007]	[0.021]	[0.099]
Profit_allocation	0.006	0.050**	0.143
	[0.007]	[0.023]	[0.106]
Financial_management	0.012	0.046*	0.122
	[0.009]	[0.027]	[0.127]
Managers_assignment	0.009	0.041	0.279**
	[0.008]	[0.025]	[0.116]
Ways of disputes solving	-0.009	0.056***	0.151
	[0.007]	[0.021]	[0.098]
Panel C: CEO contract			
	EBIT margin	Log (Wage)	Pension coverage
Manager_contract	0.009	0.041**	0.468***
	[0.007]	[0.020]	[0.094]
Manager_tenure	0.014**	0.022	0.372***
	[0.007]	[0.021]	[0.098]

Panel A: Information disclosure and financial transparency

The baseline controls and control dummies are included in all equations. Standard errors are in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%. For detailed definitions of the governance variables, please refer to the footnotes in Table I.

Table VI

Effects of Governance on Other Welfare Indicators

	1	2	3	4	5	6	7	8	9	10	11
	Log	Wage	Unemployment	Medical	Accident	Severance	Inform in	Contoon	Clinia	Tenure of	Tenure of
	(Hour)	arrear	insurance	insurance	insurance	payment	advance	Canteen	Clinic	clerks	workers
	OI S	Prohit	Ordered Pr			Ordered	Ordered	Prohit	Prohit	OI S	
	OLS	TIOOR	Old			Probit	Probit	TIODIC	TIOOR	OLS	OLS
Governance Index	-0.004***	-0.018	0.046***	0.057***	0.029***	0.041***	0.053***	0.051***	0.034***	0.160***	0.142***
	[0.001]	[0.011]	[0.010]	[0.010]	[0.010]	[0.009]	[0.009]	[0.011]	[0.011]	[0.042]	[0.041]
Observations	1160	1147	1047	993	1063	985	1119	1162	1166	1142	1144
Control dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
(Psudo) R-square	0.17	0.06	0.14	0.11	0.08	0.05	0.08	0.09	0.08	0.33	0.35
Governance Index	-0.002*	-0.007	0.028***	0.042***	0.022**	0.028***	0.038***	0.050***	0.013	0.117***	0.102**
	[0.001]	[0.012]	[0.011]	[0.010]	[0.010]	[0.010]	[0.009]	[0.013]	[0.012]	[0.043]	[0.042]
Baseline control var.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1081	1069	1000	955	1016	931	1048	1078	1083	1068	1068
(Psudo) R-square	0.22	0.08	0.17	0.13	0.1	0.07	0.1	0.11	0.15	0.39	0.41
Standard errors in brac	ckets;* signif	icant at 10	%; ** significant a	t 5%; *** sig	nificant at 19	6; Results of t	the constant a	and three set	s of dummie	es are not rep	orted.

Notes:

For detailed definitions of dependent variables, please refer to Table III.

Table VII

	EBIT margin	Log (Wage)	Pension coverage
Governance Index	0.002*	0.007**	0.063***
	[0.001]	[0.003]	[0.012]
Provincial market share	0.002	0.015***	0.084***
	[0.002]	[0.006]	[0.026]
Export	-0.004	-0.017**	-0.102***
	[0.003]	[0.008]	[0.035]
Client requirement	-0.002	0.002	0.071**
	[0.002]	[0.007]	[0.033]
Status of listing	0.002	0.004	-0.042
	[0.005]	[0.015]	[0.066]
Share of equity finance	0	0	-0.002
	[0.000]	[0.000]	[0.001]
Share of bank loan	-0.000***	-0.001**	-0.003
	[0.000]	[0.000]	[0.002]
Baseline control variables	Yes	Yes	Yes
Control dummies	Yes	Yes	Yes
Observations	905	905	905
Psudo R-square	0.108	0.457	0.314
Standard errors in brackets;* significant	t at 10%; ** signi	ficant at 5%; ***	significant at 1%;

Results Controlling Measures of Market Pressure

Notes: For detailed definitions of control variables, please refer to the footnotes in Table A.1 in the Appendix.

Table VIII

	Employment	Fixed assets	EBT	Sales	Expenditures on Wages	Other Expenditures on Welfare		
Governance Index	0.0004	-0.171	0.458**	-0.346***	0.006	0.214*		
	[0.013]	[0.264]	[0.208]	[0.113]	[0.051]	[0.128]		
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes		
Control dummies	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	457	457	457	457	457	457		
Psudo R-square	0.11	0.04	0.07	0.09	0.09	0.09		
Standard errors in b	Standard errors in brackets;* significant at 10%; ** significant at 5%; *** significant at 1%;							

Corporate Governance and Firm Growth Rates during 2002-2005

Table IX

	Having an	Organize	No. of	Training fees	Per-thousand-
	training	pre-post	trainings	in share of	worker
	plan	training	annually	sale	accident rates
	Probit	Probit	OLS	Ordered Probit	OLS
Governance Index	0.114***	0.068***	0.279	0.056***	-0.236**
	[0.013]	[0.021]	[0.181]	[0.009]	[0.120]
Control dummies	Yes	Yes	Yes	Yes	Yes
Observations	1145	1154	1070	1,105	886
(Psudo) R-square	0.16	0.11	0.02	0.04	0.1
Governance Index	0.099***	0.055**	0.146	0.043***	-0.146
	[0.014]	[0.022]	[0.133]	[0.010]	[0.143]
Baseline control var.	Yes	Yes	Yes	Yes	Yes
Control dummies	Yes	Yes	Yes	Yes	Yes
Observations	1070	1073	1000	1,035	837
(Psudo) R-square	0.2	0.13	0.05	0.07	0.1
Standard errors in brack	kets;* significa	ant at 10%; **	significant a	t 5%; *** signifi	cant at 1%;

Effects of Corporate Governance on Trainings

Notes: For detailed definitions and summary statistics of dependent variables, please refer to Table III.

Table X

Effects of Corporate Governance in Firms with Different Labor Protection

		Unionized	1		Non-unionized			
	EBIT	Log	Pension	EBIT	Log	Pension		
	margin	(Wage)	coverage	margin	(Wage)	coverage		
Governance Index	0.001	0.004	0.059***	0.003***	0.009**	0.060***		
	[0.001]	[0.003]	[0.014]	[0.001]	[0.004]	[0.021]		
Baseline control var.	Yes	Yes	Yes	Yes	Yes	Yes		
Control dummies	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	702	702	702	294	294	294		

Panel A: Whether the firm is unionized or not

Panel B: Whether the firm allows collective bargaining

	Allow collective bargaining			Not allo	Not allow collective bargaining			
_	EBIT	EBIT Log Pe		EBIT	Log	Pension		
	margin	(Wage)	coverage	margin	(Wage)	coverage		
Governance Index	0.001	0.006*	0.066***	0.003**	0.008**	0.067***		
	[0.001]	[0.003]	[0.016]	[0.001]	[0.004]	[0.018]		
Baseline control var.	Yes	Yes	Yes	Yes	Yes	Yes		
Control dummies	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	515	515	515	449	449	449		

Panel C: Whether the firm has collective wage contract

	Have collective wage contract			Not have	Not have collective wage contract			
	EBIT	Log	Pension	EBIT	EBIT Log			
	margin	(Wage)	coverage	margin	(Wage)	coverage		
Governance Index	0.001	0.003	0.074***	0.003**	0.008***	0.063***		
	[0.001]	[0.005]	[0.020]	[0.001]	[0.003]	[0.015]		
Baseline control var.	Yes	Yes	Yes	Yes	Yes	Yes		
Control dummies	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	290	290	290	678	678	678		

Appendix:

1. Checking the baseline results in several different econometric models

A. Panel Data:

As introduced in the section of II.A, the dataset I use is composed of two parts. One is the cross-sectional data from the 2006 questionnaire survey, which consists of information on corporate governance, various labor welfare provisions, and some other firm characteristics. The other set of data is the panel data provided by the NBS. It includes data on annual firm employment, fixed assets, profits and taxes, sales revenue, wage expenditure, expenditures on unemployment insurance, and other expenditures on employee welfare during 2002–2005. However, the panel is unbalanced. For 2005, it has 1,169 firms. The number drops to 1,047, 716, 594, for 2004, 2003, and 2002. Another study using the same data (Yang and Yao, 2011) finds systematic selective biases in the panel data. Some firms dropped out from the NBS sample because they went bankrupt or because they no longer wanted to cooperate with the NBS. This indicates that the number of times that a firm appears in the panel data is not random.

In the regressions using the panel data, I employ an OLS model with standard errors clustered by firm. The dependent variables are the 2002–2005 period EBIT margin, natural logarithm of total wage pay-off divided by total employment, and unemployment insurance expenditures divided by total employment. Except for dummies of ownership, location, and industry, I also control yearly dummies.

The estimated results are reported in the Model 1 of Table A.1. The number of total observations is around 3,200. The estimated governance effects on the EBIT margin and per capita wage are 0.3 percent and 1 percent respectively. Both are larger than the results obtained from the regressions using the cross-sectional data. This is probably due to the selection bias inherent in the panel data – firms with strong governance effects are more likely to survive and have the most observations. The governance effect on the per capita unemployment insurance expenditure is 18 Yuan.

B. GLS model:

Following the SUR model regression of Model 2 in Table IV, I conduct the Breusch–Pagan test of independence; the results are: chi2 (3) = 59.684, Pr = 0.0000. These indicate the existence of unobserved heteroscedasticity in the regression model. To deal with the problem, in Model 2 of Table A.1, I employ a GLS model. GLS applies the sandwich/robust type covariance matrix of the estimator to a set of equations by OLS. Compared with the SUR model, the GLS method obtains robustness yet loses the efficiency from modeling the cross-equation correlations that the SUR model obtains. Using the GLS model, the estimated standard errors are slightly different now, yet the significances of all the estimates remain the same.

C. Regression in the Subsample of Domestic Private Enterprises:

In Model 3 of Table A.1, I check the effects of governance in the subsample of domestic private enterprises. Labor protection in these firms is weaker than in either state-owned or foreign-invested enterprises (Shen and Yao, 2009). Moreover, recent years have witnessed several significant events concerning labor relations in China, including a series of suicides at Foxconn, one of the world's largest OEM producers of electronics. Most of these labor relation conflicts happened in this kind of firms, which makes it worthwhile considering this subsample. The estimates are very close to the baseline results, with governance effects on wage and pension coverage being slightly larger.

	Ν	Iodel 1 (Pane	el Data)		Model 2 (GL	S)	Model 3 (DPE)			
	EBIT margin	Log (Wage)	Unemployment Insurance	EBIT margin	Log (Wage)	Pension coverage	EBIT margin	Log (Wage)	Pension coverage	
Governance Index	0.003**	0.010***	0.018*	0.002**	0.008***	0.069***	0.002**	0.009***	0.082***	
	[0.001]	[0.003]	[0.009]	[0.001]	[0.003]	[0.012]	[0.001]	[0.003]	[0.014]	
Capital intensity	0.048	0.589***	0.308	0.054*	0.276***	0.540***	0.01	0.169**	0.743**	
	[0.030]	[0.071]	[0.229]	[0.030]	[0.056]	[0.182]	[0.021]	[0.070]	[0.359]	
Employment	0	0.001***	0	0	0.002***	0.002	0	0.001**	0.006**	
	[0.000]	[0.000]	[0.001]	[0.000]	[0.000]	[0.002]	[0.000]	[0.001]	[0.003]	
Management education	0.002	0.025**	0.054	-0.002	0.022**	0.189***	0	0.032***	0.151***	
	[0.003]	[0.011]	[0.036]	[0.003]	[0.009]	[0.041]	[0.003]	[0.011]	[0.054]	
Employee education	0.016**	0.130***	0.103	0.021***	0.115***	0.175***	0.011**	0.095***	0.320***	
	[0.007]	[0.022]	[0.072]	[0.006]	[0.017]	[0.067]	[0.006]	[0.018]	[0.093]	
Migrant workers	-0.008***	-0.044***	-0.161***	-0.007**	-0.033***	-0.147***	-0.005	-0.009	-0.141***	
	[0.003]	[0.012]	[0.038]	[0.003]	[0.009]	[0.042]	[0.003]	[0.010]	[0.051]	
Ownership dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
City dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year dummies	Yes	Yes	Yes	No	No	No	No	No	No	
Observations	3,224	3,230	3,233	1,016	1,016	1,016	688	688	688	
Psudo R-square	0.065	0.356	0.11	0.095	0.437	0.275	0.138	0.384	0.272	

Estimating Governance Effects in Various Econometric Models

Table A.1

Standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%;

2. Extra Control Variables of Various Constituencies' Characteristics

In this part, I check the robustness of the main results by including another set of extra control variables which accounts for the characteristics of various constituencies as well as a firm's self-awareness of CSR. Characteristics of various parties aim to reflect the relative influence of investors, management, and labor, which shapes corporate governance (Atanassov and Kim, 2009). Furthermore, the relative influence would also affect firm performance; for example, John, Litov and Yeung (2008) provide evidence that powerful stakeholders whose interests conflict with shareholders can affect firm growth. The summary statistics of these variables are reported in Table A.3 in the Appendix.

The first variable is a dummy indicating whether the CEO or the owners of a firm hold a position in the People's Congress (PC), China's legislative body, or the People's Political Consultation Conference (PPCC), which is similar to a house of nobility in the Chinese system. Holding a position in these two political bodies brings tangible gains to the firms, especially to the private firms (Chan, 2000). However, in becoming a public figure, the manager also has to care about the firm's public image, which can be enhanced by a better treatment of the workers (Liu, 2010). The second variable indicates whether the largest shareholder once served as a government official or not. Fan, Wong, and Zhang (2007) find that, Chinese privatized firms with politically connected CEOs underperform those without politically connected CEOs by almost eighteen percent based on three-year post-IPO stock returns; moreover, firms led by politically connected CEOs are more likely to appoint other bureaucrats to the board of directors. Their findings suggest that, in a weak property rights protection environment, political connections could have a strong negative effect on both firm governance and performance. The third variable is a dummy for unionization. Both corporate governance and labor union are an imperfect solution to the collective action problem resulting from the dispersion among shareholders (Becht, Bolton, and R cell, 2003), so the two could be intertwined in affecting firm operation and performance. For example, Atanassov and Kim (2009) find that strong union laws

combined with weak investor protection are conducive to worker-management alliances that affect firm-restricting decisions. In addition, Faleye, Mehrotra, and Morck (2006) show that strong labor representation presses companies to undertake less risky investment and other steps that advance the interests of hired labor. The fourth and fifth variables are about firms' CSR awareness. One measure comes from a question about managers' self-awareness of CSR. The other is more objective, and enquires about environmental-protection-related expenses (such as the purchasing of machines dealing with polluted water) in the past three years divided by the total sales in 2005. Firms that are more aware of CSR may pay greater respect to investors and treat their workers better. The last variable concerns a firm's perceived transparency of its local government. It is found that many corporate governance features in China can trace their origin to a certain deficiency in public governance (Liu, 2006). Accordingly, the transparency of the government could affect firm governance and performance.

Table A.2 tests this set of control variables. Compared with the baseline results, the governance effect on wages declines by 0.1 percent to 0.7 percent, and the effect on pension coverage declines by 3.2 percent to 10.6 percent (converted scale). Better political connections of the CEO or the largest shareholder having once been a government official does not improve the firm performance or the workers' welfare. Unionization is associated with a higher hourly wage and pension coverage. The manager's increased awareness of corporate social responsibility is associated with higher pension coverage, whereas the manager's perceived high transparency of the local government does not show a significant effect. A higher share of environmental expenditure in the total sales is correlated with worse firm performance and labor welfare provision.

Table A.2

	EBIT margin	Log (Wage)	Pension coverage
Governance Index	0.002*	0.007***	0.053***
	[0.001]	[0.003]	[0.012]
PPCC or PC membership	0.011	-0.01	0.134
	[0.007]	[0.022]	[0.099]
Shareholder gov-official	0.006	-0.017	0.018
	[0.012]	[0.037]	[0.166]
Unionization	0.008	0.075***	0.641***
	[0.008]	[0.024]	[0.110]
CSR awareness	-0.004	0.024	0.175***
	[0.005]	[0.015]	[0.067]
Environment expenditure	-0.002**	-0.006**	-0.031**
	[0.001]	[0.003]	[0.013]
Perceived gov-transparency	0.002	0.026	0.041
	[0.006]	[0.018]	[0.080]
Baseline control variables	Yes	Yes	Yes
Control dummies	Yes	Yes	Yes
Observations	924	924	924
Psudo R-square	0.11	0.46	0.32

Results Controlling Consituencies' Characteristics and Firm Self-awareness

Notes:

For detailed definitions of control variables, please refer to the footnotes in Table A.3 in the Appendix.

Table A.3

	Correlation with G_Index	(1) Mean, Good-govern Group	(2)Mean, Middle Portfolio	(3) Mean, Poor-govern Group	t-statistics: (1) Vs. (3)
A.1-1 Market Pressure and finan					
Provincial market share (1 - 6)	0.15***	4.28	3.71	3.54	5.20
Export in share of sales (1 - 6)	0.10***	1.08	1.09	0.69	3.57
Client requirement on labor	0.13***	0.95	0.69	0.49	4.71
Status of listing (1 - 4)	0.22***	1.63	1.41	1.22	8.29
Share of equity finance (%)	0.09***	38.43	35.48	30.63	3.12
Share of bank loan (%)	-0.00	19.17	17.33	19.18	0.00
A.1-2 Non-market Pressure					
PC or PPCC membership (0, 1)	0.06**	0.44	0.36	0.37	2.13
Shareholder gov-official (0, 1)	0.05**	0.07	0.10	0.04	1.76
Unionization (0,1)	0.08***	0.76	0.67	0.66	2.94
CSR awareness (1-3)	0.22***	2.09	1.83	1.70	7.80
Environmental expenditures	0.03	0.95	0.91	0.71	0.95
Perceived gov_transparency(1-3)	0.07**	2.47	2.39	2.37	2.54

Corporate Governance and Extra Control Variables

Explanatory footnotes:

A.1-1 Market Pressure and finance characteristics: Provincial market share comes from the six categorical answers provided by the questionnaire and takes values of 1–6 representing, respectively, the shares of 0–1%, 1–3%, 3–5%, 5–10%, 10–20%, and above 20%. *Export* comes from the question asking a firm's share of exports in its sales, with 1–6 denoting 0%, 0–20%, 20–40%, 40–60%, 60–80%, and 80–100%, respectively. *Customer requirement of labor standards* comes from a question asking a firm whether most of a certain type of their client companies have a requirement for a labor standard. There are six types given by the question, including: domestic SOE, DPE, middle-and-small-scale FIE, multinational FIE,

exporting companies in developed countries, and exporting clients in developing countries. A firm receives a score of 1 if it answers "Yes" for one type, and the value of the variable is the sum of all six types. *Status of listing* is firms' status in public listing, from 4 to 1: already listed, in the process of listing, plans to be listed, and no such plan, respectively. *Share of equity finance (bank loan)* is the percentage of equity (bank loan) in the total assets.

A.1-2 Non-market Pressure: PPCC or PC membership is a dummy with a value of 1 if the owner or the CEO of a company holds a position in the People's Congress (PC), China's legislative body, or the People's Political Consultation Conference (PPCC), a house of nobility in the Chinese system. *Shareholder gov-official* is a dummy with a value of 1 if the largest shareholder once worked in the government. *Unionization* is a dummy with a value of 1 if the firm is unionized. *CSR awareness* is the response by the manager to the question: Are you aware of any standards on corporate social responsibility such as SA8000?" 1 – No; 2 – Have heard of it, but do not know it well; 3 – I know it well. *Environmental protection* is the ratio of environmental-protection- related expenditures (such as purchasing machines dealing with polluted water) in the past three years to the sales in 2005. *Perceived gov_transparency* is the answer to the question "Do you think your local government is transparent in administration?" with 1–3 denoting respectively no, kind of, and yes.

The table also reports the t-statistics for differences in means between the Good-govern Group and the Poor-govern Group.

Table A.4

Effects of Corporate Governance in Firms with Different Ownership Structures

Panel A: CEO holds company share

	Number of large shareholders who hold more than 10% of the company shares											
	>=3			=2			=1			Missing		
	EBIT	Log	Pension	EBIT	Log	Pension	EBIT	Log	Pension	EBIT	Log	Pension
	margin	(Wage)	coverage	margin	(Wage)	coverage	margin	(Wage)	coverage	margin	(Wage)	coverage
Governance Index	0.001	0	0.056**	0.002	0.010*	0.133***	0.004**	0.002	0.070**	-0.001	0.018***	0.085**
	[0.002]	[0.006]	[0.028]	[0.001]	[0.005]	[0.029]	[0.002]	[0.006]	[0.034]	[0.002]	[0.007]	[0.037]
Obvervations	225	225	225	185	185	185	123	123	123	88	88	88

Panel B: CEO not holds company share

	Number of large shareholders who hold more than 10% of the company shares											
	>=3			=2			=1			Missing		
	EBIT	Log	Pension	EBIT	Log	Pension	EBIT	Log	Pension	EBIT	Log	Pension
	margin	(Wage)	coverage	margin	(Wage)	coverage	margin	(Wage)	coverage	margin	(Wage)	coverage
Governance Index	0.006	0.022	0.143*	0.002	0.021*	0.001	-0.006	0.003	0.069*	0.011***	0.015*	0.104***
	[0.004]	[0.018]	[0.079]	[0.004]	[0.011]	[0.047]	[0.004]	[0.011]	[0.039]	[0.004]	[0.009]	[0.034]
Obvervations	43	43	43	85	85	85	65	65	65	89	89	89

ⁱⁱ According to Becht, Bolton, and Röell, (2003) "The debate on whether management should run the corporation solely in the interests of shareholders or whether it should take account of other constituencies is almost as old as the first writings on corporate governance."(pg.3) Among the early arguments that they cite following the comment is, Dodd (1932), who argues that: "[business] is private property only in the qualified sense, and society may properly demand that it be carried on in such a way as to safeguard the interests of those who deal with it either as employees or consumers even if the proprietary rights of its owners are thereby curtailed". (Dodd, 1932, pg. 1162). However, Berle (1932) disagreed on the grounds that responsibility to multiple parties would exacerbate the separation of ownership and control and make management even less accountable to shareholders.

ⁱⁱⁱ ESO is far less common in China than in U.S. or U.K; hence it could not be an omitted factor that is correlated with corporate governance and in the same time improves labor welfare.

^{1v} There are three categories of cities in China: provincial level, prefectural level, and county level. Beijing and Chongqing are two provincial-level cities. Changchun, Shijiazhuang, Xi'an, and Hangzhou are provincial capitals of Jilin, Hebei, Shannxi, and Zhejiang, respectively. Wujiang and Shunde are county-level cities. The other cities are medium-sized prefecture-level cities. Beijing, Wujiang, Hangzhou, and Shunde are located on the coast; Chifeng, Xi'an, Shiyan, and Chongqing belong to the country's western region; and the rest belong to the central region. Changchun, Xi'an and Chongqing used to be among China's industrial powerhouses, but had to undergo a painful transformation in the last two decades because of the shifting of the economic gravity from the hinterland to the booming coastal regions. Beijing, Hangzhou, Wujiang, and Shunde are experiencing fast growth in industries and services. Zibo is catching up in industrial development, but its service sector lags behind relatively.

^v This is because the NBS only maintains a database for firms with a sales volume larger than this level.

^{vi} SOEs are firms in which the state had controlling shares. DPEs include companies with mixed ownership but with majority private shares as well as purely privately owned firms. FIEs are firms that have foreign shares including shares held by Hong Kong, Macao, and Taiwanese businesses. There are also collectively owned enterprises, but their number is relatively small, so they are combined with SOEs.

¹ According to the definition of Shleifer and Vishny (1997), governance deals with the ways in which suppliers of finance to corporations assure themselves of obtaining a fair return on their investment; and it is well found that good governance improves shareholder value.

^{vii} Gompers, Ishii and Metrick (2003) use a similar method to construct their GIM index. For each firm, they add one point for each of the 24 governance rules provision that reduces shareholder rights.

^{viii} Notice a high and positive correlation of the Governance Index with both the number of large shareholders (who hold more than 10% of the company shares) and the use of the one-share-one-vote rule; both are at the 1% level of significance.

^{ix} HMTs are separated from other FIEs because some literature finds that they perform systematically differently from other FIEs (Shen and Yao, 2009). For more results on the different performances across ownerships, see Liu, Sun, and Woo (2007) and Dong and Xu (2008).

^x Corporate governance and firm performance can be correlated in several ways. One is that better governance contributes to higher performance, mainly through maximizing the managerial incentives for value-enhancing investments while minimizing inefficient power seeking (Zingales, 1998). Another is that better performance of firms in previous years can lead to better current governance. As the governance structure allocates the residual rights of control (Hart, 1995), higher profitability of a firm would increase the "profit potential of exercising more effective control" (Demsetz and Lehn, 1985), thus motivating shareholders to build up stronger governance. The third possibility is that worse firm performance triggers actions to improve corporate governance. For example, Karpoff, Malatesta and Walkling (1996) find that firms that attract shareholder-initiated corporate governance proposals have poor prior performance. Last but not least, governance and performance could be determined by similar variables (Himmelberg, Hubbard and Palia, 1999); or the adoption of governance mechanisms can be viewed as a costly investment decision, the payoffs from which differ across firms (Aggarwal, et al., 2010).

^{xi} The firm-level average wage of blue collar workers and that of white collar workers are highly correlated. Their correlation is 76.4%, with 1232 observations and at the 1% significance level.

^{xii} For Model 2, the correlation matrix of the residuals of the three equations is as follows. The residual of the EBIT margin is positively correlated with that of the hourly wage, but negatively and weakly correlated with that of the pension coverage. The correlation between the residual of wage and that of pension coverage is high and positive.

1.0000 $\begin{array}{c} 0.1291 & 1.0000 \\ -0.0162 & 0.2045 & 1.0000 \end{array}$

xiii For example, Chan (2009) reports a case in which Reebok launched a pilot though finally

failed project to hold workplace union elections as a means to improve the labor conditions of its suppliers.

^{xiv} The panel data also contains expenditures on unemployment insurance. But for many firms, the 2002 value on this term is zero, which makes it impossible to calculate the growth rate.

 xv La Porta et al. (1998) argue that the extent to which a country's laws protect investor rights and the extent to which those laws are evolved are the most basic determinants in the development of corporate finance and corporate governance.