

# Property Rights Protection and Enterprise Performance: the Role of the State in Resolving Business Disputes

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## Abstract

Effective resolution of business disputes associated with private properties is the key to property rights protection, which in turns plays a fundamental role in promoting economic performance. In this paper, we investigate the role of the state in resolving business disputes, and its impact on enterprise performance. By using a survey of private enterprises in China, we construct an index to quantify the power of the state vis-à-vis the market in resolving business disputes and find that this index has a positive and causal impact on enterprise performance. Our study has implications for developing and transition economies where market institutions are inadequate.

**Keywords:** Property Rights Protection, Dispute Resolution, Power of the State vis-à-vis the Market, Enterprise Performance, Regulatory State

**JEL Codes:** P30, D02, L25

# 1 Introduction

Property rights protection has been found to be of paramount importance in promoting enterprise performance and generating economic growth.<sup>1</sup> An essential element of property rights protection is the effective resolution of disputes regarding private properties that may arise from business transactions.<sup>2</sup>

In principle, there are three distinct methods of resolving business disputes, i.e., private orderings, private litigation through courts, and regulatory state, which involve an increasing power of the state vis-à-vis the market in the economy (Glaeser and Shleifer, 2002, 2003; Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2003). In private orderings, market discipline causes business disputes to be resolved through private negotiations; for instance, reputational concern may lead contracting parties to reach a compromise when their stakes in an individual transaction is smaller than the benefits of keeping a long-term business relationship. In private litigation through courts, the judicial system helps resolve business disputes according to laws, and the government plays a minimal role through invisible hand by providing basic public goods such as law and order. In a regulatory state, the government is heavily involved in commercial dispute resolution where the adjudication reflects the will of the government, while the legal framework plays a limited part.<sup>3</sup>

According to Glaeser and Shleifer (2002, 2003), and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003), these three methods differ

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<sup>1</sup>For example, property rights protection promotes reinvestment rate (Besley, 1995; Johnson, McMillan, and Woodruff, 2002; Cull and Xu, 2005), innovation (Lin, Lin, and Song, 2010), operation scale (Lauven and Woodruff, 2008) and productivity (Lu, Png, and Tao, 2010) at the micro-level and leads to economic development (Acemoglu, Johnson, and Robinson, 2001, 2002; Acemoglu and Johnson, 2005) at the macro-level. For reviews, see Acemoglu, Johnson, and Robinson (2005) and Besley and Ghatak (2009).

<sup>2</sup>Another key element of property rights protection is the entitlement of the private properties. See works by Besley (1995) and Field (2007).

<sup>3</sup>Take Lehman mini-bond scandal as an example: some of the local banks in Hong Kong sold Lehman mini-bond to local investors. The investors suffered a lot after the bankruptcy of Lehman Brothers. Now the investors are having disputes with the local banks. Under private orderings, investors will not sue those banks for using inappropriate tactics for selling Lehman mini-bonds, and they will not seek any help from government either. The only punishment for those banks who sold Lehman mini-bond is that investors will not trust them anymore in the future. Under private litigation through courts, investors will sue those banks and try to obtain some remedies. Under regulatory state, investors will seek help from government in resolving the disputes and working out some settlement schemes. In addition, in the future there will be regulations on which financial products banks can sell and what precaution banks need to take in order to sell these products.

in the power of the state vis-à-vis the market in resolving business disputes (see Figure 1 for illustration). While a strong role of the state helps to resolve business disputes expediently thereby minimizing the disorder costs associated with the dispute resolution by the market (Hobbes, 1651), there are concerns about whether the strong state can refrain itself from becoming an expropriator, which could lead to dictatorship costs. Hence it is not clear whether a strong role of the state in resolving business disputes is conducive to the economy. More specifically, the regulatory state model contains two possible variants, i.e. the helping-hand model and the grabbing-hand model. In both models, bureaucrats rather than courts and judges are decisive in adjudicating many commercial disputes. Nonetheless, in the helping-hand model, bureaucrats suffer from relatively limited corruption and can largely promote private economic activity. In the grabbing-hand model, corrupt bureaucrats exercise discretion to impose their own will in commercial disputes and establish various predatory regulations to seek rents (Frye and Shleifer, 1997; Shleifer and Vishny, 1998).

Albeit an intriguing and important issue, a systematic empirical investigation of this issue has been challenging because of the difficulty in quantifying the power of the state vis-à-vis the market in resolving business disputes. In this paper, we fill in the void by quantifying the power of the state vis-à-vis the market, and investigate how the role of state in resolving business disputes affects enterprise performance.

The data used in this study comes from a survey conducted in 1999 containing a sample of 3,073 privately-owned enterprises in China. We focus on private enterprises because in general they do not have government backing and protection, and hence they are most vulnerable to both disorder costs and dictatorship costs. Examining the impacts of different dispute resolution modes on private enterprise performance can most accurately demonstrate whether the government involvement in dispute resolution promotes or hinders firm performance.

In the survey, there is a question regarding how an entrepreneur would resolve business disputes with others. The available answers are: (i) doing nothing; (ii) negotiating between themselves; (iii) seeking help from private networks; (iv) court ruling; and (v) seeking help from the regional government.<sup>4</sup> We group these answers into three categories corresponding to the three methods for dispute resolution proposed by Glaeser and Shleifer (2002, 2003), and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003): private orderings for answers (i), (ii), and (iii); private litigation through

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<sup>4</sup>Region here refers to 22 provinces, 4 province-level municipalities, and 5 minority autonomous regions in China.

courts for answer (iv); and regulatory state for answer (v).

We first assign an ordinal value to each enterprise corresponding to the specific category of the response made by the entrepreneur, i.e. value 1 for private orderings, value 2 for private litigation through courts, and value 3 for regulatory state. Then we take the average of such values of enterprises located in a region (weighted by the number of employees) to quantify the power of the state vis-à-vis the market in resolving business disputes in that region, with a higher value indicating a greater power of the state vis-à-vis the market.

We find that private enterprises located in regions with greater powers of the state vis-à-vis the market turn out to have better enterprise performance. These findings remain robust when the regression models are modified to address typical technical concerns in empirical studies, such as omitted variables and reverse causality issues, alternative measures of the power of the state vis-à-vis the market, and different sub-samples. Specifically, to deal with omitted variable concern, we control for a host of variables related to entrepreneurial characteristics, enterprise characteristics, regional characteristics, and industry dummies. To further address the potential endogeneity problems, we use the distance between the capital city of each region and the national capital city of China - Beijing - as an instrumental variable for the power of the state vis-à-vis the market in resolving business disputes and carry out the two-stage-least-squares estimation (details are discussed in Section 3.1.2).

We interpret our results as that a higher power of the state vis-à-vis the market in adjudicating commercial disputes enhances property rights protection, which in turn promotes enterprise performance. However, there could be an alternative interpretation as that those enterprises located in regions with greater powers of the state vis-à-vis the market conduct more rent seeking activities and thus achieve better performance by receiving government favors. Clearly, distinguishing between these two opposing interpretations could help us to understand whether regulatory state in China serves as a helping hand or grabbing hand for private enterprises. To see whether rent seeking is the driving force behind our results, we look at the various channels (i.e., input procurement, availability of production locations, supply of electricity and water, recruitment of skilled labor, sales of products, sales of services, and access to bank loans) in which enterprises may obtain favors through rent seeking activities. It is found that enterprises located in regions with greater powers of the state vis-à-vis the market do not obtain any favors along these channels, thereby largely ruling out the rent seeking interpretation of our results.

Our empirical investigation hinges upon the theoretical framework of

Glaeser and Shleifer (2002, 2003) and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003). Specifically, they argue that an increase of disorder costs (i.e., expropriation by thieves, competitors, or tort-feasors) calls for a greater power of the state vis-à-vis the market in resolving business disputes whereas an increase of dictatorship costs (i.e., expropriation by governments) requires a lower power of the state vis-à-vis the market. As a further check on the validity of our empirical analysis, we carry out a comparative static analysis of their theoretical prediction. Indeed, we find that enterprises facing more influential competitors (which implies higher disorder costs) perceive a greater need for the power of the state vis-à-vis the market whereas the opposite is found when enterprises face more expropriation by the governments (which implies higher dictatorship costs).

Our results suggest that the role of the state in resolving business disputes in China is conducive to enterprise performance, i.e. the state extends a helping hand to private enterprises. One possible explanation is that for the market to resolve business disputes it requires a host of stringent preconditions. Specifically, for private orderings to be an efficient choice, it requires protection of private property rights of one market participant against another. And private litigation hinges upon independent judges who are immune to influences from the rich and the politically-connected. In China, however, the property rights protection for private enterprises was not formally written into the Constitution until 2004. Judges, who were not needed at all in the central-planning system, are newly appointed by the state and their independence is dubious (Clarke, Murrell, and Whiting, 2008). Meanwhile, one may still be curious to know why China can control dictatorship costs and provide local government officials with incentives to help private entrepreneurs to resolve business disputes. Here we can draw insights from a large literature on China's economic reforms. It is argued that China's central government has adopted fiscal decentralization policy by delegating substantial discretion over regional economies to regional governments while maintaining its strict political control over regional governments, especially in the appointment and promotion of regional government officials. Under this institutional arrangement, the regional government officials have incentives to cultivate satisfactory business environments and promote economic development so as to enhance their private benefits of remaining in power and the chances of being further promoted (e.g., Blanchard and Shleifer, 2001; Roland, Qian, and Xu, 2006; Clarke, Murrell, and Whiting, 2008).

Our findings have general implications for other transition economies and developing economies. These economies have carried out economic liberalizations to move towards a market economy in the past few decades. The development of a market economy and the growth of the private enterprise sector

would give rise to an increasing number of commercial disputes.<sup>5</sup> During the transition towards the market economy, these economies lacked the sophisticated institutions for the market and the judiciary, i.e., private ordering and private litigation through courts, to resolve business disputes effectively. This may explain why transition and developing economies following the Washington Consensus did not display impressive economic performance and instead experienced massive chaos, corruptions and recessions (Rodrik, 2006). The policy suggestion from our study is that for these transition and developing economies, they should keep a strong role of the state in resolving business disputes and gradually diminish the role of the state with the progress in the establishment and sophistication of the market institutions. However, in keeping a strong role for the state in commercial dispute adjudication, a transition and developing economy needs to strengthen its institutions to limit bureaucratic corruption and rent-seeking activities so as to turn state intervention into a helping hand for private businesses. The relative success of China’s regulatory state model in this respect is built upon its political system that effectively encourages local bureaucrats to cultivate a friendly business environment.

The rest of the paper is organized as follows. Section 2 discusses the data and variables. Empirical results and their interpretations are presented in Section 3. Section 4 offers an explanation for the empirical results in the setting of China. The paper concludes with Section 5.

## 2 Data and Variables

The dataset used in this paper comes from the *Private Enterprise Survey* in China, which was conducted in 1999 jointly by the United Front Work Department of the Central Committee of the Communist Party of China, the All China Industry and Commerce Federation, and the China Society of Private Economy at the Chinese Academy of Social Sciences.<sup>6</sup>

Multi-stage stratified random sampling method is used in the Survey to achieve a balanced representation across all regions and industries in China. The total number of private enterprises to be surveyed was first determined. Afterwards, six cities/counties were selected from each of the

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<sup>5</sup>Like China, business disputes in the former central planning economies before their transitions were not a serious problem as enterprises were owned by the state and business disputes among them were handled by the state administration.

<sup>6</sup>This dataset has been used by other scholars, e.g., Bai, Lu, and Tao (2006) in studying the access to bank loans by private enterprises, Li, Meng, and Zhang (2006) in studying entrepreneurs and their political participation, and Du, Lu, and Tao (2008) in examining the impacts of property rights protection on enterprise diversification.

thirty-one province-level regions (i.e., the 22 provinces, 4 province-level municipalities and 5 minority autonomous regions), which included the capital city of each region, one district-level city, one county-level city, and three counties. Then the number of private enterprises to be surveyed in each region was calculated as the product of the region's share of private enterprises in the national total with the total number of private enterprises in the survey. The same method was used to determine the number of sample enterprises in every city/county or industry. Finally, private enterprises were randomly chosen from each sub-sample.

The initial sample size is 3,073 enterprises. After deleting observations with no industry code, no output or no employment figure, we obtain the final sample of 2,616 private enterprises. Table 1 shows the distribution of the initial sample and final sample across regions in China as well as the percentage of enterprises with complete information. Jiangsu, Shandong and Guangdong have the largest numbers of observations while Tibet, Qinghai and Ningxia have the smallest. The average percentage of enterprises with complete information across regions is 83.72% with a standard deviation of 0.086, which means the final sample is representative.

The dependent variable for our study is *Enterprise Performance*, measured by the logarithm of output per worker.<sup>7</sup> This is consistent with the convention in the literature investigating the impacts of the quality of institutions on economic performance and growth.<sup>8</sup>

The key explanatory variable in our study measures the power of the state vis-à-vis the market in resolving business disputes in each region. According to Glaeser and Shleifer (2002, 2003) and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003), there are three distinct methods for resolving business disputes, i.e., private orderings, private litigation through courts,

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<sup>7</sup>We can also use returns on capital or total factor productivity to measure enterprise performance. However, due to a lot of missing information on capital, we mainly use labor productivity for measuring enterprise performance in this study. In one of our robustness checks, we include the logarithm of capital-labor ratio as a control for enterprise performance in a reduced sample. That robustness check is equivalent to the use of total factor productivity as the measure of enterprise performance.

<sup>8</sup>For example, Hall and Jones (1999) use the logarithm of output per worker to study the effects of social infrastructures, i.e., institutions and government policies, on the cross-country differences in economic performance. Later studies such as Bockstette, Chanda and Putterman (2002) and Masters and McMillan (2002) follow suit. Acemoglu, Johnson and Robinson (2001, 2002) use logarithm of GDP per capita, which is similar in nature to the variable used here but at a more aggregate level, to study the effects of institutional quality on economic growth. Subsequent studies including Alcalá and Ciccone (2004), Glaeser, La Porta, Lopez-de-Silanes and Shleifer (2004), Acemoglu and Johnson (2005) adopt the same country-level performance variable. Panda and Udry (2005) provide a good summary of the uses of variables in this literature.

and regulatory state, with an increasing power of the state vis-à-vis the market. In the Survey there is a question regarding how private entrepreneurs would deal with business disputes. The available answers are: (i) doing nothing; (ii) negotiating between themselves; (iii) seeking help from private networks; (iv) court ruling; and (v) seeking help from regional government. Enterprises could only pick one out of the five possible choices, and thus the chosen one is presumably the most frequently used or the most important method for resolving business disputes. We group them into three categories corresponding closely to the three methods for resolving business disputes: private orderings for answers (i), (ii), and (iii); private litigation through courts for answer (iv), and regulatory state for answer (v).

We then assign an ordinal value to each enterprise corresponding to the specific category of the response made by the entrepreneur, i.e. value 1 for *private orderings*, value 2 for *private litigation through courts*, and value 3 for *regulatory state*. A variable called *Power of the State vis-à-vis the Market* in resolving business disputes is thus constructed for each region based on the average value of the power of the state vis-à-vis the market perceived by the enterprises located in that region (weighted by the number of employees),<sup>9</sup> with a higher value indicating a greater power of the state vis-à-vis the market.<sup>10</sup> There are variations in the power of the state vis-à-vis the market in resolving business disputes across China’s regions, with a mean of 1.31 and a standard deviation of 0.27.

To alleviate the concern of omitted variables, we include a host of variables that may affect enterprise performance. The background and capability of entrepreneurs can be important determinants of private enterprise performance. Therefore, we include some conventional managerial human capital variables like *Age* (the age of the entrepreneur by the end of 1999), *Education* (years of formal schooling), and *Managerial Experiences* (the number of years an entrepreneur had held a managerial position before he or she started his or her own business), and some political capital variables such as *CPC Membership* (a dummy variable taking value one if the entrepreneur

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<sup>9</sup>Weighted averages (by either the number of employees or output) are used to take into account the possibility that larger enterprises could be more likely to use “seeking government help” or “court ruling” for resolving business disputes as their larger business proceeds could more likely cover the institutional fixed costs in dealing with courts and government entities. Nonetheless the qualitative nature of our main results remains when no weights are used.

<sup>10</sup>Note that enterprise-level perception about the power of the state vis-à-vis the market could be influenced by some features of enterprises and entrepreneurs, and thus regressions using such a variable may suffer from some endogeneity issues. Nonetheless, in a robustness check we carry out an instrumental variable estimation when enterprise-level perception about the power of the state vis-à-vis the market is used as an explanatory variable.



is a member of the Chinese People’s Congress and zero otherwise) and *CP-PCC Membership* (a dummy variable taking value one if the entrepreneur is a member of the Chinese People’s Political Consultative Conference and zero otherwise),<sup>11</sup> *Government Cadre* (a dummy variable taking value one if the entrepreneur used to be a government official and zero otherwise), and *SOE Cadre* (a dummy variable taking value one if the entrepreneur used to be a manager in state-owned enterprises).<sup>12</sup> We also control for enterprise characteristics, such as *Enterprise Size* (the logarithm of the number of employees in each enterprise) and *Enterprise Age* (the logarithm of the number of years an enterprise had been in operation by the end of 1999), that have been suggested to be important for enterprise performance, and include industry dummies. Finally, regional characteristics such as *Logarithm of GDP per capita* and *Logarithm of Population* are also included.

To further address the potential endogeneity issue, we adopt the instrumental variable approach. Specifically, we use the distance between the capital city of each region and the national capital city of China - Beijing - as an instrumental variable for the power of the state vis-à-vis the market (details will be discussed in Section 3.1.2).

Summary statistics of all key variables are given in Table 2.

## 3 Empirical Analysis

### 3.1 Main Results

#### 3.1.1 OLS Estimates

To investigate the impacts of the power of the state vis-à-vis the market in resolving business disputes on enterprise performance, we estimate the following equation:

$$y_{eir} = \alpha + \beta G_r + X'_{eir} \gamma + \varepsilon_{eir} \quad (1)$$

where  $y_{eir}$  is the performance of enterprise  $e$  in region  $r$  and industry  $i$ ,  $G_r$  represents the power of the state vis-à-vis the market in resolving business disputes in region  $r$ ,  $X'_{eir}$  is a vector of control variables (i.e., entrepreneurial

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<sup>11</sup>CPC is the legislature, while CPPCC is the political consulting agency mainly consisting of celebrities affiliated with democratic parties or without party affiliations in China.

<sup>12</sup>SOE cadres have been treated similarly as bureaucrats so that this variable reflects political skill and connection.

and enterprise characteristics, regional characteristics, and industry dummies), and  $\varepsilon_{eir}$  is a random error term.<sup>13</sup>

Table 3 shows the ordinary-least-squares (OLS) estimation results. Column 1 reports our main regression results that *Power of the State vis-à-vis the Market* produces a positive and statistically significant effect on enterprise performance.

Our results are robust when control variables related to industry dummies, regional characteristics, entrepreneurial characteristics and enterprise characteristics are included stepwisely (Columns 2-5 of Table 3). The coefficients of control variables also make sense. It is found that an entrepreneur with a higher level of education and more years of managerial experience in state-owned enterprises enjoys better enterprise performance. It is also found that smaller enterprises exhibit higher impetus to growth.

The basic message conveyed by Table 3 is clear: A greater power of the state vis-à-vis the market in resolving business disputes enhances enterprise performance.

### 3.1.2 Instrumental Variable Estimates

The estimation results in Table 3 could be biased due to the endogeneity issues. For example, we may not exhaust all the possible variables that correlate with both the power of the state vis-à-vis the market in resolving business disputes and enterprise performance. Meanwhile, enterprises with better performance could receive more attention and “protection” from local governments and therefore they seek government help in dispute settlements more often.

To address these potential endogeneity issues, we adopt the instrumental variable estimation strategy. Specifically, the instrumental variable used is the distance between the capital city of each region and the national capital city of China, Beijing, where the central government is located.

Over thousands of years the Chinese political system has been characterized by the centralization of political power during most of the periods. The central government keeps the power to appoint regional government officials. It also issues various laws and national ordinances for them to guide the regional administrations. Because China is a large country with substantial

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<sup>13</sup>In general the standard errors for micro-level data need to be adjusted for possible clustering to deal with the heteroskedasticity problem (e.g., Liang and Zeger, 1986). However, in practice, when the number of clusters is small (i.e., less than 42), the clustered standard errors could be misleading (e.g., Wooldridge, 2003, 2006; Angrist and Pischke, 2008). As the number of clusters in our study is 31, we follow Angrist and Lang (2004) to use the White-robust standard errors (White, 1980).

variations in endowments, socioeconomic development and culture across regions, however, unified and comprehensive laws and national ordinances may be ill-suited for the local conditions of some regions. Thus it is essential for regional government officials to interpret and enforce laws and national ordinances so as to make them more adapted to local circumstances. In the meantime, the fast changes in socioeconomic environment experienced by China in its transition toward a market economy in recent decades induce many new cases that require regional government officials to judge whether they comply with government reform policies. Hence, the proactive intervention of regional government officials is particularly needed in helping private firms to resolve various business disputes and creating a friendly business environment. Indeed, regional bureaucrats have been playing a decisive role in civil and criminal lawsuits throughout the Chinese history. In the pre-modern society, regional government officials themselves exercised judicial power. Even in the eras of the Republic of China and the Communist regime, the judicial system has still largely relied on the will of regional government officials.

Furthermore, it is more costly for the central government to frequently inspect local situations and monitor local bureaucrats in regions farther away from Beijing. Consequently, the higher degree of information asymmetry makes the central government more reliant on local officials in regional governance. Thus regional government officials in regions farther away from Beijing have greater *de facto* powers in running the regional economy, including adjudicating commercial disputes. In particular, regional bureaucrats in regions farther away from Beijing are subject to less central control and have a greater degree of freedom in interpreting and enforcing laws and national ordinances. Indeed there is an old Chinese saying that “*The Mountains Are High and the Emperor is Far Away.*” It is thus expected that in regions farther away from Beijing, the powers of the state vis-à-vis the market in those regions are greater.

Figure 2 shows the positive correlation between the power of the state vis-à-vis the market in resolving business disputes in a region and the distance between that regional capital city and Beijing.<sup>14</sup> Table 4 presents the two-stage-least-squares estimation results. The first-stage regression results reported in Column 1 show that the distance between regional capital city and Beijing has a positive and statistically significant coefficient, which confirms our argument that the powers of the state vis-à-vis the market are

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<sup>14</sup>For the four province-level municipalities directly under the central government (i.e., Beijing, Tianjing, Shanghai, and Chongqing), the instrumental variable is simply their distance from Beijing, with that for Beijing equal to zero.

greater in regions farther away from Beijing. The relevance condition for our instrumental variable is further confirmed by the Anderson canonical LR statistic. And the Cragg-Donald F-statistic rules out the concern for weak instrument.<sup>15</sup>

Column 2 of Table 4 presents the second-stage regression results. The results reinforce our earlier findings and show that the power of the state vis-à-vis the market in resolving business disputes has a positive and statistically significant causal effect on enterprise performance. Our main results – the statistically significant positive impacts of the power of the state vis-à-vis the market on enterprise performance – remain robust when industry dummies, regional characteristics, entrepreneurial characteristics and enterprise characteristics are included as controls (in Columns 3-4 of Table 4).

In addition to satisfying the relevance condition, our instrumental variable also needs to meet the orthogonality condition, i.e., it does not affect enterprise performance through channels other than the power of the state vis-à-vis the market. This, however, should not be a concern in our case, as there is no obvious correlation between the distance away from Beijing and other regional characteristics that conceivably affect enterprise performance. The national capital, Beijing, is located in the northern-central area of the country with many regions lying to the north, south, west or east of the capital. For example, Shanghai has similar distance from Beijing as do Wuhan (the capital city of Hubei province) and Harbin (the capital city of Heilongjiang province). And Nanjing (the capital city of Jiangsu province) and Xi’an (the capital city of Shaanxi province) have similar distances from Beijing (for more information and comparison about the distance of regional capital from Beijing for each region, please see Figure 2). However, these regions have striking differences in regional characteristics, such as economic performance, population, education, landscape, resource endowments, climate conditions, openness to international trade and investment, and financial market development.<sup>16</sup> Therefore, distance from Beijing does not suggest any particular patterns of regional characteristics, which implies that our instrumental variable meets the orthogonality condition.

### 3.1.3 Robustness Checks

First, we investigate whether our main results are robust to alternative ordinal values assigned to the three methods for resolving business disputes,

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<sup>15</sup>The Cragg-Donald F-statistic values for our regressions are significantly above the value of 10, which is considered as the critical value by Staiger and Stock (1997).

<sup>16</sup>Indeed, the regression results are qualitatively similar when these regional characteristics are included. Results are available upon request.

*i.e.*, *private orderings*, *private litigations through courts*, and *regulatory state* in constructing the index of the power of the state vis-à-vis the market. In Section 2, we assigned values 1-3 to these three methods with the purpose of showing an increasing power of the state vis-à-vis the market. One may argue that the ordinal values assigned look somewhat arbitrary. To make sure that the absolute value assigned to each category does not matter but the relative ranking is important, we experiment with different values attached to each method. In the first experiment, we give the value of 1 to *private orderings*, 2 to *private litigations through courts* and 10 to *regulatory state*. In the second experiment, we let *private orderings* be 1, *private litigation* be 9 and *regulatory state* be 10. In the third experiment, we assign values of 1, 5 and 10 to *private orderings*, *private litigations* and *regulatory state*, respectively.

Columns 2-4 of Table 5 summarize the estimation results when the above three alternative constructions for the power of the state vis-à-vis the market are used, while Column 1 simply replicates Column 4 of Table 4 as the benchmark for comparison. All the control variables are included in the regressions but not reported to save space. It is clear that our main results reported in Tables 3-4 remain robust when we vary the values assigned to different methods for resolving business disputes, which confirms that the exact value assigned to each method does not matter, but the relative ranking of the three methods in terms of the power of the state vis-à-vis the market is important.

Second, we use two alternative measures of the power of the state vis-à-vis the market: one is the index constructed by Fan, Wang, and Zhu (2003) on the power of government in the economy, with a higher value indicating a lower power of government in the economy, and the other is the ratio of government consumption over regional GDP, with a higher value indicating a greater power of government in the economy.<sup>17</sup> The index of the power of the state vis-à-vis the market in our earlier study focuses specifically on the regional government officials' role in resolving commercial disputes. The two alternative indices we look at here cover more broadly the part played by regional government officials in the local economy. Thus the information contained in these two indices is expected to provide some complementary messages regarding how involved the regional government officials have been in the Chinese economy.

Column 1 of Table 6 shows that the Fan-Wang-Zhu index is negatively

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<sup>17</sup>The correlation between *Power of the State vis-à-vis the Market* and the Fan-Wang-Zhu index is -0.46, whereas that between *Power of the State vis-à-vis the Market* and the ratio of government consumption over regional GDP is 0.30.

correlated with the distance between regional capital city and Beijing (in Panel B of Column 1), and it has a negative and statistically significant causal effect on enterprise performance (in Panel A of Column 1). Column 2 of Table 6 shows that the ratio of government consumption over regional GDP is positively correlated with the distance between regional capital city and Beijing (in Panel B of Column 2), and it has a positive and statistically significant causal effect on enterprise performance (in Panel A of Column 2). These results are consistent with our earlier findings.

Third, we test the robustness of our results using two subsamples of our dataset. In the Survey, there is a question regarding the identity of the party with whom an enterprise is having business disputes. It could be: with customers, or suppliers, or government agencies. As disputes with government agencies could be qualitatively different from those with commercial partners, we restrict our sample to those observations with only commercial disputes. Column 3 of Table 6 shows that our central results remain robust to the use of this subsample. Meanwhile, as Qinghai and Ningxia have very few observations yet very high indices of the power of the state vis-à-vis the market (see Table 1 and Figure 2 for details), we thus exclude these two regions from our sample, and test if our results are possibly affected by these outliers. As shown in Column 4 of Table 6, our main results are robust to this subsample.

Fourth, it has been argued that enterprise performance could be affected by the capital-labor ratio. Unfortunately, there is quite a lot of missing information on the amount of capital employed by enterprises in our dataset. Nonetheless, we conduct a robustness test based on a reduced sample by including the logarithm of the capital-labor ratio as a control variable for enterprise performance. As shown in Column 5 of Table 6, our main results still hold in this subsample.<sup>18</sup>

Lastly, we use enterprise-level perception, rather than the regional average perception, of the power of the state vis-à-vis the market in resolving business disputes as the key explanatory variable. As shown in Column 6 of Table 6, our main results remain, i.e., the power of the state vis-à-vis the market continues to produce positive and statistically significant impacts on enterprise performance.

Overall, our robustness analysis as summarized in Tables 5-6 confirms our earlier finding that the power of the state vis-à-vis the market in resolving business disputes has a positive and significant causal effect on enterprise performance in China.

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<sup>18</sup>The decrease in the magnitude and significance of the estimated coefficient could be due to the dramatic decrease of sample size.

### 3.2 Does Rent Seeking Drive Our Results?

We interpret our results as that the role of the state vis-à-vis the market has a positive impact on enterprise performance. However, there could be an alternative interpretation as that those enterprises located in regions with greater powers of the state vis-à-vis the market conduct more rent seeking activities and thus achieve better performance through securing favors and protection from regional bureaucrats. Certainly, asking for government's help in resolving business disputes could possibly reflect rent seeking activity. However, the issue is whether rent seeking is the dominant force that drives the positive relationship between the power of the state vis-à-vis the market and enterprise performance. This is a central criterion in judging whether the regulatory state model in commercial dispute resolution turns out to be a helping hand model creating a friendly legal and regulatory environment for private enterprises or a grabbing hand model cultivating rent seeking activities with discretionary dispute adjudication and regulations.

Presumably if rent seeking is the driving force, an enterprise located in a region with a greater power of the state vis-à-vis the market would most likely obtain favors from the regional government in the forms of lower production costs and/or easier sales of its product or service. In the Survey, there are questions regarding whether an enterprise has difficulties in the following six aspects of the enterprise operation: input procurement, availability of production locations, supply of electricity and water, recruitment of skilled labor, sales of product, and sales of service. The answers to these questions range from 1 to 3, with a higher value indicating less difficulties in the specific operation. In addition, we use the percentage of outstanding bank loans in an enterprise's total assets to measure the access to external finance. We conduct two-stage-least-squares regressions of these seven aspects of the enterprise operation on *Power of the State vis-à-vis the Market* with the instrumental variable being the distance between the regional capital city and the national capital city of China, Beijing. As shown in Columns 1-7 of Table 7, all of the seven estimated coefficients are negative. These results suggest that enterprises located in regions with greater powers of the state vis-à-vis the market in resolving business disputes do not obtain any favors in the forms of lower production costs and/or easier sales of its products or services. Alternatively, we carry out another empirical test, in which these seven channel variables are included as additional control variables in the regression of *Enterprise Performance* on *Power of the State vis-à-vis the Market*. If the magnitude and statistical significance of the estimated coefficient on *Power of the State vis-à-vis the Market* diminishes to a substantial extent and the channel variables remain statistically significant with the expected

sign, then we can conclude that a higher degree of government involvement in business dispute resolution helps enhance firm performance mainly through rent seeking. The regression results, not reported here but available upon request, show that there are no changes in the magnitude and significance of our key explanatory variable, *Power of the State vis-à-vis the Market*. This suggests that the impact of the government in commercial dispute resolution on firm performance does not work through any of these channel variables.

In our opinion, these seven aspects we consider encompass all the important concerns of private enterprises in China. According to Asian Development Bank (2003), the most serious constraints encountered by private enterprises are the difficulty in getting access to external finance such as bank loans and the difficulty in recruiting skilled managers and technical staff. If rent seeking were the dominant force, at least some of the aspects we have examined should have turned out positive and significant estimated coefficients. Hence, we can largely rule out rent seeking as the primary force that drives our results.<sup>19</sup>

### **3.3 Checks on the Theoretical Framework of the Empirical Analysis**

Our above empirical analysis is based on the theoretical framework proposed by Glaeser and Shleifer (2002, 2003) and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003). As argued by Glaeser and Shleifer (2002, 2003) and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003), an increase of disorder costs (i.e., expropriation by thieves, competitors, or tort-feasors) calls for a greater power of the state vis-à-vis the market in resolving business disputes whereas an increase of dictatorship costs (i.e., expropriation by governments) requires a lower power of the state vis-à-vis the market. As a further check on the validity of our empirical analysis, we test if these general predictions are borne out in our data set. Indeed, the Survey contains information that allows us to gauge the disorder costs and dictatorship costs perceived by entrepreneurs, based on which we can carry out a comparative statics analysis.

In the Survey, there is a question asking entrepreneurs whether there exist influential producers in their industries that enjoy favorable market positions to facilitate input procurement and output sales and therefore they are dominant players in the market. It is expected that when facing such

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<sup>19</sup>Presumably, a regional government more involved in resolving business disputes is more likely to cultivate an institutional environment with better contract enforcement, which subsequently leads to higher productivity of enterprises located in that region.



dominant competitors, private enterprises encounter higher disorder costs<sup>20</sup> and perceive a greater need for government regulations to alleviate market disorders (Glaeser and Shleifer, 2002, 2003; Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2003). We construct a dummy variable called *Influential Competitors*, and carry out an Ordered Probit regression of *Power of the State vis-à-vis the Market* on *Influential Competitors* along with a set of control variables. As shown in Column 1 of Table 8, *Influential Competitors* has a positive and statistically significant estimated coefficient, which implies that the increase of disorder costs leads to a rise in the power of the state vis-à-vis the market as predicted by Glaeser and Shleifer (2002, 2003) and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003).

In the Survey, there is another question asking entrepreneurs about the amount of extralegal payments to the government made by the enterprises. As argued by Johnson, McMillan and Woodruff (2002) and Cull and Xu (2005), extralegal payments to the government measures the extent of government expropriation. It is thus expected that enterprises facing higher extralegal payments to the government encounter higher dictatorship costs and perceive a lesser need for the power of the state vis-à-vis the market such as less government regulation (Glaeser and Shleifer, 2002, 2003; Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2003). We then construct a variable called *Ratio of Extralegal Payments* (measured as the ratio of extralegal payments to the government by the enterprise over its profit) and use it as a proxy for dictatorship costs, with a higher value indicating greater dictatorship costs. We carry out an Ordered Probit regression of *Power of the State vis-à-vis the Market* on *Ratio of Extralegal Payments* along with a set of control variables. As shown in Column 2 of Table 8, *Ratio of Extralegal Payments* has a negative and statistically significant estimated coefficient, which implies that the increase of dictatorship costs leads to a fall of the power of the state vis-à-vis the market as predicted by Glaeser and Shleifer (2002, 2003) and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003).

## 4 The Role of the State in Resolving Business Disputes in China

Our results suggest that the role of the state in resolving business disputes in China is conducive to enterprise performance by lending a helping hand to

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<sup>20</sup>For example, private enterprises often encounter difficulties in collecting payments from large influential enterprises with whom they have businesses.

private entrepreneurs. In this Section, we provide some institutional background about China, which may help us to understand our empirical findings.

At the end of 1978, China initiated its economic reform and started the transformation from a state-ownership-dominated central planning system towards a market economy system. For the Chinese reformers, private litigation through courts might not be a feasible method for resolving business disputes that inevitably arise under the market economy system. This is because for private litigation through courts to function properly, it depends crucially on the adequacy of legislatures and courts. However, the formal legal institutions (i.e., courts), newly established as they were not needed at all under the central-planning system, are far from being independent and impartial (Clarke, Murrell, and Whiting, 2008; Cohen, 2008).

More importantly, laws and national ordinances enacted by the central government tend to be sketchy and incomplete. On the one hand, China is a large country with substantial variations in endowments, socioeconomic development and culture across regions. Thus it is difficult for the central government to enact unified laws and national ordinances applicable to all regions. On the other hand, it is challenging to develop comprehensive laws and national ordinances that could cope with fast-changing socioeconomic environment as experienced during China's economic transition. For example, it took 12 years for the National People's Congress to pass the Law on Township and Village Enterprises (Clarke, Murrell, and Whiting, 2008). In addition, there are many unfilled gaps in the laws and national ordinances in the sense that some of the relevant issues are not stipulated in the laws and national ordinances (Eggleston, Posner, and Zeckhauser, 2000).

As laws and national ordinances are sketchy and incomplete, they are not applicable to specific cases without further clarification of the meaning of laws and national ordinances. Under this situation, the power to interpret the existing laws and national ordinances, to adapt them to the changing circumstances, and to extend their application to new cases constitutes the de facto lawmaking power, which in turn is the cornerstone of dispute resolution and contract enforcement (Pistor and Xu, 2002).

In the face of complicated and fast-changing environment, courts appear too slow to adapt to changes because they are designed to be reactive contract enforcers in the sense that they would not initiate legal proceedings but only respond to the initiation of another party. In contrast, government officials can exercise de facto lawmaking power by adapting rules to changing situations on a continuous basis and initiating enforcement procedures. They can proactively resolve business disputes and enforce contracts by interpreting laws and national ordinances, monitoring behavior, launching investigation and enjoining or sanctioning actions on their own initiative (Du and Xu,

2009).

Hence, the regulatory state model becomes an ideal choice in response to the substantial regional variations and fast-changing environment. To ensure that the regulatory state model turns out to be a helping hand model, the Chinese central government has successfully implemented a decentralized regulation system based on regional competition.

In view of the size of the Chinese territory and population and the formidable task of economic administration, China's central government has developed a decentralized regulation system where regional government officials are motivated to assist the central government in conducting regulations. The central government has successfully utilized regional competition and the merit-based bureaucratic promotion system to motivate regional government officials to help carry out central government regulations (Du and Xu, 2008). In addition, regional government officials are granted discretionary power to adopt local decrees and rules on their own initiatives to promote local market economy development (Wu, 2007).

Indeed regional government officials played a key role in China's economic development and transition toward a market economy. They advocated entrepreneurship via policies and enhanced social awareness of a market economy through media and education; they promoted non-state ownership and provided reasonable protection for private property rights well before private property was legally acknowledged; they controlled the pace of marketisation and economic liberalization with the purpose of conducting economic reform in an orderly manner; and they carried out industry entry regulations, and issued industrial policies to make structural adjustment of industries (Wu, 2007; Fu and Peerenboom, 2008).

The involvement of regional government officials in the resolution of commercial disputes proves quite effective on average and is the most widely accepted system received by the public in China. This is particularly the case when the business dispute involves politically sensitive issues or hits the boundary of the established concepts of legality (Wu, 2007).<sup>21</sup> And this is also especially effective in regions lagging behind in marketization as local courts in those regions have less experience in handling private business disputes due to slower market economy development. Hence, in deciding cases, regional courts may have to refer certain issues to regional government officials and to defer to their interpretations. The regional government regulations, directives and guidelines have become China's "living constitution" (Fu and

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<sup>21</sup>However, the court system in China is found to have competently handled a large number of routine business dispute cases in which judicial independence is not an issue (Pei, 2001; Fu, 2003).

Peerenboom, 2008). Over the years, the Chinese public has become to rely on regional governments rather than regional courts for dispute resolution and contract enforcement.

## 5 Conclusion

Effective resolution of business disputes associated with private properties is the key to property rights protection, which in turns plays a fundamental role in promoting economic performance. There are various methods for resolving business disputes (i.e., private orderings, private litigation through courts and regulatory state), characterized by the different degree of the power of the state vis-à-vis the market. As argued by Glaeser and Shleifer (2002, 2003), and Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003), having a stronger role of the state vis-à-vis the market in resolving business disputes brings costs (increase in the dictatorship costs) as well as benefits (decrease in the disorder costs).

In this paper, we investigate the role of the state vis-à-vis the market in resolving business disputes, and its impact on enterprise performance. Specifically, using data from a survey of 3,073 private enterprises in China, we construct an index to quantify the power of the state vis-à-vis the market in resolving business disputes based on the theoretical framework proposed by Glaeser and Shleifer, 2002, 2003; Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2003). We find that the power of the state vis-à-vis the market in resolving business disputes has a positive and statistically significant causal impact on enterprise performance. Our results are robust to a set of controls related to entrepreneurial, enterprise, regional and industrial characteristics, and to the use of instrumental variable estimation. Our findings suggest that China has implemented a helping-hand regulatory state model in commercial dispute resolution which creates a friendly business environment for private enterprises.

Our study contributes to the literature by highlighting the importance of the state in resolving business disputes. This is particularly important for developing and transition economies, for they may lack the sophisticated institutions for the market to resolve business disputes effectively (i.e., private orderings and private litigation through courts). The policy suggestion from our study is that for these economies, they should keep a strong role of the state in resolving business disputes and gradually diminish the role of the state with the establishment and sophistication of the market institutions.

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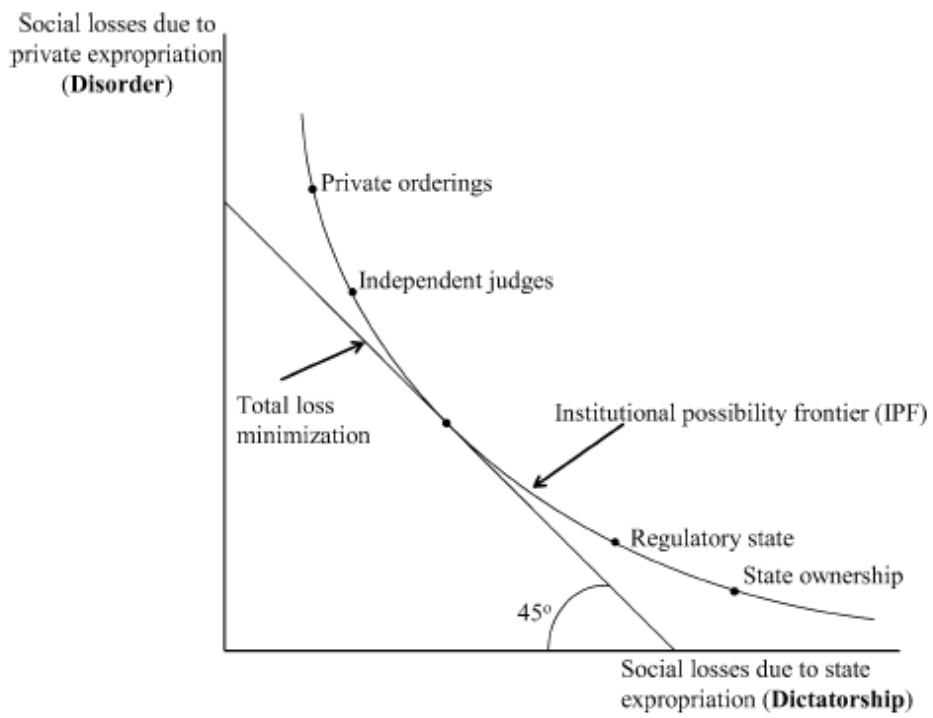
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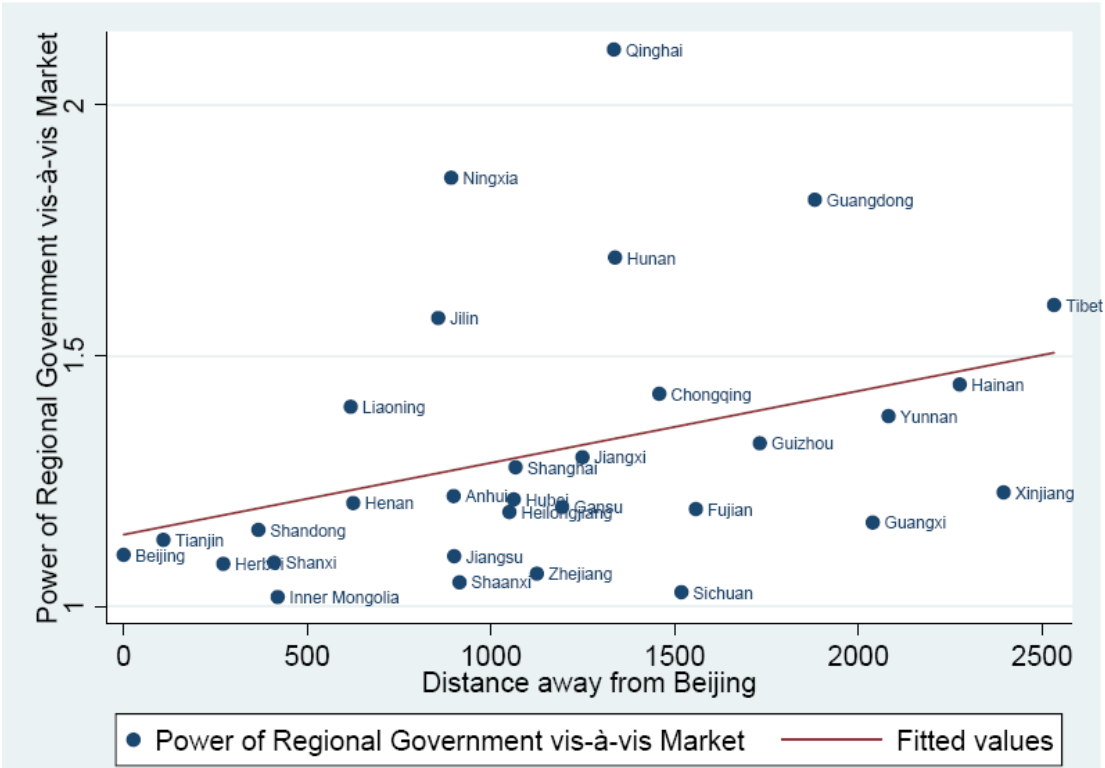
**Figure 1: Institutional possibility frontier**



**Fig. 1. Institutional possibilities.**

The above figure is copied from Figure 1 of Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2003).

**Figure 2: Correlation between the power of the state vis-à-vis the market in a region and the distance between that regional capital city and Beijing**



**Table 1: Distribution of sample across China's regions**

Region	Final Sample	Initial Sample	Percentage
Beijing	89	117	76.07%
Tianjin	86	100	86.00%
Herbei	135	198	68.18%
Shanxi	38	76	50.00%
Inner Mongolia	29	45	64.44%
Liaoning	124	148	83.78%
Jilin	70	80	87.50%
Heilongjiang	87	101	86.14%
Shanghai	121	180	67.22%
Jiangsu	242	279	86.74%
Zhejiang	114	165	69.09%
Anhui	54	78	69.23%
Fujian	33	63	52.38%
Jiangxi	42	61	68.85%
Shandong	185	250	74.00%
Henan	101	143	70.63%
Hubei	84	125	67.20%
Hunan	43	64	67.19%
Guangdong	137	193	70.98%
Guangxi	37	47	78.72%
Hainan	29	54	53.70%
Chongqing	89	97	91.75%
Sichuan	40	60	66.67%
Guizhou	62	66	93.94%
Yunnan	32	41	78.05%
Tibet	5	10	50.00%
Shaanxi	105	114	92.11%
Gansu	30	36	83.33%
Qinghai	8	11	72.73%
Ningxia	14	20	70.00%
Xinjiang	44	51	86.27%

**Table 2: Summary statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
Enterprise Performance	2309	1.85	1.27	-4.61	6.59
Power of the State vis-à-vis the Market	31	1.31	0.27	1.02	2.11
Education	2307	12.64	2.84	0.00	19.00
Age	2300	43.50	8.26	22.00	75.00
Managerial Experience	2306	4.28	7.23	0.00	61.00
CPC Membership	2309	0.16	0.36	0.00	1.00
CPPCC Membership	2309	0.41	0.49	0.00	1.00
Government Cadre	2309	0.07	0.26	0.00	1.00
SOE Cadre	2309	0.37	0.48	0.00	1.00
Enterprise Size	2309	4.08	1.33	0.00	9.90
Enterprise Age	2287	2.23	0.67	0.00	3.83
Logarithm of Capital-Labor Ratio	1478	1.79	1.15	-2.96	7.25
Logarithm of GDP per capita	31	-0.43	0.53	-1.40	1.01
Logarithm of Population	31	7.99	0.92	5.55	9.15
Fan-Zhu-Wang Index	30	6.06	2.93	0.00	10.00
Ratio of Government Consumption	30	0.14	0.03	0.09	0.19
Influential Competitors	2256	0.39	0.49	0.00	1.00
Ratio of Extralegal Payments	1136	0.06	0.10	0.00	1.00

**Table 3: OLS estimates**

Dependent Variable	1	2	3	4	5
	Enterprise Performance				
Power of the State vis-à-vis the Market	0.41*** (0.12)	0.32*** (0.12)	0.34*** (0.12)	0.26** (0.12)	0.29** (0.11)
<b>Regional Characteristics</b>					
Logarithm of GDP per capita			0.35*** (0.05)	0.35*** (0.05)	0.35*** (0.05)
Logarithm of Population			0.02 (0.04)	0.05 (0.04)	0.05 (0.04)
<b>Entrepreneurial Characteristics</b>					
Education				0.06*** (0.01)	0.07*** (0.01)
Age				-0.004 (0.003)	-0.004 (0.003)
Managerial Experience				0.005 (0.004)	0.006 (0.004)
CPC Membership				0.11 (0.07)	0.16** (0.07)
CPPCC Membership				0.05 (0.05)	0.07 (0.05)
Government Cadre				-0.11 (0.11)	-0.09 (0.11)
SOE Cadre				0.15*** (0.07)	0.15*** (0.06)
<b>Enterprise Characteristics</b>					
Enterprise Size					-0.07*** (0.02)
Enterprise Age					0.03 (0.04)
Industry Dummy	No	Yes	Yes	Yes	Yes
Number of Observation	2,309	2,309	2,309	2,295	2,274
R-squared	0.0047	0.0604	0.0809	0.1105	0.1138
<i>p</i> -value for F-Test	0.0007	0.0000	0.0000	0.0000	0.0000

Robust standard error is reported in the parenthesis. \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% level, respectively.

**Table 4 : IV estimates**

Dependent Variable	1	2	3	4
	First Stage Power of the State vis-à-vis the Market	Second Stage Enterprise Performance	First Stage Power of the State vis-à-vis the Market	Second Stage Enterprise Performance
Power of the State vis-à-vis the Market		1.21*** (0.26)		1.65*** (0.25)
Distance	0.18*** (0.01)		0.19*** (0.01)	
<b>Regional Characteristics</b>				
Logarithm of GDP per capita			0.05*** (0.01)	0.37*** (0.05)
Logarithm of Population			-0.01 (0.01)	0.08** (0.04)
<b>Entrepreneurial Characteristics</b>				
Education			0.00 (0.00)	0.07*** (0.01)
Age			-0.00 (0.00)	-0.003 (0.003)
Managerial Experience			0.00 (0.00)	0.007* (0.004)
CPC Membership			0.03** (0.01)	0.14* (0.07)
CPPCC Membership			0.01 (0.01)	0.05 (0.06)
Government Cadre			-0.01 (0.02)	-0.09 (0.11)
SOE Cadre			0.01* (0.01)	0.11* (0.06)
<b>Enterprise Characteristics</b>				
Enterprise Size			0.01* (0.003)	-0.09*** (0.03)
Enterprise Age			0.00 (0.01)	0.04 (0.05)
Shea Partial R2	0.2447	-	0.2472	-
Anderson Canonical LR Statistic	[648.05]***	-	[645.74]***	-
Cragg-Donald F-statistic	747.49	-	737.89	-
Industry Dummy	No	No	Yes	Yes
Number of Observation	2,309	2,309	2,274	2,274

Robust standard error is reported in the parenthesis. \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% level, respectively.

**Table 5: Experiments for the index of Power of Government vis-à-vis Market**

Dependent Variable	1	2	3	4
Power of the State vis-à-vis the Market	1.65*** (0.25)	0.40*** (0.06)	0.34*** (0.05)	0.37*** (0.06)
Shea Partial R2	0.2472	0.2487	0.2055	0.2511
Anderson Canonical LR Statistic	[645.74]***	[650.13]***	[523.25]***	[657.38]***
Cragg-Donald F-statistic	737.89	743.65	581.35	753.20
Regional characteristics	Yes	Yes	Yes	Yes
Entrepreneurial characteristics	Yes	Yes	Yes	Yes
Enterprise characteristics	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes
Number of Observation	2,274	2,274	2,274	2,274

The estimation strategy used is 2SLS estimation. The First-stage results (including the same control variables as those in the second stage) and the estimated coefficients of the control variable are not reported to save space (available upon request). Robust standard error is reported in the parenthesis. \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% level, respectively.

**Table 6: Robustness checks**

	1	2	3	4	5	6
Panel A: Second Stage of 2SLS						
Dependent Variable	Enterprise Performance					
Fan-Zhu-Wang Index	-0.53*** (0.11)					
Ratio of Government Consumption		149.54** (65.64)				
Power of the State vis-à-vis the Market			1.61*** (0.25)	1.69*** (0.28)	0.51** (0.23)	5.35*** (1.88)
<b>Regional Characteristics</b>						
Logarithm of GDP per capita	1.31*** (0.19)	1.31*** (0.19)	0.34*** (0.05)	0.41*** (0.06)	0.31*** (0.05)	0.59*** (0.14)
Logarithm of Population	1.53*** (0.32)	1.53*** (0.32)	0.03 (0.04)	0.08* (0.04)	0.09** (0.04)	0.25** (0.11)
<b>Entrepreneurial Characteristics</b>						
Education	0.06*** (0.01)	0.02 (0.03)	0.07*** (0.01)	0.07*** (0.01)	0.02* (0.01)	0.11*** (0.03)
Age	-0.003 (0.004)	-0.001 (0.009)	-0.003 (0.003)	-0.002 (0.004)	-0.005 (0.003)	-0.04*** (0.01)
Managerial Experience	0.003 (0.005)	-0.01 (0.01)	0.007* (0.004)	0.006 (0.004)	0.001 (0.004)	0.01 (0.01)
CPC Membership	0.17* (0.09)	0.18 (0.18)	0.14* (0.07)	0.12 (0.08)	0.06 (0.07)	0.32* (0.17)
CPPCC Membership	0.03 (0.07)	-0.11 (0.16)	0.05 (0.06)	0.06 (0.06)	-0.08 (0.06)	0.19 (0.14)
Government Cadre	-0.15 (0.14)	0.43 (0.37)	-0.09 (0.11)	-0.06 (0.12)	-0.22* (0.12)	-0.07 (0.25)
SOE Cadre	-0.04 (0.08)	0.12 (0.15)	0.10* (0.06)	0.09 (0.07)	0.01 (0.06)	0.20 (0.14)
<b>Enterprise Characteristics</b>						
Enterprise Size	-0.11*** (0.03)	-0.20** (0.09)	-0.09*** (0.03)	-0.09*** (0.03)	-0.04 (0.03)	-0.22*** (0.08)
Enterprise Age	0.07 (0.05)	0.08 (0.11)	0.04 (0.05)	0.01 (0.05)	-0.08* (0.05)	0.08 (0.10)
Logarithm of Capital-Labor Ratio					0.63*** (0.03)	
Panel B: First Stage of 2SLS						
Dependent Variable	Fan-Zhu-Wang Index	Ratio of Government Consumption	Power of the State vis-à-vis the Market			
Distance	-0.60***	0.002**	0.20***	0.19***	0.21***	0.06***



	(0.08)	(0.001)	(0.01)	(0.01)	(0.03)	(0.02)
Shea Partial R2	0.0448	0.0036	0.2895	0.2583	0.2653	0.0044
Anderson Canonical LR Statistic	[104.09]***	[8.27]***	[770.18]***	[562.90]***	[449.87]***	[10.10]***
Cragg-Donald F-statistic	105.25	8.18	907.19	646.63	517.19	10.01
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observation	2,270	2,270	2,253	1,884	1,459	2,274

The first stage of 2SLS includes the same control variables as those in the second stage but does not report these results to save the space (available upon request). Robust standard error is reported in the parenthesis. \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% level, respectively.

**Table 7: Investigation of rent seeking explanation**

Dependent Variable	Input Procurement	Availability of Production Locations	Supply of Electricity and Water	Recruitment of Skilled Labor	Sales of Output	Sales of Service	Access to External Finance
Power of the State vis-à-vis the Market	-0.09 (0.11)	-0.25* (0.13)	-0.12 (0.11)	-0.36** (0.14)	-0.28** (0.14)	-0.26* (0.13)	-0.11*** (0.04)
Shea Partial R2	0.2553	0.2572	0.2545	0.2479	0.2455	0.2530	0.2939
Anderson Canonical LR Statistic	[550.37]***	[549.68]***	[566.94]***	[519.13]***	[528.52]***	[497.95]***	[385.58]***
Cragg-Donald F-statistic	630.83	630.77	649.79	591.73	601.70	569.38	450.36
Regional characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Entrepreneurial characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enterprise characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observation	1,867	1,849	1,930	1,822	1, 876	1,707	1,108

The estimation strategy used is 2SLS estimation. The First-stage results (including the same control variables as those in the second stage) and the estimated coefficients of the control variable are not reported to save space (available upon request). Robust standard are reported in the parenthesis. \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% level, respectively.

**Table 8: Checks on the Theoretical Framework**

Dependent Variable	1	2
	Power of the State vis-à-vis the Market	
Influential Competitors	0.15** (0.07)	
Ratio of Extralegal Payments		-1.00* (0.58)
<b>Regional Characteristics</b>		
Logarithm of GDP per capita	-0.08 (0.06)	-0.10 (0.09)
Logarithm of Population	-0.13*** (0.05)	-0.13** (0.06)
<b>Entrepreneurial Characteristics</b>		
Education	-0.03** (0.01)	-0.03* (0.02)
Age	0.02*** (0.004)	0.02*** (0.01)
Managerial Experience	-0.004 (0.004)	-0.01 (0.01)
CPC Membership	-0.06 (0.09)	-0.13 (0.13)
CPPCC Membership	-0.06 (0.07)	-0.05 (0.10)
Government Cadre	-0.07 (0.13)	-0.20 (0.20)
SOE Cadre	-0.01 (0.07)	0.04 (0.10)
<b>Corporate Characteristics</b>		
Enterprise Size	0.10*** (0.03)	0.13*** (0.04)
Enterprise Age	-0.01 (0.05)	-0.09 (0.09)
Industry Dummy	Yes	Yes
Number of Observation	2,221	1,125
Pseudo R2	0.0332	0.0429
<i>p</i> -value for chi2	0.0000	0.0000

The estimation strategy used is the ordered probit estimation. Robust standard error is reported in the parenthesis. \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% level, respectively.