Government Quality, Market Competition, and Voluntary Disclosure: Evidence from China

Yin Zhang
School of Accountancy
Central University of Finance and Economics
39 College South Road, Haidian District, Beijing, China, 100081

Xiaomin Ma
School of Accountancy
Central University of Finance and Economics
39 College South Road, Haidian District, Beijing, China, 100081

Abstract

In this paper, we use the database (2007-2010) to examine the impact of government quality on voluntary disclosure of listed companies. We argue that in the emerging market, the listed companies how to consider the effect of government quality. We found that the relationship between government quality and voluntary disclosure is positive, it is to say, the region in which high government quality will push the listed companies to disclose more information. Then we examine how market competition impact on the relationship between government quality and voluntary disclosure. We found that the relationship varies in different degrees of competition, the fiercer market competition, the smaller the compact of government quality on voluntary disclosure.

Keywords: government quality Market Competition Voluntary Disclosure.

JEL Codes:G39, H83, M41, M42

1. Introduction

Companies' motivation for voluntary disclosure of information is due to internal needs and external environment. There are big differences in the voluntary disclosure of information and disclosure time among different countries and regions. Alford, Jones, leftwichand Zmijewski(1993) argue that the differences depend not only on the different capital markets, financial reporting requirements and corporate governance, but also on the system of government, and the effects of the integration of these factors that could affect the effectiveness of accounting information. A large number of studies have found that the system of government can influence corporate governance of enterprises and information transparency (Fan, Wei and Xu,2011; Jiang,Lee and Yue, 2010).The governments' policies and institutions in regulating enterprise behaviors play the fundamental role (Fan,Wei and Xu,2011).The problem is that if the conclusions remain valid for emerging market economies?

Unlike the United States and other Western developed countries, emerging capital markets represented by China started late and immature, but in just a few decades, China has become one of the most largest economy. Stems from different history and institution background, voluntary disclosure behavior of Chinese enterprises is quite different from that in developed countries: first, market transactions in China more rely on Guanxi/relationship economy(Peng and Luo, 2002; Lu Xianxiang, 2004),it is difficult to obtain information from the public capital markets through voluntary disclosure; second, Chinese state-owned enterprises which are most held by national or government directly are related to national economy lifeline and state-owned enterprises take a lot of policy burdens in economic development and thus reducing operating performance(Liao Guanmin and Shen Hongbo, 2014),which also affects voluntary disclosure motivation; third,local governments sometimes reach out to enterprises with “tunneling hand", government officials, management collusion and other misconduct will eventually need to conceal through the accounting information(Du Xingqiang, 2003).

In the context of broad government-enterprise relations and state-owned enterprises ownership, on the one hand, the government should ensure that state-owned enterprise take policy burdens, while also safeguard the survival and development of local non-state-owned enterprises; on the other hand, the government must force and encourage enterprises to disclose quantitative information and additional information in order to protect the interests of investors. Would the enhancement of government quality affect the voluntary disclosure behavior? And whether the consideration of government quality is affected by our special system environment? This paper found that the quality of Chinese government is positively correlated with companies' voluntary information disclosure. Furthermore, we have also tested the effect of market competition on the relation between government quality and the voluntary disclosure .We found that the relationship varies in different degrees of competition, the fiercer market competition, the smaller the compact of government quality on voluntary disclosure. The study results support the alternative hypothesis about the conduct of the government and the market behavior, and are inconsistent with the supplementary hypothesis.

The contributions of this paper are: first, based on the data of Chinese listed companies and the World Bank data as samples, tested whether the influence of the government quality has been taken in to account in the voluntary disclosure of information decisions. In the international literature, the effects of government intervention on the enterprise are mostly concentrated in the legal system arrangement, capital market and influence of the whole national economic development (La Porta et al., 1999;Shi et al.,2014),while few documents study from a broader perspective of the government quality. More importantly,there is a big difference between Chinese capital market and that of the Western developed countries. Based on the special historical and cultural background, Guanxi/relationship factors and state-owned enterprises ownership make companies have no incentive to disclose additional information voluntarily. For this reason, to verify whether the government quality affects voluntary information disclosure of enterprises needs further research, although there have been a lot of literature about the motivation of voluntary disclosure of Chinese enterprises(Cheng Xinsheng, Tan Youchao and Xu Lei,2011; Lan, Wang and Zhang,2013; etc.),but few studies on the quality of government.

Second, this paper provides new evidence that government influences the behavior of enterprises from the perspective of information disclosure. Leuz and Oberholzer-Gee (2006), Fan et al.(2011), Jiang et al.(2010) and Chen DeQiu, Li Sifei and Wang Cong (2011) found that the government quality significantly impacts the enterprise's organizational structure, corporate governance, information transparency and cash holdings, but there is little empirical evidence based on voluntary information disclosure. The empirical results in this paper show that the improvement of the Chinese government quality can enhance companies' incentives to voluntary disclosure of information.

Third, this paper also provides new evidence on the interaction mechanism between government quality and market competition, which has important policy value. There are different theories about both market competition level and the government influence on enterprise behavior. The alternative theory believes that the fiercer market competition the smaller the compact of government quality on voluntary disclosure (Sun Zheng, Liu Fengwei and Li Zengquan, 2005). The supplement hypothesis believes that the fiercer market competition the bigger the compact of government quality on voluntary disclosure.Liu Xiaoxuan (2003), Qiu Haixiong and Xu Jianniu et al.(2004) support the supplement hypothesis. We found that when the degree of competition in the market is low, the government quality has a greater impact on voluntary disclosure of enterprises.The rest of this paper is organized as follows: Section 2 discusses the theoretical analysis; Section 3 introduces research design; Section 4 provides empirical results; Section 5 includes the robustness of test; Section 6 concludes the paper.

2. Theoretical analysis and assumptions

2.1 government quality and voluntary disclosure

The main motivation for voluntary disclosure is promoted by market and supervision(Xie Zhihua and Cui Xuegang, 2005).According to Fama and Miller (1972), in the effective capital market ,markets can spontaneously adjust disclosure of financial information, government intervention was unnecessary. However,the real market is not without friction, but exists market failures. To solve the insufficient voluntary disclosure and low information quality caused by accounting market failures, the government can intervene(Cui Xuegang, 2004),especially in emerging countries like China,serious interference from local governments in business activities is a common characteristic of these markets, government influences and controls many aspects of enterprises from inputs to outputs through taxes, regulation and government ownership(Fan et al., 2011).

After fiscal decentralization reform, local governments engaged in a fierce competition for local capital needed for the local development, so as to continuously improve the quality of government and the promotion of economic development, resulting in public governance mechanisms affects corporate behavior. Cui Xuegang (2004)deduced from the theory indicated that the government plays a supervisory role in voluntary disclosure of listed companies, even though this function is limited, the government regulation has a positive impact on mandatory disclosure and voluntary disclosure of enterprise information (Xie Zhihua and Cui Xuegang,2005).

What is good government? The functions of the government are mainly reflected in: effective system supply, the implementation of fair policies and meet the needs of public goods and services. Although the government has a variety of functions, the focus of government functions during a period depends on the current level of economic development, historical development stages, continue adjusting and transferring with the social development. Within the framework of modern national governance, national governance functions determines the functions of the government, namely the government and other governance body to achieve common governance of public affairs, requiring government functions changed into service, responsibility, rule of law and limited objectives. Under the social conditions of social organization flourish, a good government should consult and cooperate with market participants, social organizations, to govern social and public affairs through the joint efforts. First, the government should deal with the status of economic development.

Relationship between the government and the market has always been a controversial topic, but the government needs to provide assurance of law and property rights protection system for effective market operation, which has been agreed by the scholars. Secondly, the relationship between government and society need to be further adjusted. The government playing a most important role in macro-control can effectively regulate social contradictions. When the government cannot follow proper channels using the power, then the power may deviate from the public interest. Therefore, both modern society government and social relations are in the context of national governance, which requires government to do further decentralization to the community. Good government should expand the independence of the society, to solve social problems by fostering community organizations and attracting social forces, preventing corruption due to the concentration of power. Finally, the government should combine government regulation and service. With the economic development and the growth of social organizations, the interests of social members presented a trend of diversification; in order to collect different interests in a timely and effective manner, the government's management system shift towards democratization, and the functions of the government should shift from management to regulation and service. Since entering the new century, China has proposed to establish a service-oriented government, strengthen government public service function: on the one hand to provide pure public goods service, including national security, public education, and environmental protection; on the other hand to provide administrative services, including the administrative licensing and protection of the public engaged in commercial or non-commercial activities.

In order to ensure the effective functioning of the market economy and create a free and orderly competitive environment, good government should provide a good legal system for the public, clear property rights, give strong protection of property rights; in the performance of its supervisory functions and services, the government needs to provide pure public services and administrative services.

La Porta et al.(1999) defines "good government" as to be able to develop good economic policies so as to promote economic growth, embody in the weak levels of corruption, complete legal environment and property rights protection measures. More lower the level of corruption is, more higher the level of property rights protection is, which indicates higher quality of the government. Government corruption is that national staff make use of public power to seek personal benefits (Shleifer, Andrei and Vishny, 1993),government officials implement rent-seeking activities that are not authorized in order to achieve their own interests. For example, the production individuals would rather(or forced to)pay a bribe to government officials in the process of applying to government agencies for licenses when registering new businesses in order to avoid government officials in handling administrative red tape-style. Unlike normal business activities costs, bribery is additional monetary expenditure. Meanwhile, voluntary disclosure is also at extra cost. So, if expenditure on bribes cannot be avoided, managers will cut other costs that can be sole discretion, thus bribery costs will squeeze costs of voluntary disclosure, the level of voluntary disclosure may be reduced.

Law is a powerful tool for controlling the country. Sound legal mechanism can formulate a better policies and legal protection system. Conversely, good system and legal environment can bring better economic outputs (La Porta et al.,1999). Therefore, the establishment of sound corporate information disclosure legal system is of great significance for the protection of the legitimate interests of shareholders and creditors and to ensure healthy and orderly securities market. Therefore, under a strong legal environment, enterprise managers would disclose information as required by law or voluntarily disclose more information in order to avoid the risk of litigation. Therefore, we propose the following hypothesis:

Hypothesis 1: the higher the quality of local governments is, the higher the level of voluntary disclosure of listed companies in their jurisdiction will be.

2.2 Government, market and voluntary disclosure

There are two opposing hypotheses for the influence on corporate behavior by the government and the market. Alternative hypothesis believes that in general, moderate competition will help improve the quality of information disclosure. The stronger competition in the industry, the higher the quality of information disclosure (Wang Xiongyuan and Liu Yan, 2008). Therefore, in areas where competition is high in the industry, enterprises can voluntarily disclose more information driven by market forces, and degree of government intervention in the business will be reduced accordingly. On the contrary, in areas where competition is low, low level of voluntary information disclosure of enterprises is not conducive to attracting investors, the local government will be more inclined to business intervention in order to obtain excess returns from the listed companies or establish a good image to enhance the performance. Therefore, when the degree of competition in the market is high,there will be less impact on the voluntary information disclosure of enterprises by the government quality.

In contrast, supplementary hypothesis believes that when the degree of competition in the market is high, the degree of government intervention in the business is not reduced but even higher (Liu Xiaoxuan, 2003). The reason is that most companies in a competitive environment characterized by profit-maximizing behavior, and follow the laws of survival of the fittest, but the government carry out a series of benefits transfer to prevent the listed companies within the jurisdiction to go bankrupt due to fierce competition and triggered a series of political events, so that these enterprises can continue to survive and develop. In other words, according to Wang Xiongyuan and Liu Yan (2008), the stronger the degree of market competition, the greater the motivation of voluntary information disclosure of enterprises. If the protection and intervention in the market by government strengthen, then the government will promote the development of market economy, and the market mechanism will act on the corporate behavior, thus making the incentives of them stronger to make voluntary information disclosure. "Post local corporatism" theory created by Qiu Haixiong and Xu Jianniu (2004) is that the government has dropped out of the business in developed market economy and good property rights protection regions, and choose from the outside to offer a comprehensive range of services for local development. Therefore, when the degree of competition in the market is high, the government quality has a greater impact on voluntary information disclosure of enterprises.

If the government and the market alternative hypothesis is valid, when the market competition is more intense, companies' incentives to voluntarily disclose information mainly comes from the competition in the market, and the government reduce intervention in the enterprises. As outlined in the economic changes in the theory of evolution, the product market competition is the most powerful force for economic efficiency, so as to solve the information and incentive problems that may exist.

If the government and the market supplementary hypothesis is valid, when the market is more competitive, although companies' incentives to voluntarily disclose information mainly comes from the market, unlike the alternative hypothesis, the government is not reducing the corporate intervention, but by increasing the government intervention to promote formation of more efficient markets, and then influence the corporate behavior through the market. As Ling Xiaodong (1992)puts it, driven by good government, resource allocation function of market mechanisms can perform more fully. Government can enforce all kinds of contracts, enhance economic efficiency, and promote more effective market formation through the public governance mechanisms. Therefore, we propose the following opposite research hypothesis:

Hypothesis 2a: correlation exists between government quality and market competition, when market competition is stronger, government quality has less impact on voluntary information disclosure of enterprises.

Hypothesis 2b: correlation exists between government quality and market competition, when market competition is stronger, government quality has greater impact on voluntary information disclosure of enterprises.

3. Research design

3.1 Data sources and sample selection

In this paper, we based on all the 2007-2010 Chinese A-share listed companies as the initial sample. In order to guarantee the accuracy of the data: we (1) removed financial enterprises and real estate enterprises; (2) removed new-added listed companies in 2007-2010;(3)removed listed companies that are not reported in the World Bank (2006). Data of listed companies is mainly from WIND database and GTA CSMAR database; data of local government efficiency is from World Bank (2006),and finally we get 8064 "company-annual" sample observations.

3.2 Models and variables

In this paper, we adopt the following basic regression models:

Model 1 :

$$Y_i(\mathrm{i}=1,2,3)=\beta_0+\beta_1 GQI+\beta_2 Cover+\beta_3 Audit+\beta_4 TQ+\beta_5 ROA+\beta_6 Lev+\beta_7 Size+\beta_8 Liquid+\beta_9 Three+\beta_{10} State+\varepsilon$$

Model 2 :

$$Y_i(\mathrm{i}=1,2,3)=\beta_0+\beta_1 GQI+\beta_2 GQI\times HHI\_ind+\beta_3 HHI\_ind+\beta_4 Cover+\beta_5 Audit+\beta_6 TQ+\beta_7 ROA+\beta_8 Lev+\beta_9 Size+\beta_{10} Liquid+\beta_{11} Three+\beta_{12} State+\varepsilon$$

3.2.1 Dependent variables

Table 1 provides variable definition. The dependent variable Y denotes as managers' earnings forecast. Take Shi et al.(2014) approach as reference, we use managers' earnings forecast as an alternative variable for voluntary information disclosure.

3.2.2 Independent variables

3.2.2.1 Government quality

High government quality means the government has a better legal environment, higher level of protection of property rights, less corruption and goods that are more public. Variable GQI in the model is on behalf of the government quality index. According to definition of good government by La Porta et al.(1999),good government should reduce corporate intervention, provide clean and efficient service, good legal environment and the protection of property rights.

We use business entertainment expenditure, the level of business confidence in the law and property protection as "three dimensions[i]" to measure the quality of government. We use business entertainment expenditure accounted for sales income (GQI_ent) as enterprise bribery cost to government officials, corresponding to La Porta et al.(1999) "corruption index";we use business confidence in the law (GQI_court) as legal environment provided by government, corresponding to La Porta et al.(1999) "legal index";we use property protection level (GQI_property) as protection for investors by law, corresponding to La Porta et al.(1999)"protection of property rights index". According to Chen Deqiu (2011a,2011b,2012) practices, the paper changed sign of GQI_ent index, the greater the value GQI_ent, the higher the quality of government, consistent with the GQI_court and GQI_property index. In order to measure the overall level of the government quality, this paper established the composite index of the government quality[ii] (*GQI_ag).*

3.2.2.2 Market competition

We use herein the Herfindahl index[iii] (*HHI*) to measure the level of competition in the market, the smaller HHI is, the higher market competition is. Based on the research objectives of this paper, we introduce market competition and the quality of government interaction term *GQI* × *HHI.*

3.2.2.3 Control variables

Analysts tracking (dummy variable, if has analysts tracking, Cover=1, otherwise=0); Auditors audit (dummy variable, if has auditors audit, Audit=1, otherwise=0); growth opportunities (TQ= (market value of equity + book value of liabilities)/book value of assets); profit capacity (ROA= operating profit/total assets); financial lever (Lev= debt/total assets); company scale (Size=natural logarithmic of total assets),liquidity of corporate assets(Liquid= current assets/current liabilities) 1989); the top three shareholders (Three= shareholding ratio of top three largest shareholder), nature of property rights (dummy variable,if it is state-owned enterprises ,State=1, otherwise=0).

4. The empirical results

4.1 Descriptive statistics

Table 2 shows descriptive statistics of the variablesTQ,ROA, Lev, liquidity of assets exist obvious outliers, we implemented(1%, 99%)interval modification (winsorizing).There are big differences among ownership, financial indicators of listed companies and equity characteristics, therefore we controlled in the regressions.

4.2 Multiple linear regressions

4.2.1 Government quality and voluntary disclosure

First,this paper tests the government quality impacts on the companies' voluntary information disclosure, and results are shown in the Model 1 of table 3,table 4 and table 5, column (1) uses GQI_ag to measure the composite level of government quality, (2)-(4) columns use GQI_ent, GQI_court and GQI_ property to respectively measure corruption level of the government quality,the legal environment and the level of protection of property rights. In table 3,the government quality integrated index is significant at the 1% level, other sub-index are significantly positive at the level of 5%; In table 4 ,excepting "corruption index" is not significant, other index are significant at the 10% level; In table 5, both the government quality integrated index and other sub-index are significantly positive at the 1% level, results in line with expected symbol, indicating that improvement of the government quality can enhance enterprises' motivation to voluntary information disclosure. In particular, in table 3 and table 5, "corruption index" has the highest influence coefficient, indicating that bribery costs due to official corruption will seriously squeeze companies' voluntary information disclosure costs. Improving the legal environment and increase the level of protection of property rights have protective effect on the interests of investors and promote companies to avoid litigation for voluntary information disclosure.

4.2.2 Government quality, market competition, and voluntary disclosure

We further investigated whether and how the degree of competition of listed companies in the market affects correlation between the government quality and voluntary information disclosure. Respectively, we introduce the *GQI_ag×HHI*, *GQI_ent×HHI*, *GQI_court×HHI* and *GQI_property×HHI* as interaction term of the government quality and the degree of competition in the market. The regression results are as shown in the Model 2 of table 3, table4 and table5, column (5) shows the government quality integrated index regression, columns (6)-(8) show the government quality sub-index regression. In table 3, from columns (5)-(8), we can see that the government quality and market competition interaction terms (GQI_ag×HHI, GQI_ent×HHI,GQI_court×HHI and GQI_property×HHI) coefficient are significantly positive. Further, the government quality integrated index in column (5) and the corruption index in column (6) coefficient are significant at the level of 1%. The results in Model 2 of table 4 are similar to table 3. The regression results show that the smaller market competition is, government has a greater impact on the companies' voluntary information disclosure. As the results of Model 2 in the table 5, the government quality integrated index and market competition degree cross-multiplication in colum(5) (GQI_ag×HHI) and corruption index and market competition degree cross-multiplication in column(6) (GQI_ent×HHI) are significantly positive respectively at the level of 10% and 1%, and cross-multiplication results in column (7) and (8) are not significant. In particular, the cross-multiplication of corruption index is 22.935, while the integrated index of cross-multiplication is only 0.332, indicating that the area with less competition in the market, government officials' corruption is the most important factor in voluntary information disclosure. Poor natural endowments within the jurisdiction and unhealthy competitive environment makes legal and property protection level less effect on corporate behavior, intervention by government officials will seriously affect corporate behavior.

5. The robustness of test

Endogenous problem in the model may come from two-way causal relationship between the explanatory variables and the dependent variable. In this paper, some companies which have good performance and voluntary information disclosure would choose to invest in the areas that have good government quality, and better government quality will drive these companies to voluntarily disclose more information. In order to eliminate such endogenous problems, scholars at home and abroad have tried much. We use instrumental variable regression model and GMM methods to estimate the model parameters. According to Zhi Yan (2013),it found that enhancing government efficiency can help to improve the carbon control efficiency ,this paper used total investment of environmental pollution control, infrastructure construction of urban environment, the output value of comprehensive utilization of waste products, industrial dust and smoke removal amount and urban sewage treatment rate as a measure of the government quality instrumental variables.

The dynamic panel model results using instrumental variable GMM estimation method (IV-GMM) are as shown in Table 6. Regression results found that the model over-identification test statistics Sargen value was not significant at the level of 10%, so we accept the null hypothesis, indicating that the model excessive identification constraints established, dynamic panel model is reasonable, the selected instrumental variables can effectively alleviate the endogenous problems of dynamic Panel model.

6. Conclusions

Overall, this paper provides new evidence of the impact on enterprises' motivation for voluntary information disclosure, namely to enhance the overall quality of government can contribute to voluntary information disclosure of enterprises ,but the relationship varies in different degrees of competition, the fiercer market competition, the smaller the compact of government quality on voluntary disclosure. This paper complements the quality of government affecting corporate behavior empirical literature and also provides new evidence on the consequences of market competition.

Reference

Alford, A., Jones, J., Leftwich, R., Mark Zmijewski, M.(1993).TheRelative In formativeness of Accounting Disclosures in Different Countries. Journal of Accounting Research,31:183-223.

Bamber, L., Cheon, Y.(1998).Discretionary Management Earnings Forecast Disclosures: Antecedents and Outcomes Associated With Forecast Venue and Forecast Specificity Choices.Journal of Accounting Research , 36:167–190.

Chen Deqiu, Jin Xin, Liu Xin.(2011a).Government Quality, Social Capital and The Pyramid Structure. China Industrial Economy,7:129-139.

Chen Deqiu, Li Sifei, Wang Cong.(2011b).Government Quality, Ultimate Property Management and Corporate Cash Holdings. Management World, 11:127-141.

Chen Deqiu,Li Sifei,Zhong Yunjia.(2012).Government Quality, Investment and Capital Allocation Efficiency. World Economy,3:89-110.

Cheng Xinsheng, Tan Youchao, Xu Lei.(2011).Value of The Company, Voluntary Disclosure and The Process of market .Finance Research,8:111-127.

Cooke, T. E.(1989). Voluntary Disclosure by Swedish Companies. Journal of International Financial Management and Accounting, 1:1–25.

Cui Xuegang.(2004).Financial Information Disclosure of Listed Companies: Government Function and Role. Accounting Research,4:33-38.

Du Xingqiang.(2003).SOE Property Accounting Information Deformity and Interpretation. Accounting Research, 2:37-41.

Fama, E., Miller, M.(1972).The Theory of Finance. Hinsdale: Dryden Press.

Fan J. P. H., J., Wei, K. C. J., X. Xu.(2011).Corporate Finance and Governance in Emerging Markets: A Selective Review and an Agenda for Future Research. Journal of Corporate Finance, 17:207-214.

Fries, C., Jones, T., Malone, D.(1993).An Empirical Investigation of The Extent of Corporate Financial Disclosure in The Oil and Gas Industry. Journal of Accounting, Auditing and Finance, 8:249–273.

Haniffa, R.M., Coode, T. E.(2002).Culture, Corporate Governance and Disclosure in Malaysian Corporations. Abacus, 38:317–349.

Hossain, M., Perera, H. B., Rahman, A. R.(1995).Voluntary Disclosure in The Annual Reports of New Zealand Companies. Journal of International Financial Management and Accounting, 6:69–87.

Jiang, G., C. M. C. Lee, H. Yue.(2010).Tunneling Through Intercorporate Loans: The Chinese Experience. Journal Finance Economics,98:1-20.

La Porta, R., Lopez-de-Silanes, F. A., Schleifer, Vishny, R.(1999).The Quality of government. Journal of Law, Economics and Organizations,15:222-279.

Lan, Y., Wang, L., Zhang, X.(2013).Determinants and Features of Voluntary Disclosure in The Chinese Stock Market. China Journal of Accounting Research,6:265-285.

Lang, M., Lins, K., Miller, D.(2003a).ADRs, Analysts, and Accuracy: Does Cross Listing in The United States Improve A Firm's Information Environment and Increase Market Value? Journal of Accounting Research,41: 317–345.

Leuz, C., Oberholzer-Gee, F.(2006).Political Relationships, Global Financing and Corporate Transparency. Journal Finance Economics, 81:411-439.

Liao Guanmin Shen Hongbo.(2014).Policy Burdens of SOEs: Causes, Consequences .China Industry Economy, 6: 96-108.

Ling Xiaodong.(1992).Government Intervention in The Market Economy, Management World,6:96-101.

Liu Xiaoxuan.(2003).Chinese Transition Corporate Behavior and Market Equilibrium .China Social Science,2: 61-71.

Lu Xianxiang.(2004).New Institutional Economics. Wuhan: Wuhan University Press.

Peng M. W., Luo Yadong.(2002).Managerial Ties and Firm Performance in A Transition Economy: The Nature of a Micro-Macro Link. Academy of Management Journal, 43:486-501.

Qiu Haixiong, Xu Jianniu.(2004).Market Transformation Process Role of Local Government. Review of Sociological Research,4:24-30.

Shi, Y., Kim, J. B., Magnan, M. L.(2014).Voluntary Disclosure, Legal Institutions, and Firm Valuation: Evidence from U.S. Cross-Listed Foreign Firms. Journal of International Accounting Research,13:57-85.

Shleifer, Andrei, Vishny, R.(1993).Corruption. Quarterly Journal of Economics,109:599-617.

Singhvi, S., Desai, H. B.(1971).An Empirical Analysis of The Quality of Corporate Financial Disclosure. Accounting Review, 46:621–632.

Sun Zheng, Liu Fengwei, Li Zengquan.(2005).Degree of Market, Government Intervention and Debt Maturity Structure - Evidence from Chinese Listed Companies. Economic Research Journal, 5:76-128.

Wallace, R. S. O., Naser, K., Mora, A.(1994).The Relationship Between The Comprehensiveness of Corporate Annual Reports and Firm Characteristics in Spain. Accounting and Business Research, 25:41–53.

Wang Xiongyuan, Liu Yan.(2008).Product Market Competition and The Quality of Information Disclosure Empirical Study. Economic Science,1:92-103.

Wang, K., Sewon, O. M., Claiborne, C.(2008).Determinants and Consequences of Voluntary Disclosure in An Emerging Market: Evidence from China. Journal of International Accounting, Auditing and Taxation,7:14–30.

Xiao, J. Z., He, Y., Chow, C. W.(2004).The Determinants and Characteristics of Voluntary Internet-Based Disclosures by Listed Chinese Companies. Journal of Accounting and public Policy,23:191-225.

Xie Zhihua, Cui Xuegang.(2005).Disclosure Levels: Government Oversight and Market-Driven - Based on Chinese Listed Companies' Data. Accounting Research,4:39-45.

Zhi Yan.(2013).Branched Carbon Efficiency Regulation, Government Capacity and Carbon Emission. Statistical Research,2:64-72.

Table 1: Variable definition

Y_1=Occurrence	forecast=1,non-forecast=0.
Y_2=Frequency	Forecast for one time=1, forecast for two times=2.
Y_3=Precision	closed interval forecast=3 ,open interval forecast=2 , qualitative forecast=1.

Table 2: Descriptive statistics

All data

	Obs.	Min	Mean	Median	Max	Std.
Y_1	8064	0	0.617	1	1	0.486
Y_2	8064	0	0.74	1	4	0.67
Y_3	8064	1	2.037	2	3	0.959
GQI_ag	8064	-4.25	0.076	-0.25	4.5	2.176
GQI_inter	8064	0.006	0.047	0.047	0.089	0.015
GQI_ent	8064	0.3	1.133	1.2	2.4	0.453
GQI_court	8064	0.3	0.617	0.62	0.98	0.161
GQI_property	8064	0.296	0.617	0.617	0.982	0.162
HHI_ind	8064	0.004	0.024	0.012	0.364	0.032
Cover	8064	0	0.692	1	1	0.462
Audit	8064	0	0.054	0	1	0.226
TQ	8064	0.671	2.625	2.02	12.283	1.966
ROA	8064	-0.325	0.038	0.04	0.244	0.076
Lev	8064	0.044	0.47	0.46	1.893	0.263
Size	8064	18.64	21.697	21.544	25.274	1.307
Liquid	8064	-1.178	-0.032	-0.011	0.478	0.239
Three	8064	17.697	52.665	53.009	88.582	16.07
State	8064	0	0.524	1	1	0.499

By market competition

	High-competition		**Low-competition**		*t-test*
	Obs.	Mean	Obs.	Mean	
Y_1	4193	0.603	3871	0.632	-4.36***
Y_2	4193	0.724	3871	0.757	-3.20***
Y_3	4193	2.02	3871	2.056	-3.41***
GQI_ag	4193	0.07	3871	0.083	-0.40
GQI_inter	4193	0.046	3871	0.047	-2.07**
GQI_ent	4193	1.148	3871	1.116	3.08***
GQI_court	4193	0.618	3871	0.617	-0.11
GQI_property	4193	0.618	3871	0.617	-0.12
HHI_ind	4193	0.008	3871	0.041	-70.25***
Cover	4193	0.683	3871	0.702	-4.74***
Audit	4193	0.047	3871	0.062	-3.69***
TQ	4193	2.469	3871	2.775	-8.46***
ROA	4193	0.038	3871	0.038	-0.72
Lev	4193	0.472	3871	0.462	0.97
Size	4193	21.688	3871	21.708	1.53**
Liquid	4193	-0.034	3871	-0.027	0.39
Three	4193	51.468	3871	53.949	-7.97***
State	4193	0.535	3871	0.513	-0.36

Table 3: Government Quality, Market Competition and Voluntary Disclosure（Y_1）

	Y1=Occurrence							
	Model1				***Model2***			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GQI_ag	0.009*** (3.25)				0.005 (1.41)			
GQI_ag× HHI					0.231*** (2.81)			
GQI_ent		0.403** (-2.43)				0.027 (0.14)		
GQI_ent× HHI						15.136*** (3.88)		
GQI_court			0.111** (2.49)				0.060 (1.12)	
GQI_court× HHI							1.848* (1.67)	
GQI_property				0.111** (2.51)				0.061 (1.14)
GQI_property× HHI								1.849* (1.68)
HHI					-0.21 (-0.58)	0.027 (0.14)	-0.695 (-0.83)	-0.696 (-0.83)
Cover	0.061*** (3.90)	0.062*** (3.94)	0.061*** (3.89)	0.061*** (3.89)	0.061*** (3.89)	15.136*** (3.88)	0.061*** (3.88)	0.061*** (3.88)
Audit	0.057* (1.88)	0.054* (1.76)	0.059* (1.93)	0.059* (1.93)	0.056* (1.84)	0.054* (1.75)	0.059* (1.91)	0.059* (1.91)
TQ	0.009** (1.98)	0.008* (1.82)	0.009* (1.91)	0.009* (1.91)	0.009* (1.92)	0.008* (1.71)	0.008* (1.89)	0.008* (1.89)
ROA	-0.936 (-9.16)	-0.927*** (-9.11)	-0.928*** (-9.07)	-0.928*** (-9.07)	-0.928*** (-9.14)	-0.920*** (-9.12)	-0.922*** (-9.07)	-0.922*** (-9.07)
Lev	0.021 (0.50)	0.031 (0.74)	0.026 (0.60)	0.025 (0.60)	0.019 (0.46)	0.031 (0.74)	0.025 (0.59)	0.025 (0.59)
Size	-0.067*** (-7.86)	-0.068*** (-8.04)	-0.067*** (-7.92)	-0.067*** (-7.92)	-0.066*** (-7.80)	-0.068*** (-8.01)	-0.067*** (-7.90)	-0.067*** (-7.90)
Liquid	-0.003 (-0.07)	0.002 (0.05)	-0.001 (-0.01)	-0.001 (-0.02)	-0.008 (-0.18)	-0.002 (-0.05)	-0.004 (-0.09)	-0.004 (-0.09)
Three	0.003*** (5.90)	0.003*** (5.68)	0.003*** (6.01)	0.003*** (6.01)	0.003*** (5.79)	0.003*** (5.65)	0.003*** (5.88)	0.003*** (5.88)
State	-0.150*** (-8.54)	-0.154*** (-8.77)	-0.152*** (-8.65)	-0.152*** (-8.65)	-0.150*** (-8.60)	-0.153*** (-8.76)	-0.151*** (-8.61)	-0.151*** (-8.61)
Constant	1.844*** (9.97)	1.949*** (10.46)	1.799*** (9.62)	1.798*** (9.62)	1.830*** (9.89)	1.889*** (10.14)	1.812*** (9.62)	1.811*** (9.62)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	8064	8064	8064	8064	8064	8064	8064	8064
R2_adjust	0.163	0.162	0.162	0.162	0.165	0.165	0.164	0.164

***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 4: Government Quality, Market Competition and Voluntary Disclosure（Y_2）

	Y2=Frequency							
	Model1				***Model2***			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GQI_ag	0.009** (2.26)				0.004 (0.93)			
GQI_ag× HHI					0.228** (2.00)			
GQI_ent		0.367 (-1.63)				-0.059 (-0.22)		
GQI_ent× HHI						17.368*** (3.36)		
GQI_court			0.101* (1.70)				0.048 (0.67)	
GQI_court× HHI							1.973 (1.31)	
GQI_property				0.102* (1.72)				0.048 (0.67)
GQI_property× HHI								1.992 (1.34)
HHI					-0.262 (-0.53)	2.215*** (4.05)	-0.837 (-0.74)	-0.850 (-0.75)
Cover	0.062*** (2.88)	0.063*** (2.91)	0.062*** (2.88)	0.062** (2.88)	0.062*** (2.87)	0.063*** (2.91)	0.062*** (2.87)	0.062*** (2.87)
Audit	0.129** (2.54)	0.126** (2.48)	0.130** (2.57)	0.130** (2.57)	0.127** (2.52)	0.125** (2.47)	0.129** (2.56)	0.130** (2.56)
TQ	0.015** (2.21)	0.014** (2.10)	0.014** (2.17)	0.014** (2.17)	0.014** (2.17)	0.013** (2.02)	0.014** (2.16)	0.014** (2.16)
ROA	-1.790*** (-11.10)	-1.780*** (-11.08)	-1.781*** (-11.04)	-1.782*** (-11.04)	-1.783*** (-11.07)	-1.775*** (-11.10)	-1.776*** (-11.03)	-1.776*** (-11.03)
Lev	0.005 (0.08)	0.015 (0.25)	0.009 (0.16)	0.009 (0.16)	0.003 (0.05)	0.014 (0.24)	0.009 (0.15)	0.008 (0.14)
Size	-0.068*** (-5.78)	-0.070*** (-5.89)	-0.069*** (-5.83)	-0.069*** (-5.83)	-0.067*** (-5.73)	-0.069*** (-5.84)	-0.068*** (-5.80)	-0.068*** (-5.80)
Liquid	0.026 (0.43)	0.031 (0.51)	0.029 (0.47)	0.029 (0.47)	0.021 (0.35)	0.027 (0.44)	0.025 (0.41)	0.025 (0.41)
Three	0.003*** (4.81)	0.003*** (4.67)	0.003*** (4.88)	0.003*** (4.88)	0.003*** (4.73)	0.003*** (4.65)	0.003*** (4.78)	0.003*** (4.78)
State	-0.185*** (-7.84)	-0.188*** (-8.05)	-0.187*** (-7.92)	-0.187*** (-7.92)	-0.185*** (-7.87)	-0.187*** (-8.05)	-0.185*** (-7.88)	-0.185*** (-7.88)
Constant	2.005*** (7.84)	2.103*** (8.11)	1.965*** (7.66)	1.965*** (7.66)	1.993*** (7.79)	2.038*** (7.87)	1.981*** (7.69)	1.980*** (7.69)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	8064	8064	8064	8064	8064	8064	8064	8064
R2_adjust	0.145	0.144	0.144	0.144	0.146	0.146	0.145	0.145

***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 5 Government Quality, Market Competition and Voluntary Disclosure（Y_3）

	Y_3=Precision							
	Model1				***Model2***			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GQI_ag	0.027*** (4.47)				0.020*** (2.87)			
GQI_ag× HHI					0.332* (1.84)			
GQI_ent		1.150*** (-3.25)				0.565 (1.34)		
GQI_ent× HHI						22.935*** (2.64)		
GQI_court			0.314*** (3.33)				0.283** (2.49)	
GQI_court× HHI							0.851 (0.35)	
GQI_property				0.315*** (3.35)				0.285** (2.51)
GQI_property× HHI								0.833 (0.34)
HHI					0.142 (0.19)	3.510*** (3.80)	0.656 (0.36)	0.667 (0.37)
Cover	0.181*** (5.80)	0.184*** (5.84)	0.182*** (5.78)	0.181*** (5.78)	0.181*** (5.79)	0.184*** (5.85)	0.181*** (5.76)	0.181*** (5.76)
Audit	-0.142* (-1.91)	-0.151** (-2.03)	-0.136* (-1.82)	-0.136* (-1.82)	-0.144* (-1.94)	-0.151** (-2.03)	-0.137* (-1.83)	-0.137* (-1.82)
TQ	0.009 (0.86)	0.007 (0.65)	0.008 (0.76)	0.008 (0.76)	0.008 (0.79)	0.006 (0.54)	0.007 (0.68)	0.007 (0.68)
ROA	-0.990*** (-4.15)	-0.961*** (-4.05)	-0.964*** (-4.03)	-0.964*** (-4.03)	-0.973*** (-4.11)	-0.947*** (-4.03)	-0.949*** (-3.99)	-0.949*** (-3.99)
Lev	-0.062 (-0.65)	-0.032 (-0.33)	-0.049 (-0.50)	-0.049 (-0.51)	-0.064 (-0.67)	-0.032 (-0.34)	-0.047 (-0.49)	-0.048 (-0.50)
Size	-0.135*** (-7.78)	-0.140*** (-8.05)	-0.136*** (-7.86)	-0.136*** (-7.86)	-0.134*** (-7.74)	-0.139*** (-8.03)	-0.137*** (-7.87)	-0.137*** (-7.87)
Liquid	0.153* (1.67)	0.168* (1.83)	0.160* (1.73)	0.160* (1.72)	0.145 (1.58)	0.161* (1.76)	0.157* (1.69)	0.156* (1.69)
Three	0.006*** (5.55)	0.006*** (5.25)	0.006*** (5.68)	0.006*** (5.68)	0.006*** (5.43)	0.005*** (5.19)	0.006*** (5.55)	0.006*** (5.55)
State	-0.331*** (-8.98)	-0.342*** (-9.30)	-0.338*** (-9.11)	-0.338*** (-9.11)	-0.330*** (-8.99)	-0.340*** (-9.27)	-0.334*** (-9.03)	-0.334*** (-9.03)
Constant	4.355*** (11.83)	4.657*** (12.65)	4.232*** (11.32)	4.230*** (11.31)	4.325*** (11.74)	4.554*** (12.35)	4.219*** (11.20)	4.217*** (11.20)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	8064	8064	8064	8064	8064	8064	8064	8064
R2_adjust	0.187	0.185	0.184	0.185	0.188	0.187	0.186	0.186

***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 6 Robust test:IV

	Y1=Occurrence	***Y2=Frequency***	***Y3=Precision***
	(1)	(2)	(3)
GQI_ag	0.029* (1.82)	0.043** (2.07)	0.091*** (3.44)
Cover	0.064 (1.41)	0.019 (0.31)	0.198** (2.53)
Audit	0.075 (0.91)	0.232** (2.15)	-0.127 (-0.88)
TQ	0.024*** (2.59)	0.027** (2.20)	0.035** (2.17)
ROA	-0.181 (-0.63)	-0.460 (-1.23)	1.078** (2.16)
Lev	0.339*** (3.08)	0.290** (2.00)	0.737*** (3.75)
Size	-0.006 (-0.29)	0.014 (0.54)	-0.060* (-1.72)
Liquid	0.142 (1.26)	0.105 (0.71)	0.353* (1.82)
Three	-0.001 (-0.42)	-0.002 (-0.95)	-0.001 (-0.34)
State	-0.063 (-1.53)	-0.076 (-1.41)	-0.099 (-1.39)
Constant	0.415 (0.97)	0.150 (0.27)	2.359*** (3.21)
Sargen J	2.648	4.034	2.085
Sargen J_p	0.266	0.133	0.353
Industry	Yes	Yes	Yes
Obs.	726	726	766
R2_adjust	0.0379	0.0332	0.00364

Appendix: Notes

[i]The measurement for the government quality has four dimensions, namely the legal environment, protection of property rights, corruption level and public goods. In this paperwe use the legal environment, the level of protection of property rights and corruption level as the main explanatory variables, use the public goods as a robustness check.

[ii]According to Chen Deqiu et al.(2011a,2011b,2012) research methods,each sub-index sort from low to high, forming deciles. Top 10% getsthe lowest score,bottom 10% gets the highest score. Then average 4 sub-index to acquire the government quality integrated index.

[iii] Herfindahl index can differentiate market structure based on the company's market share. The calculation method is as follows: HHI= $\sum$ (Xi/X) 2 (i=1,2,..,N), where x is the total market size; Xi is the scale of the enterprise i, Xi/X is the enterprise"i" market share; N is the number of enterprises within the industry.