Volume 19, Number 2 – June 2017
China Accounting and Finance Review
中国会计与财务研究
2017年6月 第19卷 第2期

Government Stakeholder and CSR Reports: Evidence from China*

Wei Yu and Ying Zheng [1]

Received 4th of January 2017 Accepted 12th of April 2017

Abstract

This study examines how the government, as a powerful stakeholder, may affect the level of disclosure in corporate social responsibility (CSR) reports in China. We find that state ownership and the political connections of firms are determinants of the CSR disclosure behaviour of listed companies in China. Although state-owned enterprises (SOEs) are more likely to produce CSR reports, there is no significant difference between SOEs and non-SOEs in terms of the disclosure levels of these reports. We also find that politically connected companies are more likely to produce CSR reports characterised by a high level of disclosure. In addition, firms that submit more CSR reports obtain more government subsidies, which can be regarded as a reward from the government to CSR firms that comply with government policies. In general, our findings support the theory that government incentives and corporate governance characteristics such as state ownership and political connections can influence organisational approaches to CSR disclosure. CSR reports can have a real economic impact on firms by helping firms to obtain financial support from an intervening government.

Keywords: Corporate Social Responsibility (CSR), Government Intervention, Political Connection, Stakeholder Theory, China

* We wish to thank the participants of research workshops held at Shanghai University of International Business and Economics and Sun Yat-Sen University for their helpful comments. Nan Liu and Meng Zhang provided excellent research assistance. Yu gratefully acknowledges the financial support received from the Shanghai Municipal Education Commission and from the Ministry of Education of the People's Republic of China (Grant Nos. 16YJA630070 and 15YJA630075). Ying Zheng gratefully acknowledges the financial support received from the Natural Science Foundation of Guangdong Province (Grant No. 2016A030313265). All errors are our own.
[1] Corresponding author: Wei Yu, Associate Professor, School of Finance, Shanghai University of International Business and Economics; Email: yuwei@suibe.edu.cn. Ying Zheng, Associate Professor, Accounting Department, Business School, Sun Yat-Sen University; Email: zhengy26@mail.sysu.edu.cn.

政府对企业社会责任报告的影响：来自中国的实证研究

摘要

本文研究了中国企业最重要的利益相关者，即政府，如何影响企业社会责任报告的披露。研究发现：在中国的上市公司中，国有控股和企业的政治关联会影响企业社会责任报告的披露。尽管国有控股企业更可能发布社会责任报告，但国有企业与非国有企业社会责任相关信息披露的水平并没有显著地差异。有政治关联的企业不仅更可能发布社会责任报告，而且信息披露的水平更高。研究进一步发现，上市公司披露社会责任报告信息越多则越可能获得政府补贴，这可以视为政府对企业响应政府政策的一种奖励。因此，我们的研究支持了利益相关者理论，即政府动机和公司治理结构中的控股权类型和政治关联都会影响企业社会责任的披露。在政府干预较多的国家，社会责任报告可以帮助企业获得政府的财政支持，对公司产生实际的经济影响。

I. Introduction

There is a growing literature on the determinants of corporate social responsibility (CSR) disclosure around the world as stakeholders and other public entities rely on such information to assess firms. From a stakeholder's perspective, such literature stresses the key effects of legal, market, industrial, and financial factors on the motives for and consequences of firms' CSR reporting (Evans and Sridhar, 2002; Trueman, 1997; Verrecchia, 1983). The increase in the number of CSR reports created by organisations appears to be directly related to intense social and political pressures from interest groups (Millstone and Watts, 1992; Walden and Schwartz, 1997). The corporate social responsibility model of stakeholder[2] analysis introduces other external influences on firms, such as regulatory or interest groups concerned with social and environmental issues (Roberts, 1992). However, governments as stakeholders have been less studied. China serves as a useful context from which to observe how governments as powerful stakeholders may affect firms' organisational decisions. Therefore, following stakeholder theory, our paper extends this line of study by investigating how institutional factors such as government ownership and political connections have affected CSR reporting in China. In addition, we show how firms can ensure a competitive advantage through the government by utilising CSR reports.

In China, the government acts as two types of stakeholder. On the one hand, the majority of Chinese firms are state-owned enterprises (SOEs) for which the government acts as a regulator and as the true owner (representing the People). On the other hand, the government controls the most important resources and has a significant impact on resource allocation and investment opportunities in China. Thus, the government plays a significant role in business success through direct and indirect control and intervention. As a result, the government can remain the strongest stakeholder. In addition, as is the case in other emerging economies, China's formal legal infrastructure and other formal institutions are underdeveloped. Due to the presence of such weak institutional environments, firms must consider government incentives, respond to government signals, and comply with government policies to gain competitive advantages. To the government, CSR-related activities are considered to "build a harmonious society" as they address serious social, labour, and environmental problems (Fisman and Wang, 2015). We propose that firms could use CSR reports as a means to obtain government resources and to achieve their business agendas, which are dependent on relationships between governments and firms.

Governments can intervene directly in firms' decisions through ownership or personnel arrangements. SOEs are owned directly or indirectly by the government, and the

[2] According to Freeman (1984), a stakeholder is defined as "any group or individual, who can affect or is affected by the achievement of the firm's objectives" and may be a shareholder, creditor, government, employee, customer, supplier, or other interest group.

government determines their many social goals. In firms with politically connected managers, CSR decisions are directly influenced by these managers. SOEs and firms with political connections tend to publish more CSR reports.

As a major instrument of government expenditure policies, subsidies are widely used in all countries to shape domestic resource allocation, structural and sectoral adjustments, and so forth. Government subsidies have long been used by the Chinese government as policies and tools for affecting firms' operational behaviour. Subsidies are unlikely to be exogenous, and governments more commonly select targets for subsidies on the basis of certain firm characteristics. Governments can use subsidies as a "visible hand" to give firms incentives to comply with government policies, including CSR-related activities.

In this paper, we examine CSR reports and their impacts on government subsidies of Chinese listed firms between 2008 and 2013. Our sample begins from 2008 because this was the year in which subsets of listed companies were required to produce annual CSR reports for the first time and because we wished to extend our sample size. We construct three measures of CSR disclosure: the likelihood of CSR reporting, report length, and CSR activity ratings. By identifying ultimate owners from a pyramidal structure, we divide Chinese listed firms into SOEs and non-SOEs. We find that ownership type and firms' political connections affect the likelihood of issuing a CSR report and the disclosure levels of CSR reports. Politically connected firms are more likely to create CSR reports and to produce reports characterised by a high level of disclosure. Although SOEs are more likely to produce CSR reports, most are created on a mandatory basis. Firms that create CSR reports or that disclose often obtain more government subsidies. Therefore, our empirical study shows that governments play a key role in CSR reporting in countries such as China whose economies are characterised by government intervention.

Our study makes a number of contributions to CSR research. First, we argue that levels of CSR disclosure can be actively promoted, latently sustained, or silently discouraged through government incentives. The Chinese government is deeply involved in the business market and serves as an important stakeholder. As a leading economy with increasing influence in the world, China is characterised by unique institutional settings that can be used by academic researchers to gain further insight that extends the literature. We show that ownership type and political connections may affect firms' strategic adherence to government signals and in turn to CSR disclosure. Second, we examine the effects of CSR disclosure on government subsidies. Previous studies have shown that the initiation of the voluntary disclosure of CSR leads to a reduction in firms' costs of equity capital in the United States (Dhaliwal *et al*., 2011) and improves analysis forecasting accuracy levels for international settings (Dhaliwal *et al*., 2012). Hung *et al*. (2013) found that mandatory CSR disclosure decreases information asymmetries in China. Our study may complement these studies by showing how CSR reporting affects economic resource allocation by affecting government subsidies in an economy characterised by government intervention. Third, China is one of the largest economies in the world; it has been characterised by an extremely high degree of GDP growth over the past 30 years and has often been criticised for prioritising economic development over issues of social sustainability. Chinese firms are not particularly concerned about issues of social responsibility and may be guilty of exacerbating environment pollution problems, violating labour rights, and so forth (Lin, 2010; Wang and Juslin, 2009). However, few firm-level empirical studies have examined Chinese social responsibility, and those that have been conducted have generated contradictory results. See (2009) suggests that a harmonious society is unlikely to promote CSR in China as policy measures that affect "constraints" driving CSR are bounded by other political considerations, while Marquis and Qian (2014) show that firms' decisions on how to enact substantive CSR actions are dependent on pressures for legitimacy from the government and on relationships between firms and governments. Our study presents new findings on the CSR disclosure of listed firms and reveals interesting channels of political effects in China.

The remainder of this paper is organised as follows. The following section describes the institutional background examined and presents our hypotheses. Section III describes the sample selection procedures and data sources used. Section IV describes our descriptive analysis, empirical results, and robustness tests, and the last section concludes the paper.

II. Institutional Background and Hypothesis Development

2.1 CSR Practices in China

The Chinese economy has developed at an unprecedented rate since the 1978 economic reforms, and China has rapidly emerged as one of the world's most important economic powers. Although dramatic economic growth has been achieved, Chinese companies are often criticised in regards to environmental issues, worsening working conditions, low-quality product outcomes, and so forth (Lin, 2010; Wang and Juslin, 2009).

Several initiatives for promoting CSR development have been launched, including laws and regulations, government policies and guidelines, and non-governmental standards. The government has been central in directing discourse on Chinese CSR (Lin, 2010; Marquis and Qian, 2014). Although the 2006 Chinese Company Law requires "companies to operate in accordance with social morals and business ethics in addition to complying with laws and administrative regulations", firms are not required to submit CSR reports annually.

The two Chinese stock exchanges, Shenzhen and Shanghai, have also encouraged CSR disclosure (Hung *et al.*, 2013; Lin, 2010; Marquis and Qian, 2014). In 2006, the Shenzhen Stock Exchange (SZSE) promulgated the Guide on Social Responsibility for Listed Firms on the SZSE, and in May 2008, the Shanghai Stock Exchange (SHSE) produced the Guide on Environmental Information Disclosure for Enterprises Listed on the SHSE and the

Notice on Strengthening the Social Responsibility of Listed Enterprises. In December 2008, the SHSE and SZSE released the Notice Concerning Listed Companies' Preparation for 2008 Annual Reports, which required a subset of listed companies to produce CSR annual reports for the 2008 fiscal year to be released in 2009 (Marquis and Qian, 2014). The SHSE imposed this requirement on three types of listed companies: those included in the SHSE Corporate Governance Index, financial firms, and those with overseas listed shares. The SZSE imposed this requirement on all firms included in its 100 Index.

2.2 Determinants of CSR Disclosure in China

Stakeholder theory has often been used to study CSR reporting (Deegan *et al.*, 2002). The theory views CSR disclosure as a means of reducing information asymmetry, and it can therefore be used to legitimise a company's activities for a broad range of stakeholders. Companies must consider the interests of stakeholders such as suppliers, consumers, employees, and local communities alongside those of their shareholders. According to Freeman (1984), companies may attempt to achieve higher levels of transparency to gain the approval of their diverse stakeholders. Therefore, CSR reports can be used to engage with different stakeholder groups and are thus considered central to the future success of a company (Roberts, 1992; Ullmann, 1985).

China has introduced several proposals for promoting CSR. Due to the presence of concentrated ownership structures and weak corporate governance, the pressure from other stakeholders, such as minority shareholders and suppliers, on Chinese enterprises and controlling shareholders to disclose CSR activities is quite weak. The Chinese "reform and opening up policy" introduced in 1978 prompted the development of a unique hybrid market economy characterised by government intervention. Government bodies are powerful stakeholders that control many economic resources and are involved in many business activities (e.g. material sourcing, distribution, and marketing) (Luo, 2003). However, legal institutional infrastructures are typically underdeveloped, and the rule of law is absent, with weak enforcement of existing rules (Allen *et al.*, 2005). Responding to government signals and complying with government policies are therefore critical for firms. We propose that the CSR disclosure of Chinese firms is primarily affected by government policies and by relationships between firms and government.

2.2.1 Ownership structures

One unique characteristic of the Chinese corporate governance system is that listed firms maintain a concentrated ownership structure where a single investor (the local or central government or individuals) often exercises effective control over the firm. Liu and Anbumozhi (2009) show that 60% of China's listed firms were controlled by the state in 2008 and that this percentage has declined steadily with the development of the private sector economy. The objective to control shareholders will affect the operations and decisions of firms, including disclosure policies.

Many publicly traded Chinese SOEs have been generated from government entities since the 1990s. While SOEs have sold shares to outside investors, the government still controls these firms as the ultimate owner with a considerable ownership stake (Zhang *et al.*, 2010). Various levels of government can allocate key business resources such as licences and permits, subsidies and tax reductions, and financial resources (Li *et al.*, 2008). Through processes of decentralisation, the government controls two key SOE rights: personnel appointment and asset allocation.

The Chinese government has been particularly influential in guiding the CSR discourse. CSR is a concrete means of promoting social harmony and is necessary for sustainable development. It encourages organisational creativity, the maintenance of a positive corporate image, high-quality employee behaviours, and corporate cohesion. SOEs serve as the backbone of China's economy and security by affecting every aspect of life, and they are expected to serve as "leading examples" for all Chinese companies. The application of CSR is therefore critical for helping firms meet public expectations. The Third Plenum of the 18th Communist Party of China (CPC) Central Committee stresses that SOEs must "integrate CSR into corporate reforms" and "adapt CSR measures to be compatible with conditions at the national and organisational levels." We expect SOEs to use CSR reports as strategic tools for meeting the needs of the government, a powerful stakeholder.

Non-SOEs are owned by an individual, family, collective, or foreign company and behave more like traditional Western for-profit organisations. As personnel and family's wealth are directly related to the performance of firms, the controlling shareholder of a non-SOE should care less about CSR reporting than the controlling shareholder of an SOE.

We therefore pose the following hypothesis:

H1: Compared to non-SOEs, SOEs produce more CSR reports.

2.2.2 Firms' political relationships

Faccio (2006) finds that corporate political connections are particularly prevalent in countries that are considered to be highly corrupt and that the value of firms significantly increases when large shareholders or owners enter politics or when politicians enter boards of directors. Chinese firms prefer to maintain political connections, and many corporate executives have been or still are government officials. Chinese politically connected firms have been found to secure the best interest rates from state-owned banks and to receive help from government officers when in need, resulting in material benefits (Bai *et al.*, 2006; Li *et al.*, 2008; Wang and Qian, 2011).

Political connections change relationships between firms and governments, political dependence, and government monitoring. When firms are politically connected, they secure greater access to government resources and, in turn, their responses to government signals are affected. Firms need to support or at least comply with government policies, such as the establishment of the “Harmonious Society”, as the government sends numerous messages that CSR is an appropriate and desired aim (Marquis and Qian, 2014; See, 2009). We therefore hypothesise the following:

H2: A firm with political connections is likely to generate more CSR reports.

2.3 Government Subsidies and CSR Reporting

Subsidies are common both in the developing world and in developed economies. In many countries, governments grant various types of subsidies to the business sector to offset market imperfections, to exploit economies of scale, and to pursue social policy objectives (Schwartz and Clements, 1999). Government subsidies act as an “visible hand” by influencing resource allocation and by helping firms achieve political and economic objectives. Previous studies have shown that governments can offer subsidies to firms to improve productivity and performance levels (Azzimonti *et al.*, 2008; Lee, 1996); to stimulate research and development (R&D) (Davidson and Segerstrom, 1998; González *et al.*, 2005; Gorg and Strobl, 2007); and to shape export competitiveness (Brander and Spencer, 1985; Desai and Hines, 2008; Girma *et al.*, 2009), employment and wages (de Mel *et al.*, 2010; Phelps, 1994; Snower, 1994), and environmentally friendly practices (Conrad and Wang, 1993).

Consistent with the prevailing socio-political ideology applied in China, the Chinese government offers financial assistance to firms, including many listed companies. Subsidies from the government constitute an important resource for Chinese firms. Government subsidies are provided to support investment, to stimulate export activity, and to allow firms to pursue social objectives (Girma *et al.*, 2009; Lee *et al.*, 2014). O’Connor *et al.* (2006) and Hung *et al.* (2012) find that Chinese SOEs receive more subsidies on average relative to privately controlled firms because the government makes use of them to pursue socio-political objectives (i.e. to create job opportunities and to stabilise local economies). Lee *et al.* (2014) show that in China, subsidies are positively related to firm value, especially subsidies granted through non-tax channels.

Subsidies are rarely exogenous, and it is more customary for governments to select targets to subsidise on the basis of certain firm characteristics. Governments can use subsidies as a “visible hand” to give firms incentives to comply with government policies. In 2006, the Sixth Plenum of the 16th CPC Central Committee stated that “firms should carry out extensive activities to create harmony, to promote harmonious conditions, and to focus on strengthening the social promoting of citizens, enterprises, and all kinds of organisations.” In 2014, the Fourth Plenum of the 18th CPC Central Committee stressed that “corporate social responsibility legislation should be enacted and firms should strengthen the performance of corporate social responsibility.” The drive to “promote a harmonious society" may, however, lead to the generation of a responsible government that offers government subsidies to specific firms that satisfy CSR reporting requirements and that produce high volumes of CSR information. Therefore, we pose our third hypothesis:

H3: On average, firms creating more CSR reports secure more government subsidies.

III. Sample Selection Procedures and Data Sources

This study covers all of China's companies listed on the Shanghai and Shenzhen stock exchanges between 2008 and 2013. Our sample starts from 2008 because this was the year in which a subset of listed companies was required to produce CSR annual reports for the first time and we wished to extend our sample size. Data sources used include archival data from firms' annual financial and CSR reports, the China Stock Market and Accounting Research database (CSMAR), the Wind database, and CSR report ratings drawn from the CSR rating agency Rankins (also known by the English acronym RKS; http://www.rksratings.com). Firms' annual financial and CSR reports were downloaded from firm, stock exchange, and public finance websites (e.g. http://www.hexun.com/ and http://www.eastmoney.com/).

When creating CSR reports, managers must make two decisions: first, whether to issue an annual CSR report, and second, if one is issued, how much information to disclose. The level of information disclosed in CSR reports varies. In this study, levels of firms' CSR disclosure are measured on the basis of three different variables: *CSR_Dummy*, *CSR_Pages*, and *CSR_Score*. The *CSR_Dummy* variable determines whether a firm has generated a CSR report, and the *CSR_Pages* variable is equal to the number of pages in a firm's CSR report. The *CSR_Score* variable rates the CSR activities generated by the Rankins CSR rating agency, whose China-specific products are imitated by the social investment rating agency Kinder, Lydenberg, Domini, & Co., Inc. (KLD) based in the United States. Marquis and Qian (2014) and Zheng *et al*. (2014) also use Rankins CSR ratings to measure levels of CSR reporting. Rankins was established in 2007 and has become a leading independent organisation specialising in CSR report ratings for China. The Rankins CSR rating system is based on the Global Reporting Initiative (GRI) 3.0 guidelines, which Rankins has adapted by adding China-specific CSR elements. Rankins collects and evaluates CSR reports using four indicators, namely, macrocosm, content, technique, and industry: (1) an "overall evaluation" considers a firm's CSR strategies, corporate governance of CSR activities, and stakeholders; (2) a "content evaluation" focuses on a firm's economic performance, labour and human rights, environment, fair business practices and operations, customers, and community issues; (3) a "technical evaluation" focuses on issues such as the transparency, regularity, comparability, and availability of CSR information; (4) an "industry evaluation" identifies specialised indicators of each industry (e.g. mining, media). Appendix B provides a detailed description of the RKS evaluation system. The rating scale ranges from 0 to 100, where high scores denote better reports.

To measure types of ultimate owners, we extract ownership information from the available annual reports on listed firms. As many of China's listed firms are controlled by dominant shareholders through pyramidal ownership structures, we follow the same procedures as those used in La Porta *et al*. (1999) and Claessens *et al*. (2000) to identify ultimate owners. An ultimate owner is defined as a shareholder that (1) maintains control over a listed firm with a greater than 20% cash flow and (2) is not controlled by any other entity. Ultimate shareholders can include government agencies, individuals or families, collectively owned firms, or foreign-owned enterprises. The ultimate owners of non-SOEs can be individuals or families, collectively owned entities, or foreign-owned enterprises. SOEs can also be divided into central and local government-controlled companies. The State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) may control central government-controlled firms directly or indirectly via other central government-controlled companies. Local government-controlled enterprises are owned by the SASAC at provincial and city levels.

We search through the profile information on chairmen and CEOs acquired from the Wind database, which provides detailed information on the company officers of Chinese listed firms. In addition to each CEO's name, the profile typically includes information on each CEO's current employment status, gender, age, educational experience, professional background, previous employment, and share ownership level. We trace the political connections of chairmen and CEOs by determining whether they currently hold, or have formerly held, positions in a central or local government bureau or in the military. Family, friendship, and educational ties can also help individuals build political connections when a family relative (parent, wife, cousin, etc.), good friend, or previous classmate holds an important government position. We only consider the individual work experiences of managers due to issues of data availability. Political connections are measured as the possibility for chairmen and CEOs to secure connections (see Appendix A for data definitions).

According to the Chinese Accounting Standards for 2006, government subsidies are defined as monetary or non-monetary assets obtained freely by an enterprise from the government, excluding capital invested by the government as a partial owner of an enterprise. Government subsidies are recorded as one subcategory of non-operating outlays in China. We obtain information on non-operating outlays from CSMAR and then identify government subsidies individually using keywords such as "government subsidy" and "government reward".

Other data are generated from CSMAR, a major source of information on Chinese stock markets and the financial statements of Chinese listed firms. After merging the above datasets and removing observations missing required variables, we obtain a sample of

12,096 firm-year observations for the period 2008-2013, a figure that represents roughly 90% of all Chinese listed firms for that period. Definitions of dependent and independent variables are reported in Appendix A.

IV. Results

4.1 Descriptive Statistics

Table 1 presents a description of the sample. Panel A shows the sample distribution over time and divides the sample into firms by CSR disclosure and ownership type. Between 2008 and 2013, 3,032 CSR reports were created by Chinese listed firms; during this time, the number of reports created increased annually from 330 to 637. These results are consistent with government requirements and show that firms have become more willing to exhibit social responsibility. SOEs account for 46.42% of the sample and non-SOEs account for 53.57%. In total, 917 firms were directly or indirectly owned by the government in 2008, and this number remained almost unchanged from 2008 to 2013, while the number of listed non-SOEs increased gradually over the same period as more private firms became listed under the China Small and Medium Enterprise Board and Growth Enterprise Board. Panel B breaks down the sample by industry sector. Firm industries are classified by the Index of Listed Firms' Industrial Distribution generated by the China Securities Regulatory Commission (CSRC). One-digit industry sector codes are used, though not for the manufacturing industry. We use two-digit codes for the manufacturing industry, which accounts for 62.96% of the sample. Sample values range from 0.41% for Wood Products to 19.01% for Machinery, Equipment, and Meters.

Table 1 The Sample
Panel A Sample Distribution by Calendar Year

Year	By CSR reporting type		By ownership type		Total
	Non-CSR firms	CSR firms	SOEs	Non-SOE	
2008	1,184	330	917	597	1,514
2009	1,186	453	916	723	1,639
2010	1,488	463	942	1,009	1,951
2011	1,682	548	951	1,279	2,230
2012	1,772	601	943	1,430	2,373
2013	1,752	637	946	1,443	2,389
Total	9,064	3,032	5,616	6,481	12,096

Panel B Sector Distribution of the Sample

CSRC Code	Industry	Frequency	Percent
A	Agriculture	282	2.33
B	Mining	194	1.6
C	Manufacturing	7614	62.96
C0	Food, Beverages	481	3.98
C1	Textiles, Apparel, Leather	516	4.27
C2	Wood Products	49	0.41
C3	Paper, Printing	274	2.27
C4	Petroleum, Chemical Products, Rubber, Plastics	1,350	11.16
C5	Electronic Equipment	668	5.52
C6	Metal, Non-metallic Mineral Products	1,060	8.76
C7	Machinery, Equipment, Meters	2,300	19.01
C8	Medicine, Biologic Products	730	6.04
C9	Other Manufacturing	186	1.54
D	Electricity, Gas, Water Supply	380	3.14
E	Construction	260	2.15
F	Transportation, Storage	403	3.33
G	Information, Technology	954	7.89
H	Wholesale and Retail Trade	645	5.33
I	Finance and Insurance	129	1.07
J	Real Estate	318	2.63
K	Social Services	368	3.04
L	Transmission, Culture	103	0.85
M	Conglomerate	446	3.69
	Total	12,096	100.00

Note: Classifications are based on the *Index of Industrial Distribution of List Companies* issued by the CSRC on 3 April 2001.

Table 2 Detailed Classifications of the CSR Firms

By regulation	SOEs	Non-SOEs	Number of CSR firms	Percent
Voluntary	437	581	1,018	33.57
Mandatory	1436	578	2,014	66.42
By reporting type	295	95	390	12.93
Separate CSR reports	1,578	1,064	2,642	87.07
Non-separate CSR reports	295	95	390	12.93
Total	1,873	1,159	3,032	100.00

Note: This table presents the number of CSR firms and their distributions between 2008 and 2013. We compare firms following mandatory CSR reporting standards with those following voluntary CSR standards, as well as firms creating separate CSR reports with those reporting CSR activities as part of the financial statements.

Table 2 divides the number of CSR firms on the basis of mandatory regulation and ownership. The table shows that 33.78% of firms adopting CSR disclosure voluntarily report information and that SOEs create more mandatory CSR reports than non-SOEs. Table 2 also shows how the firms disclose their CSR information. Some firms create separate CSR reports or include them in their annual statements, and we thus divide such firms into two groups accordingly. Approximately 12.93% include CSR reports as part of their annual statements. We find no difference between SOEs and non-SOEs in regards to CSR report disclosure methods.

Table 3 presents descriptive statistics for the dependent and independent variables used in the study. With the exception of *CSR_Pages* and *CSR_Score,* for which 3,023 observations are found, 12,096 observations are found for the other variables. CSR reports average 18.5 pages in length and range between 2 and 147 pages. The average CSR rating found is 35.68, and the ratings range between 11.69 and 88.85. Politically connected chairmen and CEOs are found in 44.72% of the sampled firms. Central government-controlled SOEs and local government-controlled SOEs respectively account for 13.95% and 30.59% of the sample. The cash flow rights of controlling shareholders average 36.90%, demonstrating that concentrated ownership structures dominate listed firms in China. The average board has 9.28 directors, and 37% of these are independent. The average firm size is RMB3.8 billion, with the median being substantially lower at roughly RMB2.68 billion. The average liability to total assets ratio is 46.70%. The mean ROA for

Table 3 Descriptive Statistics

Variable	N	Mean	SD	Median	Minimum	Maximum
CSR_Dummy	12096	0.25	0.43	0	0	1
CSR_Pages	3032	18.47	18.88	11	2	147
CSR_Score	3032	35.68	12.28	32.71	11.69	88.85
SOE	12096	0.46	0.50	0	0	1
Central_SOE	12096	0.14	0.35	0	0	1
Local_SOE	12096	0.31	0.46	0	0	1
Political_Connection	12096	0.45	0.50	0	0	1
Controlling_Percent	12096	37.00%	16.00%	35%	2%	100%
International_Investor	12096	0.08	0.27	0	0	1
Ln_Board	12096	2.23	0.23	2.20	1.39	3.26
Independent_Percent	12096	37.01%	6.09%	33.33%	0%	80%
SIZE	12096	21.73	1.30	21.56	18.95	26.12
ROA	12096	4.67%	6.28%	4.76%	-21.65%	22.63%
LEV	12096	0.46	0.24	0.46	0.04	1.23
Tobin's Q	12096	2.42	1.71	1.88	0.88	11.25
Firm_Age	12096	9.12	6.43	9	0	29
Subsidy	12096	0.01	0.01	0	0	0.05
Incipient_Loss	12096	0.02	0.15	0	0	1
Strategy_Industry	12096	0.08	0.27	0	0	1

Note: This table presents the descriptive statistical results for the period 2008-2013. Detailed variable definitions are shown in Appendix A.

the sampled firms is 4.67%, and Tobin's Q is 2.42. The average firm age is greater than nine years, showing that most listed firms in China have not operated for long since receiving an IPO. The mean government subsidy to total assets is only roughly 1%, which may be of economic significance given the value of total assets. In total, 2% of the sampled firms report a marginally negative operating income (-10%<ROA<0), and 8% are classified under strategic industries when they belong to the following industries: B01 Coal Mining; B03 Oil and Gas Extraction; D01 Electric, Gas and Sanitary Services; F01 Railroad Transportation; I01 Depository Institutions; I21 Security and Commodity Brokers, Dealers, Exchanges and Services; I31 Trusts; J01 Real Estate and Construction; K01 Utilities Services; and L10 Media.

Table 4 Group Comparison of CSR Firms and Non-CSR Firms

	Non-CSR Firms	CSR Firms	P-value for Difference in Mean (Median)
	(1)	(2)	(2)-(1)
SOE			
Mean (Median)	0.41 (0)	0.62 (0)	0.000 (0.000)
Central_SOE			
Mean (Median)	0.11 (0)	0.24 (0)	0.000 (0.000)
Local_SOE			
Mean (Median)	0.29 (0)	0.37 (0)	0.000 (0.000)
Political_Connection			
Mean (Median)	0.43 (0)	0.50 (0)	0.000 (0.000)
Controlling_Percent			
Mean (Median)	36.60 (34.98)	37.82 (36.1)	0.001 (0.039)
International_Investor			
Mean (Median)	0.06 (0)	0.13 (0)	0.000 (0.000)
Ln_Board			
Mean (Median)	2.21 (2.20)	2.30 (2.20)	0.000 (0.000)
Independent_Percent			
Mean (Median)	36.97 (33.33)	37.12 (33.33)	0.256 (0.007)
SIZE			
Mean (Median)	21.38 (21.29)	22.79 (22.66)	0.000 (0.000)
ROA			
Mean (Median)	4.27 (4.55)	6.12 (5.39)	0.000 (0.000)
LEV			
Mean (Median)	0.45 (0.44)	0.51 (0.52)	0.000 (0.000)
Tobin's Q			
Mean (Median)	2.56 (2.01)	1.99 (1.54)	0.000 (0.000)
Age			
Mean (Median)	8.70 (9)	10.36 (11)	0.000 (0.000)
Subsidy			
Mean (Median)	0.005 (0.002)	0.005 (0.002)	0.120 (0.230)
Number of Observations	9064	3032	

Note: This table compares the corporate and financial variables of Chinese non-CSR and CSR firms for the period 2008-2013. Detailed variable definitions are shown in Appendix A.

Table 4 compares the mean and median values of firm characteristics between the CSR and non-CSR samples. CSR firms are more likely to be controlled by the government than non-CSR firms as social welfare is prioritised over profit maximisation in SOEs. Politically connected firms are also more likely to produce CSR reports. CSR firms are larger and enjoy better leverage opportunities than non-CSR firms. Such firms also exhibit superior accounting performance and higher levels of ownership concentration, maintain larger boards, and are more likely have an international investor. CSR firms are also older and have low Tobin's Q scores, consistent with the fact that older firms typically exhibit lower growth potential.

We separate firms into SOE and non-SOE samples and compare the mean and median values of firm characteristics in Table 5. Although SOEs are more likely to release CSR reports, we find no difference between the two samples in terms of the length of CSR

Table 5 Group Comparison of SOE and non-SOE Firms

	SOE	Non-SOE	P-value for the Difference in the Mean (Median)
	(1)	(2)	(2)-(1)
CSR_Dummy			
Mean (Median)	0.33 (0)	0.18 (0)	0 (0)
CSR_Pages			
Mean (Median)	18.87 (12)	17.82 (10)	0.144 (0.001)
CSR_Score			
Mean (Median)	35.98 (33.03)	35.20 (32.23)	0.093 (0.033)
Political_Connection			
Mean (Median)	0.44 (0)	0.46 (0)	0.170 (0.170)
Controlling_Percent			
Mean (Median)	37.43 (35.55)	36.52 (35.13)	0.001 (0.291)
International_Investor			
Mean (Median)	0.069 (0)	0.089 (0)	0 (0)
Ln_Board			
Mean (Median)	2.27 (2.20)	2.20 (2.20)	0 (0)
Independent_Percent			
Mean (Median)	36.43 (33.33)	37.51 (33.33)	0 (0)
SIZE			
Mean (Median)	22.16 (21.99)	21.37 (21.18)	0 (0)
ROA			
Mean (Median)	4.19 (4.28)	5.21 (5.24)	0 (0)
LEV			
Mean (Median)	0.53 (0.54)	0.40 (0.37)	0 (0)
Tobin's Q			
Mean (Median)	2.08 (1.60)	2.72 (2.15)	0 (0)
Age			
Mean (Median)	11.71 (12)	6.87 (4)	0 (0)
Subsidy			
Mean (Median)	0.005 (0.002)	0.006 (0.002)	0.120 (0.110)
Number of Observations	5615	6481	

Note: This table compares the corporate and financial variables of Chinese SOEs and non-SOEs for the period 2008-2013. Detailed variable definitions are shown in Appendix A.

reports and only marginal differences between their respective CSR scores. Both SOEs and non-SOEs have high percentages of politically connected chairmen and CEOs. SOEs are larger, as measured as by total assets and board size, and older and enjoy better leverage opportunities than non-SOEs, while non-SOEs achieve better accounting performance, include more independent directors, exhibit higher growth potential as measured by Tobin's Q, and are more likely have an international investor.

4.2 Determinants of CSR Disclosure

We use three dependent variables to show levels of CSR reporting to examine decision-making processes. We run a Probit regression in our first model, as the dependent variable *CSR_Dummy* is a dummy variable denoting whether a firm produces CSR reports. To examine the disclosure level of a report (*CSR_Pages* and *CSR_Score*), we run an ordinary least squares (OLS) regression. Through a robustness check, we also use Tobit regressions for models 2 and 3, which show the same results. The regression models are as follows:

$$\begin{aligned}\text{Probit}(CSR\_Dummy_{i,t}) = \alpha_0 + \alpha_1 SOE_{i,t} + \alpha_2 Political\_Connection_{i,t} \\ + \sum \alpha_k Control_k + \varepsilon_i\end{aligned} \tag{1}$$

$$\begin{aligned}CSR\_Pages_{i,t} = \alpha_0 + \alpha_1 SOE_{i,t} + \alpha_2 Political\_Connection_{i,t} \\ + \sum \alpha_k Control_k + \varepsilon_i\end{aligned} \tag{2}$$

$$\begin{aligned}CSR\_Score_{i,t} = \alpha_0 + \alpha_1 SOE_{i,t} + \alpha_2 Political\_Connection_{i,t} \\ + \sum \alpha_k Control_k + \varepsilon_i\end{aligned} \tag{3}$$

The two key independent variables are *SOE* and *Political_Connection*. *SOE* is a dummy variable for an enterprise's ultimate ownership which is equal to 1 when a firm's ultimate controlling shareholder is a government entity (including central and local government-controlled SOEs) and 0 otherwise. *Political_Connection* is a dummy variable which is equal to 1 when a chairman or CEO currently holds or has held a position in a central or local government bureau or in the military and 0 otherwise. Following other studies (Dentchev, 2004; Dhaliwal *et al.*, 2011; Oh *et al.*, 2011), we control for the fundamental characteristics of firms. Our control variables include the ultimate shareholder's percentage of cash flow rights (*Controlling_Percent*); the existence of an international investor (*International_Investor*); board characteristics such as size measured by the natural log of board size (*Ln_Board*) and the proportion of independent directors (*Independent_Percent*); firm age (*Firm_Age*); and financial values such as firm size measured by the natural log of total assets (*SIZE*), accounting performance (*ROA*), leverage (*LEV*), and Tobin's Q (*Tobin's Q*). Financial values are winsorised for the top and bottom 1% to rule out outlier effects. We also control for whether CSR reporting is carried out through mandatory disclosure (*Mandatory*) and whether firms provide separate CSR reports (*Separate*). Definitions of all of the variables used are reported in Appendix A. We include year and industry dummies in all of the models and use robust standard errors clustered by firm in our empirical analysis as panel data are used. In addition, due to local economic, political, and cultural factors, firms based in the same geographic region will be more similar to one another than firms based in different municipalities (Fan *et al.*, 2007). Therefore, we include a regional dummy variable to categorise firms according to the provincial-level locations of their headquarters.

The regression results of models (1)-(3) are presented in Table 6. Columns 1-2 give the Probit regression of the likelihood of CSR disclosure. Column 1 reports the results of our full sample, and Column 2 excludes firms following mandatory CSR disclosure requirements. In Column 1, the coefficient for *SOE* is 0.35 and is significant at the 1% level and is marginally significant in Column 2 after we exclude mandatory CSR disclosure firms. These results show that SOEs are more likely to create CSR reports but that most of them may be obligated to do so by government agencies or by the stock exchange. In columns 3-6, the sample only includes firms following CSR disclosure standards. As dependent variables, *CSR_Pages* is used in columns 3-4 and *CSR_Score* is used in columns 5-6. In columns 4 and 6, we include the explanatory variables *Mandatory* and *Separate,* which control for government requirements and firm reporting types. The coefficient of *SOE* is insignificant, though that shown in Column 3 is marginally significantly negative.

The coefficients of *Political_Connection* are positive and significant. Our second hypothesis is thus also supported as politically connected firms are more likely to exhibit social responsibility in order to comply with government policies and satisfy government requirements.

Factors that significantly affect CSR reporting include ownership concentrations (*Controlling_Percent*), the presence of international investors (*International_Investor*), firm size (*SIZE*), board size (*Ln_Board*), Tobin's Q (*Tobin's Q*), and firm age (*Firm_Age*). Firms with international investors and larger board sizes disclose more in CSR reports. Concentrated ownership has a negative effect on reporting levels. Larger and higher growth potential firms are more likely to submit CSR reports and to maintain higher levels of CSR disclosure, findings which are consistent with previous studies (Attig *et al.*, 2013; Dentchev, 2004; Oh *et al.*, 2011). Disclosure levels of voluntary and separate CSR reporting were found to be high, as the *Mandatory* coefficient is significantly negative while the *Separate* coefficient is significantly positive.

By extension, we separate SOEs into central and local government-controlled SOEs, as shown in Table 7. The coefficients of *Central_SOE* are only significantly positive in columns 1 and 2, suggesting that central government-controlled SOEs are more likely to produce CSR reports and that the disclosure level of SOE reports is not significantly different from that of non-SOE reports. The *Local_SOE* coefficient is only significantly or insignificantly marginal. These results confirm that there is no significant difference in level of CSR reporting between SOEs and non-SOEs, although SOEs are more likely to submit CSR reports.

Table 6 Regression Results on CSR Reporting

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample	Sample Without Mandatory CSR Firms	CSR Firms	CSR Firms	CSR Firms	CSR Firms
Variables	*CSR_Dummy*		*CSR_Pages*		*CSR_Score*	
SOE	0.35***	0.20**	-1.17*	-0.79	0.24	0.39
	(0.00)	(0.04)	(0.09)	(0.26)	(0.58)	(0.37)
Political_Connection	0.10*	0.34***	0.78*	0.57*	1.05***	0.97**
	(0.06)	(0.00)	(0.07)	(0.09)	(0.01)	(0.01)
Controlling_Percent	-0.00	-0.00	-0.05**	-0.05**	-0.03***	-0.03***
	(0.64)	(0.44)	(0.01)	(0.02)	(0.01)	(0.01)
International_Investor	0.08	0.35***	3.94***	3.49***	2.12***	1.95***
	(0.40)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Ln_Board	0.40***	0.55***	1.62	1.53	3.03***	3.00***
	(0.00)	(0.00)	(0.24)	(0.27)	(0.00)	(0.00)
Independent_Percent	0.51	-0.11	3.30	3.00	2.56	2.44
	(0.25)	(0.87)	(0.51)	(0.55)	(0.36)	(0.37)
ROA	2.64***	2.38***	-8.00	-7.34	-4.44	-4.19
	(0.00)	(0.00)	(0.17)	(0.21)	(0.24)	(0.27)
LEV	-1.70***	-1.36***	-3.34	-2.90	-1.60	-1.42
	(0.00)	(0.00)	(0.10)	(0.15)	(0.20)	(0.26)
SIZE	1.17***	0.79***	5.55***	5.84***	3.32***	3.42***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tobin's Q	0.11***	0.09***	0.25	0.21	0.33**	0.31*
	(0.00)	(0.00)	(0.31)	(0.39)	(0.05)	(0.06)
Firm_Age	0.02***	-0.02**	-0.32***	-0.29***	-0.26***	-0.25***
	(0.00)	(0.03)	(0.00)	(0.00)	(0.00)	(0.00)
Mandatory				-3.25***		-1.20***
				(0.00)		(0.01)
Separate				3.49***		1.46**
				(0.00)		(0.02)
Constant	-27.71***	-21.93***	-109.75***	-115.02***	-52.27***	-54.18***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Year Dummy	Y	Y	Y	Y	Y	Y
Industry Dummy	Y	Y	Y	Y	Y	Y
Region Dummy	Y	Y	Y	Y	Y	Y
Observations	12,096	10,082	3,032	3,032	3,032	3,032
Pseudo R^2/R-squared	0.3	0.23	0.35	0.35	0.42	0.42

Notes: This table presents regression results on levels of CSR reporting based on firm types, regional indexes, and political connections of firms. All variables are defined in Appendix A. Two-tailed robust p-values are reported in parentheses; ***, ***, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 7 Regression Results of CSR Reporting for Central and Local Government-Controlled Firms

	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample	Sample without mandatory CSR firms	CSR firms	CSR firms	CSR firms	CSR firms
Variables	*CSR_Dummy*		*CSR_Pages*		*CSR_Score*	
Central_SOE	0.77***	0.84***	-0.47	-0.32	0.42	0.48
	(0.00)	(0.00)	(0.60)	(0.72)	(0.43)	(0.36)
Local_SOE	0.14*	-0.09	-1.43*	-1.01	0.08	0.24
	(0.05)	(0.39)	(0.05)	(0.17)	(0.86)	(0.60)
Political_Connection	0.12**	0.37***	0.83*	0.60	1.06***	0.97**
	(0.03)	(0.00)	(0.09)	(0.18)	(0.01)	(0.01)
Controlling_Percent	-0.00	-0.00	-0.05**	-0.05**	-0.03***	-0.03***
	(0.52)	(0.39)	(0.01)	(0.01)	(0.01)	(0.01)
International_Investor	0.08	0.33**	3.89***	3.46***	2.11***	1.94***
	(0.44)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Ln_Board	0.37***	0.49***	1.64	1.55	3.06***	3.02***
	(0.00)	(0.01)	(0.24)	(0.26)	(0.00)	(0.00)
Independent_Percent	0.61	-0.07	3.58	3.19	2.65	2.51
	(0.16)	(0.91)	(0.48)	(0.53)	(0.34)	(0.36)
ROA	2.80***	2.65***	-7.81	-7.23	-4.38	-4.17
	(0.00)	(0.00)	(0.18)	(0.21)	(0.25)	(0.27)
LEV	-1.71***	-1.42***	-3.44*	-2.98	-1.64	-1.45
	(0.00)	(0.00)	(0.09)	(0.14)	(0.19)	(0.25)
SIZE	1.17***	0.78***	5.54***	5.83***	3.31***	3.41***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tobin's Q	0.10***	0.08***	0.23	0.19	0.33*	0.31*
	(0.00)	(0.01)	(0.34)	(0.43)	(0.05)	(0.07)
Firm_Age	0.02***	-0.02**	-0.32***	-0.29***	-0.26***	-0.25***
	(0.00)	(0.05)	(0.00)	(0.00)	(0.00)	(0.00)
Mandatory				-3.22***		-1.18***
				(0.00)		(0.01)
Separate				3.48***		1.45**
				(0.00)		(0.02)
Constant	-27.60***	-22.23***	-109.62***	-114.89***	-52.20***	-54.09***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	12,175	10,082	3,032	3,032	3,032	3,032
Pseudo R^2/R-squared	0.24	0.23	0.35	0.35	0.42	0.42

Notes: This table presents regression results on levels of CSR reporting for central and local government-controlled firms based on firm types, regional indexes, and political connections. All variables are defined in Appendix A. Two-tailed robust p-values are reported in parentheses; ***, ***, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively.

The results shown in tables 6 and 7 thus provide some evidence that politically connected firms are more likely to create CSR reports characterised by a high level of disclosure. Although SOEs are more likely to produce CSR reports, most are disclosed on a mandatory basis, and we find no difference between the disclosure levels of CSR reports created by SOEs and those created by non-SOEs.

4.3 Government Subsidies and CSR Reporting

In this section, we examine the relationship between CSR reporting and government subsidies. The regression models are as follows:

$$Subsidy_{i,t} = \alpha_0 + \alpha_1 CSR\_Dummy_{i,t} + \sum \alpha_k Control_k + \varepsilon_i \tag{4}$$

$$Subsidy_{i,t} = \alpha_0 + \alpha_1 CSR\_Pages_{i,t} + \sum \alpha_k Control_k + \varepsilon_i \tag{5}$$

$$Subsidy_{i,t} = \alpha_0 + \alpha_1 CSR\_Score_{i,t} + \sum \alpha_k Control_k + \varepsilon_i \tag{6}$$

The dependent variable is government subsidies, which is calculated as the sum of government subsidies divided by total assets for year *t*. The independent variables used include *CSR_Dummy*, *CSR_Pages*, and *CSR_Score*. The control variables used include *SOE*, *Political_Connection*, *Controlling_Percent*, *International_Investor*, *Ln_Board*, *Independent _Percent*, *ROA*, *LEV*, *SIZE*, *Tobin's Q*, *Firm_Age*, *Incipient_Loss*, and *Strategy_Industry*. We use a Heckman model for the two equations with *CSR_Dummy* and *Subsidy* and a two-stage least squares regression (2SLS) with a linear system of two equations for *Subsidy* and *CSR_Pages* or *CSR_Score* due to endogeneity issues. To be cautious, we use two combinations of instrument variables. First, we use *Mandatory* and *Separate* as instruments for *CSR_Pages* and *CSR_Score* as these two variables are related to levels of CSR reporting and should not affect government subsidies. Second, in line with Chen *et al*. (2008) and Capital Trade Incorporated (2009), we use *Incipient_Loss* and *Strategy_Industry* as instruments for *Subsidy*. *Incipent_Loss* indicates that firms with a ROA are close to reaching positive profitability. *Strategy_Industry* includes firms in strategic industries that are central to domestic stability and that are more likely to obtain government subsidies (Capital Trade Incorporated, 2009). Chen *et al*. (2008) show that firms exhibiting a marginally negative accounting performance are more likely to receive government subsidies. We include year, industry, and regional dummies in all of the models.

The results of the Heckman and 2SLS models are presented in Table 8. Consistent with prior studies, the coefficients of *SOE*, *Incipient_Loss*, and *Strategy_Industry* are significantly positive according to firm government subsidy regressions. In Column 1, the Mills ratio (lambda) is significantly positive, and the coefficients on *CSR_Pages* and *CSR_Score* are also significantly positive in columns 3 and 5. In short, the results shown in Table 8 reveal positive relationships between firm government subsidies and CSR reporting

Table 8 Regression Results on Levels of CSR Reporting and Government Subsidies

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	*Subsidy*	*CSR_Dummy*	*Subsidy*	*CSR_Pages*	*Subsidy*	*CSR_Score*
CSR_Pages			0.0007***			
			(0.00)			
CSR_Score					0.005***	
					(0.00)	
Subsidy		1.52		32.14		46.16
		(0.23)		(0.25)		(0.13)
SOE	0.00***	0.20***	0.00***	-0.74	0.00*	0.44
	(0.00)	(0.00)	(0.00)	(0.28)	(0.08)	(0.31)
Political_Connection	0.00*	0.07**	0.00*	0.65*	0.00*	1.08***
	(0.06)	(0.01)	(0.05)	(0.08)	(0.07)	(0.00)
Controlling_Percent	0.00	0.00	0.00*	-0.04**	0.00**	-0.03**
	(0.97)	(0.87)	(0.05)	(0.01)	(0.03)	(0.01)
International_Investor	0.00	0.04	-0.00**	3.53***	-0.01***	1.98***
	(0.35)	(0.45)	(0.01)	(0.00)	(0.01)	(0.00)
Ln_Board	-0.00*	0.24***	-0.00	1.70	-0.02	3.20***
	(0.05)	(0.00)	(0.14)	(0.22)	(0.59)	(0.00)
Independent_Percent	0.00	0.35	0.00	3.42	-0.01	3.02
	(0.26)	(0.16)	(0.68)	(0.46)	(0.53)	(0.29)
ROA	-0.02***	1.43***	-0.01***	-7.03	-0.01***	-3.84
	(0.00)	(0.00)	(0.00)	(0.29)	(0.00)	(0.35)
LEV	0.00***	-0.90***	0.00	-2.56	0.00	-0.97
	(0.00)	(0.00)	(0.12)	(0.20)	(0.25)	(0.44)
SIZE	-0.00***	0.67***	-0.00***	5.78***	-0.02***	3.35***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tobin's Q	0.00***	0.07***	0.00***	0.19**	-0.00	0.27*
	(0.00)	(0.00)	(0.00)	(0.03)	(0.67)	(0.04)
Firm_Age	-0.00	0.01***	-0.00	-0.28***	0.00	-0.25***
	(0.12)	(0.00)	(0.29)	(0.00)	(0.45)	(0.00)
Incipient_Loss	0.001*		0.002*		0.002*	
	(0.09)		(0.09)		(0.09)	
Strategy_Industry	0.00**		0.01***		0.03***	
	(0.02)		(0.00)		(0.00)	
Mandatory				-3.20***		-1.13**
				(0.00)		(0.01)
Separate				3.29***		1.12*
				(0.00)		(0.09)
Mills ratio (Lambda)	0.001*					
	(0.051)					
Constant	0.06***	-15.88***	0.08***	-114.78***	0.28***	-53.99***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	12,096	12,096	3,032	3,032	3,032	3,032
Wald chi2/R-squared	720.40		0.21	0.35	0.21	0.42

Notes: This table presents regression results on levels of CSR reporting and government subsidies. We use the Heckman model for columns (1) and (2) and apply two-stage least squares estimations (2SLS) for systems of simultaneous equations for columns (3)-(6). All variables are defined in Appendix A. Two-tailed robust p-values are reported in parentheses; ***, ***, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively.

disclosure levels. Firms submitting CSR reports or exhibiting high levels of disclosure are more likely to obtain financial support from the government.

4.4 Robustness Checks

We perform robustness tests, which are untabulated. First, we use Tobit regressions for *CSR_Pages* and *CSR_Score* as these data are censored. Second, we exclude central government-controlled SOEs and recreate tables 6 and 8. The results obtained are consistent with those reported in this paper.

V. Summary and Conclusion

In this study, we use stakeholder theory to investigate how the government as a powerful stakeholder affects CSR disclosure in China. We examine the effects of government ownership and levels of political connection on CSR disclosure. Following La Porta *et al*. (1999) and Claessens *et al*. (2000), we identify ultimate owners through pyramidal ownership structures and separate firms into SOEs and non-SOEs. We construct three measures of CSR disclosure: the likelihood of CSR reporting, report length, and CSR activity rating. We examine CSR report information drawn from Chinese listed firms for 2008 to 2013.

We find that firm ownership and political connections may affect levels of CSR disclosure in Chinese listed firms. The political connections of firms have a positive effect on levels of CSR reporting. Although SOEs are more likely to produce CSR reports, most of these reports are disclosed on a mandatory basis. In addition, voluntary CSR reports disclose more information than mandatory reports. Firms creating CSR reports or maintaining high disclosure levels are more likely to obtain subsidies from the government. Overall, our study shows that corporate governance mechanisms involving CSR disclosure practices are influenced by institutional contexts and government incentives.

Although this study offers key insights into the effects of government intervention and political considerations on CSR reporting, its findings should be interpreted in light of several limitations. First, our results may not be applicable to countries wherein markets rather than governments play a fundamental role in allocating resources and affecting firms' social and economic objectives, political connections do not prevail, or governments do not enjoy significant ownership over firms. Second, our study examines three measures of CSR reporting. *CSR_Dummy* and *CSR_Pages* can only reveal levels of disclosure. Even *CSR_Score* cannot measure the relevance and reliability of CSR reports. Future studies may need to identify a more comprehensive measure of CSR report quality and determine the relationship between disclosure levels and CSR report quality.

References

Allen, F., Qian, J., and Qian, M. (2005), 'Law, Finance, and Economic Growth in China', *Journal of Financial Economics* 77 (1): 57-116.

Attig, N., El Ghoul, S., Guedhami, O., and Suh, J. (2013), 'Corporate Social Responsibility and Credit Ratings', *Journal of Business Ethics* 117 (4): 679-694.

Azzimonti, M., de Francisco, E., and Krusell, P. (2008), 'Production Subsidies and Redistribution', *Journal of Economic Theory* 142 (1): 73-99.

Bai, C. E., Lu, J., and Tao, Z. (2006), 'Property Rights Protection and Access to Bank Loans', *The Economics of Transition* 14 (4): 611-628.

Brander, J. A. and Spencer, B. J. (1985), 'Export Subsidies and International Market Share Rivalry', *Journal of International Economics* 18 (1-2): 83-100.

Capital Trade Incorporated (2009), *An Assessment of China's Subsidies to Strategic and Heavyweight Industries*, report submitted to U.S.-China Economic and Security Review Commission, Washington, DC.

Chen, X., Lee, C. W. J., and Li, J. (2008), 'Government Assisted Earnings Management in China', *Journal of Accounting and Public Policy* 27 (3): 262-274.

Claessens, S., Djankov, S., and Lang, L. H. P. (2000), 'The Separation of Ownership and Control in East Asian Corporations', *Journal of Financial Economics* 58 (1-2): 81-112.

Conrad, K. and Wang, J. (1993), 'The Effect of Emission Taxes and Abatement Subsidies on Market Structure', *International Journal of Industrial Organization* 11 (4): 499-518.

Davidson, C. and Segerstrom, P. (1998), 'R&D Subsidies and Economic Growth', *The RAND Journal of Economics* 29 (3): 548-577.

de Mel, S., McKenzie, D., and Woodruff, C. (2010), 'Wage Subsidies for Microenterprises', *American Economic Review* 100 (2): 614-618.

Deegan, C., Rankin, M., and Tobin, J. (2002), 'An Examination of the Corporate Social and Environmental Disclosures of BHP from 1983-1997 : A Test of Legitimacy Theory', *Accounting, Auditing and Accountability Journal* 15 (3): 312-343.

Dentchev, N. A. (2004), 'Corporate Social Performance as a Business Strategy', *Journal of Business Ethics* 55 (4): 395-410.

Desai, M. A. and Hines, J. R. (2008), 'Market Reactions to Export Subsidies', *Journal of International Economics* 74 (2): 459-474.

Dhaliwal, D. S., Li, O. Z., Tsang, A., and Yang, Y. G. (2011), 'Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting', *The Accounting Review* 86 (1): 59-100.

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A., and Yang, Y. G. (2012), 'Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure', *The Accounting Review* 87 (3): 723-759.

Evans, J. H. and Sridhar, S. S. (2002), 'Disclosure-Disciplining Mechanisms: Capital Markets, Product Markets, and Shareholder Litigation', *The Accounting Review* 77 (3): 595-626.

Faccio, M. (2006), 'Politically Connected Firms', *American Economic Review* 96 (1): 369-386.

Fan, J. P. H., Wong, T. J., and Zhang, T. (2007), 'Politically Connected CEOs, Corporate Governance, and Post-IPO Performance of China's Newly Partially Privatized Firms', *Journal of Financial Economics* 84 (2): 330-357.

Fisman, R. and Wang, Y. X. (2015), 'The Mortality Cost of Political Connections', *The Review of Economic Studies* 82 (4): 1346-1382.

Freeman, R. E. (1984), *Strategic Management: A Stakeholder Approach*, London: Pitman.

Girma, S., Gong, Y., Gorg, H., and Yu, Z. (2009), 'Can Production Subsidies Explain China's Export Performance? Evidence from Firm-Level Data', *Scandinavian Journal of Economics* 111 (4): 863-891.

González, X., Jaumandreu, J., and Pazó, C. (2005), 'Barriers to Innovation and Subsidy Effectiveness', *RAND Journal of Economics* 36 (4): 930-950.

Gorg, H. and Strobl, E. (2007), 'The Effect of R&D Subsidies on Private R&D', *Economica* 74 (294): 215-234.

Hung, M., Wong, T. J., and Zhang, T. (2012), 'Political Considerations in the Decision of Chinese SOEs to List in Hong Kong', *Journal of Accounting and Economics* 53 (1-2): 435-449.

Hung, M. Y., Shi, M. J., and Wang, Y. X. (2013), 'The Effect of Mandatory CSR Disclosure on Information Asymmetry: Evidence from a Quasi-Natural Experiment in China', Working Paper, The Hong Kong University of Science and Technology and University of Southern California.

La Porta, R., Lopez-De-Silanes, F., and Shleifer, A. (1999), 'Corporate Ownership around the World', *The Journal of Finance* 54 (2): 471-517.

Lee, J. W. (1996), 'Government Interventions and Productivity Growth', *Journal of Economic Growth* 1 (3): 391-414.

Lee, E., Walker, M., and Zeng, C. (2014), 'Do Chinese Government Subsidies Affect Firm Value?', *Accounting, Organizations and Society* 39 (3): 149-169.

Li, H., Meng, L., Wang, Q., and Zhou, L. A. (2008), 'Political Connections, Financing and Firm Performance: Evidence from Chinese Private Firms', *Journal of Development Economics* 87 (2): 283-299.

Lin, L. W. (2010), 'Corporate Social Responsibility in China: Window Dressing or

Structural Change?', *Berkeley Journal of International Law* 28 (1): 64-100.

Liu, X. and Anbumozhi, V. (2009), 'Determinant Factors of Corporate Environmental Information Disclosure: An Empirical Study of Chinese Listed Companies', *Journal of Cleaner Production* 17 (6): 593-600.

Luo, Y. (2003), 'Industrial Dynamics and Managerial Networking in an Emerging Market: The Case of China', *Strategic Management Journal* 24 (13): 1315-1327.

Marquis, C. and Qian, C. (2014), 'Corporate Social Responsibility Reporting in China: Symbol or Substance?', *Organization Science* 25 (1): 127-148.

Millstone, S. and Watts, F. B. (1992), 'Effects of the Green Movement on Businesses in the 1990s', in Sullivan, T. F. P. (ed.), *The Greening of American Business: Making Bottom-Line Sense of Environmental Damages*, Maryland, USA: Government Institutes, pp. 1-21.

O'Connor, N. G., Deng, J., and Luo, Y. (2006), 'Political Constraints, Organization Design and Performance Measurement in China's State-Owned Enterprises', *Accounting, Organizations and Society* 31 (2): 157-177.

Oh, W. Y., Chang, Y. K., and Martynov, A. (2011), 'The Effect of Ownership Structure on Corporate Social Responsibility: Empirical Evidence from Korea', *Journal of Business Ethics* 104 (2): 283-297.

Phelps, E. S. (1994), 'Low-Wage Employment Subsidies versus the Welfare State', *The American Economic Review* 84 (2): 54-58.

Roberts, R. W. (1992), 'Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory', *Accounting, Organizations and Society* 17 (6): 595-612.

Schwartz, G. and Clements, B. (1999), 'Government Subsidies', *Journal of Economic Surveys* 13 (2): 119-148.

See, G. (2009), 'Harmonious Society and Chinese CSR: Is There Really a Link?', *Journal of Business Ethics* 89 (1): 1-22.

Snower, D. J. (1994), 'Converting Unemployment Benefits into Employment Subsidies', *The American Economic Review* 84 (2): 65-70.

Trueman, B. (1997), 'Managerial Disclosures and Shareholder Litigation', *Review of Accounting Studies* 2 (2): 181-199.

Ullmann, A. A. (1985), 'Data in Search of a Theory: A Critical Examination of the Relationships among Social Performance, Social Disclosure, and Economic Performance of U.S. Firms', *Academy of Management Review* 10 (3): 540-557.

Verrecchia, R. E. (1983), 'Discretionary Disclosure', *Journal of Accounting and Economics* 5: 179-194.

Walden, W. D. and Schwartz, B. N. (1997), 'Environmental Disclosures and Public Policy Pressure', *Journal of Accounting and Public Policy* 16 (2): 125-154.

Wang, L. and Juslin, H. (2009), ‘The Impact of Chinese Culture on Corporate Social Responsibility: The Harmony Approach’, *Journal of Business Ethics* 88 (S3): 433-451.

Wang, H. and Qian, C. (2011), ‘Corporate Philanthropy and Corporate Financial Performance: The Roles of Stakeholder Response and Political Access’, *Academy of Management Journal* 54 (6): 1159-1181.

Zhang, R., Rezaee, Z., and Zhu, J. (2010), ‘Corporate Philanthropic Disaster Response and Ownership Type: Evidence from Chinese Firms’ Response to the Sichuan Earthquake’, *Journal of Business Ethics* 91 (1): 51-63.

Zheng, L., Balsara, N., and Huang, H. (2014), ‘Regulatory Pressure, Blockholders and Corporate Social Responsibility (CSR) Disclosures in China’, *Social Responsibility Journal* 10 (2): 226-245.

Appendix A Variable Definitions

Variable	Definition
$CSR\_Dummy_{i,t}$	Dummy variable equal to 1 for firm *i* if it creates a CSR report at year *t* between 2008 and 2013 and 0 otherwise.
$CSR\_Pages_{i,t}$	Number of pages in a firm's CSR report at year *t*. It is a missing value when firms do not produce a CSR report.
$CSR\_Score_{i,t}$	The CSR disclosure rating for firm *i* at year *t* provided by the Running & Loving Consulting for Common Welfare (RLCCW). Consistent with Global Reporting Initiative Guideline 3.0, the RLCCW assigns a numerical value to each covered listed firm in regard to CSR information ranging from 0 to 100 on a continuous scale for the period 2008-2013. It is a missing value when firms do not produce CSR reports.
$SOE_{i,t}$	Dummy variable equal to 1 when the ultimate owner is a government agency or a state-owned enterprise and to 0 if the ultimate owner is an individual, a family, a collective, etc.
$Central\_SOE_{i,t}$	Dummy variable equal to 1 when the ultimate owner is the central government or a central state-owned enterprise and 0 otherwise.
$Local\_SOE_{i,t}$	Dummy variable equal to 1 if the ultimate owner is a provincial- or city-level government agency or a local state-owned enterprise and 0 otherwise.
$Political\_Connection_{i,t}$	Dummy variable equal to 1 if the CEO or chairman is currently serves or has previously served as a government official. We measure the political connections of CEOs and chairmen by examining whether a CEO or chairman currently serves or has formerly served as an officer of any central or local government bureau or in the military. We retrieve profile information on CEOs and chairmen from the Wind database, which provides detailed information on managers of listed companies in China.
$Controlling\_Percent_{i,t}$	The controlling shareholder's percentage of cash flow rights.
$International\_Investor_{i,t}$	Dummy variable that is equal to 1 for a firm with foreign ownership and 0 otherwise.
$Ln\_Board_{i,t}$	Natural log of the number of directors on a board.
$Independent\_Percent_{i,t}$	Percentage of independent directors.
$SIZE_{i,t}$	Natural log of total assets at year for firm *i* after winsorising the top and bottom 1%.
$ROA_{i,t}$	Operating income divided by total assets at year *t* for firm *i* after winsorising the top and bottom 1%.
$LEV_{i,t}$	Total liability divided by total assets at year *t* for firm *i* after winsorising the top and bottom 1%.
$Tobin's\ Q_{i,t}$	(total liabilities + market value of shares)/total assets
$Firm\_Age_{i,t}$	Year *t* minus firm IPO year.
$Mandatory_{i,t}$	Dummy variable equal to 1 for a firm following mandatory CSR disclosure guidelines, equal to 0 for firms following voluntary disclosure guidelines, and a missing value for other firms.
$Separate_{i,t}$	Dummy variable equal to 1 for firms creating separate CSR reports, equal to 0 for those including a report as part of an annual financial statement, and a missing value for other firms.

Subsidy$_{i,t}$	Total government subsidies divided by total assets at year *t* for firm *i* after winsorising at the top and bottom 1%.
Incipient_Loss$_{i,t}$	A dummy variable equal to 1 when -10% $<ROA_{i,t}<$ 0% and 0 otherwise.
Strategy_Industry$_{i,t}$	Dummy variable equal to 1 if a firm belongs to one of the following industries: B01 Coal Mining, B03 Oil and Gas Extraction, D01 Electric, Gas & Sanitary Services, F01 Railroad Transportation, I01 Depository Institutions, I21 Security & Commodity Brokers and Dealers, Exchanges & Services, I31 Trusts, J01 Real Estate and Construction, K01 Utility Services, and L10 Media (CSRC Industry Classification); and 0 for other firms.

Appendix B Rankins MCTi Evaluation System 2012_1.2i version[3]

1. Overview of Rating System

The MCT CSR report rating system uses the latest international social responsibility standard ISO26000 as its reference. It also considers firms' industry differences and divides listed firms into 22 categories of industries in accordance with the industry classification standard of the CSRC.

The MCT 2012_1.2i version rating system starts from the four zero-level indicators of Macrocosm, Content, Technique and Industry. Then, first-class indicators and second-class indicators are set up to make a comprehensive evaluation of the report. The system includes 15 first-class indicators (e.g. corporate strategies, stakeholders, labour and human rights, and fair operation) and 63 second-class indicators, which do not include industry indicators.

The evaluation system uses the structured expert evaluation method. The maximum possible mark is 100 points. Marks are calculated as follows: the M value of the Macrocosm evaluation has a weighting of 30% (maximum marks = 30 points); the C value of the Content evaluation has a weighting of 45% (maximum marks = 45 points); the T value of the Technique evaluation has a weighting of 15% (maximum marks = 15 points); and the I value of the Industry evaluation has a weighting of 10% (maximum marks = 10 points). Because there is no industry indicator for firms in the composite industry and other manufacturing industries, the evaluation weight of Content is adjusted to 50% (maximum score = 50 points) and the evaluation weight of Technique is adjusted to 20% (maximum score = 20 points) for these firms.

2. Macrocosm, Content, and Technique Indicators

Macrocosm			
Indicator theme	No.	Specific indicators	Terminal scoring points
Strategy	M1	Information on overall responsibility strategies, including the objectives of social responsibility strategies, paths for achieving social responsibility strategies, challenges of important responsibilities, risk identification, etc.	1. Objectives of social responsibility strategies 2. Paths for achieving social responsibility strategies 3. The identification of important liability risks and challenges
	M2	Information on adapting to and dealing with sustainable development, including climate changes and social problems, and information on sustainable development that may be brought by macroscopic environment changes, etc.	4. The impact of climate change on the sustainable development of the enterprise 5. The impact of social problems on the sustainable development of the enterprise 6. The impact of macroscopic

[3] Excerpts from Introduction of Rankins International MCTi Corporate Social Responsibility Report Evaluation System 2012 1.2 version (http://www.rksratings.com/).

			environment changes on the sustainable development of the enterprise
	M3	Information on association between responsibility strategies and the enterprise's operations, including information on the impact of firm's main products and services on society and the environment, etc.	7. The impact of the firm's major products and services on society 8. The impact of the firm's major products and services on the environment
	M4	Information on the consideration of social responsibility by enterprise executives at the strategic level, including the statements of the company's chairman and CEO on social responsibility and sustainable development	9. The statements of the representatives (chairman, etc.) of the enterprise's owner on social responsibility and sustainable development 10. The statements of the representatives (CEO, etc.) of the enterprise's management on social responsibility and sustainable development
	M5	Information on developing and achieving social responsibility goals, including long-range and short-term social responsibility planning, clear and quantitative performance objectives, etc.	11. Long-range planning of corporate social responsibility 12. Short-term planning of corporate social responsibility 13. Quantitative management of planning goals
Governance	M6	Basic information on the company, including basic information on the company and the industry, its social and environmental background, etc.	14. Basic information on the company 15. Basic information on the firm's industry 16. Firm's social and environmental background
	M7	Information on values, principles, and guidelines, including the enterprise's understanding of social responsibility, its values and behaviour guidelines on promoting sustainable development, etc.	17. Corporate values on social responsibility 18. Corporate behaviour guidelines on social responsibility
	M8	Information on the administration of social responsibility in organisations, including the supervisor department and employees responsible for sustainable development and other related issues, etc.	19. Institutional settings at board of directors level 20. Settings of organisations or personnel at the management department level
	M9	Information on decision-making process and structure, including the company's management methods, procedures, steps on environmental, social, economic affairs, etc.	21. The company's management's methods, procedures, steps on environmental, social, economic affairs, etc.
	M10	Information on governance transparency, including information related to the mechanism of information disclosure, etc.	22. Mechanism of information disclosure

	M11	Information on risk management, including the company's assessment and management of risks, especially those that are closely related to sustainable development, etc.	23. Assessment and management of general risks 24. Assessment and management of the risks which are closely associated with sustainable development
	M12	Information on business ethics management, including the company's anti-commercial bribery norms and related measures	25. Institutional norms related to anti-commercial bribery 26. Management measures taken against commercial bribery
	M13	Information on internal practice, including multi-sectoral and multi-level participation in social responsibility or sustainable development, the system and mechanism that the company group and the parent company promote to subordinate enterprises to fulfil their social responsibilities, etc.	27. Multi-sectoral and multi-level participation in social responsibility 28. The system and mechanism that the company group or the parent company promotes to subordinate enterprises to fulfil their social responsibilities
Stakeholder	M14	Information on stakeholders, including all stakeholders of the company, the identification of their importance, etc.	29. Identification of stakeholders 30. Importance of stakeholders
	M15	Information on communication between stakeholders, including long-term two-way communication mechanism and interaction between stakeholders	31. Communication mechanism between stakeholders 32. Reply and feedback on stakeholders' advice
	M16	Information on opinions of stakeholders, including reviews of different stakeholders, etc.	33. Reviews of stakeholders
Content			
Economic performance	C1	Information on profits and returns, including the company's annual revenues, profits, profit distribution, etc.	Annual gross revenue of the company Annual gross profit of the company Annual profit-sharing proposal of the company to be approved
	C2	Information on economic growth, including income, profit, profit distribution, etc.	Year-on-year ratio of total revenue Year-on-year ratio of total profit Comparison of profit-sharing proposals
	C3	Basic information on main products or services, including market share, sales, innovation, etc.	Sales of products/services Market share of products/services Innovation of products/services
Labour and human rights	C4	Information on employment and employment relations, including basic composition of employees, employment compliance, composition of various types of employment relations, etc.	Gender composition of employees Age composition of employees Total number of employees Number of temporary employees The ratio of employees that sign a

			formal labour contract
	C5	Information on employees' career growth, including the company's investment in developing employees' personal knowledge and skills to enhance employees' ability to develop their career	Training time /average person times Types of training courses Staff coverage of the training courses
	C6	Information on occupational health and safety, including the risk factors related to job safety and health that the company identifies and controls, policies on the protection of employee safety and health, the provision of security facilities, etc.	Safety production management system Staff health management policies Labour safety protection facilities
	C7	Information on protection of human rights, including the policy of equal pay for equal work, the eradication of child labour and forced labour, feedback on complaints, etc.	Statement on equal pay for equal work Statement on completely eradicating child labour Replying to employee complaints
	C8	Information on working conditions and social security, including the company's disclosure of information on staff salaries, holidays, and welfare and policies on caring for special employees.	Employee salary levels Employee holidays Other employee benefits other than salaries Care for special staff
	C9	Information on social dialogue and care, including the company's labour union or workers' congress, which is concerned with employees' happiness (recreational activities, care for employees' families, satisfaction surveys, etc.)	Information related to the labour union or workers' congress Recreational activities in employees' spare time Care for employees' families Employee satisfaction surveys
	C10	Information on responsibility education, including the introduction of, and training in, knowledge about sustainable development, etc.	Introducing knowledge on sustainable development and promoting it through non-training means Carrying out sustainable development
Environment	C11	Information on overall environmental management, including the environmental management system of the company's operations, passing the environmental management system certification and annual review, annual amount invested in environmental protection, etc.	Environmental management system certification and annual review Annual amount invested in environmental protection
	C12	Information on pollution prevention, including identifying pollution and waste; measuring, recording, and reporting pollution sources; taking control measures (such as the principle	Identification of pollution and waste Measuring, recording, and reporting sources of pollution Action on controlling pollution

		of reducing waste), etc.	
	C13	Information on use of sustainable resources, including identifying energy, water, and raw material sources and measuring, recording, and reporting their use (consumption of resources); making efficient use of resources (for example, saving policies); seeking feasible technology to replace non-renewable energy; etc.	Identifying sources of energy and water Measuring, recording, and reporting use of energy and water Making efficient use of energy and water Seeking feasible technology to replace non-renewable energy
	C14	Information on mitigating and adapting to climate change, including identifying the emission sources of greenhouse gases; measuring, recording, and reporting emissions of greenhouse gases; and finding methods to reduce emissions; avoiding or reducing the adverse effects of climate change; considering climate change in product manufacturing and business development, etc.	Identifying the emission sources of greenhouse gases Measuring, recording, and reporting emissions of greenhouse gases Avoiding or reducing the adverse effects of climate change (such as purchasing a carbon sink, planting trees, etc.) Considering climate change in the production and business process
Fair operation	C15	Information on anti-corruption management, including implementing and improving anti-corruption policies and practices, supporting staff and agents to prevent corruption, encouraging the reporting of corruption, etc.	Anti-corruption policies and practices Policies of supporting staff and supply chain partners to eliminate corruption Policies of auditing and encouraging the reporting of corruption
	C16	Information on promoting social responsibility, including the standards relating to morality, society, environment, occupational safety, health and gender equality in the process of procurement, sales and subcontracts; encouraging other organisations to adopt the same standards; surveying and monitoring the activities of related organisations that do not affect the organisation's commitment to social responsibility; promoting and enhancing the understanding of related organisations on social responsibility in the value chain, etc.	Encouraging social responsibility activities in the value chain, such as in purchases, sales, and subcontracts Cognitive advancement on the social responsibility of related organisations Surveying and examining related party's social responsibility commitment
Consumer	C17	Quality assurance information on products or services, including the quality management system of the company's major products or services, technical innovation, etc.	Certification of quality management system Technical innovation of products/services
	C18	Information on consumer (customer) management, including the customer relationship management system of	Customer relationship management system

		the company, customer satisfaction surveys, etc.	Customer satisfaction surveys
	C19	Information on protection of consumer safety and health, including the pass rate and safety of the company's major products or services; assessing relevant laws, regulations, standards and specifications; reducing risks from product design; avoiding the use of carcinogenic, toxic or harmful materials; assessing risks in advance; normal product indication and expected usage; preventing misuse and abuse and the accidents, recycling defective products, etc.	The pass rate of the main products or services Exposition on the safety of the main products or services Recovery mechanism of the main products
	C20	Information on consumer (customer) service, including service access channels, rate of customer complaints, and the elimination and resolution of disputes, etc.	Convenience of customer service Rate of customer complaints Elimination and resolution of disputes
	C21	Information on protecting consumer (customer) data and privacy, including the settings of administration authorities for managing consumers' personal information, knowing whether the organisation has kept consumers' personal information and processed deletion applications, etc.	Settings of administration authorities for managing consumers' personal information Knowing whether the organisation has kept consumers' personal information and processed deletion applications
	C22	Information on consumer education, including that the company carries out safety and health education (product hazards); relevant laws and regulations (for example, reprimands and consumer rights and interests); product labels; packaging and product disposal; and knowledge education, etc.	Consumer education on properties of the product itself (health, safety, product labels, packaging and product disposal) Education on consumer rights and interests
Community participation and development	C23	Information on public donations, including the company's social donations (such as funds, materials, free professional services), etc.	Total amount of social donations Composition of social donations
	C24	Information on volunteer services, including the scope of volunteer services carried out by the company's staff, activity conditions, performance, etc.	Volunteer services of staff Performance of staff volunteer services (man-hours/social contribution amount)
	C25	Information on political participation, including the situation and the level of the company's participation in regional and industry organisations, participation in the relevant policies and regulations or industrial standards dialogue, etc.	Participating in regional and industry organisations Participating in the formulation of relevant policies and regulations or industrial standards

	C26	Information on creating employment, including annual new and upcoming staff, etc.	Number of employees recruited annually
	C27	Information on scientific and technological development, including participating in national and local science and technology development projects, engaging in scientific research cooperation with local universities and research institutes, allowing for the transfer and diffusion of technology as much as possible, etc.	Participating in technology development projects Cooperation with universities and research institutes
	C28	Information on creating wealth and revenue, including developing natural resources under the permission of the local community, supporting community enterprises, developing local knowledge and technology as far as possible, etc.	Collection of community opinions Supporting community enterprises
	C29	Information on promoting health, including promoting healthy lifestyle, enhancing awareness of preventing major diseases, eliminating or reducing the negative influence of the organisation's products or services on health, etc.	Promoting health awareness Reducing the negative influence of the company's products or services on health
	C30	Information on social investment, including integrating environmental, social, and governance issues while conducting investment analysis and decision-making, etc.	Environment screening of investment Society and governance screening of investment
Technique			
Indicator theme	No.	Specific indicators	
Content balance	T1	Integrity, including coverage of the responsibility of all stakeholders in terms of corporate social responsibility	
	T2	Pertinence, including the extent of disclosing negative information regarding performing social responsibilities or challenges and barriers encountered	
Comparable information	T3	Consistency, including consistency with previous reports (forms, methods of report compilation, explanations of the suppositions, data calculation methods)	
	T4	Data, including the extent of disclosure on social responsibility performance, with data on the total number and ratio of disclosure, etc.	
Innovation report	T5	Innovation, including innovations in the structure of statements, preparation, forms, etc.	
	T6	Effectiveness of innovation, including effectiveness of innovation on the enterprise, and the possibility of promotion in the industry	
Credibility and transparency	T7	Disclosure of stakeholders' opinions	
	T8	Certification of the third party (comprehensive, in-depth, principled, none)	
	T9	Authority of third-party certification agency	

	T10	Reporting readers' opinions and the effectiveness of the proposed feedback mechanism
Normalisation	T11	Normalisation of reporting policies, including the normalisation of time limits, coverage, release cycle, authenticity commitment, participants, and producers, etc.
	T12	Standardisation of reporting, including the selection of reporting standards, and the level of clarity in the comparison of standards
	T13	Report robustness, including report typos, etc.
Availability and efficiency of information transmission	T14	Full extent of the language version of the report
	T15	Channels available to obtain reports, and methods for people with special needs to obtain reports
	T16	Level of improvement in report's art design, layout, etc. for enhancing the disclosure effect
	T17	The extent of using figures and graphics to explain data and information in report

3. Three Examples of Industry Indicators

3.1 Characteristic indicators of the mining industry

11 Information on research and development (R&D) and application of clean coal technology
12 Information on restoration and management of ecological environment
13 Information on research and development (R&D) in renewable energy or new energy
14 Information on establishment of fire-prevention and anti-explosion management system
15 Policies and methods on the prevention and treatment of subsidence areas

3.2 Characteristic indicators of communication and cultural industry

11 Information on promoting sustainable development through the media
12 Information on environmental friendliness of communication and media

3.3 Characteristic indicators of electricity, gas, and water production and supply industry

11 Information on the aspects on which sustainable development policies (e.g. climate change, community health, etc.) are established
12 Information on disaster recovery security system
13 Information on safety accident handling mechanism
14 Information on policies to ensure transportation safety
15 Negative information on environment pollution