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Home-Country Institutions and Corporate Social Responsibility of Emerging Economy Multinational Enterprises: The Belt and Road Initiative as an Example

Abstract

This paper examines the impact of home country institutions on corporate social responsibility (CSR) of multinational enterprises from emerging markets (EM-MNEs). Taking the Belt and Road Initiative (BRI) as an example and using a sample with 2052 firm-year observations from China over the period 2008-2018, we find that the BRI exerts a positive and significant effect on overall CSR of Chinese MNEs involved in the BRI and the positive effect is stronger for Chinese state-owned MNEs. In addition, only two dimensions of CSR (Employee Relations and Products) are improved significantly under the pressure of BRI. Finally, we examine the interactive effect of home- and host- country institutions on Chinese MNEs' CSR and find the positive impact of the BRI on MNEs' CSR performance is stronger in host countries with a higher level of CSR related institutional pressure. These results provide practical suggestions for the Chinese government and

MNEs to further improve CSR under the BRI, and enrich our understanding of the interactive effect between home- and host-country institutions on enhancing Chinese MNEs' reputation and promoting regional cooperation with countries along the BRI.

Key words Home-country institutions · Corporate social responsibility (CSR) · the Belt and Road Initiative (BRI) · Host-country institutions · Institutional theory

Introduction

Over the past few decades, the research of corporate social responsibility (CSR) of multinational enterprises (MNEs) has become an increasingly central topic in international business (Campbell, Eden & Miller, 2012; Kolk, 2016). MNEs operate simultaneously in multiple institutional environments (Kostova & Roth, 2002; Meyer, Mudambi, & Narula, 2011) and it is a big challenge for MNEs to coordinate their CSR practices globally to get legitimacy in host countries (Wijen, 2014; Rathert, 2016). Therefore, the CSR literature is usually grounded in examining the effect of host-country institutions on MNEs' CSR (e.g. Rathert, 2016; Marano & Kostova, 2016; Asmussen & Fosfuri, 2019; Wang & Li, 2019). However, the existing literature falls short of capturing home-country institutional forces (Buchanan & Marques, 2018) and the full range of institutional arrangements MNEs encounter (Rathert, 2016).

The rise of multinational enterprises from emerging economies that are typically characterized by inefficient markets, active government involvement, extensive business networking and high uncertainty (Xu & Meyer, 2013), has increased the importance of understanding the impact of home country institutions in international business research (Mathews, 2006; Luo & Wang, 2012;

Ramamurti & Hillemann, 2017). Although the importance of home country institutions has been widely studied in the context of international trade, FDI or OFDI in previous studies (e.g. Cui & Jiang, 2012; Hobdari, Gammeltoft, & Meyer, 2017), little research has been carried out on how home country institutions, especially emerging economy's government support, affect MNEs' CSR. Recent studies begin to emphasize the liability of origins resulting from home institutional voids of emerging economies and how EM-MNEs use CSR strategy to alleviate the disadvantages (e.g. Marano, Tashman, & Kostova, 2017). In fact, in emerging economies, weakly developed institutions and government promotions may coexist (Hoskission, Wright, Filatotchev, & Peng, 2013) and governments in emerging economies are also important promoters and collaborators in enterprises' CSR strategies' design and implementation (Marquis & Qian, 2014; Yin & Jamali, 2016). However, CSR is 'voluntary corporate practices aimed at furthering social goods and beyond the interest of firm' (McWilliams & Siegel, 2001) and it is especially difficult to monitor and control MNEs' overseas behavior because of the physical and cultural distance (Strike, Gao, & Bansal, 2006). MNEs may respond to institutional pressure heterogeneously instead of 'simple adaptation' (Cantwell & Lundan, 2010; Newenham-Kahindi & Stevens, 2018) and thus the extent to which home institutions influence MNEs' CSR after they enter host countries is still under-researched. Much work remains to be done on the relationship between home institutions and EM-MNEs' CSR.

The Belt and Road Initiative (BRI) proposed by the Chinese government in the end of 2013 gives us a rare research opportunity to examine the effect of home institutions on EM-MNEs' CSR. The BRI is severed as a home country institution to boost bilateral and multilateral trade and investment (Ramasamy & Yeung, 2019) and promote in-depth and high-standard regional cooperation (Cheng, 2016). According to the official guidelines of the BRI, *Vision and Actions on*

Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road" (Hereinafter "*Vision and Actions*") issued by the *National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce of China*, there are five cooperation priorities in total and the major goals of the BRI include policy coordination, infrastructure connectivity, unimpeded trade, financial integration and connecting people. Almost all the major goals encourage and require Chinese companies to actively improve their social responsibilities under the BRI. For example, in the aspect of "unimpeded trade", the *Vision and Actions* suggests that "*We support localized operation and management of Chinese companies to boost the local economy, increase local employment, improve local livelihood, and take social responsibilities in protecting local biodiversity and eco-environment."* In the goal of "connecting people", the *Vision and Actions* requires that "*we should organize public interest activities concerning education, health care, poverty reduction, biodiversity and ecological protection for the benefit of the general public, and improve the production and living conditions of poverty-stricken areas along the Belt and Road"*. Therefore, the BRI is not only closely related to international trade and investment, but also contains important ideas about social responsibility. Existing research has studied the effect of the BRI on firms' internationalization, such as export (e.g. Li, Liu, & Qian, 2019) and investment (e.g. Luo, Chai & Chen, 2019). However, its effect on Chinese MNEs' CSR has not been examined.

In addition, due to the dual embeddedness, multinational enterprises have to gain dual legitimacy from both home and host countries (Beddedwela, 2019; Hamprecht & Schwarzkopf, 2014). MNEs operate across a wide variety of institutional environment (Cantwell & Lundan, 2010) and thus emerging economy's multinational enterprises (EM-MNEs) need to not only consider institutional pressure from home countries, but also deal with various degrees of institutional

pressure from host countries. While host-country institutional pressure on CSR has been widely examined, interactions of home- and host- country institutions on CSR performance need to be future examined (Rathert, 2016).

To shed light on the above questions, we take China's BRI as an example and employ the difference-in-differences (DID) method. The data is obtained from the Chinese listed enterprises database during the period 2008 - 2018 and the impact of home country institutional pressure and its interaction with host country institutions on Chinese MNEs' CSR is examined. The empirical results show that the BRI can significantly improve Chinese MNEs' CSR performance. The positive relationship is stronger for Chinese state-owned MNEs. In addition, CSR is divided into six specific dimensions and the results show that only two dimensions of CSR ('Employee relations' and 'Product') are improved significantly under the pressure of the BRI. Lastly, we examine the interactive effect between home- and host- country institutions on Chinese MNEs' CSR and find that the positive relationship between the BRI and Chinese MNEs' CSR performance is strengthened in the host countries with higher CSR-related institutional pressure.

This study adds to the body of knowledge in several ways. We contribute to the growing literature on MNEs' CSR by identifying the impact of home country institutions on MNEs' CSR. Specifically, we contribute to an institutional understanding of the BRI by revealing its unique effect on Chinese MNEs' CSR which has not been examined before and providing practical suggestions for the Chinese government and Chinese MNEs to further improve CSR performance in order to maintain the legitimacy abroad and ensure smooth progress of the BRI. In addition, we contribute to the CSR literature and international business literature by combining home- and host- country institutions in one framework and examining their interactive effect on Chinese MNEs' CSR under

the BRI. Overall, the research provides implications and suggestions for the Chinese government and the BRI to better promote Chinese MNEs' CSR, maintain good overseas image and thereby enhance the mutual trust and regional cooperation among countries along the BRI. At the same time, we also provide suggestions about how Chinese MNEs improve their CSR in the context of dual embeddedness in both home- and host-country institutional environments to ensure that they can obtain both home and global legitimacy.

We organize the rest of the paper in the following sections. Firstly, we outline prior literature and develop our hypotheses. Then we describe the variables employed, empirical models and estimation methods, followed by a discussion of the empirical results. Finally, we summarize our findings and discuss contributions and practical implications.

Literature and Hypothesis Development

Institutions and EM-MNE CSR

Multinational enterprises operate in host countries whose political, economic, and cultural environments are fundamentally different with their home countries (Marano & Kostova, 2016; Mithani, 2017). MNEs not only have to deal with the multiple and complex demands of diverse stakeholders (Attig et al., 2016), but also face liability of foreignness (Zaheer, 1995) and potential overseas unfriendly voices (Zahra & Garvis, 2000), which result in extra-ordinary costs for multinational enterprises (Zaheer, 1995; Edman, 2016). In addition, compared to multinational enterprises from developed markets, EM-MNEs are exposed to the liability of origin that is negative stereotyping by foreign stakeholders (Kostova & Zaheer, 1999; Pant & Ramachandran, 2012). Therefore, EM-MNEs have to make more efforts to gain legitimacy and facilitate the integration

into the local social environment (Mithani, 2017; Nachum, 2003). Research suggests that EM-MNEs can use corporate social responsibility (CSR) to alleviate stakeholders' negative attitudes (Doh, Husted, & Yang, 2016; Marano, Tashman, & Kostova, 2017). For example, Mithani (2017) points out that corporate philanthropy plays an important role in minimizing the perceived distance between local and non-local firms (Crilly, Ni, & Jiang, 2016) and hence mitigating liability of foreignness.

Existing studies show that there are two main drivers of MNE CSR. On the one hand, multinational enterprises need to conform to external institutional pressures from host countries (e.g. Rathert, 2016; Beddewela & Fairbrass, 2016). On the other hand, companies need to meet their internal shareholders' demands. For example, Cordeiro et al. (2018) state the desire of family ownership to pass on positive and superior reputation and family name and its interest in 'socio-emotional wealth' motivate family firms to make a high level of CSR engagement. In addition, some studies increasingly focus on the interaction between firm-level characteristics and host country institutions. Baik and Park (2019) state that a foreign parent's ownership share has a positive effect on its subsidiaries' local community involvement and a high level of perceived trust in the host country weakens this relationship.

Recently, some studies suggest that emerging economy governments may proactively create or change policies to improve their enterprises' CSR (e.g. Nasra & Dacin, 2010; Xing, Liu, & Cooper, 2018). For example, the Indian government requires that profit-making companies must spend a nominated portion of their net profits on CSR activities (Subramaniam, Kansal, & Babu, 2017). For EM-MNEs, existing studies mainly explain their CSR motivation from the perspective of the liability of foreignness and liability of origin EM-MNEs encounter in host countries (e.g. Tashman,

Marano, & Kostova, 2018; Rathert, 2016). However, considering that EM-MNEs are embedded in the dual institutional environments of both home and host countries, the role of home country intuitions should not be ignored. Wei and Nguyen (2017) argue that home country institutions are a critical factor influencing the strategic behaviors of EM-MNEs. Han, Liu, Xia and Gao (2018) argue that EM-MNEs can obtain home government support when their behaviors or strategies are aligned with their home governments and the study uses the 'going global' strategy proposed by the Chinese government as an example to explain the enabler role of the home-country government in enhancing EM-MNEs' international competitiveness. Although there are some studies focusing on the importance of home institutions in firm internationalization, the role of home country institutions in promoting EM-MNEs' CSR strategy, especially the role of powerful government like Chinese government, is still poorly understood and we still know little about the extent to which home country institutions affect CSR strategies of EM-MNEs after their entering host countries.

The BRI, one of the important institutions proposed by the Chinese government to promote enterprises' active participation in regional cooperation and globalization, gives us a valuable and rare opportunity to examine the relationship between home county institutions and EM-MNEs' CSR. Home country institutions have a significant influence on firm internationalization (Cuervo-Cazurra et al., 2018; Gao et al., 2010; Li, Liu, & Qian, 2019) and therefore, the BRI, served as home institutional pressure, is expected to have an important effect on Chinese firms' internationalization and their CSR. Existing research about the BRI mainly focuses on its effect on international trade and foreign investment (e.g. Li, Liu, & Qian, 2019). Although CSR performance may influence the attitudes of residents and governments towards the BRI, and hence the regional cooperation and globalization advocated by the BRI, BRI's effect on Chinese MNEs' CSR has not been examined.

Therefore, our research takes the BRI as a typical example of home country institutions and explores the impact of the BRI and its interaction with host-country institutions on Chinese MNEs' CSR performance.

Home country institutions (The BRI) and EM-MNE CSR

Weak institutions and government promotions for internationalization usually coexist in emerging economies (Hoskisson et al., 2013). Governments in emerging economies often play a significant role in enterprises' strategies (Meyer & Peng, 2005; Wright et al., 2005), especially internationalization strategies. The Chinese government has played an important role in encouraging and helping companies' internationalization (Ramasamy, Yeung, & Laforet, 2012). On the one hand, the institutions in China increase the likelihood of internationalization success by facilitating resource access and reducing environmental uncertainty (Hung, 2005) through direct or indirect support (Hoskisson et al., 2013). On the other hand, Chinese enterprises' strategies must be aligned with the government's goals in order to obtain legitimacy and win resources in the domestic market (Peng, Wang and Jiang, 2008) because governments of emerging markets with weak institutions usually own the majority of scarce resources (Qian, Liu, & Wang, 2018). To participate in the BRI, under strong government policy intervention, companies also need to meet other government-related requirements of the BRI, for example, social responsibility of Chinese MNEs. Chinese MNEs serve as the main implementer of the BRI and the "overseas spokesperson" of the country and their CSR performance is closely related to the country's overseas image and the effect of the BRI on the regional cooperation and globalization.

Institutions are defined as isomorphic pressures about how things should be conducted to get

legitimacy in an organizational field (DiMaggio & Powell, 1983; Meyer & Peng, 2016). Since the BRI is proposed and led by the Chinese central government and perceived as a formal institutional force (Li, Liu, and Qian, 2019), we argue that the BRI is likely to affect Chinese MNEs' willingness and ability to improve their CSR mainly through coercive and mimetic isomorphism. First, coercive isomorphism stems from political influences and institutional pressure exerted on enterprises by the stakeholders they depend on (DiMaggio & Powell,1983; Zamir & Saeed, 2018). As mentioned in the introduction, the BRI requires Chinese MNEs to improve their CSR in the BRI's official guidelines. In addition, for example, several Chinese government departments jointly issued a policy called "*Guidance on Promoting the Construction of the Green 'Belt and Road'*", emphasizing that the concept of ecological civilization should be highlighted in the BRI to promote green development, strengthen ecological environmental protection, and jointly build the Green Silk Road. Chinese enterprises must seriously follow the BRI related policies (Li, Liu, & Qian, 2019) and integrate the 'social responsibility' requirements into their international strategies to satisfy the Chinese government in order to obtain further legitimacy and resources for growth.

Second, when organization goals, for example, the level of engagement with CSR practice, are ambiguous or under conditions of uncertainty, enterprises may model themselves on other more successful or legitimate enterprises to gain legitimacy (DiMaggio & Powell, 1983; Scott, 1995). Due to the lack of overseas experience of young Chinese MNEs involved in the BRI, it is not clear whether, how and to what extent Chinese MNEs should participate in CSR. The government consciously promotes successful CSR practices, and knowledge of typical MNEs involved in the BRI can help other MNEs improve CSR to fulfil the requirements of the BRI. For example, Chinese MNEs with excellent CSR performance in the BRI are reported in the Chinese government official

websites and publicized by the government as exemplars. The *Corporate Social Responsibility Report of the Belt and Road Initiative* issued by *China Communications Construction* is the first Chinese enterprise BRI CSR report. The event is shown in official media and websites of the Chinese government, which undoubtedly improves this company's reputation and has had a demonstration effect on other companies. These mimetic forces influence Chinese enterprises to imitate successful peers and mobilize resources to improving their CSR.

Normative isomorphism, one of the three types of isomorphism, stems primarily from professionalization and established norms (DiMaggio & Powell, 1983; Heugens & Lander, 2009), which can be produced by universities and professional training institutions (DiMaggio & Powell, 1983). Although the BRI may have impact on Chinese MNEs' CSR through normative isomorphism, the scope and extent of this kind of isomorphism is extremely limited compared to coercive and mimetic isomorphism. Some academic institutions, business organizations or industrial associations may hold small-scale seminars or forums with themes of the BRI and CSR. For example, the Think Tank of Chinese Industrial Corporate Social Responsibility Research and Beijing Rongzhi Research Institute of Corporate Social Responsibility hold the 'Belt and Road' Forum on Sustainable Development and Responsible Investment. However, it is difficult for the suggestions or ideas of such seminars or forums to be widely accepted and integrated into MNEs' decision-making and CSR practice since this kind of discussion is usually attended by a small number of scholars or government officers, and what is discussed and proposed is not mandatory and may lack practicality. In addition, the professionalization that normative isomorphism basically stems from is influenced by coercive and mimetic forces (DiMaggio & Powell, 1983; Martínez-Ferrero & García-Sánchez, 2017). Therefore, we argue that it is mainly through coercive and mimetic isomorphism that the BRI

affects Chinese MNEs' CSR.

Emerging economy firm internationalization is positively associated with home country government support (Gaur, Ma, & Ding, 2018). To acquire necessary support or legitimacy, firms must respond to institutional pressure by incorporating elements of institutions in their policies and actions and failure to conform to institutionalized norms of acceptability can threaten a firm's legitimacy and ultimately its survival (Bondy, Matten, & Moon, 2008). Therefore, Chinese MNEs involved in the BRI must respond to home country institutions actively under the two isomorphic mechanisms mentioned above. The BRI, which serves as home country institutional pressure, can effectively improve the overall CSR performance of Chinese MNEs involved in the BRI.

Hypothesis 1 (H1). *The BRI, severed as home country institutional pressure, can significantly improve the overall CSR performance of Chinese MNEs involved in the BRI.*

State- and private- owned MNEs

Vernon (1979) proposes that state-owned enterprises (SOEs) play multiple roles in the economy. SOEs may be the government's actors in the markets and they are the leaders in responding to national industrial policies. State-owned enterprises have to comply with state goals to obtain legitimacy from the government (Wang et al., 2012; Choudhury & Khana, 2014). In addition, the career development and rewards of SOE managers depend largely on whether they succeed in fulfilling government goals (Wang, Hong, Kafouros, & Wright, 2012). Therefore, we argue that the effect of coercive and mimetic isomorphism on the willingness and ability to improve CSR is likely greater for Chinese state-owned MNEs than private-owned MNEs.

In terms of CSR, the State-owned Assets Supervision and Administration Commission of the

State Council (SASAC) set up a special social responsibility office to coordinate and guide the social responsibility of state-owned enterprises, which is an important mechanism innovation for the Chinese government to promote state-owned MNEs' social responsibility. The Chinese government strictly monitors CSR of SOEs involved in the BRI through the SASAC, which strengthens the institutional pressure of state-owned MNEs through coercive isomorphism compared to private-owned MNEs. Under the guidance of the SASAC, the Corporate Social Research Center of the Chinese Academy of Social Sciences has completed a series of reports such as the "*Blue Book on Corporate Social Responsibility of Central Enterprises*" (Hereafter *Blue Book*) ,"*Report on the Performance of Central Enterprises in the Belt and Road*" and "*Research Report on Corporate Social Responsibility of Chinese Overseas Enterprises (2016-2017)*", monitoring, providing feedback, and managing CSR of state-owned MNEs involved in the BRI. The series of reports summarize the existing problems with state-owned MNEs' CSR. For instance, the Blue Book states that 22% of the central enterprises still have not designated or established a department responsible for CSR, and the 36% of such enterprises even have not yet established a CSR management system.

Under the higher coercive isomorphism pressure from the government, compared to private-owned enterprises, Chinese state-owned MNEs are more likely to fulfil the government's requirements specified by the BRI actively and thus perform better in CSR. According to the *Research Report on Corporate Social Responsibility of Chinese Overseas Enterprises (2016-2017)*, central state-owned enterprises have the highest overseas social responsibility development index (42.77) and the score for private enterprises is only 20.93. The *Blue Book* (2018) also shows that in the past three years, 99% of central state-owned enterprises did not suffer any major health or safety accidents in their operations in the BRI countries and central state-owned enterprises employed

more than 360,000 local employees in these countries.

In addition, the mimetic pressures on improving CSR are also stronger for state-owned MNEs compared with private-owned enterprises under the BRI. State-owned MNEs with excellent CSR performance in the BRI are always viewed as successful, designated as national "exemplars", and are praised and supported by the government. For example, Chinese multinational enterprises that have issued the BRI CSR reporting are all large central state-owned MNEs, and their excellent and outstanding CSR practices are always reported in the government official website or official media. Therefore, state-owned enterprises are likely more sensitive to such isomorphic pressure compared to private-owned enterprises because state-owned MNEs have similar ownership, experience, investment motivation and financial strength to the exemplars and the experience and knowledge of the exemplars are more relevant for state-owned enterprises. The mimetic pressures are more likely to encourage state-owned MNEs and their managers to imitate successful peers to receive more attention from the government because they depend on the government as the resource provider and state-owned MNE mangers' career and rewards depend largely on the performance and fulfillment of the government goals (Wang, Hong, Kafouros, & Wright, 2012).

Based on the above literature and practice, we believe that state-owned enterprises play the role as the government agency and they subject to higher institutional pressure of the BRI through coercive and mimetic isomorphism. Therefore, we put forward the following hypothesis:

Hypothesis 2 (H2) *The positive relationship between the BRI and overall CSR of Chinese MNEs involved in BRI is stronger for state-owned MNEs.*

Interactive effect of home- and host-country institutional pressures

An MNE and its subsidiaries are closely related. Any irresponsible behavior of an overseas subsidiary will jeopardize the legitimacy of the headquarters in the home country and other subsidiaries globally. For example, according to the '*Guidelines for Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants*', the World Bank will sanction the whole company including the headquarters, its subsidiaries, or holding enterprises, if one subsidiary of the company conducts corruption or other improper behavior. Therefore, negative perception of MNEs in host countries resulting from their irresponsible behavior can spill over and will jeopardize the legitimacy of the headquarters in home countries (Kostova, Roth, & Dacin, 2008; Kostova & Zaheer, 1999; Surroca, Tribó, & Zahra, 2012). The Chinese government hopes that the BRI can enable China to further 'expand and deepen its opening-up and to strengthen its mutually beneficial cooperation with countries in Asia, Europe and Africa and the rest of the world' (*Visions and Actions*, 2015). The BRI considers Chinese MNEs' overseas subsidiaries involved in the BRI as the main implementers and requires them to fulfil their social responsibilities in order to improve the home country's overseas image, promote smooth progress of the BRI, and thus increase the mutual benefits of countries along the BRI (Cheng, 2016). If Chinese MNEs fail to obtain legitimacy in host countries, they may be warned or punished by the Chinese government or related institutions through the suspension of preferential policies including financial support because of not satisfying the BRI requirements.

For example, a report entitled the "*Opinions and Practices for China to Promote the Development of Green Finance along the Belt and Road*" jointly issued by the Development Research Center of the State Council and the Export-Import Bank of China (EIBC) states that, the EIBC as a state-owned policy bank supports Chinese foreign trade, cross-border investment and the BRI, but it has

the power of veto over any loan application if the project does not meet environmental protection requirements, and it will not provide any loans to those on a blacklist of polluting companies. Following loans, the EIBC keeps monitoring the projects to make sure that they are in compliance with the social and environmental protection policies specified in the loan contracts. Any irresponsible behaviors in any host countries prevent Chinese MNEs from continuing to obtain stable, large and low-cost loans from China's policy banks, which will certainly affect their subsequent overseas investment.

Therefore, in host countries with high CSR institutional requirements, under the coercive isomorphism of the BRI, MNEs need to implement the high CSR standards required by the host countries (Marano & Kostova, 2016) and any low CSR performance or irresponsible behavior in host countries may imperil their headquarters' legitimacy under the pressure of the BRI in China. On the one hand, the BRI, severed as home institutional pressure, provides the general CSR guideline of CSR practices, and urges Chinese MNEs to improve their CSR awareness, ability, and performance. On the other hand, the level of CSR improvements following the BRI depends on the level of host country institutional pressure. The positive effect of the BRI' coercive isomorphic pressure on MNE CSR is strengthened with high institutional coercive requirements of the host country.

In addition, higher CSR related institutions in host countries expose MNEs to opportunities to learn more advanced knowledge and practices for addressing social and environmental issues that may not be present in their home countries (Kostova et al., 2008) and thus Chinese MNEs that have been successfully operating in host countries usually show better CSR performance. The mimetic isomorphism under the BRI towards Chinese MNEs becomes higher when investing in host

countries with higher CSR institutions, because Chinese MNEs need to make more efforts to imitate to their successful peers to get legitimacy in host countries in order to satisfy the requirements of the BRI. Therefore, we argue that the positive effect of the BRI on the level of Chinese MNE CSR engagement is contingent on whether the host country has relatively strong institutions about CSR practice.

Hypothesis 3 (H3) *The higher the level of host country institutional pressure, the stronger the positive relationship between the BRI and overall CSR of Chinese MNEs involved in the BRI.*

Data, Variables and Methodology

Data Sources and Sample Selection

Our sampled firms are those publicly-listed on Chinese domestic stock markets during the period 2008-2018. Chinese overseas subsidiary data is obtained from *Chinese Listed Firms' Outward Foreign Direct Investment Research Database* of the China Stock Market and Accounting Research (CSMAR). CSMAR is widely used in Chinese listed firm studies and includes basic information about firm characteristics, financial data and foreign investment such as subsidiary name and host country. CSR data is obtained from the Chinese Corporate Social Responsibilities Database (CCSR) from CNRDS. We then merger the firm-level data with CSR database according to the stock code and drop the observations whose value of CSR is missing. Since the difference-in-differences (DID) method is used to examine the effect of the BRI on MNEs' CSR, we divide the sample into two groups. The treatment group contains observations of Chinese multinational enterprises with at least one subsidiary in a BRI country before 2014 and maintaining operation there after 2014. The control group, used to compared

with the treatment group, includes the Chinese MNEs that never invested in any BRI countries during 2008-2018. Considering that some MNEs do not have subsidiaries in, but have a close relationship with, the BRI countries through infrastructure construction, overseas project or export, the MNEs in the control group that are also included in the "BRI stock" of *Hithink RoyalFlush* are deleted from the sample. In addition, in order to examine the policy shock of the BRI proposed in 2014, we only keep the enterprises which operated both before and after 2014 so that we can compare CSR's dynamic change before and after the BRI. Host-country institution data is obtained from the *Worldwide Governance Indicators* and *Responsible Competitiveness Index* respectively and observations with missing value are dropped from the sample. Using these selection criteria, we obtain a final sample of 262 enterprises and 2052 firm-year observations from 2008 to 2018, including 127 enterprises in the treatment group with 996 observations and 135 enterprises in the control group with 1056 observations. Table 9 in Appendix presents the sample distribution by year, industry and host country of the BRI. Panel A of Table 11 in Appendix summarizes the sample composition by fiscal year. The number of observations increased every year before 2015 and kept steady after that. Panel B summarizes the sample distribution by industry according to the *Guidelines for the Industry Classification of Listed Companies (2012 Revision)*. Panel C presents the observations by host country involved in the BRI according to the definition of CSMAR.

3.2 Construction of key variables

Dependent variable (CSR) Cross-border practice diffusion is easier between the headquarters and subsidiaries (Tallman & Chacar, 2011) and subsidiaries are one of the

channels for passing CSR knowledge and practices to the headquarters (Andersson, Forsgren, & Holm, 2001). Therefore, we employ the overall CSR scores of Chinese MNEs as the dependent variable considering CSR practice diffusion and spillover within MNE networks. For example, in order to obtain the legitimacy in overseas markets, some Chinese MNEs obtained the ISO14001 environmental management system certification. Although it is essential for overseas subsidiaries, the certification enables the environmental management awareness and capabilities of the headquarters and other subsidiaries of Chinese MNEs to be improved because of the complicated and strict certification application procedure. In addition, the chairman of TCL once mentioned in the financial interview of the 2012 Summer Davos Forum that TCL, as an industrial enterprise, must fulfill its social responsibility for energy conservation and emission reduction. Initially, overseas customers required that the products TCL produced must meet local environmental standards and thus TCL is forced to learn how to make their products more environmentally friendly. With the support of the Chinese government, TCL became more actively in developing green technology in the domestic market and produced more energy-saving and environment-friendly products. The CSR practice of the entire MNE network is coordinated globally by the headquarters (Marano & Kostova, 2016; Asmussen & Fosfuri, 2019) and in turn advanced CSR knowledge and practice can be diffused back to home countries through MNE networks and thus the overall CSR of MNEs can be improved finally. Therefore, we consider that the CSR scores obtained from MNEs' CSR reports that include the headquarters and all overseas subsidiaries' CSR practice or performance are suitable for our assessment of the BRI effect on Chinese MNE CSR.

When measuring CSR scores, the KLD ratings are widely used in CSR studies globally

(Flammer & Kacperczyk, 2019), but such ratings don't contain the CSR performance of Chinese enterprises. Previous studies measured Chinese enterprises' CSR performance mainly based on total CSR ratings released by the *Rankins CSR Ratings* or other rating agencies without considering the multiple dimensions of CSR. In our study, we use a new CSR database, the *Chinese Corporate Social Responsibility Database (CCSR)*, provided by the *Chinese Research Data Services Platform (CNRDS)* that is often used in China's research recent years. This database contains Chinese listed enterprises' CSR scores since 2006 and is developed based on the framework of KLD. Specifically, in this database, CSR is divided into six dimensions including charity and voluntary activities, corporate governance, diversity, employee relations, environmental protection, and products. Each dimension contains two perspectives: strengths and concerns. Enterprises are more prone to disclose information regarding strengths. For example, according to the *2019 Corporate Social Responsibility Reporting Survey in China*, only 26.2% of CSR reports disclosed negative information. Therefore, in order to ensure the authenticity and reliability of the database, they use the big data technology to construct the index of 'concerns' to overcome the drawback of relying on the data provided by firms only.

We construct three levels of CSR scores using the CCSR database: first, we construct CSR scores from the perspective of strengths and concerns. We construct the *total CSR strengths score*（*CSR_STR*）by summing up the six dimensions of strengths, and the *total concerns score (CSR_CON*）by summing up the six dimensions of concerns (Attig et al.,2016). Second, the second level is the six dimensions of CSR score including *Charity and Voluntary Activities* (*CSR_CHA*), *Corporate Governance* (*CSR_GOV*), *Diversity* (*CSR_DIV*), *Employee Relations* (*CSR_EMP*), *Environment*（*CSR_ENV*） and *Products* (*CSR_PRO*). The score of each

dimension is calculated by using the strength score of each dimension deducted by that of the concern score. Third, we construct the total CSR score to evaluate an enterprise's overall CSR performance. Based on Newman et al. (2018) and Attig et al. (2016), the total CSR score is the difference between the total CSR strength score (*CSR_STR*) and total concern score (*CSR_CON*).

Moderator variables Since we consider the interactive effect of the BRI and host country institutional pressures on Chinese MNEs' overall CSR, host country institutions should be included as a moderator in our research. We use two indexes to measure host countries' institutional pressure related to CSR.

According to Marano and Kostova (2016), we first use the *Responsible Competitiveness Index (RCI)* to measure host countries' CSR institutional forces. The RCI measures a country's institutions closely related to CSR based on 21 indicators grouped in seven categories and these indicators are developed by the *Institute of Social and Ethical Accountability* (Zadek & McGillvray, 2007; Marano & Kostova, 2016). The RCI has been used as a measure of CSR institutional quality in prior studies (e.g. Peng & Beamish, 2008; Marano & Kostova, 2016).

Second, we use the index of *Worldwide Governance Indicators (WGI)* reported by the World Bank to measure the general host-country institutional pressure. The WGI consists of six measures of a country's institutional quality including Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Absence of Corruption. We measure the index as the first principal component of the six WGI measures according to Globeman and Shapiro (2003). The WGI is also widely used in CSR literature to measure a country's institutions (e.g. Rathert, 2016; Marano, Tashman, &

Kostova, 2016; Keig, Brouthers, & Marshall, 2019).

In addition, multinational enterprises usually operate in multiple and diverse host countries and not all institutions have the same impact on MNE CSR (Cordeiro et al., 2018). Some may be more salient according to their relative importance for MNEs (Marano & Kostva, 2016) and therefore, we use a weighted average score of institutions to measure the overall institutional pressure from all subsidiaries' host countries and the weight is equal to the number of subsidiaries in the host country every year (Attig et al., 2016).

Last, the dummy variable of state-owned enterprises *(SOE_dum)* is created as a moderator variable according to Sun, Wu and Zhang (2019) to test Hypothesis 2. The data is obtained from the database of CSMAR and the value of the variable is 1 if the listed company is state-owned (code P5511 in the database), and 0 if private-owned (code P5517 in the database).

Control Variables In our analysis, we control for a set of firm- and country-level characteristics that may affect a firm's social engagement. For the firm-level, according to Attig et al. (2016), Newman-Kahindi and Stevens (2018) and Boubakri et al. (2016), we include following as our control variables. *Firm Age* (*Age*) is the number of years that elapsed after the firm was established. *Firm size* (*Size*) is measured by the natural logarithm value of fixed assets. We control for firm age and size because larger and older firms are more visible and thus face more CSR pressures from their stakeholders (Brammer, Pavelin, & Porter, 2009). We also control for profitability measured by return on assets (*ROA*), and *financial leverage (Leverage)* measured as the ratio of total debt to total assets. Higher profitability means that firms have more resources and are willing to do more CSR (Dong et al., 2019). Financial leverage implies slack resources and firms with more slack resources invest more in CSR (Waddock & Graves,

1997). We also control for *State ownership* (*SOE_share*) and *Foreign ownership* (*Foreign*) because existing literature suggests that firms' foreign ownership or state ownership has a significant effect on the environment or CSR performance (McGuinnessa, Vieito, & Wang, 2017; Pan et al., 2020). All the firm-level data are obtained from CSMAR. Country-level control variables include host countries' residents' perception and institutions. According to Boubakri et al. (2016), we employ a cognitive indicator, residents' perception of CSR, as control variable. The resident's perception data is collected from the *World Value Survey*. The index is measured by asking 'Do you think we should give priority to environmental protection even it may lead to slow economic growth and employment recession?' The ratio of respondents choosing '*Yes*' to the investigated population in host countries each year is our control variable *Perception*, representing environmental protection perception of the host country. *Responsible Competitiveness Index (RCI)* is used to control host countries institutional pressure.

3.3 Summary statistics

< **Table 1** Descriptive statistics and correlation matrix >

(about here)

Panel A of Table 1 provides summary statistics for the key variables used in our regression analysis. Panel B resents a correlation matrix for theses variables. The descriptive statistics show that the average CSR score of Chinese MNEs is 18.2081. The values of the correlations between the variables are low and the variance inflation factors (VIFs) are below 1.17, suggesting no serious multicollinearity problems. Table 2 presents the results of the mean-difference tests for the treatment group before and after the BRI. The results show that the CSR differences of Chinese MNEs involved in the BRI before and after the BRI are statistically

significant at the 1% level. After the BRI was proposed, the average score of CSR of the treatment group is 20.6532 that is significantly higher than the score before the BRI (16.6467). Further analysis is conducted in the following part based on the difference-in-differences (DID) method.

< **Table 2.** Dynamic change of CSR before and after BRI (Treatment Group)>

(about here)

3.4 Model Specification: Difference-in-differences

To examine whether Chinese MNEs involved in the BRI have improved their CSR performance responding to the pressure of the BRI, we use the difference-in-differences method, a common method for examining policy effects. The DID model is established as follows:

$$CSR_{it}=\alpha_0+\beta_1 Treat_{it}\times Time_{it}+\lambda X_{it}+\gamma_i+\gamma_t+\gamma_{ind}+\gamma_{pro}+\varepsilon_{it} \quad (1)$$

where subscripts *i*, *t*, *ind*, and *pro* denote year, firm, industry and province respectively. *CSR* refers to the CSR performance; *X* is a vector of control variables, including the firm's *Age, Size, ROA, financial leverage, state and foreign ownership*, *RCI* and *perception.* We also include the year (γ_t), firm (γ_i), industry (γ_{ind}) and province (γ_{pro}) fixed effects in the model. ε_{it} is the random disturbances.

The BRI was firstly proposed at the end of 2013, and became China's official national proposal when it was formally written in the Central Government Work Report in March 2014. Therefore, we set the year of 2014, the median, as the policy shock period of the BRI. The time dummy variable (*Time)* is set as follows: if the time of observation was before 2014, the value of the *Time* dummy is 0 and if the time was equal to or after 2014, the value is 1.

Furthermore, we set group dummy variables *(BRI)* as follows: MNEs establishing at least

one subsidiary in a BRI country before 2014 are included in the treatment group and the value of the variable *BRI* is 1. Chinese MNEs never establishing a subsidiary in any BRI country belong to the control group and the value of variable *BRI* is 0. If an MNE has subsidiaries in both the BRI and non-BRI countries, the value of *BRI* is 1.

Findings

Results and Discussion

To assess the effects of the BRI on Chinese MNEs' overall CSR as hypothesized earlier, we analyzed our data using multiple regression analysis, as reported in Table 3. We first developed our base model, only including the interactive term and the individual, time, industry, and province fixed effect in in Model 1. We then added the control variables in Model 2, including the firm age, size, ROA, leverage, state and foreign ownership, RCI and perception. The coefficients of the *BRI* and *Time* interactive term are both significantly positive in Mode 1 and Model 2 (Model 1: β=1.0023, $p<.01$; Model 2: β=1.0389, $p<.01$), indicating that the BRI can significantly improve the CSR performance of Chinese MNEs involved in the BRI. Therefore, Hypothesis 1 is verified. Furthermore, we divided CSR into strengths and concerns. As shown in Model 3 and Model 4 in Table 3, the coefficient of strengths is positive and significant *(*Model 3: β=.9660, $p<.01$), while the coefficient of the interactive term (Model 4: β=.0738, n.s.) in Model 4 is not significant. The results mean that the BRI significantly increases MNEs' responsible behavior. Nevertheless, the existing irresponsible behaviors have still not been reduced significantly after the BRI was initiated. Our results are similar to those reported in some existing studies. For instance, Zahra and Garvis (2000) find that although more resources

are required to increase CSR strengths than reduce CSR concerns, firms still prefer to improve CSR strengths rather than reduce concerns.

< **Table 3.** The effect of BRI on Chinese MNEs' CSR >

About here

Table 4 shows the BRI's effect on the multiple dimensions of CSR. The six CSR dimensions were used as the dependent variables respectively and the method of DID was applied. As shown in Table 4, the coefficients of the interactive term in Model 4 and Model 6 are positive and significant (Model 4: β=.1926, p<.1; Model 6: β=.4374, p<.01). It means that the BRI has a great impact on the treatment group's employee relations and products, such as increasing employee bonuses and employee ownership, providing more safety and professional training and improving product quality. There is no significant effect on the dimensions of charity and voluntary activities, corporate governance, diversity, and environmental protection.

<Table 4. The effect of the BRI on detailed dimensions of CSR >

About here

State-owned and private-owned MNEs

We constructed a dummy variable (*SOE_dum*) to divide the enterprises into state-owned or private-owned enterprises. We used the difference-in-difference-in-differences (DDD) method to test hypothesis 2. As shown in Model 1 of Table 5, the coefficient of the DDD estimator (*BRI*×*Time*×*SOE_dum*) is positive and significant (Model 5: β=.9611, p<.05), indicating that the positive effect of the BRI on the CSR of Chinese MNEs involved in the BRI is stronger for state-owned MNEs and thus hypothesis 2 is supported. The DDD estimators' coefficients of Model 6 and Model 7 of Table 5 are also positive and significant (Model 6: β=.2765, p<.1;

Model 7: β=0.5681, p<.01) when examining the BRI's effect on CSR dimensions, which means the positive relationship between the BRI and CSR performance in *environmental protection* and *products* of Chinese MNEs involved in the BRI is stronger for state-owned MNEs compared to private-owned MNEs.

<Table 5. State-owned MNEs and private-owned MNEs >

About here

We also constructed a dummy variable (*ownership_dum*) to divide the enterprises into three categories according to the degree of state ownership for robustness test. The dummy variable's value is 1, 2, and 3 respectively if the state ownership of an MNE is below 25%, between 25% and 50%, and greater than 50%. As shown in Model 2 of Table 5, consisting with the results of using *SOE_dum*, the coefficient of the DDD estimator (*BRI*×*Time*×*ownshierp_dum*) is positive and significant (β=1.2691, p<.01), indicating that with high state-owned ownership, the positive effect of the BRI on the CSR of Chinese MNEs involved in the BRI is strengthened and thus results are robustness. The moderating effects of state-ownership on CSR detailed dimensions are reported in Table 10 in Appendix. The results show that the positive relationship between the BRI and CSR performance in *employment* and *products* of Chinese MNEs involved in the BRI is stronger for higher state-ownership.

Robustness Test

In order to ensure the stability and reliability of the estimation results, we conducted robustness tests including the common trend test, placebo tests and further causal recognition to check for random correlation.

Common trend test

Common trend is an important prerequisite for applying DID, which requires that the treatment and control groups should have the same trend before the policy was proposed. The results are shown in Model 1 of Table 6. The coefficients of the interactive terms after 2014 (*Treat×2014*, and *Treat×2015*, *Treat×2016* and *Treat×2017*) are significant and the coefficients of the interactive terms before 2014 (*Treat×2010*, *Treat×2011*, *Treat×2012* and *Treat×2013)* are not significant, indicating that the difference between the treatment and control groups becomes obvious after 2014 and there was no significant difference before the BRI was proposed. Therefore, the common trend assumption is satisfied and the DID method can be used in our research.

Placebo test

We use the placebo test to check random correlation. If the proposed year of initiative was advanced or postponed, and its impact on the treatment group was still significant, it indicates that the CSR performance improvement may be caused by other factors or random effects. In Model 2 of Table 6, we hypothesized that the proposed year of the initiative was advanced to 2011 and the proposed year in Model 3 was postponed to 2017, and we also carried out regression analysis using the DID method respectively. The results show that the coefficients of the interactive terms in Model 2 and Model 3 (Model 2: β=.4924, *n.s.*; Model 3: β=.1584, *n.s.*) are both insignificant. The results show that the improvement of CSR performance is indeed caused by the policy shock in 2014 rather than other factors.

PSM-DID

There may exist a problem of self-selection and endogeneity in our sample. To address this potential

problem, we adopted the propensity score matching (PSM) method proposed by Rosenbaum and Rubin (1983) and then combined the PSM with DID to examine the effect of the BRI on Chinese MNEs' CSR. The method of PSM-DID is widely used in literature to solve the problem of sample selection bias and endogeneity (e.g. Luo, Xiang, & Zhu, 2017; Sun, Wu, & Zhang, 2019). We constructed our control group by finding counterparts for each observation in the treatment group through PSM. We used the variables of *Age, Size, ROA, Leverage, State Ownership* and *Foreign ownership* as the matching covariates to enhance the comparability of the treatment and control groups before the BRI so that the two groups of MNEs are as similar as possible except for whether they entered the BRI countries. Then the firm-year observation with the nearest p-score to its counterpart in the treatment sample was selected as a control group and then the method of DID was used. The PSM-DID regression result in Model 4 of Table 6 is still significant (β=1.4007, p<.05), proving that our results are robust after adopting the PSM-DID and indicating that the BRI does have a significant positive effect on the CSR of Chinese MNEs involved in the BRI.

Overseas CSR

Following Naughton, Wang & Yeung (2019), we used the residual approach to calculate overseas CSR. The residual method is often used in financial and accounting field to calculate overinvestment, abnormal earnings, and abnormal administration expenses to measure corporate risk-taking or rent-seeking behavior (e.g. Liu et al., 2018; Li, Wu, & Jiang, 2018; Xu, Zhou, & Du, 2019). We consider excess CSR as the residual of regression of the enterprise level (enterprise age, size, state-owned ownership, foreign ownership, financial leverage, ROA, capital expenditure, and the ratio operating income divide by total assets) and CEO characteristics (CEO salary, gender, and duality) variables that influence EM-MNEs CSR in the home country. The regression results are in Table 11 in

Appendix. Overseas CSR is included in the 'excess' CSR estimated from the residual because we singled out the factors that would influence only CSR in the home country and then tease out the overseas CSR performance to some extent. We then used the residual CSR as the dependent variable and used the DID method to examine the BRI's effect. The regression results are showed in column 5 in Table 6 and the coefficient of the interactive term is significant and positive ((β=1.1981, p<.01), which means that the BRI has a positive effect on Chinese MNEs' overseas CSR and the main results of Table 3 are robust.

In addition, we also made some attempts to supplement the overseas CSR indicators. The CSR indicators we used did include some sub-indices closely related to the overseas CSR. We used two sub-indicators, 'international assistance' and 'international environmental certification (ISO14001)' as the dependent variables and examine the BRI's effect on them and the results are robust. The results are in Column 6 and 7 in Table 6.

< **Table 6** Robustness Check >

About here

Interaction effect between home- and host- country institutions

Host-country institution: Responsible Competitiveness Index (RCI)

The CSR performance of MNEs may also be influenced by institutional pressures from host countries. The RCI is widely used in prior studies to measure a country's CSR institutional quality (e.g. Peng & Beamish, 2008; Marano & Kostova, 2016) and the index is constructed as a weighted average of RCI for all host countries of MNEs by the degree of economic dependence on these host countries (Marano & Kostova, 2016). The average of all countries' RCI (108 countries in total) reported in *the State of Responsible Competitiveness 2007* is 56.67

and thus we constructed a dummy variable *(RCI_dum*). If the weighted average RCI of MNEs' all host countries is greater than 56.67, the value of the dummy variable of *RCI_dum* is 1, which means that the host country's CSR institutional pressure is higher than the average level of the world. If the weighted average RCI is less than 56.67, the value of the *RCI_dum* is 0. We then multiplied *RCI_dum* with the interactive term *(BRI×Time)* to construct a new model and employed the triple difference (*DDD*) to examine the interactive effect of the home and host countries' institutional pressures on Chinese MNEs' CSR performance.

< **Table 7** Host country Institutions (*RCI*) and the BRI interactive effect >

About here

According to the DDD method (e.g. Min, 2018), the coefficient of the triple interaction is the estimate controlling for all confounding factors resulting from group-specific and time-specific trends as well as systematic differences led by different levels of host country institutions. As shown in Model 1 of Table 7, the coefficient of the DDD (*BRI×Time×RCI) estimator* is positive and significant (Model 1: β=1.3272, p<.01), indicating that with higher CSR institutional pressure of host countries, the positive BRI effect on the CSR of Chinese MNEs involved in the BRI is strengthened. Regarding the CSR dimensions, the interactive term's coefficients of Model 5 and Model 7 of Table 7 are positive and significant (Model 5: β=0.4148, p<.01; β=0.4821, p<.01), which certifies that, with a higher level of CSR institutional pressure of host countries, the positive relationship between the BRI and CSR performance in *employee relations* and *products* of Chinese MNEs involved in the BRI is strengthened.

Host-country institution: Worldwide Governance Index (WGI)

< **Table 8** Host country Institutions (*WGI_dum*) and the BRI interactive effect >

About here

The second indicator we used to measure host-country institutional pressure for robustness test is WGI, which is also often used in the CSR literature (e.g. Rather, 2016; Marano, Tashman, & Kostova, 2016; Keig, Brouthers, & Marshall, 2019). We calculated the WGI of Chinese MNEs as the first principal component of the six WGI measures that are highly correlated (Globerman & Shapiro, 2003; Rather, 2016). In order to employ the *DDD* method, we constructed a dummy variable *(WGI_dum*) and its value is 1 if the index is greater than or equal to 0, and 0 if the index is less than 0.

The results are showed in Table 8. The coefficient of the *DDD* estimator (*BRI*×*Time*× *WGI_dum*) in Model 1 is also positive and significant (Model 1: β=1.2935, p<.01), which is consistent with the results of using RCI as a host-country institution. The results support Hypothesis 4 that, with higher general institutional pressure of host countries, the positive impact of the BRI on CSR of MNEs involved in the BRI is strengthened. Regarding the CSR dimensions, the interactive term's coefficients of Model 5 and Model 7 of Table 8 are still positive and significant (Model 5: β=0.3797, p<.01; Model 7:β=0.4775, p<.01), which means only in the dimension of employee relations and product of CSR, the positive effect of the BRI on CSR of MNEs involved in the BRI is strengthened with high institutional pressure of host countries.

Discussion and conclusion

Discussion

This study focuses on the effect of home-country institutions on the CSR performance of

multinational enterprises from emerging economies. Taking the Belt and Road Initiative as an example of home-country institutional pressures, this paper examines the BRI's effect on the CSR performance of Chinese MNEs involved in the BRI.

Firstly, we find that the BRI can significantly improve the CSR performance of Chinese MNEs involved in the BRI and the positive relationship is stronger for state-owned MNEs. The BRI encourages MNEs to fulfill their CSR (*Vision and Actions*, 2015). The Chinese government attaches great importance to CSR, especially MNEs' CSR in countries along the Belt and Road. As mentioned earlier, emerging economy's governments own scarce resources that are critical to the survival and development of enterprises (Cui & Jiang, 2012). Therefore, corporate governance and strategy are highly affected by government. However, we still know little about the extent to which corporate strategies of MNEs operating overseas are influenced by home-country governments. Our research proves that under the institutional pressure of the BRI, the MNEs' CSR has been significantly improved through coercive and mimetic isomorphism, especially for state-owned MNEs.

Furthermore, we divide the CSR into strengths and concerns. The empirical results show that the BRI can significantly promote enterprises' CSR strengths, but cannot reduce CSR concerns significantly. The results suggest that MNEs are more willing to increase their responsible behaviors because such behaviors are more likely to be observed and publicized by the media and government and thus have a more direct impact on improving MNEs' reputation (Zyglidopoulos et al., 2012).

At the same time, CSR is a multi-dimensional concept (Attig et al., 2016). The empirical results show that the BRI plays a significant role in promoting the two CSR dimensions

("*Products*" and "*Employee Relations*"), but the effect on CSR's other dimensions is not significant. The result may be due to two reasons: First, MNEs may respond to institutional pressures strategically according to the tradeoff between costs and benefits. For example, MNEs may focus on improving the CSR in *Products* and *Employee Relations* as this may be more cost-effective for reputation enhancement than any improvement in other dimensions of social responsibility. Second, we employ the DID method to examine the policy shock of the BRI on CSR. However, certain CSR dimensions, such as environmental protection, were always emphasized by Chinese government before the BRI and this may explain why the policy shock of the BRI on this dimension is not significant.

Considering the important influence of host country institutional pressures on CSR, this paper further examines the interactive effect between home- and host-country institutional pressures on EM-MNEs' CSR performance. Firstly, we use CSR institutional pressures in host countries, measured by RCI, to represent host countries' CSR institutional quality and the results show that if a host country has a high level of CSR institutional pressure, the positive effect of the BRI on the CSR of Chinese MNEs involved in the BRI is strengthened. We also use the WGI to measure the general institutional pressure of host countries and the results are consistent with using the indicator of RCI. The positive moderating effect is also significant for the two CSR dimensions (*Employee relations* and *Products*).

Practical implications

The study examines the impact of home-country institutions and its interaction with host-country institutions on EM-MNE CSR in the context of the BRI. Our study confirms that emerging economy's governments can play an important role in promoting EM-MNE CSR.

However, it is not always easy for EM-MNEs to implement CSR. Firstly, EM-MNEs need to face diverse and complex host countries with various CSR requirements. As a result, we suggest that the Chinese government should pay more attention to Chinese MNEs that invested in host countries with low CSR institutional pressure and propose more specific policies to strengthen home-country institutional pressures and to fill institutional voids of host countries. For Chinese MNEs, they should pay attention to how to respond to the institutional complexity in the cross-border organizational field. Our study shows that Chinese MNEs are more likely to significantly improve their CSR practices under the pressure of the BRI when operating in host countries with high CSR related institutional requirements. We suggest that Chinese MNEs should also significantly improve their CSR level in host countries with lower CSR institutional requirements in order to maintain their global legitimacy. For example, MNEs in polluting industries tend to standardize their environmental standards globally at a level that meets or exceeds the strictest environmental standards of all host countries they face (Madsen, 2009; Marano & Kostova, 2016) in order to reduce the loss of global legitimacy due to negative spillover effects (Kostova and Zaheer, 1999). Secondly, in addition to taking the initiative to do some positive CSR practices that are easily reported by the media, and easily known by the public and the home-and host-government, Chinese MNEs should also actively correct and reduce some hidden CSR problems such as accounting irregularities, production accidents and environmental pollution. In fact, any irresponsible behavior will eventually have a negative impact on company reputation. Thirdly, CSR is a multi-dimension concept, but enterprises are inclined to just improve certain dimensions of CSR according to their interests. For example, under pressures of the BRI, Chinese MNEs actively improve the dimensions of *employee*

relations and *products*. Therefore, Chinese governments and MNEs should pay special attention to the CSR dimensions that are easily overlooked. In addition, Chinese MNEs should not only meet the requirements of the home-country institutions, but also actively understand and meet specific demands and expectations in host countries. Chinese MNEs and governments should pay more attention to the voice of local residents when operating overseas and also satisfy the demands of local people and understand the importance of publicization in host countries.

Overall, our research provides theoretical implications and practical suggestions for the Chinese government and the BRI to promote Chinese MNEs' CSR, maintain a good overseas image and thereby enhance mutual trust and regional cooperation among countries along the BRI. At the same time, we provide specific corporate governance and strategy recommendations for Chinese MNEs, with the hope of helping MNEs to better fulfill their CSR in their participation in the BRI and gain global legitimacy.

Limitation and future Research

Firstly, we use MNEs' overall CSR score to examine the BRI effect. In future, more detailed CSR scores, such as Chinese MNEs' overseas CSR or CSR in certain host countries, should be used in the research and therefore the learning and diffusion effect of overseas CSR knowledge or practice between headquarters and overseas subsidiaries, or among overseas subsidiaries can be examined. New techniques, such as data mining and content analysis, can be used to construct new indexes of Chinese MNEs' overseas CSR in future to deepen the research of CSR in international business.

Secondly, powerful government is an important characteristic in China's economic development, and Chinese enterprise internationalization strategy is significantly affected by the evolution of Chinese institutions. However, emerging economies are not homogenous, even within

the same geographic region (Hoskisson et al., 2000). For example, even in East Asia, there are differences between China and other emerging economies such as Korea in terms of the role of home country institutions (Hoskisson et al., 2000). Therefore, the conclusions of this study may not be totally applicable to other emerging economies. The role of home institutions on EM-MNEs' CSR still needs to be examined further and we look forward to more research in the future focusing on this topic using data from other emerging economies.

Finally, further research is needed to find out why Chinese home-country institutional pressures only affect two dimensions of CSR. Is it because the host or home country government has more demands for these two dimensions of CSR, or an improvement in these two dimensions can achieve better performance or reputation? Lots of questions still need to be answered.

Conclusion

CSR literature in international business usually focuses on the effect of host country's institutions on MNEs' CSR and thus home country institutional pressure is under-researched (Buchanan & Marques, 2018). In this research, we take China's BRI as an example of home institutional pressure and employ the difference-in-differences (DID) method to examine the impact of the BRI and its interaction with host country institutions on Chinese MNEs' CSR. The results show that the BRI can significantly improve Chinese MNEs' CSR performance and the positive relationship is stronger for state-owned MNEs. We also find that the positive relationship between the BRI and Chinese MNEs' CSR performance is strengthened by high CSR-related institutional pressures of host countries. The research contributes to the growing literature on MNEs' CSR by identifying the impact of home country institutions on MNEs' CSR from institutional theory and revealing the BRI unique effect on MNEs' CSR which has not been examined before. The research

provides practical suggestions for the Chinese government to guide Chinese MNEs to further improve their CSR performance in order to ensure the smooth progress of the BRI, strength the regional cooperation and lay the foundation of globalization. At the same time, this study provides suggestions for Chinese MNEs to improve their CSR to ensure that they can get dual legitimacy both in home- and host-countries and thus enhance their global reputation and performance.

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Table 1. Descriptive statistics and correlation matrix

Panel A. Descriptive statistics

Variables	Observations	Mean	S.d.	Min.	P50	Max
CSR	2052	18.2081	6.3027	2	18	39
CSR_STR	2052	18.6881	6.3151	4	18	39
CSR_CON	2052	0.4800	0.6927	0	0	4
Age	2052	18.2203	5.7761	3	18	38
Size	2052	21.6842	1.8858	16.7807	21.5224	26.6222
ROA	2052	0.0102	0.0135	-0.0580	0.0070	0.1029
Leverage	2052	0.5410	0.2060	0.0089	0.5632	1.2755
SOE share	2052	0.0605	0.1472	0	0	0.8053
Foreign share	2052	0.0098	0.0727	0	0	0.8855
RCI	2052	67.0013	4.0942	48	68.3	74.9
WGI	2052	1.6670	0.8828	-1.8935	1.9370	4.5830
Perception	2052	0.4699	0.1280	0.0001	0.4868	0.7362

Panel B. Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1 CSR	1											
2 CSR_STR	0.9940	1										
3 CSR_CON	-0.0371	0.0727	1									

4 Age	0.1463	0.1481	0.0191	1								
5 Size	0.4165	0.4377	0.2013	0.0886	1							
6 ROA	-0.0301	-0.0388	-0.0793	-0.0844	-0.1009	1						
7 Leverage	0.1835	0.1977	0.1322	0.2008	0.4280	-0.3708	1					
8 SOE share	-0.0921	-0.0923	-0.0035	-0.2118	0.0236	0.0125	0.0091	1				
9 Foreign	-0.0205	-0.0264	-0.0541	0.0108	-0.0649	0.1040	-0.0749	0.0021	1			
10 RCI	-0.0551	-0.0606	-0.0519	0.0513	-0.0373	0.0091	-0.0833	-0.0021	0.0244	1		
11 WGI	-0.0654	-0.0684	-0.0285	0.0394	-0.0338	0.0109	-0.0614	0.0329	0.0048	0.8247	1	
12 Perception	0.0673	0.0556	-0.1058	0.1102	-0.1515	-0.0329	-0.0086	-0.1142	0.0985	-0.1708	-0.2606	1

Table 2. Dynamic change of CSR before and after BRI (Treatment Group)

Variables	Treatment Group		Before BRI		After BRI		Difference	
	Mean	Median	Mean	Medium	Mean	Medium	t-test	z-test
CSR	19.0361	18	16.6467	16	20.6532	21	-9.4462***	-8.882***
CSR_Strengths	19.5050	19	17.0896	16	21.1397	21	-9.5232***	-8.974***
CSR_Concerns	0.4689	0	0.4428	0	0.4865	0	-0.9855	-1.462
Age	17.7279	17	15.1368	14	19.4815	19	-12.3523***	-12.437***
Size	22.1150	21.9928	21.8939	21.7546	22.2646	22.2584	-3.0345***	-3.437***
ROA	0.0100	0.0072	0.0122	0.0092	0.0085	0.0059	4.7629***	5.185***
Leverage	0.5551	0.5771	0.5432	0.5595	0.5633	0.5869	-1.6655*	-1.802*
SOE share	0.0535	0	0.0856	0	0.0318	0	6.1993***	3.848***
Foreign	0.0104	0	0.0183	0	0.0050	0	2.5985***	3.816***
RCI	65.2320	66.5195	64.9684	66.3577	65.4103	66.5755	-1.4213	-0.424
Perception	0.4356	0.4373	0.4259	0.4337	0.4422	0.4393	-2.2144**	-1.958**

Note：*、**、*** represents significance at the 10%, 5% and 1% levels respectively.

Table 3. The effect of BRI on Chinese MNEs' CSR

Variables	**CSR**	**CSR**	**CSR**	
			Strengths	**Concerns**
	(1)	(2)	(3)	(4)
BRI ×Time	1.0023***	1.0398***	0.9660***	-0.0738
	(0.3036)	(0.3024)	(0.2985)	(0.0482)
Age		0.6094***	0.6498***	0.0403***
		(0.0569)	(0.0561)	(0.0091)
Size		0.9323***	0.9284***	-0.0039

		(0.1921)	(0.1896)	(0.0306)
ROA		-6.9373	-7.8607	-0.9234
		(8.9332)	(8.8166)	(1.4233)
Leverage		0.0158	0.3495	0.3338**
		(0.9780)	(0.9652)	(0.1558)
SOE share		-1.4150**	-1.2169*	0.1981*
		(0.6660)	(0.6573)	(0.1061)
Foreign share		1.9927	2.0230	0.0302
		(1.3681)	(1.3503)	(0.2180)
RCI		-0.0511	-0.0428	0.0082
		(0.0471)	(0.0465)	(0.0075)
Perception		-0.2439	-0.2370	0.0069
		(1.3004)	(1.2834)	(0.2072)
Constant	14.1180***	-8.9253*	-9.6910*	-0.7657
	(0.3814)	(5.0347)	(4.9690)	(0.8022)
Fixed Effect	Y	Y	Y	Y
Observed values	2,052	2,052	2,052	2,052
R^2	0.3422	0.3543	0.3793	0.0569
Number of Firms	262	262	262	262

Notes: *, **, *** represents significance at the 10%, 5% and 1% levels respectively; Standard errors in parentheses;

Y denotes yes.

Table 4. The impact of the BRI on detailed dimensions of CSR

Variables	**CSR_CHA**	**CSR_GOV**	**CSR_DIV**	**CSR-EMP**	**CSR_ENV**	**CSR_PRO**
	(1)	(2)	(3)	(4)	(5)	(6)
BRI ×Time	0.1673	0.0739	0.0020	0.1926*	0.1667	0.4374***
	(0.1028)	(0.0731)	(0.0631)	(0.1047)	(0.1152)	(0.1151)
Constant	-5.5795***	-2.1240*	-2.5883**	0.4581	-1.7697	2.6782
	(1.7110)	(1.2164)	(1.0512)	(1.7428)	(1.9175)	(1.9160)
Control variable	Y	Y	Y	Y	Y	Y
Fixed effect	Y	Y	Y	Y	Y	Y
Observations	2,052	2,052	2,052	2,052	2,052	2,052
R^2	0.1297	0.2565	0.2482	0.2915	0.0868	0.0561
Number of Firms	262	262	262	262	262	262

Notes: *, **, *** represents significance at the 10%, 5% and 1% levels respectively; Standard errors in parentheses;

Y denotes yes.

Table 5. State-owned MNEs and private-owned MNEs

Variables	**Overall CSR**	**Overall CSR**	**CSR_CHA**	**CSR_GOV**	**CSR_DIV**	**CSR-EMP**	**CSR_ENV**	**CSR_PRO**
	(1)	(2)	(2)	(3)	(4)	(5)	(6)	(7)
BRI×Time×SOE_dum	0.9611**		-0.0239	-0.0016	0.0634	0.0786	0.2765*	0.5681***
	(0.4275)		(0.1462)	(0.1012)	(0.0879)	(0.1636)	(0.1471)	(0.1616)
BRI×Time×Ownership_dum		1.2691***						
		(0.3253)						
Constant	-8.9742	-3.8250	-7.0104***	-3.3210*	-1.7798	-1.1671	3.2846	1.0195
	(7.4148)	(7.0450)	(2.5362)	(1.7554)	(1.5243)	(2.8370)	(2.5520)	(2.8032)
Control variable	Y	Y	Y	Y	Y	Y	Y	Y
Interaction effect	Y	Y	Y	Y	Y	Y	Y	Y
Fixed effect	Y	Y	Y	Y	Y	Y	Y	Y
Observed value	1,844	2,052	1,844	1,844	1,844	1,844	1,844	1,844
R^2	0.5155	0.5443	0.3394	0.4531	0.4553	0.2982	0.4568	0.2966
Number of Firms	236	262	236	236	236	236	236	236

Notes: *, **, *** represents significance at the 10%, 5% and 1% levels respectively; Standard errors in parentheses;

Y denotes yes.

Table 6. Robustness Check

	Common Trend	Placebo Test (2011)	Placebo Test (2017)	PSM-DID	CSR (residual)	International Aid	Environment (ISO14001)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BRI ×Time		0.4924	0.1584	1.4007**	1.1981***	0.0833***	0.1468***
		(0.4559)	(0.3483)	(0.5561)	(0.3438)	(0.0189)	(0.0345)
Treat×2010	0.3989						
	(0.7974)						
Treat×2011	0.2228						
	(0.7306)						
Treat×2012	0.9258						
	(0.6987)						
Treat×2013	0.7674						
	(0.6757)						
Treat×2014	1.3153*						
	(0.6749)						
Treat×2015	1.1170*						
	(0.6733)						
Treat×2016	2.1451***						
	(0.6733)						
Treat×2017	1.7201**						
	(0.6742)						
Treat×2018	1.5926**						
	(0.6716)						
Control Variable	Y	Y	Y	Y	Y	Y	Y

Fixed effect	Y	Y	Y	Y	Y	Y	Y
Observations	2,052	867	1,185	2,020	1,598	2,052	2,052
R^2	0.3565	243	261	0.0764	0.0098	0.0451	0.0990

Notes: *, **, *** represents significance at the 10%, 5% and 1% levels respectively; Standard errors in parentheses;

Y denotes yes.

Table 7. Host country Institutions (*RCI)* and the BRI interactive effect

Variables	**Overall CSR**	**CSR_CHA**	**CSR_GOV**	**CSR_DIV**	**CSR-EMP**	**CSR_ENV**	**CSR_PRO**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BRI×Time×RCI_dum	1.3272***	0.1268	0.0994	0.0263	0.4148***	0.1778	0.4821***
	(0.3486)	(0.1202)	(0.0851)	(0.0740)	(0.1215)	(0.1359)	(0.1339)
Constant	-4.2754	-4.2550	-2.1244	-3.4536**	1.7865	0.2728	3.4983
	(7.5868)	(2.6148)	(1.8512)	(1.6106)	(2.6447)	(2.9577)	(2.9131)
Control variable	Y	Y	Y	Y	Y	Y	Y
Interaction effect	Y	Y	Y	Y	Y	Y	Y
Fixed effect	Y	Y	Y	Y	Y	Y	Y
Observed value	2,052	2,052	2,052	2,052	2,052	2,052	2,052
R^2	0.5211	0.3361	0.4375	0.4236	0.4671	0.2902	0.2873
Number of Firms	262	262	262	262	262	262	262

Notes: *, **, *** represents significance at the 10%, 5% and 1% levels respectively; Standard errors in parentheses;

Y denotes yes.

Table 8. Host country Institutions (*WGI_dum)* and the BRI interactive effect

Variables	**Overall CSR**	**CSR_CHA**	**CSR_GOV**	**CSR_DIV**	**CSR-EMP**	**CSR_ENV**	**CSR_PRO**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BRI×Time×WGI_dum	1.2935***	0.1071	0.1174	0.0400	0.3797***	0.1719	0.4775***

	(0.3551)	(0.1221)	(0.0866)	(0.0752)	(0.1243)	(0.1377)	(0.1362)
Constant	-2.7036	-3.2925	-2.4420	-2.5648	3.1335	-1.2530	3.7153
	(7.3888)	(2.5397)	(1.8020)	(1.5654)	(2.5867)	(2.8655)	(2.8341)
Control variable	Y	Y	Y	Y	Y	Y	Y
Interaction effect	Y	Y	Y	Y	Y	Y	Y
Fixed Effect	Y	Y	Y	Y	Y	Y	Y
Observed value	2,052	2,052	2,052	2,052	2,052	2,052	2,052
R^2	0.5185	0.3361	0.4351	0.4228	0.4596	0.2938	0.2850
Number of Firms	262	262	262	262	262	262	262

Notes: *, **, *** represents significance at the 10%, 5% and 1% levels respectively; Standard errors in parentheses;

Y denotes yes.

Appendix

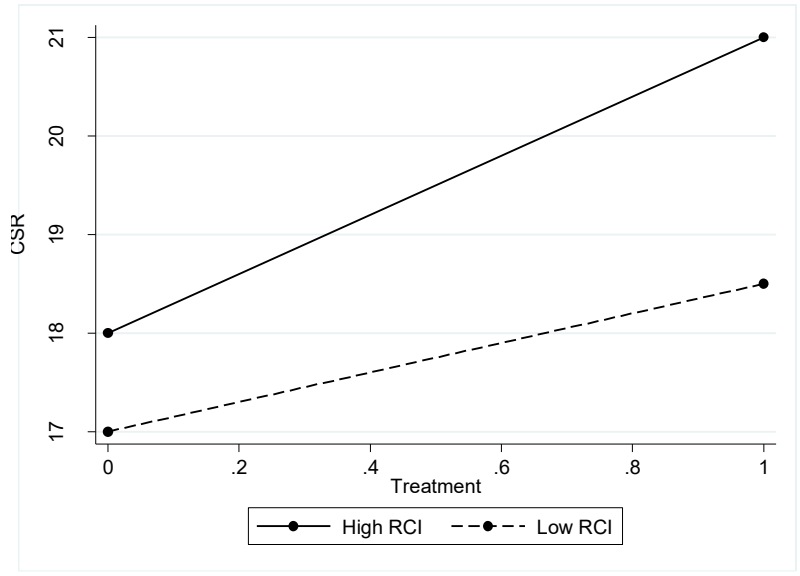

Figure 1. Moderating effect of RCI

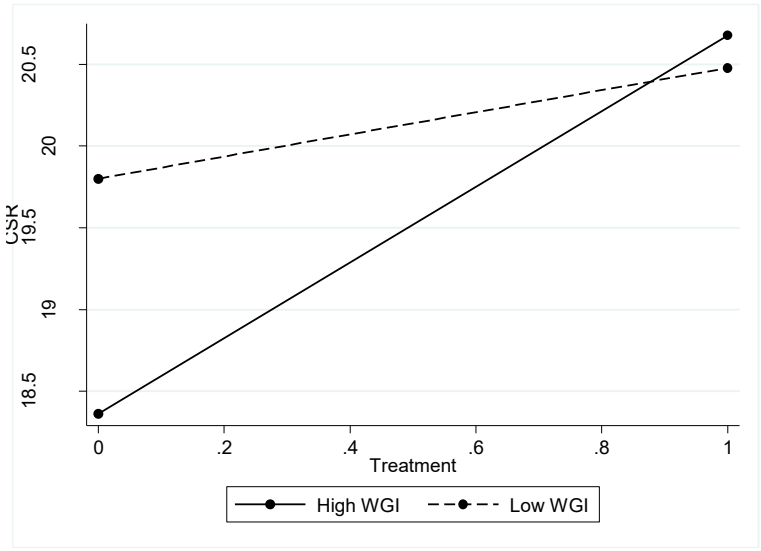

Figure 2. Moderating effect of WGI

Table 9. Sample composition (N=262, Observations= 2052)

Panel A. By year

Year	Observations
2008	76
2009	103
2010	111
2011	154
2012	191
2013	232
2014	235
2015	240
2016	236
2017	236
2018	238

Panel B. By industry

Industry code	Observations	Industry code	Observations	Industry code	Observations
A01	9	C28	11	F51	19
A04	4	C29	11	F52	62
B06	24	C30	43	G54	23
B07	7	C31	47	G55	51
B09	48	C32	129	G56	30
B11	22	C33	27	G58	10
C13	17	C34	22	I63	19
C14	33	C35	100	I64	18
C15	46	C36	74	I65	79

C17	22	C37	21	J66	55
C18	15	C38	85	J67	76
C19	8	C39	213	J68	37
C22	27	C42	5	J69	14
C23	7	D44	39	K70	95
C24	6	D45	8	L72	18
C25	2	D46	17	Q83	9
C26	116	E48	52		
C27	103	E50	17		

Panel C. By host country (BRI country)

Country	Observations	Country	Observations
Afghanistan	11	Mongolia	2
UAE	111	Bangladesh	4
Egypt	29	Burma	15
Pakistan	20	Japan	140
Bahrain	1	Saudi Arabia	20
Belarus	1	Sri Lanka	8
North Macedonia	1	Slovakia	8
Poland	31	Tajikistan	6
Russia	150	Thailand	64
Philippines	20	Turkey	17
Kazakhstan	26	Ukraine	1
South Korea	98	Uzbekistan	18
Montenegro	3	Singapore	273
Kyrgyzstan	6	Hungary	8
Czech	4	Iran	1
Qatar	8	Israel	14
Croatia	1	India	105
Laos	35	Indonesia	100
Romania	10	Jordan	1
Malaysia	81	Vietnam	60

Note: Industry code comes from the Guidelines for the Industry Classification of Listed Companies (2012 Revision).

Table 10. The effect of State-ownership on the BRI and detailed CSR dimensions

Variables	CSR_CHA	CSR_GOV	CSR_DIV	CSR-EMP	CSR_ENV	CSR_PRO
	(2)	(3)	(4)	(5)	(6)	(7)
BRI×Time×Ownership	0.1678	0.0689	0.0452	0.3911***	0.1123	0.4839***
	(0.1127)	(0.0801)	(0.0698)	(0.1146)	(0.1281)	(0.1256)
Constant	-6.0281**	-3.4355**	-0.9503	4.3451*	-1.0346	3.2784
	(2.4409)	(1.7348)	(1.5116)	(2.4821)	(2.7743)	(2.7200)
Control variable	Y	Y	Y	Y	Y	Y
Interaction effect	Y	Y	Y	Y	Y	Y
Fixed effect	Y	Y	Y	Y	Y	Y

Observed value	2,052	2,052	2,052	2,052	2,052	2,052
R^2	0.3616	0.4549	0.4397	0.4821	0.3109	0.3144
Number of Firms	262	262	262	262	262	262

Table 11. First step of residual estimation

	(1)
VARIABLES	CSR
age	0.6233***
	(0.0604)
size	0.7278***
	(0.2182)
soeshare	-1.7940**
	(0.7885)
foreignshare	2.5505
	(1.7162)
leverage	-1.9850*
	(1.1459)
roa	-14.4380
	(10.7681)
isduality	-1.2022***
	(0.3501)
lnsalary	0.0129
	(0.2098)
male	-0.3637
	(0.6577)
capexp	0.2508**
	(0.1248)
ATO	-0.2923
	(0.4855)
Constant	-10.9476**
	(5.2863)
Observations	1,598
Number of ID	239
R-squared	0.3403

Table 12. The definitions and components of CSR dimensions

Dimension	Perspective	Components	Definition
Charity, volunteer	**Strengths**	Education	The company supports education, such as establishing a school.

activities and social disputes		Charity	The company has projects of charity giving.
		Volunteer activity	The company has outstanding volunteer activities.
		International assistance	The company has behavior of international assistance.
		Promote employment	The company has policies to promote employment
		Promote local economy	The company has policy or behavior of promoting the economic development of local communities, such as employment localization.
		Others	Other strengths belonging to the dimension of Charity, Volunteer Activities and Social Disputes are not included in the above indicators.
	Concerns	Financing dispute	The company has disputes in borrowing or investment.
Corporate Governance	**Strengths**	Comprehensiveness of CSR report	The report covers compressive information of social responsibility, including shareholder, creditors, employees, customers, communities and environment. Or G3 system is used in the report.
		CSR column	The website has CSR column.
		CSR department	The company has CSR department.
		CSR vision	The company has the philosophy, vision and values of social responsible in the area of economic, society and environment.
		CSR training	The company has CSR training.
		Reliability of CSR report	CSR report has reliability guarantee.
		Others	Other strengths belonging to the dimension of Corporate Governance are not included in the above indicators.
	Concerns	Accounting irregularities	The company has behavior of accounting irregularities.
Diversity	**Strengths**	CPC member	There are CPC members among directors, supervisors and senior executives.

		Female executives	There is at least one woman in the company's executive team.
		Female directors	The number of women in the board of directors is more than or equal to 4.
		Innovative human resources project	The company has innovative human resources projects for the disabled or the released people. Or have a good reputation in employing disabled and released people.
		Others	Other strengths belonging to the dimension of Diversity are not included in the above indicators.
	Concerns	No female executives	There is no woman in the company's executive team.
Employee Relations	**Strengths**	Employee participation	The company strongly encourages employees to participate in or own the ownership of the company with stock options; Share earnings and own stock; Or participate in management decisions; Or establish a salary incentive mechanism
		Employee welfare	The company has excellent retirement welfare or other benefits.
		Safety management system	The company adopted a safety production management system.
		Safety production training	The company conducted training on safety production.
		Occupational safety certification	Company certified for occupational safety.
		Professional training	The company conducted professional training for employees.
		Employee communication channels	The company has better communication channels for employees' opinions or suggestions to be communicated to senior management.
		Others	Other strengths belonging to the dimension of Employee Relations are not included in the above indicators.

	Concerns	Employee safety disputes	For example, the company paid a large amount of fines or civil compensation for violating employee health and safety standards; Or the company is involved in a major health and safety dispute.
		Layoffs	For example, the company has undergone massive layoffs in recent years.
Environmental Protection	**Strengths**	Environmentally beneficial products	The company developed or used environmentally innovative products, equipment, or technology.
		Reduce three wastes	The company adopted policies, measures, or technologies to reduce emissions of waste gas, waste water, waste residue and greenhouse gases
		Recycle economy	Companies uses renewable energy or adopts recycle economy policies and measures.
		Energy conservation	The company has policy, measures, or technologies to save energy.
		Green office	The company has green office policies or measures
		Environmental certification	The company passes the certification of the ISO14001 environmental management system.
		Environmental commendation	The company received environmental commendation or other positive reviews
		Others	Other strengths belonging to the dimension of environmental protection are not included in the above indicators.
	Concerns	Environmental punishment	For example, companies are penalized for environmental issues.
		Pollutant emissions	For example, the company has pollutant emissions.
Products	**Strengths**	Quality system	The company has a product quality management system.
		After-sale service	The company continues to improve its after-sales services.
		Customer satisfaction	The company conducted a customer satisfaction

		survey	survey.
		Quality commendation	The company has obtained certifications and honors in product quality.
		Anti-corruption measures	Company has anti-commercial bribery measures or anti-corruption measures.
		Strategic sharing	The company and business partners have established strategic sharing mechanisms and platforms, including long-term strategic cooperation agreements, shared experimental bases, shared databases, and stable communication platforms.
		Integrity management	The company has the values and guarantee system of integrity management and fair competition.
		Others	Other strengths belonging to the dimension of Products are not included in the above indicators.
	Concerns	Product dispute	The company has recently been involved in major disputes or regulatory actions due to product or service safety issues, and has paid fines or civil compensation.