

**Kung-Cheng, Ho and Xiaoran, Kong and Yan, Cheng (2022)
'China's Historical Imperial Examination System and
Corporate Social Responsibility.' Accepted for publication
in Pacific-Basin Finance Journal. ISSN 0927-538X**

China's Historical Imperial Examination System and Corporate Social Responsibility

Abstract

Using the sample of China's A-share listed companies from 2010 to 2019 and the index of *jinshi* density to measure the historical imperial examination system, we empirically test the influence of the imperial examination system on corporate social responsibility. We find that the imperial examination system can encourage firms to improve their Corporate Social Responsibility (CSR) level. The results are robust to using the instrumental variable method, propensity score matching method, Heckman two-step regression, and a series of other tests. The mechanism analysis shows that regional education level and corporate social capital play a mediating role in the promotion of corporate social responsibility by the imperial examination system. Further analysis shows that the characteristics of the board of directors, external supervision pressure, and the shareholding ratio of institutional investors are important factors affecting the positive correlation. We further explore the role of the informal institution in corporate governance.

Keywords: Confucianism; Culture; Imperial Examination System; CSR; Business Ethics; Morality

JEL Classification: D13, G11, Z12

1. Introduction

Formal economic institutions and economic factors affect Corporate Social Responsibility (CSR). For instance, Weaver et al. (1999) assume that a firm's awareness of the United States Sentencing Commission's guidelines and its presence at Conference Board ethics meetings will facilitate it to engage in CSR. Chih et al. (2010) affirm the role of legal and industry supervision in promoting CSR. Furthermore, ownership structure, corporate governance mechanism, board composition also affect the initiative of firms to disclose their social responsibilities (Jo and Harjoto, 2012; Zhang et al., 2013; Barnett et al., 2020; Carroll, 2021; Bae et al., 2021). However, the role of informal economic institutions remains much less known¹, although informal institutional factors such as morality and ethics are arguably more important than formal institutions, especially for emerging markets with imperfect legal and financial systems. As cultural ideas imprinted on an individual's way of thinking and behavior may directly affect one's economic behaviors in the "absence" of formal institutions, it affects corporate decision-making (Hofstede and Bond, 1988; Guiso et al., 2006; Zingales, 2015). As there is little literature on whether informal institutions affect CSR, we explore whether and how the imperial examination system, which has influenced the development of Chinese culture for more than 1200 years, has affected the corporate social responsibility of Chinese listed companies, and further investigate the specific performance of Confucian culture behind the imperial examination system in the market economy.

China's imperial system or *keju* is one such institution. As the earliest meritocratic institution in the world (since the Song dynasty, c. 960-1276), the imperial examination system was aimed at selecting talents into the national governance system. It expanded the social level of introducing learned individuals in the feudal country and absorbed plenty of people from the middle and lower classes into the gerontocratic. After a long-term evolution, Confucian classics were steadily regarded as the syllabus in the exam, which required candidates to learn Confucian classics from the enlightenment period.

Through the layer upon layer selection at district, provincial and national levels, outstanding talents are called "*jinshi*". Such elites obtained qualifications to enter the final examination hosted by the emperor, and were conferred different ranks official positions according to their performance. Because of this, the imperial examination system (*keju*) had

¹ To the best of our knowledge, there are only a few examples. For instance, Victor and Cullen (1988) found that the sociocultural environment to which a firm is exposed will directly affect its moral decision-making. Based on the analysis of expected utility mechanism, Chen et al. (2021) explore the positive impact of regional social trust on corporate social responsibility.

become the main way for all civilians to start their official careers (Ho, 1962). Since the Ming Dynasty (A.D. 1368-1644), the imperial examination system has been popularized nationwide and then formed a stable selection system (Chen et al., 2020). During the Qing Dynasty (A.D. 1644-1912), it was in the educational center of the Chinese government and society until it was abolished in 1905.

For the Chinese society, the imperial examination system is the most far-reaching informal institution, and it is widely infiltrated in all aspects of the social economy and is crucial to guide the daily life and behavior norms of the Chinese. The influence of the imperial examination system may be embedded in the cognition and thinking mode of senior executives, subtly integrated into the decision-making process, and finally reflected in the firm's strategic choice and operational consequences.

We focus on China's A-share listed companies from 2010 to 2019 for two reasons: On the one hand, China is an ideal place to study such informal institutions, as it is the birthplace of the imperial examination system, which has been combined with the feudal monarchy to become the talent selection system lasting for more than 1,200 years. Confucianism was institutionalized through the path of selecting talents through the imperial examination (*keju*) (Bai, 2019). The development and continuation of Confucianism and the integration of formal institutions have become a frequently used but imperceptible guide to action for Chinese until now (Jacobs et al., 1995). Moreover, during the Ming-Qing Dynasty, the imperial examinations were regarded as the educational center. The imperial examination was based on classical Confucian books and required candidates to be proficient in using these. It also provides strong support for this paper to use the measure of the imperial examinations: the density of *jinshi* (the highest qualification in the imperial examinations).

On the other hand, as the largest emerging market and the second-largest economy in the world, China is relatively under-researched. China has enjoyed rapid economic development during the recent decades, but its supporting legal system is not sound, and its financial market is still immature (e.g., Allen et al., 2005, Du, 2015). As formal institutions such as laws are not complete, and their enforcement power is weak, the effect of only relying on a formal institution to promote firms to fulfill social responsibilities is limited. Due to the continuity of Chinese history, informal institutions such as religion, customs, and culture have exerted a profound influence on the operation of companies.

We focus on a sample of the unbalanced panel data of China's A-share listed companies from 2010 to 2019 and construct the *jinshi* density (i.e., the number of *jinshi* in the Ming and Qing Dynasty was calculated within a certain radius of the sample firm) as the proxy variable of the imperial examination system, and takes corporate social responsibility scores from the

Rankins CSR Ratings (RKS) as the proxy variable to measure corporate social responsibility. Then, we empirically test the relationship between the imperial examination system and corporate social responsibility. We find a significant positive correlation between the imperial examination system and corporate social responsibility, and this result is robust to using the instrumental variable, propensity score matching, alternative measurements, and a series of other robustness tests. The mechanism analysis shows that regional education level and corporate social capital play an intermediary role in the incentive process of corporate social responsibility. Further analysis shows that the characteristics of the board of directors, external supervision pressure, and the shareholding ratio of institutional investors are important factors affecting the relationship between “the imperial examination system and corporate social responsibility”.

The possible contributions of this paper are as follows: first, this study complements the literature on corporate social responsibility. [Most of the previous studies have explored the relationship between government legislation, industry supervision, governance system and board characteristics and CSR from the perspective of institutional and corporate characteristics \(Al-Shammari et al., 2019; Baskentli et al., 2019; Pham and Tran, 2020; Gillan et al., 2021\).](#) Less research has focused on the institutional reasons behind CSR reporting. This study takes China as the research background and deeply examines the role of the imperial examination in CSR. The paper is helpful to deepen and expand the understanding and analysis paradigm of CSR.

Second, this paper further enriches the research on institutions and finance. Most of the existing studies discussed the importance of informal institutions from the perspective of religion, custom, and tradition (Keister, 2003; Guiso et al., 2006; Elman, 2013). However, there are few studies on the relationship between the imperial examination system and corporate social responsibility. This paper uses the objective *jinshi* density to measure the influence of the imperial examination system. The findings in this paper complement the literature in the field of informal institutions and provide a reference for scholars to study the imperial examination system in informal institutions.

Third, this study provides a reference for understanding the pressure mechanism of the imperial examination system on corporate social responsibility. The empirical results show that the higher the education level of firms edified by the imperial examination system is, the greater the regulatory pressure on enterprises is, and the higher the level of corporate social responsibility is. Similarly, corporate social capital plays a positive intermediary role. This is conducive to understanding the role of the imperial examination system in modern economic life. This paper provides the necessary theoretical basis for promoting the development of

information disclosure systems and enriching corporate governance means and their own theoretical and practical significance.

Our study relates to several strands of literature. Above all, it relates the emerging strand of literature on economic institutions, especially informal institutions. Formal institutions can only regulate the bottom-line behavior of firms, while informal institutions such as religion, customs, and traditional culture can make up for the deficiency of formal institutions to a certain extent. Especially in emerging economies, culture plays a more distinct role in regulating and guiding the economy (Allen et al., 2005). Moreover, the implicit cultural values are more stable than the explicit material culture and system culture, which will directly affect people's economic behavior, the allocation of social resources, and the progress of society (Hofstede and Bond, 1988; Stulz and Williamson, 2003; Guiso et al., 2006; [Huggins et al., 2021](#)).

Moreover, it relates to the strand of literature on the conflict between firms and their stakeholders. In addition to the goal of profit maximization, the theory of social responsibility puts forward higher requirements: firms need to maintain harmonious relationships with all key stakeholders. Stockholders, consumers, suppliers, employees, and other personnel are closely related to the interests by the stakeholder theory (Jones, 1995; Jamali, 2008). Specifically, firms should pay attention to the value of employees, meet the needs of customers, care for the ecological environment and be enthusiastic about charity (Mirvis, 2012; Lee et al., 2013). However, the above requirements are contrary to the pursuit of the interests first. Therefore, there is a natural conflict between firms and their stakeholders, which is also called a principal-agent problem in economics (Harjoto and Jo, 2011).

Finally, it relates to the strand of literature on the imperial examination system, which has greatly promoted the popularization of mass education and the improvement of national quality (Bai and Jia, 2016). Chen et al. (2020) has shown that the vitality of the imperial examination still exists and has a continuous impact on today's human capital results. The imperial examinations were based on the Confucian classics, and therefore, Confucianism mainly instills core ideas through education. Many scholars have studied the effect of Confucianism on the level of micro-firms. Du (2015) used the distance between a firm and the Confucian temples for the first time to measure the influence of Confucianism on a company. Using samples of Chinese listed companies, they find that Confucianism is helpful to improve the level of corporate ethics and morality, and significantly inhibit the controlling shareholders' encroachment on the interests of minority shareholders. Chen et al. (2019) use the same measurement method to investigate the relationship between Confucianism and corporate investment decisions, and find that the stronger the Confucianism atmosphere in the region

where the corporate headquarters is located, the less excessive investment. This negative correlation is weaker in state-owned enterprises than in non-state-owned enterprises.

The structure of the rest of the paper is as follows: The second part puts forward the research hypothesis based on the existing literature; The third part introduces the data source, variable definition, and methodology; The fourth part is the analysis of the empirical results. The last part summarizes the whole paper and puts forward some policy suggestions.

2. Theory and Hypothesis Development

2.1 Institutional background: The imperial examination system and Confucian ethics

The informal institution can still influence the behavior of economic individuals without legal constraints, and it is a standard or rule of an individual's understanding, which is different from the formal institution (Baccarella et al., 2018). It generally consists of religion, culture, custom, convention and other factors accumulated by different countries in the long-term historical development. The informal institution provides the foundation for the growth of the formal institution to some extent, and together with the formal institution, it plays an important role in promoting the evolution of society (Williamson, 2000). Furthermore, the informal institution is more crucial than formal institutions because such institution constrains the behavior of formal ones and require a longer time to change (Williamson, 2009).

The imperial examination system was passed down in a formal form issued by the government, but it contains many ethical problems. The imperial examination system is a set of political, cultural, and educational systems lasting 1300 years in Chinese history. It broke the monopoly of the nobility's official career and the power of appointing officials so that China's social culture and politics gained some vigor and vitality. It is not only based on Confucian classics in the content of the examination but also deeply influenced by Confucian ethics in the organization and form of the examination. Through this examination, the ruler spread the Confucian ethics with loyalty, filial piety, benevolence, love, courtesy, righteousness, probity, and sense of shame as the core to the political rule thought, radiate to every corner of social life, and then root in everyone's mind. Therefore, the imperial examination system not only maintained and consolidated the centralized monarchy but also greatly highlighted and promoted Confucian ethics. These ideologies have been having a profound influence on the Chinese people's lives.

By analogy with the mechanism of religious tradition (Dyrenge et al., 2012), the influence of Confucian ethics on corporate behavior is mainly reflected in moral constraints.

Confucianism emphasizes virtuous personal characteristics such as loyalty, honesty, obedience, and sincerity (Tan and Snell, 2002). Thus, people affected by Confucianism are more morally constrained. They may acquire a sense of shame through living in a community, but Confucianism systematically teaches people what behavior they should be ashamed of and how they should avoid these shameful actions (Du, 2015). This constraint is specifically embodied in the exclusion of external immoral behaviors and the weakening of internal opportunistic behaviors.

Under common ethical constraints, members who violate the code will be isolated (Elster, 1989). Therefore, Confucian ethics can serve as a reminder and warning when a member practices external immoral behavior. Many studies have found that stock crash risk, earnings management, and fraud can be effectively alleviated in firms deeply influenced by Confucian ethics (Tang et al., 2021). Confucian ethics put forward higher requirements on corporate integrity, thus reducing the information asymmetry between market and enterprise.

In weakening the inherent opportunism, Confucian ethics supplement the deficiency of corporate governance mechanisms. Corporate governance mechanism plays a role in preventing and governing the opportunistic behavior of management, but it cannot alleviate or eliminate the opportunistic tendency behind the behavior from the root (Nooteboom et al., 1997). However, Confucian ethics can restrain the moral hazard faced by firms to a certain extent. Du (2015) used samples of Chinese listed companies and found that Confucianism significantly inhibits the benefit of controlling shareholder expropriation. In addition, Chen et al. (2019) investigate the relationship between Confucianism and corporate investment decisions, and find that the stronger the Confucianism atmosphere in the region where the corporate headquarters is located, the less over-investment.

2.2 Hypothesis development

To consider the influencing factors of China's economic management from an institutional perspective, we should not only consider the western analytical paradigm and various formal institutions that have been integrated in modern times but also include the informal institutions rooted in history, such as cultural traditions that have been slowly formed and inherited for thousands of years (Allen et al., 2005). The power of informal institutions cannot be underestimated in the evolution of formal institutions and the allocation of social resources (Stulz and Williamson, 2003; Guiso et al., 2006).

For Chinese society, the imperial examination system is an informal institution with far-reaching influence (Elman, 2013). It is not only crucial to guiding the behavior of the Chinese

but also has a profound impact on all aspects of the economy. Studies show that the imperial examination system is closely related to personal occupation choice, the popularization of mass education and the improvement of national quality, modern human capital, modernization, and social stability (Bai and Jia, 2016; Chen et al., 2020; Bai, 2019). Even after thousands of years of inheritance, the imperial examination system has left a very clear mark on every Chinese.

Confucian classics were regarded as the syllabus of the imperial examination, which required candidates to learn Confucian classics from the enlightenment period. Thus, Confucianism was systematically inherited and developed through the imperial examination of selecting talents (Bai, 2019). Moreover, sociological research shows that implicit cultural values are more stable than explicit material culture and institutional culture. [Cultural ideas will be deeply engraved in the individual way of thinking and code of conduct, directly affecting people's economic behaviors \(Brown et al., 2002; Wei et al., 2019; Aggarwal et al., 2019; Dupont and Karpoff, 2020; Bakas et al., 2020\).](#)

The main points of traditional Confucianism and modern corporate social responsibility are relatively consistent. Confucianism emphasizes characteristics of personal virtues such as loyalty, honesty, obedience, and sincerity (Lam, 2003; Romar, 2002; Zhu, 2015). Then it extracts the core meaning of “*ren*”, “*yi*” and “*xin*”. According to social responsibility theory, profit maximization is not the only goal of firms. While pursuing profits by legal means, firms must also assume responsibilities to other stakeholders (Harrison and Freeman, 1999; Jamali and Mirshak, 2007). According to the stakeholder theory, besides shareholders, there are also consumers, suppliers, employees, and so on who are closely related to the interests. Firms need to reconcile all key stakeholders, and pay attention to individual needs, implement environmentally friendly behaviors, and contribute to society (Jones, 1995).

Specifically, “*ren*” in Confucianism can be understood as “love” reflecting the requirement from self-actualization promotion to consideration of others (Du, 2015). This is in line with the requirements of social responsibility theory, which all guide enterprises to “love” all internal and external stakeholders, such as optimizing the consumer experience, improving staff welfare, caring for the ecological environment, and being enthusiastic about social charity. Then, Confucius believed that “the gentleman sees righteousness (that is “*yi*”); the petty man sees a profit.” He held that a virtuous (*jun zi*) is concerned with social justice, while a mean man (*xiao ren*) focuses on personal interests. Righteousness means respecting the rights and interests of others. Similarly, social responsibility theory requires firms to pay attention to the rights and interests of stakeholders (Mirvis, 2012; Lee et al., 2013). Besides, the means to seek wealth should be legitimate and legal. Finally, “*xin*”(honesty) is the basic principle of Confucianism and the basic requirement of commercial behavior. So, honesty is the foundation of maintaining

a good reputation and shaping the social image. This leads enterprises to be honest and trustworthy, and to match words with deeds. Empirical evidence shows that Confucian culture effectively reduces earnings management and fraud (Tang et al., 2021).

To sum up, the Confucianism spread through the imperial examination system has put forward high moral standards for firms to undertake social responsibility behaviors, reduce the opportunistic behavior, enhance the sense of social responsibility, and then promote firms to actively disclose high-quality social responsibility information

Based on the above analysis, we put forward the following hypothesis:

H1a: The greater the impact of the imperial examination system on firms, the higher the level of corporate social responsibility.

However, according to the existing literature, Confucianism also affects the risk perception of firms, and leads to conservative behavior. Confucianism with the ideological core of anti-lost attaches great importance to the doctrine. Organizations and individuals affected by this ideology tend to avoid risks (Licht et al., 2007; Li and Zahra, 2012; Chen et al., 2021). Studies have shown that the concept of risk aversion affects investment choices and then encourages people to choose low-risk projects when allocating household assets (Ge et al., 2020). The concept is also the reason for the high savings rate in East Asia (Chen et al., 2019). Due to excessive caution, Confucianism can also slow down the process of modernization and inhibit China's financial development (Bai, 2019; Chen et al., 2020).

This sense of risk aversion has a profound impact on the risk attitude of corporate executives, thus affecting the level of corporate social responsibility. With the deepening of the awareness of social responsibility, the government, shareholders, consumers, employees, other stakeholders, and the public are increasingly sensitive to corporate social responsibility reports. Conservative firms may opt for vague CSR reports stabilizing public sentiment and stock prices. Therefore, firms deeply influenced by Confucianism tend to take a negative attitude towards the social responsibility reports.

Based on the above analysis, we put forward the following hypothesis:

H1b: The greater the impact of the imperial examination system on firms, the lower the level of corporate social responsibility.

Existing studies believe that CSR is influenced by the pressure exerted by various stakeholders (Campbell, 2007; Marquis and Davis, 2007). Whether it is the formal regulation

by the government, legal authority subject and other organizations, or the moral education in the relationship between “the imperial examination system (*keju*) and corporate social responsibility”, both involve the process of capital market (investors) transferring pressure to firms. Therefore, stress plays a crucial role in inefficient markets. In this paper, the imperial examination system may improve the quality of corporate social responsibility through the following two ways.

Firstly, we analyze an intuitive path--regional education level. Since the Han Dynasty (B.C. 206 - A.D. 220), the combination of Confucianism and feudal monarchy has become the dominant thought in China for more than two thousand years (Zhang, 2013; Ambler et al., 2016). The idea that social and political order was equated with moral and political order was instilled in education by rulers. Confucianism was systematically inherited and developed through the path of selecting talents through the imperial examination (*keju*) (Bai, 2019). In the Ming-Qing Dynasty, the imperial examination was central to education in the Chinese government and society until it was abolished in 1905. The imperial examination system has greatly promoted the popularization of mass education and the improvement of national quality (Bai and Jia, 2016). Chen et al. (2020) has shown that the vitality of the imperial examination still exists and has a continuous impact on today’s human capital results. The education facilities in the regions deeply affected by the imperial examination system are more perfect, and the education level per capita is higher.

Regional education level exerts public opinion pressure on firms to disclose social responsibility information, and then effectively reduce unethical behaviors (Baxter and Rarick, 1987; Ardichvili, 2013). This is because education helps to form a good social ethics atmosphere. The atmosphere not only lets people take the initiative to abide by higher moral standards and rules but also forms a strong moral public opinion, thus restricting ones’ words and deeds. The pressure that cannot be ignored confirms the behavior of the firm in line with social ethics, such as improving employee welfare, implementing green environmental protection behavior, and making donations after disasters. On the contrary, companies will be criticized for deviating from social ethics. Under moral constraints, members who break the rules will be isolated (Elster, 1989). Therefore, the pressure of public opinion brought by regional education level can promote firms to disclose high-quality social responsibility information more consciously. If firms take the initiative and seek truth from facts in social responsibility information, they are more likely to gain social reputation and support; Otherwise, they will be severely condemned by public opinion.

Based on the above analysis, we put forward the following hypothesis:

H2: The level of regional education plays an intermediary role in the influence of the imperial examination system on corporate social responsibility. The imperial examination system can increase the level of corporate social responsibility by improving the level of regional education.

Through the success of the imperial examinations, the common people achieved a class leap, gained social status and political prestige, and then became officials of the empire (Elman, 2013). These people build exclusive networks as scholars or officials, and accumulate a large amount of social capital by providing public goods and services (Chen et al., 2020). There is documented evidence of the limited but continuing influence of Confucianism on all aspects of current Chinese politics (Hu, 2007). The chairmen (the actual holder of a Chinese firm) in the region with strong Confucianism are still likely to establish their own social network through social activities and political connections to pursue social status and political prestige. They enjoy the benefits brought by the accumulation of social capital. In addition to the influence of cultural values, another source of social capital in late imperial China was the family or clan. The clan is composed of people who have the same ancestors, and can provide a safe network for its members (e.g., Greif and Tabellini, 2017). With the specific background of the imperial examination, strong clans had accumulated huge social capital, which could be enjoyed by future generations (Elman, 2000; Chen et al., 2020).

According to Fan et al. (2007), this paper examines the intermediary role of corporate social capital between the imperial examination and corporate social responsibility from the perspectives of vertical social capital (political connection) and horizontal social capital (business connection). First, compared with firms lacking social capital, firms with rich social capital will attract more attention from the public, the government, and the media, as well as a larger range of attention. Firms with strong political and commercial ties will be under varying degrees of pressure from these stakeholders. Moreover, with the deepening of corporate social responsibility awareness, there is a growing call from stakeholders for firms to assume social responsibility (Benlemlih et al., 2018). Therefore, they are likely to take the initiative to respond to the call of the government and society and take the lead in fulfilling social responsibilities to relieve their own pressure.

What's more, China is facing economic transformation and upgrading, and an imperfect institutional environment restricts the survival and development of firms to a certain extent. Therefore, informal relations have a lot of benefits for development (Peng and Heath, 1996). The extant studies have shown that executives can obtain expectations on social responsibility from government and other authorities through political linkages, such as charitable donations,

job offers, etc. This timely information can help improve the efficiency of corporate development and the implementation of social responsibility strategies. Ultimately, firms have better performance in social responsibility behavior (Gu et al., 2013). Similarly, horizontal social capital (business connections) can also bring firms information that is difficult to obtain in the open market (Sheng et al., 2011). Many studies have shown a significant positive correlation between social capital and corporate social responsibility (Gu et al., 2013).

Based on the above analysis, we put forward the following hypothesis:

***H3:** Corporate social capital plays an intermediary role in the influence of the imperial examination system on corporate social responsibility, and the imperial examination system can increase the level of corporate social responsibility by improving corporate social capital.*

3. Data and methodology

3.1 Sample selection and data sources

This paper takes Chinese A-share listed companies from 2010 to 2019 as the research object. The data of *jinshi* in the Ming-Qing Dynasty come from Harvard University's Chinese historical figures biography database. The corporate social responsibility score is from Rankins CSR Ratings (RKS). The financial data are from the CSMAR database and WIND database. The data of prefecture-level cities are from China City Statistical Yearbook.

Considering the influence of partial missing values and outliers, this paper conducts the following treatment on the samples: (1) excluding the samples of listed companies in the financial industry; (2) excluding samples of listed companies in abnormal states such as ST *, ST and PT; (3) excluding samples with headquarters located in Heilongjiang, Jilin, Liaoning, Inner Mongolia, Qinghai, Xinjiang, and Tibet. This is because, in the Ming-Qing Dynasty, the residents of these provinces did not qualify for *keju* examination; (4) excluding the samples with serious missing control variables; (5) to avoid the influence of outliers, all continuous variables are winsorized at 1 % and 99 % levels. According to the above standards, the final 4250 listed firm-year observations.

3.2. Variable definitions

3.2.1. Measure of the impact of *keju*

Based on the historical facts of Confucian classics as official textbooks for the civil exam, Confucianism was systematically inherited and developed through the civil exam selecting talents (Bai, 2019). We follow Chen et al. (2020) and Tang et al. (2021) and use the density of *jinshi* to measure the influence of Confucianism in different regions. Based on Harvard University's Chinese historical figures biography database, we sort out the native geometric information of *jinshi* in the Ming-Qing Dynasty. Then, using the Baidu Maps, Stata, and other tools, we manually collected the longitude and latitude coordinates of listed companies' headquarters and each *jinshi*. Then, utilizing the latitude and longitude coordinates, the number of *jinshi* in the Ming and Qing Dynasty was calculated within a certain radius of the sample firm. For the sake of robustness, this paper takes the natural log of the number of *jinshi* plus one within the radius of 200 km, 250 km, and 300 km, respectively, as the proxy variables to measure the influence of *keju* (*CONFM200*, *CONFM250*, *CONFM300*). The larger the index value is, the stronger the influence of *keju* is.

3.2.2 Measure of CSR

Following previous studies, this paper selects the data of Rankins CSR Ratings (RKS), an independent rating agency, to measure corporate social responsibility (McGuinness et al., 2017; Luo et al., 2017). Because the score of corporate social responsibility is comprehensive and subjective, the standard may be biased if we only refer to the relevant items disclosed in the annual report of listed companies (Ho et al., 2016; Kao et al., 2018; Deng et al., 2021). As a third-party rating agency, the MCTI social responsibility report evaluation system of RKS is in accordance with the GRI 3.0 report preparation international guide and Sustain Ability report evaluation guide. MCTI system consists of the following four parts: Macrocosm, Content, Technique, Industry, and it measures the performance of corporate social responsibility reflected in the firms' CSR report. This scoring system uses a structured expert scoring method and weights the total score of CSR. The higher the score, the higher the quality of corporate social responsibility information. Therefore, this indicator is comprehensive and scientific, which can largely ensure the accuracy of the results.

3.2.3 Control variables

To analyze the real impact of Confucianism on corporate social responsibility, we follow the related literature (e.g., Gupta and Krishnamurti, 2018; Nair et al., 2019) and control for the following variables: (1) *Lev*: the asset-liability ratio of listed companies; (2) *Size*: firm scale; (3)

Growth: growth ability; (4) *ROA*: return on total assets; (5) *Board*: board size; (6) *Ind*: the proportion of independent directors on board; (7) *Dual*: combined title of board chair and CEO; (8) *Tobin*: Tobin Q; (9) *Top1*: the proportion of the largest shareholder; (10) *Age*: the years of listing; (11) *Age_Ch*: Age of the chairman; (12) *Male_Ch*: Gender of the chairman; (13) *College_Ch*: The education level of the Chairman; (14) *Overseas_Ch*: Chairman's overseas experience; (15) *Finance_Ch*: Chairman's financial background. Refer to Appendix Table A1 for specific variable definitions.

3.3 Model specification

The main fixed-effect model of panel data in this research is as follows:

$$CSR_{i,t+1} = \beta_0 + \beta_1 * CONFM R_i + \sum_k \gamma_k Control_{k,i,t} + \sum Year + \sum Industry + \sum Province + \varepsilon_{i,t} \quad (1)$$

where $CSR_{i,t+1}$ measures the score of corporate social responsibility. i is a firm. This paper uses the control variable in period $t+1$ to moderate the endogeneity problem to some degree. β_1 is the regression coefficient of core explanatory variables; γ_k is the coefficient of the control variable; $\varepsilon_{i,t}$ is the error term. We control the year fixed effect and industry fixed effect. Moreover, since corporate social responsibility will be affected by cultural conditions and economic conditions in different provinces, we also control the provincial virtual variables.

4. Empirical results

4.1 Descriptive statistics

Table 1 reports descriptive statistics for the full sample. As can be seen from Table 1, the average score of corporate social responsibility (*CSR*) of listed companies is 40.58, which has a certain distance from the qualified line (the full score is 100). The standard deviation is 13.06, reflecting the different levels of social responsibility among firms. The median value is 37.52. The fact that the mean value is higher than the median value indicates that there are more observation samples with better *CSR* levels. Therefore, an awareness of *CSR* is gradually developing. The mean values of proxy variables *CONFM200*, *CONFM250*, and *CONFM300* are 6.234, 6.701, and 6.835. The standard deviations are 1.378, 1.018, and 1.185, respectively. With the expansion of the selection radius, the density of *jinshi* around the firm gradually increases. The distribution of control variables is similar to the existing research results in a reasonable range (Harjoto and Jo, 2011; Luo et al., 2017) and will not be repeated here.

[Insert Table 1 about here]

4.2. Correlation analysis

In Table 2, the correlation coefficients between the core explanatory variables *CONFM200*, *CONFM250*, and *CONFM300* are greater than 0.9, and the prominent positive relation at the level of 1%, indicates that the selected proxy variables of *keju* are relatively consistent. The explained variable *CSR* is significantly positively correlated with *CONFM200* and *CONFM250*, illustrating that *keju* can improve the level of corporate social responsibility, which preliminarily verifies Hypothesis 1a. The correlation coefficient between other variables is less than 0.6, so there is no serious multicollinearity problem.

[Insert Table 2 about here]

4.3 Baseline results

Table 3 reports the regression results of *keju* on corporate social responsibility. Before regression, to moderate the impact of unit inconsistency, we standardized the continuous variable. Column (1) is the regression result without control variables. Columns (2)-(4) are the regression results with adding control variables such as fundamental information, board governance structure, and chairman's personal characteristics. Significantly, the model also replaces the explanatory variable *CONFM R* in turn, and controls the fixed effects of years, industries, and provinces. The signs of the main explanatory variables have not changed after adding control variables. The coefficients of explanatory variables *CONFM200*, *CONFM250*, and *CONFM300* are 0.079, 0.076, and 0.068, respectively. The t-values are 2.930, 3.331, and 2.497. Hence, the greater the influence of *keju*, the higher the level of corporate social responsibility. Hypothesis 1a is supported by strong empirical evidence

The coefficients of control variables are in line with previous studies. Taking column (2) as an example, the regression coefficient of *Lev* is -0.035 , and the t-value is -1.998 , which is negative at the significance level of 5 %. The greater the firm's financial leverage, the lower the level of corporate social responsibility. Then, we analyze the impact of *Size* on the relationship between Confucianism and corporate social responsibility, and find that the regression coefficient is 0.483, t-value is 25.694. Meanwhile, it is observed that the greater the *Growth*, the worse the CSR level. In addition, firms with high *ROA*, large *Board*, high *Tobin*, high *Top1* have better social responsibility performance. In addition, the individual characteristics of the chairman also affect the explained variable *CSR*. The older and well-educated chairmen with

overseas backgrounds have a greater initiative to disclose corporate social responsibility. In general, the results of control variables are generally consistent with existing studies, and thus, it shows that the basic regression results are relatively reliable.

[Insert Table 3 about here]

4.4 Economic channel

Existing studies believe that corporate social responsibility is influenced by the pressure exerted by various stakeholders (Campbell, 2007; Marquis and Davis, 2007). Whether it is the formal regulation by the government, legal authority subject and other organizations, or the moral education in the relationship between “*keju* and corporate social responsibility”, both involve the process of capital market (investors) transferring pressure to firms. Therefore, this paper analyzes the economic channels through which *keju* promotes CSR from two aspects: regional education level and corporate social capital.

4.4.1 Regional education level

In this paper, we use the following three methods to measure the regional education level of the firm: the number of higher educational institutions, the number of elementary and high schools, and the number of students per 10,000 people in the prefecture-level city where the firm is located. These variables are named as: *Universities*, *Primary and Middle Schools*, *College Students*. The above data are all from China City Statistical Yearbook. Table 4 shows the results of the influence of *keju* on the regional education level. We find that with the expansion of geographical radius, *keju* has a significant positive impact on the level of regional education

In other words, in areas with a strong impact of *keju*, there are more schools and more college students. This fully shows that *keju* has a continuous role in today’s educational achievements. The regional education level has exerted great pressure on firms to appreciate their social responsibilities. Existing studies have shown that such external pressure on public opinion can effectively reduce corporate unethical behavior (Baxter and Rarick, 1987; Ardichvili, 2013). Therefore, firms will consciously disclose social responsibility information to build a social reputation and gain more support under high pressure. Thus, Hypothesis 2 can be supported: regional education level plays an intermediary role in the influence of *keju* on corporate social responsibility.

[Insert Table 4 about here]

4.4.2 Corporate social capital

In addition to educational levels, social capital may be another channel through which *keju* has a lasting impact on contemporary corporate social responsibility. For the sake of confirming this potential transmission path, we mainly measure the corporate from the following two perspectives: horizontal correlation: the chairman's part-time job in other listed companies (*Business Connection*); vertical connection: the chairman's political background (*Political Connection*).

The research results are presented in Table 5. First, we find that *keju* has a significant positive impact on the chairman's concurrent posts in other listed companies (column (1), (2), and (3)). It shows that in regions with the profound influence of *keju*, the chairman has active involvement in business activities to pursue social status and accumulate social capital. However, we find a weak relationship between *keju* measured by *CONFMR* (the *jinshi* density around the headquarters office) and *Political Connection* (not reported in the table).

The possible explanation is that whether a chairman engages in political activities is more closely related to her/his individual cognition and values (Holman and Silver, 1998; Bernile et al., 2017). In addition, the social capital accumulated by families is more conducive to the political aspirations of their descendants (Elman, 2000; Chen et al., 2020). What's more, based on China's state-owned enterprise management system, most people with political status become chairman of listed companies because of the government's relocation (Huang et al., 2020). Therefore, using the *jinshi* density around the chairman's birthplace can better reflect the potential influence of *keju* on one's career choice.

Therefore, this paper adopts *CONFM_Ch R* as the explanatory variable of whether the chairman has a political background (*Political Connection*). Columns (4), (5), and (6) in Table 5 reflect the close relationship between *CONFM_Ch R* and *Political Connection*. Specifically, the continuing influence of *keju* can motivate a chairman to engage in political activities. Firms with rich social capital can attract more attention from the public, the government, and the media, and thus promote the motivation of such firms to actively fulfill their social responsibilities. Besides, social capital can help firms to obtain information about social responsibility timely, improve the efficiency in formulating and implementing strategies. Hence, such firms perform better in social responsibility behaviors.

Accordingly, these results provide powerful evidence that social capital is another channel that may influence corporate social responsibility. The empirical results support Hypothesis 3, that is, corporate social capital plays an intermediary role in the influence of *keju* on corporate social responsibility.

[Insert Table 5 about here]

4.5 Robustness checks

4.5.1 Alternative measure of *keju*

To check the robustness of our results, we use the following two methods to re-estimate the *keju*.

(1) Firstly, based on the studies of Du (2015, 2016), we use the number of Confucian temples distributed within a certain radius of the firm's position to measure the influence of *keju*. The Confucian temple is also a manifestation of the civil exam. Confucian temples inherited and developed Confucian virtues, where people worship and sacrifice Confucian saints (Chen et al., 2019). Here, the values and ideologies of Confucianism are disseminated and developed. The Confucian temples create a coherent human environment (Chow, 2004). Specifically, *Temple R* is defined as the natural logarithm of the number of remaining Confucian temples plus 1 within a radius of R km of the firm headquarters

(2) Secondly, one's early life experiences create permanent psychological and physical changes in the human brain, and have long-term effects on subsequent behavior (Holman and Silver, 1998). In addition, evidence from social psychology shows that adolescence is a sensitive stage for the formation of individual cognition and values (Marquis and Tilcsik, 2013; Bernile et al., 2017). The personal characteristics of senior executives have a critical impact on corporate financing, investment policies, capital structure, and risk preference (Bertrand and Schoar, 2003; Malmendier et al., 2011; Quigley and Hambrick, 2015).

Given the reality in China, for state-owned enterprises in China, the “*yibashou*” is almost always the chairman of the board. Even for non-state-owned enterprises, the chairman often wields greater initiative. Chinese chairman has the function of overall management and is a de facto entrepreneur with greater decision-making ability (Zhang, 2017). In addition, The Chinese Corporation Law endows the chairman with great legal power. He or she is appointed by the largest shareholder and serves as the legal representative of the firm. Because of the concentrated equity in China's listed companies, this arrangement suggests that the chairman

has a lot of power, not just those prescribed by law. The chairman is more involved in day-to-day decision-making. In China, people know that when the chairman works for the company, he or she is in effect the head of the firm and has more power than the CEO (Jiang and Kim, 2015). Therefore, the chairman plays a key role in the decision-making process of business management.

Given that the potential impact of *keju* on the growth process of senior executives could sustain, as well as the fact that the actual head of a Chinese firm is chairman, this paper uses the *jinshi* density within a certain radius of the chairman's birthplace as another measure. *CONFM_Ch R* is defined as the natural logarithm of the number of *jinshi* plus 1 within the radius of *R* km of the chairman's birthplace.

Panel A and Panel B of Table 6 respectively report the regression results of *Temple R* and *CONFM_Ch R*. With the change of distance radius, the sign of regression coefficient of *keju* to *CSR* does not change after adding control variables, and the results are separately positive. The results are not affected by the measurement method of *keju*.

[Insert Table 6 about here]

4.5.2 Alternative measure of CSR

This paper remeasures CSR in the following two alternative ways:

(1) Many studies use the social responsibility score of the Hexun website as another measurement method of CSR (Han et al., 2019; Shahab et al., 2020). Hexun website, as an objective third-party evaluation institution, comprehensively reflects the level of CSR based on the content in the annual report. *Hexun-CSR* is defined as the total score of corporate social responsibility.

(2) In addition, CSMAR also discloses a series of information about corporate social responsibility. Among them, 'whether to refer to the GRI Sustainability Reporting Guide' can be used as a standard to identify the quality of corporate social responsibility reports. The Global Reporting Initiative (GRI) is a joint initiative of American non-governmental organization CERES and the United Nations Environment Program. It concentrates on developing a globally recognized reporting framework to provide guidance for sustainable development reports and overcome loopholes between governments' regulations. Thus, the GRI is committed to improving the quality, rigor, and usefulness of sustainability reporting

(Clarkson et al., 2008). If a firm discloses its *CSR* consulting the GRI Sustainability Reporting Guide, the value of *CSMAR-CSR* is one, and zero otherwise.

Panel A and Panel B of Table 7 report the regression results using *Hexun-CSR* and *CSMAR-CSR*, respectively. It is apparent that after changing the CSR measurement method, the core explanatory variables *CONFM200*, *CONFM250*, and *CONFM300* are still significantly positive, which suggests that the results remain robust.

[Insert Table 7 about here]

4.5.3 High-dimensional fixed effect model

Multidimensional shocks often exist in the real economy, so there may be an interaction between fixed effects in panel data. We follow Bai (2009) and use the high-dimensional fixed effects model for regression to better fit the panel data. They were after better controlling for differences in the effects of common factors on different firms. The regression coefficients in Table 8 are all significant at the level of 1%. Therefore, no matter what model it is based on, *keju* indeed encourages firms to actively disclose CSR.

[Insert Table 8 about here]

4.5.4 Endogeneity: Instrumental variable approach

The purpose of this paper is to investigate the causal relationship between Confucianism and corporate social responsibility. Although using the historical data of *jinshi* density to measure *keju* can alleviate the problem of reverse causality to some extent, there is still an inevitable endogenous problem. Specifically, this analysis may overlook some difficult factors to measure, such as the legal system, local policies, etc. Following Chen et al. (2021) and Tang et al. (2021), this paper uses the nearest distance between the firm's headquarters and 19 official printing centers in the Ming-Qing Dynasty (*Print Center*) as an instrumental variable, which is from the History of Chinese Printing.

Specifically, to excel in the imperial examinations, individuals needed to be familiar with the Four Books and the Five Classics and then deeply understand the delicate and profound connotations. Therefore, individuals required printed copies of the Confucian classics and many references to assist them. They also acquired skills in writing the eight-legged essay (Ho, 1962; McDermott, 2006). However, due to the limited printing technique and transportation in the

Ming-Qing Dynasty, books such as Confucian classics necessary for the civil exam were very precious. According to historical records, more than 80 % of the printing and publishing work was completed by the 19 official printing centers across the country (Zhang and Han, 2006). Books could be distributed in various ways, but they were more expensive to obtain in cities far from the printing centers (McDermott, 2006). Therefore, the distance between the examinee and the printing center determines the difficulty of obtaining books (Chen et al., 2021).

The logic using the closest distance of the firm to the 19 printing centers as the instrumental variable is: in areas where books are scarce, it is unlikely to train many *jinshi* (Chen et al., 2021). The importance of printing to the imperial examination is also recognized by many Chinese historians (Cao, 2013; Zhang, 2010). On the one hand, the *jinshi* density is closely related to the distance from the firm to the official printing center. On the other hand, these official publishers had withdrawn from the historical with the advance of modern technology (Reed, 2011). Thus, *Print Center* is an ideal instrumental variable.

Table 9 reports the results of IV-2SLS regression. In the first stage of regression, the regression coefficients of the *jinshi* density (*CONFM200*, *CONFM250*, *CONFM300*) to the instrumental variable (*Print Center*) are negative at the significance level of 1 %. This result indicates the correlation between instrumental variables and explanatory variables. The F-statistics of the first-stage regression are 2894.54, 2040.50, and 3401.00, all of which are greater than 10. So, we can reject the null hypothesis of weak instrumental variables.

In addition, a more rigorous Anderson-Rubin Wald test is also reported, and it rejects the null hypothesis at the 5% significance level that the sum of endogenous regression coefficients is equal to 0. The strong correlation between instrumental variables and endogenous explanatory variables is further illustrated. The second stage regression results show that the regression coefficient after using instrumental variables is still significantly positive, so Hypothesis 1a is verified once again. Consequently, the deeper the company is affected by *keju* culture, the higher the level of corporate social responsibility.

[Insert Table 9 about here]

4.5.5 Endogeneity: propensity score matching method

Because of the differences in the firms' characteristics, we cannot exclude the self-selection bias caused by the inherent characteristics of the two types of samples: high *keju* impact and low *keju* impact. We use the median *jinshi* density of the same year in the same

industry as the grouping standard, and define the experimental group as the *jinshi* density greater than the grouping standard, and then the remaining samples are matched with the experimental group by the method of kernel matching. Among the matching, covariates are the control variables of the model (1). Then, the matched samples are used to conduct regression again through model (1). The results in Table 10 show that the regression coefficient using the *jinshi* density as a proxy variable of *keju* is still significantly positive, so the conclusion is reliable.

[Insert Table 10 about here]

4.5.6 Endogeneity: Heckman two-step regression

Because the samples selected in the study are not completely random, this may lead to the following situations: the better the firm operates, the more likely it is to work in areas with a strong *keju* culture atmosphere. This may result in sample selection bias. We use the Heckman two-step regression (Heckman, 1979) to control this problem. Columns (1), (3), and (5) in Table 11 show the regression results of the first stage. In the first stage, the Probit model is constructed. Whether the firm is in the high *keju* atmosphere group is taken as the explained variable, and the financial and corporate governance characteristics of the firm are selected as the explanatory variables. Then we calculate the IMR. Column (2) (4) (6) reported the results of the second stage. Based on model (1), IMR is added as an explanatory variable to re-estimate the regression coefficient of *keju*. These analyses show that the conclusions are still valid after controlling the potential endogeneity problems.

[Insert Table 11 about here]

4.6 Further analysis

To deeply understand the *keju* institution's governance role, this paper examines the influence of three factors -- internal governance, external supervision, and institutional ownership -- on the relationship between *keju* institution and corporate social responsibility. This paper mainly discusses whether there are differences in the incentive effect of *keju* institution on corporate social responsibility under different corporate characteristics.

4.6.1 Internal governance

According to the principal-agent theory, there is a natural conflict between firms and their stakeholders (Harjoto and Jo, 2011). When internal governance is not in place, management may conceal or omit bad news out of self-interest, and it will give rise to a decline in the quality of social responsibility reports. Then, as an informal institution, does *keju* institution play a certain supervision effect to reduce the principal-agent problem, that is, to improve the level of social responsibility by reducing the unethical behaviors of senior executives.

To confirm the above problems, we divide the samples into a high-ind group (higher than the grouping standard) and a low-ind group (lower than the grouping standard) according to the median proportion of independent directors of listed companies in the same year. The board system is the basis for listed companies to monitor management. The more independent directors, the greater resistance of executives implementing self-interest behavior, the better the quality of social responsibility reporting (Harjoto and Jo, 2011). Therefore, we are interested in whether the *keju* institution can become a powerful complement to corporate management.

As can be seen from Table 12, for firms with a high proportion of independent directors, the regression coefficient of Confucianism (*CONFM200*, *CONFM250*, and *CONFM300*) on corporate social responsibility (*CSR*) are not significant; On the contrary, in the group with a low proportion of independent directors, the regression coefficient is significantly positive at the significance level of 1% and 5% respectively. In addition, we use the Chow test to certify there is indeed a significant difference between the two groups. In firms with a low proportion of independent directors, the role of *keju* institutions in promoting corporate social responsibility is more intense, which suggests that *keju* institutions can complement the inefficiency of internal governance.

[Insert Table 12 about here]

4.6.2 External supervision

A good external supervision mechanism is conducive to improving corporate governance and information disclosure (Meng et al., 2013). Therefore, external supervision can also affect the relationship between *keju* institutions and corporate social responsibility. For this, we divide the group into a high-monitoring group and a low-monitoring group according to the median of analyst attention (or research report attention) in the same year. Among them, analyst attention is defined as the natural logarithm of the number of securities analysts who follow the same listed company plus 1; research report attention is defined as the natural logarithm of the

number of research reports concerned with the same listed company plus 1. The above data are all from the CSMAR database.

Table 13 shows the group estimation results. Panel A takes analyst attention as the group standard, and Panel B takes research report attention as the group standard. According to the group regression results, with *CONFM 250* and *CONFM 300* as explanatory variables, the regression coefficient of the low-monitoring group is significantly positive no matter which group standard methods are adopted. However, the results are no longer significant when *CONFM 200* was used as a proxy variable to measure *keju* institution. For this reason, we also conducted a Chow test on the grouping coefficients, which also supported the above conclusion. To some extent, in firms with weak external supervision, the *keju* institution is more likely to have a substantial impact on improving the quality of social responsibility.

[Insert Table 13 about here]

4.6.3 Institutional ownership

In accordance with the stakeholder theory, besides shareholders, there are also consumers, suppliers, employees, and so on who are closely related to the interests of firms (Jones, 1995). In the previous analysis, we do not consider the response of institutional investors, an important stakeholder, to CSR.

Therefore, if the proportion of institutional ownership is higher than the median proportion of institutional ownership in the same year, the samples are divided into a high-institution group. Otherwise, they are divided into a low-institution group. The results are shown in Table 14. The regression coefficients of the *keju* institution are not significant in firms with high institutional ownership, while the regression coefficient of *CONFM R* in the low-institution group has the same sign as in the baseline regression.

Furthermore, we perform a Chow test for the grouping coefficients, and there are indeed significant differences between the two groups of coefficients. This indicates that, for institutional investors at this stage, holding company shares may be mostly motivated by profit. Jiang and Kim (2015) pointed out that China's institutional investors have an obvious short-term investment tendency. This means that CSR reporting may become a profitable tool for institutional investors to beautify corporate image and enhance corporate reputation. They achieve the above by increasing the number of disclosures or exaggerating positive news. To

sum up, for firms with large institutional ownership, the *keju* institution plays a weaker positive role in corporate social responsibility.

[Insert Table 14 about here]

5. Conclusion

In China, Confucianism inherited by the imperial examination system (*keju*) penetrates every aspect of corporate governance, and informal institutions such as the imperial examination system have become a strong complement to formal institutions. Especially in the reality of the wide distribution of listed companies in China, the influence intensity of the imperial examination system varies greatly in different regions. This difference may have an impact on the quality of corporate social responsibility of listed companies. Based on the historical fact that Confucian books were used as the official textbooks for the imperial examination, this paper constructs the *jinshi* density around the firms' headquarters to measure the influence of the imperial examination system.

The study finds that the greater the impact of the imperial examination system on firms, the higher the level of corporate social responsibility. Moreover, regional education level and corporate social capital play an intermediary role in the incentive process of the imperial examination system to corporate social responsibility. In addition, the above relationship is more obvious for firms with a low proportion of independent directors, weak external supervision pressure, and less institutional shareholding. This study has important theoretical value and practical significance to clarify the institutional motivation behind the corporate social responsibility report, and then understand the role of the imperial examination system in the market economy.

China is in a critical period of economic transformation, but its supporting legal system is imperfect, and its financial market is still immature (Du, 2015). Due to China's continuous history, many informal institutions had been completely handed down. In particular, the imperial examination system was combined with the feudal monarchy to become the talent selection system lasting for more than 1,200 years. And it is widely infiltrated in all aspects of the social economy and is crucial to guide the Chinese's daily life and behavior norms. We find that through the education and popularization of the imperial examination system, the attitude of disclosing CSR reports will change from passive to active. This paper adds empirical evidence to the following views: the informal institution can be a supplement to the formal institution and become the implicit governance mechanism to restrain and guide the behavior

of firms. Therefore, the business wisdom contained in the Confucian traditional culture behind the imperial examination system still has modern commercial value to some degree. (1) For firms, the impact of Confucianism on managers' values should be fully considered. Management should consciously incorporate Confucianism into corporate culture, take social responsibility as an internal constraint, and reduce principal-agent problems, to enhance corporate competitiveness and achieve long-term development. (2) For regulators, the effectiveness of formal institutions such as laws and policies depends on the extent to which the social norms formed by particular culture support it. Therefore, when formulating and implementing relevant policies, regulators should consider the suitability of Confucianism and policies to implement them effectively.

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Table 1.
Descriptive statistics

This table displays descriptive statistics for the variables. The number of firm-year samples is 4250 over the period from 2010 to 2019. The mean, standard deviation (SD), minimum (min), median (p50), and maximum (max) of each variable are reported. The definition of each variable is provided in the Appendix.

variable	N	mean	SD	min	p50	max
<i>CSR</i>	4250	40.58	13.06	19.66	37.52	78.49
<i>CONFM200</i>	4250	6.234	1.378	1.386	6.261	7.960
<i>CONFM250</i>	4250	6.701	1.018	2.996	6.707	8.147
<i>CONFM300</i>	4250	6.835	1.185	3.045	6.952	8.197
<i>Lev</i>	4250	0.525	0.185	0.101	0.542	0.879
<i>Size</i>	4250	23.43	1.402	20.72	23.31	27.29
<i>Growth</i>	4250	0.145	0.319	-0.489	0.101	1.837
<i>ROA</i>	4250	0.044	0.047	-0.103	0.036	0.206
<i>Board</i>	4250	9.455	2.003	5	9	15
<i>Ind</i>	4250	0.374	0.056	0.308	0.364	0.571
<i>Dual</i>	4250	0.116	0.320	0	0	1
<i>Tobin</i>	4250	1.243	1.125	0.126	0.884	6.010
<i>Top1</i>	4250	39.91	15.84	8.110	40.38	76.68
<i>Age</i>	4250	17.51	5.131	5	18	30
<i>SOE</i>	4250	0.764	0.425	0	1	1
<i>Age_Ch</i>	4250	53.59	6.042	39	54	71
<i>Male_Ch</i>	4250	0.963	0.190	0	1	1
<i>College_Ch</i>	4250	0.952	0.214	0	1	1
<i>Overseas_Ch</i>	4250	0.056	0.229	0	0	1
<i>Finance_Ch</i>	4250	0.080	0.272	0	0	1

Table 2.**Pearson correlation coefficient**

This table reports the Pearson correlation between the regression variables. The definition of each variable is provided in the Appendix. Bold values are significant at the 5% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
<i>CSR</i>	1																			
<i>CONFM200</i>	0.047	1																		
<i>CONFM250</i>	0.055	0.919	1																	
<i>CONFM300</i>	0.021	0.955	0.912	1																
<i>Lev</i>	0.114	0.023	0.038	0.028	1															
<i>Size</i>	0.510	0.054	0.084	0.034	0.454	1														
<i>Growth</i>	-0.018	0.011	0.016	0.010	0.091	0.055	1													
<i>ROA</i>	0.004	0.074	0.077	0.075	-0.430	-0.091	0.194	1												
<i>Board</i>	0.130	-0.064	-0.041	-0.046	0.03*	0.158	0.001	0.011	1											
<i>Ind</i>	0.078	0.027	0.024	0.025	0.081	0.179	0.007	-0.032	-0.320	1										
<i>Dual</i>	-0.048	0.066	0.036	0.059	-0.029	-0.035	0.012	0.081	-0.078	0.070	1									
<i>Tobin</i>	-0.205	-0.049	-0.051	-0.044	-0.542	-0.544	0.019	0.427	-0.073	-0.045	0.051	1								
<i>Top1</i>	0.181	0.039	0.046	0.050	0.001	0.253	-0.026	0.063	0.010	0.080	-0.098	-0.061	1							
<i>Age</i>	0.046	0.080	0.055	0.034	-0.005	-0.029	-0.011	-0.043	-0.088	-0.103	0.070	-0.058	-0.329	1						
<i>SOE</i>	0.166	-0.077	-0.047	-0.046	0.072	0.177	-0.052	-0.139	0.133	0.014	-0.185	-0.155	0.307	-0.117	1					
<i>Age_Ch</i>	0.096	-0.030	-0.028	-0.049	-0.013	0.172	-0.043	0.072	0.015	0.006	-0.028	-0.015	0.007	0.035	-0.037	1				
<i>Male_Ch</i>	0.028	-0.062	-0.057	-0.044	-0.017	0.006	-0.004	-0.032	0.079	0.001	-0.053	-0.019	0.062	-0.131	0.098	0.132	1			
<i>College_Ch</i>	0.089	-0.082	-0.074	-0.077	0.048	0.066	-0.005	-0.118	0.014	0.021	0.002	-0.039	0.051	0.037	0.194	-0.170	0.008	1		
<i>Overseas_Ch</i>	0.063	0.016	0.020	0.005	-0.004	0.038	-0.004	-0.009	-0.005	-0.008	-0.005	-0.005	-0.026	0.033	-0.008	0.055	-0.066	0.045	1	
<i>Finance_Ch</i>	-0.016	-0.016	-0.052	-0.032	0.014	0.012	0.020	0.008	-0.045	0.005	0.058	-0.025	-0.027	0.083	-0.062	-0.004	-0.042	-0.043	0.053	1

Table 3.**The impact of the *keju* on CSR**

This table reports fixed-effect panel regression estimates for the relation between *keju* and CSR. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	<i>CONFM200</i>	<i>CONFM200</i>	<i>CONFM250</i>	<i>CONFM300</i>
VARIABLES	(1)	(2)	(3)	(4)
<i>CONFM R</i>	0.089*** (2.923)	0.079*** (2.930)	0.076*** (3.331)	0.068** (2.497)
<i>Lev</i>		-0.035** (-1.998)	-0.035** (-1.968)	-0.037** (-2.076)
<i>Size</i>		0.483*** (25.694)	0.486*** (25.955)	0.484*** (25.782)
<i>Growth</i>		-0.023* (-1.822)	-0.023* (-1.772)	-0.023* (-1.806)
<i>ROA</i>		0.055*** (3.415)	0.054*** (3.359)	0.053*** (3.337)
<i>Board</i>		0.058*** (4.125)	0.057*** (4.048)	0.057*** (4.052)
<i>Ind</i>		0.010 (0.732)	0.008 (0.592)	0.009 (0.663)
<i>Dual</i>		-0.042 (-1.067)	-0.041 (-1.046)	-0.042 (-1.063)
<i>Tobin</i>		0.046** (2.476)	0.047** (2.545)	0.045** (2.434)
<i>Top1</i>		0.025* (1.722)	0.022 (1.538)	0.025* (1.741)
<i>Age</i>		-0.027 (-1.611)	-0.024 (-1.454)	-0.026 (-1.523)
<i>Age_Ch</i>		0.127*** (3.811)	0.120*** (3.609)	0.123*** (3.690)
<i>SOE</i>		-0.003 (-0.219)	-0.003 (-0.217)	-0.003 (-0.232)
<i>Male_Ch</i>		0.145** (2.103)	0.146** (2.112)	0.144** (2.083)
<i>College_Ch</i>		0.098* (1.649)	0.095 (1.602)	0.095 (1.598)
<i>Overseas_Ch</i>		0.208*** (3.903)	0.213*** (4.012)	0.208*** (3.918)
<i>Finance_Ch</i>		-0.026 (-0.582)	-0.031 (-0.694)	-0.027 (-0.601)
Constant	-0.657*** (-3.127)	-0.570*** (-2.723)	-0.594*** (-2.861)	-0.566*** (-2.682)
Observations	4,250	4,250	4,250	4,250
Adjusted R ²	0.238	0.415	0.415	0.414
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Province FE	YES	YES	YES	YES

Table 4.**Economic mechanisms: regional education level**

This table shows the mediating effect results. Regional education levels are measured in three perspectives: *Universities, Primary and Middle Schools, College Students*. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Indep.=	<i>CONF M 200</i>			<i>CONF M 250</i>			<i>CONF M 300</i>		
Dep.=	Universities	Primary and Middle Schools	College Students	Universities	Primary and Middle Schools	College Students	Universities	Primary and Middle Schools	College Students
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>CONF M R</i>	0.186*** (9.691)	0.165*** (9.985)	0.139*** (7.157)	0.084*** (5.137)	0.077*** (3.976)	0.060*** (2.606)	0.143*** (5.555)	0.155*** (7.027)	0.110*** (4.258)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,250	4,250	4,250	4,250	4,250	4,250	4,250	4,250	4,250
Adjusted R ²	0.705	0.705	0.702	0.670	0.580	0.579	0.472	0.474	0.470
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 5.**Economic mechanisms: corporate social capital**

This table shows the mediating effect results. Corporate social capital is measured in two perspectives: *Business Connection*, *Political Connection*. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Indep.=	CONFM 200	CONFM 250	CONFM 300	CONFM _Ch200	CONFM _Ch250	CONFM _Ch300
Dep.=	<i>Business Connection</i>	<i>Business Connection</i>	<i>Business Connection</i>	<i>Political Connection</i>	<i>Political Connection</i>	<i>Political Connection</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<i>CONFM R</i>	0.012 (1.123)	0.027*** (3.088)	0.030*** (2.882)			
<i>CONFM_Ch R</i>				0.060*** (7.660)	0.061*** (7.829)	0.061*** (7.860)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,250	4,250	4,250	4,250	4,250	4,250
Adjusted R ²	0.091	0.093	0.092	0.125	0.126	0.126
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES

Table 6. Robustness check: Alternative *keju* measure

Panel A in this table reports the regression results after using *Temple R* as the proxy variable of *keju*. Panel B in this table reports the regression results after using *CONFIRM_Ch R* as the proxy variable of *keju*. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A

	<i>Temple200</i>	<i>Temple250</i>	<i>Temple300</i>
VARIABLES	(1)	(2)	(3)
<i>Temple R</i>	0.055*** (3.239)	0.035** (2.245)	0.054*** (3.287)
<i>Lev</i>	-0.039** (-2.228)	-0.039** (-2.199)	-0.040** (-2.256)
<i>Size</i>	0.485*** (25.898)	0.486*** (25.906)	0.486*** (25.902)
<i>Growth</i>	-0.023* (-1.791)	-0.023* (-1.787)	-0.023* (-1.784)
<i>ROA</i>	0.054*** (3.375)	0.053*** (3.321)	0.054*** (3.365)
<i>Board</i>	0.058*** (4.103)	0.057*** (4.027)	0.058*** (4.097)
<i>Ind</i>	0.010 (0.758)	0.010 (0.760)	0.010 (0.740)
<i>Dual</i>	-0.040 (-1.030)	-0.041 (-1.039)	-0.041 (-1.038)
<i>Tobin</i>	0.044** (2.348)	0.044** (2.379)	0.043** (2.329)
<i>Top1</i>	0.023 (1.561)	0.023 (1.588)	0.022 (1.544)
<i>Age</i>	-0.025 (-1.520)	-0.025 (-1.477)	-0.025 (-1.517)
<i>SOE</i>	0.123*** (3.706)	0.119*** (3.581)	0.122*** (3.681)
<i>Age_Ch</i>	-0.004 (-0.273)	-0.004 (-0.274)	-0.004 (-0.293)
<i>Male_Ch</i>	0.149** (2.154)	0.150** (2.166)	0.148** (2.139)
<i>College_Ch</i>	0.091 (1.542)	0.095 (1.601)	0.090 (1.528)
<i>Overseas_Ch</i>	0.213*** (4.009)	0.213*** (4.003)	0.214*** (4.021)
<i>Finance_Ch</i>	-0.028 (-0.621)	-0.028 (-0.629)	-0.028 (-0.627)
Constant	-0.603*** (-2.907)	-0.638*** (-3.084)	-0.602*** (-2.903)
Observations	4,250	4,250	4,250
Adjusted R ²	0.415	0.414	0.415
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Province FE	YES	YES	YES

Table 6. (continued)

Panel B

	<i>CONFM_Ch200</i>	<i>CONFM_Ch250</i>	<i>CONFM_Ch300</i>
VARIABLES	(1)	(2)	(3)
<i>CONFM_Ch R</i>	0.023* (1.740)	0.025* (1.858)	0.023* (1.747)
<i>Lev</i>	0.043** (2.573)	0.043** (2.567)	0.043** (2.573)
<i>Size</i>	0.376*** (25.285)	0.375*** (25.243)	0.375*** (25.238)
<i>Growth</i>	-0.005 (-0.419)	-0.005 (-0.418)	-0.005 (-0.421)
<i>ROA</i>	0.108*** (7.200)	0.107*** (7.182)	0.107*** (7.192)
<i>Board</i>	0.096*** (6.922)	0.096*** (6.923)	0.096*** (6.920)
<i>Ind</i>	0.029** (2.152)	0.029** (2.148)	0.029** (2.149)
<i>Dual</i>	-0.040 (-1.025)	-0.040 (-1.028)	-0.040 (-1.027)
<i>Tobin</i>	-0.081*** (-4.776)	-0.081*** (-4.761)	-0.081*** (-4.767)
<i>Top1</i>	0.050*** (3.503)	0.050*** (3.506)	0.050*** (3.500)
<i>Age</i>	-0.020 (-1.174)	-0.020 (-1.171)	-0.020 (-1.176)
<i>SOE</i>	0.133*** (3.952)	0.133*** (3.956)	0.132*** (3.941)
<i>Age_Ch</i>	0.009 (0.643)	0.008 (0.618)	0.008 (0.636)
<i>Male_Ch</i>	0.156** (2.241)	0.156** (2.241)	0.155** (2.239)
<i>College_Ch</i>	0.141** (2.373)	0.141** (2.370)	0.140** (2.360)
<i>Overseas_Ch</i>	0.161*** (2.989)	0.160*** (2.972)	0.161*** (2.991)
<i>Finance_Ch</i>	0.002 (0.053)	0.003 (0.066)	0.003 (0.060)
Constant	-0.896*** (-4.278)	-0.900*** (-4.294)	-0.894*** (-4.269)
Observations	4,250	4,250	4,250
Adjusted R ²	0.408	0.408	0.408
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Province FE	YES	YES	YES

Table 7. Robustness check: Alternative CSR measure

Panel A and B use *Hexun-CSR* and *CSMAR-CSR* as the proxy variable of *CSR*, respectively. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A

	<i>CONFM200</i>	<i>CONFM250</i>	<i>CONFM300</i>
VARIABLES	(1)	(2)	(3)
<i>CONFM R</i>	0.074*** (2.687)	0.050** (2.107)	0.048* (1.695)
<i>Lev</i>	-0.005 (-0.256)	-0.006 (-0.341)	-0.007 (-0.403)
<i>Size</i>	-0.028 (-1.485)	-0.028 (-1.460)	-0.024 (-1.239)
<i>Growth</i>	0.023* (1.802)	0.023* (1.814)	0.023* (1.763)
<i>ROA</i>	0.093*** (5.691)	0.091*** (5.582)	0.091*** (5.458)
<i>Board</i>	-0.027* (-1.890)	-0.028** (-1.983)	-0.031** (-2.150)
<i>Ind</i>	0.018 (1.292)	0.018 (1.296)	0.015 (1.082)
<i>Dual</i>	0.057 (1.442)	0.058 (1.464)	0.062 (1.535)
<i>Tobin</i>	0.014 (0.760)	0.014 (0.727)	0.016 (0.849)
<i>Top1</i>	-0.018 (-1.253)	-0.018 (-1.215)	-0.018 (-1.216)
<i>Age</i>	0.017 (1.012)	0.018 (1.060)	0.018 (1.066)
<i>SOE</i>	-0.011 (-0.318)	-0.013 (-0.388)	-0.018 (-0.512)
<i>Age_Ch</i>	0.034*** (2.583)	0.033** (2.502)	0.032** (2.387)
<i>Male_Ch</i>	-0.014 (-0.202)	-0.011 (-0.156)	-0.022 (-0.304)
<i>College_Ch</i>	-0.059 (-0.977)	-0.059 (-0.982)	-0.056 (-0.914)
<i>Overseas_Ch</i>	-0.058 (-1.064)	-0.059 (-1.084)	-0.069 (-1.250)
<i>Finance_Ch</i>	0.083* (1.820)	0.087* (1.891)	0.087* (1.860)
Constant	-0.372* (-1.744)	-0.403* (-1.895)	-0.379* (-1.737)
Observations	4,250	4,250	4,250
Adjusted R ²	0.392	0.391	0.372
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Province FE	YES	YES	YES

Table 7. (continued)**Panel B**

	<i>CONF200</i>	<i>CONF250</i>	<i>CONF300</i>
VARIABLES	(1)	(2)	(3)
<i>CONF R</i>	0.040*** (3.141)	0.032*** (2.979)	0.030** (2.342)
<i>Lev</i>	-0.031*** (-3.739)	-0.031*** (-3.727)	-0.032*** (-3.823)
<i>Size</i>	0.201*** (22.854)	0.203*** (23.118)	0.202*** (22.960)
<i>Growth</i>	-0.002 (-0.416)	-0.002 (-0.369)	-0.002 (-0.400)
<i>ROA</i>	-0.008 (-1.064)	-0.009 (-1.152)	-0.009 (-1.165)
<i>Board</i>	0.012* (1.809)	0.011* (1.694)	0.011* (1.708)
<i>Ind</i>	0.004 (0.641)	0.003 (0.512)	0.004 (0.573)
<i>Dual</i>	0.030 (1.630)	0.030* (1.646)	0.030 (1.630)
<i>Tobin</i>	0.021** (2.391)	0.021** (2.458)	0.021** (2.356)
<i>Top1</i>	-0.006 (-0.915)	-0.007 (-1.079)	-0.006 (-0.898)
<i>Age</i>	-0.029*** (-3.761)	-0.028*** (-3.590)	-0.029*** (-3.653)
<i>SOE</i>	-0.032** (-2.045)	-0.036** (-2.303)	-0.034** (-2.211)
<i>Age_Ch</i>	0.009 (1.460)	0.009 (1.446)	0.009 (1.435)
<i>Male_Ch</i>	-0.013 (-0.391)	-0.012 (-0.367)	-0.013 (-0.396)
<i>College_Ch</i>	0.045 (1.626)	0.044 (1.588)	0.044 (1.581)
<i>Overseas_Ch</i>	0.061** (2.465)	0.064** (2.569)	0.062** (2.485)
<i>Finance_Ch</i>	-0.023 (-1.103)	-0.025 (-1.211)	-0.024 (-1.127)
Constant	0.267*** (2.733)	0.249** (2.562)	0.263*** (2.666)
Observations	4,250	4,250	4,250
Adjusted R ²	0.263	0.263	0.262
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Province FE	YES	YES	YES

Table 8.**Robustness check: high-dimensional fixed-effect model regression**

This table reports the regression results after using a high-dimensional fixed-effect model. Because the MWFE estimator is converged in 5 iterations of the high-dimensional fixed-effect model, the samples are dropped 3 singleton observations (Correia, 2015). We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	<i>CONFM200</i>	<i>CONFM250</i>	<i>CONFM300</i>
VARIABLES	(1)	(2)	(3)
<i>CONFM R</i>	0.104*** (3.191)	0.100*** (3.714)	0.093*** (2.770)
<i>Lev</i>	-0.037** (-2.054)	-0.034* (-1.873)	-0.039** (-2.171)
<i>Size</i>	0.462*** (23.574)	0.461*** (23.527)	0.462*** (23.579)
<i>Growth</i>	-0.023* (-1.873)	-0.023* (-1.887)	-0.022* (-1.830)
<i>ROA</i>	0.046*** (2.886)	0.046*** (2.930)	0.044*** (2.801)
<i>Board</i>	0.061*** (4.277)	0.061*** (4.249)	0.061*** (4.247)
<i>Ind</i>	0.010 (0.721)	0.009 (0.681)	0.009 (0.656)
<i>Dual</i>	-0.058 (-1.520)	-0.057 (-1.482)	-0.057 (-1.483)
<i>Tobin</i>	0.039** (2.083)	0.039** (2.055)	0.038** (2.034)
<i>Top1</i>	0.031** (2.067)	0.029* (1.907)	0.033** (2.156)
<i>Age</i>	-0.050*** (-2.790)	-0.048*** (-2.677)	-0.048*** (-2.687)
<i>Age_Ch</i>	0.164*** (4.724)	0.156*** (4.522)	0.156*** (4.508)
<i>SOE</i>	0.007 (0.521)	0.006 (0.480)	0.007 (0.514)
<i>Male_Ch</i>	0.122* (1.788)	0.119* (1.744)	0.120* (1.767)
<i>College_Ch</i>	0.184*** (3.131)	0.180*** (3.062)	0.180*** (3.050)
<i>Overseas_Ch</i>	0.159*** (2.998)	0.161*** (3.035)	0.159*** (3.002)
<i>Finance_Ch</i>	-0.066 (-1.423)	-0.069 (-1.484)	-0.067 (-1.437)
Constant	-0.414*** (-4.750)	-0.401*** (-4.603)	-0.402*** (-4.611)
Observations	4,247	4,247	4,247
Adjusted R ²	0.486	0.487	0.486
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Province FE	YES	YES	YES
Province#Industry	YES	YES	YES

Table 9.
Endogeneity: Instrumental variable approach

This table reports the IV-2SLS regression results. According to Chen et al. (2021), we use *Print Center* as the IV. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	First stage	Second stage	First stage	Second stage	First stage	Second stage
		(R=200)		(R=250)		(R=300)
Dep.=	<i>CONFM200</i>	<i>CSR</i>	<i>CONFM250</i>	<i>CSR</i>	<i>CONFM300</i>	<i>CSR</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Print Center</i>	-0.685*** (-54.263)		-0.714*** (-45.559)		-0.714*** (-58.818)	
<i>CONFM R</i>		0.094** (2.240)		0.090** (2.239)		0.090** (2.240)
<i>Lev</i>	0.002 (0.253)	0.054*** (3.248)	0.030*** (3.249)	0.052*** (3.094)	0.018** (2.485)	0.053*** (3.163)
<i>Size</i>	0.018*** (2.882)	0.373*** (25.401)	0.008 (1.030)	0.374*** (25.516)	0.008 (1.217)	0.374*** (25.528)
<i>Growth</i>	0.006 (1.159)	-0.010 (-0.825)	0.004 (0.602)	-0.010 (-0.807)	0.004 (0.681)	-0.010 (-0.803)
<i>ROA</i>	-0.019*** (-2.901)	0.136*** (8.874)	0.007 (0.842)	0.133*** (8.732)	-0.008 (-1.177)	0.135*** (8.813)
<i>Board</i>	-0.022*** (-3.714)	0.099*** (7.196)	-0.012 (-1.589)	0.098*** (7.140)	-0.013** (-2.303)	0.098*** (7.149)
<i>Ind</i>	0.004 (0.706)	0.030** (2.207)	0.005 (0.730)	0.029** (2.199)	0.018*** (3.118)	0.028** (2.115)
<i>Dual</i>	-0.030* (-1.779)	-0.042 (-1.072)	-0.053** (-2.511)	-0.040 (-1.021)	-0.034** (-2.101)	-0.041 (-1.065)
<i>Tobin</i>	0.002 (0.203)	-0.094*** (-5.552)	0.009 (0.981)	-0.095*** (-5.591)	0.017** (2.342)	-0.095*** (-5.632)
<i>Top1</i>	0.001 (0.139)	0.046*** (3.266)	-0.008 (-0.986)	0.047*** (3.318)	-0.004 (-0.637)	0.047*** (3.295)
<i>Age</i>	0.032*** (4.345)	-0.027 (-1.635)	0.033*** (3.641)	-0.027 (-1.634)	0.016** (2.268)	-0.026 (-1.548)
<i>Age_Ch</i>	-0.009 (-0.616)	0.146*** (4.383)	-0.014 (-0.753)	0.147*** (4.389)	0.039*** (2.783)	0.142*** (4.281)
<i>SOE</i>	-0.020*** (-3.444)	0.012 (0.949)	-0.002 (-0.243)	0.011 (0.819)	-0.020*** (-3.621)	0.012 (0.944)
<i>Male_Ch</i>	0.087*** (2.908)	0.152** (2.219)	0.055 (1.469)	0.156** (2.268)	0.119*** (4.114)	0.150** (2.180)
<i>College_Ch</i>	0.019 (0.721)	0.144** (2.450)	0.036 (1.141)	0.142** (2.422)	0.064*** (2.579)	0.140** (2.379)
<i>Overseas_Ch</i>	0.002 (0.093)	0.167*** (3.153)	0.041 (1.433)	0.163*** (3.082)	-0.005 (-0.222)	0.168*** (3.165)

<i>Finance_Ch</i>	-0.007	0.004	-0.086***	0.011	0.002	0.003
	(-0.368)	(0.090)	(-3.556)	(0.248)	(0.080)	(0.071)
Constant	-0.765***	-0.703***	-0.760***	-0.707***	-1.022***	-0.683***
	(-8.459)	(-3.310)	(-6.762)	(-3.331)	(-11.740)	(-3.177)
Observations	4,250	4,250	4,250	4,250	4,250	4,250
Adjusted R ²	0.486	0.485	0.486	0.422	0.421	0.421
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES
First stage F-value	2894.54		2040.50		3401.00	
Cragg-Donald	2894.54		2040.503		3401.00	
Wald F	(P=0.000)		(P=0.000)		(P=0.000)	
Anderson-Rubin	4.93		4.93		4.93	
Wald	(P=0.027)		(P=0.027)		(P=0.027)	

Table 10.**Endogeneity: propensity score matching method**

This table reports the regression results from the propensity score matching method. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	<i>CONFM200</i>	<i>CONFM250</i>	<i>CONFM300</i>
VARIABLES	(1)	(2)	(3)
<i>CONFM R</i>	0.075*** (2.760)	0.076*** (3.326)	0.067** (2.467)
<i>Lev</i>	-0.037** (-2.069)	-0.034* (-1.943)	-0.037** (-2.108)
<i>Size</i>	0.484*** (25.647)	0.486*** (25.776)	0.486*** (25.786)
<i>Growth</i>	-0.025* (-1.935)	-0.023* (-1.773)	-0.025* (-1.916)
<i>ROA</i>	0.056*** (3.445)	0.054*** (3.333)	0.053*** (3.297)
<i>Board</i>	0.058*** (4.150)	0.057*** (4.012)	0.058*** (4.108)
<i>Ind</i>	0.009 (0.657)	0.007 (0.525)	0.008 (0.557)
<i>Dual</i>	-0.043 (-1.090)	-0.040 (-1.029)	-0.042 (-1.059)
<i>Tobin</i>	0.047** (2.505)	0.049*** (2.606)	0.047** (2.519)
<i>Top1</i>	0.024* (1.657)	0.022 (1.514)	0.024* (1.670)
<i>Age</i>	-0.027 (-1.603)	-0.025 (-1.492)	-0.027 (-1.582)
<i>Age_Ch</i>	0.129*** (3.852)	0.121*** (3.618)	0.124*** (3.705)
<i>SOE</i>	-0.003 (-0.266)	-0.003 (-0.264)	-0.003 (-0.232)
<i>Male_Ch</i>	0.142** (2.058)	0.143** (2.073)	0.137** (1.967)
<i>College_Ch</i>	0.117* (1.938)	0.107* (1.771)	0.114* (1.886)
<i>Overseas_Ch</i>	0.198*** (3.697)	0.203*** (3.758)	0.208*** (3.914)
<i>Finance_Ch</i>	-0.034 (-0.741)	-0.036 (-0.786)	-0.028 (-0.612)
Constant	-0.588*** (-2.806)	-0.600*** (-2.869)	-0.581*** (-2.748)
Observations	4,234	4,233	4,239
Adjusted R ²	0.415	0.411	0.414
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Province FE	YES	YES	YES

Table 11.
Endogeneity: Heckman two-step regression

This table reports the Heckman two-step regression results. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Indep.=		(R=200)		(R=250)		(R=300)
Dep.=	<i>High</i>	<i>CSR</i>	<i>High</i>	<i>CSR</i>	<i>High</i>	<i>CSR</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<i>CONFM R</i>		0.077*** (2.838)		0.066*** (2.919)		0.067** (2.457)
<i>IMR</i>		3.426*** (4.820)		3.846*** (7.283)		1.792*** (3.013)
Controls_Heckman	Yes	No	Yes	No	Yes	No
Control variables	No	Yes	No	Yes	No	Yes
Observations	4,250	4,250	4,250	4,250	4,250	4,250
Adjusted R ²		0.418		0.422		0.415
Pseudo R ²	0.049		0.069		0.063	
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES

Table 12.**Firm internal governance and the relation between *keju* and firms' CSR**

We divide the full sample into the following sub-groups: high-ind firms/low-ind firms. We then re-run equation (1) using the sub-samples respectively. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	<i>CONFM 200</i>		<i>CONFM 250</i>		<i>CONFM 300</i>	
	High-ind	Low-ind	High-ind	Low-ind	High-ind	Low-ind
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
<i>CONFM R</i>	0.033	0.117***	0.035	0.081***	0.020	0.101**
	(0.846)	(2.919)	(0.845)	(2.832)	(0.492)	(2.524)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,853	2,397	1,853	2,397	1,853	2,397
Adjusted R ²	0.475	0.392	0.475	0.392	0.475	0.391
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES

Table 13.**Firm external supervision and the relation between *keju* and firms' CSR**

We divide the full sample into the following sub-groups: high-monitoring firms/low-monitoring firms. Among them, Panel A takes the analyst attention as the grouping standard, and Panel B takes the research report attention as the grouping standard. We then re-run equation (1) using the sub-samples, respectively. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A

	<i>CONF M</i> 200		<i>CONF M</i> 250		<i>CONF M</i> 300	
	High-monitoring	Low-monitoring	High-monitoring	Low-monitoring	High-monitoring	Low-monitoring
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
<i>CONF M R</i>	0.090* (1.868)	0.056* (1.730)	0.069 (1.641)	0.052* (1.950)	0.067 (1.429)	0.069** (2.087)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,048	2,202	2,048	2,202	2,048	2,202
Adjusted R ²	0.455	0.343	0.455	0.343	0.455	0.343
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES

Table 13.(continued)**Panel B**

	<i>CONF M</i> 200		<i>CONF M</i> 250		<i>CONF M</i> 300	
	High-monitoring	Low-monitoring	High-monitoring	Low-monitoring	High-monitoring	Low-monitoring
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
<i>CONF M R</i>	0.096* (1.956)	0.058* (1.840)	0.058 (1.353)	0.055** (2.077)	0.062 (1.307)	0.071** (2.170)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,078	2,172	2,078	2,172	2,078	2,172
Adjusted R ²	0.456	0.332	0.456	0.332	0.456	0.333
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES

Table 14.**Firm institutional ownership and the relation between *keju* and firms' CSR**

We divide the full sample into the following sub-groups: high-institution firms/low-institution firms. We then re-run equation (1) using the sub-samples, respectively. We report t-statistics in parentheses, while *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	<i>CONFM 200</i>		<i>CONFM 250</i>		<i>CONFM 300</i>	
	High-institution	Low-institution	High-institution	Low-institution	High-institution	Low-institution
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
<i>CONFMR</i>	0.009 (0.148)	0.092*** (2.992)	0.056 (1.006)	0.079*** (3.075)	-0.001 (-0.017)	0.085*** (2.721)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	944	3,306	944	3,306	944	3,306
Adjusted R ²	0.301	0.429	0.302	0.429	0.301	0.428
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES

Appendix
Table A1 Variable definition

Categories	Variable	Definition
Dependent variable	<i>CSR</i>	The total score of corporate social responsibility in Rankins CSR Ratings
	<i>Hexun-CSR</i>	The total score of corporate social responsibility on the Hexun website
	<i>CSMAR-CSR</i>	If a firm discloses its CSR consulting the GRI Sustainability Reporting Guide, the value of <i>CSMAR-CSR</i> is 1. Otherwise, it's 0
Independent variable	<i>CONFM R</i>	The natural logarithm of the number of <i>jinshi</i> in the Ming-Qing Dynasty plus 1 within the radius of <i>R</i> km of the firm headquarters
	<i>Temple R</i>	The natural logarithm of the number of remaining Confucian temples plus 1 within the radius of <i>R</i> km of the firm headquarters
	<i>CONFM_Ch R</i>	The natural logarithm of the number of <i>jinshi</i> in the Ming-Qing Dynasty plus 1 within the radius of <i>R</i> km of the chairman's birthplace
	<i>Print Center</i>	The nearest distance between the firm's headquarters and 19 official printing centers in the Ming-Qing Dynasty
Control variables	<i>Lev</i>	The asset-liability ratio of listed companies, the ratio of total liabilities to total assets
	<i>Size</i>	Firm scale, the natural logarithm of a firm's total assets
	<i>Growth</i>	Growth ability, operating income growth rate
	<i>ROA</i>	Return on total assets that is net income/total assets
	<i>Board</i>	Number of board members
	<i>Ind</i>	The proportion of independent directors on board
	<i>Dual</i>	Dummy is 1 if the board chair and CEO is the same person and 0 otherwise
	<i>Tobin</i>	Tobin Q, market value/total assets
	<i>Top1</i>	The proportion of the largest shareholder
	<i>Age</i>	The years of listing
	<i>Age_Ch</i>	Age of the chairman
	<i>SOE</i>	Company nature. Dummy is 1 if the company is SOE and 0 otherwise
	<i>Male_Ch</i>	Gender of the chairman. Dummy is 1 if the chairman is male and 0 otherwise
	<i>College_Ch</i>	The education level of the Chairman. Dummy is 1 if the chairman attended college and 0 otherwise
	<i>Overseas_Ch</i>	Chairman's overseas experience. Dummy is 1 if the chairman has worked or studied abroad and 0 otherwise
	<i>Finance_Ch</i>	Chairman's financial background. Dummy is 1 if the chairman of the board has worked in bank, broker, fund and 0 otherwise
Mediating variables	<i>Political Connection</i>	Chairman's political background. Dummy is 1 if the chairman has worked for the government and 0 otherwise
	<i>Business Connection</i>	Chairman's position in other listed companies. Dummy is 1 if the chairman has worked for the other listed companies and 0 otherwise
	<i>Universities</i>	The number of universities in the city where the company is located
	<i>Primary and Middle Schools</i>	The number of primary and middle schools in the city where the company is located
	<i>College Students</i>	The number of university students per 10000 persons in the city where the company is located