Individualism and excess perk consumption: Evidence from China

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Abstract

This paper investigates how executive individualism affects excess perk consumption. We exploit data from listed firms in China over the period 2008-2017. We adopt the rice index proposed by Talhelm et al. (2014) as the measure of executive individualism. Our empirical results show that higher executive individualism results in higher excess perk consumption, which is mainly from traveling, company car, and meeting expenses. We suggest that this effect occurs because executive individualism is positively correlated with both CEO overconfidence and earnings management, leading to a higher probability of misbehaving. This effect is more pronounced among male executives, older executives, and those with lower levels of religious piety. The implementation of eight-point regulation, which mainly targets luxury consumption in government units and state-owned enterprises (SOEs), significantly attenuates the effect of executive individualism on excess perk consumption in SOEs. Various robustness tests confirm our results.

Keywords: Individualism, excess perk consumption, corporate culture

1. Introduction

We investigate how CEO individualism affects excess perk consumption. Excess perk consumption is defined as the part of perk consumption that exceeds normal or necessary expenditures (Cai et al., 2011) and plays a crucial role in corporate performance and stock prices (Cai, et al., 2011; Gul et al., 2011; Zhang et al., 2015; Xu et al., 2014). Current studies suggest that excess perk consumption rises due to agency problems (Jensen and Meckling, 1976; Fama, 1980; Yermack, 2006; Rajan and Wulf, 2006; Marino and Zabojnik, 2008; Andrews et al., 2017), and executives' characteristics, such as age, managerial power, poverty experience, and academic experience (Yermack, 2006; Zhang et al., 2015; Xu and Li, 2016; Zhang et al., 2020), could explain the variation in excess perk consumption across enterprises. However, as a main characteristic of executives and corporate culture, the role of individualism on excess perk consumption is seldom studied.[1]

The role of individualism could be explained as follows. An individualist CEO cares more about him/herself and hence has a stronger incentive to take advantage of his or her position (Jensen and Meckling, 1976), such as by diverting perk consumption to his or her private ends. First, an individualist CEO cares more about his or her private ends, and thus, the incentive to take advantage of the firm is higher (Jensen and Meckling, 1976). Second, an individualist CEO is overconfident and optimistic about his or her ability (Markus and Kitayama, 1991; Chui et al., 2010; An et al., 2018). Such a CEO would underestimate the probability of being caught when diverting resources from the firm through earnings management. Additionally, he or she is more optimistic about improving the firm's performance to offset the negative impact of his or her deviations. Therefore, we hypothesize that executive individualism would increase excess perk consumption.

We investigate this hypothesis by exploiting data from listed firms in China over the period 2008-2017. We adopt the rice index proposed by Talhelm et al. (2014) as the measure of executive individualism. This index is calculated based on the percentage of rice paddies of total cultivated land in each area. Since paddy rice requires both elaborate irrigation systems and an extraordinary amount of work, farmers in rice villages form cooperative labor exchanges. Instead, wheat does not need to be irrigated and is easy to grow, so wheat farmers do not coordinate with their neighbors much.

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[1] Triandis (2001) argues that the individualism (and collectivism) dimension represents the most significant cultural difference.

Talhlem et al. (2014) empirically suggest that wheat-growing northern China is less interdependent and holistic-thinking than the rice-growing south. To this end, the rice index is an appropriate measure of individualism. In the baseline regression, we study the effect of executive individualism in the current year on excess perk consumption in the next year. To address potential omitted variable bias, we control for firm-level financial variables, firm-level governance variables, industry-related variables, CEO characteristic variables and area characteristic variables, together with year-fixed and industry-fixed effects.

Our empirical findings support the positive correlation between executive individualism and excess perk consumption. We further conduct regressions of business entertainment expenses, traveling expenses, overseas training expenses, board meeting expenses, company car expenses, and meeting expenses. We conclude that traveling, company car, and meeting expenses are the main sources of excess perk consumption.

We then examine the aforementioned mechanisms that explain our hypothesis. First, we investigate the mediating effect of overconfidence. We adopt the executive's payment scaled by the total payment of all managers in the firm as the measure of overconfidence. We show that individualism increases excess perk consumption by increasing a CEO's overconfidence. Second, we construct and interaction term between individualism and earnings management. Earnings management is measured by the absolute value of discretionary accruals. We show that executive individualism increases excess perk consumption by increasing earnings management. Third, we test whether an individualist CEO increases excess perk consumption for the sake of innovative activities. Our regression results do not suggest such a mediating effect. Therefore, we conclude that executive individualism increases excess perk consumption by increasing CEOs' overconfidence and earnings management instead of increasing innovation activities. Our conclusion also reveals that corporate culture, as an important informal institution, indeed has a notable effect on corporate economic behaviors.

We apply various methods to verify the robustness of our results. First, we adopt the instrumental variable approach by using the following three variables: the average precipitation at the provincial level in 1995; the average temperature at the provincial level in 1995; and a dummy variable, North,

which indicates whether a CEO's hometown is located north of the Qinling-Huaihe Line. Second, we apply a difference-in-differences (DID) strategy and focus on the estimate that measures the change in the level of individualism when a CEO is mandatorily replaced. Third, we adopt the Heckman two-stage test to reduce the self-selection bias between the CEO's individualism and the excess perk consumption. Fourth, to control for the bias from CEOs' social networks and the social norms in the region where firms are located, we include the CEO's alumni relationship, the tobacco and alcohol culture in the region and the level of individualism in the region. Moreover, we adopt an alternative definition of CEOs using the Fama-Macbeth approach and conduct a synchronous regression. In addition, we control for the culture of corporate corruption to exclude the effect of other cultural dimensions. All of the results support our conclusion in the baseline regression.

As an additional analysis, we apply a DID estimation by taking advantage of the eight-point regulation, which was implemented in 2013 and sets strict restrictions on luxury consumption in government units or SOEs. We show that the implementation of this regulation lowers the excess perk consumption among SOEs. In addition, we examine whether this regulation leads to a structural change in the effect of executive individualism among SOEs and/or private enterprises. Such an approach could not only be treated as a robustness test of our main analysis, but the significant estimate also suggests that the eight-point regulation indeed attenuates the effect of executive individualism on excess perk consumption. The results further reinforce the robustness of our main analysis.

Furthermore, we investigate the heterogeneity in the effect of individualism. First, we show that the positive role of individualism on excess perk consumption is significant only in the group of older CEOs, while it is not significant in the group of young CEOs. Second, in terms of gender, we show that such a positive effect is stronger in the male group than in the female group. Third, we show that the impact of executive individualism on excess perk consumption is more pronounced among those with a lower level of religious piety.

Our paper contributes to the literature in three ways. First, this paper contributes to the studies on the impact factors of excess perk consumption from the perspective of executive characteristics. Exploring the impact factors of excess perk consumption can help to improve the corporate

governance structure and mechanism. A series of external governance and internal governance factors influencing excess perk consumption have been discussed by some scholars (Gul et al., 2011; Zhai et al., 2015; Andrews et al., 2017), whose research held the assumption of "homo economicus". These studies ignored the heterogeneity of executives themselves. Other scholars have paid close attention to this issue and investigated the impact of executives' age, managerial power, poverty experience, and academic experience on excess perk consumption (Yermack, 2006; Zhang et al., 2015; Xu and Li, 2016; Zhang et al., 2020). Our conclusion provides compelling evidence of a corporate culture's impact on excess perk consumption. Additionally, we apply the novel measure proposed by Talhelm et al. (2014) to measure executive individualism. This is the first paper to apply such a measure in the context of corporate governance. To the best of our knowledge, our study is the first paper linking excess perk consumption to executives' individualistic culture, which shapes the heterogeneity of executives to a great degree.

Second, this paper contributes to studies on the role of individualism in corporate activities. By taking advantage of Hofstede's individualism index (Hofstede, 2001), Chui et al. (2010), Eun et al. (2015), and An et al. (2018) examined the impact of individualism on trading, profits, stock prices, and potential crash risk across countries. However, this index fails to measure various levels of individualism across regions within a country.[2] Our paper overcomes this issue by constructing an individualistic culture index in China based on the rice index proposed by Talhelm et al. (2014). This index is adopted for the first time in empirical work on corporate governance and could provide a new method for future research on individualistic cultures.

Third, this paper provides new evidence on the role of corporate culture in corporate governance in the context of developing countries. Zingales (2015) indicated that studying corporate finance from the perspective of culture is bringing a "cultural revolution" to finance. Many studies have confirmed that culture has an important influence on corporate behaviors (Li et al., 2016; Dass et al., 2017; Cai and Shi, 2019; Fisman et al., 2019). All of these papers lack a discussion of the role of individualism, the most important component of corporate culture. Thus, the conclusion of our paper provides novel

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[2] Other indices, such as the index of Schwartz (1994, 2004), Global Leadership and Organizational Behavior Effectiveness (GLOBE) (House et al., 2004), and World Values Survey (WVS) (Ahern et al., 2015), also fail to measure the variety of individualism within a country.

evidence on how executive individualism affects excess perk consumption in China, the largest developing country.

The rest of our paper is organized as follows. Section 2 presents the background and hypothesis development. Section 3 demonstrates the theoretical framework. Section 4 reviews the literature and illustrates the main hypothesis. Section 5 describes our research design. Our empirical results and discussion are presented in Section 6. Section 7 concludes. The detailed variable definitions are in Appendix A.

2. Background

Current studies show that corporate culture is crucial in corporate governance. Williamson (2000) concludes that culture, as an informal institution, has a wide and profound effect on formal systems such as politics and laws, and they further influence corporate executives' beliefs and economic behaviors (Williamson, 2000). For instance, religion has an important influence on corporate finance, such as using less debt financing and receiving better credit ratings, reducing corporate misconduct, and decreasing risk taking (Cai and Shi, 2019; Chen et al., 2013; Adhikari and Agrawal, 2016). In addition, Zingales (2015) indicates that studying corporate finance from the perspective of culture represents a "cultural revolution" in finance due to the failure of traditional economic models adopting the "homo economicus" assumption. Consequently, it is of enormous theoretical and practical significance to research the influence of corporate executives' cultural characteristics.

Previous studies have shown the clear importance of cultural differences among different countries (Ahern et al., 2015; An et al., 2018). For instance, Darwish and Huber (2003) conducted a survey in Germany and Egypt and found that marked differences in individualism and collectivism exist in different areas. We focus our research on China's environment, where all areas have basically the same political system and legal system, minimizing the disturbance of these factors in the cultural impact on financial issues. The cultural differences in China mainly have resulted from climate, geographical features, historical development and so on, providing a good research background for further analysis.

In addition to the current status of the abovementioned cultural studies in China, China's perk consumption also has its own unique characteristics, which need to be further studied. Monetary compensation for Chinese executives consists of base salaries and cash bonuses rather than equity-based executive compensation schemes, such as stock options and performance-based stock grants. In this context, excess perk consumption has been a tradition; it constitutes an important component of compensation under the corporate culture of China in consideration of the relatively low salary because of regulatory restrictions on executive cash compensation (Gul et al., 2011; Luo et al., 2011).

In China, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) defines the perk consumption of executives as "consumer expenditures incurred by the person in charge of the enterprise to perform their duties and the benefits they enjoy" and points out that perk consumption mainly includes consumption related to the equipment and use of official vehicles, communications, business entertainment (including gifts), traveling, overseas inspections and training.

Excess perk expenses are voluntarily disclosed to the public in China. In fact, as reported by the media, quite a few scandals of excess perk consumption exist in Chinese companies. For instance, China Railway Construction Corporation, Ltd., disclosed in its annual report a considerable amount of business entertainment expenses in 2012, which were as high as 837 million Chinese yuan;[3] in 2013, President Zhou Shaoqiang of Gree Electric Appliances, Inc., was investigated by the SASAC for spending 37,000 Chinese yuan on one meal;[4] the chairman of China Resources Company (Holdings) limited was arrested following an investigation in 2014 after being accused of abuse of power and corruption. The investigation revealed that China Resources spent more than 2 million Chinese yuan on golf in one year as well as other problems related to excess consumption.[5]

The Chinese government has made corresponding efforts on this issue, such as the presentation of the eight-point regulation. The eight-point regulation ("八项规定" in simplified Chinese) is a document adopted by a meeting of the Political Bureau of the Communist Party of China (CPC)

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[3] See detailed information at http://news.sina.com.cn/c/2013-10-22/021928494558.shtml?bsh_bid=300501832.

[4] See detailed information at http://finance.sina.com.cn/focus/gelijituan_jiuyanmen/.

[5] See detailed information at http://house.people.com.cn/n/2015/0912/c164220-27574612.html.

Central Committee, the country's top ruling body, in 2012. This document sets out explicit requirements in eight aspects for Political Bureau members to improve their work style by focusing on rejecting extravagance and reducing bureaucratic visits, meetings and empty talk.

The Chinese government has also issued several documents to regulate the excess perk consumption behavior of corporate executives, especially executives at SOEs. Specifically, China's Ministry of Finance, the Ministry of Supervision and the National Audit Office issued and implemented "Interim Measures for the Administration of Position-related Consumption of Persons in Charge of Central Financial Enterprises" and "State-owned Enterprises Head Interim Measures for the Supervision and Administration of Consumer Behavior" in 2012. In addition, they printed the "Regulations on Rigorous Enforcement of Economy and Anti-Waste for the Party and Government Organs" in 2013, which prohibited the use of official cars for general use. Then, in 2014, the Political Bureau of the Communist Party of China Central Committee deliberated and approved "A Reform Plan for the Payment Packages of Executives of Central SOEs", which resolutely ended all types of consumption that are not related to business operations. The successive promulgation and implementation of these laws and regulations indicate that strictly controlling excess perk consumption and opposing extravagance and waste have become common concerns and an urgent problem to be solved by all of society.

3. Theoretical framework

The current studies suggest that perk consumption rises due to agency problems. On the one hand, excess perk consumption is evidence of poor corporate governance when top managers misappropriate a firm's surplus (Jensen and Meckling, 1976; Yermack, 2006; Andrews et al., 2017). On the other hand, it can also be a component of an optimal employment contract that is designed to inspire higher productivity (Fama, 1980; Rajan and Wulf, 2006; Marino and Zabojnik, 2008). Unbridled excess perk consumption not only wastes shareholders' wealth and damages the value of the enterprise but could also produce a hotbed of corruption.

An individualist CEO cares more about his or her private ends and thus has a higher incentive to take advantage of the firm (Jensen and Meckling, 1976; Singelis et al., 1995; Kulkarni et al., 2010).

Consistent with the information asymmetry assumption, Li et al. (2020) suggest that due to the high level of information asymmetry and high cost related to monitoring managerial actions, executives of widely dispersed companies have more opportunities to consume, which leads to excess perk consumption.

The function of individualism can be described as follows. First, an individualist CEO is overconfident and optimistic about his or her ability (Markus and Kitayama, 1991; Chui et al., 2010; An et al., 2018). Overconfident managers often attribute firms' high performance to their own efforts, so they seek high compensation incentives (Shefrin, 2001) and pursue high perk consumption (Liu and Qi, 2019). They are inclined to believe that the board of directors, other employees of enterprises and even government regulators will not easily discover their excessive consumption behaviors, and they thus consume unscrupulously. Thus, higher individualism might lead to a higher level of overconfidence and hence more excess perk consumption.

Second, individualism might lead to a greater involvement in earnings management. This is because firm insiders tend to report the most optimistic case allowed by institutions in a highly individualistic social culture (Gray, 1988; Han et al., 2010). Meanwhile, to make perk consumption reasonable, executives tend to manipulate the firm's earnings (Shi and Fan, 2017). Thus, individualistic executives engage in more earnings management, thus further increasing excess perk consumption. In addition, compared with a collectivistic culture, an individualistic culture provides managers with more freedom to innovate and more opportunities to try new things (Martins and Terblanche, 2003; Hartmann, 2006).

Third, an individualist CEO is often considered a risk-taking leader who engages in many innovation activities (Kaasa and Vadi, 2010). Meanwhile, to guarantee enough capital for investments, a CEO may use business entertainment expenses, traveling expenses, company car expenses and so on to maintain a good relationship with banks or other stakeholders. Thus, more capital and hence more (excess) perk consumption is needed.

According to the research and development of the rice theory of culture and its methodology by Talhelm et al. (2014), we have the ability to measure the existence and differences between collectivistic and individualistic cultures within China. The theory suggests that people in areas with

a long history of rice cultivation tend to be more collectivistic than people in areas with a long history of wheat cultivation. Interdependence on agriculture is an important part of cultural development. Previous studies have also shown that people engaged in interdependent agricultural activities are more collectivistic, as distinguished from independent activities such as hunting, fishing and herding (Nisbett et al. 2001).

In the rice theory, the index is calculated based on the percentage of rice paddies of total cultivated land in each area. Since paddy rice requires both elaborate irrigation systems and an extraordinary amount of work, farmers in rice villages form cooperative labor exchanges. In comparison, wheat does not need to be irrigated and is easy to grow, so wheat farmers do not closely coordinate with their neighbors. Talhlem et al. (2014) empirically suggest that wheat-growing northern China is less interdependent and holistic-thinking than the rice-growing south. Following this argument, a CEO whose hometown grows more rice should have a higher level of individualism relative to one whose hometown grows more wheat.

4. Literature review and hypothesis development

4.1 Literature review

The impact factors of perk consumption can generally be divided into external governance and internal governance, including audit supervision (Gul et al., 2011), institutional investor shareholding (Claessens et al., 2002), the mechanism of cash shares (Luo and Huang, 2008), media supervision (Zhai et al., 2015), board structure (Andrews et al., 2017), and so on. However, these studies are based on the traditional assumption of "homo economicus", in which people behave in exactly the same way. Such an assumption has been shown to be incorrect in many scenarios. Thus, investigating the influencing factors of excess perk consumption from the perspective of the personal characteristics of executives has emerged.

When investigating executives' characteristics, the literature has shown the significant roles of age, managerial power, poverty experience, foreign experience and academic experience (Yermack, 2006; Zhang et al., 2015; Xu and Li, 2016; Dai, 2019; Zhang et al., 2020). Yermack (2006) suggests that older CEOs are more likely to make personal use of company aircraft than younger CEOs, which

is either due to health concerns or the opportunism of taking advantage of perk consumption at the end of one's career. Zhang et al. (2015) show that Chinese companies with moderate ownership tend to support an incentive view that the use of perks as an incentive is ethical. Xu and Li (2016) document that poverty experience cultivates a CEO's sense of social responsibility, leading to a lower level of perk consumption. Dai (2019) investigated the impact of returnee managers on Chinese firms' performances in overseas markets. Zhang et al. (2020) show that academic experience can enhance CEOs' moral consciousness and moral self-discipline, and hence, scholarly CEOs have a lower level of excess perk consumption. However, as a main characteristic of executives and corporate culture, the role of individualism on excess perk consumption is seldom studied.

When linking individualism to corporate activities and governance, the index most commonly used is the index developed by Hofstede (1980) based on a survey involving more than 120,000 respondents from different countries.[6] By applying this index, Geletkanycz (1997) points out that the greater the individualist values related to the national culture of executives, the greater the commitment of executives to the status quo. Chui et al. (2010) suggest that the momentum effect is significantly higher in the top-ranked countries on the individualism index. Eun et al. (2015) find that stock prices exhibit comovement less in culturally loose and individualistic countries. An et al. (2018) suggest that companies located in countries with a high degree of individualism take on a higher risk of stock price collapse. There are other indices that can be used to measure individualism, such as the index developed by Schwartz (1994, 2004), Global Leadership and Organizational Behavior Effectiveness (GLOBE) (House et al., 2004), and the World Values Survey (WVS) (Ahern et al., 2015). However, all of these indices fail to measure various levels of individualism across regions in a single nation. As a result, studies on the effect of individualism in a single country are limited. Instead, our work constructs an individualistic index by using a rice index (Talhelm et al., 2014), which varies across different regions in China.

Current studies also document the importance of corporate culture in the context of China. Fisman et al. (2019) find that the chairperson will reduce M&A activity and R&D investment during his or her zodiac year when he or she holds a belief that he or she will have bad luck according to

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[6] Hofstede (2001) divides cultures into five dimensions, including power distance, uncertainty avoidance, individualism and collectivism, masculinity and femininity, and long-term orientation and short-term orientation.

traditional Chinese culture. Li et al. (2016) also find that sin culture (e.g., alcohol consumption) is associated with earnings management: when located in a place where alcohol plays a greater role, companies are associated with more earnings management. Chen et al. (2020) find that materialism, as a cultural construct, can influence the corporate supply of trade credits. Jin et al. (2021) investigated the impact of management geographical proximity on stock price crash risk, finding that this relationship is more pronounced when the company is located in areas with stronger Confucian culture. However, there is little research on the influence of Chinese individualistic culture, the most important component of corporate culture, on corporate governance.

4.2 Hypothesis development

We hypothesize the effect of individualism on excess perk consumption as follows: if a corporate executive is more likely to be an individualist, then he or she will care more about himself/herself and thus enhance his or her welfare by taking advantage of his or her power and increasing his or her excess perk consumption.

Individualism emphasizes individual goals and rights. In general, personal rewards and benefits are the goals of an individualist who acts on his or her own judgment, maintains and uses the product of his or her efforts, and pursues the values of his or her choice. Collectivism, by contrast, focuses on group goals and what is best for personal relationships and the collective group. Sometimes, collectivists may sacrifice their own values and goals for the "greater good" of the collective. Following the argument of Jensen and Meckling (1976), if a corporate executive is more likely to be an individualist, then he or she will care more about himself/herself and thus enhance his or her welfare by taking advantage of his or her power and increasing his or her excess perk consumption. Additionally, he or she could increase private benefits by exchanging resources with those in his or her own social network but outside of the firm. In addition, he or she may not consider that his or her action will bring harm to the interests of the corporation and his or her colleagues.

Moreover, an individualistic culture encourages the tendency of individualists to be overconfident and overly optimistic (Markus and Kitayama, 1991; Chui et al., 2010; An et al., 2018). Due to the cognitive limitations of overconfidence and overoptimism, executives with high

individualism tend to overestimate their ability to conceal unnecessary expenditures that are diverted to their private ends in perk consumption through earnings management (Shi and Fan, 2017; Liu and Qi, 2019). Additionally, overly optimistic executives are often blindly optimistic about their management abilities and fail to correctly evaluate the performance of firms. Overconfident managers often attribute firms' high performance to their own efforts, so they seek high compensation incentives (Shefrin, 2001) and pursue high perk consumption (Liu and Qi, 2019). These executives believe that even if they misuse firms' resources, they can offset the negative impact by improving the firm's future performance. Thus, higher individualism might lead to a higher level of overconfidence and hence more excess perk consumption.

Note that individualism could affect excess perk consumption through the mediating effect of earnings management. Gray (1988) and Han et al. (2010) suggest that firm insiders tend to report the most optimistic case allowed by institutions in a highly individualistic social culture. Additionally, Shi and Fan (2017) show that executives masquerade perk consumption to be reasonable by manipulating firms' earnings. In a limited period of serving as executives, individualist executives always have an incentive to divert more benefits. They usually move future profits to the current period by means of accrual earnings management or manipulate real earnings management to release future profits in advance so as to falsely increase current profits and increase the budget for perk consumption. Thus, individualistic executives could increase excess perk consumption by engaging in more earnings management.

Furthermore, a CEO with a higher level of individualism is normally a risk-taking leader who is actively involved in many innovation activities (Kaasa and Vadi, 2010), such as mergers and acquisitions, research and development activities, and patent applications. To guarantee enough capital for investments in these innovation activities, a CEO could use business entertainment expenses, traveling expenses, company car expenses and so on to maintain good relationships with banks or other stakeholders. Thus, more capital and hence more (excess) perk consumption is needed.

Based on the aforementioned discussions, we formalize the following hypothesis:

H1: *Higher individualism results in higher excess perk consumption.*

5. Research design

5.1. Data and sample selection

The primary dataset used in this paper includes a panel of Chinese firms listed on the Shenzhen and Shanghai Stock Exchanges over the years 2008 to 2017.[7] The individualism index is calculated according to the data from the National Bureau of Statistics of China website. We obtain area demographic data from the National Bureau of Statistics of China website, the China Securities Markets and Accounting Research Database (CSMAR), and, when necessary, from the statistical yearbooks for each area. Financial statement data are obtained from the CSMAR and the Chinese Research Data Services Platform (CNRDS).

We restrict our sample to nonfinancial firms, as is standard in the literature. We exclude financially distressed firms that are subject to special treatment (*ST and ST) or particular transfer (PT).[8] In addition, we exclude firms that are incapable of offsetting debts with assets and firm-year observations that lack sufficient information to calculate excess perk consumption. In our analysis, foreign CEOs are excluded from our sample. This is because 1) the proportion of foreign CEOs is very small, and 2) our key measure does not reflect their individualism. In total, our sample consists of 5,181 firm-year observations. To mitigate the impact of outliers, we winsorize all continuous variables at the 1% level in both tails in all of our main analyses, and our robustness test results indicate similar findings for nonwinsorized data, which are not listed in this paper to save space. We report the detailed steps in Table 1.

5.2. Measurement variables

5.2.1. Measure of individualism index

We use the rice index proposed by Talhelm et al. (2014) as a measure of individualism, which refers to the rice index of the hometown of the CEOs at each firm. The rice theory argues that some

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[7] Since there were insufficient data on excess perk consumption or CEOs' place of birth that were voluntarily disclosed to the public before 2008, our analysis starts from 2008.

[8] According to Chinese regulations, if a company has earned negative profits for two consecutive years, then ST is added as a prefix to its initials to alert investors about significant risks (for example, a company can be listed as ST ZhongPu instead of ZhongPu). If the net profit of an ST company in the third year is negative, then an asterisk is put before the abbreviation (for example, *ST ZhongPu). If a listed company has suffered losses for three consecutive years, then the listing of its shares is suspended. For these suspended shares, which are known as PT shares, there is a special transfer service.

forms of subsistence require more functional interdependence (such as farming rice) than other forms (such as farming wheat). The two largest differences between farming rice and wheat are irrigation and labor needs. Paddy rice requires both a large amount of work and elaborate irrigation systems, forcing farmers to cooperate and exchange labor. In contrast, wheat is easy to grow and does not need to be irrigated, so coordination among neighbors does not matter much. As a result, wheat-growing northern China would be less interdependent and holistic-thinking than the rice-growing south. This argument is empirically verified by Talhlem et al. (2014). In their study, the rice index was calculated by using the data from 1996, which are the earliest publicly available in China. We want to assess the farming traditions across different regions rather than figures affected by recent advances in farming, which is the same argument as that of Talhlem et al. (2014). Since the level of rice paddies varies across regions, we should expect the level of individualism to also vary across regions. Following this argument, a CEO whose hometown grows more rice should have a higher level of individualism relative to the one whose hometown grows more wheat.[9]

The rice index is the percentage of rice paddies in the total cultivated land in each area. We calculate this index by using the data from 1996, which are available on the Bureau of Statistics website. The specific expression is as follows:

$$Rice\ index = rice\ paddies/cultivated\ land\ in\ each\ area \qquad (1)$$

where cultivated land consists of rice paddies and wheat paddies. Therefore, the value of the rice index is between zero and one. For the sake of analysis, we reconstruct the independent variable *IDV_ceo* by multiplying the rice index score by -1. In this setting, when the value of the independent variable *IDV_ceo* is greater, a CEO has higher individualism.

5.2.2. Measure of executive excess perk consumption

Perk consumption includes not only the abnormal expenditures for executives to obtain nonmonetary private gains but also the normal or necessary expenditures to meet the needs of business development (Cai et al., 2011). The above two parts should not be confused but must be reasonably distinguished. The variable that we are interested in, i.e., the excess perk consumption, is

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[9] Another most commonly used potential measure of the individualism is proposed in Hofstede's culture framework (Hofstede, 2001). Hofstede's index is calculated at the national level. Since our study is within a single country across different provinces, the individualism in Hofstede's framework is not appropriate in our study.

defined as the part of perk consumption that exceeds the normal or necessary expenditures. Following Gul et al. (2011) and Xu et al. (2014), in our study, excess perk consumption is defined as the part of perk consumption that exceeds the normal or necessary expenditures.

We obtain executives' perk consumption information from the CNRDS, including business entertainment expenses, traveling expenses, work-related expenses, communication expenses, board meeting expenses, company car expenses, overseas training expenses, and meeting expenses. These items are called "other cash flows related to operating activities" in the statement of cash flows in the annual reports of Chinese listed firms. Following Cai et al. (2011) and Gul et al. (2011), we use executives' perk consumption amount scaled by the prime operating revenue, i.e., *TotalPerk/Sales*, as the proxy variable of the overall perk consumption level.[10] In addition, similar to Gul et al. (2011) and Xu et al. (2014), we remove communication expenses and work-related expenses, which might not be sufficiently related to perk consumption. Consequently, the overall perk consumption, *TotalPerk/Sales*, consists of the remaining six items only for further analysis.

Following Gul et al. (2011) and Xu et al. (2014), we use the following model to estimate the excess perk consumption:

$$TotalPerk/Sales = \beta_0 + \beta_1 LnAsset + \beta_2 LnTotalComp + \beta_3 LnTotalIncPerCap +$$
$$\text{Year\_fixed\_effect} + \text{Industry\_fixed\_effect} + \varepsilon \qquad (2)$$

where *TotalPerk/Sales* is the sum of the aforementioned six expense categories scaled by the prime operating revenue, *LnAsset* is the natural logarithm of total assets, *LnTotalComp* is the natural logarithm of total compensation for all employees in firm, and *LnTotalIncPerCap* is the natural logarithm of total income per capita in firm location. The residuals from Eq. (2) are our variable of interest, excess perk consumption (*Perk*).

5.2.6. Control variables

The control variables in our paper consist of CEO characteristic control variables, firm-level financial control variables, firm-level governance control variables, an industry-related control

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[10] Due to the limitations of the information disclosure rules of listed companies in China, accurate perk consumption information cannot be directly obtained from corporate financial reports.

variable, and area characteristic control variables. The details of the variable definitions are presented in Appendix A.

The CEO characteristic control variables consist of the CEO's age (*LogAgeCeo*), gender (*Gender*), religious beliefs (*Ceobelief*), academic background (*AcaBg*), overseas background (*OvsBg*), duality (*Dual*), educational background (*EduBg*), and payment (*Pay*).

The firm-level financial control variables consist of firm size proxied by logarithmic total assets (*LogAsset*), financial leverage (*Leverage*), basic return per share (*Return*), Tobin's Q value (*Q*), cashflow scaled by total assets (*Cashflow*), and sales growth (*SalesGrowth*).

The firm-level governance control variables include the shareholding ratio (*Shareholding*), board size (*LogBoard*), the percentage of independent directors (*Indirector*), the logarithmic age of the firm (*LogAgeCompany*), and the proportion of state-controlled shares (*SharesState*).

The area characteristic control variables consist of the logarithmic total number of firms (*Total*), wages (*Wage*), per capita disposable income (*Income*), local financial education expenditures (*Education*), and GDP growth where the firm is located. Furthermore, we use the Herfindahl-Hirschman Index (*HHI*) to characterize the industry-related control variable. Detailed definitions of all variables are shown in Appendix A.

5.3. Empirical strategy

5.3.1 Baseline model

To investigate the effect of executive individualism on excess perk consumption (**H1**), we specify a baseline model as follows:

$$Perk_{i,t+1} = \beta_0 + \beta_1 \times IDV\_ceo_{i,t} + X \cdot \gamma + \text{Year\_fixed\_effect} + \text{Industry\_fixed\_effect} + \varepsilon_{i,t+1} \quad (3)$$

where $Perk_{i,t+1}$ is the excess perk consumption of firm i in year $t+1$. $IDV\_ceo_{i,t}$ is the executive individualism of firm i in year t. X is the vector of all control variables, whose coefficients are in vector γ. $\varepsilon_{i,t+1}$ represents the error term.

6. Empirical results and discussion

6.1. Descriptive statistics

The summary statistics of the dependent variables, independent variables, and control variables are displayed in Panel A of Table 2. The average value of the excess perk consumption (*Perk*) is approximately -0.01 in our sample, while the maximum value is 6.80, and the minimum value is -1.52. This observation indicates that excess perk consumption varies considerably across enterprises. For the individualism index (*IDV_ceo*), the mean value is -0.49, with a range from -0.96 to 0. Panel B of Table 2 presents the excess perk consumption in the high- and low-individualism subsamples based on the individualism index. The high- (low-) individualism subsamples with an individualism index (*IDV_ceo*) greater (smaller) than the median of all CEOs' individualism data. We find that in each subsample, the mean of excess perk consumption is obviously significantly higher in firms with high-individualism CEOs than in firms with low-individualism CEOs. This finding gives preliminary support to our hypothesis.

6.2. Baseline results

The baseline regression results are reported in Table 3. The year and industry fixed effects are included in all regressions. Column (1) shows that the coefficient associated with *IDV_ceo* is 0.253, which indicates that *IDV_ceo* positively affects excess perk consumption at the 1% significance level. Furthermore, we control for firm-level financial variables, firm-level governance variables, industry-related variables, CEO characteristic variables and area characteristic variables. Columns (2)-(6) show the results with different control variables. All the coefficients associated with *IDV_ceo* are positive in Columns (2)-(6) at the 1% significance level. These results are in accordance with the findings in Panel B of Table 2. These findings support our hypothesis (**H1**), that is, higher individualism results in higher excess perk consumption.

We further investigate the potential sources from which an individualist CEO could increase his or her excess perk consumption. We conduct regressions by changing the dependent variable to business entertainment expenses (*Beexp*), traveling expenses (*Texp*), overseas training expenses (*Otexp*), board meeting expenses (*Bmexp*), company car expenses (*Ccexp*), and meeting expenses (*Mexp*). The corresponding results are shown in Table 4. In Columns (2), (5), and (6), significant

coefficients imply that traveling, company car, and meeting expenses are the main sources from which an individualist CEO could gain a high excess perk consumption.

6.3. Tests for potential mechanisms

We now test potential mechanisms that are proposed in the theoretical framework to explain the significant estimate of our baseline regression.

6.3.1. Individualism and overconfidence

In this subsection, we test whether overconfidence is a potential channel to explain the relationship between executive individualism and excess perk consumption. We adopt the executive's payment scaled by the total payment of all managers in the firm as the measurement (*Con*).[11] This measure represents the relative proportion of the executive payment. The higher the payment of the executive relative to other managers in the firm, the more important the status of the executive is and the easier it is to be overconfident (Hayward and Hambrick, 1997).

To test the mediation effect, we focus on the interaction term between *IDV_ceo* and *Con*. The coefficient of this interaction measures the mediating effect of earnings management. Column (1) of Table 5 reports the associated results. The coefficient on *IDV_ceo*Con* is significantly positive, indicating that the effect of individualistic executives on excess perk consumption is higher when a CEO's overconfidence level increases.

6.3.2. Individualism and earnings management

We now test the mediating effect of earnings management. We adopt the absolute value of discretionary accruals (*DA*) as the measure of earnings management, which is computed by using a modified Jones model (Dechow et al., 1995).[12] We introduce earnings management as well as the product term between the individualism index and earnings management into our baseline regression. The estimate of this interaction term measures the mediating effect of earnings management.

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[11] The data are from the CSMAR.
[12] The data are from the CSMAR.

The results of the mediation effect are demonstrated in Column (2) of Table 5, which suggests a positive coefficient on *IDV_ceo*DA*. Thus, we conclude that individualistic executives increase excess perk consumption because of higher individualism levels, leading to more earnings management. In addition, the coefficient associated with *IDV_ceo* is still positive at the 1% significance level.

6.3.3. Individualism and risk-taking behaviors

We now verify whether increased excess perk consumption is due to the demand for high investment in innovation activities from a risk-taking CEO. We construct the interaction terms between *IDV_ceo* and *M&As*, *R&Ds*, and *Patents*. Then, we introduce *M&As* and its associated interaction term, *R&Ds* and its associated interaction term, and *Patents* and its associated interaction term into our baseline regression.

The associated results are shown in Columns (3)-(5) of Table 5. The nonsignificant coefficients of all interaction terms suggest that the increased excess perk consumption is not due to the demand for high investment in innovation activities from a risk-taking CEO. Therefore, we exclude this explanation for the positive effect of executive individualism on excess perk consumption in our analysis.

6.4. Robustness

6.4.1. Instrumental variable approach

Reverse causality is a potential concern of endogeneity in our analysis, although the rice index is calculated from the data in 1996, which were recorded many years before the beginning of our sample. This is because firms with high potential perk consumption could attract CEOs with high individualism.[13]

We adopt three instrumental variables to mitigate this concern: 1) the *average precipitation at the provincial level in 1995* (*Prcp*); 2) *the average temperature at the provincial level in 1995* (*Temp*); and 3) a dummy variable, *North*, which indicates whether a CEO's hometown is located north of the

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[13] We thank an anonymous referee for addressing this concern.

Qinling-Huaihe Line.[14] These variables are valid instrumental variables for the following reasons. First, both precipitation and temperature are main climatic factors affecting the distribution of rice and hence local culture (Duan and Zhou, 2011; Tao et al., 2012, 2013; Campante and Do, 2014); both are positively correlated with rice planting, which is beneficial to the growth of rice, a temperature-loving and moisture-loving crop. Second, rice is mainly cropped in southern China, where the average precipitation and temperature are higher, while wheat is mainly cropped in northern China. Thus, all three variables satisfy *instrument relevance*. Third, none of these three variables is affected by the characteristics of listed firms, and hence, *instrument exogeneity* is satisfied. We conduct several 2SLS estimations by applying these three instrumental variables, and the corresponding results are shown in Table 6.

Panels A, B, and C of Table 6 demonstrate the 2SLS estimations by applying *Prcp*, *Temp*, and *North* as the instrumental variables, respectively. The results in Columns (1)s of Panels A, B, and C show that the higher the average precipitation or the average temperature is, the lower the rice index, and compared to southern China, the northern area has a higher rice index. The results in Column (2)s of Panels A, B, and C are consistent with the conclusion from our baseline regression. Panel D of Table 6 displays the 2SLS estimation by including all three instruments, in which the results are also consistent with our main results. In addition, our test result does not suggest an overidentification problem in this estimation.

6.4.2. DID approach

We also adopt the following DID approach to mitigate other endogeneity issues. Note that changes in a CEO's excess perk consumption will not lead to changes in the present CEO's individualism but may affect the hiring of the next CEO of the firm. Companies with lower levels of executive excess perk consumption may be more inclined to hire executives with lower levels of individualism. Therefore, we take the events of the mandatory change of CEOs as the research scenario, and we then employ the DID approach to investigate the impact of a CEO's individualism on excess perk consumption. The model is as follows:

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[14] This dummy equals to 1 if a CEO's hometown is north of Qinling-Huaihe Line, which is a reference line used by geographers to distinguish between northern and southern China, and is 0 otherwise.

$$Perk_{i,t+1} = \beta_0 + \beta_1 \times Change\_mandatory \times Treat_{i,t} + \beta_2 \times Change\_mandatory_{i,t} +$$

$$\beta_3 \times Treat_{i,t} + X \cdot \gamma + \text{Year\_fixed\_effect} + \text{Industry\_fixed\_effect} + \varepsilon_{i,t+1} \quad (4)$$

$Perk_{i,t+1}$ is the CEO's excess perk consumption for firm i in year $t+1$, which is the same as the baseline regression. $Change\_mandatory_{i,t}$ is a dummy variable that equals 1 if the CEO in firm i is mandatorily replaced in year t and equals 0 otherwise.[15] $Treat_{i,t}$ is an indicator with three possible values equal to 1(-1) if a CEO with low (high) individualism is replaced by another CEO with high (low) individualism for firm i in year t and equal to 0 otherwise. X is the vector of the control variables whose coefficients are in vector γ. $\varepsilon_{i,t+1}$ represents the error term. We focus on β_1, which measures the incremental impact of individualism on excess perk consumption.

β_1 is significantly positive if CEOs with high individualism indeed have a higher level of excess perk consumption. In our sample, we observe 786 mandatory changes in CEO positions. Specifically, there are 21 changes from the high- to low-individualism group, 296 changes from the low-to-high-individualism group, and 469 changes within the same group.

The findings are demonstrated in Table 7, in which the coefficient associated with the interaction term $Change\_mandatory \times Treat_{i,t}$ is positive at the 5% significance level. Thus, in the event of a mandatory change of CEOs, a shift to a more individualistic CEO significantly increases the level of excess perk consumption. These conclusions further support Hypothesis **H1**.

6.4.3. Sample selection bias

We adopt the Heckman two-stage test to alleviate the possible self-selection bias. Because perk consumption data are voluntarily disclosed by firms in China, we have the following first-stage model:

$$if\_Perk_{i,t+1} = \beta_0 + \beta_1 \times IDV\_ceo_{i,t} + X \cdot \gamma + \varepsilon_{i,t+1} \quad (5)$$

where $if\_Perk_{i,t+1}$ is a dummy variable that equals 1 if the perk consumption data are disclosed by firm i in year $t+1$ and 0 otherwise. Other variables are the same as those in the baseline regression (3).

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[15] The reasons for CEOs to change can be expressed as "job transfer", "retirement", "expiration of the term", "change of controlling shares", "resignation", "dismissal", "health reasons", "individual", "improve the corporate governance structure", "involved", "end of agency", "death", and "other". We believe that "job transfer" is largely related to the subjective will of the CEO. Therefore, we remove "job transfer", "resignation"，"individual" and "other" and consider the remaining reasons as the mandatory changes of CEOs. "Retirement" is excluded in Column (1) of Table 7. "Job transfer", "retirement", "expiration of the term", "resignation", "individual", and "end of agency" are excluded in Column (2) of Table 7. If there are frequent CEO changes within a year for a company, then we consider only the first change. The data come from CSMAR.

Then, the inverse Mill's ratio (*lambda*) obtained after the probit regression of Model (5) is added to Model (3) as a control variable. The Heckman two-stage test results are displayed in Table 8. We find that the coefficients associated with variable of interest *IDV_ceo* are positive at the 1% significance level, indicating that the results in our paper are not affected by the problem of sample self-selection.

6.4.4. Omitted variable bias

In addition, we re-estimate the baseline regression by including extra control variables that influence excess perk consumption to eliminate omitted variable bias.

First, reciprocal behavior in a social network might affect excess perk consumption. Individualist CEOs also include those diverting resources from firms to people in their own social network but outside of their firms. This behavior could increase private benefits by reciprocal behaviors: if an in-group member receives an expensive gift from other in-group members, he or she will respond by giving back a gift with a similar or even greater value. Failure to do so may break up a relationship with one's social network. This is a key way that people mobilize resources and seize opportunities (Plickert et al., 2007). Thus, such reciprocal behavior promotes excess perk consumption.

Therefore, we control for CEOs' alumni networks. Alumni will abide by the principle of mutual benefit and reciprocity based on their close feelings for each other (Gibbons, 2004; Plickert et al., 2007). Following Freeman (1978) and Shen et al. (2015), we construct the following index (*Alumni*) to measure alumni networks:

$$Alumni = \sum_j X_{i,j} / (g - 1) \tag{6}$$

where i is the CEO at the firm, j is senior executives at other firms in the same year, and $X_{i,j}$ is the network connection, which equals 1 if they are alumni and 0 otherwise.[16] g is the total number of network nodes (executives) in one year. The higher the index value is, the richer and wider the alumni relationship resources of the CEO are.

The associated results are reported in Columns (1) and (2) of Table 9. We show that the alumni relationship of a CEO promotes excess perk consumption to some degree with a nonsignificant

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[16] The data of alumni networks are derived from CSMAR. We measure executives by the university from which they graduated with the highest degree. If the CEO graduated from more than one university at the same time, $X_{i,j}$ will be added up.

positive coefficient. After controlling for the alumni relationship, CEOs' individualism still positively influences excess perk consumption.

Second, we consider the supply factors that could potentially affect excess perk consumption. For instance, if there is a local culture of having a luxury dinner before signing contracts, then the excess perk consumption will increase even if the CEO does not have a strong preference for perk consumption. We control for this kind of culture and supply factor by the tobacco and alcohol transactions per capita in the region where the firm is located (*TobAlco*).[17]

The associated results are reported in Columns (3) and (4) of Table 9. In the region where the culture of smoking and drinking is flourishing, the excess perk consumption is higher. It is also noteworthy that the coefficients on the individualism variable are significantly positive, indicating that CEO individualism increases excess perk consumption.

Third, the individualism in the region where the firm is located may also influence the excess perk consumption. Equivalently, the external cultural environment may play an important role in business activities, as mentioned by Gloria and Garry (2011) and Dong et al. (2018). People have a strong tendency to associate with those who are similar to them and are happy to approach those who share similar values and behavioral and intrapersonal characteristics, leading to homogenous social networks (Mcpherson et al., 2001). Consequently, we employ the rice index of firms' location (*IDV_region*) in the same way and control for this factor in our test.

The associated results are reported in Columns (5) and (6) of Table 9. We find that the coefficients associated with *IDV_region* are positive in both columns, indicating that excess perk consumption rises when the firm is located in high-individualism regions. Controlling for the *IDV_region*, CEO individualism still matters.

Fourth, other corporate cultural aspects, such as corporate corruption culture, may also have an impact on excess perk consumption. For instance, companies with high levels of corruption culture are likely to tolerate corruption and tend to engage in corporate misconduct behaviors, such as earnings management, option backdating, accounting fraud, and opportunistic insider trading (Liu, 2016). However, as the anti-corruption drive deepens, CEOs are less likely to rely on excess perk

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[17] The data of tobacco and alcohol transactions are derived from CNRDS.

consumption to gain improper benefits (Zhong et al., 2016). Thus, we now control for corporate corruption culture in our baseline regression, which is measured by a dummy variable indicating whether the company has anti-commercial bribery or anti-corruption measures (*Corruption*).[18] The associated results are reported in Columns (7) and (8) of Table 9, which suggest that our main results still hold after controlling for corporate corruption culture.

6.4.5. Alternative definition of CEOs

Both the chairpeople and CEOs compose the basic echelon of firms in China (Kato and Long, 2006). Generally, the chairperson is the legal representative of the organization and is responsible for the formulation of major strategic directions and decision-making. In contrast, the CEO is usually responsible for day-to-day operations and the achievement of business activities. Krause et al. (2015) find that the dual leadership structure of the chairperson and the CEO is similar to that of coleaders.

Noting the potential definitional differences that determine the CEO, we apply the alternative definition of the CEO in China. According to Kato and Long (2006) and Kong et al. (2020), a CEO is identified if at least one of the following characteristics is satisfied: (1) the chairperson is also a general manager; (2) the chairperson is on the firm's payroll; (3) the individual only serves as the general manager and is paid by the firm. Then, we recalculate the rice index for the newly identified CEOs. Finally, we reconduct the baseline regressions by using the recalculated executive individualism index, *IDV_ceoNew*.[19]

The robustness results are displayed in Table 10. The coefficients associated with *IDV_ceoNew* are positive at the 1% significance level in Columns (1) and (2) when the alternative definition is applied. Therefore, our baseline results are indeed robust.

6.4.6. Robustness tests for panel data

We employ two additional approaches for panel data robust regressions. Variables of interest are often serially correlated or cross-sectionally correlated in a panel data structure, leading to biased standard errors. First, we apply the Fama-Macbeth approach (Fama and Macbeth, 1973) to address

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[18] The data on whether the company has anti-commercial bribery or anti-corruption measures are derived from CNRDS.
[19] Chairperson's data are also from CSMAR, including age, gender, academic background, overseas background, duality, education background, and payment. Additionally, the aforementioned variables are replaced accordingly in the test when necessary.

potential cross-sectional series-related problems. This is an innovative two-stage approach that eliminates the effect of the correlation of residuals on the cross section on the standard error. In the setting of this paper, the CEO's rice index does not vary with time, so the potential cross-sectional series-related problems can be alleviated with the Fama-Macbeth approach. Second, we employ OLS regression with robust standard errors corrected for firm-level clustering to handle this problem (Petersen, 2009). Third, we employ robust standard errors corrected for CEO-level clustering. The robustness results are reported in Table 11. Our conclusion is still robust and tenable.

6.4.7. Synchronous regression

In Table 12, we investigate whether the effect of individualism on excess perk consumption will occur in the current year. The associated model is specified as follows:

$$Perk_{i,t} = \beta_0 + \beta_1 \times IDV\_ceo_{i,t} + X \cdot \gamma + \text{Year\_fixed\_effect} + \text{Industry\_fixed\_effect} + \varepsilon_{i,t} \quad (7)$$

All the variables have the same setting as Model (3) except that these variables are from the same year.

Synchronous regressions are employed; that is, we use the data of the dependent variable, independent variable and control variables in the same year t. Year and industry effects are controlled for in Column (2) of Table 12 but not in Column (1). Both coefficients associated with *IDV_ceo* are positive at the 1% significance level, which indicates a strong relation between individualism and excess perk consumption. Additionally, we control for lagged excess perk consumption in the above regression, showing that our results are still robust.

6.5. Additional analysis

In this section, we conduct a thorough inquiry of the heterogenous effect of individualism on excess perk consumption across several characteristics of CEOs or firms.

6.5.1. The impact of the eight-point regulation

In this section, we investigate how the eight-point regulation in China, which aims to prevent corruption and enterprises' luxury consumption, affects excess perk consumption in both SOEs and private enterprises.

The institutional environment caused by the legal system affects corporate governance and behavior (Porta et al., 1998). Thus, a change in the legal system and the policy environment is closely related to the economic development of enterprises. The Chinese government has attached unprecedented importance to rooting out corruption and enterprises' luxury consumption, with a series of normative policies successively issued since the 18th National Congress of the CPC. In December 2012, the eight-point regulation was issued by the government, which focused on combating extravagance and reducing bureaucratic visits, meetings and empty talk. In the following year, China's Ministry of Finance, the Ministry of Supervision and the National Audit Office also issued and implemented other documents to monitor the spending activities of corporate executives.

The significant effect of the eight-point regulation could be explained as follows. First, many executives in SOEs have political career ambitions and are appointed by the government and evaluated annually due to their performance. For these executives, political promotion incentives substitute for monetary incentives as well as perk compensation (Cao et al., 2019). However, it is rare for executives in private enterprises to have such opportunities and hence incentives in China, so they have a higher level of pay-performance sensitivity. Second, the Chinese government has long exercised considerable control over state-owned enterprises, and thus, the influence of executive individualism is not obvious. Since the regulations were introduced, SOEs with higher individualism have had stronger incentives to pursue political promotion and reduce perk consumption for a good public image (Wang et al., 2014). In contrast, executives in private enterprises do not have such constraints and can carry out projects according to their own will, leading to more space for earnings management.

We further apply the following DID estimation:

$$Perk = \beta_0 + \beta_1 \times After \times State + \beta_2 \times After + \beta_3 \times State + \boldsymbol{X} \cdot \boldsymbol{\gamma} + \text{Year\_fixed\_effect} + \text{Industry\_fixed\_effect} + \varepsilon_{i,t} \qquad (8)$$

where *After* is a dummy variable indicating whether the observation is after the eight-point regulation. It is 1 if the observation is after the eight-point regulation and 0 otherwise. We treat 2013 as the boundary (the data before 2013 as the *before group* and the rest as the *after group*) to perform regressions for the two periods. *State* is a dummy variable indicating whether the firm is a state-owned enterprise. It is 1 if the firm is state-owned and 0 otherwise. Thus, SOEs are in the treatment

group, and private enterprises are in the control group. All of the control variables in the main regression (3) are included.

The results of the DID estimation are shown in Column (1) of Table 13. The significantly negative estimate of the interaction term in regression (8) implies that the implementation of the eight-point regulation indeed lowered CEOs' excess perk consumption.

In addition, we investigate whether the effect of individualism also suffers a structural change after the eight-point regulation:

$$Perk = \beta_0 + \beta_1 \times After \times IDV\_ceo + \beta_2 \times IDV\_ceo + \beta_3 \times After + \beta_4 \times State + X \cdot \gamma + Year\_fixed\_effect + Industry\_fixed\_effect + \varepsilon \tag{9}$$

$$Perk = \beta_0 + \beta_1 \times After \times State \times IDV\_ceo + \beta_2 \times After \times State + \beta_3 \times After \times IDV\_ceo + \beta_4 \times State \times IDV\_ceo + \beta_5 \times IDV\_ceo + \beta_6 \times After + \beta_7 \times State + X \cdot \gamma + Year\_fixed\_effect + Industry\_fixed\_effect + \varepsilon \tag{10}$$

The estimate of $After \times IDV\_ceo$ in regression (9) measures the potential structural change in the effect of executive individualism after the implementation of the eight-point regulation. In regression (10), the estimate of $After \times State \times IDV\_ceo$ captures the aforementioned structural change among SOEs. This approach could not only be treated as a robustness test of our main analysis but also serve as evidence of the effect of the eight-point regulation exists.

We present the corresponding results in Columns (2) and (3) of Table 13. The negatively significant estimate of $After \times State \times IDV\_ceo$ confirms that the eight-point regulation indeed attenuates the effect of executive individualism on excess perk consumption. More importantly, it shows that such a reduction only occurs among SOEs.

6.5.2. CEOs' ages

We investigate whether the effect of older CEOs' individualism on excess perk consumption differs from the effect of younger CEOs' individualism. The literature suggests that CEOs' age is an important impact factor of excess perk consumption (Yermack, 2006). Note that when a CEO is older, the roots of his or her individualism are deeper. Thus, it is more difficult for an older CEO to change his or her style of behavior. Therefore, we expect that the individualism of older CEOs should affect excess perk consumption more pronouncedly.

The sample is divided into two groups according to whether CEOs' age is above 50 years or not. The regression findings are displayed in Table 14. The coefficient of individualism in the older CEO group is 0.458 and is positive at the 1% significance level, while in the younger CEO group, the coefficient associated with *IDV_ceo* is positive but not significant. Our results support the aforementioned discussion.

6.5.3. CEO gender

We now investigate the role of gender in the impact of individualism on excess perk consumption. Men and women have different intrinsic physical and psychological characteristics, and their level of individualism is also different, which leads to a difference in their behavior related to economic activities. For example, Powell and Ansic (1997) find that female executives have more conservative financial behaviors.

The regression results from the male and female subsamples are displayed in Columns (1) and (2) of Table 15, respectively. The coefficient estimate of *IDV_ceo* in the male subsample is 0.286, which is positive and significant, while the coefficient in the female subsample is 0.246 and not significant. Our results demonstrate that the positive correlation between individualism and excess perk consumption is more pronounced among male CEOs, while women's individualism may not be as strong as men's individualism. Note that the sample size for female CEOs is relatively smaller than that for male CEOs, and we should be cautious about interpreting this result.

6.5.4. CEOs' religious beliefs

As a part of informal institutions, religious beliefs sociologically and psychologically affect not only individuals' behaviors but also their economic activities. For instance, Stulz and Williamson (2003) report that investor protection differs across countries due to the different religious cultures. Barro and Mccleary (2003) draw the conclusion that religious beliefs positively impact economic growth. Although obvious differences between Eastern and Western religious beliefs exist, they usually exert a positive influence on religious groups by promoting positive personal qualities such as kindness, honesty, diligence and frugality. Therefore, we expect that the religious beliefs of CEOs will suppress the effect of individualism on excess perk consumption.

Based on the aforementioned argument, we include the data on the religious beliefs of CEOs.[20] The variable of interest, *Ceobelief,* measures the degree of religious belief of CEOs. It is a dummy variable that equals 1 if the level of CEO religious piety is higher than the median of all CEOs' religious piety and equals 0 otherwise. The subgroup regression results are shown in Columns (1) and (2) of Table 16. The coefficient of individualism in the group with a high level of religious piety is 0.185, and it is significant at the 5% level. For the group with a low level of religious piety, the coefficient associated with *IDV_ceo* is 0.612 and is significant at the 1% level. This finding supports our conjecture that the effect of executive individualism on excess perk consumption is more pronounced among those with lower levels of religious piety.

7. Summary and conclusion

We study the impact of executive individualism on excess perk consumption by employing a sample of 5,181 firm-year observations from 2008 to 2017 in China. We argue that if a corporate executive is more likely to be an individualist, then he or she cares more about himself/herself and thus has a higher level of excess perk consumption by taking advantage of his or her power. Our main findings support this hypothesis and suggest that the increased excess perk consumption is mainly from traveling, company car, and meeting expenses. We show that executive individualism is positively associated with both overconfidence and earnings management, leading to a higher possibility of misbehaving and hence a higher level of excess perk consumption. We exclude the explanation that the increased excess perk consumption is for the sake of high investment in innovation activities from a risk-taking CEO. After applying various methods to address potential endogeneity problems, our conclusion still holds.

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[20] The data come from a survey of executives at listed Chinese companies conducted by a research group on the internal control of listed companies in 2014. This group was led by the Listing Department of the China Securities Regulatory Commission and was composed of data from the Research Center for Internal Control of Enterprises, the Non-profit Organizations of Sun Yat-sen University, the Accounting Department of the China Securities Regulatory Commission, the Association of Listed Companies of China, the Shenzhen Stock Exchange, the Shanghai Stock Exchange, Shenzhen Dubo Enterprise Risk Management Technology Co., Ltd., and other organizations. This survey was mainly aimed at investigating the belief, risk appetite, optimism, integrity, and organizational identification of executives at listed Chinese companies, which was conducted through a questionnaire. The belief-related question refers to the familiarity of the religious representative book, which is designed based on the principle of the Likert scale and assigned 1, 2, 3, 4 or 5 points separately. When the score is higher, the CEO is more familiar with the representative religious book. By taking advantage of the data, we construct the CEOs' belief index by using the natural logarithm of the score. A higher value is associated with a high level of religious piety.

Our results also suggest heterogeneity in the effect of individualism. We show that the positive effect of individualism is more pronounced among male executives, older executives and those with lower levels of religious piety. We also find that a proactive policy can mitigate the impact of the individualism of corporate executives on excess perk consumption. Moreover, our results show that the eight-point regulation targeting mainly SOEs also attenuates the effect of individualism on excess perk consumption.

Our findings provide a new perspective for the study of the effect of Chinese corporate culture on excess perk consumption and, therefore, corporate performance. These findings are also of great value for improving both the internal and external supervision of listed firms and their executives.

References

Adhikari, B. K., & Agrawal, A., 2016. Does local religiosity matter for bank risk-taking?. *Journal of Corporate Finance*, 38, 272-293.

Ahern, K. R., Daminelli, D., & Fracassi, C., 2015. Lost in Translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics*, 117(1), 165-189.

An, Z., Chen, Z., Li, D., & Xing, L., 2018. Individualism and stock price crash risk. *Journal of International Business Studies*, 49(9), 1208-1236.

Andrews, A., Linn, S., & Yi, H., 2017. Corporate governance and executive perquisites. *Review of Accounting and Finance*, 16(1), 21-45.

Barro, R. J., & Mccleary, R., 2003. Religion and economic growth. Nber Working Paper, No. 9682.

Cai, H., Fang, H., & Xu, L. C., 2011. Eat, drink, firms, government: An investigation of corruption from entertainment and travel costs of Chinese firms. *Journal of Law and Economics*, 54(1), 55-78.

Cai, J., & Shi, G., 2019. Do religious norms influence corporate debt financing?. *Journal of Business Ethics*, 157(1), 159-182.

Campante, F. R., & Do, Q. A., 2014. Isolated capital cities, accountability and corruption: Evidence from US states. The American Economic Review, 104(8), 2456-2481.

Cao, X., Lemmon, M. L., Pan, X., Qian, M., & Tian, G., 2019. Political promotion, CEO incentives, and the relationship between pay and performance. *Management Science*, 65(7), 2947-2965.

Chen, D., Hu X., Liang S., & Xin F., 2013. Religious tradition and corporate governance. *Economic Research Journal*, (9), 71-84.

Chen, X., Arnoldi, J., & Chen, X., 2020. Chinese culture, materialism and corporate supply of trade credit. *China Finance Review International*, 10(2), 197-212.

Chui, A. C., Titman, S., & Wei, K. J., 2010. Individualism and momentum around the world. *The Journal of Finance*, 65(1), 361-392.

Claessens, S., Djankov, S., Fan J., et al., 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance*, 57(6), 2741-2771.

Dai, Y., 2019. Taking your company global: The effect of returnee managers on overseas customers. *China Finance Review International*, 9(1), 51-72.

Darwish, A. F. E., & Huber, Günter L., 2003. Individualism vs collectivism in different cultures: A cross-cultural study. *Intercultural Education*, 14(1), 47-56.

Dass, N., Nanda, V. K., & Xiao, S. C., 2017. Geographic clustering of corruption in the U.S. Finance Meeting EUROFIDAI - AFFI, Available at SSRN.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P., 1995. Detecting earnings management. *The Accounting Review*, 70(2), 193-225.

Dong, W., Han, H., Ke, Y., & Chan, K. C., 2018. Social trust and corporate misconduct: Evidence from China. *Journal of Business Ethics*, 151(2), 539-562.

Duan, J., & Zhou, G., 2011. Potential distribution of rice in China and its climate characteristics. *Acta Ecologica Sinica*, 31(22), 6659-6668.

Eun, C. S., Wang, L., & Xiao, S. C., 2015. Culture and R2. *Journal of Financial Economics*, 115(2), 283-303.

Fama, E. F., & Macbeth, J. D., 1973. Risk, return, and equilibrium: Empirical tests. *Journal of Political Economy*, 81(3), 607-636.

Fama, E. F., 1980. Agency problems and the theory of the firm. *Journal of Political Economy*, 88(2), 28-307.

Fisman, R., Huang, W., Ning, B., Pan, Y., & Wang, Y., 2019. Superstition and risk-taking: Evidence from "zodiac year" investment in China. Working Paper.

Freeman, L., 1978. Centrality in social networks conceptual clarification. *Social Networks*, 1(3), 215-239.

Geletkanycz, M. A., 1997. The salience of culture's consequences': The effects of cultural values on top executive commitment to the status quo. *Strategic Management Journal*, 18(8), 615-634.

Gibbons, D. E., 2004. Friendship and advice networks in the context of changing professional values. *Administrative Science Quarterly*, 49(2), 238-262.

Gloria, Y., & Garry, T., 2011. Corporate governance, external market discipline and firm productivity. *Journal of Corporate Finance*, 17(3), 403-417.

Gray, S. J., 1988. Towards a theory of cultural influence on the development of accounting systems internationally. *Abacus*, 24(1), 1-15.

Gul, F. A., Cheng, L. T., & Leung, T. Y., 2011. Perks and the informativeness of stock prices in the Chinese market. *Journal of Corporate Finance*, 17(5), 1410-1429.

Han, S. T., Kang, S. S., & Yoo, Y. K., 2010. A cross-country study on the effects of national culture on earnings management. *Journal of International Business Studies*, 41(1), 123-141.

Hartmann, A., 2006. The role of organizational culture in motivating innovative behaviour in construction firms. *Construction Innovation: Information, Process, Management*, 6(3), 159-172.

Hayward, M. L. A., & Hambrick, D. C., 1997. Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42(1), 103-127.

Hofstede, G. H., 2001. *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Thousand Oaks: Sage Publications.

Hofstede, Geert, 1980, *Culture's consequences: International differences in work-related values*. London: Sage Publications.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V., 2004. *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks: Sage Publications.

Jensen, M. C., & Meckling, W. H., 1976. Theory of the firm: Managerial behaviour, agency cost and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Jin, X., Liang, S., & Yu, J., 2021. Management geographical proximity and stock price crash risk. *China Finance Review International*, forthcoming.

Kaasa, A., & Vadi, M., 2010. How does culture contribute to innovation? Evidence from European countries. *Economics of Innovation and New Technology*, 19(7), 583-604.

Kato, T., & C. Long, 2006. CEO turnover, firm performance and enterprise reform in China: Evidence from micro data. *Journal of Comparative Economics*, 34(4), 796-817.

Kong, D., Pan, Y., Tian, G. G., & Zhang, P., 2020. CEOs' hometown connections and access to trade credit: Evidence from China. *Journal of Corporate Finance*, 62, 101574.

Krause, R., Priem, R., & Love, L., 2015. Who's in charge here? Co-CEOs, power gaps, and firm performance. *Strategic Management Journal*, 36(13), 2099-2110.

Kulkarni, S. P., Hudson, T., Ramamoorthy, N., Marchev, A., Georgieva-Kondakora, P., & Gorskov, V., 2010, Dimensions of individualism-collectivism: A comparative study of five cultures. *Current Issues of Business and Law*, 2010, 5(1), 93-109.

Li, B., Yao, Y., Shahab, Y., Li, H. X., & Ntim, C. G., 2020. Parent-subsidiary dispersion and executive excess perks consumption. *International Review of Financial Analysis*, 70, 101501.

Li, Z., Massa, M., Xu, N. H., et al., 2016. The impact of sin culture: Evidence from earning management and alcohol consumption in China. Cepr Discussion Papers, No. 11475.

Liu, X., 2016. Corruption culture and corporate misconduct. *Journal of Financial Economics*, 122(2), 307-327.

Liu, Y., & Qi, H., 2019. Will managers' confidence affect perks? On the external corporate governance effect of margin trading system. *Management Review*, 31(4), 187-205.

Luo, H., & Huang, W., 2008. State-owned enterprises pay dividends, Excess perks consumption and corporate performance. *Management World*, 9, 139-148.

Luo, W., Zhang, Y., & Zhu, N., 2011. Bank ownership and executive perquisites: New evidence from an emerging market. *Journal of Corporate Finance*, 17(2), 352-370.

Marino, A. M., & Zabojnik, J., 2008. Work-related perks, agency problems, and optimal incentive contracts. *The RAND Journal of Economics*, 39(2), 565-585.

Markus, H. R., & Kitayama, S., 1991. Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224-253.

Martins, E. C., & Terblanche, F., 2003, Building organizational culture that stimulates creativity and innovation. *European Journal of Innovation Management*, 6(1), 64-74.

Mcpherson, M., Smith-Lovin, L., & Cook, J. M., 2001. Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27(1), 415-444.

Nisbett, Richard, E., Kaiping, P., Incheol, C., & Ara, N., 2001. Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108(2), 291-310.

Petersen, M. A., 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies*, 22(1), 435-480.

Plickert, G., Côté, R. R., & Wellman, B., 2007. It's not who you know, it's how you know them: Who exchanges what with whom?. *Social Networks*, 29(3), 405-429.

Porta, R. L., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W., 1998. Law and finance. *Journal of Political Economy*, 106(6), 1113-1155.

Powell, M., & Ansic, D., 1997. Gender differences in risk behaviour in financial decision making: An experiment analysis. *Journal of Economic Psychology*, 18(6), 605-628.

Rajan, R. G., & Wulf, J., 2006. Are perks purely managerial excess?. *Journal of Financial Economics*, 79(1), 1-33.

Schwartz, S. H., 1994. *Beyond individualism/collectivism: New cultural dimensions of values*. Thousand Oaks: Sage Publications.

Schwartz, S. H., 2004. *Mapping and interpreting cultural differences around the world*. The Netherlands: Brill.

Shefrin, H., 2001. Behavioral corporate finance. *Journal of Applied Corporate Finance*, 14(3), 113-124.

Shen Y., Zhao, J., & He X., 2015. Alumni networks, funds' performance and "small world" effect. *China Economic Quarterly*, 15(1), 403-428.

Shi, Y., & Fan, L., 2017. Internal control, earnings management, and managers' perk consumption. *Research on Financial and Economic Issues*, 7, 88-94.

Singelis, T. M., Triandis, H. C., Bhawuk, D. P. S., & Gelfand, M. J., 1995. Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, 29(3), 240-275.

Stulz, R. M., & Williamson, R., 2003. Culture, openness, and finance. *Journal of Financial Economics*, 70(3), 313-349.

Talhelm, T., Zhang, X., Oishi, S., Shimin, C., Duan, D., Lan, X., & Kitayama, S., 2014. Large-scale psychological differences within china explained by rice versus wheat agriculture. *Science*, 344(6184), 603-608.

Tao, F., Zhang, S., & Zhang, Z., 2012. Spatiotemporal changes of wheat phenology in China under the effects of temperature, day length and cultivar thermal characteristics. *European Journal of Agronomy*, 43, 201-212.

Tao, F., Zhang, Z., Shi, W., Liu, Y., Xiao, D., & Zhang, S., et al., 2013. Single rice growth period was prolonged by cultivars shifts, but yield was damaged by climate change during 1981–2009 in China, and late rice was just opposite. *Global Change Biology*, 19(10), 3200-3209.

Triandis, H. C., 2001. Individualism-collectivism and Personality. *Journal of Personality*, 69(6), 907-924.

Wang, Z., Fu, G., Huang, D., &Wang, J., 2014. Relationship between "political promotion" and "perk consumption" of CEOs of state-owned enterprises. *Management World*, (5), 163-177.

Williamson, O. E., 2000. The new institutional economics: Taking stock, looking ahead. *Journal of Economic Literature*, 38(3), 595-613.

Xu, N., & Li, Z., 2016. CEOs' poverty experience and corporate philanthropy. *Economic Research Journal*, 1(12), 133-146.

Xu, N., Li, X., Yuan, Q., & Chan, K. C., 2014. Excess perks and stock price crash risk: Evidence from China. *Journal of Corporate Finance*, 25, 419-434.

Yermack, D., 2006. Flights of fancy: Corporate jets, CEO perquisites, and inferior shareholder returns. *Journal of Financial Economics*, 80(1), 211-242.

Zhai, S., Xu, Y., & Yang D., 2015. Can media supervise state-owned enterprise executives nor-pecuniary compensation?. *Accounting Research*, 5, 57-63+95.

Zhang, H., Song, Y., & Ding, Y., 2014. What drives managerial perks? An empirical test of competing theoretical perspectives. *Journal of Business Ethics*, 132(2), 259-275.

Zhang, X., Wen, W., & Song, J., 2020. Are scholar-type CEOs more self-disciplined? The impact of CEOs' academic experience on executive perquisites. *Business Management Journal*, 42(2), 106-126.

Zhong, Q., Lu, Z., &Yuan, C., 2016. Anti-corruption, firm performance and channel effects: Based on anti-corruption campaign of 18th CPC National Congress. *Journal of financial research*, 9, 161-176.

Zingales, L., 2015. The "cultural revolution" in finance. *Journal of Financial Economics*, 117(1), 1-4.

Table 1: Sample description

Sample selection procedure	
Initial observations from the database	6515
Delete	
Observations in financial industry	(29)
Observations with *ST, ST or PT	(239)
Observations that assets are less than debts	(5)
Observations with other variables missing	(1059)
Final observations	5181

Notes: This table outlines step by step the total population to the selection of the final samples.

Table 2: Summary statistics

Panel A: Summary statistics

VarName	N	Mean	SD	Min	Max	P25	P50	P75
Perk	5,181	-0.01	1.24	-1.52	6.80	-0.69	-0.28	0.22
IDV_ceo	5,181	-0.49	0.35	-0.96	0.00	-0.84	-0.43	-0.14
LogAsset	5,181	21.87	1.17	19.50	25.73	21.01	21.70	22.48
Leverage	5,181	0.41	0.21	0.05	0.88	0.24	0.40	0.57
Return	5,181	0.34	0.42	-1.06	2.25	0.10	0.26	0.50
Q	5,181	2.23	1.31	0.91	7.75	1.34	1.78	2.63
Cashflow	5,181	0.05	0.07	-0.19	0.25	0.00	0.05	0.09
SalesGrowth	5,181	0.19	0.42	-0.61	2.98	-0.01	0.12	0.30
Shareholding	5,181	0.16	0.11	0.01	0.57	0.08	0.13	0.22
LogBoard	5,181	2.14	0.20	1.61	2.71	1.95	2.20	2.20
Indirector	5,181	0.37	0.06	0.09	0.57	0.33	0.33	0.43
LogAgeCompany	5,181	2.65	0.38	1.10	3.40	2.40	2.71	2.89
SharesState	5,181	0.05	0.13	0.00	0.75	0.00	0.00	0.00
HHI	5,181	0.13	0.13	0.02	0.87	0.05	0.08	0.16
LogAgeCeo	5,181	3.89	0.13	3.50	4.17	3.81	3.89	3.97
Gender	5,181	0.93	0.26	0.00	1.00	1.00	1.00	1.00
Ceobelief	5,181	0.75	0.43	0.00	1.00	0.00	1.00	1.00
AcaBg	5,181	0.12	0.32	0.00	1.00	0.00	0.00	0.00
OvsBg	5,181	0.04	0.20	0.00	1.00	0.00	0.00	0.00
Dual	5,181	0.36	0.48	0.00	1.00	0.00	0.00	1.00
EduBg	5,181	0.55	0.50	0.00	1.00	0.00	1.00	1.00
Pay	5,181	13.03	0.73	10.25	14.90	12.61	13.08	13.49
Total	5,181	3.44	1.44	0.00	5.66	2.64	3.43	4.48
GdpGrowth	5,181	0.11	0.06	-0.03	0.40	0.08	0.10	0.13
Wage	5,181	10.93	0.37	9.70	11.70	10.70	10.95	11.19
Income	5,181	15.47	1.34	11.56	17.98	14.56	15.46	16.46
Education	5,181	14.00	1.03	10.51	16.00	13.29	13.91	14.72

Panel B: High and low Individualism Subsamples

Dependent Variable		*Perk*
	N	Mean
IDV_ceo		
Highest	3,037	0.077
Lowest	2,144	-0.046
Dif		0.123***
p-Value		0.006

Notes: This table shows the summary statistics of the variables mentioned in the main regression. The sample is composed of 5,181firm-year observations over the period of 2008 to 2017. Panel A reports the summary statistics of the excess perk consumption variable, individualism variable, firm-level financial control variables, firm-level governance control

variables, industry related control variable, CEO characteristic control variables, and area characteristic control variables. Panel B reports the summary statistics of the excess perk consumption variable in the *high-* and *low-* individualism subsample separately. The *high-* (*low-*) individualism subsamples with an individualism index (*IDV_ceo*) greater (smaller) than the median of all CEOs' individualism indices. Difference in Panel B refers to the high and low group difference in the mean. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 3: Multivariate results for the impact of individualism on excess perk consumption

Dependent Variable	Perk					
	(1)	(2)	(3)	(4)	(5)	(6)
IDV_ceo	0.253***	0.238***	0.241***	0.242***	0.276***	0.269***
	(4.21)	(3.57)	(3.60)	(3.61)	(3.96)	(3.74)
LogAsset		0.133***	0.136***	0.132***	0.121***	0.122***
		(6.91)	(6.23)	(6.04)	(4.99)	(4.92)
Leverage		-1.205***	-1.255***	-1.234***	-1.196***	-1.191***
		(-9.29)	(-9.26)	(-9.16)	(-8.88)	(-8.98)
Return		0.108**	0.115**	0.115***	0.074	0.072
		(2.41)	(2.57)	(2.58)	(1.53)	(1.49)
Q		0.152***	0.152***	0.152***	0.146***	0.148***
		(5.51)	(5.48)	(5.50)	(5.17)	(5.13)
Cashflow		-0.882***	-0.864***	-0.874***	-0.866***	-0.834***
		(-3.42)	(-3.34)	(-3.39)	(-3.24)	(-3.06)
SalesGrowth		0.001	0.002	0.002	-0.008	-0.007
		(0.01)	(0.21)	(0.16)	(-0.75)	(-0.67)
Shareholding			-0.883***	-0.874***	-0.848***	-0.889***
			(-5.60)	(-5.57)	(-5.30)	(-5.49)
LogBoard			0.308**	0.306**	0.302**	0.321**
			(2.16)	(2.15)	(2.08)	(2.17)
Indirector			-0.080	-0.101	-0.213	-0.244
			(-0.20)	(-0.25)	(-0.53)	(-0.60)
LogAgeCompany			-0.033	-0.035	-0.001	-0.001
			(-0.60)	(-0.63)	(-0.01)	(-0.00)
SharesState			0.169*	0.156	0.150	0.161
			(1.76)	(1.63)	(1.50)	(1.56)
HHI				-0.617***	-0.564***	-0.576***
				(-3.46)	(-3.14)	(-3.02)
LogAgeCeo					-0.062	-0.067
					(-0.35)	(-0.38)
Gender					0.233***	0.230***
					(4.31)	(4.21)
Ceobelief					0.045	0.039
					(0.98)	(0.81)
AcaBg					0.322***	0.323***
					(3.45)	(3.44)
OvsBg					0.098	0.092
					(0.66)	(0.63)
Dual					0.129***	0.127**
					(2.62)	(2.57)
EduBg					0.109***	0.103**

	(1)	(2)	(3)	(4)	(5)	(6)
					(2.58)	(2.37)
Pay					0.063*	0.051
					(1.89)	(1.48)
Total						-0.046
						(-1.15)
GdpGrowth						0.403*
						(1.82)
Wage						0.159
						(0.84)
Income						0.110
						(1.27)
Education						-0.085
						(-0.98)
Cons	-0.058	-2.581***	-3.080***	-2.816***	-3.451***	-5.338***
	(-0.72)	(-5.83)	(-6.56)	(-5.98)	(-4.35)	(-3.20)
Year fixed effect	YES	YES	YES	YES	YES	YES
Industry fixed effect	YES	YES	YES	YES	YES	YES
N	5,181	5,181	5,181	5,181	5,181	5,181
Adjusted R-squared	0.005	0.041	0.047	0.049	0.061	0.062

Notes: Table 3 reports the baseline multivariate results for the impact of individualism on the excess perk consumption using the ordinary least squares (OLS) regression. The sample period is from 2008 to 2017. We add the firm-level financial control variables, firm-level governance control variables, industry related control variable, CEO characteristic control variables and area characteristic control variables in Columns (2)-(6), respectively. All regressions control the year and industry fixed effects. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 4: Category analysis of perk consumption

Dependent Variable						
	(1)	(2)	(3)	(4)	(5)	(6)
	Beexp	*Texp*	*Otexp*	*Bmexp*	*Ccexp*	*Mexp*
IDV_ceo	0.280	0.672***	0.014	0.057	0.414***	0.890***
	(1.08)	(2.93)	(0.91)	(0.62)	(2.80)	(3.65)
Cons	53.910***	21.540***	-1.595***	0.614	20.470***	-16.180**
	(8.23)	(3.49)	(-2.80)	(0.26)	(5.22)	(-2.53)
Control variables	YES	YES	YES	YES	YES	YES
Year fixed effect	YES	YES	YES	YES	YES	YES
Industry fixed effect	YES	YES	YES	YES	YES	YES
N	5,181	5,181	5,181	5,181	5,181	5,181
Adjusted R-squared	0.240	0.370	0.018	0.055	0.226	0.092

Notes: Table 4 reports the OLS regression of the category analysis to investigate the potential sources from which an individualist CEO could increase his/her excess perk consumption. The sample period is from 2008 to 2017. All regressions control the year and industry fixed effects. Business entertainment expenses(*Beexp*), traveling expenses(*Texp*), overseas training expenses(*Otexp*), board meeting expenses(*Bmexp*), company car expenses(*Ccexp*), and meeting expenses(*Mexp*), respectively. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 5: Mechanisms: Individualism, overconfidence, earnings management and risk-taking

Dependent Variable:			*perk*		
	(1)	(2)	(3)	(4)	(5)
IDV_ceo	-0.073	0.237***	0.254***	0.351**	0.433**
	(-0.44)	(3.10)	(3.12)	(2.43)	(2.26)
Con	0.903				
	(1.14)				
IDV_ceo*Con	2.118*				
	(1.86)				
DA		-0.051			
		(-0.24)			
IDV_ceo*DA		0.727*			
		(1.85)			
M&As			0.138		
			(1.38)		
M&As*IDV_ceo			0.080		
			(0.57)		
R&Ds				0.047***	
				(3.89)	
R&Ds*IDV_ceo				-0.030	
				(-1.31)	
Patents					0.105
					(1.46)
Patents*IDV_ceo					0.035
					(0.38)
Cons	-5.553***	-5.297***	-5.321***	-6.799***	-1.387
	(-3.24)	(-3.07)	(-3.17)	(-2.58)	(-0.26)
Control variables	YES	YES	YES	YES	YES
Year fixed effect	YES	YES	YES	YES	YES
Industry fixed effect	YES	YES	YES	YES	YES
N	5,181	4,861	5,181	3,182	891
Adjusted R-squared	0.063	0.066	0.063	0.114	0.121

Notes: This table demonstrates the mediation effect of overconfidence, earnings management and risk-taking. *Con* is the executive's payment scaled by the total payment of all managers in the firm. *DA* is the absolute value of discretionary accruals as the measure of earnings management, in which the modified Jones model are used to compute the discretionary accruals. *M&As* is the logarithmic number of mergers and acquisitions of the firm in the year. *R&Ds* is the logarithmic R&D investment accounted for operating income ratio of the firm. *Patents* is the logarithmic number of licensed patents of the firm in the year. All columns control the year and industry fixed effects. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 6: Instrumental variable approach

Panel A

Dependent Variable	(1) 1st Stage IDV_ceo	(2) 2nd Stage Perk
$\widehat{IDV\_ceo}$		0.274***
		(3.60)
Prcp	-0.629***	
	(-129.52)	
Cons	3.022***	-7.659***
	(15.76)	(-3.25)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	5,181	5,181
Adjusted R-squared	0.828	0.062

Panel B

Dependent Variable	(1) 1st Stage IDV_ceo	(2) 2nd Stage Perk
$\widehat{IDV\_ceo}$		0.252***
		(2.96)
Temp	-0.727***	
	(-41.02)	
Cons	-0.016	-6.036***
	(-0.05)	(-3.04)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	5,181	5,181
Adjusted R-squared	0.467	0.068

Panel C

Dependent Variable	(1) 1st Stage IDV_ceo	(2) 2nd Stage Perk
$\widehat{IDV\_ceo}$		0.333***

		(3.59)
North	0.616***	
	(134.53)	
Cons	-2.917***	-5.240***
	(-13.56)	(-2.91)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	5,181	5,181
Adjusted R-squared	0.746	0.063

Panel D

Dependent Variable	(1) 1st Stage *IDV_ceo*	(2) 2nd Stage *Perk*
$\widehat{IDV\_ceo}$		0.295***
		(3.81)
Prcp	-0.424***	
	(-72.45)	
Temp	-0.104***	
	(-10.92)	
North	0.285***	
	(48.47)	
Cons	1.130 ***	-5.378***
	(6.40)	(-2.94)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	5,181	5,181
Adjusted R-squared	0.887	0.063
Over-identification	Chi2=4.51828 (p=0.1044)	

Notes: This table demonstrates results of instrumental variable approach. Panel A, B, and C apply *Prcp*, *Temp*, and *North* as the instrumental variable, respectively. Panel D applies these three instrumental variables together. Column (1) shows results of the first stage in the 2SLS estimation, and Column (2) shows the results of the second stage. All columns control the year and industry fixed effects. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. In Panel D, the test result for over-identification does suggest an over-identification problem when applying three instruments together. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 7: Endogeneity tests: Difference-in-Difference Approach

Dependent Variable	Perk	
	(1)	(2)
Change_mandatory*Treat	0.297**	0.505**
	(1.97)	(2.12)
Change_mandatory	0.274***	0.713***
	(2.73)	(4.33)
Treat	0.055	0.054
	(1.19)	(1.17)
Cons	-6.605***	-7.140***
	(-3.63)	(-3.83)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	4,879	4,672
Adjusted R-squared	0.064	0.068

Notes: Table 7 demonstrates the OLS regression of the effect of individualism on the excess perk consumption using difference-in-difference approach for endogeneity issue. The sample period is from 2008 to 2017. *Change_mandatory* is a dummy variable that equals 1 if there has been a mandatory change of the CEO in firm i in year t, otherwise equals 0. Column (1) excludes "Retirement". Column (2) excludes "job transfer", "retirement", "expiration of the term", "resignation", "individual", and "end of agency". *Treat* is an indicator with three possible values, equals 1(-1) also a dummy variable that equals 1 (-1) if a CEO with low (high) individualism is replaced by another CEO with high (low) individualism for firm i in year t and equals 0 otherwise. The year and industry fixed effects are controlled. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 8: Endogeneity tests: Sample selection bias

Dependent Variable.	Perk	
	(1)	(2)
IDV_ceo	0.203***	0.192***
	(2.70)	(2.59)
Lambda	0.675**	0.962***
	(2.54)	(3.51)
Cons	-8.580***	-12.78***
	(-3.32)	(-4.25)
Control variables	YES	YES
Year fixed effect	NO	YES
Industry fixed effect	NO	YES
N	5,181	5,181
Adjusted R-squared	0.055	0.064

Notes: Table 8 reports the OLS regression of the effect of individualism on the excess perk consumption to eliminate the sample selection bias. *Lambda* is the inverse Mill's ratio obtained from model (5). Column (2) controls the year and industry fixed effects. The sample period is from 2008 to 2017. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 9: Endogeneity tests: Omitted variable bias

Dependent Variable	Perk			
	(1)	(2)	(3)	(4)
IDV_ceo	0.289***	0.300***	0.287***	0.295***
	(2.93)	(2.99)	(3.50)	(3.58)
Alumni	1.286	1.839		
	(0.16)	(0.22)		
TobAlco			0.294	0.274
			(1.03)	(0.93)
Cons	-4.613***	-7.659***	-2.414*	-4.819**
	(-2.91)	(-3.25)	(-1.69)	(-2.23)
Control variables	YES	YES	YES	YES
Year fixed effect	NO	YES	NO	YES
Industry fixed effect	NO	YES	NO	YES
N	3,113	3,113	4,517	4,517
Adjusted R-squared	0.064	0.075	0.062	0.068
Dependent Variable	Perk			
	(5)	(6)	(7)	(8)
IDV_ceo	0.164*	0.176*	0.261***	0.273***
	(1.87)	(1.96)	(3.52)	(3.68)
IDV_region	0.132	0.134		
	(1.50)	(1.49)		
Corruption			-0.082	-0.079
			(-0.74)	(-0.69)
Cons	-2.964***	-5.007***	-2.958***	-5.275***
	(-3.01)	(-3.07)	(-2.86)	(-3.23)
Control variables	YES	YES	YES	YES
Year fixed effect	NO	YES	NO	YES
Industry fixed effect	NO	YES	NO	YES
N	5,181	5,181	5,181	5,181
Adjusted R-squared	0.055	0.062	0.055	0.062

Notes: Table 9 demonstrates the OLS regression of the effect of individualism on the excess perk consumption to eliminate the omitted variable bias. The sample period is from 2008 to 2017. Columns (2), (4) and (6) control the year and industry fixed effects. *Alumni* refers to the CEO's alumni networks. *TobAlco* is the tobacco and alcohol transactions per capita in the region where the firm is located. *IDV_region* is the rice index of firms' location. *Corruption* is the corporate corruption culture. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 10: Robustness tests: Alternative definition of CEOs

Dependent Variable.	Perk	
	(1)	(2)
IDV_ceoNew	0.278***	0.279***
	(4.28)	(4.24)
Cons	-0.291	-2.806*
	(-0.28)	(-1.73)
Control variables	YES	YES
Year fixed effect	NO	YES
Industry fixed effect	NO	YES
N	6,788	6,788
Adjusted R-squared	0.052	0.060

Notes: Table 10 presents the results based on the alternative definition of CEOs for the robustness test. *IDV_ceoNew* is the executive individualism index that is calculated according to the alternative definition of CEOs. Age, gender, academic background, overseas background, duality, education background and payment are all replaced by newly identified CEOs' data. Column (2) controls the year and industry fixed effects. The sample period is from 2008 to 2017. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 11: Robustness tests: Panel data

Dependent Variable	Perk		
	(1)	(2)	(3)
IDV_ceo	0.223*	0.269**	0.274**
	(2.02)	(2.19)	(2.42)
Cons	-5.560**	-5.338*	-4.628*
	(-2.92)	(-1.92)	(-1.83)
Control variables	YES	YES	YES
Year fixed effect	NO	YES	YES
Industry fixed effect	NO	YES	YES
N	5,181	5,181	4,982
Adjusted R-squared	0.217	0.062	0.062

Notes: Table 11 presents the robustness results for panel data. Fama-MacBeth approach is applied in Column (1), Column (2) is estimated by using OLS regressions with robust standard errors clustered by firm, and Column (3) is estimated by using OLS regressions with robust standard errors clustered by CEO. The sample period is from 2008 to 2017. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 12: Robustness tests: Synchronous regression

Dependent Variable.	Perk			
	(1)	(2)	(3)	(4)
IDV_ceo	0.259***	0.263***	0.154**	0.162**
	(3.80)	(3.88)	(2.35)	(2.49)
Perk_lag			0.763***	0.761***
			(17.91)	(17.77)
Cons	-2.285**	-6.476***	0.869	1.016
	(-2.49)	(-3.95)	(0.78)	(0.61)
Control variables	YES	YES	YES	YES
Year fixed effect	NO	YES	NO	YES
Industry fixed effect	NO	YES	NO	YES
N	5,754	5,754	4,476	4,476
Adjusted R-squared	0.049	0.057	0.488	0.491

Notes: Table 12 presents the results based on the synchronous regression for the robustness test. The sample period is from 2008 to 2017. Columns (2) and (4) control the year and industry fixed effects. All variables are from the same year t except *Perk_lag* which is lagged by one year. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 13: The impact of the eight-point regulation

Dependent Variable	perk		
	(1)	(2)	(3)
After*State*IDV_ceo			-0.638*
			(-1.73)
After*State	-0.272**		-0.456*
	(-2.23)		(-1.84)
After*IDV_ceo		-0.133	0.038
		(-1.05)	(0.23)
State*IDV_ceo			0.124
			(0.58)
IDV_ceo	0.265***	0.329***	0.298***
	(3.71)	(3.52)	(2.98)
After	-0.217	-0.361**	-0.438**
	(-1.42)	(-2.00)	(-2.20)
State	0.256**	0.131	0.287
	(2.04)	(1.26)	(1.32)
Cons	-5.245***	-5.186***	-4.832**
	(-3.17)	(-3.15)	(-2.44)
Control variables	YES	YES	YES
Year fixed effect	YES	YES	YES
Industry fixed effect	YES	YES	YES
N	5,181	5,181	5,181
Adjusted R-squared	0.063	0.063	0.074

Notes: This table presents the impact of the eight-point regulation as the robustness of the baseline regressions. Column (1) introduces DID estimation by introducing the interaction term between *After* and *State*. Column (2) estimates the potential structural change in the effect of individualism after the implementation of the eight-point regulation. Column (3) estimates the difference between the structural change in the effect of individualism among SOEs and that among private enterprises. All of the control variables in the main regression (3) are included. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 14: Heterogeneous effect: The impact of CEOs' age

Dependent Variable.	Perk	
	(1)	(2)
	Age>=50	Age<50
IDV_ceo	0.458***	0.123
	(3.92)	(1.26)
Cons	-5.788**	-4.179
	(-2.14)	(-1.63)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	2,367	2,814
Adjusted R-squared	0.110	0.061

Notes: The sample is divided into two groups, CEOs' age greater than 50 and smaller than 50, presented in Columns (1) and (2), respectively. Columns (1) and (2) control the year and industry fixed effects. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 15: Heterogeneous effect: The impact of CEOs' gender

	(1) Male subsample	(2) Female subsample
IDV_ceo	0.286***	0.246
	(3.60)	(1.26)
Cons	-4.768***	-2.956
	(-2.65)	(-0.50)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	4,623	558
Adjusted R-squared	0.061	0.213

Notes: The sample is divided into two subsamples, male and female subsamples, which are presented in Columns (1) and (2), respectively. Columns (1) and (2) control the year and industry fixed effects. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Table 16: Heterogeneous effect: The impact of CEOs' religious belief

Dependent Variable.	Perk	
	(1)	(2)
	High Belief	Low Belief
IDV_ceo	0.185**	0.612***
	(2.45)	(3.11)
Cons	-5.515***	-4.430
	(-3.05)	(-0.80)
Control variables	YES	YES
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
N	3,882	1,299
Adjusted R-squared	0.070	0.089

Notes: The sample is divided into two groups, the one with a high level of religious piety group and the one with low level of religious piety, presented in Columns (1) and (2), respectively. Columns (1) and (2) control the year and industry fixed effects. All time-varying control variables are lagged by one year that are relative to the excess perk consumption variable. The *t*-statistics based on robust standard errors are shown in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Please see Appendix A for detailed variable definitions.

Appendix A: Variable definitions

Proxy for the excess perk consumption

Perk | Following Gul et al. (2011) and Xu et al. (2014), we define *Perk* as:

$$TotalPerk/Sales$$
$$= \beta_0 + \beta_1 LnAsset + \beta_2 LnTotalComp$$
$$+ \beta_3 LnTotalIncPerCap + \varepsilon + Year\_fixed\_effect$$
$$+ Industry\_fixed\_effect$$

Where *TotalPerk/Sales* is the sum of the six expense categories (including business entertainment expenses, traveling expenses, board meeting expenses, company car expenses, overseas training expenses and meeting expenses) scaled by the prime operating revenue, *LnAsset* is the natural logarithmic total assets, *LnTotalComp* is the natural logarithmic total compensation for all employees in firm, and *LnTotalIncPerCap* is the natural logarithmic total income per capita in firm location. The residuals from the equation are our interest variable, excess perk consumption (*Perk*). The data comes from the CNRDS.

Proxy for individualism index

IDV_ceo | Followed by Talhelm et al. (2014), we define

$$Rice\ index = \frac{rice\ paddies}{cultivated\ land\ in\ each\ area}$$

where cultivated land consists of rice paddies and wheat paddies. We reconstruct the independent individualism variable *IDV_ceo* by multiplying the rice index score by -1. In this setting, when the value of the independent variable *IDV_ceo* is greater, a CEO has higher individualism. The data comes from the Bureau of Statistics website.

Control variables

LogAsset | The natural logarithmic total assets. The data comes from the CSMAR.
Leverage | The total liabilities divided by total assets. The data comes from the CSMAR.
Return | The basic return per share. The data comes from the CSMAR.
Q | The Tobin Q value, that is, market value scaled by total assets. The data comes from the CSMAR.
Cashflow | The net cash flow divided by total assets. The data comes from the CNRDS.

SalesGrowth	The sales scaled by the sales last year, and minus one. The data comes from the CSMAR.
Shareholding	The sum of squares of the shareholding ratio of the first three major shareholders. The data comes from the CSMAR.
LogBoard	The natural logarithmic total number of directors. The data comes from the CSMAR.
Indirector	The number of independent directors divided by the total number of directors. The data comes from the CSMAR.
LogAgeCompany	The natural logarithmic years of firm establishment. The data comes from the CSMAR.
SharesState	The number of state-controlled shares scaled by the total shares. The data comes from the CSMAR.
HHI	The Herfindahl-Hirschman Index, calculated by summing the squares of the percentage market shares held by the respective firms to measure the market concentration. The data comes from the CSMAR.
LogAgeCeo	The natural logarithmic age of CEO. The data comes from the CSMAR.
Gender	The dummy variable, male CEO equals 1 and female CEO equals 0. The data comes from the CSMAR.
Ceobelief	The dummy variable that equals 1 if the level of CEO's religious piety is higher than the median of all CEOs' religious piety and equals 0 otherwise. The data comes from a survey of executives at listed Chinese companies conducted by a research group on the internal control of listed companies in 2014.
AcaBg	The dummy variable if CEO has academic research background, including university work, scientific research institutions work and other research units work, equals 1, otherwise equals 0. The data comes from the CSMAR.
OvsBg	The dummy variable if CEO has overseas background, including work abroad or study abroad, equals 1, otherwise equals 0. The data comes from the CSMAR.
Dual	The dummy variable if CEO is also the chairman, equals 1, otherwise equals 0. The data comes from the CSMAR.
EduBg	The dummy variable if CEO has a master's degree or above, equals 1, otherwise equals 0. The data comes from the CSMAR.
Pay	The natural logarithmic CEO's total payment. The data comes from the CSMAR.
Total	The natural logarithmic total number of firms in where the firm is located. The data comes from the CNRDS and, whenever necessary, from Statistical yearbooks for each area.
GdpGrowth	The annual growth of GDP in where the firm is located. The data comes from the CNRDS and, whenever necessary, from Statistical yearbooks for each area.

Wage	The natural logarithmic total wages in where the firm is located. The data comes from the CNRDS and, whenever necessary, from Statistical yearbooks for each area.
Income	The natural logarithmic per capita disposable income in where the firm is located. The data comes from the CNRDS and, whenever necessary, from Statistical yearbooks for each area.
Education	The natural logarithmic local financial education expenditure in where the firm is located. The data comes from the CNRDS and, whenever necessary, from Statistical yearbooks for each area.
Beexp	The natural logarithmic business entertainment expenses. The data comes from the CNRDS.
Texp	The natural logarithmic traveling expenses. The data comes from the CNRDS.
Otexp	The natural logarithmic overseas training expenses. The data comes from the CNRDS.
Bmexp	The natural logarithmic board meeting expenses. The data comes from the CNRDS.
Ccexp	The natural logarithmic company car expenses. The data comes from the CNRDS.
Mexp	The natural logarithmic meeting expenses. The data comes from the CNRDS.
Con	The executive's payment scaled by the total payment of all managers. The data comes from the CSMAR.
DA	The absolute value of discretionary accruals, in which the modified Jones model are used to compute the discretionary accruals. The data comes from the CSMAR.
M&As	The natural logarithmic number of mergers and acquisitions of the firm. The data comes from the CSMAR.
R&Ds	The natural logarithmic R&D investment accounted for the operating income ratio of the firm. The data comes from the CSMAR.
Patents	The natural logarithmic number of licensed patents of the firm. The data comes from the CSMAR.
Prcp	The natural logarithmic number of the average precipitation in 1995. The data comes from the CSMAR.
Temp	The natural logarithmic number of the average temperature in 1995. The data comes from the CSMAR.
North	The dummy variable if an CEO's hometown is located north of the Qinling-Huaihe Line, equals 1, otherwise equals 0.
Treat	The indicator with three possible values, equals 1(-1) if a CEO with low (high) individualism is replaced by another CEO with high (low) individualism and equals 0 otherwise. The data comes from the CSMAR.

Change_mandatory	The dummy variable that equals 1 if the CEO is mandatorily replaced and equals 0 otherwise. The data comes from the CSMAR.
Lambda	The inverse Mill's ratio obtained from model (5).
Alumni	The CEO's alumni networks obtained from model (6). The higher the index value is, the richer and wider the alumni relationship resources of the CEO are.
TobAlco	The tobacco and alcohol transactions per capita in the region where the firm is located. The data comes from the CNRDS.
IDV_region	The rice index of firms' location. The data comes from the Bureau of Statistics website.
Corruption	The dummy variable that equals 1 if the company has anti-commercial bribery or anti-corruption measures and equals 0 otherwise. The data comes from the CNRDS.
IDV_ceoNew	The individualism index that is calculated according to the alternative definition of CEOs. The data comes from the Bureau of Statistics website and the CSMAR.
Perk_lag	Lagged by one year of *Perk*. The data comes from the CSMAR.
After	The dummy variable that equals 1 if the data after 2013 and equals 0 otherwise.
State	The dummy variable that equals 1 if the firm is state-owned and equals 0 otherwise.