

Chu, Jian

Article

Can the rotation of chief accountants improve the accounting information quality of state-owned enterprises?

China Journal of Accounting Studies (CJAS)

Provided in Cooperation with:

Accounting Society of China (ASC), Beijing

Suggested Citation: Chu, Jian (2023) : Can the rotation of chief accountants improve the accounting information quality of state-owned enterprises?, China Journal of Accounting Studies (CJAS), ISSN 2169-7221, Taylor & Francis, Abingdon, Vol. 11, Iss. 4, pp. 921-945, <https://doi.org/10.1080/21697213.2023.2239673>

This Version is available at:

<https://hdl.handle.net/10419/338517>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

ARTICLE



Can the rotation of chief accountants improve the accounting information quality of state-owned enterprises?

Jian Chu

School of Business, Nanjing University, Nanjing, Jiangsu, China

ABSTRACT

This paper attempts to study the effect of the rotation of chief accountants of central SOEs. It is found that the rotation of chief accountants can improve the accounting information quality of SOEs. Mechanism analyses indicate that the above result is weakened when the tenure of chief accountants is long or after central SOEs carry out the pilot of establishing a standardised board or are audited by the National Audit Office. When further considering the types of rotation, the above result is only reflected when chief accountants come from SOEs in different industries or different cities or chief accountants are promoted. Economic consequence analyses indicate that the rotation of chief accountants alleviates the problem of over-investment and excess perks in SOEs by improving accounting information quality. In summary, the rotation of chief accountants can enhance their independence to improve the governance of SOEs and prevent the loss of state-owned assets.

KEYWORDS

Chief accountants; rotation; independence; state-owned enterprises; financial management and supervision

1. Introduction

Since the reform and opening up, China's state-owned economy has kept growing. A series of effective reform policies have not only improved the efficiency of state-owned enterprises (SOEs) at the micro level, but also boosted the growth of national economy at the macro level (Huang, 2018; Z. Xu & Zhang, 2015). For example, existing literature indicates that mixed-ownership reform and dividend right incentive have significantly enhanced the market vitality of state-owned economy and improved the market competitiveness of SOEs (C. Cao & Zhang, 2020; Hao & Gong, 2017). The Guiding Opinions on Deepening the Reform of State-Owned Enterprises issued by the Central Committee of the Communist Party of China (Central Committee of CPC) and the State Council in 2015 clearly defines 'the combination of enhancing vitality and strengthening supervision' as one of the basic principles of deepening the reform of SOEs. It also points out that 'enhancing vitality is the essential requirement for improving the quality of SOEs, strengthening supervision is the important guarantee for improving the quality of SOEs, and it is necessary to effectively achieve the integration of the above two', and 'further improve the supervision and administration

CONTACT Jian Chu  13210690028@fudan.edu.cn  School of Business, Nanjing University, Nanjing, Jiangsu, China
Paper accepted by Xi Wu.

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

system of SOEs to prevent the loss of state-owned assets and ensure the value maintenance and appreciation of state-owned assets'. Therefore, state-owned assets supervision and administration system and the governance of SOEs have become hot topics with common concern of the regulator and academia. Some papers examine the impact of changes in external regulatory environment on the governance of SOEs. The findings include that the strengthening of external supervision brought about by the establishment of the State-Owned Assets Supervision and Administration Commission (SASAC) in 2003 can improve the restructuring effect of SOEs (Sheng & Liu, 2016), the performance evaluation system perfected by SASAC can restrain the myopic behaviour of managers in SOEs (Yu et al., 2016), and the audit supervision conducted by the National Audit Office (NAO) on central SOEs can curb the excessive perks of managers in SOEs (Chu & Fang, 2016). Other papers focus on whether the reform of internal regulatory mechanisms improves the governance of SOEs. The findings include that the pilot of establishing a standardised board alleviates the agency problem of SOEs (W. Li et al., 2017), and the participation of party organisations in corporate governance can curb the loss of assets in the mergers and acquisitions of SOEs (S. Chen & Lu, 2014). Besides the aforementioned internal and external state-owned assets supervision and administration mechanisms, there are also supervision and control mechanisms based on personnel appointment arrangements.

As C. Xu (2011) points out, the control of superior governments and public institutions over subordinate governments and public institutions relies more on hard administration measures related to personnel, such as promotion and rotation, in the governance system of leading cadres in China. As far as state-owned assets supervision and administration system is concerned, the leaders of SOEs are recommended, appraised, appointed and dismissed by superior organisation department and SASAC according to authority, responsibilities and relevant regulations. The leaders of SOEs have corresponding administrative levels. They are under the management and enjoy the treatment similar to civil servants of the same administrative level. As a result, they have obvious characteristics of 'quasi officials' (Yang et al., 2013). D. Chen et al. (2018) holds that with the promotion of the leaders of SOEs to a higher administrative level, the opportunities for their external labour market are increasingly rare, so they tend to make more cautious corporate decisions. X. Cao et al. (2019) finds that promotion incentive is significantly and positively related to the performance of SOEs and has a substitutional relation with compensation incentive in the incentive contracts for the leaders of SOEs. Besides promotion, the rotation of leaders is also an important arrangement of state-owned assets supervision and administration system. The article 49 of the Interim Provisions on the Administration of the Leaders of Central SOEs issued by the General Office of the Central Committee of CPC and the General Office of the State Council in 2009 clearly points out that 'improve the rotation system for the leaders of central SOEs', and 'those who need to be cultivated and challenge in need of work or according to regulations should be rotated'. The Provisions on the Administration of the Leaders of Central SOEs further issued by the General Office of the Central Committee of CPC and the General Office of the State Council in 2018 insists that 'the rotation of cadres is an old and good tradition of cadre management in our party and also a successful practice of the personnel management of the leaders of central SOEs, which needs to be maintained and improved'. In order to mobilise the enthusiasm of leaders and strengthen state-owned assets supervision and

administration, this document specifically states that ‘chief accountants should generally be rotated’.

As the leaders and financial executives of SOEs, chief accountants play an important role in the financial management and supervision of SOEs.¹ The Interim Rules on the Administration of the Responsibilities of Chief Accountants in Central SOEs issued by SASAC in 2006 requires that central SOEs should set up the position of chief accountants and chief accountant candidates can be from external rotation or internal transfer. I perform the statistics analysis on the sources of chief accountants of central SOEs. It can be found in Figure 1 that the proportion of chief accountants of central SOEs coming from the financial leadership position of other SOEs, that is, rotated chief accountants has remained at about 20% before 2017, but has increased significantly since 2018, and has exceeded 50% by 2020.² Therefore, it is an important and interesting research question that whether and how the rotation of chief accountants has the governance effect on SOEs.

Based on the data of listed firms controlled by central SOEs from 2007 to 2019, I examine the effect of the rotation of chief accountants of central SOEs on the accounting information quality of listed firms controlled by central SOEs. It is found that the rotation of chief accountants can improve the accounting information quality of SOEs. This result is robust to various endogeneity and robustness tests. Mechanism analyses indicate that the

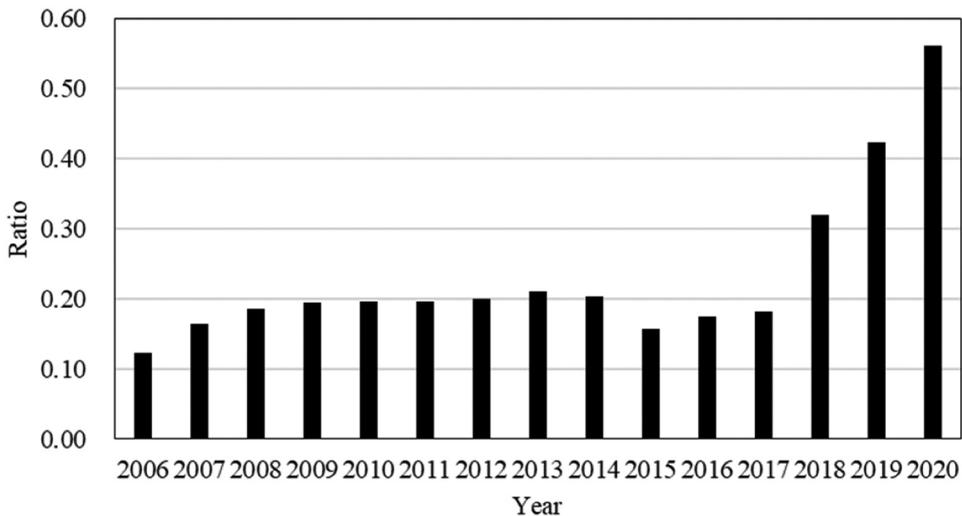


Figure 1. Ratio of rotated chief accountants of central SOEs.

¹For the convenience of literal expression, the main responsibilities of chief accountants are broadly summarised as financial management and supervision. Of course, chief accountants also participate in other aspects of management of SOEs. Compared with the overall management of chairmen or CEOs, the professional field of chief accountants helps me better identify the individual effect.

²The central SOEs in this paper mean the central SOE groups. I mainly focus on the rotation of financial leaders of SOEs in this paper. According to my statistics, besides the financial leadership position of other SOEs, the external sources of chief accountants include the non-financial position of other SOEs and government, both of which are in low and stable ratios.

above result is weakened when the tenure of chief accountants is long or after central SOEs carry out the pilot of establishing a standardised board or are audited by NAO, which suggests that independence is an important mechanism between the rotation of chief accountants and the accounting information quality of SOEs. When considering the types of rotation, the above result is only reflected when chief accountants come from SOEs in different industries or different cities or chief accountants are promoted, which further supports the above influence mechanism. Economic consequence analyses indicate that the rotation of chief accountants alleviates the problem of over-investment and excess perks in SOEs by improving accounting information quality. In summary, the rotation of chief accountants can enhance their independence and strengthen financial management and supervision to improve the governance of SOEs and prevent the loss of state-owned assets.

The theoretical contributions of this paper are mainly reflected in the following aspects. Firstly, state-owned assets supervision and administration system and the governance of SOEs are important research directions in the field of economics and management and are also important topics for deepening the reform of SOEs. Existing literature mainly focuses on the external and internal state-owned assets supervision and administration mechanisms (S. Chen & Lu, 2014; Chu & Fang, 2016; W. Li et al., 2017; Sheng & Liu, 2016; Yu et al., 2016), but pays little attention to the supervision and control mechanisms based on personnel appointment arrangements. It is the first time for this paper to explore the individual governance effect of state-owned assets supervision and administration system on SOEs from the perspective of the rotation of the leaders of SOEs. I also make an extended discussion on the substitutional relation among different supervision mechanisms in the governance effect on SOEs.

Secondly, the rotation of leading cadres and public performance are important topics in the field of public economics and management. Existing researches show that the rotation of local party and government leaders has a positive impact on local economic growth (X. Xu et al., 2007; Zhang & Gao, 2007), and the rotation of local leaders in judicial, tax, and audit departments has a positive impact on local judicial efficiency, tax collection, and audit supervision (G. Chen, 2012; Chu & Chen, 2021; Fan & Tian, 2016). Different from the above literature mainly focusing on macroeconomic development or some specific areas, I broaden research vision by studying state-owned assets supervision and administration and the rotation of chief accountants of enterprises at the micro level. I also identify the heterogeneity effect of the rotation of chief accountants from the perspective of the types of rotation.

Thirdly, financial executives have a significant individual effect in corporate information disclosure and financial decisions (Ge et al., 2011). Competence and independence are two important factors related to the individual effect. The literature on competence shows that financial executives from outside (Geiger & North, 2006; Mian, 2001), with professional qualification or experience (Hoitash et al., 2016; C. Li et al., 2010), and concurrently holding the position of directors (Bedard et al., 2014; Xiang, 2015) are perceived to be more competent. The literature on independence shows that the decisions and responsibilities of financial executives may be affected by CEOs (Feng et al., 2011; Leone & Liu, 2010; Mian, 2001) while staggered tenure and high rank of position can enhance the influence of financial executives (D. Jiang et al., 2018; F. Jiang et al., 2013). Based on these researches, my paper suggests that the rotation system of chief

accountants in SOEs is an effective administrative appointment mechanism to enhance the independence of financial executives while maintaining professional competence. Moreover, political promotion incentive can strengthen the effect of rotation in the context of constrained outside labour market for chief accountants (D. Chen et al., 2018). All these obviously promote the researches in this field.

2. Institutional background, theoretical analysis and hypothesis development

2.1. Institutional background

China's chief accountant system originated in the planned economy period. At that time, China learned from the experience of the Soviet Union and began to set up the position of chief accountants in some large and medium SOEs. As the person in charge of economic accounting and financial accounting, chief accountant was responsible for both the country and factory leader. The Draft of Several Provisions on the Establishment of Chief Accountants in State-Owned Industrial and Transportation Enterprises raised by the State Economic Commission and the Ministry of Finance and approved by the State Council in 1963 stipulates that state-owned industrial and transportation enterprises should set up the position of chief accountants and makes specific provisions on the rank, qualifications, appointment and dismissal, duties and authorities of chief accountants. The Regulations on the Duties and Authorities of Accountants issued by the State Council in 1978 also sets up a chapter to discuss the relevant provisions of chief accountant system. When state-owned industrial enterprises were overall rectified in 1982, various departments began to define chief accountants as leaders of enterprises and included them in the list of enterprise leaders. The Decision of the Central Committee of the Communist Party of China on Economic System Reform approved at the third Plenary Session of the twelfth Central Committee of the CPC in 1984 reaffirmed chief accountant system and listed chief accountants as members of the leadership team of enterprises.

Furthermore, it is the first time for the Accounting Law promulgated by the country in 1985 to clarify the requirement for the establishment of chief accountants in legal form, which states that 'large and medium enterprises, public institutions and administrative departments in charge can set up the position of chief accountants'. The Chief Accountant Ordinance issued by the State Council at the end of 1990 clarifies the authorities and rank of chief accountants and stipulates that 'large and medium enterprises owned by the whole people shall set up the position of chief accountants while public institutions and administrative departments in charge can have chief accountants as required and approved'. As a result, China's chief accountant system has entered a new stage of development. The Accounting Law revised in 1999 makes new provisions on the scope of establishing chief accountant system that 'large and medium SOEs and enterprises with state-owned assets predominate must set up the position of chief accountants'. In 2006, SASAC issued the Interim Rules on the Administration of the Responsibilities of Chief Accountants in Central SOEs, which clearly requires that 'central SOEs should set up the position of chief accountants in accordance with the provisions and allocate qualified chief accountants to effectively perform their

responsibilities', and stipulates that 'the main responsibilities of chief accountants include basic management of enterprise accounting, financial management and supervision, construction of internal control system on financial accounting, and supervision of major financial issues' and 'central SOEs should give chief accountants corresponding authorities to effectively perform their duties, including the right to participate in major issues of enterprise, the right to supervise the implementation of major decisions and rules and regulations, the right to make personnel recommendations on the allocation of accountants, and the right to co-sign the agreements for large capital expenditures'. It indicates that chief accountants are not only directly responsible for the financial management and supervision of SOEs, but also deeply involved in all aspects of the operation and management of SOEs. Therefore, chief accountants are the core members of the leadership team of SOEs.

In practice, Anshan Iron and Steel Corporation, the predecessor of Anshan Iron and Steel Group Corporation, set up the position of chief accountants at the headquarter as early as 1962. Subsequently, SOEs in different industries, such as metallurgy, machinery, chemistry and transportation, successively established chief accountant system. With the promulgation and revision of laws and regulations, such as the Accounting Law, the Chief Accountant Ordinance, and the Interim Rules on the Administration of the Responsibilities of Chief Accountants in Central SOEs, chief accountant system has been fixed in SOEs and has been continuously improved with economic and social development. In the meantime, the rotation system of chief accountants has also been implemented. Here I need to discuss the rotation system of leading cadres in China. After the reform and opening up, especially since the 1990s, the rotation of leading cadres has gradually become institutionalised, standardised and normalised. In July 1990, the Central Committee of CPC made the Decision on Implementing the Rotation System of Leading Cadres of the Party and Government. The General Office of the Central Committee of CPC issued the Interim Provisions on the Rotation of Leading Cadres of the Party and Government in 1999 and the Provisions on the Rotation of Leading Cadres of the Party and Government in 2006. Although the aforementioned documents do not directly target the leaders of SOEs, their characteristics of 'quasi officials' have contributed to the implementation of the rotation of chief accountants to a certain extent. The Interim Rules on the Administration of the Responsibilities of Chief Accountants in Central SOEs has already clarified that the source of chief accountants includes external rotation. The Interim Provisions on the Administration of the Leaders of Central SOEs issued by the General Office of the Central Committee of CPC and the General Office of the State Council in 2009 proposes to 'improve the rotation system of the leaders of central SOEs'. The leaders in this document include chief accountants. The Opinions on the Pilot of Delegating Chief Accountants in Central SOEs issued by SASAC in 2015 also emphasises that the delegated chief accountants are generally from rotation. SASAC also promotes the rotation of non-delegated chief accountants. In 2018, the General Office of the Central Committee of CPC and the General Office of the State Council further issued the Provisions on the Administration of the Leaders of Central SOEs, which explicitly states that 'chief accountants should generally be

rotated'. As a result, the rotation system of chief accountants has been gradually specified through continuous practice.

2.2. Theoretical analysis and hypothesis development

The research question I am interested in is the effect of the rotation of chief accountants on the accounting information quality of SOEs. Because the real owner of SOEs is the country and does not refer to a specific person, it creates a virtual 'owner vacancy'. Under this circumstance, the state-owned shareholders who exercise ownership right are in fact agents. SASAC delegates the management right of SOEs to managers. In order to control and supervise the behaviour of managers, SASAC designs a set of performance appraisal and evaluation system for leaders based on accounting information indicators (Du et al., 2018; Yu et al., 2016). But due to the multi-layer principal-agent relationship, there is severe information asymmetry in SOEs. Managers have motivation and ability to manipulate accounting information to confuse the public, thus leading to low accounting information quality of SOEs (Gul et al., 2010). Chief accountants are mainly responsible for financial management and supervision in SOEs. Their motivation and ability have direct effect on the accounting information quality of SOEs. The rotation of chief accountants can affect the accounting information quality of SOEs by changing their independence and competence.

On the one hand, the rotation of chief accountants can increase their motivation and strengthen their independence in financial management and supervision. As the members of the leading team of SOEs, chief accountants are mainly responsible for financial management and supervision and are also deeply involved in major decisions on the operation and management of SOEs. The financial and operating performance of SOEs are directly related to the performance appraisal and evaluation results of leaders including chief accountants and thus affect their compensation and promotion (Yang et al., 2013). As a result, chief accountants and other leaders have common interests. Meanwhile, chief accountants are often ranked at the back of some vice general managers in the list of leaders (Ding & Wen, 2012) and may be influenced by other leaders when performing financial management and supervision. All above factors have significantly weakened the independence of chief accountants in financial management and supervision. The rotation of chief accountants can reduce the possibility of insider collusion through staggered tenure with other leaders (F. Jiang et al., 2013). It can also alleviate the problem of insider control caused by working in an enterprise for a long time. Therefore, the rotation of chief accountants can strengthen their independence and then improve the accounting information quality of SOEs.

On the other hand, the rotation of chief accountants may increase their difficulty in performing duties and reduce their competence in financial management and supervision. Although 'learning by doing' can help chief accountants strengthen the general knowledge, experience and skills of financial management and supervision, rotated chief accountants still need to spend a lot of time and resources to get familiar with and understand the problems and underlying causes in financial management and supervision of a new enterprise and also need to establish the connection with and fit into a new leadership team. This is due to different historical background, development status and personnel composition in different enterprises. All above factors may

destroy the professional stability and specialisation of chief accountants and increase their working difficulties and costs. Therefore, the rotation of chief accountants can reduce their competence and then decrease the accounting information quality of SOEs.

In summary, the effect of the rotation of chief accountants on the accounting information quality of SOEs is an empirical question. Therefore, I propose the following alternative hypotheses:

H1a: *When the independence mechanism dominates, the rotation of chief accountants can improve the accounting information quality of SOEs.*

H1b: *When the competence mechanism dominates, the rotation of chief accountants can reduce the accounting information quality of SOEs.*

Then, I analyse the impact of relevant factors on the relationship between the rotation of chief accountants and the accounting information quality of SOEs based on the aforementioned theoretical mechanisms. Firstly, the tenure of chief accountants can affect their independence and competence and thus affect the relationship between the rotation of chief accountants and the accounting information quality of SOEs. If independence is the dominant mechanism through which the rotation of chief accountants improves the accounting information quality of SOEs, the possibility of collusion and the size of common interests between chief accountants and other leaders become greater when the tenure of chief accountants becomes longer, which impairs the independence of chief accountants. Therefore, the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens as the tenure of chief accountants increases.

If competence is the dominant mechanism through which the rotation of chief accountants reduces the accounting information quality of SOEs, chief accountants have more time to get familiar with and understand the current situation of financial management and supervision of the new enterprise and are more likely to coordinate operation and management with other leaders when the tenure of chief accountants becomes longer. Afterwards they are more likely to carry out financial management and supervision according to inside and outside conditions, making them more competent to perform their duties. Therefore, the deteriorating effect of the rotation of chief accountants on the accounting information quality of SOEs weakens as the tenure of chief accountants increases. Therefore, I propose the following alternative hypotheses:

H2a: *When the independence mechanism dominates, the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens as the tenure of chief accountants increases.*

H2b: *When the competence mechanism dominates, the deteriorating effect of the rotation of chief accountants on the accounting information quality of SOEs weakens as the tenure of chief accountants increases.*

Secondly, the pilot of establishing a standardised board in SOEs can affect the independence of chief accountants and thus affect the relationship between the rotation of chief accountants and the accounting information quality of SOEs. Pilot SOEs are required to allocate outside directors with numbers more than half of the board. The improvement of independence of the board ensures the independence of chief accountants because chief accountants need to report to the board. Meanwhile, the pilot of establishing a standardised board can alleviate the problem of insider control in SOEs (W. Li et al., 2017), which also strengthens the independence of chief accountants. If independence is the dominant mechanism through which the rotation of chief accountants improves the accounting information quality of SOEs, the pilot of establishing a standardised board and the rotation of chief accountants can substitute with each other. Therefore, the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after SOEs carry out the pilot of establishing a standardised board.

However, the pilot of establishing a standardised board in SOEs can neither directly affect the competence of chief accountants nor affect the relationship between the rotation of chief accountants and the accounting information quality of SOEs through the competence mechanism. Therefore, I propose the following alternative hypotheses:

H3a: *When the independence mechanism dominates, the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after SOEs carry out the pilot of establishing a standardised board.*

H3b: *When the competence mechanism dominates, the deteriorating effect of the rotation of chief accountants on the accounting information quality of SOEs does not change after SOEs carry out the pilot of establishing a standardised board.*

Thirdly, audit supervision on SOEs can affect the independence of chief accountants and thus affect the relationship between the rotation of chief accountants and the accounting information quality of SOEs. In order to ensure the authenticity, legitimacy and effectiveness of the operation and management of SOEs, audit institutions shall, in accordance with laws and regulations, conduct audit supervision over the financial revenues and expenditures of SOEs. Audit outcomes are important decision bases for the reward, punishment, appointment and dismissal of the leaders of SOEs. The primary concern of audit supervision on SOEs is the authenticity of accounting information.³ When SOEs are audited and face subsequent rectification of issues found suspicious, chief accountants, as financial executives of SOEs, must pay more attention to accounting information quality. They are also less likely to be influenced by other leaders and thus their independence is significantly enhanced. Meanwhile, audit supervision can alleviate the problem of insider control in SOEs (Chu & Fang, 2016), which also strengthens the independence of chief accountants. If independence is the dominant mechanism through which the rotation of chief accountants improves the accounting information quality of SOEs, audit supervision and the rotation of chief

³It can be found from the audit outcome announcements released by the National Audit Office that the issue in financial management and accounting ranks first among the major issues found suspicious in the audit of SOEs.

accountants can substitute with each other. Therefore, the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after SOEs are audited.

However, audit supervision on SOEs can neither directly affect the competence of chief accountants nor affect the relationship between the rotation of chief accountants and the accounting information quality of SOEs through the competence mechanism. Therefore, I propose the following alternative hypotheses:

H4a: *When the independence mechanism dominates, the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after SOEs are audited by audit institutions.*

H4b: *When the competence mechanism dominates, the deteriorating effect of the rotation of chief accountants on the accounting information quality of SOEs does not change after SOEs are audited by audit institutions.*

3. Research design

3.1. Data sources and sample selection

I attempt to empirically test the above hypotheses by taking the rotation of chief accountants in central SOEs as the starting point. Central SOEs fully comply with the applicable object standards of laws and regulations such as the Accounting Law, the Chief Accountant Ordinance, and the Interim Rules on the Administration of the Responsibilities of Chief Accountants in Central SOEs because they are the most representative of state-owned enterprises and their scale is generally large or medium. Meanwhile, I take listed firms controlled by central SOEs as empirical research object. The reasons are as follows. Firstly, chief accountants of central SOEs can directly control and influence the financial management and supervision activities of subordinate listed firms. Hence, the governance changes of subordinate listed firms in financial management and supervision can reflect the individual effect of chief accountants. Secondly, it is feasible to collect data and make research design when focusing on subordinate listed firms, which is also consistent with the general practice of existing literature (C. Cao & Zhang, 2020; Chu & Fang, 2016; W. Li et al., 2017; Yu et al., 2016).

Due to the new Accounting Standard for Business Enterprises implemented in 2007 and the impact of COVID-19 on firms' operation and management since 2020, I select a sample of listed firms controlled by central SOEs from 2007 to 2019. After deleting the sample firms in finance industry, listed as B-share, in Sci-Tech innovation board, and with missing variables, I finally get 3,530 listed firm-year observations.

The data about the individual characteristics of chief accountants is manually collected from the announcements on appointment and dismissal of leaders on the website of SASAC, directory of leaders on the website of central SOEs and Baidu Baike. The financial data and corporate governance data of listed firms controlled by central SOEs are from CSMAR database. The marketisation index is from Wang et al. (2021).

3.2. Research model and variable definition

I use the following regression model (1) to test the effect of the rotation of chief accountants on the accounting information quality of SOEs:

$$|DA|_{it} = \beta_0 + \beta_1 ROTATE_{g(i)t} + \beta_k Controls_{it} + \lambda_i + \mu_t + \varepsilon_{it} \quad (1)$$

The subscript i represents listed firm controlled by central SOE. The subscript t represents year. The subscript g represents central SOE (group). In model (1), I control firm fixed effect (λ_i) and year fixed effect (μ_t).

The dependent variable $|DA|$ is accounting information quality, defined as Kothari et al. (2005). I run the following regression model (2) by industry and year to get the residual. After making the performance adjustment to the residual, that is, subtracting another residual of the firm with the same industry and year and the closest ROA, I take the absolute value of the above difference as the measure of $|DA|$. The smaller the value of $|DA|$ is, the higher the accounting information quality of SOEs is.

$$AC_{it}/TA_{it-1} = \beta_0 + \beta_1 1/TA_{it-1} + \beta_2 (\Delta Sale_{it} - \Delta AR_{it})/TA_{it-1} + \beta_3 PPE_{it}/TA_{it-1} + \varepsilon_{it} \quad (2)$$

TA is total assets. AC is total accrual earnings that equals the difference between net income and operating cash flow. $\Delta Sale$ is the difference between current- and prior-year sales. ΔAR is the difference between current- and prior-year accounts receivable. PPE is the original value of fixed assets.

The independent variable $ROTATE$ is the rotation of chief accountants, defined as a dummy that equals 1 if the incumbent chief accountants of central SOEs are from the financial leadership position of other SOEs, and 0 otherwise. Similar to Fan and Tian (2016), the research design based on multiple entry and exit shocks formed by the turnover of chief accountants is more exogenous than the general difference-in-differences model and is conducive to better identifying the casual effects. According to the aforementioned H1a, if the regression coefficient β_1 in model (1) is significantly negative, it means that the rotation of chief accountants can improve the accounting information quality of SOEs.

Meanwhile, I control several control variables in model (1). $SIZE$ is defined as the natural logarithm of total assets at the end of year. LEV is defined as the total liabilities divided by total assets at the end of year. ROA is defined as the net income divided by total assets at the end of year. MTB is defined as the market value divided by book value of total equities at the end of year. $LARGEST$ is defined as the percentage of ownership held by the largest shareholder. $BOARD$ is defined as the natural logarithm of 1 plus the number of directors in the board. $INDEP$ is defined as the number of independent directors divided by the number of directors in the board. $DUAL$ is defined as 1 if the chairman of the board also holds position of CEO, and 0 otherwise. $MSHARE$ is defined as the percentage of ownership held by managers. $BIG4$ is defined as 1 if annual report is audited by the international Big 4 audit firms, and 0 otherwise. $MINDEX$ is defined as the decile ranking (0–9, divided by 9) of marketisation index for the province in which the firm is located.

3.3. Descriptive statistics

Table 1 reports the descriptive statistics of variables in model (1). It can be found that the mean (standard deviation) of $|DA|$ is 0.075 (0.079), which is consistent with existing

Table 1. Descriptive statistics.

Variables	N	Mean	SD	P25	P50	P75
DA	3,530	0.075	0.079	0.023	0.052	0.095
ROTATE	3,530	0.221	0.415	0.000	0.000	0.000
SIZE	3,530	22.795	1.541	21.632	22.593	23.797
LEV	3,530	0.529	0.209	0.380	0.541	0.688
ROA	3,530	0.028	0.056	0.009	0.027	0.052
MTB	3,530	3.280	2.974	1.419	2.416	4.060
LARGEST	3,530	0.415	0.145	0.296	0.420	0.515
BOARD	3,530	2.324	0.172	2.303	2.303	2.398
INDEP	3,530	0.371	0.061	0.333	0.333	0.375
DUAL	3,530	0.061	0.239	0.000	0.000	0.000
MSHARE	3,530	0.004	0.017	0.000	0.000	0.000
BIG4	3,530	0.152	0.359	0.000	0.000	0.000
MINDEX	3,530	0.715	0.286	0.556	0.889	0.889

literature. The mean of *ROTATE* is 0.221, indicating that about 22% of chief accountants of central SOEs are rotated in the sample. In the dimension of corporate finance and governance, the indicators are quite similar to existing literature on SOEs. For example, the average leverage is 0.529, the average ROA is 0.028, the average largest ownership is 0.415, the average managerial ownership is 0.004, the average ratio of independent directors is 0.371, the average duality of chairman and CEO is 0.061, and the average probability of annual report audited by Big 4 is 0.152 in sample listed firms controlled by central SOEs.

4. Empirical results and analysis

4.1. Basic empirical results and analysis

Table 2 reports the results of the effect of the rotation of chief accountants on the accounting information quality of SOEs. It can be found in column (1) that the coefficient of *ROTATE* is significantly negative when controlling no control variables in model (1). The coefficient of *ROTATE* keeps significantly negative when adding control variables in column (2). Both statistical significance and economic significance are quite stable. The above results indicate that the rotation of chief accountants can improve the accounting information quality of SOEs. In the dimension of economic significance of the above effect, the accounting information quality of SOEs increases about 0.114 standard deviation when chief accountants change from non-rotated ones to rotated ones, which means the above effect is economically significant.

In summary, the rotation of chief accountants can increase their independence, thus leading to an improvement of the accounting information quality of SOEs. Therefore, H1a is empirically supported and H1b is empirically denied.

4.2. Endogeneity tests and robustness tests

I do the following tests to alleviate endogeneity concern and strengthen the robustness of my results.

Table 2. Rotation of chief accountants and accounting information quality of SOEs.

Variables	(1)	(2)
	DA	DA
ROTATE	-0.009** (-2.055)	-0.009** (-2.018)
SIZE		0.010 (1.616)
LEV		0.020 (0.968)
ROA		0.110** (2.462)
MTB		0.001 (0.980)
LARGEST		0.054 (1.487)
BOARD		-0.001 (-0.065)
INDEP		-0.000 (-0.004)
DUAL		-0.010 (-1.215)
MSHARE		0.203 (1.183)
BIG4		-0.007 (-0.704)
MINDEX		-0.009 (-0.329)
Firm FE	YES	YES
Year FE	YES	YES
Adj. R ²	0.058	0.066
N	3,530	3,530

T-statistics based on robust standard errors that are clustered by central SOEs are displayed in parentheses. ***, ** and * represent 1%, 5% and 10% significance levels, respectively, based on a two-tailed test.

- (1) Use change model based on the turnover of chief accountants. *Non-R to R* is defined as 0 before the turnover of chief accountants from non-rotated ones to rotated ones, and 1 after that. *R to Non-R* is defined as 0 before the turnover of chief accountants from rotated ones to non-rotated ones, and 1 after that. It can be found in column (1) and (2) of Table 3 that the coefficient of *Non-R to R* is significantly negative and the coefficient of *R to Non-R* is significantly positive, indicating that the accounting information quality of SOEs becomes better when chief accountants change from non-rotated ones to rotated ones and deteriorates when chief accountants change from rotated ones to non-rotated ones. This result further supports the above finding.
- (2) Parallel trend test. *1YBefore* is defined as 1 for the one year before rotated chief accountants assume office, and 0 otherwise. *1YAfter* is defined as 1 for the one year after rotated chief accountants leave office, and 0 otherwise. I add these two variables in model (1). It can be found in column (3) of Table 3 that both coefficients of *1YBefore* and *1YAfter* are insignificant, indicating that rotated chief accountants do not selectively join in SOEs with high accounting information quality. This result further supports the above finding.

Table 3. Endogeneity tests and robustness tests.

Variables	Change model		Parallel trend test		PSM sample		Control individual characteristics		Other baseline groups			Other dependent variables			Alternative explanation	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
<i>Non-R to R</i>	DA	DA	DA	DA	DA	DA	DA	DA_MJ	AQ	AQ_DISC	RM					
	-0.010** (-1.986)	0.014* (1.787)														
<i>R to Non-R</i>																
<i>ROTATE</i>			-0.008* (-1.695)	-0.012** (-1.964)	-0.009* (-1.831)	-0.009* (-1.846)	-0.010** (-2.108)	-0.013*** (-3.107)	-0.011*** (-2.748)							
<i>1YBefore</i>			-0.001 (-0.068)													
<i>1YAfter</i>			0.009 (0.586)													
<i>TENURE</i>																
<i>AGE</i>																
<i>FEMALE</i>																
<i>EDULEVEL</i>																
<i>EXOTH</i>																
<i>INOTH</i>																
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R ²	0.019	0.015	0.066	0.024	0.066	0.066	0.076	0.455	0.380	0.380	0.380	0.455	0.380	0.380	0.380	0.380
N	1,179	509	3,530	1,510	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530	3,530

T-statistics based on robust standard errors that are clustered by central SOEs are displayed in parentheses. ***, ** and * represent 1%, 5% and 10% significance levels, respectively, based on a two-tailed test. Control variables are same as those in model (1).

- (3) Use PSM sample. To control the difference between SOEs with rotated chief accountants and SOEs with non-rotated chief accountants, I take propensity score matching method. In the first step, I run the logistic regression of *ROTATE* on control variables in model (1) and year fixed effect to calculate the propensity score. In the second step, I get the PSM sample based on 1 by 1 nearest matching by using the propensity score. Finally, I rerun the regression model (1) based on this PSM sample. It can be found in column (4) of Table 3 that the result is consistent with the above finding.
- (4) Control other individual characteristics of chief accountants. I further control tenure (*TENURE*), age (*AGE*), gender (*FEMALE*), education level (*EDULEVEL*) of chief accountants in model (1). It can be found in column (5) of Table 3 that the result is consistent with the above finding.
- (5) Change the baseline group in model (1). To further compare the governance effect of rotated chief accountants with that of chief accountants from other sources, I add *INOTH* and *EXOTH* in model (1). *INOTH* is defined as 1 if the incumbent chief accountants of central SOEs are from the non-financial position of the same SOEs, and 0 otherwise. *EXOTH* is defined as 1 if the incumbent chief accountants of central SOEs are from the non-financial position of other SOEs or government, and 0 otherwise. It can be found in column (6) of Table 3 with inside chief accountants as baseline group that compared with these chief accountants, chief accountants rotated from external financial position can significantly improve the accounting information quality of SOEs while chief accountants from external non-financial position or government have no additional governance effect. It can be found in column (7) of Table 3 with inside chief accountants promoted from lower financial position as baseline group that compared with these chief accountants, chief accountants rotated from external financial position can significantly improve the accounting information quality of SOEs while chief accountants from internal or external non-financial position or government have no additional governance effect.⁴ The above result indicates that rotation from external financial position does not obviously impair the professional competence of chief accountants but improves the independence in performing their duties, which makes them carry out financial management and supervision activities effectively.
- (6) Change the measurement of accounting information quality. I define $|DA_MJ|$ as the absolute value of discretionary accruals calculated on the modified Jones model (Dechow et al., 1995), *AQ* as the standard deviation of discretionary working capital accruals calculated on the modified DD model (McNichols, 2002), and *AQ_DISC* as the discretionary part of *AQ* (Francis et al., 2005). These are the alternative indicators of accounting information quality. It can be found in column (8) to (10) of Table 3 that the result is consistent with the above finding.⁵
- (7) Rule out the alternative explanation. I mainly use accrual earnings management to measure accounting information quality. Due to the potentially substitutional

⁴All chief accountants in my sample are from SOEs or government. The coefficient difference tests indicate that the coefficient of *ROTATE* is significantly smaller than that of *EXOTH* in column (6) (P-value is 0.098) while the coefficient of *ROTATE* is significantly smaller than those of *EXOTH* and *INOTH* in column (7) (P-values are 0.098 and 0.082, respectively). In theory, chief accountants rotated from external financial position are more independent than inside chief accountants and more competent than chief accountants from non-financial position.

⁵Further tests on other dimensions of accounting information quality indicate that the rotation of chief accountants can also increase accounting comparability of SOEs.

relationship between accrual earnings management and real earnings management, the rotation of chief accountants may lead SOEs to adopt more obscure real earnings management when decreasing accrual earnings management, which will worsen accounting information quality. To rule out this alternative explanation, I construct comprehensive real earnings management indicator *RM*, defined as Cohen et al. (2008). It can be found in column (11) of Table 3 that the rotation of chief accountants does not significantly influence the real earnings management of SOEs. So, this alternative explanation is not established.

4.3. Mechanism tests

Based on the aforementioned theoretical analysis and corresponding empirical finding, the rotation of chief accountants can improve the accounting information quality of SOEs by increasing their independence. To verify the theoretical mechanism, I do the following mechanism tests.

Firstly, according to the theoretical analysis, if the independence mechanism is valid, the independence of chief accountants weakens with the tenure and then the effect of the rotation of chief accountants on the accounting information quality of SOEs also weakens with the tenure. Therefore, I construct the interaction term of the rotation and tenure of chief accountants. It can be found in column (1) of Table 4 that the coefficient of *ROTATE*×*TENURE* is significantly positive, which indicates that the longer the tenure of chief accountants is, the weaker the improving effect of the rotation of chief accountants on the accounting information quality of SOEs is. Therefore, H2a is empirically supported.

Secondly, according to the theoretical analysis, if the independence mechanism is valid, the pilot of establishing a standardised board, as a substitutional inside governance measure, can improve the independence of chief accountants and then the effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after the implementation of the pilot. Therefore, I define *PILOT* as 1 after central SOEs carry out the pilot of establishing a standardised board, and 0 otherwise. Then I construct the interaction term of the rotation of chief accountants and the pilot of establishing a standardised board. It can be found in column (2) of Table 4 that the coefficient of *ROTATE*×*PILOT* is significantly positive, which indicates that the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after SOEs carry out the pilot of establishing a standardised board. Therefore, H3a is empirically supported.

Thirdly, according to the theoretical analysis, if the independence mechanism is valid, audit supervision, as a substitutional outside governance measure, can improve the independence of chief accountants and then the effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after the implementation of audit supervision on SOEs. Therefore, I define *AUDIT* as 1 after central SOEs are audited by NAO, and 0 otherwise. Then I construct the interaction term of the rotation of chief accountants and audit supervision. It can be found in column (3) of Table 4 that the coefficient of *ROTATE*×*AUDIT* is significantly positive, which indicates that the improving effect of the rotation of chief accountants on the accounting information quality of SOEs weakens after SOEs are audited by NAO. Therefore, H4a is empirically supported.

Table 4. Mechanism tests.

	(1)	(2)	(3)
Variables	DA	DA	DA
<i>ROTATE</i>	-0.015*** (-2.676)	-0.021*** (-2.859)	-0.018*** (-2.627)
<i>ROTATE</i> × <i>TENURE</i>	0.002* (1.745)		
<i>TENURE</i>	-0.000 (-0.303)		
<i>ROTATE</i> × <i>PILOT</i>		0.016* (1.920)	
<i>PILOT</i>		-0.004 (-0.747)	
<i>ROTATE</i> × <i>AUDIT</i>			0.014* (1.690)
<i>AUDIT</i>			-0.005 (-1.011)
Controls	YES	YES	YES
Firm FE	YES	YES	YES
Year FE	YES	YES	YES
Adj. R ²	0.066	0.067	0.067
N	3,530	3,530	3,530

T-statistics based on robust standard errors that are clustered by central SOEs are displayed in parentheses. ***, ** and * represent 1%, 5% and 10% significance levels, respectively, based on a two-tailed test. Control variables are same as those in model (1).

In summary, the rotation of chief accountants does improve the accounting information quality of SOEs by increasing their independence.

5. Further analysis

5.1. Heterogeneity tests on the types of rotation of chief accountants

I further do heterogeneity tests on the types of rotation of chief accountants. Firstly, I divide *ROTATE* into *ROTATE_SAMEIND* and *ROTATE_DIFFIND* according to the industries which former SOEs of chief accountants belong to. *ROTATE_SAMEIND* is defined as 1 if the incumbent chief accountants of central SOEs are from the financial leadership position of other SOEs and the two SOEs share the same industry, and 0 otherwise. *ROTATE_DIFFIND* is defined as *ROTATE* minus *ROTATE_SAMEIND*. It can be found in column (1) of Table 5 that the coefficient of *ROTATE_DIFFIND* is significantly negative while that of *ROTATE_SAMEIND* is not significant, and there is significant difference between the two coefficients, indicating that chief accountants rotated from different industries can improve the accounting information quality of SOEs while those from same industry can't do so. This finding further supports the independence mechanism and rejects the competence mechanism, such as industry experience.

Secondly, I divide *ROTATE* into *ROTATE_SAMECITY* and *ROTATE_DIFFCITY* according to the cities where former SOEs of chief accountants are located. *ROTATE_SAMECITY* is defined as 1 if the incumbent chief accountants of central SOEs are from the financial leadership position of other SOEs and the two SOEs share the same city, and 0 otherwise. *ROTATE_DIFFCITY* is defined as *ROTATE* minus *ROTATE_SAMECITY*. It can be found in column (2) of Table 5 that the coefficient of *ROTATE_DIFFCITY* is significantly negative

Table 5. Heterogeneity tests on types of rotation.

	(1)	(2)	(3)	(4)
Variables	DA	DA	DA	DA
<i>ROTATE_DIFFIND</i>	-0.015*** (-3.175)			
<i>ROTATE_SAMEIND</i>	-0.000 (-0.053)			
<i>ROTATE_DIFFCITY</i>		-0.019*** (-3.417)		
<i>ROTATE_SAMECITY</i>		-0.007 (-1.424)		
<i>ROTATE_PROMOTE</i>			-0.018*** (-2.906)	
<i>ROTATE_TRANSFER</i>			-0.001 (-0.164)	
<i>ROTATE_DELEGATE</i>				-0.006 (-0.874)
<i>ROTATE_NODELEGATE</i>				-0.012* (-1.913)
Controls	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Adj. R ²	0.067	0.066	0.067	0.066
N	3,530	3,530	3,530	3,530
Coefficient difference	-0.015*	-0.012*	-0.017**	0.006

T-statistics based on robust standard errors that are clustered by central SOEs are displayed in parentheses.

***, ** and * represent 1%, 5% and 10% significance levels, respectively, based on a two-tailed test. Control variables are same as those in model (1).

while that of *ROTATE_SAMECITY* is not significant, and there is significant difference between the two coefficients, indicating that chief accountants rotated from different cities can improve the accounting information quality of SOEs while those from same city can't do so. This finding further supports the independence mechanism and rejects the competence mechanism, such as local information.

Thirdly, I divide *ROTATE* into *ROTATE_PROMOTE* and *ROTATE_TRANSFER* according to the changes in administrative levels from former SOEs to current SOEs of chief accountants. *ROTATE_PROMOTE* is defined as 1 if the incumbent chief accountants of central SOEs are from the financial leadership position of other SOEs and also get promotion in administrative levels, and 0 otherwise. *ROTATE_TRANSFER* is defined as *ROTATE* minus *ROTATE_PROMOTE*. It can be found in column (3) of Table 5 that the coefficient of *ROTATE_PROMOTE* is significantly negative while that of *ROTATE_TRANSFER* is not significant, and there is significant difference between the two coefficients, indicating that chief accountants rotated from lower administrative levels can improve the accounting information quality of SOEs while those from same administrative level can't do so. This finding underlines that political promotion can further strengthen the motivation of chief accountants and their independence.

Fourthly, I divide *ROTATE* into *ROTATE_DELEGATE* and *ROTATE_NODELEGATE* according to whether chief accountants are delegated by SASAC. *ROTATE_DELEGATE* is defined as 1 if the incumbent chief accountants of central SOEs are from the financial leadership position of other SOEs and are also delegated by SASAC, and 0 otherwise. *ROTATE_NODELEGATE* is defined as *ROTATE* minus *ROTATE_DELEGATE*. It can be found in column (4) of Table 5 that

the coefficient of *ROTATE_NODELEGATE* is significantly negative while that of *ROTATE_DELEGATE* is not significant, and there is insignificant difference between the two coefficients, indicating that delegation does not influence the relationship between the rotation of chief accountants and the accounting information quality of SOEs.⁶

In summary, the rotation of chief accountants improves the accounting information quality of SOEs only when chief accountants come from SOEs in the different industries or different cities or they are promoted.

5.2. Rotation of chief accountants and corporate governance of SOEs

Based on the aforementioned findings, I further test the effect of the rotation of chief accountants on corporate governance in SOEs. Accounting information is the basis for firms' operation and management decisions. Accounting information quality is related to the efficiency and effect of firms' regular management and major decisions (Biddle et al., 2009; Gul et al., 2011). According to the Interim Rules on the Administration of the Responsibilities of Chief Accountants in Central SOEs, the responsibilities of chief accountants cover not only accounting information but also regular management and major decisions in SOEs. Therefore, I further study the governance effect of the rotation of chief accountants on the investment decision and perks of SOEs.

The investment decision is one of major decisions in SOEs. Due to the agency problem caused by insider control, investment efficiency is quite low and over-investment problem is quite severe in SOEs (Zhong et al., 2010). The investment plan review, financial feasibility demonstration, investment capital guarantee, investment implementation and other related processes are under the control and influence of chief accountants during the investment decision-making of SOEs. Chief accountants also have the right to participate in and supervise major investment decision and the right to co-sign the agreement for large capital expenditures. Therefore, the rotation of chief accountants can improve the investment efficiency of SOEs and especially curb serious over-investment. Moreover, accounting information is the basis for firms' investment decision. The higher the accounting information quality is, the higher the investment efficiency is (Biddle et al., 2009). Therefore, the rotation of chief accountants can curb over-investment of SOEs by improving accounting information quality. I construct the over-investment indicator *OVERINV*, defined as Richardson (2006). It can be found in Table 6 that the coefficient of *ROTATE* is significantly negative and that of $|DA|$ is significantly positive, which indicates that the rotation of chief accountants can curb the over-investment of SOEs and low accounting information quality leads to serious over-investment. Combined with the above finding that the rotation of chief accountants can improve the accounting information quality of SOEs, the rotation of chief accountants can curb the over-investment of SOEs by improving accounting information quality.

In the regular management of SOEs, due to compensation regulation, insider control has led to serious excessive perks (Quan et al., 2010). Perks, as regular expenditures, involve relevant rules and regulations in SOEs. Chief accountants are responsible for the construction of internal control system on finance and

⁶The pilot of delegating chief accountants in central SOEs has been started since 2016. The short observation period and small affected sample may influence this result.

Table 6. Rotation of chief accountants and over-investment of SOEs.

Variables	(1)	(2)	(3)	(4)
	<i>OVERINV</i>	<i>OVERINV</i>	<i>OVERINV</i>	<i>OVERINV</i>
<i>ROTATE</i>	-0.010*** (-2.685)	-0.009** (-2.285)	-0.009*** (-2.741)	-0.008** (-2.324)
<i>DA</i>			0.093*** (5.386)	0.089*** (5.112)
<i>SIZE</i>		0.007 (1.515)		0.005 (1.197)
<i>LEV</i>		-0.007 (-0.330)		-0.004 (-0.193)
<i>ROA</i>		0.057 (1.194)		0.058 (1.198)
<i>OCF</i>		0.033 (1.382)		0.024 (0.969)
<i>MTB</i>		0.001 (0.731)		0.000 (0.342)
<i>LARGEST</i>		-0.030 (-1.163)		-0.033 (-1.350)
<i>BOARD</i>		-0.002 (-0.134)		-0.001 (-0.057)
<i>INDEP</i>		-0.001 (-0.028)		-0.004 (-0.089)
<i>DUAL</i>		-0.008 (-0.929)		-0.007 (-0.891)
<i>MPAY</i>		-0.001 (-0.213)		0.000 (0.071)
<i>MSHARE</i>		0.015 (0.059)		0.016 (0.067)
<i>MINDEX</i>		0.028 (1.144)		0.030 (1.283)
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Adj. R ²	0.241	0.245	0.268	0.269
N	1,256	1,256	1,256	1,256
Sobel Z statistics			-1.890*	-1.877*

T-statistics based on robust standard errors that are clustered by central SOEs are displayed in parentheses. ***, ** and * represent 1%, 5% and 10% significance levels, respectively, based on a two-tailed test. Besides control variables in model (1), *OCF* is defined as the operating cash flow divided by total assets, and *MPAY* is defined as the natural logarithm of managerial compensation.

accounting, cost control coordination, and overall budget management advancement in SOEs. They also have the right to supervise the implementation of rules and regulations and the right to co-sign the agreement for large regular expenditures. Therefore, the rotation of chief accountants can curb the excessive perks of SOEs. Moreover, accounting information is the basis for firms' regular management. The higher the accounting information quality is, the higher the management efficiency is (Gul et al., 2011). Therefore, the rotation of chief accountants can curb the excessive perks of SOEs by improving accounting information quality. I construct the indicator of excessive perks *UNPERK*, defined as Quan et al. (2010). It can be found in Table 7 that the coefficient of *ROTATE* is significantly negative and that of |*DA*| is significantly positive, which indicates that the rotation of chief accountants can curb the excessive perks of SOEs and low accounting information quality leads to serious excessive perks. Combined with the above finding that the rotation of chief accountants can improve the accounting information quality of SOEs, the

Table 7. Rotation of chief accountants and excess perks of SOEs.

Variables	(1)	(2)	(3)	(4)
	<i>UNPERK</i>	<i>UNPERK</i>	<i>UNPERK</i>	<i>UNPERK</i>
<i>ROTATE</i>	-0.004*** (-2.892)	-0.004*** (-3.031)	-0.003** (-2.436)	-0.003** (-2.606)
<i>DA</i>			0.054*** (5.508)	0.051*** (5.915)
<i>SIZE</i>		-0.004* (-1.758)		-0.004** (-2.127)
<i>LEV</i>		0.009* (1.669)		0.008 (1.592)
<i>ROA</i>		-0.002 (-0.150)		-0.005 (-0.443)
<i>OCF</i>		0.035*** (3.423)		0.028*** (3.053)
<i>MTB</i>		0.000 (0.179)		0.000 (0.067)
<i>LARGEST</i>		0.013* (1.801)		0.012 (1.653)
<i>BOARD</i>		0.002 (0.255)		0.001 (0.230)
<i>INDEP</i>		0.002 (0.133)		0.002 (0.121)
<i>DUAL</i>		0.003 (1.317)		0.003* (1.687)
<i>MPAY</i>		-0.001 (-0.450)		-0.000 (-0.300)
<i>MSHARE</i>		-0.048 (-1.181)		-0.062 (-1.562)
<i>MINDEX</i>		-0.000 (-0.029)		0.000 (0.058)
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Adj. R ²	0.571	0.584	0.594	0.605
N	3,514	3,514	3,514	3,514
Sobel Z statistics			-1.895*	-1.910*

T-statistics based on robust standard errors that are clustered by central SOEs are displayed in parentheses. ***, ** and * represent 1%, 5% and 10% significance levels, respectively, based on a two-tailed test. Besides control variables in model (1), *OCF* is defined as the operating cash flow divided by total assets, and *MPAY* is defined as the natural logarithm of managerial compensation.

rotation of chief accountants can curb the excessive perks of SOEs by improving accounting information quality.

In summary, the rotation of chief accountants can alleviate the problem of over-investment and excessive perks in SOEs, in which the improvement of accounting information quality plays a mediating role.

6. Research conclusions and policy implications

How to improve the governance of SOEs and maintain the safety of state-owned assets through effective institutional arrangements for state-owned assets supervision and administration is an important theoretical and practical question. This paper attempts to answer this question by taking the rotation of chief accountants in central SOEs as the starting point. It is found that the rotation of chief accountants can improve the accounting information quality of SOEs. Mechanism analyses indicate that the above result is weakened when the tenure of chief accountants is long or

after central SOEs carry out the pilot of establishing a standardised board or are audited by NAO. When further considering the types of rotation, the above result is only reflected when chief accountants come from SOEs in the different industries or different cities or chief accountants are promoted. Economic consequence analyses indicate that the rotation of chief accountants alleviates the problem of over-investment and excess perks in SOEs by improving accounting information quality. In summary, the rotation of chief accountants can enhance their independence and strengthen financial management and supervision to improve the governance of SOEs and prevent the loss of state-owned assets.

The research conclusions have important policy implications. Firstly, the rotation of leaders is an important way to cultivate and exercise the comprehensive quality and ability of managers of SOEs, and also an important institutional arrangement to strengthen state-owned assets supervision and administration. From the perspective of the regulator, it is necessary to comprehensively consider the scope, object, and frequency of rotation to balance the independence and competence of managers when performing their duties in SOEs. Secondly, chief accountant system is an important guarantee for SOEs to achieve effective financial management and supervision, which is closely related to chief accountants' status and authority. Therefore, it is necessary to improve the rank of chief accountants among the leadership team of SOEs and ensure their independence in performing financial management and supervision during the process of rotation. Last but not least, the personnel arrangement for leaders to rotate positions, the establishment of a modern enterprise system with a standardised board, and external audit supervision may all have the governance effect on SOEs in a substitutional way. Therefore, it is necessary to achieve the coordination of various reform policies of SOEs, so as to maintain and increase the value of state-owned capital.

Acknowledgments

I appreciate the insightful comments and suggestions from referees and editors. I acknowledge financial support from the National Natural Science Foundation of China [Project No. 71902085].

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

- Bedard, J. C., Hoitash, R., & Hoitash, U. (2014). Chief financial officers as inside directors. *Contemporary Accounting Research*, 31(3), 787–817. <https://doi.org/10.1111/1911-3846.12045>
- Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, 48(2–3), 112–131. <https://doi.org/10.1016/j.jacceco.2009.09.001>
- Cao, X., Lemmon, M., Pan, X., Qian, M., & Tian, G. (2019). Political promotion, CEO incentives, and the relationship between pay and performance. *Management Science*, 65(7), 2947–2965. <https://doi.org/10.1287/mnsc.2017.2966>

- Cao, C., & Zhang, C. (2020). Partitioning of property rights and the innovation of state-owned enterprises: A quasi natural experiment of dividend right incentive reform in central state-owned enterprises. *Journal of Management World*, (9), 155–168. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2020.0144>
- Chen, G. (2012). The geographical rotation of judges and judicial efficiency in China: Evidence from the chief justices of Higher People's Courts. *China Economic Quarterly*, 11(4), 1171–1192. <https://doi.org/10.13821/j.cnki.ceq.2012.04.002>. In Chinese.
- Chen, D., Kim, J.-B., Li, O. Z., & Liang, S. (2018). China's closed pyramidal managerial labor market and the stock price crash risk. *The Accounting Review*, 93(3), 105–131. <https://doi.org/10.2308/accr-51867>
- Chen, S., & Lu, C. (2014). Can the governance participation of the party organization in state-owned enterprises effectively curb the "loss of state-owned assets" in mergers and acquisitions? *Journal of Management World*, (5), 106–120. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2014.05.009>
- Chu, J., & Chen, J. (2021). Cross-task rotation and performance of officials: Evidence from audit officials' local governance experience. *China Economic Studies*, (6), 89–104. In Chinese. <https://doi.org/10.19365/j.issn1000-4181.2021.06.07>
- Chu, J., & Fang, J. (2016). Can government audit restrain the executive excess perks in state-owned enterprises. *Accounting Research*, (9), 82–89. In Chinese. <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2017&filename=KJYJ201609012&uniplatform=NZKPT&v=0GBV5CGwgkghV9K9rCFJzGo83W3Rg0zB2J6lq7c5QbGAusNelY6QAKD0HTllwR8p>
- Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre- and post-Sarbanes-Oxley periods. *The Accounting Review*, 83(3), 757–787. <https://doi.org/10.2308/accr.2008.83.3.757>
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193–225. <https://www.jstor.org/stable/248303>
- Ding, Y., & Wen, Y. (2012). Research on some issues of Chinese CFO system establishment: Based on the conflict and imperfection of related policy and regulations. *Accounting Research*, (8), 72–77. In Chinese. https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2012&filename=KJYJ201208012&uniplatform=NZKPT&v=rj4pMvnCAI6obMoxg5f7Xg9Y_iAzerhDAWuclwK7n0DwZyYPQNsVRkH0lt4aeiPo
- Du, F., Erkens, D. H., Young, S. M., & Tang, G. (2018). How adopting new performance measures affects subjective performance evaluations: Evidence from EVA adoption by Chinese state-owned enterprises. *The Accounting Review*, 93(1), 161–185. <https://doi.org/10.2308/accr-51763>
- Fan, Z., & Tian, B. (2016). Collusion for evasion: Evidence from the rotation of NTBs' directors in China. *China Economic Quarterly*, 15(4), 1303–1328. <https://doi.org/10.13821/j.cnki.ceq.2016.03.02>. In Chinese.
- Feng, M., Ge, W., Luo, S., & Shevlin, T. (2011). Why do CFOs become involved in material accounting manipulations? *Journal of Accounting and Economics*, 51(1–2), 21–36. <https://doi.org/10.1016/j.jacceco.2010.09.005>
- Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics*, 39(2), 295–327. <https://doi.org/10.1016/j.jacceco.2004.06.003>
- Geiger, M. A., & North, D. S. (2006). Does hiring a new CFO change things? An investigation of changes in discretionary accruals. *The Accounting Review*, 81(4), 781–809. <https://doi.org/10.2308/accr.2006.81.4.781>
- Ge, W., Matsumoto, D., & Zhang, J. L. (2011). Do CFOs have style? An empirical investigation of the effect of individual CFOs on accounting practices. *Contemporary Accounting Research*, 28(4), 1141–1179. <https://doi.org/10.1111/j.1911-3846.2011.01097.x>
- Gul, F. A., Cheng, L. T. W., & Leung, T. Y. (2011). Perks and the informativeness of stock prices in the Chinese market. *Journal of Corporate Finance*, 17(5), 1410–1429. <https://doi.org/10.1016/j.jcorpfin.2011.07.005>
- Gul, F. A., Kim, J.-B., & Qiu, A. A. (2010). Ownership concentration, foreign shareholding, audit quality, and stock price synchronicity: Evidence from China. *Journal of Financial Economics*, 95(3), 425–442. <https://doi.org/10.1016/j.jfineco.2009.11.005>

- Hao, Y., & Gong, L. (2017). State and private non-controlling shareholders in SOEs and private firms, and firm performance. *Economic Research Journal*, (3), 122–135. In Chinese. https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2017&filename=JJYJ201703010&uniplatform=NZKPT&v=-BUDyLuJTpUjq2d2yhWI9BTU0IDeZKi3N8PxO0L-a4vWH6z0x2wy_QpP2Qesjwa
- Hoitash, R., Hoitash, U., & Kurt, A. C. (2016). Do accountants make better chief financial officers? *Journal of Accounting and Economics*, 61(2–3), 414–432. <https://doi.org/10.1016/j.jacceco.2016.03.002>
- Huang, Q. (2018). How “new SOEs” come of age: Four decades of China’s SOE reform. *China Economist*, 13(1), 58–83. <https://doi.org/10.19602/j.chinaeconomist.2018.01.03>
- Jiang, D., Yao, Z., & Chen, D. (2018). The rank of CFOs and firms’ stock price crash risk. *Journal of Management World*, (3), 153–166. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2018.03.013>
- Jiang, F., Zhu, B., & Tang, N. (2013). Can staggered tenure of CEOs and CFOs reduce earnings management? *Journal of Management World*, (1), 158–167. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2013.01.014>
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), 163–197. <https://doi.org/10.1016/j.jacceco.2004.11.002>
- Leone, A. J., & Liu, M. (2010). Accounting irregularities and executive turnover in founder-managed firms. *The Accounting Review*, 85(1), 287–314. <https://doi.org/10.2308/accr.2010.85.1.287>
- Li, C., Sun, L., & Ettredge, M. (2010). Financial executive qualifications, financial executive turnover, and adverse SOX 404 opinions. *Journal of Accounting and Economics*, 50(1), 93–110. <https://doi.org/10.1016/j.jacceco.2010.01.003>
- Li, W., Yu, M., & Zhong, H. (2017). Pilot of the board of central state-owned enterprises, agency costs and firm performance of state-owned enterprises. *Journal of Management World*, (8), 123–135. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2017.08.012>
- McNichols, M. F. (2002). Discussion of the quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77(s–1), 61–69. <https://doi.org/10.2308/accr.2002.77.s-1.61>
- Mian, S. (2001). On the choice and replacement of chief financial officers. *Journal of Financial Economics*, 60(1), 143–175. [https://doi.org/10.1016/S0304-405X\(01\)00042-3](https://doi.org/10.1016/S0304-405X(01)00042-3)
- Quan, X., Wu, S., & Wen, F. (2010). Managerial power, private income and compensation rigging. *Economic Research Journal*, (11), 73–87. In Chinese. <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2010&filename=JJYJ201011009&uniplatform=NZKPT&v=O6IUlfr0xi0FlzTK7jVvd6ixweJ6FQ6TD9ziBVeBTLId-7UYPzb0ryCn7ZLXCMAp>
- Richardson, S. (2006). Over-investment of free cash flow. *Review of Accounting Studies*, 11(2–3), 159–189. <https://doi.org/10.1007/s11142-006-9012-1>
- Sheng, D., & Liu, C. (2016). Can external regulation improve the performance of state-owned enterprises? *Economic Research Journal*, (10), 97–111. In Chinese. https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2016&filename=JJYJ201610009&uniplatform=NZKPT&v=m1y3GYTrLsiWIMmqNnUjgRQIM3imu5MTYDSLQab0vAQgvMpUzy_Q68UH9IAZDLob
- Wang, X., Hu, L., & Fan, G. (2021). Marketization index of China’s provinces: NERI report 2021. Social Sciences Academic Press.
- Xiang, R. (2015). CFO’s financial executive ability and firm over-investment: An analysis from the perspective of the board of directors. *Accounting Research*, (7), 56–62. In Chinese. https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2015&filename=KJYJ201507008&uniplatform=NZKPT&v=iFbslh7vazQo7cOkHejppq1qbIRCitJ6AL66io2_9inhY7k5v5qiSX9ln-M5dxMaB
- Xu, C. (2011). The fundamental institutions of China’s reforms and development. *Journal of Economic Literature*, 49(4), 1076–1151. <https://doi.org/10.1257/jel.49.4.1076>
- Xu, X., Wang, X., & Shu, Y. (2007). Local officials and economic growth. *Economic Research Journal*, (9), 18–31. In Chinese. https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2007&filename=JJYJ200709004&uniplatform=NZKPT&v=dAPwFqQVtK3sRGDmbEgbGL_Cpth7gBilmx0wofw14ehsvz4nUvZqkEfOleEc_gtH
- Xu, Z., & Zhang, W. (2015). SOEs reform’s impact on economic growth. *Economic Research Journal*, (4), 122–135. In Chinese. <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=>

CJFDLAST2015&filename=JJYJ201504010&uniplatform=NZKPT&v=d3PgrfY_hM-FveZpA7qjC-hjc3hD-n9O7cHE7akTUKe3GJbC5-db3c4hSCI7QTu

- Yang, R., Wang, Y., & Nie, H. (2013). Promotion mechanism of “quasi officials”: Evidence from China’s central state-owned enterprises. *Journal of Management World*, (3), 23–33. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2013.03.004>
- Yu, M., Zhong, H., & Fan, R. (2016). Does the new performance appraisals (EVA) promote innovation of central government-owned enterprises (CGOEs)? *Economic Research Journal*, (12), 104–117. In Chinese. [https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2007&filename=JJYJ200711011&uniplatform=NZKPT&v=dAPwFqQVtK0_nUoJ5uxuqvpF0fijahBNXTyQ4YOnN5t29kbRtpGRQI5vhcwFCu7d](https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2017&filename=JJYJ201612009&uniplatform=NZKPT&v=m1y3GYTrLsJ3kL7ZXLK6aU2MxGk4VYJoTrOP9qjtHjncj2BZR8YQnOORgfv0iHC)
- Zhang, J., & Gao, Y. (2007). Term limits and rotation of Chinese governors: Do they matter to economic growth? *Economic Research Journal*, (11), 91–103. In Chinese. https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2007&filename=JJYJ200711011&uniplatform=NZKPT&v=dAPwFqQVtK0_nUoJ5uxuqvpF0fijahBNXTyQ4YOnN5t29kbRtpGRQI5vhcwFCu7d
- Zhong, H., Ran, M., & Wen, S. (2010). Government intervention, insider control and corporate investment. *Journal of Management World*, (7), 98–108. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2010.07.010>