Government Decentralization and Cash Holding Level of State-owned Enterprises

Lai Gan

Business school of Nanjing Normal University, Nanjing, China

15200405@njnu.edu.cn

Abstract. As an important part of the reform process of state-owned enterprises in recent years, government decentralization has a profound impact on the business activities of state-owned enterprises. The cash holding level of state-owned enterprises is not only related to the liquidity of state-owned enterprises, but also affects the effective value of state-owned enterprises in the product market competition. Taking the A-share state-owned listed companies in Shanghai and Shenzhen stock exchanges from 2001 to 2019 as samples, the OLS model is used to empirically test the impact of the government's willingness to delegate power on the cash holding level of state-owned enterprises. The research finds that the government decentralization has a significant negative relationship with the cash holding level of state-owned enterprises. Secondly, with the help of the intermediary effect model, the study finds that the government decentralization is to relieve the financing constraints of enterprises, reduce the policy burden of state-owned enterprises, and then reduce the cash holdings of enterprises. The research conclusion not only expands the relevant literature research on the impact of government decentralization on the cash holding level of state-owned enterprises, but also provides some reference for state-owned enterprises on how to improve their governance structure and capital management system.

Keywords: Government Decentralization; Cash Holdings of Enterprises; Cash Value; Financing Constraints.

1. Introduction

On March 11, 2021, the 14th five year plan issued the notice on the work plan to promote the transformation of government functions by combining the simplification of administration and decentralization of power and management. This move aims to increase the efforts of government departments to simplify administration and decentralization by reducing the burden of various market entities and stimulating the space for effective investment. In the long process of governing market economic activities in China, it is a common phenomenon for the government to take a series of intervention measures in economic activities. Although the government's appropriate intervention in enterprises can make up for the deficiencies of the market mechanism itself to a certain extent, in reality, in order to meet the economic construction and maximize public interests, the government will tend to pursue a higher proportion of economic market planning power (Bai Jun et al., 2019). This will form a monopoly situation in the system, thus inhibiting the efficiency of economic market resource allocation. Therefore, in order to complete the tasks of promoting economic development, maintaining social security and improving the level of public services, it is necessary for local governments and officials to streamline administration and delegate power, and restore the autonomy and independence of state-owned enterprises.

After the reform and opening-up, China gradually abolished the all-round control of the state-owned enterprise economy under the planned economic system, and made efforts to establish and improve the socialist market economic system with Chinese characteristics. The SASAC system focuses on strengthening the supervision and management of the maintenance and appreciation of state-owned enterprises' assets. These Measures mean that the state-owned enterprises will have more and wider operational autonomy and decision-making rights, and the efficiency of their internal self-management will be greatly improved. SASAC began to narrow the scope of its management and governance, which shows that the Chinese government has been pursuing and promoting the reform of government simplification and decentralization.

As an important financial indicator in the operation and management of state-owned enterprises, cash holding level reflects the attitude of state-owned enterprises to deal with potential risks, specific operational plans and strategic decisions. Because the flexibility and liquidity of cash are completely irreplaceable by other assets, it has a very important impact on the operation and development of enterprises Therefore, it is necessary to explore the impact of government decentralization on the cash holding level of state-owned enterprises, which is of great significance for us to understand the internal mechanism of government decentralization on the governance of state-owned enterprises and to understand the logic behind the cash holding of state-owned enterprises. This paper takes A-share state-owned listed companies in Shanghai and Shenzhen stock exchanges from 2001 to 2019 as the research sample, and uses OLS model to explore the impact of government decentralization on the cash holding level of state-owned enterprises. Through empirical analysis, we find that the government decentralization can effectively reduce the cash holdings of enterprises and alleviate the excessive cash holdings of enterprises. At the same time, this paper further finds that the government decentralization reduces the cash holding level of enterprises by easing the financing constraints of state-owned enterprises and reducing the policy burden of enterprises.

2. Literature Review and Theoretical Hypothesis

One Literature review

The research finds that the government decentralization can reduce the operation and investment of state-owned enterprises and has a positive impact. Enterprises have more autonomy in the process of operation, reducing excessive investment and other behaviors caused by the policy burden of enterprises, reducing salary control (Cheng Zhongming et al., 2008), easing financing constraints and reducing tax burden (Liu Xing and Li Xiaorong, 2012). Therefore, it is conducive to enterprises to respond to market competition and pressure more efficiently and obtain accumulated excess returns. In general, the previous literature mainly focused on the role of government decentralization in regulating the macro-economy, and did not pay attention to the operational efficiency of enterprises.

Cash is the lifeblood of all enterprises' sustainable operation. First, as far as transactional motivation is concerned, when an enterprise needs cash, it can exchange based on its own non cash assets. However, a certain capital cost is required during the period. Therefore, it is necessary to set the proportion of cash assets according to the actual situation in the operation of enterprises, and then provide support for relevant trading activities (Dou Huan and Lu Zhengfei, 2016). Second, from the perspective of tax motivation, multinational enterprises will keep cash overseas because of tax evasion (Foley et al., 2007), while non-state-owned enterprises hold cash to avoid tax to a greater extent than state-owned enterprises (Zhou Yingying, 2017). Finally, many scholars have found that the cash holding level of enterprises with serious agency problems is often high, because cash, as an anonymous asset, is easier to be seized by the management (Zhang Shengqiang and Xiao Panpan, 2022).

Two Theoretical hypothesis

As an important means for local governments to stimulate the vitality of enterprises and improve the level of marketization, the decentralization of management power can play a positive role in the efficiency of resource allocation of enterprises. On the one hand, the decentralization of the management power by local governments can improve the operation efficiency of state-owned enterprises and ease the financing constraints of enterprises. Therefore, the local government will further delegate the management right to enterprises, which will help enterprises obtain more financing opportunities and ease the financing constraints. On this basis, financial institutions may rely more on the capital withdrawal ability and investment return of state-owned enterprises, and their willingness to finance state-owned enterprises will be further improved, so that state-owned enterprises can broaden financing channels and ease financing constraints.

On the other hand, the state-owned enterprises bear the policy objective of the state to guide the functional positioning of the state-owned economy. The government's decentralization is conducive

to easing the policy burden and improving the growth of enterprises and the efficiency of resource allocation. The government will decentralize the operation and management power appropriately, which can reduce the tax pressure that the state-owned enterprises have to bear in the past, and then improve the budget space for operation. Therefore, more funds can be invested in scientific and technological innovation research and production construction with optimal efficiency.Moreover, under the intervention of the government, state-owned enterprises also need to bear the cost of redundant employees, a higher proportion of tax expenditure, policy guided expenditure and investment, and a series of salary control and other policy burdens, which occupy a large amount of economic resources, making state-owned enterprises have more cash to deal with in a timely manner (Zeng Qingsheng and Chen Xinyuan, 2006).

Therefore, this paper proposes the following assumptions:

H1: Government decentralization can reduce the cash holding level of state-owned enterprises.

3. Research Design

One Sample selection and data source

In the specific exploration, this paper takes the listed companies of A-share state-owned enterprises in Shanghai and Shenzhen as the specific object of exploration, selects the enterprise data from 2001 to 2019 through the CSMAR database of China economic network, and then supplements the data with various information involved in the company's annual report; In the process of measuring the government's willingness to delegate power, the relevant variables are local fiscal revenue and expenditure, regional unemployment rate and GDP. The control variable data were extracted in combination with CSMAR database. In the selection, this paper does the following operations on the data: 1. Financial enterprises are excluded; 2. Deleted the data sample of ST company; 3. The incomplete data samples were cleared. Finally, the data of 4426 enterprises meet the needs of this study, with a total sample size of 16274. At the same time, in order to avoid the problem of outliers of variables and avoid the influence of research conclusions, this paper has done 1% and 99% tailing for continuous variables.

Two Main empirical models and variable definitions

Referring to the practices of Yang Xingquan and Sun Jie (2007), this paper builds the following OLS model to test the impact of government decentralization on the cash holding level of state-owned enterprises:

$$\begin{aligned}\mathrm{Cashholding}_{f,i,p,t} = {} & \beta_0 + \beta_1 \mathrm{Decentralize}_{f,i,p,t} + \sum \beta \times \mathrm{Controls}_{j,f,i,p,t} + \sum \mathrm{Year} + \\ & \sum \mathrm{Region} + \sum \mathrm{Industry} + \varepsilon_{f,i,p,t}\end{aligned} \quad (1)$$

1. Explained variable

Cashholding, as a measure of cash holding level, is an important research variable. The subscript f is the name of the enterprise, i is the industry, p is the province, and t is the year. Based on the viewpoint of Opler et al (1999), there are mainly two methods to measure cash holdings: 1. The ratio of cash and its equivalents to the amount of assets after deducting cash and its equivalents; 2. The ratio of monetary capital plus trading financial assets to the amount of assets after deducting cash and its equivalents. Since the concept of "cash and its equivalents" was not introduced into the cash flow statement of China before 2007, the data before 2007 adopted "monetary capital plus short-term investment" to replace "cash and its equivalents". This paper uses the first method to measure the cash holding level of state-owned enterprises. The article also controls the fixed effects of year, region and industry respectively and clusters them at the enterprise level to ensure the accuracy of regression analysis.

2. Explanatory variables

Decentralize is a variable to measure the government's willingness to delegate power. Referring to the method of Zheng Guojian et al. (2017), the local government's fiscal surplus, the regional

unemployment rate, the local government expenditure and the regional marketization index (MKI) are used to measure. This paper also uses the principal component analysis method to combine and extract the above four variables, and constructs a comprehensive government decentralization variable for further analysis.

3. Control variables

Based on the views of Yang Xingquan and Yin Xingqiang (2018), this paper introduces control variables that can well represent the characteristics of enterprise operation and Governance: including capital investment, enterprise growth, scale, cash flow, asset liability ratio, net operating cost and age.

The definitions and descriptions of a series of variables described above are shown in Table 1.

Table 1. Definition and description of variables

Variable properties	Variable name	English abbreviations	Technology and measurement indicators
Explained variable	Enterprise cash holding level	Cashholding	Ratio of cash and its equivalents to total assets after deducting cash and its equivalents
	Surplus of local government finance	Surplus	The difference between local fiscal revenue and fiscal expenditure in the current year divided by local GDP
	Unemployment rate in the region	Unemploy	Level of unemployment rate in the government area in that year
Explanatory variables	Local government expenditure	Standexpend	Local fiscal expenditure divided by local GDP
	Regional marketization index	MKI	Total marketization index of local government area
	Government decentralization	Decentralize	A comprehensive variable of government decentralization willingness constructed by principal component analysis
	Capital investment	Capex	(cash paid for the purchase and construction of fixed assets, intangible assets and other long-term assets + net cash paid for the acquisition of subsidiaries and other business units - net cash received from the disposal of fixed assets, intangible assets and other long-term assets - net cash received from the disposal of subsidiaries and other business units) / non cash assets
	Enterprise growth	Grow	Growth rate of main business income
Control variables	Scale	Size	Natural logarithm of total assets
	Cash flow	CF	Net cash flow from operating activities / non cash assets
	Asset liability ratio	LEV	Total liabilities / total assets
	Net operating cost	NWC	Net working capital / net assets
	Age	Age	Natural logarithm of time to market

4. Main Empirical Results

One Descriptive analysis

It can be seen from table 2 that among most state-owned enterprises, the average value of cash holdings remains at about 20%, which shows that the current cash holdings have reached a high level. The minimum value of cash holdings is 0.006 and the maximum value is 1.948, which shows that there is a large gap between different state-owned enterprises in the level of cash holdings. The average value of government decentralization is -0.202, the minimum value is -4.015, and the maximum value is 1.302, which indicates that government decentralization has strong volatility in different regions, which points out the direction for how to explore the relationship between government decentralization and cash holding level of state-owned enterprises and put forward relevant suggestions.

Table 2. Descriptive statistics of variables

Variable name	Sample size	Mean value	Standard deviation	Minimum value	Median value	Maximum value
Cashholding	16274	0.209	0.240	0.006	0.145	1.948
Decentralize	16274	-0.202	1.189	-4.015	0.505	1.302
Capex	16274	0.061	0.069	-0.093	0.049	0.339
Grow	16274	0.185	0.485	-0.649	0.121	3.520
Size	16274	22.132	1.397	19.151	21.665	25.827
CF	16274	0.062	0.096	-0.230	0.055	0.411
LEV	16274	0.501	0.200	0.052	0.440	1
NWC	16274	0.166	0.625	-2.277	0.367	1.937
Age	16274	2.604	0.505	1.099	2.708	3.434

Two Regression analysis

Table 3 examines the impact of government decentralization on the cash holding level of enterprises. Among them, columns (1) - (4) show that the larger the local government's fiscal surplus, the lower the regional unemployment rate, the lower the local government's expenditure and the higher the degree of Regional Marketization, that is, the stronger the government's willingness to delegate power, the lower the level of cash holdings of state-owned enterprises, and both are significant at the level of 5%. It can be seen from column (5) that decentralize also shows an obvious negative relationship at the level of 5%. The above results show that the higher the government's willingness to delegate power, the lower the cash holding level of state-owned enterprises. The government's decentralization reduces the cash holding level of state-owned enterprises. The hypothesis of this paper has been verified.

Table 3. Government decentralization and cash holding level of state-owned enterprises

Variable name	Dependent variable Cashholding				
	(1)	(2)	(3)	(4)	(5)
Surplus	-0.029** (-2.14)				
Unemploy		0.021** (2.08)			
Standexpend			0.031** (2.55)		
MKI				-0.046** (-2.30)	
Decentralize					-0.018** (-2.39)
Control variables	Control	Control	Control	Control	Control
Year fixed effect	Control	Control	Control	Control	Control
Regional fixed effect	Control	Control	Control	Control	Control
Industry fixed effect	Control	Control	Control	Control	Control
Observations	16274	16274	16274	16274	16274
Adjusted R^2	0.312	0.312	0.312	0.311	0.312

"*", "* *", and "* * *" are the cases where the data shows significant characteristics, which appear on 10%, 5%, and 1% nodes respectively.

Three Other robustness tests

This paper still carries out robustness test from the following five aspects (The results are shown in the attachment).

1. Replacement of cash holding level

Based on the research of Lu Zhengfei and Han Feichi (2013), the ratio of monetary capital plus trading financial assets to the amount of assets after deducting cash and its equivalents (cashholding2) is used to measure the cash holding level of state-owned enterprises. Similar to the benchmark

regression, the cash holding level after replacement is still regressed with the four factors of the government decentralization variable, and the results are consistent with the benchmark regression. The conclusion of this paper is tenable.

2. Replacement of model cluster level

The change of clustering benchmark may affect the regression results. In this paper, the benchmark regression clustering is at the enterprise level, and here we try to cluster at the provincial level. It can be found that the results are still valid, which is in line with the research expectations.

3. Replacement of individual fixed effect model

The individual fixed effect model can control the control panel data, so that the data can be changed based on individual changes, but will not be affected by time factors. Based on this, researchers can explore the internal relationship between the error term and explanatory variables. After changing to the individual fixed effect model, the government decentralization variable is still significantly negative, and the conclusion of this paper is tenable.

4. Adjust the range of samples

Due to the changes of accounting standards in 2007, this paper selects the data of state-owned enterprises after 2008 to test. It can be found that the variable of government decentralization is still significantly negative, and the research conclusion remains unchanged.

Four Further analysis

In order to explore the internal relationship between the government's decentralization and the reduction of the cash holding level of state-owned enterprises, this paper conducts a further analysis here.

1. Impact mechanism

Financing constraints

Financing constraints are information asymmetry and agency problems caused by the fact that the external cost is higher than the internal capital cost in the operation process of enterprises. It will have a negative impact on the decision-making process of state-owned enterprises and urge them to hold more cash. Government decentralization can help enterprises ease financing constraints and reduce cash assets held based on transactional and preventive motives. If the government decentralization reduces the cash holding by easing the financing constraints, the impact of the government decentralization on reducing the cash holding level may be greater for the state-owned enterprises with greater financing constraints. This study is implemented with reference to the investment cash flow sensitivity model, analyzes the role of cash holding level in financing constraints, and combs the relationship between the two.

In the capital market, there is a very obvious gap between the cost of internal financing and external financing by state-owned enterprises. Therefore, once the state-owned enterprises are faced with pressure in capital and financing constraints, the sensitivity of enterprise investment cash flow will be relatively high. Based on the investment cash flow sensitivity model and the method proposed by Fazzari et al (1988), this paper tests the relationship between government decentralization and financing constraints, as follows:

$$\begin{aligned}\mathrm{Investment}_{f,i,p,t} = \beta_0 + \beta_1 \mathrm{Cashflow}_{f,i,p,t} + \beta_2 \mathrm{Cashflow} \times \mathrm{Decentralize}_{f,i,p,t} + \\ \beta_3 \mathrm{Decentralize}_{f,i,p,t} + \sum \beta \times \mathrm{Controls}_{j,f,i,p,t} + \sum \mathrm{Year} + \sum \mathrm{Region} + \sum \mathrm{Industry} + \varepsilon_{f,i,p,t} \end{aligned} \quad (2)$$

Investment is the investment amount of fixed assets of state-owned enterprises, and cashflow is the amount of internal operating cash flow. This test also brings the four factors that construct the government's willingness to delegate power into the model for analysis. According to previous studies, state-owned enterprises will rely more on internal financing when facing serious financial constraints, so Cashflow coefficient will be significantly positive. If the government decentralization can help the state-owned enterprises to ease the financing constraints, then its operating cash flow and the government decentralization interaction item (Cashflow×Decentralize) will be significantly negative.

5. Conclusion and Suggestions

One research conclusion

After the 19th National Congress of the Communist Party of China, in order to better promote the development of state-owned enterprises, China continued to streamline administration and delegate power to accelerate the pace of domestic economic reform. The research finds that the willingness of the government to delegate power plays a significant and important role in reducing the cash holding level of state-owned enterprises. Furthermore, this paper also finds that the government decentralization reduces the cash holdings by reducing the financing constraints and internal policy burdens of state-owned enterprises. The conclusion of this paper is still valid under a series of robustness tests, which shows that the results of this paper are robust.

Two countermeasures and suggestions

In view of this, this paper puts forward the following countermeasures and solutions.

1. The government should continue to strengthen the reform of state-owned enterprises on the existing basis, continue to promote the popularization of the policy of streamlining administration and delegating power to state-owned enterprises, and strive to reduce the impact of administrative intervention measures carried out by the government due to self-regulation on the business activities of state-owned enterprises. However, the government also needs to formulate clear property rights certification to ensure the safety of idle funds.

2. In addition to paying attention to deepening the reform of state-owned enterprises, government departments should also pay attention to and speed up the reform of the economic system and other aspects. Government departments should not only maintain the stability of the economic and political situation in the areas under their jurisdiction through a series of measures such as reducing the unemployment rate of residents and improving the level of Regional Marketization, but also improve their ability to handle economic and market relations.

References

[1] Bai Jun, Liu Yuanyuan, Qiu Shanyun. Decentralization of local government and efficiency of Credit Allocation -- a study based on the pyramid structure of local state-owned enterprises [J] Financial forum, 2019,24 (10).

[2] Lu Zhengfei, Wang xiongyuan, Zhang Peng. Have state-owned enterprises paid higher wages for their employees? [J] . economic research, 2012,47 (03).

[3] Cai Guilong, Zheng Guojian, Ma Xinxiao, Lu Rui. The government's willingness to delegate power to state-owned enterprises and the reform of mixed ownership [J] Economic research, 2018,53 (09).

[4] Tang Xuesong, Zhou Xiaosu, Ma Rujing. Government intervention, GDP growth and excessive investment of local state-owned enterprises [J] Financial research, 2010 (08).

[5] Jiang Xuanyu. Government decentralization and innovation of state-owned enterprises -- Research Based on the perspective of pyramid structure of local state-owned enterprises [J] Managing the world, 2016 (09).

[6] Yang Xingquan, Yin Xingqiang. How does the mixed reform of state-owned enterprises affect the company's cash holdings? [J]. Managing the world, 2018,34 (11).

[7] Cheng Zhongming, Xia Xinping, Yu Minggui. Government intervention, pyramid structure and investment of local state-owned listed companies [J] Managing the world, 2008 (09).

[8] Liu Xing, Li Xiaorong. Pyramid structure, tax burden and enterprise value: evidence based on local state-owned enterprises [J] Managing the world, 2012 (08).

[9] Zeng Qingsheng, Chen Xinyuan. State holding, excess employees and labor cost [J] Economic research, 2006 (05).

[10] Bates T. W, K. M. Kahle and R. M. Stulz, Why do U.S. Firms Hold so Much More Cash Than They Used to? [J]. Journal of Finance,2009, 38(66).

[11] Dou Huan, Lu Zhengfei. Control of major shareholders, related deposits and cash holding value [J] Managing the world, 2016 (05).

[12] Foley, C, F., J. C. Hartzell, S. Titman and G. J. Twite, Why do Firms Hold so Much Cash? A Tax-based Expla−nation [J]. Journal of Financial Economics,2007, 45(86).

[13] Zhou Yingying Research on property right nature, tax evasion and cash holding [D]. Henan University of Finance and economics, 2017.

[14] McLean, R. D, Share Issuance and Cash Savings [J]. Journal of Financial Economics,2011, 14(3).

[15] Zhang Shengqiang, Xiao Panpan. Research on the influence of industry competition on enterprise cash holdings based on agency problem [J] Accounting communication, 2022 (02).

[16] Deqiu Chen, Sifei Li, Jason Zezhong Xiao, Hong Zou, The Effect of Government Quality on Corporate Cash Holdings [J]. Journal of Corporate Finance, 2014, 69(27).

[17] Liu CE. Stimulating market and social vitality with government Decentralization - government reform, streamlining administration and decentralization and power list [J] Modern commerce, 2016 (16).

[18] Wu Changqi, Zhang Lin. ownership, control and enterprise performance in the reform of state-owned enterprises [J] Journal of Peking University (PHILOSOPHY AND SOCIAL SCIENCES), 2014, 51 (05).

[19] Yi Yang, Jiang Wei, Liu Zhuang, Xin Qingquan. Government's willingness to delegate power, mixed ownership reform and enterprise employee efficiency [J] World economy, 2021, 44 (05).

[20] Xie Xingsheng. Management power, financing constraints and investment efficiency -- Taking Listed circulation enterprises in China as an example [J] Business economics research, 2021 (21).

[21] Xin Qingquan, Lin bin, Wang Yanchao. Government control, manager compensation and capital investment [J]. Economic research, 2007 (08).

[22] Qi Ruiqing. Environmental regulation, financing constraints and business performance --- Based on the data of Shanghai and Shenzhen A-share listed companies [J] Modern commerce, 2022 (06).

[23] Yang Xingquan, Sun Jie. Empirical Study on the influencing factors of Enterprise Cash Holdings -- Empirical Evidence from Listed Companies in China [J] Nankai management review, 2007 (06).

[24] Opler, T, L. Pinkowitz and R. Stulz, The Determinants and Implications of Corporate Cash Holdings [J]. Journal of Financial Economics, 1999, 44(52).

[25] Zheng Guojian, Cai Guilong, Ma Xinxiao. Government intervention, dynamic evolution of state-owned group structure and allocation efficiency [J] Journal of management science, 2017, 20 (10).

[26] Lu Zhengfei, Han Feichi How does macroeconomic policy affect the economic effect of corporate cash holdings--Research Based on product market and capital market [J] Managing the world, 2013 (06).

[27] DITTMAR A, MAHRT-SMITH J. Corporate Governance and The Value of Cash Holdings [J]. Journal of Financial Economics, 2007, 19(83).

[28] Hu Yafeng, Li Rui, Feng Ke. Executive pay gap, cash holding and market value -- Based on the comparison of different property rights [J] Business Economics and management, 2021 (09).

[29] BAI C E, LIU Q, LU J, et al. Corporate Governance and Market Valuation in China [J]. Journal of Comparative Economics, 2004, 75(32).