The Relationship among Policy Burden, Transparency of Accounting Information and Enterprise Value of State-owned Enterprises

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Abstract: This paper takes the state-owned listed companies from 2009 to 2018 as the research object, measures the policy burden with the excess employee rate, and investigates how the policy burden of state-owned enterprises affects the enterprise value through the transparency of accounting information. Our results lead to the following conclusions: first, there is a significant negative correlation between the policy burden of state-owned enterprises and enterprise value. Second, the above effects of state-owned enterprise policy burden on enterprise value will be significantly different under different degrees of accounting information transparency. Lower accounting information transparency will strengthen the negative impact of state-owned enterprise policy burden on enterprise value; Higher accounting information transparency will inhibit the negative impact of policy burden on enterprise value. The research conclusion of this paper provides a theoretical basis for state-owned enterprises to optimize governance effect, improve information transparency and reduce agency cost.

1. Introduction

In the process of China's economic system transformation, state-owned enterprises have always been the focus of attention. In China's economic development, state-owned enterprises undertake important missions. At the same time, the absence of ownership of state-owned enterprises leads to the conditions and environment for the government to intervene in state-owned enterprises. Therefore, under China's political and economic system, local governments have absolute control over state-owned enterprises and a large number of production resources. State-owned enterprises are not only an important economic entity, at the same time, it also has social and political color. In addition, due to historical problems such as the legacy of past structural reforms, the excess number of employees and high wage rates have caused the policy burden of state-owned enterprises to be heavier [1]. Under the current economic model, government intervention in market economy is widespread. The government's intervention will cause that the market competition mechanism is no longer the only "test stone" to determine the survival and development of enterprises. Business

performance is difficult to become the core assessment standard to measure the ability level and effort of management, which affects the value of enterprises. Policy burden is the main manifestation of government intervention in enterprises and the direct cause of soft budget constraint after the event. Soft budget constraint will distort enterprise management behavior, aggravate executive moral hazard and reduce enterprise benefits [2]. Zhang et al. [3] also found that the operation efficiency of companies that bear the policy burden are reduced, which also has a certain impact on the enterprise value.

In addition, in relevant domestic literature, Li [4] found that with the frequent occurrence of a series of events such as fraud in financial statements, the transparency of accounting information has become the basic standard for external stakeholders to make investment and financing decisions for enterprises. They believe that the higher the transparency of accounting information, the better the real financial situation and operating results of enterprises can be reflected in the financial statements, significantly curb the negative impact of information asymmetry, so that enterprises can obtain relatively low-cost financing from the capital market. With the support of sufficient financing, enterprises can continuously improve their core competitiveness through profitable projects, continuous investment or innovation, so as to obtain better value creation ability. The problem of accounting information transparency is widespread in modern enterprises, especially in state-owned enterprises. Existing research shows that low transparency of accounting information will hinder investors from understanding the current situation of enterprise operation and provide conditions and basis for government intervention in enterprises. The lower the information transparency, the more the government's administrative intervention in enterprises [5], which makes the policy burden of state-owned enterprises heavier. Therefore, when state-owned enterprises undertake multiple tasks or burdens, studying the relationship between policy burden and enterprise value of state-owned enterprises from the perspective of information transparency constitutes another important issue in this paper. This paper further explores the influence mechanism between policy burden and enterprise value of state-owned enterprises on the basis of introducing regulatory variables, it has certain practical guiding significance for enterprises to enhance their awareness of social responsibility and improve the efficiency of internal governance, and provides a good business environment for the sustainable development of enterprises.

The research contributions of this paper are as follows: first, investigate the impact of policy burden on enterprise value, expand the research framework of enterprise value, and further clarify the impact mechanism of policy burden on enterprise value of state-owned enterprises. The second is to introduce the transparency of accounting information as a regulating variable to study how the policy burden of state-owned enterprises affects the enterprise value, the integration of information transparency and enterprise value into the same research framework enriches the existing research on the relationship between corporate social responsibility and enterprise value.

2. Data and Methodology

2.1. Hypothesis

The policy burden borne by state-owned enterprises is easy to lead to the deviation of enterprise objectives. When studying the relationship between the government and enterprises, the government will have a dual impact on enterprises. The government has a large number of production resources. On the one hand, it can bring a series of financial support such as tax preference and financial subsidies to state-owned enterprises. On the other hand, bearing the policy burden will make state-owned enterprises focus on political and economic impact, it is easy to ignore the business performance of enterprises, and this target deviation behavior significantly affects the business performance of enterprises, reduces the market competitiveness of enterprises, and hinders the

promotion of enterprise value. According to the perfect market hypothesis, the goal of enterprise investment is to maximize value. When the local government internalizes the functions of local employment and economic development in enterprises in order to develop political achievements and job promotion, or promotes enterprises to enter some industries or hire more labor through subsidies and preferential policies, it will distort enterprise investment behavior and reduce enterprise investment efficiency [6]. The reduction of enterprise investment efficiency will greatly reduce the ability of enterprises to maximize economic benefits, so that the enterprise value can not be improved Zhao and Ao [7] also found that The policy burden will not only increase the free cash constraint of state-owned enterprises, but also increase the equity financing cost of enterprises, and may also damage the company's performance through some indirect channels. Therefore, bearing policy burden will lead to the market discount of its enterprise value.

The improvement of accounting information transparency can effectively reduce the information asymmetry between enterprise owners and managers, reduce the principal-agent cost between them, and effectively play the role of corporate governance. Higher accounting information transparency will weaken the agency problem caused by information asymmetry, increase the difficulty and cost of government intervention in enterprises, and can effectively alleviate the policy burden imposed by the government on enterprises to a certain extent [5], thus reducing the negative impact of policy burden on enterprise value. When the transparency of accounting information is low, it is difficult for the government to monitor the opportunistic behavior of the management [8], which hinders investors from understanding the current situation of enterprise operation. The low transparency of information provides conditions and basis for the government to intervene in enterprises. The more administrative intervention of the government to enterprises, the heavier the policy burden of state-owned enterprises. It can be seen from hypothesis 1. It is not conducive to the realization of enterprise value. According to the theory of enterprise value maximization, good accounting information quality can maximize enterprise value to the greatest extent. Therefore, when the transparency of accounting information is low, the heavier the policy burden of state-owned enterprises, the lower the enterprise value; On the contrary, the higher the transparency of accounting information, the heavier the policy burden of state-owned enterprises, the higher the enterprise value.

Hypothesis 1. There is a significant negative correlation between the policy burden borne by state-owned enterprises and enterprise value.

Hypothesis 2. Low transparency of accounting information will strengthen the negative impact of policy burden on enterprise value; Higher accounting information transparency will inhibit the negative impact of policy burden on enterprise value.

2.2. Methodology

2.2.1. Data Sources

This paper selects the state-owned enterprises listed in Shanghai and Shenzhen as the research object, and the sample interval is 2009-2018. The data required for empirical analysis are from guotai'an database (CSMAR). In order to ensure the validity and feasibility of the collected data, eliminate the influence of irrelevant factors and ensure the authenticity and effectiveness of the research results, combined with the research ideas of this paper, the initial samples are processed as follows: (1) In order to ensure the reliability and robustness of the research results, the companies whose operating conditions continue to decline and make losses during the selected research period are excluded, that is, they are * ST,ST marked listed companies; (2) In order to ensure that the selected sample companies do not have great differences in financing environment, financial and insurance listed companies are excluded; Eliminate listed companies that issue B shares and H shares at the same time; (3) In order to avoid the influence of uncertain deviation, the listed companies with

serious missing or abnormal financial data in the selected research period are excluded; (4) In order to eliminate the errors that may be caused by extreme values, stata15 is used to perform 1% level winsorize tail reduction on the selected sample data. After the above four screening, 7083 effective samples were finally obtained.

2.2.2. Regression Variables

2.2.2.1 Enterprise Value (ROA)

According to the previous literature, the measurement standards of enterprise value are mainly divided into two categories: financial indicators and market indicators. There is no exact indicator that can comprehensively measure enterprise value. In this paper, the return on assets (ROA) is selected as the measurement index to measure the value of enterprises. This index represents the ability of enterprises to create net profits and is the concentrated embodiment of the operation status of enterprises.

2.2.2.2 Policy Burden of State-owned Enterprises (Burden)

The author measures the policy burden by the rate of excess employees. Based on the research on the policy burden of state-owned enterprises by Liao and shen [9], the specific formula is estimated as follows:

$$Burden = \frac{Employ - sale * \frac{ind\_employ}{ind\_sale}}{Employ} \tag{1}$$

Burden indicates the policy burden. Employee is the number of employees of the enterprise, sales is the sales revenue of the enterprise, and ind_ Employee is the average number of employees of private enterprises in the industry in which the enterprise is located, Ind_ Sales is the average sales revenue of private enterprises in the industry in which the enterprise is located.

2.2.2.3 Transparency of Accounting Information (Tran)

For the measurement of accounting information transparency, this paper uses the research of method of Feng [10] and the information disclosure assessment results on the official website of Shenzhen Stock Exchange to construct the accounting information transparency index (tran) to measure the accounting information transparency, and assigns the grade results as: "Excellent (or a) = 4", "Good (or b) = 3", "Qualified (or C) = 2" and "Unqualified (or D) = 1". The larger the value, the higher the information disclosure level and the higher the information transparency. On the contrary, the smaller the value, the lower the information disclosure level and the lower the information transparency. In addition, this paper groups the samples according to the level of accounting information transparency. Those with disclosure level a (4 points) are classified as excellent group and belong to high information transparency group. Otherwise, they are classified as non-excellent group and positioned as low information transparency group.

2.2.2.4 Control Variables (Controls)

Control variables include company characteristics related to Policy burden and Enterprise value. (1)Enterprise size(Size) is defined as the natural logarithm of the book value of total assets; (2)Enterprise growth ability(Growth) is defined as the growth rate of main business income; (3) Financial leverage (Lev) is defined as the ratio of the book value of total liabilities to the book value of total assets. (4) The proportion of independent directors (Outdir), the proportion of independent directors in the total number of the general board of directors. (5) The size of the board of directors

(Board), natural logarithm of the number of directors. (6) Industry. (7) Year. The specific variables are shown in Table 1.

Table 1: Variable parameter design

Variable	Definition	Calculation
enterprise value	Roa	Profit divided by average total assets
Policy burden	Burden	Calculate the income of excess employees according to model (1)
Transparency of accounting information	Tran	Measured by the assessment results disclosed on the official website of Shenzhen Stock Exchange, the grade results are assigned as: "excellent (or a) = 4", "good (or b) = 3", "qualified (or C) = 2" and "unqualified (or D) = 1"
Enterprise growth ability	Growth	Growth rate of main business income
Financial leverage	Lev	Book value of total liabilities divided by book value of total assets
Enterprise scale	Size	Natural logarithm of total assets
Proportion of independent directors	Outdir	Proportion of independent directors in the total number of directors
Board size	Board	Natural logarithm of the number of directors

The descriptive statistical results of the main variables are reported in Table 2 below. From the sample, the average ROA of the enterprise value of state-owned enterprises is 0.04 and the standard deviation is 0.06, indicating that the enterprise value is gradually increasing, the minimum value is 0.03 and the maximum value is 0.22, and there is little difference in the enterprise value.The mean value of policy burden is 0.94 and the standard deviation is 0.087, indicating that there is redundancy in China's state-owned enterprises. The minimum value is 0.97 and the maximum value is 1, indicating that there is redundancy in China's state-owned enterprises. The average value of accounting information transparency is 3.04, the 10% quantile is 2, and the median is 3, indicating that in general, the information disclosure quality of companies listed on the main board of Shenzhen stock exchange is good.

Table 2: Descriptive statistics of main variables

Variable	Obs	Mean	SD	Min	P10	Median	Max
Roa	7083	0.04	0.060	-0.21	-0.00	0.03	0.22
Burden	7083	0.94	0.087	0.47	0.85	0.97	1.00
Tran	7083	3.04	0.622	1.00	2.00	3.00	4.00
Size	7083	22.19	1.148	19.92	20.81	22.07	25.55
Growth	7083	0.46	1.376	-0.68	-0.20	0.14	10.28
Lev	7083	0.47	0.200	0.06	0.19	0.47	0.88
Outdir	7083	0.37	0.054	0.1	0.33	0.33	0.57
Board	7083	2.14	0.196	1.61	1.95	2.20	2.71

2.2.3. Model

In order to verify the above assumptions, this paper constructs the following regression model for regression analysis of the three assumptions:

$$\text{ROA}_{i,t} = \beta_0 + \beta_1 \text{Burden} + \beta_2 \text{Size} + \beta_3 \text{Growth} + \beta_4 \text{Lev} + \beta_5 \text{Outdir} + \beta_6 \text{Board} + \sum \text{Year} + \sum \text{Ind} + \varepsilon_{i,t} \tag{2}$$

$$ROA_{i,t} = \beta_0 + \beta_1 Burden + \beta_2 Tran + \beta_3 Burden * Tran + \beta_4 Size + \beta_5 Growth + \beta_6 Lev + \beta_7 Outdir + \beta_8 Board + \sum Year + \sum Ind + \varepsilon_{i,t} \tag{3}$$

Model (2) and (3) are used to test H1 and H2. For H2 test, the impact of policy burden on

enterprise value under different information transparency conditions is discussed. The index is divided into high information transparency group and low information transparency group according to the information transparency of the whole sample: the disclosure level of listed companies is grouped according to the Shenzhen Stock Exchange, and the disclosure level is a (4 points) are classified as the excellent group of information disclosure level; otherwise, they are classified as the non excellent group. Therefore, according to the evaluation results, the samples are divided into excellent and non excellent groups. The excellent group is defined as the high information transparency group and the non excellent group is defined as the low information transparency group. They are respectively substituted into the model (3) for regression, and the deviation of adjustment effect between groups is compared to verify the hypothesis.

3. Regression Results

3.1. Bivariate Correlations

In this paper, Pearson correlation test is carried out for the main variables, and the analysis results are shown in Table 3. From the correlation analysis of the main variables in Table 3, it can be seen that the correlation coefficient between the policy burden burden of state-owned enterprises and the enterprise value ROA is -0.214, which is significant at the 1% level, indicating a significant negative correlation between the two, which preliminarily verifies that hypothesis 1 in this paper is valid; The correlation coefficient between enterprise information disclosure transparency trans and enterprise value ROA is 0.342, which is significant at the level of 1%, indicating a significant positive correlation between the two, that is, the higher the enterprise's accounting information transparency, the easier the enterprise's value is to be improved. In terms of control variables, in terms of control variables, the proportion of independent directors Board size and financial leverage are negatively correlated with enterprise value, while enterprise size and enterprise growth ability are positively correlated with enterprise value.

Table 3: Correlation Analysis of main variables

Variable	Roa	Burden	Tran	Size	Growth	Lev	Outdir	Board
Roa	1							
Burden	-0.214***	1						
Tran	0.342***	-0.051***	1					
Size	0.024**	-0.00500	0.188***	1				
Growth	0.046***	-0.065***	-0.000	0.038***	1			
Lev	-0.357***	0.155***	-0.138***	0.464***	0.070***	1		
Outdir	-0.038***	-0.00600	-0.031***	0.0170	-0.00500	-0.0150	1	
Board	0.038***	0.0140	0.088***	0.210***	0.00600	0.131***	-0.512***	1

*p < 0.10; **p < 0.05; ***p < 0.01.

3.2. Regression Results

Table 4 reports the multiple regression test results of the relationship between accounting information transparency, accounting conservatism and enterprise value. From the regression analysis results of policy burden and enterprise value in column (1) of Table 4, the regression coefficient of policy burden on enterprise value is -0.150, which is significant at the 1% level. After adding relevant control variables, as shown in column (2), the regression coefficient is -0.097, and the regression result is still significant at the 1% level. This shows that there is a significant negative correlation between the policy burden of state-owned enterprises and enterprise value, and the relationship between them is significant at the 1% level, which fully verifies the hypothesis 1 of this

paper.

Table 4: Regression results of policy burden, accounting information transparency and enterprise value of state-owned enterprises

	H1		H2			
	(1)Full sample	*(2)Full sample*	*(3)Low information transparency*		*(4) high information transparency*	
Burden	-0.150*** (-18.97)	-0.097*** (-13.32)	-1.096*** (-6.89)	-0.832*** (-5.72)	-0.340*** (-7.50)	-0.294*** (-7.00)
Tran			0.078*** (9.65)	0.019*** (4.16)	0.037*** (2.60)	0.036*** (2.70)
*Bur*Tran*			0.197*** (5.54)	0.147*** (4.54)	-0.017*** (-3.18)	-0.020*** (-2.97)
Size		0.015*** (22.65)		0.022*** (8.83)		0.006*** (9.03)
Growth		0.002*** (5.20)		0.004** (2.24)		0.002*** (3.97)
Lev		-0.145*** (-39.55)		-0.161*** (-12.40)		-0.127*** (-28.67)
Outdir		-0.047*** (-3.44)		-0.033 (-0.74)		-0.046*** (-3.28)
Board		-0.001 (-0.34)		0.036*** (2.76)		-0.011*** (-2.86)
Constant	0.179*** (22.54)	-0.105*** (-5.95)		-0.408*** (-6.62)		-0.000 (-0.02)
Year effect	yes	yes		yes		yes
Industry effect	yes	yes		yes		yes
N	7083	7083	1410	1410	5673	5656
AdjR^2.	0.066	0.238			0.429	0.966
F	50.673	148.415			35.943	1916.204

T values are in parentheses. *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

In order to test hypothesis 2, taking enterprise value as the explanatory variable, state-owned enterprise policy burden as the explanatory variable and accounting information transparency as the adjusting variable, this paper makes a regression analysis on the relationship between state-owned enterprise policy burden, accounting information transparency and enterprise value by using model (3). The grouping regression results show that the coefficient of the intersection term (bur * tran) in column (3) (4) is positive, And it is significantly positive at the level of 1%. This shows that information transparency can restrain the negative impact of policy burden on enterprise value; The bur * tran coefficients in columns (5) and (6) are significantly negative at the level of 1%, indicating that low information transparency can promote the negative impact of the policy burden of state-owned enterprises on enterprise value. This shows that highly transparent accounting information has a strong governance effect and can effectively reduce the negative impact of the policy burden of state-owned enterprises on enterprise value. The hypothesis is verified.

4. Conclusion

Based on the regulatory perspective of accounting information transparency, this paper uses the data of state-owned enterprises listed in Shanghai and Shenzhen from 2009 to 2018 to investigate how the policy burden of state-owned enterprises affects the enterprise value through accounting information transparency. The results show that: (1) the policy burden of state-owned enterprises has a significant negative impact on enterprise value. Therefore, reducing the policy burden of

state-owned enterprises due to excessive employees is conducive to improving enterprise value. (2) In the process that the policy burden of state-owned enterprises affects the enterprise value, the transparency of accounting information is taken as the regulating variable, and the lower transparency of accounting information will strengthen the negative impact of the policy burden of state-owned enterprises on the enterprise value; Higher accounting information transparency will inhibit the negative impact of policy burden on enterprise value. This shows that the government should establish an effective incentive mechanism to enable the managers of state-owned enterprises to disclose relevant financial information timely and accurately, reduce the degree of information asymmetry, and finally improve the enterprise value by improving the transparency of accounting information. (3) After considering the endogenous problems and recalculating the impact of the policy burden of state-owned enterprises, the main conclusions of this paper are still valid.

According to the above research, this paper puts forward the following suggestions: first, deepen the reform of state-owned enterprises, reduce administrative intervention and reduce the policy burden of state-owned enterprises due to over employment. At the same time, for some capital intensive enterprises with no obvious investment advantage Enterprises should be merged and reorganized to make state-owned enterprises light. Second, the government should establish an effective incentive mechanism to enable state-owned enterprise managers to timely and accurately disclose relevant financial information and reduce the degree of information asymmetry, so as to reduce the agency cost caused by information opacity and enable state-owned enterprise executives to operate in the sun, so as to effectively weaken the impact of policy burden on state-owned enterprises. Third, in the deepening reform of state-owned enterprises, we should take relevant measures to effectively motivate the executives of state-owned enterprises, supervise and restrict them, and improve the transparency of accounting information to effectively enhance the value of enterprises.

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