

Study on the Effectiveness of Equity Incentive Models Affecting Internal Control

-- Evidence from Chinese Listed companies of Shenzhen A-shares

Yaqian Yan

International Business School, Beijing Foreign Studies University, Beijing, 100081, China

Abstract. The article studies how the equity incentive affects the effectiveness of internal control of listed companies by taking Shenzhen A-share listed companies from 2011 to 2016 as a sample and using the Shenzhen Dibo internal control index of listed companies from 2011 to 2016 to measure the effectiveness of internal control of listed companies. The following three questions are discussed: (1) Whether the impact of equity incentive model on the effectiveness of internal control is positive? (2) Whether the impact of equity incentive intensity on the effectiveness of internal control is nonlinear? In other words, whether there is excess incentive? (3) Is there any difference in the impact of equity incentives between state-owned and non-state-owned enterprises? The study found: The use of equity incentives has a positive effect on the effectiveness of the internal control of the company. When the incentive is excessive, it will result in over-incentives, that is, the greater the incentive, the less effective the internal control of the company. The relationship between incentives and the effectiveness of corporate internal control is inverted U-shaped. Different from the viewpoint of the existing literature, the study found that equity incentives in state-owned enterprises can further enhance the effectiveness of internal control. The results of the study show that although most people think equity incentives are conducive to reducing agency problems and increasing the effectiveness of internal control, it is still necessary to control the strength of equity incentive and prevent it from backfiring, which helps firms to reduce the conflict of interests between principles and agents.

Keywords: Equity Incentive; Effectiveness of Internal Control; Agency Problem; State-owned Enterprise.

1. Introduction

The Enron audit scandal broke out in December 2001 and led to a collapse in the U.S. capital market. To reverse the depression, the U.S. government started to solve the agency problem of enterprises by introducing the Sarbanes-Oxley Act. It was in this bill that Congress first proposed an audit of the effectiveness of "internal control over financial reporting". Internal control is the organization, procedures and methods of various checks and controls implemented within the unit to improve efficiency and to achieve the management objectives. The concept of internal control effectiveness is seen as a solution to the agency problem [1], the inconsistency between the economic interests of executives and shareholders. Two types of incentives, traditional compensation incentive and equity incentive, are used to alleviate the problem. Equity incentive not only act as a long-term incentive for the senior management and core technical personnel of the listed company [2], but also attract and retain talents in the long-term development of the company. Therefore, equity incentives are considered as a very successful incentive mechanism in corporate governance and theoretically effective in solving corporate agency problems [3].

However, it is also argued that there are ineffective incentives on the quality of internal control [4]. Some scholars argue that the increase of management rights in listed companies will weaken the promotion effect of executive incentives, and this weakening effect is stronger in state-owned enterprises [5]. In addition, there is also a view that equity incentive is a kind of "reverse incentive" in Chinese listed companies, and there are both intrinsic and extrinsic reasons for the negative effect. The intrinsic reason is that the equity incentive program is unreasonable, and the extrinsic reason is that the external environment on which the equity incentive is based is imperfect [6]. Based on the different views, the mechanism of equity incentive should be further discussed.

To study the impact mechanism of equity incentives, this paper presents three questions on equity incentives step by step: First, is the effect of equity incentives on the effectiveness of corporate internal control positive or negative? Second, is the effect of equity incentives on the effectiveness of corporate internal control linear or nonlinear? Finally, is the impact of equity incentives on the internal control of firms under different property rights nature different? The last question focuses on state-owned enterprises versus non-state-owned enterprises.

It is found that equity incentives promote the effectiveness of internal control, however, not linearly positive, that is, when the equity incentive of a firm is too strong, it will instead lead to a decrease in the effectiveness of internal control and the existence of over-incentives [7]; finally the study on the difference between state-owned and non-state-owned enterprises finds that, contrary to the mainstream view [8], the implementation of equity incentives in state-owned enterprises is instead beneficial to the effectiveness of internal control. The possible reason for the difference from the mainstream view is that in the empirical study, the selection criteria for SOEs in this paper are when the actual controller is a state-owned enterprise, a state-owned institution, and a provincial institution, which is broader than the criteria in other researches.

The contribution of this paper is reflected in the focus on equity incentives. Equity incentives have long been seen as a complementary way to compensation incentives, and therefore, when studying the relationship between executives and internal control effectiveness, the mainstream literature has mainly studied the impact of traditional compensation incentives on corporate internal control, but with the rise of equity incentives, the rational use of equity incentives has become a major issue for firms to manage their corporate governance structure and deserves to be focused on.

2. Research Design

This paper introduces a research hypothesis based on the three questions to explore the mechanism of the impact of equity incentives on the effectiveness of corporate internal control.

2.1 Model 1 (Direction of Impact)

Firstly, according to the “convergence of interests hypothesis”, equity incentives make managers own more shares, which makes managers have more common interests with other shareholders, so managers’ shareholding makes managers care more about the long-term development of the company, which can effectively curb the agency problem of the company. However, according to the “managerial defence hypothesis” [9], when management owns more shares, they are less constrained by independent directors or outside parties, so managers have more opportunities to seek short-term interests for themselves, which makes the effectiveness of corporate internal control lower [10]. Therefore, this paper proposes the first question: is equity incentive a positive or negative incentive for the effectiveness of corporate internal control?

H1a: Equity incentive model is significantly and positively related to the effectiveness of internal control in firm

H1b: Equity incentive model is significantly and negatively related to the effectiveness of internal control in a firm

Model 1:

$$Icindex = \beta_0 + \beta_1 dummy_share + \beta_2 \log(size) + \beta_3 big4 + \beta_4 Lev + \beta_5 Growth + \beta_6 indr + \beta_7 Roe + \beta_8 Dual + \beta_9 board + \mu$$

Icindex is the dependent variable, which represents the level of internal control effectiveness. The control variables in the model are factors that may affect internal control and equity incentives, where the factors affecting the effectiveness of internal control are divided into three main areas, external factors, managers and board personnel. Firstly, external factors [11] include *big4*, i.e., whether the Big 4 accounting firm is responsible for the audit practice; secondly, managerial factors [12] include *dual*, i.e., whether they hold both management positions and board positions; and finally, the board personnel factor, including the proportion of independent directors (*indr*) and the number of board of

directors (*board*). The factors affecting equity incentives are mainly company performance and external audit [13], where the external audit factor is *big4*, and the company performance factors include company size (*size*), gearing ratio (*lev*), operating income growth rate (*growth*), and return on capital (*roe*) [14]. *dummy_share* is an explanatory variable as well as a dummy variable. If a listed company has executives holding shares, then *dummy_share* is 1, otherwise 0. If the coefficient of *dummy_share* is significant and positive, then the equity incentive model is significantly and positively related to the effectiveness of internal control, and H1a holds. If the coefficient of *dummy_share* is significant and negative, then the equity incentive model is significantly and negatively related to the effectiveness of internal control, and H1b holds.

2.2 Model 2 (Impact mechanism)

According to the "interval effect theory", there is a relationship between managerial shareholding and firm performance, but this relationship is not linear, that is, when a critical point is passed, the direction of influence between managerial shareholding and firm performance will change. Since there is a significant relationship between equity incentives and firm performance, the second question is posed: Is there an over-incentive in the mechanism of the influence of equity incentive model on the effectiveness of internal control of the firm?

H2a: Equity incentive strength is non-linearly related to the effectiveness of corporate internal control (i.e., there is over-incentive)

H2b: Equity incentive strength is linearly related to the effectiveness of corporate internal control
Model 2.

$$Icindex = \beta_0 + \beta_1 strength + \beta_2 \log(size) + \beta_3 big4 + \beta_4 Lev + \beta_5 Growth + \beta_6 indr + \beta_7 Roe + \beta_8 Dual + \beta_9 board + \beta_{10} strength^2 + \mu$$

Icindex remains the dependent variable, the control variable remains unchanged, and the explanatory variables become *strength* and *strength*² as equity incentive strength and quadratic terms of equity incentive intensity. If the coefficient of *strength*² is significantly positive or negative, this indicates a non-linear relationship between equity incentive strength and internal control effectiveness: a significant positive coefficient of *strength*² indicating a positive U-shaped curve on internal control effectiveness, and a significant negative coefficient indicating an inverted U-shaped curve on internal control effectiveness. Both cases indicate that the relationship between equity incentive strength and internal control effectiveness is non-linear, i.e., H2a holds. However, when the coefficient of *strength*² is insignificant, it indicates that the relationship is not significantly non-linear and H2b holds.

2.3 Model 3 (Analysis of the difference between state-owned and private enterprises)

The effectiveness of equity incentive on internal control in enterprises may vary with different properties. To study the mechanism of the influence of equity incentive on the level of internal control in state-owned enterprises, the third question is raised: Is there a difference between the influence of equity incentive model of state-owned enterprises and non-state-owned enterprises on the effectiveness of internal control in enterprises?

H3a: There is a difference in the impact of equity incentive model on the effectiveness of internal control between state-owned enterprises and non-state-owned enterprises

H3b: There is no difference between SOEs and non-SOEs in terms of the impact of equity incentive model on the effectiveness of internal control.

Model 3.

$$Icindex = \beta_0 + \beta_1 dummy_{share} + \beta_2 \log(size) + \beta_3 big4 + \beta_4 Lev + \beta_5 Growth + \beta_6 indr + \beta_7 Roe + \beta_8 Dual + \beta_9 board + \beta_{10} property + \beta_{10} dummy_{share} * property + \mu$$

Icindex remains the dependent variable, the control variables remain unchanged and the explanatory variables become *dummy_share*, *property*, and *dummy_share*property*. *Property* is a dummy variable that is 1 when the effective controller is a state-owned enterprise and otherwise 0;

dummy_share is a dummy variable that is 1 when executives receive equity incentive and 0 otherwise. *dummy_share*property* is the interaction between equity incentive and SOE. When the coefficient is significantly negative, it means both are in the opposite direction and cancel each other out, i.e., the effect of equity incentive model within SOE will be weakened. When the coefficient is significantly positive, it means that both increase each other, i.e., the effect of equity incentive model in SOE will be enhanced. H3a holds in both cases; conversely, if the coefficient is not significant, H3b holds and there is no significant difference between the equity incentives of SOEs and non-SOEs. Table 1 below shows the specific definitions and descriptions of the variables in the model.

Table 1. Variables and their definitions

Variables	Definitions
Dependent variable	
<i>Icindex</i>	Internal Control Effectiveness Index
Explanatory variable	
<i>Dummy share</i>	Dummy variables, executive shareholding of 1 and otherwise 0
<i>Strength</i>	Equity incentive intensity, i.e., the percentage of executive shareholding
<i>Property</i>	Dummy variable, 1 when the actual controller is a state-owned enterprise, 0 otherwise
Control variables	
<i>Size</i>	Company size is measured by the natural logarithm of the company's total assets at the end of the year
<i>Lev</i>	Gearing ratio
<i>Growth</i>	Measured by the growth rate of operating income this year
<i>Dual</i>	1 if the board of directors also serves as an executive, 0 if no board of directors also serves as an executive
<i>Roe</i>	Return on equity
<i>Indr</i>	Percentage of independent directors
<i>Big4</i>	Whether Big 4 accounting firm is in charge of audit business, 1 if yes, 0 if no
<i>Board</i>	Number of board members

3. Data Processing and Descriptive Statistical Features

3.1 Data Selection and Processing

This paper uses the data of listed companies in Shenzhen City between 2011 and 2016 after removing companies in the financial sector, where the dependent variable (internal control effectiveness level) is the internal control effectiveness index provided by SZDEB data, and the rest of explanatory and control variables are from the Guotaian database. The extreme values were processed using the 1% tail-reduction method, and all missing values and duplicate values were removed.

3.2 Descriptive Statistical of Data

Table II shows the descriptive statistics of the sample data.

Table 2 reports the results of descriptive statistics for the main variables. The standard deviation of the explanatory variable *Icindex* is 123.693, which indicates that the level of internal control effectiveness varies widely across firms. The explanatory variable *dummy_share* has a mean value of 0.736, indicating that in recent years, equity incentives have become a mainstream that most companies choose. *strength* is the percentage of executive shareholding, where the standard deviation is 0.127, indicating that although most companies choose equity incentives, there are differences in the incentive strength, which is worth analyzing. Among the control variables, the mean value of *indr* is 0.27, which indicates that independent directors, as the role of supervising the board of directors and managers, still have a relatively small presence in Chinese enterprises and need to strengthen the reasonable matching of equity structure. The maximum and minimum values of *Size* have a large difference, reflecting the large variability of the size of listed enterprises in China. The mean value of

Lev is 0.377, indicating that the proportion of debt financing of listed companies and the debt pressure are high. The standard deviation of *Growth* is 160.603, which indicates that the growth rate varies greatly among enterprises. The mean value of *Property* is 0.252, which indicates that the proportion of state-owned enterprises in China is about 25%. The standard deviation of *Roe* is small, but the difference between the maximum and minimum values is large, which indicates that although most enterprises' return on capital is concentrated in a certain range, there are still very high or very low values. The mean value of *Dual* is 0.681, indicating that the combination of management and director positions is more common among listed companies. The mean value of *Big4* is 0.028, indicating that the number of companies audited by Big 4 accounting firms is still low. The standard deviation of *Board* is 1.666, indicating that the difference in the number of board members among companies is not significant.

Table 2. Descriptive statistics table

Variable	Sample size	Mean	Standard deviation	Median	Minimum	Maximum
<i>ICindex</i>	8750	647.009	123.693	672.285	0.000	977.720
<i>Dummy share</i>	8750	0.736	0.441	1.000	0.000	1.000
<i>Strength</i>	8750	0.079	0.127	0.000	0.000	0.339
<i>indr</i>	8750	0.27	0.056	0.250	0.150	0.420
<i>Size</i>	8750	68878742620.209	22442292077.343	2490675996.430	3083701.240	830674213924.140
<i>Lev</i>	8750	0.377	0.251	0.351	0.005	3.147
<i>Growth</i>	8750	2.775	160.603	0.041	-1.118	0.0411
<i>property</i>	8750	0.252	0.434	0.000	0.000	1.000
<i>Roe</i>	8750	0.092	2.461	0.067	-11.613	225.015
<i>Dual</i>	8750	0.681	0.466	1.000	0.000	1.000
<i>Big4</i>	8750	0.028	0.164	0.000	0.000	1.000
<i>Board</i>	8750	8.515	1.666	9.000	0.000	18.000

The following table shows the correlation analysis table for the main variables

Table 3. Correlation analysis table of the main variables

	INDR	DUMMY_SHARE	STRENGTH	PROPERTY	BIG4	BOARD	DUAL	GROWTH	INCINDEX	LEV	ROE	SIZE
INDR	1.000000	0.051392	0.070096	-0.075468	0.040496	0.513470	0.127896	-0.008955	0.000668	0.025860	0.005495	0.004483
DUMMY_SHARE	0.051392	1.000000	0.244738	-0.231998	0.014925	0.043651	0.134996	-0.019710	0.077177	0.133929	0.016971	0.008461
STRENGTH	0.070096	0.244738	1.000000	-0.214966	0.005976	0.077171	0.303573	-0.001934	0.041108	0.066923	0.000233	0.014477
PROPERTY	-0.075468	-0.231998	-0.214966	1.000000	0.095765	0.257820	0.223161	0.020014	-0.014520	0.242024	0.007671	0.174260
BIG4	0.040496	-0.014925	-0.005976	0.095765	1.000000	0.106242	0.049251	-0.002719	0.057038	0.059372	0.000884	0.290401
BOARD	0.513470	-0.043651	-0.077171	0.257820	0.106242	1.000000	0.159260	0.004425	0.060174	0.111417	0.004126	0.148632
DUAL	0.127896	-0.134996	-0.303573	0.223161	0.049251	0.159260	1.000000	0.010987	-0.006034	0.066926	0.004154	0.047092
GROWTH	0.008955	-0.019710	-0.001934	0.020014	0.002719	0.004425	0.010987	1.000000	0.001251	0.014833	0.000912	0.004557
INCINDEX	0.000668	0.077177	0.041108	-0.014520	0.057038	0.060174	0.006034	0.001251	1.000000	0.128696	0.005283	0.061938
LEV	0.025860	-0.133929	-0.066923	0.242024	0.059372	0.111417	0.066926	0.014833	-0.128696	1.000000	0.019606	0.203240
ROE	0.005495	-0.016971	0.000233	-0.007671	0.000884	0.004126	0.004154	0.000912	0.005283	0.019606	1.000000	0.000586
SIZE	0.004483	0.008461	0.014477	0.174260	0.290401	0.148632	0.047092	0.004557	0.061938	0.203240	0.000586	1.000000

Table 3 reports the correlation coefficients of the main variables, where the correlation coefficients of two explanatory variables on equity incentives, *dummy_share* and *strength*, with *ICindex* are positive, indicating that the implementation of equity incentives and the strength of equity incentives are positively correlated with the level of internal control effectiveness of the firm, regardless of other factors. The other explanatory variable *property* has a negative correlation coefficient with the effectiveness of internal control. It indicates that without considering other factors, the level of

internal control effectiveness in state-owned enterprises is lower than that in non-state-owned enterprises. Among the other control variables, the correlation coefficient between control variables representing firm performance such as *roe*, *growth*, *size* and *incindex* is positive, indicating that the higher the level of internal control effectiveness, the higher the level of firm performance. Among the control variables representing board of directors factor and executive factor, the coefficients of *dual* and *incindex* are negative, and the coefficients of board and *indr* and *incindex* are positive, indicating that concurrent executive and board positions are not conducive to the effectiveness of internal control, while the increase in the number of independent directors and board of directors in the company is conducive to the effectiveness of internal control of the company. The variance inflation factor of the independent variables is calculated to be less than 10, so it is presumed that there is no serious problem of multicollinearity in this paper.

4. Model Analysis and Test

4.1 Model Analysis

Model regression was performed and the regression results are shown in Table 4.

Table 4. The regression results

Variable	Model 1	Model 2	Model 3
<i>Dummy_share</i>	14.325 (2.979)		6.654 (3.734)
<i>strength</i>		15.199 (3.384)	
<i>strength^2</i>		-0.452 (0.122)	
<i>Property</i>			-19.993 (5.170)
<i>Property* Dummy_share</i>			17.466 (6.387)
<i>Log(size)</i>	20.081 (1.327)	19.981 (1.610)	20.776 (1.359)
<i>Indr</i>	49.432 (27.296)	66.926 (28.530)	51.832 (27.324)
<i>Board</i>	3.604 (0.957)	4.435 (1.048)	3.917 (0.972)
<i>Lev</i>	-96.908 (5.605)	-93.450 (8.283)	-96.008 (5.636)
<i>Growth</i>	0.002 (0.008)	0.065 (0.075)	0.003 (0.008)
<i>Big4</i>	14.513 (8.145)	17.724 (8.929)	14.195 (8.141)
<i>Roe</i>	0.755 (0.523)	55.364 (5.478)	0.724 (0.523)
<i>Dual</i>	-3.845 (0.175)	-1.660 (3.142)	-3.008 (2.871)

In the first model, the P-value of the explanatory variable *Dummy_share* is 0.000 and the coefficient is positive, indicating that equity incentives have significant positive effects on the effectiveness of internal control. In this model, only the P-values of *Big4*, *Growth* and *Roe* are greater than 0.1, and the rest are significant at 10% significance level, indicating that it is possible to draw valid conclusions. The coefficients of each control variable and the correlation coefficients have consistent direction, and the H1a hypothesis holds.

In the second model, the coefficient of the explanatory variable *strength* is positive and the p-value is 0.000. The coefficient of the explanatory variable *strength^2* is negative and the p-value is 0.0002.

Excluding the control variables *dual* and *growth*, the rest are significant at 10% significance level, which means that the conclusion can be drawn from model 2 that the relationship between the strength of equity incentives and the effectiveness of internal control is inverted U-shaped, that is, the level of internal control effectiveness increases at the beginning with the increase of equity incentive strength, and reaches a critical point when internal control has a downward trend with the increase of equity incentive strength, so there is over-incentive. Hypothesis H2a holds.

In the third model, the coefficient of the explanatory variable *Property* Dummy_share* is positive and has a p-value of 0.0001, and all variables are significant at the 10% level of significance except for *DUAL* and *GROWTH*, indicating that there is a significant difference between the effect of implementing equity incentives on the level of effectiveness of internal control under state-owned enterprises and non-state-owned enterprises. In state-owned enterprises, equity incentive can promote the level of effectiveness of internal control.

4.2 Robustness Tests

In order to improve the reliability of the conclusions of this paper, the following robustness tests were conducted: referring to the study of the relationship between corporate internal control and equity incentives by Yu, Hazong and Wu, Yanling [15], a new explanatory variable for measuring equity incentives was used: whether the equity incentives were implemented during the contract period. Additionally, a new variable was introduced to measure the strength of equity incentives: the natural logarithm of the share-based payment cost under other capital stock. The sample was regressed again. The direction of coefficients of *dummy_share*, *strength* and *strength²* were found to remain same and significant. Therefore, the results of this paper were considered reliable.

5. Conclusion, Limitations and Recommendations

In conclusion, this paper found that (1) Equity incentives has a positive influence on the level of internal control effectiveness. (2) The trade-off between the management's defense motives and the convergence of interest motives leads to an inverted U-shaped relationship between the intensity of equity incentive and the effectiveness of internal control. Initially, the introduction of equity incentive can promote internal control due to the motive of convergence of interests. With the increasing in equity incentive, the management's defense motivation overrides the motive of convergence of interests and the level of internal control effectiveness begins to decline, as more of the equity owned by executives means the stronger the management's motivation to manipulate financial information, which is unfavorable to the internal control (3) In the correlation analysis, the relationship between state-owned listed companies and internal control effectiveness is negatively correlated, that is, in the absence of other factors, state-owned listed companies have a suppressive effect on internal control effectiveness. However, when it works simultaneously with equity incentive, it will promote the internal control effectiveness. In relation to the convergence effect and the management defense effect, the implementation of the equity incentive for executives in state-controlled listed companies in China will suppress the management defense effect of the equity incentive or promote the convergence effect, and then the effectiveness of internal control is enhanced by the implementation of equity incentives.

There are limitations of this paper's research: first, this paper uses the actual controllers as state-owned companies, state-owned institutions and each institution as the explanatory variables of state-owned enterprises to measure the political factors, which is a crude way of measurement and does not discuss state-owned enterprises in a more detailed way; additionally, in the final conclusion, although it is concluded that the combined effect of SOEs and equity incentives will lead to the increase of internal control level, there is no way to conclude whether SOEs suppress the management defense effect or promote the convergence of interest effect or both effects together.

Equity incentives has a more direct effect in dealing with agency problems than traditional compensation incentives. According to the findings of this paper, the implementation of equity

incentive does promote the effectiveness of internal control, but since the intensity of equity incentive and the effectiveness of enterprise internal control are not simply linear. Therefore, for enterprises to formulate the equity incentive program, a reasonable arrangement of equity incentive method and intensity is recommended to prevent "too much is too little". When there is excessive pursuit of short-term interests by managers or long-term retention of executive talents, enterprises should not blindly rely on equity incentives. In addition, this study finds that the effectiveness of equity incentives on internal control in state-owned enterprises is promoted. For SOEs, although the level of internal control is generally lower than that in non-SOEs, the level of internal controllability in SOEs can be promoted under the dual effect of equity incentives and SOEs. Therefore, it is recommended to encourage the reasonable use of equity incentive methods in SOEs.

References

- [1] Zhao Xuanmin, Shu Qi. Analysis of the Impact of Executive Incentives on the Effectiveness of Internal Control [J]. *Modern Business Trade Industry*, 2014(10):22-24.
- [2] Zhao Xuanmin, Shu Qi. An Empirical Study of the Impact of Executive Incentives on the Effectiveness of Corporate Internal Control [J]. *Journal of Xi'an Shiyou University (Social Science Edition)*, 2014, 23(1):30-36.
- [3] Li Mingyang. Equity Incentives, Internal Control Effectiveness and Corporate Performance - Based on Small and Medium-sized Listed Companies [J]. *Accounting and Finance*, 2017(4):52-55.
- [4] Jian Yufeng, Liu Changsheng. The impact of executive incentive differences on the effectiveness of corporate internal control - based on empirical data of A-share listed companies [J]. *Finance and Accounting Monthly*, 2014(22):15-20.
- [5] Gu Xiaolan, Wang Yinghui. A Study on the Interrelationship of Executive Compensation Incentive Approach, Management Power and Internal Control Effectiveness - Empirical Data of China's Listed Manufacturing Companies from 2009-2014 [J]. *Technology and Innovation Management*, 2017, 38(1): 100-108.
- [6] Wang Qiuxia. Research on Equity Incentive Problems and Countermeasures of Listed Companies in China [J]. *Friends of Accounting*, 2013(13):89-92.
- [7] Lu Dong, Wang Yunchen, Fu Peng. Do CEO incentives improve internal control effectiveness? -- Empirical evidence from state-owned listed companies [J]. *Accounting Research*, 2014(6):66-72.
- [8] Yang Huihui, Pan Fei, Xi Yuqin. The effect of the type of direct controlling shareholders and equity incentives on the investment efficiency of state-owned enterprises [J]. *Journal of Shanxi University of Finance and Economics*, 2016, 38(1):78-88.
- [9] Wang Ning. Research on foreign management equity incentive theory [J]. *Business China*, 2008(5):127-128.
- [10] Bebchuk L A, Fried J M. Executive Compensation as an Agency Problem[J]. *Journal of Economic Perspectives*, 2003, 17(3):71-92.
- [11] Wei Fengying, Lin Aimei. Study of factors affecting the effectiveness of internal control [J]. *Communication of Finance and Accounting*, 2015(18):87-90.
- [12] Zheng Hui. Study on the Effectiveness of Executive Motivation on Internal Control [J]. *Economic & Trade*, 2017 (11).
- [13] Zhang Ying, Zheng Hongtao. Investigation and analysis of the effectiveness of internal control and its influencing factors in Chinese enterprises [J]. *Auditing Research*, 2010(1):75-81.
- [14] Kan Shuang. Research on Executive Motivation and Internal Control Effectiveness - Empirical Evidence from Listed Companies in Shanghai Region [J]. *Communication of Finance and Accounting*, 2017(26).
- [15] Yu Haizong, Wu Yanling. Equity Incentives and Internal Control Effectiveness During the Contract Period - A Perspective Based on Stock Options and Restricted Stock [J]. *Auditing Research*, 2015(5):57-67.