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Economic Consequences of Internal Governance and Equity Incentive Systems: A Case Study of Baosteel Group

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Abstract: This paper takes Baosteel Group as the research object to explore the advantages and economic consequences of the internal governance and equity incentive systems in State-owned enterprises. Against the backdrop of the separation of ownership and management rights in state-owned enterprises and the limited role of external governance institutions, Baosteel was the first to introduce independent outside directors and implement an equity incentive plan. The research finds that the introduction of independent outside directors has enhanced the corporate governance level; the equity incentive plan is legal and reasonable, effectively improving the enterprise's innovation ability, profitability, and corporate value. However, there is a problem that the assessment indicators ignore the external environment. Therefore, this paper suggests that state-owned enterprises adjust their performance assessment indicators according to changes in the industry environment. In the future, more attention can be paid to Baosteel's subsequent equity incentives and comparative analysis with other companies can be carried out.

Keywords: State-owned enterprises, Corporate governance, Board of directors reform, Equity incentive.

1. Introduction

1.1. Research Background

The background of the characteristic governance model - the Enterprise Law: In State-owned enterprises, the ownership and management rights are separated. The state owns the enterprise, and managers are responsible for its operation (unlike private enterprises, managers of State-owned enterprises do not own the company's property. Therefore, there is a possibility of misbehavior by managers in State-owned enterprises). Especially in China in the early 21st century, the role of external governance institutions was limited. For example, in the securities market, the stock price fluctuations of listed companies had nothing to do with their real performance, and the speculation in investment was too strong. In this case, the motivation of managers to improve performance to maintain stock prices often decreased. On the contrary, it would encourage short - sighted and speculative behaviors of managers, who would use these behaviors to please superiors and even seek personal gains [1].

Based on this, it is necessary for State-owned enterprises to strengthen supervision, improve corporate governance, and optimize the internal structure of the board of directors. At the same time, the separation of ownership and management rights makes it difficult to fully stimulate the internal

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motivation of employees. Equity incentives can make employees become stakeholders of the enterprise by giving them a certain amount of enterprise equity, closely linking personal income with enterprise operating performance. This enables employees to be more active in work, give full play to their creativity, contribute more to the development of the enterprise, and also attract and retain high - end talents.

1.2. Research Objectives

As the first State-owned enterprise to systematically introduce independent outside directors (from 2005 to 2008) and implement an equity incentive plan (piloted in 2006, with the first - phase equity incentive starting from 2014 to 2018), Baosteel Group had a pioneering and benchmarking role during this period. This paper mainly analyzes the two systems implemented by Baosteel Group in the early 21st century, namely, the transformation of the board of directors and equity incentives, to find their advantages and feasibility, identify possible shortcomings, and seek solutions.

2. Explanation of the Characteristics of the Board of Directors

2.1. Governance Structure

In 1993, in response to relevant laws, the company established a board of directors composed entirely of internal personnel. According to the Company Law promulgated in 1993, the board of directors had the power to decide on the company's business plans, appoint and dismiss management personnel, and participate in the company's system construction. This was an important measure of Baosteel in its early corporate governance structure, which was in line with the enterprise development and regulatory requirements at that time and aimed to make management decisions on enterprise operations. However, the board of directors at that time lacked an external perspective and diversified supervision (there were deficiencies in governance).

2.2. Introduction of Independent Directors

When Baoshan Iron & Steel Co., Ltd. went public in 2000, independent non - executive directors were set up in its board of directors, and committees such as the strategy, audit, remuneration and assessment committees were established. This was an important progress for Baosteel in improving corporate governance and protecting the interests of minority shareholders. The introduction of independent directors helped to enhance the independence and professionalism of the board of directors' decision-making. This is because independent directors usually have rich knowledge, experience, and high professional qualities, which can help the company make scientific decisions, avoid blind investments, and improve the company's sustainable development ability [2]. The establishment of committees made the functions of the board of directors more detailed and professional. However, in practice, the role of independent directors may be weakened. This is because in Chinese listed companies, the phenomenon of "dominant shareholder" is relatively common, and the selection and appointment mechanism is unreasonable. Since independent directors are elected by voting, major shareholders often control the selection of independent directors. Eventually, this may not only lead to a situation where the elected independent directors have an interest relationship with major shareholders and cannot play their supervisory role, but also create conditions for insider control and damage the company's interests [2].

2.3. Introduction of Independent Outside Directors

In 2005, as a pilot for the governance reform of State-owned enterprises, Baosteel Group introduced independent outside directors. Its board of directors consisted of 4 executive directors, including the chairman and president, and 5 independent outside directors. The board of directors also had a standing committee, an audit committee, a remuneration and assessment committee, and a nomination committee. Independent outside directors shoulder many important missions, including participating in decision - making in key areas of the company, reviewing related party transactions, protecting the interests of small and medium - sized shareholders of the company, and abiding by the principle of honesty and trustworthiness [3]. This reform was a key turning point in the corporate governance of Baosteel Group. The addition of independent outside directors brought new ideas and supervision mechanisms to the board of directors, and the further improvement of each committee also promoted the scientificity and standardization of the board of directors' decision – making [4].

2.4. Changes in the Board of Supervisors

In 2008, Baosteel Group further clarified the relationship between the board of directors and the board of supervisors. Since the board of supervisors was introduced by the Company Law in 1993, its powers and responsibilities have been continuously explored in practice. In 2008, the board of supervisors of Baosteel consisted of 5 staff members from the State-owned Assets Supervision and Administration Commission (SASAC) and 2 employee representatives, and its role was mainly "observation and diagnosis". Some members of Baosteel Group's board of supervisors were dispatched by SASAC and managed by SASAC, which improved the board of supervisors' own management system and operation mechanism, was conducive to fully mobilizing the work enthusiasm of the board of supervisors and was beneficial to giving full play to the subjective initiative of full - time supervisors [5]. With the advancement of corporate governance and the expansion of the decision-making power of the board of directors, the relationship between the two was further clarified. The supervision role of the board of supervisors over the board of directors in strategic planning and risk identification was strengthened, ensuring that the company's operations were in line with regulations and the company's interests and avoiding excessive concentration of power in the board of directors.

2.5. Merger of Baosteel and Wuhan Iron and Steel Group

In 2016, Baosteel Group and Wuhan Iron and Steel Group implemented a joint reorganization to establish China Baowu Steel Group Co., Ltd., becoming the largest steel enterprise in China and the second - largest in the world. Before the merger, Baosteel had completed the reform of the board of directors (with the majority of independent outside directors and the establishment of professional committees), forming a governance framework with clear rights and responsibilities. This mature mechanism provided a replicable institutional template for the merger, enabling quick decision - making on complex issues such as asset integration and personnel adjustment and avoiding internal friction. Independent outside directors provided many in - depth and broad perspectives during this period. For example, the board of directors proposed a plan for Baosteel's output to reach 80 million tons. This plan focused on output rather than profit, which was very helpful for increasing Baosteel Group's market share and had many advantages. It made the enterprise pay more attention to the long - term development of the industry (such as environmental issues) instead of just focusing on performance KPIs.

3. Analysis of Equity Incentives

3.1. Implementation of Equity Incentives

After the company's management system was increasingly improved, putting equity incentives on the agenda was of great benefit to State-owned enterprises. Firstly, equity incentives tied the interests of shareholders and employees together. Employees would actively invest in innovation and R & D to maximize their own interests, which enhanced the enterprise's innovation ability at the same time [6]; Secondly, equity incentives enabled core employees to obtain more income and helped the enterprise retain talents [7]. Through data collection and rough analysis, this paper compared Angang Steel Group, HBIS Group Co., Ltd., and Shougang Steel Co., Ltd., which were relatively large domestic steel enterprises at that time (from 2014 - 2018, Baosteel started its first - phase equity incentive, while the other three companies did not carry out equity incentives) to explore the positive impact of equity incentives on enterprises. The return on assets was used as a reference indicator to measure the enterprise's operating ability and management efficiency. A simple analysis shows that after the implementation of equity incentives in 2014, the profitability of Baosteel Group was significantly higher than that of its peers with similar strength (please see Figure 1).

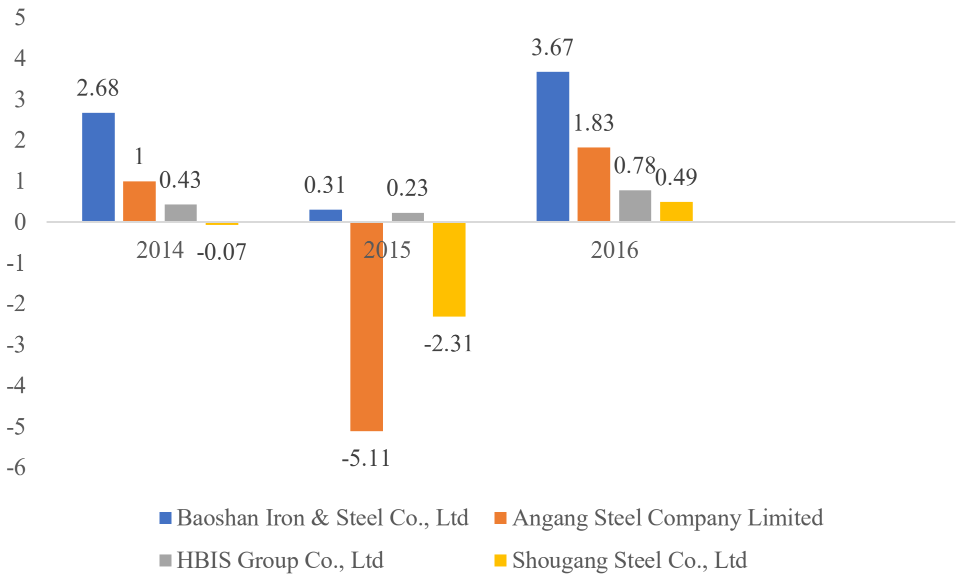

Figure 1: ROA from 2014 to 2016
Data source: Wind
Photo credit: Original

Note: At the end of 2016, Baowu Group was formed through the merger, resulting in a huge increase in its asset scale, production capacity, and output, far exceeding other domestic steel manufacturers. To ensure that only the impact of equity incentives on the company is analyzed as much as possible, data after 2017 are not selected.

3.2. Selection of Incentive Methods

Currently, the two main methods of equity incentives are restricted shares and restricted stock options, which are popular abroad. As a State-owned enterprise, it is crucial to choose an incentive method that suits the company's situation and characteristics. Baosteel Group's choice of the former is a wise decision that is in line with the national conditions. Firstly, at that time, the Chinese capital market was not yet mature, and stock price fluctuations were large, making it unsuitable to choose restricted stock options [8]. Secondly, in the context of the Chinese capital market, the disadvantages of restricted stock options could be easily magnified. The inequality of rights and obligations meant that when the incentivized object failed to achieve the company's performance, they could almost avoid all risks by simply choosing not to exercise the option, while the company had to bear the loss of performance. The worst - case scenario might be that the management would use stock options to carry out opportunistic behaviors to maximize the expected income of the options (such as deliberately issuing the incentive plan at a low stock price and lowering the exercise price), turning the incentive plan into a means of "giving benefits" to insiders [9]. Scholars believe that only enterprises with standardized corporate governance can carry out equity incentives [10]. This is also the reason why Baosteel Group carried out equity incentives after the transformation of its board of directors. The rights and obligations of restricted shares are generally equal. The incentivized objects usually need to raise funds to purchase shares and bear the loss of the stock price decline due to unmet performance targets. Restricted shares can also play a role in attracting talents and preventing the loss of core employees. Due to the large profit - making space and low risk of restricted shares, they are favored by companies with low growth requirements and large scales [11]. For a large - scale domestic steel enterprise like Baosteel Group, this choice is extremely wise.

3.3. Rationality of Equity Incentives

This paper will evaluate the rationality of Baosteel Group's equity incentives by referring to its first - ever 5 - year equity incentive plan starting in 2014, so as to illustrate the advantages of Baosteel Group's equity incentives. The main aspects to be measured include: First, whether the assessment standards and vesting conditions are reasonably set; second, the validity period of the incentives; third, the stock price discount given to the incentivized objects and the number of shares granted. The information of Baosteel Group's first - phase equity incentive is shown in Table 1 [12].

Table 1: The information of Baosteel Group's first - phase equity incentive

	details
Announcement Time	March 2014, and May 22, 2014 was the grant date
Incentive Method	Restricted Shares
Total Number of Granted Shares	No more than 47,458,200 shares, accounting for 0.2881% of the company's total share capital
Incentive Objects	people in total, including the company's directors, senior management personnel, management backbones and core technical talents who have a direct impact on the company's overall performance and sustainable development, and other key employees that the company deems should be incentivized
Grant Price	1.91 yuan per share
Proportion of the Three - Year Unlock Period	The unlock period is unlocked at a rate of one - third per year

Table 1: (continued).

Performance Conditions for the Grant of Restricted Shares	For the 2014 - 2016 lock - up period: The profit in 2013 should be ⩾ 2.2 times the average of the same industry in the same period, the operating income should be ⩾ 181.2 billion yuan, with a growth rate of 1.1% compared to 2012, and the growth rate should be ⩾ the average of the domestic same industry in the same period; EOS (EBITDA / Operating Income) should be ⩾ 9% and ⩾ the average of the domestic same industry in the same period. (1) For the first unlock period (not unlocked): The profit in 2015 should be ⩾ 2.5 times the average of the same industry in the same period, the operating income should be ⩾ 184.8 billion yuan, with a fixed - ratio growth rate of 2% compared to the grant target value, and the growth rate should be ⩾ the average of the domestic same industry in the same period; EOS (EBITDA / Operating Income) should be ⩾ 10% and ⩾ the 75th percentile of the domestic same industry in the same period. (2) For the second unlock period on June 19, 2017: The profit in 2016 should be ⩾ 2.8 times the average of the same industry in the same period, the operating income should be ⩾ 186.6 billion yuan, with a fixed - ratio growth rate of 3% compared to the grant target value, and the growth rate should be ⩾ the average of the domestic same industry in the same period; EOS (EBITDA / Operating Income) should be ⩾ 10% and ⩾ the 75th percentile of the domestic same industry in the same period. (3) For the third unlock period on June 19, 2018: The profit in 2017 should be ⩾ 3 times the average of the same industry in the same period, the operating income should be ⩾ 190.3 billion yuan, with a fixed - ratio growth rate of 5% compared to the grant target value, and the growth rate should be ⩾ the average of the domestic same industry in the same period; EOS (EBITDA / Operating Income) should be ⩾ 10% and ⩾ the 75th percentile of the domestic same industry in the same period

Firstly, in terms of performance, Baosteel Group selected indicators such as operating income and its growth rate and net profit. The performance assessment indicators should be matched with the long - term development goals of the enterprise [13]. In addition to the assessment indicators selected by most companies, EOS was innovatively introduced, excluding non - operating factors such as interest, tax, depreciation, and amortization, which more intuitively reflected the profitability of the enterprise and management. This paper believes that the addition of the EOS indicator is a supplement to the total income and profit indicators. It strictly restricts the management. Because if the management aggressively accepts and promotes projects only for the goals of operating income and

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its growth rate, the operating income may be "inflated" - because a large amount of income will be offset by costs and expenses, and such a high income may not be a good thing for the company. It can also more objectively facilitate investors to evaluate the enterprise and prevent its real profitability from being masked by high interest.

Secondly, regarding the unlock period of the incentives, Article 22 of the "Trial Measures for the Implementation of Equity Incentives by State-owned Holding Listed Companies (Domestic)" stipulates that the unlock period in an equity incentive plan shall not be less than 3 years. Some scholars' research also shows that when the validity period is 5 years or less, the intensity of equity incentives has no significant impact on enterprise performance; when the validity period is greater than 5 years, the impact of the intensity of equity incentives on enterprise performance is significant, which confirms that a longer validity period of equity incentives has a better effect [14]. It can be said that the validity period of Baosteel's equity incentives is 5 years (ending on June 19, 2018, including a 2 - year lock - up period and a 3 - year unlock period), and the expected effect of equity incentives is good.

The third aspect is to analyze the grant price and quantity of Baosteel's equity incentives (please refer to Table 2). Article 23 of the "Administrative Measures for Equity Incentives of Listed Companies" stipulates that when a listed company grants restricted shares to the incentivized objects, the grant price shall not be lower than the par value of the shares, and in principle, shall not be lower than the higher of the following prices: 50% of the average trading price of the company's shares on the first trading day before the announcement of the draft equity incentive plan; 50% of one of the average trading prices of the company's shares in the 20 trading days, 60 trading days, or 120 trading days before the announcement of the draft equity incentive plan. According to the existing data analysis, after Baosteel Group announced its equity incentive plan in 2014, it successively repurchased shares from the secondary market at a price ranging from 3.87 to 3.99 yuan per share. This share repurchases started on May 23, 2014, and ended on June 11, 2014. The repurchase price was higher than 50% of the grant price (refer to the "Announcement on the Results of Share Repurchase for the A-share Restricted Share Plan of Baoshan Iron & Steel Co., Ltd."), which indicates that the share grant price of Baosteel Group is legal. Secondly, it is necessary to explore whether the equity incentive is reasonable under legal conditions. The following analyzes the book value per share (BVPS) of Baosteel Group during the equity incentive period (please refer to Table 2). Since the company repurchases shares for incentive purposes, on the one hand, it dilutes the shareholding ratio of original shareholders, and on the other hand, it increases the company's costs or expenses, affecting the company's profits. Equity incentives inevitably involve the above - mentioned costs. However, an effective equity incentive can enhance the long - term value of the company through reasonable design, thus achieving cost control [15]. It is not difficult to see that the BVPS of Baosteel Group shows an overall upward trend. From this, it can be inferred that the equity incentive of Baosteel Group is effective in terms of results. The number of additional shares issued did not hinder the company's development. Instead, it increased shareholders' equity and enhanced the company's value.

Table 2: BVPS from 2014 to 2018

Book Value per Share	2014	2015	2016	2017	2018
Baosteel Group	6.9369	6.8500	7.3716	7.3807	7.9380

Data source: Wind

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4. Deficiencies and Improvements

4.1. Deficiency: Lack of Reference to External Conditions in Assessment Standards

As a pioneer in equity incentives, the relevant policies inevitably have some drawbacks. Judging from the data analysis in this paper: Firstly, although the design of the equity incentive plan ensures the performance requirements for the incentivized objects, the goals should also be adjusted in a timely manner according to the economic situation and industry environment. Referring to the "Announcement on the Unlock and Listing of the Second Unlock Period of the Restricted Share Plan of Baoshan Iron & Steel Co., Ltd.", due to the downward trend of the steel industry in 2015, which was characterized by overcapacity and market shrinkage, not all performance indicators were met. The restricted shares corresponding to the first unlock period could not be unlocked and were repurchased and cancelled by the company at the grant price. This obviously dampens the work enthusiasm of the incentivized objects. In this case, the exercise conditions may seem too strict.

4.2. Improvement Methods

Based on this, the company should have the ability to grasp the overall industry environment and predict the company's development and reasonably set equity incentive indicators. Firstly, in addition to referring to hard indicators such as profits and operating income, a method of adding floating indicators for concurrent assessment can be adopted. By keeping track of the market economic environment, floating indicators (such as relative market share, industry ranking, etc.) can be adjusted in a timely manner. Through timely adjustments, the smooth operation of the equity incentive function can be ensured, preventing the impact on the incentivized objects caused by changes in the difficulty of indicators due to market environment changes [16]. Secondly, the company can also modify the equity incentive conditions in a timely manner, which has been confirmed later. Referring to the "Draft of the Third - Phase A - Share Restricted Share Plan of Baoshan Iron & Steel Co., Ltd.", if significant changes occur in the company's main business or extreme samples with large deviation ranges appear during the annual assessment process, the board of directors of the company is authorized to eliminate, replace, or add samples according to the actual situation. The board of directors can adjust the above-mentioned performance indicators and levels according to factors such as the company's strategy and market environment. The provisions of this plan are innovative and reasonable to a certain extent and also provide an example for other companies on how to adjust equity incentive indicators when facing a volatile industry environment.

4.3. The Author’s Reflections and Prospects

Affected by my own knowledge level, the data analysis of Baosteel Group in this paper is relatively limited. Only data comparison is carried out without in - depth mathematical analysis. Currently, I can only refer to more literature research and legal provisions to make up for the knowledge gap. Since this paper aims to analyze the superiority of Baosteel Group's system, and few other companies introduced equity incentives at that time, analysis can be carried out through performance and other indicator comparisons. With the increasing maturity of corporate management, in the future, people can continue to pay attention to the second - phase equity incentives of Baosteel Group (now Baowu Steel Group) (around the 2020s, equity incentives were more widely introduced). Observe the improvement and changes of its system, and conduct comparative analysis with other companies that also implement equity incentives. Analyze the advantages and disadvantages of incentive policies, and observe various reasons for different incentive systems for more accurate analysis.

5. Research Conclusions

In the context of the separation of ownership and management rights in State-owned enterprises, potential problems of the management are exposed. This paper first studies two solutions implemented by Baosteel Group to address this issue - the reform of the board of directors and equity incentives. This paper aims to explore the advantages and rationality demonstrated by Baosteel as a pioneer in implementing these two solutions through the citation of literature, legal provisions, and financial data.

The research findings are as follows: (1) The system of introducing independent outside directors by Baosteel is expected to enhance the corporate governance level; (2) The equity incentive plan of Baosteel Group is legal and reasonable, which has improved the enterprise's innovation ability, profitability, corporate value, and other indicators; (3) The introduction of the EOS indicator in the assessment system is an innovation, but there is a problem of ignoring the external environment. Therefore, it is recommended that State-owned enterprises adjust their performance assessment indicators when the industry environment changes, avoiding the situation where equity incentives are much - talked - about but have little real effect.

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