

# Effectiveness of performance compensation commitment under Information Inequality

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**Abstract**—The demand of information society promotes the production of performance compensation commitment, which is used to alleviate the information asymmetry between investors and listed companies. The generation of performance compensation commitments has reduced valuation difficulties and other problems to a certain extent, lowered M&A costs and improved M&A efficiency. However, as the sample size increases, its drawbacks have gradually emerged. Youbo Pharmaceutical has stepped on the line for three consecutive years to achieve accurate performance. After the commitment period expires, the performance has dropped by more than 50%, so the authenticity of its performance has been questioned. Through the analysis of its announcement and various indicators, I find that the performance compensation commitment can not bring good market reaction after the commitment period, nor can it improve the integration effect, and even there are some behaviors such as premium, goodwill impairment risk and earnings management.

## 1 Introduction

Due to factors such as information asymmetry between the M&A parties, the M&A party cannot accurately estimate the quality and future earnings of the target company, and cannot recognize the reasonableness of the transaction pricing, and may need to bear the risk of poor performance in the future. In 2008, the China Securities Regulatory Commission (CSRC) promulgated the "Management Measures for Major Asset Reorganizations of Listed Companies", which clearly stated that when major asset reorganizations are based on the expected valuation of future earnings as the basis for asset evaluation, both parties to the transaction should sign a performance compensation commitment agreement. Although the CSRC in the "Administrative Measures for the Reorganization of Major Assets of Listed Companies" (2014) abolished the mandatory requirement for non-related parties to sign performance compensation commitments for mergers and acquisitions that did not lead to changes in control rights through private placement of additional shares to purchase assets, but in actual use This measure has formed inertia and can send favorable signals to the capital market and realize risk sharing. Therefore, it is still widely used in the M&A market. According to the Wind database, from 2013 to 2019, a total of 3,409 gambling agreements including performance compensation commitment clauses were signed in major restructuring of companies listed in Shanghai and Shenzhen.

The performance compensation commitment was formulated by the CSRC based on foreign gambling

agreements based on my country's special market environment, and started in China's 2004 share-trading reform. In 2008, the CSRC promulgated the "Administrative Measures for Major Asset Reorganizations of Listed Companies", in which Article 33 clearly stipulates that the asset evaluation agency adopts the current value method of income and other valuation methods based on income expectations to evaluate the underlying assets, Listed companies should separately disclose the profitability of the target company and the difference with the profit forecast in the annual report three years after the major asset reorganization, and require the merger and acquisition parties to sign a performance compensation commitment agreement. The agreement requires the target company to make a commitment to its operating performance for a period of time in the future. If the future operating performance does not meet the promised performance standard, the promised party, the original shareholder of the acquired party, shall compensate the listed company with shares or cash.

The generation of performance compensation commitments has reduced valuation difficulties and other problems to a certain extent, lowered M&A costs and improved M&A efficiency. However, as the sample size increases, its drawbacks have gradually emerged. Although the CSRC is constantly improving relevant systems, the phenomenon of "double high", that is, high valuation and high performance compensation, has shown a blowout growth in recent years, and the capital market has also questioned the effectiveness of performance compensation commitments. Based on this, this article uses the case of Jiuzhitang's acquisition of Youbo

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Pharmaceutical to study the effectiveness of performance compensation commitments.

The existing literature has obvious deficiencies. First, most studies demonstrate effectiveness through short-term financial indicators and market responses, and do not incorporate existing risks into the effectiveness evaluation system. In fact, performance compensation commitments inherently have risks that reduce their effectiveness; secondly, they target failure to meet the promised performance. A lot of risk analysis and solutions have been given for evasion of compensation, but there are few documents that can give a reasonable explanation for the situation that the performance promise is completed but there is still no good market response, and the performance has not been investigated from this situation. Whether the compensation promise is true and effective.

The innovation of this article lies in: On the one hand, with the aid of merger cases where performance compensation commitments have been completed and no compensation obligations, the effectiveness of the implementation process including earnings management, benefit transfer, and market response, integration effects, and other implementation results are analyzed and signed with most documents. On the other hand, the effectiveness of case analysis that cannot complete the performance is distinguished from each other; on the other hand, I put risk analysis into the effectiveness analysis system of performance compensation commitment. Commitment signing promotes premium risk, goodwill impairment risk, earnings management and so on. This paper links these problems with the effectiveness of performance compensation commitment, and makes a case study.

## 2 Materials and Methods

### 2.1 Transaction Plan

The transaction plan for this merger consists of two parts: the issuance of shares to purchase assets and the transfer of shares.

Issuing shares to purchase assets: Jiuzhitang non-publicly issued shares to the shareholders of Youbo Pharmaceutical at the issuance price of RMB 14.22 per share to purchase all of its shares in Youbo Pharmaceutical.

Sharing transfer: Jiuzhitang's original controlling shareholder Jiuzhitang Group transferred 83.5 million shares of Jiuzhitang to Li Zhenguo at a transaction price of 18 *yuan* per share, accounting for 28.06% of the total share capital of the listed company. After the completion of this transaction, Li Zhenguo became the controlling shareholder and actual controller of Jiuzhitang.

### 2.2 Completion of Performance Commitments

The counterparty of the transaction promised that from 2015 to 2017, the audited net profit of Youbo Pharmaceutical attributable to shareholders of the parent company after deducting non-recurring gains and losses shall not be less than 456.73 million *yuan*, 514.72 million *yuan* and 578.80 million *yuan*, respectively. The actual

performance completion rates were 101.29%, 100.69% and 101.66%, respectively.

**Table1.** Commitment Completion

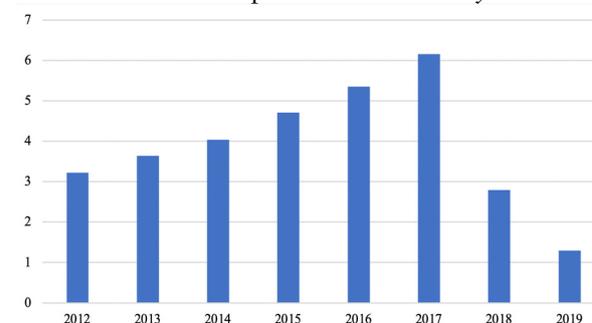
year	Committed net profit	Actual net profit	Completion rate
2015	456.73	462.64	101.29%
2016	514.72	518.30	100.69%
2017	578.80	588.39	101.66%

Unit: million *yuan*

Therefore, I analyzed its annual report data and Jiuzhitang's reply to the CSRC to find out the abnormal data, including net profit, operating income, accounts receivable, operating cash flow and other indicators. Then, I discuss the effectiveness of performance compensation commitments from the aspects of capital market reaction, integration effect, premium risk, earnings management, goodwill impairment risk and benefit transfer.

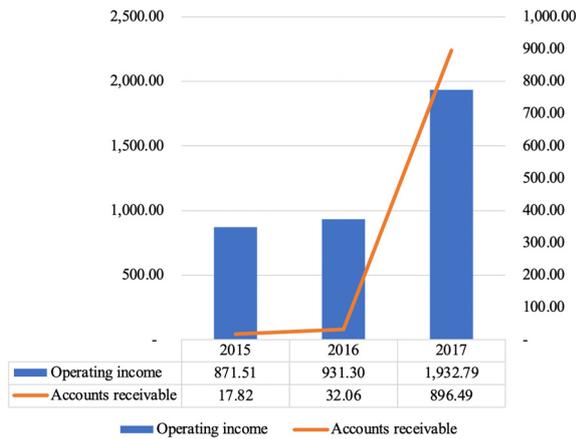
## 3 Results & Discussion

After three consecutive years of "stepping on the line to accurately meet the standard", according to Jiuzhitang's 2018 annual report, the net profit of Youbo Pharmaceutical in 2018 was only 279.39 million *yuan*, a sharp drop of 54.63% year-on-year, which was far lower than the estimated net profit of 630 million *yuan*.



**Figure 1.** Net profit of Youbo Pharmaceutical (*billion yuan*)

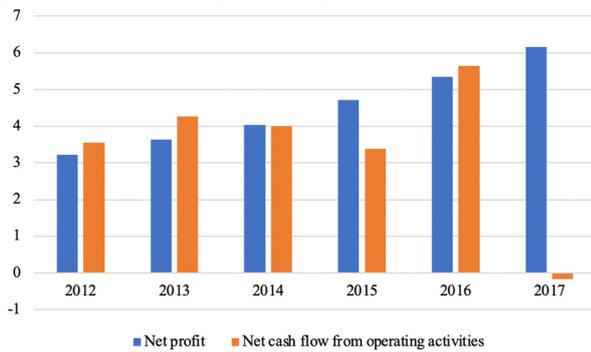
In 2015 and 2016, Youbo Pharmaceutical's accounts receivable were low, indicating that the company did not adopt a sales model based on credit sales. In 2017, operating income increased by 107.54% over 2016, and accounts receivable increased by 2696.13%, accounting for 46.38% of current operating income. Combined with the large changes in the sales and returns of Shuxuetong injections, in 2017, there was a sales return of 34.34 million *yuan*, accounting for 0.89% of operating revenue, and a sales return of 366.04 million *yuan*. in 2018, accounting for 11.72% of the year's revenue. Therefore, it is easy to find that in 2017, Youbo Pharmaceutical relied on credit sales of nearly 900 million *yuan* to increase its revenue and fulfill its performance commitment. After the performance commitment period expires, a sales return occurs immediately in the first year to offset the current operating income.



**Figure 2.** Youbo-Operating income & Accounts receivable (million yuan)

Corresponding to the accounts receivable, the cash flow index of Youbo pharmaceutical in 2017 was also abnormal.

According to the previous year data, the net profit of Youbo pharmaceutical is basically the same as the net cash flow of operating activities, indicating that its profit is supported by corresponding cash flow. In 2017, the net profit of Youbo pharmaceutical continued to increase while the net cash changed to negative, which further explained the moisture of the performance, and Youbo pharmaceutical completed its performance by credit sale.



**Figure 3.** Youbo-Net profit & Net cash flow from operating activities (billion yuan)

Based on the above abnormal data, I analyze its effectiveness from the following aspects:

### 3.1 Capital Market Reaction

If the private placement of M&A occurs when the stock price is overvalued, higher performance commitments are more likely to trigger a stock price collapse. Due to plans for a major asset restructuring, trading in Jiuzhitang's stock was suspended since the opening of the market on Jan 21, 2015, and trading was resumed on May 25. The stock has an average daily limit for 9 consecutive trading days after the resumption of trading, and the stock price has risen from RMB 20.20 per share before the resumption of trading to RMB 47.63 per share. However, since the completion of the merger at the end of 2015, the stock price has plummeted, from 32.22 yuan per share at the end of 2015 to 9.81 yuan per share at the end of 2018, and the market value has shrunk from 24.357 billion yuan

to 8.528 billion yuan, a shrinkage of nearly 65%. Therefore, performance compensation promises seem to protect the interests of small and medium-sized investors, but after the target company sends an unfavorable signal, it will quickly show pessimism in the capital market. In the short term, performance compensation promises can make the stock price rise, but in the long term, even if the target company achieves its expected performance, it may not keep its stock price at a high level. Investors will also lose confidence due to various negative signals.

### 3.2 Integration Effect

The operability of performance is only short-term, and the integration effect is lagging relative to performance. Whether mergers and acquisitions improve the overall asset quality of the company is reflected in the long-term process. After the merger, the underlying assets are under the control of the listed company. Signing the performance compensation commitment means that the profit amount still needs to be disclosed separately, so these assets still need to be kept in their original state during the commitment period and separately accounted for, which is not conducive to the integration of the resources of both parties. The efficiency of internal capital allocation cannot be significantly improved, and it is difficult to generate new creative value.

From this case, the merger of the two parties did not bring about a significant improvement in the integration effect. Jiuzhitang mainly provides blood-enriching products such as donkey glue and nourishing blood particles, while Youbo Pharmaceutical's main product is the prescription drug Shuxuetong injection. The two are on a parallel line and do not have the advantage of resource synergy. In 2018, Jiuzhitang's performance fell sharply, and its profit largely relied on the single product profit of Shuxuetong injection. The company's internal sales transformation was not smooth. The ability of M&A and reorganization to save Jiuzhitang's decline in the short term is very limited, and it has not been able to increase the sales of its original products.

### 3.3 Premium Risk

The promised performance is used as a bargaining chip, which will cause the price to deviate. Under this mechanism, the promise of high performance compensation has become a means of obtaining high premiums, which further enhances the opportunistic behavior of the acquired party. However, due to objective factors such as the uncertainty of future industry development and whether the management really regards excessive performance compensation commitments as incentives and other subjective factors, in the long run, excessively high merger consideration may not necessarily achieve the expected return.

On March 31, 2015, the book value of the owner's equity of Youbo Pharmaceutical's consolidated balance sheet attributable to the parent company was 1416.50 million yuan. The net asset value assessed by the income method was 6517.81million yuan, and the value added

was 5101.31 million *yuan*, the appreciation rate is 360.13% higher. Youbo Pharmaceutical predicts a net profit of 630 million *yuan* in 2018, but the actual situation is only 279 million *yuan*, so the estimated value under the income method is not reasonable. On the other hand, the performance compensation commitment only stipulates a three-year profit forecast, and does not make mandatory requirements for the business status after the commitment period. This is inconsistent with the profit forecast period of the underlying asset under the income method evaluation, so the income method cannot be guaranteed. The reasonableness of the assessed net asset value.

### 3.4 Earnings Management

Since the performance compensation commitment is signed, in order to reserve profit space, the acquirer usually conducts negative earnings management one year before the merger, and properly conducts positive earnings management during the commitment period to complete the promised performance. However, performance guarantees under cash mergers and acquisitions are not sufficient. If the management does not expect to achieve the promised performance and is not affected by the decline in the stock price after the merger, the implementation of positive earnings management before the merger will boost profits and then boost the company Value, then performance will inevitably decline after the commitment period. Looking further, when the performance commitment fails to meet the target, cash payment is used to compensate, and the cash cost required is likely to be much lower than the acquisition income obtained under high valuation.

In the case of Jiuzhitang M&A, there is an obvious phenomenon of real earnings management. In 2017, when the promised performance is very likely to be unable to achieve the promised performance, a large number of credit sales will be implemented to increase profits. After the promised performance is completed, sales return will occur in 2018 to offset current profits. Therefore, the existence of performance compensation promises cannot allow the company to continue to operate in accordance with normal operating conditions, and the existence of earnings management behaviors can change the performance of the company.

### 3.5 Goodwill Impairment Risk

The recoverable amount needs to be determined during the goodwill impairment test. Due to the unverifiable nature of the fair value and future net cash flow estimates, this gives managers the possibility to decide when to perform goodwill impairment in the future. "Accounting Regulatory Risk Reminder No. 8-Goodwill Impairment" regards unfulfilled promised performance as the primary indication of impairment. Therefore, companies that do not meet the standard usually face the risk of goodwill impairment. As goodwill is an asset, impairment will affect net profit, further deteriorating corporate performance and market response.

### 3.6 Benefit Transfer

In the M&A by private placement, the major shareholders can transfer their interests by controlling the discount rate and the premium rate of M & A. To be specific, the higher the discount rate of fixed increase stocks, the lower the price of stocks, the larger shareholders can obtain more shares with lower cost, dilute the equity of small and medium-sized investors, and further strengthen the control of enterprises. At the same time, the original shareholders of the target company can obtain shares or cash higher than the real value of assets with a higher premium, so they can obtain short-term excess return.

As a signal of expected good performance, performance compensation commitment will improve the stock price level of the company in the short term. The listed company's shares held at low cost by the original shareholders of the target enterprise realize the value-added of wealth in a short period of time, which is the performance of the listed company delivering benefits to the target enterprise. At the same time, performance compensation commitment can not reduce the phenomenon of high premium, but will make this situation more serious. In addition, through the measures of reducing holdings and cash, earnings management to avoid the compensation obligation, even if the performance compensation commitment is signed, the phenomenon of large shareholders' interest transfer is still not well constrained.

## 4 Conclusion

High performance compensation commitments have become a means of obtaining high premiums, and the effectiveness of performance compensation commitments is questioned. It is specifically manifested in the poor response of the capital market, reduced integration effects, high commitments, high premiums, triggering earnings management, the existence of goodwill impairment risks, and the transfer of interests of large shareholders.

In response to the above problems, the following suggestions are given: 1. Reasonably determine the commitment target. Both parties to the merger and acquisition should uphold the principle of objectiveness and prudence, comprehensively consider factors such as macro environmental conditions, and set target performance values that can give full play to the incentive effect. 2. Diversified commitment indicators. However, due to the operability of profit indicators, the phenomenon of earnings management is very common, and the authenticity of the completed performance needs to be considered. Therefore, non-financial indicators can be added to restrict performance. For example, non-financial indicators such as market share and R&D investment can be introduced to form a diversified commitment indicator system. 3. Set up two-way compensation. When the target company fails to complete its performance, the listed company will be compensated, and when the performance is exceeded, the listed company will give the other party corresponding rewards. Further enhance the incentive effect.

From the regulatory level: 1. Process supervision should be strengthened and social supervision should be used. Dynamic supervision on the progress of performance completion, pay attention to the dynamic indicators during the commitment period, take the protection of small and medium-sized investors as the starting point, and use the social supervision ability to review the content of performance compensation commitment with investors. 2. Information disclosure should be improved and special audit should be implemented. The listed companies are required to separately disclose the implementation of performance commitments, and make a detailed description of the sources of asset income and expenses of the current year, so as to improve the transparency of performance completion.

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