Excessive Cash Holding of Jiuguijiu Enterprise from the Perspective of Agency Theory

Zhixin Zhang and Liping Ou*
Dianchi College of Yunnan University, Beijing, China.

*Corresponding author e-mail: OLP903134932@ynufe.edu.com

Abstract. The cash level of 300 Constituent companies in 2019 is about 13.73%, while that of the liquor industry in the same period is 34.27%. From the perspective of agency theory, this paper studies the phenomenon of excess cash holding in liquor industry, selects Jiuguijiu liquor as a case of the study, analyzes the phenomenon of excess cash holding in alcoholic liquor issuance, and puts forward corresponding reasonable Suggestions.

Key words: Jiuguijiu Liquor, Agency Theory, Excess Cash, Monetary Fund

1. Foreword
Cash is like the blood of an enterprise. For the purpose of transaction, prevention, speculation and other motives, the enterprise will hold some cash to meet its own business activities. In 2019, the average cash holding level of 300 Constituent companies was 13.73%, and the excess cash holding level of liquor industry was 34.27% for a long time to come[1,3]. Why do liquor listed companies hold so much excess cash. What's the effect of holding excess cashes. In order to study the phenomenon of excess cash in liquor listed companies, this paper selects Jiuguijiu in liquor industry with obvious excess cash holding phenomenon for case analysis [2].

Cash as the least profitable asset, if the huge amount of money is not used reasonably, the utilization rate of funds is low, more money is deposited in the bank and return on capital to deposit rates on the market, although the company has enough cash flow, but lower return on assets, a certain damage to the interests of shareholders [4].

2. Identification of Excess Cash of Jiuguijiu Liquor Co. Ltd

2.1. Analysis of Cash Holdings of Jiuguijiu Liquor Co. Ltd
This article is based on the published financial statements of Jiuguijiu liquor Co. Ltd. Figure 1 shows that the monetary funds of alcoholics have been declining since 2011, until 2017 began to rise gradually (Note: The 2020 annual report has not yet been published, the 2020 data in this article are assumed to have no change in the second half of the year, using the 2020 interim report data instead), in the last three years the monetary fund has reached more than 1 billion yuan, that's up from 342 million yuan in 2017.
Figure 1. Monetary capital situation of Jiuguijiu from 2011 to 2020

In addition, from the perspective of the monetary capital scale of Jiuguijiu from 2014 to 2020, as shown in Table 1, the proportion of monetary capital in the total assets was basically stable at around 15% from 2014 to 2017, and began to increase sharply after 2017, accounting for up to 44.52% by 2020.

| project            | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--------------------|--------|--------|--------|--------|--------|--------|--------|
| Monetary capital   | 2.42   | 3.86   | 3.08   | 3.42   | 10.07  | 13.18  | 14.66  |
| Bank deposits      | 2.42   | 3.86   | 2.96   | 3.40   | 6.07   | 13.18  | 14.66  |
| Monetary capital/total assets | 11.49% | 16.92% | 13.05% | 13.45% | 35.09% | 40.82% | 44.52% |

In the composition of monetary funds, the largest value is bank deposits. Except for the 1.007 billion yuan of monetary funds in 2018, bank deposits are 607 million yuan, and 400 million yuan is cash on hand and other monetary funds. In other years, they are mainly held in the form of bank deposits, which account for about 99% of the monetary funds. In 2019, the monetary fund of Jiuguijiu was 1.318 billion yuan, and the interest income was only 1.064 yuan. It can be estimated that this income is the interest income brought by the monetary fund of 1.318 billion yuan, with a yield rate of about 0.81%. In 2020, the monetary capital will be 1.466 billion yuan, and the interest income will be about 15.54 million yuan, with a yield rate of about 1.1%. Meanwhile, the one-year deposit interest rate of commercial Banks in the same period is about 1.95 percent, and the average yield of 10-year Treasury bonds is 2.91 percent.

As you can see, the Jiuguijiu has a lot of cash, and the yield on cash is low.

2.2. Cash Holding Level Analysis of Listed Companies in Liquor Enterprises

The cash holding level of Jiugui liquor was compared with other listed companies in liquor industry, and the reasonable cash holding level of alcoholic liquor under the average level of liquor industry is estimated. In this paper, liquor enterprises listed in China's A stock market will be selected as samples, among which the monetary capital of Wuliangye liquor in 2020 is far more than that of other liquor enterprises, accounting for 44% of the whole industry. *ST Royal Stage is suspended, so these two enterprises are excluded as outliers.

In this paper, monetary funds are selected to measure the cash holding level of listed companies in the liquor industry. The calculation formula is: cash holding level = monetary fund/(total assets - monetary funds). Table 2 is the descriptive statistical results of 17 Liquor companies listed in A-share market in China in 2020. The average cash holding level of liquor industry is 34.27% and the median is 24.78%. According to Zhang Ya kun (2019), the average cash holding level of CSI 300 companies excluding bank and non-bank finance in 2018 is 21%, and the median is 13%. China's economy has been relatively stable in the past two years, so the cash holding level will not fluctuate too much. This shows that the cash level of liquor industry is significantly higher than other listed companies, liquor industry cash holding higher.
Table 2. Cash holding level of liquor industry in 2020

|            | Monetary capital | Total assets | Cash holding level |
|------------|------------------|--------------|--------------------|
| The average| 41.62            | 210.35       | 34.27%             |
| The median | 12.19            | 63.16        | 24.78%             |
| The maximum| 254.5            | 1722         | 93.76%             |
| The minimum value | 2.149 | 26.22 | 5.60% |

2.3. Measurement of Excess Cash Holdings of Jiuguijiu

Based on the average cash holding level of listed liquor companies in China, the relative optimal cash holding level of alcoholic liquor is estimated to be 840 million yuan.

The cash holding level = 34.27% * assets / (1+34.27%) = 34.27% * 32.93 / (1+34.27%) = 840 million yuan.

The formula for calculating the current holdings in the Baumol model is:

\[ C = \sqrt{2TF/K} \]

Where T refers to the total cash demand, F refers to the correct conversion cost, and K is the rate of return of the security \([5,6]\).

The following will use the financial data of Jiuguijiu in 2020 to calculate the best cash holding. According to the semi-annual report of 2020, the total operating cost of Jiuguijiu is 478 million yuan. If the total operating cost does not change in the second half of the year, the total operating cost of Jiuguijiu in 2020 is estimated to be 956 million yuan. In other words, the total cash requirement (T) to meet the Jiuguijiu' annual operation is about 956 million yuan.

Conversion costs (F) is the transaction costs at each transaction, including transaction fees, stamp duty, transfer fees, etc., which are small and complex, so they are ignored. During the conversion process, the brokerage fee is about 0.03% of the transaction amount, which is charged when selling and buying. Stamp duty is levied only when selling, and 0.1% of the transaction amount needs to be paid. Then, to complete a complete transaction, the transaction cost is approximately 0.16% of the transaction amount. Assuming that the actual amount of cash held minus the best holding is each transaction volume, F= each transaction volume * conversion rate = (14.66-8.4) *0.16%=0.01 million yuan.

The yield of securities (K) is replaced by the average yield of Chinese 10-year Treasury bonds, which is 2.91%.

Apply the above data into the formula to calculate the optimal cash holding of Jiuguijiu (c):

\[ c = \sqrt{2TF/K} = \sqrt{2 * 9.56 * 0.01 / 2.91%} = 0.256 \text{ billion yuan} \]

If the one-year deposit interest rate of commercial Banks for the same period is about 1.95% instead of the yield of securities, the optimal cash holding of Jiuguijiu (c) is calculated:

\[ c = \sqrt{2TF/K} = \sqrt{2 * 9.56 * 0.01 / 1.95%} = 0.313 \text{ billion yuan} \]

Cash holdings (monetary funds) of Jiuguijiu in 2020 was 1.466 billion yuan, far higher than the average cash holding level of Listed Chinese liquor companies of 840 million yuan, and far higher than the optimal holdings calculated by Baumol model. So it turns out that alcoholics have excess cash holdings.
3. Analysis of Excessive Cash Holding of Alcoholic Drinks by Agency Theory

3.1. Cause Analysis of Excessive Cash Holding of Alcoholic Drinks from the Perspective of Cash Agent Theory

Cash agent theory says that companies hold a lot of cash. Based on the interests of managers, the interests of shareholders are inconsistent. Managers tend to accumulate large amounts of cash for a number of reasons: first, they can increase their self-interest, or they can pursue excessive mergers and acquisitions to build their empire state building. Secondly, the company's managers can be free from the constraints of the external market. Cash has become a buffer for their daily activities [7]. Even if the managers make mistakes, there will be no shortage of cash, therefore, it will not endanger the position of the manager. Thirdly, the incentive compensation mechanism of the general company is connected with the size of the company, Turnover, etc. Therefore, the managers of the company have the impulse to make the company bigger, when there is a lot of cash, there will be some blind investment behavior, and even invest in some projects with negative net present value (NPV) [8].

The agency theory introduces agency costs from debt and equity, shareholders and management, major shareholders and starting from the problem of agency among minority shareholders, this paper discusses the company's choice of financing way. In essence, the agency costs are also the result of Information asymmetry. However, the information asymmetry in the traditional financing order theory emphasizes the internal and external asymmetry of the company, while the agency theory goes a step further and divides the company into different interest groups to investigate the agency cost caused by the information asymmetry between shareholders and management, major shareholders and minority shareholders [9].

The high cash holdings are often seen as a sign that management is not serving shareholders' interests. According to the annual report, the state-owned Assets Supervision and Administration Commission of the State Council is the ultimate controller of Jiuguijiu. According to the 2019 annual report, jiuguijiu has a total of 1,680 employees, and the amount of cash paid for employees is 213,551,704.21 yuan. The average annual salary payable to employees is 39,767,661.64 yuan, which is about 158,000 yuan. The annual report does not show the total remuneration of the chairman, but the annual salary of the chief financial officer is 2.0831 million yuan, the annual salary of the chief engineer is 1.1295 million yuan, and the annual salary of the secretary of the board is 695,800 yuan. It can be roughly suggested that the annual salary of the senior managers of alcoholic drinks is relatively high. And executives are generally in their mid-50s. One of the vice-chairmen is 63, well past retirement age. From this, it can be seen that in order to achieve a stable retirement, the management did not make effective investment after years of accumulation of a large amount of monetary funds. The utilization rate of funds was low, and the company did not provide sufficient incentives to the management.

Yanghe Stock, also in the liquor industry, has purchased a large amount of monetary funds for financial products. The 2019 annual report shows that it has used RMB 574 million to purchase financial products and obtained a total investment income of RMB 496,673,600, with an average yield of 8.7%, much higher than the average yield of 10-year Treasury bonds, which improves the capital utilization rate.

3.2. Influence of Excessive Cash Holding of Jiuguijiu

The main impact of the agency problem is excessive on-the-job consumption, excessive investment, etc. Through the analysis of Jiuguijiu, it is found that the increase of agency cost can reflect the possibility of excessive consumption of Jiuguijiu from the side. The benefits of excess cash do not even cover the costs and are far less than its opportunity costs. This paper elaborates from the point of view that excess cash increases agency cost and excess cash returns is low.

3.2.1. Excess cash increases agency cost. In the relevant studies of agency cost, the asset utilization method can be used to calculate the net income of main business/total average assets for measurement.
In fact, this method measures agency cost from the perspective of output. The asset turnover rate represents the management's efficiency in using the assets, and the higher the value, the higher the efficiency. However, if the asset turnover rate is low, the management may use the assets for non-productive purposes such as on-the-job consumption, resulting in the inefficient use of the enterprise's assets. Of course, this is only a method to estimate or indirectly reflect the agency cost from the side.

Select Shuijingfang, which has similar asset size, and compare its total asset turnover with Yanghe Shares and Jiuguijiu, which have larger asset size, as shown in Figure 2. It can be seen that the turnover rate of total assets of Shuijingfang and Yanghe was higher than that of Jiuguijiu from 2015 to 2020. It was better that the turnover rate of total assets of Jiuguijiu increased slowly from 2015 to 2019.

![Figure 2. Comparison of total asset turnover](image)

In addition, by analyzing the cash cycle, it is found that cash should be the most liquid asset, but the large amount of cash in the book will increase the cash cycle and reduce the current asset turnover rate, thus affecting the total asset turnover rate. In 2019, the cash cycle of Jiuguijiu was 828.60 days, while that of Yanghe Stock was 699.16 days, and that of Shuijingfang was 592.25 days. The cash cycle of Jiuguijiu greatly reduced the overall turnover of assets.

### 3.2.2 The Excess Cash Return of Jiuguijiu is Low.

Under the condition of abundant free cash flow, the management of Jiuguijiu failed to make reasonable and effective use of the capital, and the cash income in the account was also lower than the financing cost and opportunity cost, which is also a manifestation of agency problem. Cash is the least profitable asset, and high levels of cash holdings often affect the value of cash holdings.

In 2019, the monetary fund of Jiuguijiu was 1.318 billion yuan, and the interest income was only 1,064 yuan, yielding about 0.81%. In 2020, the monetary fund will be 1.466 billion yuan, with a yield of about 1.1%, lower than the one-year deposit rate of commercial Banks in the same period, which is about 1.95%, and much lower than the average yield to maturity of 10-year Treasury bonds in China, which is 2.91%.

### 4. Conclusion

Based on the analysis of the excess cash phenomenon of Jiuguijiu, it is found that it will damage shareholders' rights and reduce the efficiency of capital use. Compared with other liquor enterprises in the same industry, this paper puts forward corresponding Suggestions and improvement measures as follows:

#### 4.1. Improve the Salary Control Arrangement in State-Owned Enterprises

Compared with the flexible salary system of private enterprises, as a holding enterprise of state-owned enterprises, the salary arrangement of Jiuguijiu under supervision lacks appropriate incentive mechanism. There are also multi-dimensional compensation systems such as on-the-job consumption and political promotion. Obviously, these non-monetary gains are the endogenous reasons for the salary control restrictions faced by Jiuguijiu controlled by state-owned enterprises.
Large state-owned enterprises should try to use the market operation mechanism to establish and improve the marketization of executive compensation. No matter what kind of compensation system they choose, they should openly recruit managers, and both selection and compensation arrangement should be more market-oriented. At the same time, establish medium-term and long-term incentive mechanism to give full play to the incentive role of the compensation system.

4.2. Strengthen Equity Incentive
Equity incentive is a direct and effective way to solve the agency problem, which can reduce the contradiction between the principal and the agent and achieve the mutual benefit. For many years, Jiuguijiu have not provided stock incentive to the senior managers and key personnel of the company, and the incentive is insufficient [10].

4.3. Increase Dividend Payout Ratio and Return Cash to Shareholders
Jiuguijiu can strengthen cash management, determine a reasonable cash threshold according to the next year’s capital expenditure plan, working capital and operating cash needs, increase the proportion of dividends when reserving enough cash, and return the excess cash to shareholders; Or Jiuguijiu rewards investors by buying back shares when its share price is low.

4.4. Invest in Money Market Funds
The most rapid and effective way to improve the yield of return of monetary funds is to diversify same funds, and invest in the financial market, you can buy strong liquidity and have a certain profitability of monetary funds. For example, Yanghe has been keen on wealth management products for many years and invested a large amount of idle funds in banks, brokerages and trust wealth management products, creating rich returns for investors. Investing in money market funds can provide greater profit opportunities for idle funds of Jiuguijiu. In recent years, the average annual return rate of public money funds in China is 3.54%, and the average yield rate of 10-year Treasury bonds is 2.91%. Investing idle cash appropriately in money market funds can improve the efficiency of capital use. At the same time, investment in money market funds can ensure the safety and liquidity of Jiuguijiu money funds. Even if there is a temporary investment demand, it can be realized in time, without affecting the normal operation of enterprises.

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