

Original Paper

Research on the Motivation and Effect of Share Repurchase in Antarctic E-Commerce

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Abstract

As one of the means of capital operation, share repurchase first appeared in the western capitalist market and developed and started late in China's market. In recent years, especially after the revision of the "Company Law" in 2018, more and more listed companies have begun to accept and approve this behavior with the increasing attention paid to share repurchase in our country. In order to ensure the steady development of the company and enhance the company's status, share repurchase behavior has become the norm when the market is in the doldrums and the stock price is considered to be undervalued. Focusing on the two share buybacks launched by Antarctic e-commerce in 2021, this paper analyzes the motivation and impact of the share buybacks.

Keywords

share repurchase, antarctic e-commerce, motivation, repurchase effect

1. Introduction

Share repurchase is the capital operation of listed companies to purchase a certain number of shares from the secondary market through their own funds or borrowings. It is also a market value management tool. In order to meet the needs of capital market development, stock repurchase emerged in the 1950s, first appeared in the United States and then swept the western capital market. China's buyback policy started relatively late. The event of big Yuyuan Garden buying small Yuyuan Garden shares in 1992 kicked off the curtain of share buyback in China's capital market. Since then, China has gradually introduced relevant policies and bills on share buybacks. Share buybacks have gradually become popular among listed companies in China. In particular, the Company Law of 2018 has carried out a landmark reform on share buybacks, making the share buyback system more complete in China. It has made clear the circumstances, amount, methods, etc. of the allowed share buybacks, greatly relaxed the restrictions on share buybacks, and ignited the enthusiasm of share buybacks of listed

companies in China. After that, companies engaged in share buybacks have reached a record high. Although share repurchase has a good momentum of development in our country, our country is still in the early stage of the development of share repurchase, and the relevant laws, regulations and supervision system are far from perfect. This paper takes Antarctic e-commerce as a case study, analyzes its two share buybacks, and explores its motivations and impacts.

2. Introduction to the Case of Share Repurchase of Antarctic E-Commerce

2.1 Basic Information of the Company

Antarctic E-commerce Co., Ltd., formerly known as a household name in the Antarctic, was established in 1988 as a listed company focusing on brand licensing, one-stop e-commerce ecosystem services, supply chain management and other businesses. The model of brand authorization has led to mixed products of the company, which has been criticized by consumers. Market dishonesty and stock price crash prompted Antarctic e-commerce to conduct two share buybacks in early 2021.

2.2 Introduction to Share Repurchase of the Company

2.2.1 First Repurchase

At the board meeting on January 5, 2021, the Antarctic e-commerce company considered and approved the share repurchase plan, and then officially released a announcement on January 7, announcing that the company would repurchase shares at a price not exceeding 15 yuan per share, and the total amount of the repurchase would not be less than RMB500 million and not more than RMB700 million. The specific number of shares to be repurchased shall be based on the actual number of shares to be repurchased up to the repurchase deadline, which shall not exceed 6 months from the date of approval of the share repurchase plan by the Board of Directors. In the announcement, it was announced that the shares acquired from this repurchase will be subsequently used for the implementation of equity incentive or employee stock ownership plan by Antarctic e-commerce companies.

2.2.2 Second Repurchase

The first share repurchase plan of Antarctic e-commerce was quickly completed on January 25, 2021, and then the second round of share repurchase plan was passed at the board meeting on January 27. The announcement called to protect the rights and interests of small and medium-sized shareholders of the Company, and fought back against false rumors in the market. The Antarctic e-commerce company intends to carry out share repurchase by way of centralized bidding at a price not exceeding 15 yuan/share, with a total amount not less than RMB300 million and not more than RMB500 million, which will be used for subsequent equity incentive or employee stock ownership plan.

2.2.3 Comparative Analysis of the Results of Two Share Repurchases

In order to find out whether there is any difference between the two share buybacks, this paper sorts out the announcement of the two share buybacks, as shown in the following Table.

Table 1. Comparison of Two Share Repurchases of Antarctic E-Commerce

Key points of announcement	First share repurchase	Second share repurchase
Announcement time	January 5(th), 2021	January 27(th), 2021
Buy-back interval	2021.01.07 to 2021.01.25	2021.02.01 to 2021.07.27
Repurchase method	Centralized bidding	Centralized bidding
Repurchase fund	funds in the hands of the localities	funds in the hands of the localities
Repurchase amount	699852143.92 yuan	\$300035441.01
Number of repos	72492381 shares	32729823 shares
Price range	8.93-10.62 yuan/share	7.93-11.93 yuan/share
Repurchase purpose	Equity incentive plan	Equity incentive plan

Data source: Antarctic e-commerce announcement.

As can be seen from the above table, the purpose, method and funds of the two share buybacks are the same when compared with the first one. The difference is that the number and amount of the second share buyback is less than that of the first one and the buyback time is much longer than that of the first one.

2.3 Antarctic E-Commerce Share Repurchase Incentives

2.3.1 Stable Downward Stock Price

For listed companies, one of the most important reasons for implementing the share repurchase plan is to enhance investors' confidence in the Company and stabilize the downward stock price. The change in share price is self-evident to listed companies. In the case of undervalued share price, repurchase is beneficial to the stable state of share price, protecting the interests of small and medium-sized shareholders, and enhancing the confidence of investors. It shows that the company conveys a positive attitude towards market value management and has a protective effect on the change in share price. According to the repurchase announcement released by the Antarctic e-commerce companies, the announcement of the repurchase on January 5, 2021 shows the attitude of "false questioning" to the outside world. At the same time, it also hopes to enhance investors' faith in the Antarctic e-commerce companies and promote the rise of the stock price in the face of the company's continuous decline in stock price.

2.3.2 Equity Incentives

Equity incentive plan refers to a long-term incentive mechanism by which listed companies use the shares they have bought back as stock shares to motivate and retain core talents. The implementation of the plan can turn the employees and the enterprise into a community of interests and achieve a win-win situation.

Antarctic e-commerce conducted two large-scale share buyback plans in 2021, and the buyback report

disclosed before each buyback clearly indicated that in order to better safeguard the interests of minority shareholders, attract and retain talents, and promote the healthy development of the company, the shares returned by the company's buyback will be used for the subsequent implementation of equity incentive or employee stock ownership plan. It directly shows the positive attitude of Antarctic Company towards its employees, greatly stabilizes the people's hearts, can ensure the normal operation of the company's incentive mechanism, and also conveys to the society the prospect of a good operating condition of the Company, and promotes the promotion of social recognition. Therefore, it can be concluded that there is an incentive to carry out equity incentive and perfect the long-term incentive mechanism in the share repurchase of Antarctic e-commerce in 2021.

2.3.3 Enhance the Company's Competitive Awareness

Due to the rapid development of internet e-commerce, the Antarctic e-commerce needs innovation to achieve optimal transformation. This has prompted the company to break the inherent pattern and launch a business model of brand correspondence. The Antarctic e-commerce initiates a new service model to conform to the development of the e-commerce era, create its own brand characteristics, and create an enterprise-specific ecological chain to promote the sustainable development of the Antarctic e-commerce. One of the aims of the Antarctic e-commerce company's decision to carry out share buybacks in 2021 is to send a message to the market that the company is in good operating condition at present, so as to enhance its competitive awareness and ensure the brand awareness of the Antarctic e-commerce company and the company's stability and long-term development under the condition of falling stock price.

3. Analysis on the Economic Effect of Share Repurchase of Antarctic E-Commerce Companies

3.1 Analysis of Market Effect Based on Event Research Method

When a listed company feels that its share price is undervalued, it can make use of the announcement of share buybacks to increase the confidence of external investors in the company and keep the share price within a reasonable range. The two repurchases announced by Antarctic e-commerce in 2021 will cause the company's share price to change. This paper uses the event research method to analyze the announcement effect of the stock repurchase of Antarctic e-commerce companies. The stock price of the Company will fluctuate in a period of time before and after the announcement of the repurchase, which will affect the stock return rate. The paper compares the return rates of the Antarctic e-commerce and Shenzhen index, and calculates the change trend of the Accumulated Return Rate (AR) and the excess Accumulated Return Rate (CAR) to analyze the market effect of the Antarctic e-commerce repurchase.

The specific calculation steps are as follows: First, determine the announcement date. Based on the theoretical basis of the event research method, the announcement dates of announcement of the implementation of share repurchase by Antarctic e-commerce companies, namely, January 5, 2021 and January 27, 2021, are taken as announcement dates ($T=0$). Second, the setting of an estimation period

and a window period. Selecting 5 trading days before and 5 trading days after the announcement as the window period; The estimation period is selected as 100 trading days prior to the window period, i.e. from 31 July 2020 to 25 December 2020. Third, calculate the excess yield and accumulated excess yield. Calculates the market yields of AR and CAR of Antarctic e-commerce and Shenzhen Index during the window period.

Table 2. Changes of Various Indicators before and after the Two Buy-Back Windows of Antarctic E-Commerce Companies

First repurchase				Second repurchase			
Window period	date	Excess yield	Cumulative Abnormal Return	Window period	date	Excess yield	Cumulative Abnormal Return
-5	2020/12/28	-2.91%	-2.91%	-5	2021/1/20	0.51%	0.51%
-4	2020/12/29	-0.49%	-3.40%	-4	2021/1/21	-2.24%	-1.73%
-3	2020/12/30	-2.12%	-5.52%	-3	2021/1/22	-0.11%	-1.84%
-2	2020/12/31	-0.91%	-6.43%	-2	2021/1/25	-3.55%	-5.39%
-1	2021/1/4	-11.47%	-17.90%	-1	2021/1/26	-3.98%	-9.37%
0	2021/1/5	-11.15%	-29.06%	0	2021/1/27	10.04%	0.67%
one	2021/1/6	-6.40%	-35.45%	one	2021/1/28	10.65%	11.32%
2	2021/1/7	-2.53%	-37.98%	2	2021/1/29	-4.43%	6.89%
three	2021/1/8	0.45%	-37.53%	three	2021/2/1	-2.52%	4.37%
four	2021/1/11	2.20%	-35.33%	four	2021/2/2	1.01%	5.37%
five	2021/1/12	-11.37%	-46.70%	five	2021/2/3	10.75%	16.13%

Data source: I collated and calculated.

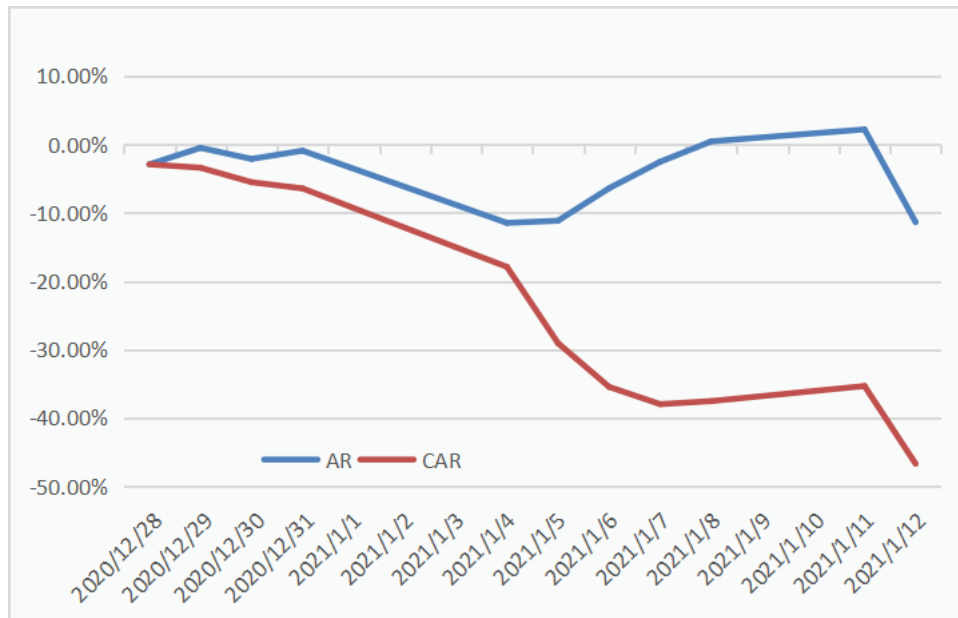


Figure 1. The Change Chart of the First Stock Repurchase Excess Yield and Cumulative Excess Yield of Antarctic E-Commerce Companies

As can be seen from Figure 1, before the first announcement of the Antarctic e-commerce company, the cumulative excess return rate has been in a relatively low state. It has been negative for 5 days before the repurchase, indicating that its market performance is unsatisfactory and measures are urgently needed to boost the stock price. However, after the disclosure of the report on the initial repurchase, the cumulative excess yield of the Company did not fluctuate upward, but continued to decline significantly, even falling to -46.70% on the fifth trading day after the announcement. Therefore, it shows that the buy-back behavior of Antarctic e-commerce did not receive a positive market response, which may be related to the company's continued sharp decline in share price in 2020, and it also shows that investors are obviously not satisfied with the company's purpose of increasing investment confidence by buying back shares.

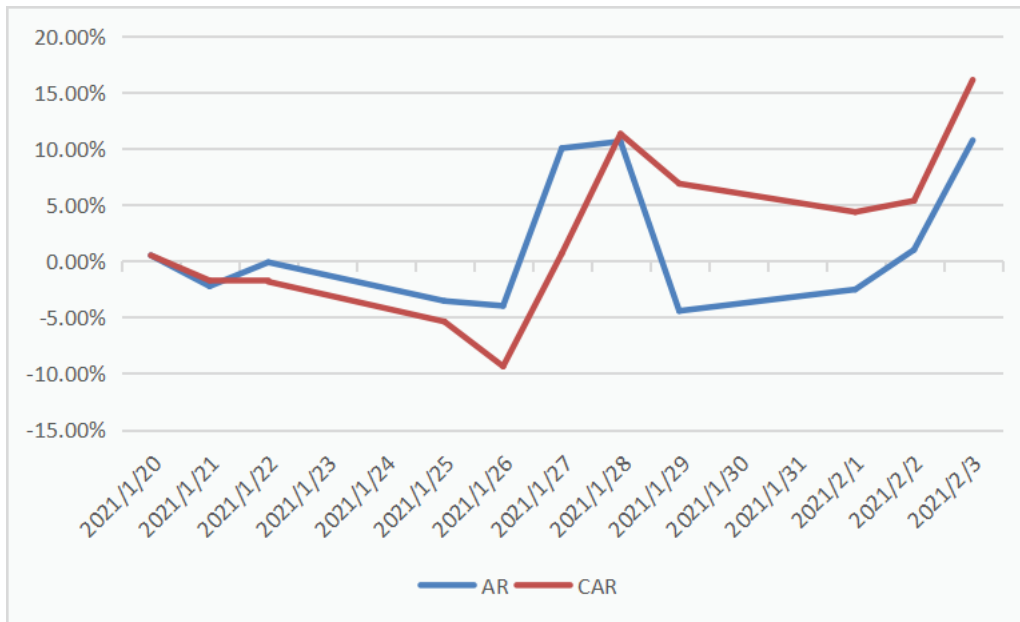


Figure 2. Graph of the Change of the Second Stock Repurchase Excess Yield and Cumulative Excess Yield of Antarctic E-Commerce Companies

As can be seen from Figure 2, although the excess cumulative yield continued to decline a few days before antarctic e-commerce announced the second round of repurchase plan, after the announcement, the overall excess cumulative yield became a fluctuating upward trend. on the first trading day after the announcement of repurchase, the market reacted violently to the news, and the value increased directly from 0.67% to 11.32%, an increase of about 10 percentage points; Even reached 16.13% on the 5th day after the announcement, which was the peak of the window period. The above phenomenon shows that the market reaction of the second buy-back of Antarctic e-commerce is far better and faster than that of the first one. Investors are satisfied with the good news that the buy-back can deliver, which in turn pushed up the stock price.

To sum up, the first share buyback of Antarctic e-commerce did not receive the expected market response, while the second round of buybacks implemented immediately afterwards received a more positive market response.

3.2 Impact on Financial Performance

As one of the major events in capital market, the effectiveness of repurchase will have an impact on corporate finance. At present, the traditional indicators for measuring financial performance are solvency, profitability, operating ability and development ability. Therefore, in order to explore the impact on financial performance of the two rounds of share repurchase plan completed by Antarctic e-commerce from January to July 2021, the above four indicators are selected for analysis. The results are as follows:

3.2.1 Solvency Analysis

Table 3. Changes in Solvency

index	2020	2021	2021	2021	2021
	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
liquidity ratio	6.93	7.85	7.19	7.69	6.46
quick ratio	6.93	7.84	7.18	7.68	6.45
operating cash flow ratio	132.0251	-53.365	-52.2527	-58.3964	62.4122
Asset-liability ratio	11.13	10.34	10.80	10.19	11.97

Source: Juchao Information Network.

Debt-paying ability is an important symbol that reflects the company's operating ability and financial status. Strong debt-paying ability ensures the interests of the company's creditors and investors. In this paper, the current ratio, quick ratio, cash flow ratio and asset-liability ratio are selected to illustrate the changes in the solvency of Antarctic e-commerce companies under the repurchase program. As can be seen from Table 3, the quick ratio and current ratio of Antarctic e-commerce are basically the same, and the change trend is exactly the same. This is because the quick ratio and current ratio of the business model authorized by the brand of Antarctic e-commerce rose briefly after the implementation of the repurchase plan in January 21, but they did not last too long. On the whole, the impact of the repurchase on the current ratio and quick ratio is not significant. Listed companies use their own funds to repurchase shares, which will generally lead to an increase in the asset-liability ratio. However, from the data after the Antarctic e-commerce repurchase, there is no obvious increase in the asset-liability ratio, indicating that the two corporate buybacks have not increased the financial risk. Judging from the cash flow ratio, after the Antarctic e-commerce company implemented two repurchase plans, the indicator dropped significantly from positive to negative, indicating that the repurchase caused the company's poor financial flexibility.

3.2.2 Profitability Analysis

Table 4. Changes in Profitability

index	2020	2021	2021	2021	2021
	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
return on total assets	19.81	2.19	4.21	6.81	7.93
Rate of Return	20.55	2.6	5.31	8.41	9.81

on Common Stockholders' Equity net profit margin on sales	28.41	16.39	14.71	14.54	12.27
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Source: Juchao Information Network.

Profitability refers to the enterprise's ability to earn profits through daily production and operation activities, which is usually manifested as the amount of revenue and the level of revenue within a certain period of time. This paper mainly selects three indicators, namely, net sales interest rate, return on equity and return on total assets, to analyze the changes in profitability of Antarctic e-commerce after share repurchase. Return on total assets and ROE can directly reflect the company's production and operation capacity, sustainable growth capacity and growth rate. As can be seen from the above table, the values of these two indicators are close to the same trend of change. After the repurchase, both return on total assets and ROE decreased and fluctuated, indicating that the profitability of the Company is not as stable as it was before the repurchase. The net sales interest rate of Antarctic e-commerce has been showing a downward trend since the implementation of the share repurchase plan. It can be seen from this that the company's investment in sales is lower than before the repurchase, and the increase in sales investment has not brought more net income to the company.

To sum up, the two rounds of buy-back plan implemented by Antarctic e-commerce in 2021 did not have a significant impact on profitability, and the positive effect of buy-back on profitability was short-term.

3.2.3 Operational Capability Analysis

Table 5. Changes in Operating Capacity

index	2020 Quarter 4	2021 Quarter 1	2021 Quarter 2	2021 Quarter 3	2021 Quarter 4
receivable turnover ratio	4.35	0.68	1.36	2.19	3.81
turnover of total assets	0.70	0.13	0.28	0.47	0.65
Inventory turnover	638.30	233.60	447.58	733.42	901.41

Source: Juchao Information Network.

Operational capability refers to the efficiency of the company's capital operation and the management ability of managers, and measures the enterprise's ability to make profits by using existing assets. This

paper chooses inventory turnover rate, accounts receivable turnover rate and total assets turnover rate to measure the change of operating capacity of Antarctic e-commerce before and after repurchase. The turnover rate of accounts receivable refers to the number of times a company converts accounts receivable into cash held by the company, and represents the ability to realize the accounts receivable in the production and operation process; Total assets turnover rate is the ratio of total revenue to average assets, which is a measure of the company's ability to invest in assets commensurate with the products and services sold. Inventory turnover rate is a measure of inventory liquidity and the reasonable degree of inventory capital occupation; Due to the operation mode authorized by the Antarctic e-commerce brand, the company itself basically has no inventory, and most of it is in the hands of the underwriters and distributors, which results in a large inventory turnover rate of the Antarctic e-commerce. As can be seen from the data in the above table, the change trend of the three indicators of Antarctic e-commerce is approximately the same. After the completion of the first repurchase plan, there was a significant decline, mainly due to the decrease in operating costs and sales revenue. However, after the completion of the second repurchase plan in the third quarter of 2021, the three indicators steadily recovered and gradually recovered to the level before the repurchase, and the positive effects brought by the repurchase became apparent.

On the whole, the buy-back plan of Antarctic e-commerce in 2021 reached RMB1 billion, and the demand for capital was very high. As a result, the collection speed was significantly accelerated. At the same time, the buy-back was also beneficial to the improvement of the company's sales capacity. The overall buy-back behavior promoted the operation capacity of Antarctic e-commerce.

3.2.4 Capacity Development Analysis

Table 6. Changes in Development Capacity

index	2020	2021	2021	2021	2021
	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
total assets growth rate	18.63	3.76	-6.88	-9.32	-15.13
net assets growth rate	19.00	3.07	-7.29	-9.63	-15.93
Operating income growth rate	6.79	20.99	2.15	0.08	-6.80

Source: Juchao Information Network.

Development capability, also known as growth capability, refers to an enterprise's potential ability to create value and increase market share, which reflects an enterprise's comprehensive strength. In this paper, the main business revenue growth rate, net profit growth rate, net assets growth rate and total

assets growth rate are selected to analyze the changes in the development capacity of Antarctic e-commerce after share repurchase, as shown in Table 6. Through the observation on the growth rate of total assets and net assets in the above table, it is found that the values of these two indicators are relatively high in 2020 before the repurchase, and the Company has a good development trend; By 2021, due to the large amount of funds occupied, the growth rate of total assets and net assets fell sharply or even fell to negative growth, and the repurchase plan did not improve after completion. The growth rate of operating income increased to 21% after the completion of the first repurchase plan, but it declined all the way with the implementation of the second repurchase plan and did not resume or decline after the completion of the repurchase. The change trend of these three indicators indicates that the repurchase has led to a decrease in the expansion of the scale of Antarctic e-commerce assets, a gradual decrease in the revenue from production and operation, and a decrease in the development capacity of the company.

Based on the above analysis, it can be concluded that the two rounds of buy-back by Antarctic e-commerce did not enhance the development capability of the company and did not play a role in promoting the sustainable development of the company.

4. Conclusion and Inspiration

4.1 Conclusion

Antarctic e-commerce implemented the share repurchase plan mainly to enhance investor confidence, stabilize the downward stock price, implement the equity incentive plan and enhance the competitiveness of e-commerce enterprises. This paper analyzes the effect of the buy-back of Antarctic e-commerce from two aspects. Firstly, the market effect of the repurchase is analyzed, and it is concluded that after the completion of the repurchase, the share price does not increase steadily as expected, but instead shows a significant downward trend, indicating that the long-term boosting effect of the repurchase on the share price is not long-term; At the same time, it also calculates the excess return rate in the window period and the accumulated excess return rate, and draws the conclusion that the second repurchase plays a certain role in improving the value of the company. Secondly, the analysis of the impact on financial performance, mainly from the aspect of financial indicators: through the calculation and comparison of the four related financial indicators of solvency, profitability, operating ability and development ability after the repurchase, it can be seen that the profitability and operating ability of the second round of repurchase have been improved compared with that of the first round of repurchase, but they have not recovered to the level before the repurchase, and the repurchase has adverse impact on the solvency and development ability.

4.2 Enlightenment

The implementation of the buy-back plan of Antarctic e-commerce in 2021 has stabilized the investor sentiment and promoted the long-term steady development of the company. The announcement of the Company in the buyback disclosed that one of the purposes of the buyback was to carry out an equity

incentive plan. After the completion of the buy-back, the Antarctic e-commerce company set up a special securities account for the buy-back to provide guarantee for the subsequent implementation of equity incentives, which is beneficial to safeguard the rights and interests of the company's employees. Therefore, listed companies can reasonably use the share repurchase plan to promote the good development of the company under the condition of the market downturn and the continuous decline of the share price. The disclosed repurchase announcement should balance the interests of internal shareholders, employees and external investors, improve the equity incentive system of the enterprise, consider the problem from a long-term perspective, and clarify the strategic management objectives of the enterprise. Secondly, in the face of uncertain market environment, the implementation of the repurchase plan should be cautious and meticulous, fully considering whether the enterprise's own conditions are sufficient to support two rounds of repurchase after one round, comprehensively considering various risk factors, giving full play to the effective operation of internal and external supervision mechanisms, and promoting the standardized operation of share repurchase. Encouraging share prices through share buy-backs wins investors' favor, but this requires good corporate operation, otherwise a crisis of trust will arise, and the basic structure of the company should be improved to ensure against liquidity risk. Finally, due to the existence of information asymmetry, small and medium-sized investors mostly regard the public announcements of listed companies as reliable sources of information, and their interests are difficult to be protected. Scholars in our country have also found that many listed companies' repurchase plans are leaked in advance, and the stock trading volume of the companies rises significantly before the announcement of repurchase. In response to this phenomenon, the regulatory authorities should standardize the disclosure management of major events of listed companies, tighten the information disclosure requirements, and at the same time increase the penalties for non-compliant companies to prevent early disclosure of information and promote the steady development of China's capital market.

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