An Analysis on the Motivation and Effect of Buyback of Muyuan Stock

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Abstract. Stock repurchase refers to the behavior of listed companies buying back their issued and publicly traded shares for various reasons and purposes. It is one of the most important and effective financial management tools companies can utilize. Stock repurchases play an active role in stabilizing company stock prices, preserving corporate value, and optimizing capital structure. In recent years, stock repurchases have gained popularity in China's capital markets, with increasing numbers and amounts of repurchases. The complex and dynamic market environment and policies in the context of economic development have provided listed companies with more opportunities. After restrictions were lifted, most companies conducted stock repurchases to stabilize stock prices. Theoretically, a repurchase can increase earnings per share without changing total earnings, but its actual impact on stock prices remains to be verified. Moreover, stock repurchases affect various financial indicators and the capital structure of enterprises. Therefore, research on stock repurchases is of great significance for listed companies and investors. Studying the motivations and financial effects of stock repurchases can provide valuable suggestions and decisions for future repurchases. This paper analyzes the motives and effects of the stock repurchase announced by Muyuan Foods Co., Ltd. on March 12, 2024, using an event study approach.

Keywords: Stock Repurchase, Muyuan Foods, Market Environment and Policies.

1. Introduction

On March 12, 2024, Muyuan Foods Co., Ltd. issued an announcement regarding the buyback and cancellation of certain restricted shares. According to the announcement, on March 11, 2024, the company convened its 24th meeting of the 4th Board of Directors and its 22nd meeting of the 4th Supervisory Committee. The meetings reviewed and approved two motions: (1) "Proposal on Meeting the Conditions for Unlocking the Second Restricted Stock Incentive Plan of 2022"; (2) "Proposal on the Buyback and Cancellation of Certain Restricted Shares." The Board decided to repurchase and cancel 606,840 restricted shares held by 133 individuals that had been granted but not yet unlocked.

Stock repurchases originated in Western capitalist countries in the 1950s. Over the next 30 years, legal risks and market environments made repurchases rare. During the economic recession of the 1980s, investors and corporate managers adopted stock repurchases to protect their interests and prevent hostile takeovers [1]. Against this backdrop, stock repurchases gradually became widely utilized in Western capital markets.

China's capital market started relatively late. In the 1990s, stock repurchases were primarily used to resolve shareholding segmentation issues, and strict legislative restrictions made repurchasing rare. The 2008 global financial crisis severely impacted China's A-share market, leading to sustained declines in stock prices. To stabilize prices and boost the market, the China Securities Regulatory Commission (CSRC) redesigned the stock repurchase process, allowing companies to proceed with buybacks after submitting reports to stock exchanges and the CSRC.

In 2018, amendments to the Company Law removed restrictions on stock repurchases, simplifying the process. These policy changes encouraged enterprises to use stock repurchases as a flexible market value management tool, sparking a new "repurchase wave" in China's capital market [2]. During this period, the number and scale of repurchasing companies increased significantly, accompanied by emerging challenges. This has heightened the importance of studying the motivations and financial effects of stock repurchases.

In simple terms, stock repurchase involves a listed company buying back its publicly traded shares under market rules and procedures. Stock repurchases can optimize a company's capital structure and push up stock prices, making them highly favored by listed companies.

As economic markets evolve, stock repurchases have matured and now hold a significant place in capital markets. Typically, listed companies repurchase shares for two reasons:

(1) Employee Incentives: Employees are given the opportunity to buy shares at lower prices, boosting their motivation for future work.

(2) Share Cancellation: When the company's stock is undervalued, management may repurchase and cancel shares to increase the value of each remaining share.

2. Literature Review

Zhao Liping and Gao Wenjuan (2010) analyzed extensive samples and concluded that stock repurchases help small and medium-sized enterprises improve profitability, operational efficiency, and growth capacity, but their impact on debt repayment capacity is minimal [3]. They found that repurchases only produce short-term financial effects and cannot maintain long-term stability.

Zhao Qing and Lan Juntao (2020) argued that stock repurchases reduce corporate debt financing costs and real earnings management, thus improving the company's accounting conservatism [4]. Repurchases convey information to the market, avoiding asymmetrical information situations. Poorly managed companies can also reduce debt financing costs through repurchases.

Wang Shaojie, and Yuan Tianrong (2020) discovered that stock repurchases significantly enhance corporate investment efficiency [5]. By using idle funds for repurchases, companies avoid using excess cash for unwise investments, ensuring cash flow from investments does not consume idle resources unnecessarily.

Li Jun (2021) noted that while large-scale repurchases negatively affect a company’s debt repayment ability, they can enhance turnover and profitability [6]. Companies can offset the adverse effects on debt repayment within a short time through efficient operations. The larger the repurchase, the greater the profitability. Multiple repurchases cumulatively improve profitability.

Feng Junxiu (2021) found through analysis of Company A that repurchase events stimulate short-term abnormal returns [7]. While the effects are limited and not apparent in the short term, they can have a significant positive long-term impact on stock prices.

Domestic scholars also observed negative financial effects associated with stock repurchases. For instance, Li Yao and Zhao Ling (2013) found that most companies implementing repurchases were poorly managed. In such cases, repurchases neither improve company value nor raise stock prices [8].

Gao Bo and Chen Yuan (2021) studied XP Corporation's repurchases and found that although repurchases stabilized stock prices and improved earnings per share, the company’s poor post-repurchase handling and financial constraints led to declining profitability and slower growth [9].

Li Yinxing and Luo Xiang (2020) emphasized the dual nature of stock repurchases in their early establishment and gradual improvement phases, which carry inherent risks for enterprises [10].

3. Case Analysis: Muyuan Foods Co., Ltd.

According to the 2024 semi-annual report, Muyuan Foods Co., Ltd. recorded operating revenue of RMB 56.866 billion, an increase of 9.63% compared to the same period last year. Net profit attributable to shareholders was RMB 8.293 billion, a 129.84% increase. The net cash flow generated by operating activities was RMB 15.474 billion, an increase of 1582.11%.

Founded in 1992 and listed in 2014, Muyuan Foods has established an integrated pork production chain covering feed processing, pig breeding, pig farming, and meat processing. The company is committed to its vision of "providing safe pork for people to enjoy," producing high-quality pork to enhance life quality. In 2023, Muyuan sold 63.81 million pigs and processed 13.26 million. The company has also developed a “Muyuan Eco-Environmental Model,” integrating farming, waste utilization, and sustainable agriculture to serve farmers, improve soil fertility, and promote green agricultural development.

3.1. Analysis of Muyuan's Stock Repurchase Motivations

Signaling Theory: According to signaling theory, listed companies often adopt stock repurchase strategies to boost stock prices, better evaluate the company's value, and attract investors. This conveys a favorable signal to the market, indicating that the company's stock price is undervalued. Analyzing Muyuan Foods' stock price trends from January 2, 2024, to March 1, 2024 (seven days before the buyback announcement), it was observed that the stock price fell from RMB 41.5 per share (January 2) to RMB 38.17 per share (March 1). This decline suggests that the company's stock price was sluggish and declining in early 2024. From a pricing perspective, the buyback aimed to stimulate stock prices and attract investors.

Free Cash Flow Hypothesis: Free cash flow represents the cash a company can freely allocate after meeting operational and investment needs. According to the free cash flow hypothesis in agency theory, when a company's cash flow sufficiently supports its operations, excess cash might be invested in projects with returns to maintain or improve performance. Excessively high free cash flow may lead to inefficiency and waste or provide management undue freedom, potentially resulting in decisions that benefit management but harm shareholders. Hence, managing free cash flow within an optimal range is crucial for financial management and corporate governance. Muyuan Foods repurchase strategy, funded by self-owned capital, aimed to reduce free cash flow, minimize idle funds and waste, and enhance capital efficiency. This strategy also sought to lower agency costs, improve financial management, and establish a solid foundation for the company's long-term development.

Financial Leverage Hypothesis: The financial leverage hypothesis posits that stock repurchases reduce the number of outstanding shares and increase a company's debt ratio regardless of the funding source. This raises financial leverage, thereby optimizing capital structure. A higher asset-liability ratio reflects greater debt financing and increased financial risk, which indirectly enhances corporate value. When companies have relatively low asset-liability ratios, they often opt for stock repurchases to increase leverage and optimize their capital structure. Based on Muyuan Foods' financial status and repurchase plan, the motivations included reducing free cash flow, increasing financial leverage, and improving governance efficiency for long-term stability and growth.

3.2. Analysis of Muyuan's Stock Repurchase Effects

Using March 12, 2024, the buyback announcement day, as the event day (t), the study evaluated the effects of the stock repurchase over specific periods:

- Event Window: 6 trading days before and after the announcement (March 4–20, 2024).
- Estimation Period: 100 trading days before the event window (October 13, 2023 – March 1, 2024).

3.2.1. Methodology

The market model was used to calculate abnormal returns (AR) and cumulative abnormal returns (CAR). As Figure 1 shown, a regression analysis determined the relationship between the stock's daily returns (Rit) and market returns (Rmt). The formula for AR:

$$ARit = Rit - (\alpha + \beta Rmt) \tag{1}$$

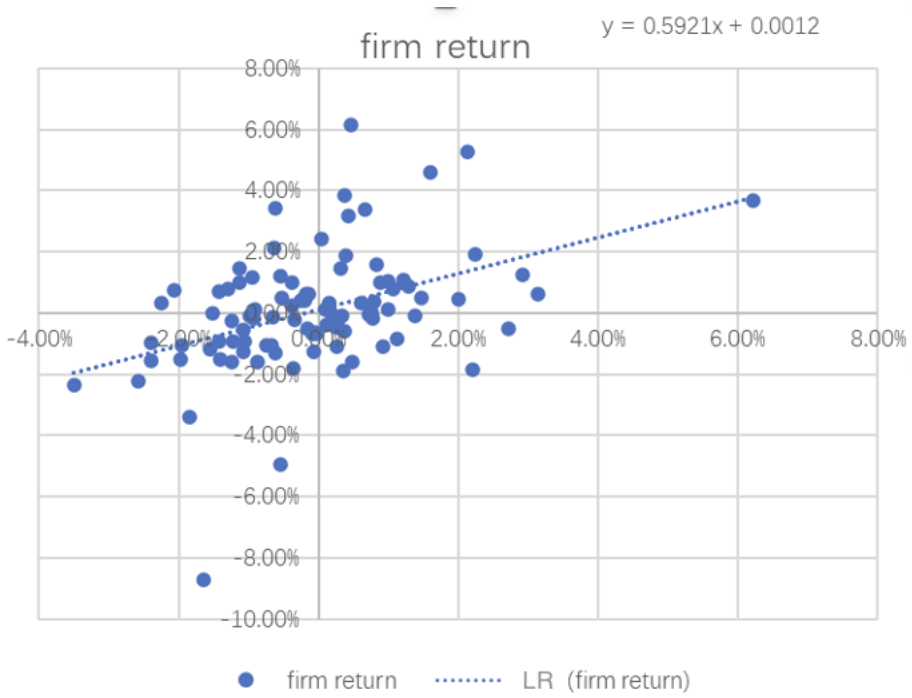

Figure 1. Firm return

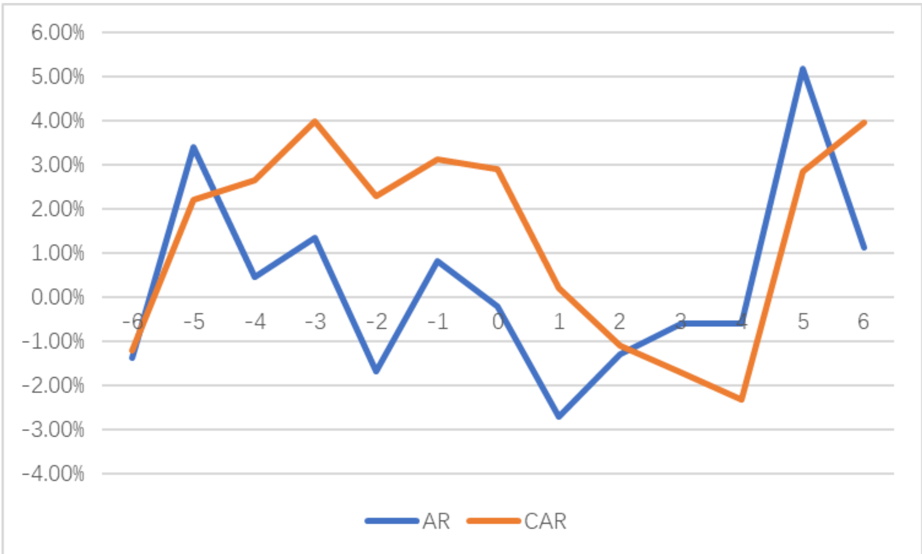

Figure 2. AR and CAR

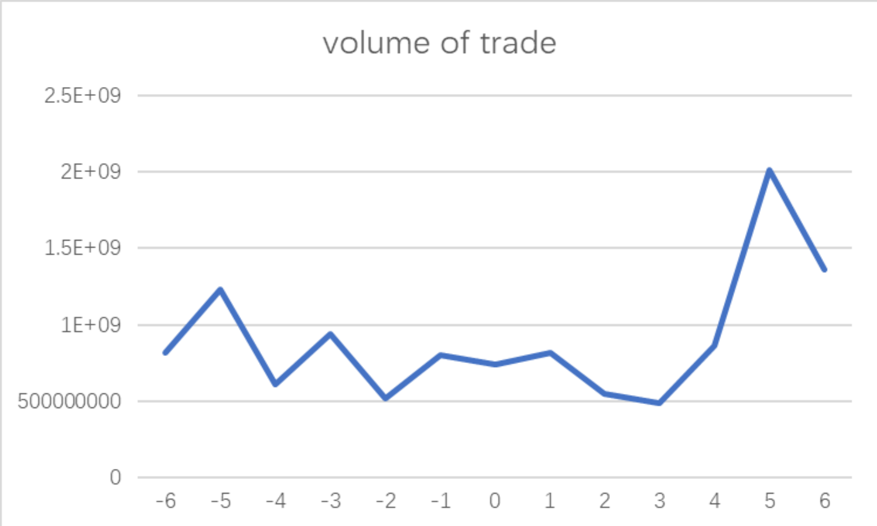

Figure 3. Volume of Trade

3.2.2. Results

• Abnormal Returns (see Figure 2): AR fluctuated significantly, particularly during the high-volatility window period (-5, +3). This reflects intense market reactions to Muyuan's stock repurchase announcement, influenced by differing expectations among investors.

• Cumulative Abnormal Returns (see Figure 2): CAR showed a general upward trend, peaking at +3.96% on t+6 (March 20, 2024). The closing price rose from RMB 37.71 (t-6) to RMB 41.04 (t+6), an increase of 8.83%.

Market Reactions

• Stock prices exhibited a clear upward trend during the window period, indicating a positive market response to the repurchase announcement.

• Trading volumes (see Figure 3) significantly increased, reflecting heightened investor optimism about Muyuan's future performance.

Overall, Muyuan's stock repurchase announcement positively impacted stock prices and boosted investor confidence, aligning with signaling theory.

4. Recommendations and Insights

4.1. Strengthen Regulation and Improve Information Disclosure

As stock repurchase policies become more relaxed, the number of repurchasing companies has grown significantly, attracting more investors. However, the prevalence of information asymmetry in the repurchase market often puts smaller investors at a disadvantage, increasing their risk exposure.

Regulators should enhance oversight and optimize information disclosure mechanisms to ensure that companies follow principles of confidentiality and reliability. This prevents premature leaks of buyback plans, maintaining market fairness. Severe penalties should deter insider trading linked to repurchases.

Comprehensive supervision of repurchase processes—spanning planning, implementation, and post-repurchase impacts—is essential for transparency and legality. Strengthened regulation protects investor rights and promotes healthy market development.

4.2. Evaluate Real Motivations of Stock Repurchases

Stock repurchases often aim to stabilize and increase stock value in the short term. However, underlying motivations may vary, such as major shareholders seeking profit through stock price manipulation.

Investors should critically analyze a company's repurchase motives, avoiding decisions based on superficial announcements or market trends. This cautious approach helps prevent losses from misunderstanding or blindly following repurchase trends.

5. Conclusion

This paper systematically analyzed Muyuan Foods' stock repurchase process and outcomes. Using theoretical frameworks and the event study method, it examined the motivations and effects of the buyback.

Key findings:

(1) Short-Term Positive Returns: Following the buyback announcement, stock prices rose significantly, reflecting positive market responses. Signaling theory suggests the buyback communicated undervaluation and confidence in future prospects.

(2) Investor Implications: While most repurchases yield favorable outcomes, not all companies achieve success. Investors should assess motivations and financial conditions before investing in repurchasing companies.

Stock repurchases can enhance financial performance, governance, and market confidence. However, careful planning, transparent practices, and prudent analysis are vital to maximizing their benefits.

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