Efficient Market Hypothesis (Emh) in China's Stock Market

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Abstract: This paper illustrates the current macro environment and the stock market in China, and analyzes several stocks in the pharmaceutical industry, in which trials have been conducted with a virtual stock market based on real statistics. It is found that investors can get super profits by using fundamental analysis and investors' preference will have impacts on stock prices. Stock prices can reflect the vast majority of information of firms and industries, but changes are partly caused by a mixture of random factors, including the capital structure and the disclosure of reliable information. Thus, strict regulations should be implemented, big data should be taken full use of and the structure of investors should be modified to improve market efficiency.

1. Introduction

Stock is one of the most fundamental investment forms, which partly decides capital flow. Since China's entry into the World Trade Organization and RMB's involvement in Special Drawing Rights, China's capital market has attracted global attentions and investment. In the new era, the stock market is guided often effectively by the Efficient Market Hypothesis, with which real information in each industry can be often reflected to eliminate the extra short-term interest of investors. But the financial system is not perfectly established in China, and China's stock market is under the weak form of efficiency.[1]

The COVID-19 pandemic brought severe shock to the global stock market, in which investment contracted by a large scale. Since the pharmaceutical corporations are closely related to the development of vaccine and social health care, and thus the recovery of global trade and finance, investors are most likely to put their money into this industry, especially those powerful companies. This situation provides good opportunity to conduct a research for the Efficient Market Hypothesis in the rapidly growing industry. This paper introduces the overall background of China's stock market and then analyzes influential factors of the stock prices in pharmaceutical industry, based on which suggestions are raised as stimulus for the further improvement of the market.

2. Emh in China's Stock Market

2.1 Macro Environment of China's Stock Market

After several decades of weak economy, China's stock market has made its way to a rather effective mechanism. In the past years, China's government insisted on implementing active fiscal policies and prudent monetary policies. Active fiscal policies have been put forward including supply-side structural reform, investment in new infrastructure construction, less unnecessary spending and productivity improvement, which activate capital to flow into key sectors and expand companies' financing. Taxes of related firms have been cut down so that investment in other stocks show a significant increase. As to individual investors, more subsidies or incomes and less possession of national debt has led them to invest in other stocks, especially those in key sectors and those with high reputation. This can bring new impetus to the stock market and result in rising prices of some stocks. Prudent monetary policies have been adopted including proper credit, adequate liquidity and increase in financing. These methods help capital flow rise again and more

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cash can have access to the stock market.

Both fiscal policies and monetary policies are combined to make joint efforts in guiding investment towards key sectors closely related to the stock market, which is a pillar of China's economy. In brief, China's stock market shows a good momentum.

However, with the nature of the socialist society, the function mechanism of China's stock market still depends partly on polices, macro regulation and government supervision. At the same time, the structure of investors is not proportionally balanced, in which the number of individual investors greatly outnumbers that of institutional investors.[2] Stock prices are influenced by a combination of these factors and the impacts will be elaborated in detail in the following sections.

2.2 Emh in China's Stock Market

The number of individual investors exceeds that of institutional investors. It is estimated that individual investors hold as many accounts as 90 percent of the total and they have as much stock share as 40 percent of all. More individual investors who often emotionally make their portfolio will increase the fluctuation of stock prices and unpredictable changes of the market. And many of individual investors play for speculation so that they prefer frequent transactions and make short-term money, which also contributes to instability. Therefore, stock prices don't totally change in accordance with changes of company and market information.

Regulation and management are not strict enough so that listed companies send out fake financial or operative information. The intentionally reduced costs or raised profits often mislead investors to bet on these companies and their stocks. Information quality can't be guaranteed, and investors can't get fairly correct information, thus deciding their portfolio based on biased and partly hidden information. Additionally, to ensure a thriving market, officials sometimes neglect slight violations or unusual incidents, especially those relatively less important issues. Investors can take actions before news are officially declared by the company. So stock prices can reflect basic conditions, but excluding purposely hidden or spread particulars.

Rules haven't been made to ensure fixed or steady dividends. Companies' attentions are focused too much on financing from the stock market and reinvesting in fixed assets or other stocks rather than sharing its profits with investors. In this way, the most terrible thing may happen that no profits will be delivered to the minority shareholders. Thus, investors make money mostly with price differences during a short-term possession. This will amplify the fluctuation of stock prices.

In addition, the procedures for being on the market and being out of the market is not completed and stock transactions are not totally market-oriented. These factors will make combined effects on the nontransparent stock prices to some extent. Even some factors that seem totally unrelated to the stock market, like environment, may also bring influences to stock prices.[3]

According to the analysis and previous researches, it is concluded that China's stock market is in the weak form of EMH in which stock prices can't include all available information in the stock market.[4]

3. Stock Prices in Pharmaceutical Industry

Since the world is heading to the post-pandemic era and countries are focusing on vaccine development, the following portfolio is made most in the pharmaceutical industry.

Table 1 Testing Portfolio

Stock Symbol	Holding Period	Proportion of Total Capital	Earnings per share
603939	26 days	25.9 percent	3.42
788	30 days	12.4 percent	-0.23
600587	58 days	9.6 percent	0.76
600085	15 days	15.7 percent	-2.31
600048	74 days	4.9 percent	1.98
651	43 days	18.3 percent	2.66

In the portfolio, four stocks in the pharmaceutical industry are bought, which boast good fame and reputation. Although we have learned some expertise, the first idea was to find prestigious

companies that might ensure profits and that have the most probability of successful vaccine development. So we decide the investment just after roughly calculating certain index of these stocks and checking the previous prices and the changing trend. Only one of the pharmaceutical companies was chosen after we check its investment on vaccine and drug development and its Candlestick chart. Besides, we are quite familiar with a real-estate company which is developing projects with high value, so some money was also put on it. The last one is an electronic manufacturing company which also boasts good profitability.

The writer is a risk-averse investor, so most stocks chosen are those considered of having good fame and previously lucrative returns. We didn't wait to buy a stock with an extreme low price since we were unable to exactly predict when the price would hit the bottom. Instead, a higher purchasing price and a long time before large returns can be accepted. Besides, at the first time we had access to the stock market, we once tried to buy some stocks whose prices had dropped sharply. Although some profits were gained at the early period of the investment, it didn't work after short time.

Therefore, it can be learnt that green hands in the stock market don't have a good recognition of which stocks being worth buying or keeping for a long period. Big names are chosen for first several purchases, which will cause a higher price of large companies' stocks, showing an over-inflated market.

Also, some obscure information was issued to the public. For example, the vaccine development is a secret project for each company and most investors can't understand detailed information besides what was explained. It is quite hard for individuals to predict which companies can issue vaccine earlier and which ones can bring more returns. Investors prefer to and bet on those large pharmaceutical corporations which are most likely to issue vaccine, resulting in the rise of stock prices. While emerging companies get less attention unless they have breakthroughs, which can be difficult to get to know, so their stock prices rise slowly.

That stock prices are impacted by several unpredictable factors, historical matters and unknown information shows that the market-oriented mechanism in China's stock market has not yet been established. Stock prices are still not able to reflect all information available in the market.

4. Suggestions

4.1 Improvement in Information Disclosure Mechanism

With the digitization trend, more precise information can be released to the public investors, which is the fundamental responsibility of listed companies. The incomplete, untimely and ineffective exposure of performances and financial information will lead to misjudges of investment. Companies should better their channel and mechanism in releasing information to decrease investors' costs for information collection. Besides, companies should set up more transparent inner management system to full record and explain incidents with all processes being transformed into digital so that less biased or exaggerated information will be released. And investors can have an all-round view of the company and the market so that unbalanced extra profits of a certain group of investors can be reduced.

4.2 Restrictions on Market Regulation

Companies prefer to reinvest their profits into sectors which can stimulate growth in the distant future, such as infrastructure, human resources and research and development. Thus, the interest of small-scale and minority investors who can't put forward their ideas on the management and plans of the company will be damaged. So the central government and related departments should set regulations for dividend delivery in a certain scale or stable proportion of profits to protect those vulnerable investors.

Also, the government needs to keep supervision on companies' disclosing their information to maintain stability and fairness of the stock market. Though the market should be the basis of capital allocation, administrative regulation needs to help stabilize the market and ensure fair trades by guaranteeing effective information transfer.

4.3 Adjustment in Investor Structure

The equality and vitality of investors also partly decide the efficiency of the stock market. If investors are prudent and rational, when facing urgent incidents and the ever-changing market environment, they can make proper judgement on which stocks to bet on and whether to sell or buy, thus enabling the stock market to fluctuate within a certain scale. Then it is quite crucial to educate investors how to adjust their mentality and how to avoid following others' behavior without basic reckoning, which will intensify the efficiency of the market.

Those whose work is related to finance and those investment conglomerates or banks can have a better command of the market information and are more proficient in making investment choices. So the government and organizations need to encourage institutional investors to become a larger proportion in the total investors.

Also, under the influence of the COVID-19 pandemic, increasingly more companies live on debt and the government release a large number of grants and cheap loans in a short time to stimulate the economy. More money is lent less efficiently for the survival or development of some companies, so better leverage with less credit but more equity financing can give the company more confidence and capital to reinvest in its basic infrastructure and research and development. Besides, more collective investors and public funds will maintain the stability of the market prices and the disclosure of effective information.

5. Conclusion

In the current China's stock market, stock prices can reflect a majority of available information, but not all. There are still lots of uncertain factors influencing the stock prices. Based on trials, it is found that combined factors of temporary changes in the macro environment, disability in specific information analysis and the unbalanced structure of investors have much influence on the efficiency of the stock market. Thus dividend rules should be modified, governmental supervision improved, structure of investors promoted and market-oriented mechanism should be developed. With all measures adopted and the environment improved, China's stock market will gradually step into the semi-strong efficiency form or even the strong one.

References

[1] Lin Chunyan, Sun Shujie. Empirical Analysis of Performance of the Efficient Market Hypothesis in China's Stock Market. Journal of Shandong University of Finance, no. 4, pp. 58-60, 2009.

[2] Bai Ming. Analysis of the Reasons for the Deviation between China's Stock Market and Macroeconomic Development. Modern Marketing, no. 8, pp. 26-29, 2020.

[3] He, Xubiao, Liu, Yi. The Public Environmental Awareness and the Air Pollution Effect in China's Stock Market. Journal of cleaner production, vol. 185, pp.446-454, 2018.

[4] Mo Yixian, Zhou Lemin. Research on the effectiveness of China's stock market in the era of big data. Journal of Shanghai Lixin University of Accounting and Finance, no. 1, pp. 60-72, 2020.