Research on the Factors affecting the Stock Market

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Abstract. In recent years, stock prices have risen and fallen sharply, so that investors cannot be expected to accurately determine when to buy shares, thus greatly reducing the number of people participating in the stock market. Based on some data and the description of pictures, this paper draws some conclusions. The Internet can help the stock market further expand its influence and create conditions for solving the imbalance between supply and demand in China's structural finance. On the other hand, for new energy companies, resources such as international oil prices will have a negative relationship with their stock prices, leading to the inability to achieve real profits. Establish a carbon emission trading market that focuses on the relationship between climate change and financial risk, corporate governance and policy making to meet emission reduction targets and promote sustainable development. International oil prices have a positive relationship with the share prices of traditional fossil energy companies, while those of new energy companies have a negative relationship. It can be seen that the stock price of new energy companies is usually accompanied by varying degrees of volatility, which makes investors feel anxious every day.

Keywords: Stock market, internet, relationship.

1. Introduction

With the emergence of the stock market in the 17th century, business people from all walks of life were involved, and economists from various countries continued to study and publish relevant documents. Nowadays, the stock market occupies all over the world, and the investors from the rich to the ordinary people, there has also emerged a special industry to study some issues about stocks. However, in recent years, the stock prices have risen and fallen sharply, making the investors unexpected and unable to accurately judge when to buy shares, which greatly reduces the number of people who participate in the stock market.

Ouyang argued that central banks change market interest rates by changing the money supply [1]. However, there are still many problems in the stock investment market. Due to the lack of trading experience and asset allocation concept, investors are prone to "chase up and kill down" trading behavior when the stock market fluctuates. Liu et al. found that the research in this field is currently in a stage of rapid development. The impact of climate change on the stock market will further develop in both breadth and depth [2]. Based on a summary of 780 literatures on climate and stock market, this paper concludes that climate change leads to frequent extreme events, increased losses and significant consequences. Wang studied the interaction between the uncertainty of economic policy and the stock market, which is not only the core issue of a country's economy, but also the concern of many scholars [3]. By taking China's stock market as the research object, he analyzes the impact of economic policy uncertainty on the stock market and explores how much economic policy affects the stock market.

Li et al. studied the factors of stock price crash, such as company management, dividend policy, system and environment [4]. In this paper, recursive graph is used to reconstruct one-dimensional chaotic time series into a high-dimensional phase space, and the characteristics of its state trajectory can be analyzed. Finally, from the point of view of time, the time point of market intrinsic structure change is a long period of time earlier than the point of market collapse. Huang indicated that the type, gender and asset status of investors were evaluated to analyze the factors that influence investors' investment behavior [5]. Finally, it is concluded that when investors choose stocks, investors' subjective norms will have some positive effects on investment intentions. The individual's perceived behavior control ability does have a positive impact on investment intention. Liu et al. re

studied the crash effect of the carbon market and the stock market and the uncertainties caused by the COVID-19 epidemic. They are paying attention to the overflow of volatility risk. They even need to pay attention to the overflow of crash risk at the same time to avoid the impact of extreme risks on the market [6]. Moreover, it is necessary to adjust the risk coping strategy timely through the changes of the market situation. Zhou studied that the low-interest rate environment could evolve into a "dangerous undercurrent", which had a significant impact on the development of traditional monetary policy and the stock market [7]. This paper explores the development of the low efficiency environment and its influencing factors on the stock market. Finally, this paper should consider the long-term low interest rate on the stock market of the country.

By studying the influence of "herding effect" on the stock market, Song and Sun found that herd mentality, loyalty to the collective, the desire for reputation, information uncertainty and acquisition cost, and the lack of perfection of the stock market are all factors causing herd effect [8]. Zhou et al. pointed out in the article that financial risk contagion will basically spread to the entire financial system, even the real economy, and will destroy the stability of the financial system, directly affecting the high-quality development of the economy [9]. In the end, it was concluded that risk contagion in the stock market has dynamic characteristics. Zhang used a series of model designs to provide some factual data for Bitcoin and other cryptocurrencies when studying the correlation between cryptocurrencies and stock market risks [10]. Finally, it is concluded that the price of bitcoin will be more stimulated by speculative demand, there is a bubble in asset pricing, and the market risk is high.

To sum up, the research results of the above paper show that the stock market will change due to various reasons, which can help people to consider whether to buy shares or not from various aspects. However, there are still some problems, but there are still some shortcomings in the research direction. Therefore, this paper will further help investors reduce unnecessary losses by starting from the three aspects of the Internet, new energy and climate change.

2. Methods

2.1. Data Source

This paper selects data from some websites for screening and analysis. Finally, some reliable data are selected from China Database and Wanfang database, and these data can make the research of this paper more accurate. In the analysis, this paper selects 4 variable indicators, such as the total sales of stocks, the use of natural gas, the amount of climate change and the popularity of the Internet.

2.2. Method Introduction

In this paper, the author will use some models and methods to confirm some relevant theories, such as multiple linear regression model. These models will help to study the correlation between the Internet, new energy, climate change and the stock market, and the ICONS will also show the relationship between some data more directly, so that stock investors can clearly observe these comparisons.

3. Results and Discussion

3.1. Impact of Internet

As shown in figure 1, stocks in China have been rising slowly over time from 2,909 in 2015 to 4,991 in 2022, with an overall increase of 171.57% while A-shares account for the vast majority of the whole stock. However, B shares showed a slight decline, from 101 in 2015 to 86, with an overall decrease of 14%, but the overall trend was a straight rise.

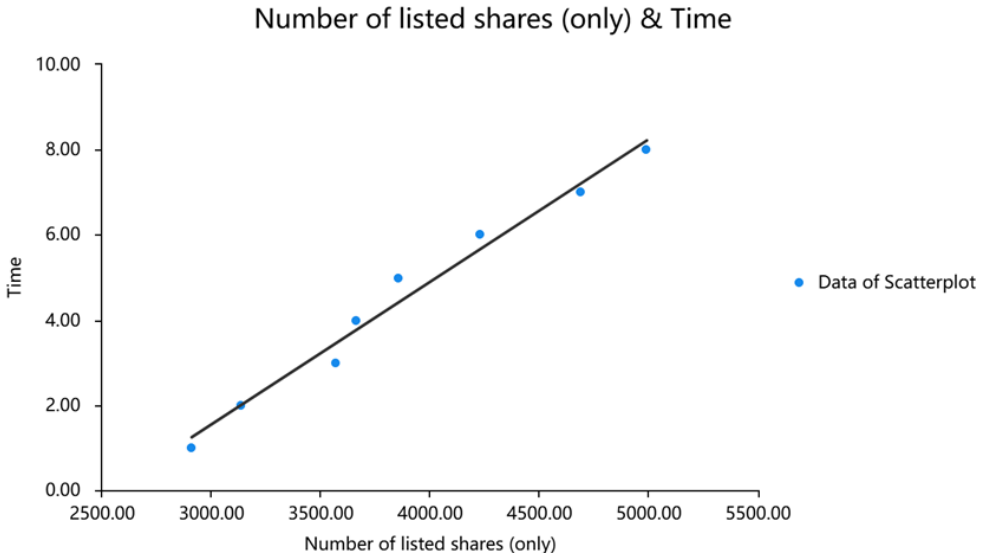

Figure 1. Number of listed shares (only)&Time

As shown in figure 2, the total sales volume of Chinese stocks rose slowly from 53,146.2 billion yuan in 2015 to 56,708.6 billion yuan in 2017, then fell to 43,492.4 billion yuan from 2017 to 2018, and finally reached the maximum value of 91,608.8 billion yuan in 2021. However, it declined again in 2022, from 9160.88 billion yuan to 7880.05 billion yuan.

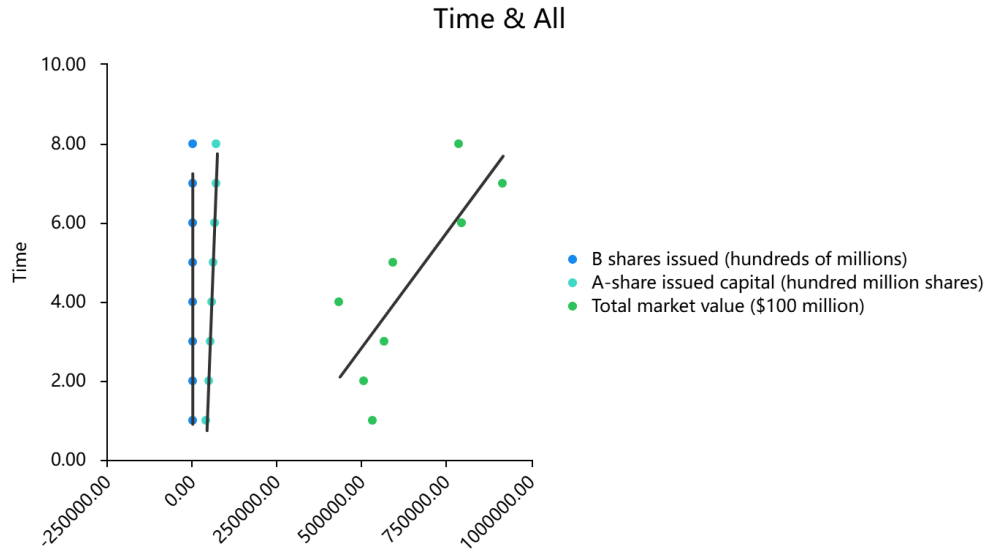

Figure 2. Time & All

According to the data provided by figure 3, it can be seen that the sales volume of Internet has increased year by year, from 21.7922 billion yuan in the second column to 43.8299 billion yuan. However, the growth rate is the largest in the second column, which is 32.9%. The smallest is 3.5 percent in the last column.

It can be seen from these data that with the popularization of the Internet, the volume of transactions on the Internet is increasing, which makes it easy to acquire some knowledge related to the stock market on the Internet. It can also help investors watch the rise and fall of stocks on their mobile phones in real time. Due to interest rate liberalization and high inflation rate, Internet finance has developed rapidly and made outstanding contributions to information disclosure, capital accumulation and financial system reform. It has also created conditions for solving the imbalance between supply and demand of structural finance in China. The final conclusion is that the government should clearly manage the sectors of Internet finance so that these sectors can cooperate and form linkages.

Figure 3. Time & E-commerce transactions

3.2. Impact of New Energy

New energy can be seen everywhere in daily life, such as natural gas, solar energy, nuclear energy and so on. The commodities made of new energy are often accompanied by stocks with higher returns, and such stocks will occupy a large proportion in the stock market. It can be seen from Pang that there is a long-term co-integration relationship between international crude oil prices and the stock prices of China's traditional energy companies (China Securities All-Index) and new energy companies (China Securities New Energy) [11]. However, due to the changes of crude oil prices, the stock prices of the two types of energy companies in China have different fluctuations, and the volatility of the stock prices of new energy companies is greater than that of traditional fossil energy companies. In addition, the international oil price has a positive relationship with the share prices of traditional fossil energy companies and a negative relationship with the share prices of new energy companies. It can be seen that the stock prices of new energy companies are often accompanied by varying degrees of volatility, which will make investors nervous all day to observe the price changes in the market (figure 4).

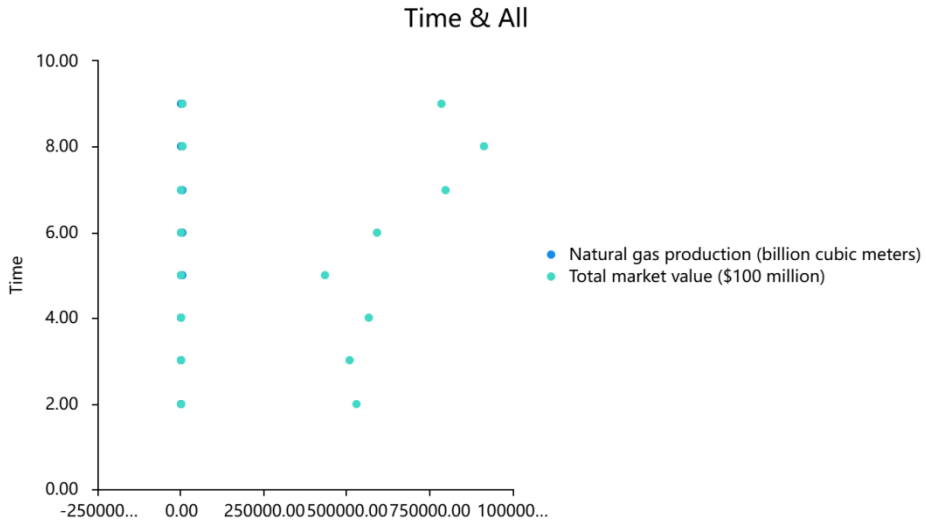

Figure 4. Time & total market value & Natural gas production

With the increase of time, the sales volume of natural gas and the trading price of the stock market also increased, but by 2022, the slight decline of natural gas caused a large change in the stock price, from 910 billion to 790 billion. It can be concluded that the fluctuations of new energy will have too much impact on the stock market.

3.3. Impact of Climate Change

Nowadays, global warming has led to a lot of climate changes and various natural disasters. This will cause the stock price of most listed companies to fall sharply, which will further cause the loss of investors' interests and finally leave them penniless. Liu et al. found that climate change, as a global issue, has posed a major threat to economic activities and sustainable economic development [2]. Therefore, as countries attach importance to climate risks, the relationship between climate change and stock market has been widely concerned by the theoretical circle, and has also become the focus of finance research. It can be seen that the main research direction of studying the impact of climate change on the stock market is to establish a carbon emission trading market, and pay attention to the relationship between climate change and financial risks, corporate governance and policy making, so as to achieve emission reduction targets and promote sustainable development.

Pang constructed models and select variables, and finally draw some conclusions to help enterprises cope with climate change risks and provide empirical evidence and policy reference for investors to rationally price climate risks [11]. The investment losses caused by climate physical risks can be reduced by diversifying investment portfolios. And investors can continue to support sustainable investment by investing in low-carbon, green industries to achieve higher returns on investment while promoting sustainable development.

4. Conclusion

From the above discussion, it can be seen that the Internet will help the stock market to further expand its influence and create conditions for solving the imbalance between supply and demand of China's structural finance. As for new energy, some resources such as international oil prices will have a negative relationship with the stock price of new energy companies, resulting in the inability to make real profits. Then, with the increasing global attention to climate change, the research on the impact of climate change on the stock market also shows a trend of diversification. Investors pay more attention and corporate governance strategies are put forward, which can effectively help policy makers to formulate policies to promote green sustainable development and mitigate climate change.

Finally, this paper puts forward some suggestions on the above topics: For the development of Internet finance, the government should fully tap its innovation potential and take the initiative to make use of its innate advantages, so as to promote healthy competition in the Internet finance industry and speed up the transformation and upgrading of China's economic structure. In the irrational market, investors will make spillover behaviors due to their own reasons and the influence of crowd psychology, so it is possible to carry out investment risk publicity activities, set up some consulting desks for investors to answer venture capital related questions, and distribute leaflets to provide basic venture capital knowledge to individual investors. In this way, investors will have a full understanding of investment operation and investment risk Strengthen diversified research on the impact of climate change on the stock market. It also focuses on the indirect effects on the economic environment (such as agricultural production cuts, energy price fluctuations), and then investigates the direct effects of extreme weather events on the stock market.

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