

Analyst Report, Information Transparency and Stock Price Synchronization

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Abstract: *This paper uses the relevant data of company characteristics information contained in the analyst research reports of China's A-share listed companies from 2009 to 2015 to study the impact of text content in analyst reports on stock price synchronization. The results of the study found that the more the text content of the analyst research report contains the company's characteristics, the more the company can attract investors' attention and the easier it is to reduce the synchronization of the stock price; The impact of analyst reports on stock price synchronicity is even more pronounced in the context of low transparency of company information. The mechanism by which analysts reduce the synchronization of stock prices is that reports with high content of company characteristic information attract more attention from investors, making the stock price more absorb company characteristic information. From the perspective of information mechanism and corporate governance mechanism, this article explores whether the information conveyed by analyst reports improves or decreases the synchronization of stock prices. This not only enriches the research on the factors influencing the synchronization of stock prices, but also enriches the research on the information content of analysts' reports, which has important theoretical and practical significance for investors, analysts and companies.*

Keywords: *analyst reports; the content of information about the company's characteristics; stock price synchronicity; Information transparency*

1. Introduction

Stock price synchronization is an important indicator of the efficiency of resource allocation in the stock market, is one of the core issues in the field of finance and finance, it has an important impact on the development of the capital market and even the national economy, how to solve the problem of low resource allocation efficiency caused by information asymmetry through effective information transmission channels, has become an important topic of common concern in academia, industry and political circles. With the rapid development of China's securities industry, securities analysts and investors have increasingly become important participants in the global capital market. As an important information intermediary in the capital market, securities analysts play a pivotal role in improving market information transparency, guiding long-term value investment, and optimizing resource allocation, and their research reports have increasingly become the source of information and decision-making basis for many investors. By 2015, the number of securities analysts had grown from less than 500 to 1,600. At the same time, the number of evaluation reports published by analysts has increased from 953 in 2003 to 57,503 in 2016 in just 14 years. In this context, the impact of research analyst research reports on capital market development and corporate governance is of great significance.

In recent years, rich research results have been produced in this field, but no consensus conclusions have been reached. Some research literature suggests that analyst reports convey more market or macro information than company idiosyncrasies. That is, it is not possible to provide high-quality stock price information, and the more analysts pay attention, the less the share price synchronization. The frequent flow of securities analysts and the reputation concerns of young analysts have led to China's securities analysts retelling the market, providing very limited new information to the market, investors obtaining very limited excess returns accordingly, and the information content and information quality of their research reports are not high (Cai Qingfeng et al., 2011; Feng Xunan et al., 2011;) ^{[1][10]}. Numerous studies have shown that due to various conflicts of interest, analysts have a serious selectivity bias in the information they convey to the market, they tend to publish optimistic earnings forecasts and stock

ratings, that is, release positive information and ignore negative information, and there may be self-interest motives that cover up negative information (Xu et al., 2012; Ben Ma and Yaowu Yang, 2020)^{[2][3]}. Another part of the literature shows that analyst reports can convey more information about company fundamentals, thereby reducing stock price synchronization. The information search activities of securities analysts can improve the information content of stock prices, make them contain more information on company fundamentals, and reduce the synchronization of stock prices, thereby enhancing the guiding role of prices on resource allocation and improving the operational efficiency of the capital market (Zhu Hongjun et al., 2007; Yi et al., 2019)^{[4][5]}.

In summary, this paper believes that the main reason for the above differences in existing research is that researchers do not really pay attention to the content value of the report itself, but focus on how the behavioral characteristics of individual analysts drive the objectivity of information transmission, thereby affecting the synchronization of stock prices. From the existing literature: (1) Existing studies do not discuss the relationship between analysts and stock price synchronicity from the specific content of the information provided by analysts. (2) Existing studies use quantitative numerical information such as analyst followers, analyst forecast bias, and analyst optimism bias to measure analyst's activities, ignoring the text content of analyst reports.

2. Literature Review

2.1. Research on Stock Price Synchronicity

The existing research has formed two main schools of "information efficiency view" and "irrational behavior view" (Xu Nianxing et al., 2012)^[2]. The "information efficiency view" holds that the more information about the characteristics of a company contained in a stock price, the more information content its stock price has, and the lower the synchronization of stock prices (Morck et al., 2000)^[6]. The "irrational behavior view" believes that due to the irrational behavior of institutional investors, the synchronization of their stock prices reflects irrational behaviors that have nothing to do with the company's fundamentals, such as noise, bubbles, and investor psychological bias. The lower the synchronicity of stock prices, the greater the influence of noise, bubbles and irrational behavior factors, and the less information content of stock prices is (West, 1988)^[7]. Based on different theoretical views, the same factor affecting the synchronization of stock prices may have very different results. Existing scholars' research on the synchronicity of stock prices is mainly based on the "information efficiency concept", focusing on the macro, micro and internal governance of the company.

Through literature combing, we find that scholars' research on the synchronicity of stock prices focuses more on quantitative analysis, and rarely focuses on the information itself. Not only that, there is also disagreement on the impact of analyst reports on the synchronization of stock prices, which may stem from the different motivations of analysts, and few literature go beyond the perspective of existing research to explore the impact of textual information in analyst reports on the stability of capital markets. Research on stock price synchronization has achieved rich results, and it is generally believed that the quality of information disclosure is an important mechanism affecting stock price synchronization. Based on the two types of principal-agent problems, analysts and management have the ability and conditions to deliberately manipulate the quality of information disclosure in order to maximize their own interests. Therefore, in the context of the reality of "financial reform", due to the prevalence of information asymmetry, analysts and management may also implement self-interested behaviors and manipulate the quality of information disclosure for different financialization motives, which in turn will affect the synchronization of stock prices. This paper will start from the perspective of information mechanism and corporate governance mechanism, and explore whether the information conveyed by the analysis report increases or reduces the risk of "rising and falling" stock prices in the capital market.

2.2. Analysts pay attention to the relevant research on the synchronization with stock prices

From the existing literature, two competing views and conclusions have been formed. The first view is that analysts can actively participate in corporate governance practices. Relevant studies have shown that analysts' attention can reduce the phenomenon of drift after earnings announcements, so that stock prices can better reflect the company's real information, reduce stock price synchronization, and improve the pricing efficiency of the capital market (Zhu Hongjun et al., 2007)^[4]. Other scholars have studied the impact of information transparency on stock prices, and when information is opaque,

the attention of securities analysts is conducive to reducing the degree of stock price deviation in the context of information asymmetry. (Pan et al., 2011)^[8]. In addition, academics have found that analysts improve corporate governance by actively acting as intermediaries of external oversight. It is reflected in reducing the surplus management of enterprises and promoting enterprise innovation (Chen Qinyuan et al., 2017)^[9]. The second view is that analysts are motivated by self-interest. Chinese securities analysts convey less company-level idiosyncrasies and more macro-level information (Feng Xunan and Li Xinyu, 2011)^[10]; Analysts are self-motivated, because they lack sufficient independence and are pressured by various entities, and may have a stronger masking effect on the fraud of the company than the supervisory effect. That is, on the one hand, it shows active supervision of listed companies, and on the other hand, it masks the fraudulent behavior of listed companies by issuing positive research reports, reflecting a suspicion of disrupting supervision (Ben Ma and Yang Yaowu, 2020)^[3]. In this way, the attention of analysts can only play a limited supervisory role for listed companies, and in the long run, it is not conducive to the improvement of the information content of stock prices in analyst reports.

However, when some scholars study how securities analysts affect the market from two different perspectives, reputation model and information model, they find that under the influence of controlling reputation factors, analysts can still directly affect the market through effective information transmission (Zhang Zongxin and Yang Wancheng, 2016)^[11]; Zhu et al. (2007)^[4] used data from China's capital market to find that the more analysts followed, the lower the synchronization of the company's stock price. In view of the different characteristics of analysts, scholars have also found evidence supporting the negative relationship between the number of analysts' followers and the synchronicity of stock prices. Xu et al. (2013)^[12] found that the more star analysts who follow a company, the lower the stock price synchronization. Yi et al. (2015)^[5] found that female analysts' attention to companies can reduce stock price synchronicity.

From the above analysis, it can be seen that there is still controversy among the existing literature on the interpretation of the relationship between analysts and stock prices, mainly because the core perspective of whether analyst reports can provide valuable information about company characteristics has not been studied.

3. Research Hypothesis

3.1. Analysis of Analysts' Motivation and Ability to Provide Information on Company Characteristics

According to the previous analysis, the key to whether analysts can reduce stock price synchronization lies in whether analysts provide valuable information about company characteristics, which is transmitted to the capital market and reflected in stock prices. Therefore, the relationship between research analysts and stock price synchronicity necessarily answers the following questions: (1) Is the analyst motivated and capable of providing information about the characteristics of the company? (2) If analysts provide information about the characteristics of the company, can the synchronization of stock prices be reduced? (3) If the analyst report provides information about the characteristics of the company, how does it fit into the stock price and ultimately reduce the synchronization of the stock price?

On the one hand, analysts are willing to provide more information about company characteristics. Previous studies have shown that company characteristics are an important factor affecting stock prices (Roll, 1988)^[13] and receive great attention from investors. Due to the great demand of investors for company characteristic information, whether it can provide investors with valuable company characteristic information has become an important indicator for evaluating the ability of analysts, which prompts analysts to mine and transmit incremental value of company characteristic information. At the same time, because company idiosyncratic information is informative to investors, analysts are able to publish higher-quality reports by providing company-specific information, which facilitates the career development of analysts.

Analysts have the ability to capture more information about company traits. Analysts vary in their ability to access information about the characteristics of a company. As mentioned earlier, Piotroski and Roulstone (2004)^[15] and Chan and Hameed (2006)^[16] treat analysts as homogeneous individuals and do not focus on whether analysts have access to information about the characteristics of the company. However, Huang et al. (2016)^[17] used text analysis methods to study analyst reports and found that analysts have the ability to mine information about the characteristics of companies. In addition, some

literature in recent years has differentiated the characteristics of analysts, and found that the attention of analysts with certain characteristics reduces the synchronization of companies' stock prices (Crawford et al,2012)^[18].

Therefore, analysts have the motivation and ability to provide company characteristic information, and the more company characteristic information in the report, the more conducive it is to alleviate the degree of information asymmetry between the company and investors, the more it can attract the attention of investors, improve the degree of integration of company characteristic information into the stock price, and then reduce the synchronization of the company's stock price. Based on this, this paper proposes:

H1: The content of company idiosyncratic information provided in analyst reports is negatively correlated with the synchronicity of stock prices.

3.2. Analysis of investors' dependence on analyst reports

In the real stock market, there is information asymmetry between companies and investors, and there are differences in the degree of information asymmetry, which affects the role of analyst reports, which is the key to the impact of company characteristics information provided by analyst reports on the synchronization of stock prices.

On the one hand, in the context of high transparency of company information, the cost of obtaining investor information is low, and in a strong and efficient market, because stock prices have reflected all public and undisclosed company-level information, the information provided by analyst reports cannot cause stock price fluctuations and cannot affect stock price synchronization. On the other hand, in the context of low transparency of corporate information, the cost of obtaining investor information is high. When the degree of corporate information asymmetry is high, investors cannot obtain valuable information from other sources. In order to reduce the risk of decision-making, investors rely more on the information provided by analyst reports (Zhu Xiaoting and Yang Shizhong, 2006)^[14]. At this point, the information provided by analysts about the characteristics of the company should have a more significant impact. Based on this, this paper proposes:

H2: The lower the transparency of company information, the more obvious the negative correlation between the company's characteristic content and the synchronization of stock prices provided in the report.

4. Conclusion

Taking all listed companies in Shanghai and Shenzhen A-shares as a sample, this paper studies the relationship between the content of company characteristic information and the synchronization of stock prices in analyst reports. Empirical findings show that the higher the content of company idiosyncratic information in analyst reports, the lower the synchronization of the company's stock price, and this negative relationship is more significant when the company's information transparency is lower. The conclusion of this paper shows that analysts, as important information finders and information dissemination intermediaries in the capital market, can promote the integration of information into stock prices and improve the operation efficiency of the capital market by publishing research reports. The research in this paper enriches the research literature on the synchronicity of analysts and stock prices, and provides a new perspective for the textual analysis of analyst reports, which has important theoretical and practical significance for investors, listed companies, analysts and regulatory authorities.

References

- [1] Cai Qingfeng, Chen Jiao. *Why Securities Analysts Retell Market Information: Empirical Test and Governance Based on Market Response* [J]. *China Industrial Economics*, 2011(07):140-149.
- [2] Xu Nianxing, Jiang Xuanyu, Yi Zhihong, Xu Xinzong. *Analyst conflict of interest, optimism bias and stock price crash risk*[J]. *Economic Research Journal*, 2012, 47(07):127-140.
- [3] Ma Ben, Yang Yaowu. *Blind eye? Research on the Relationship between Securities Analysts and Listed Companies on Fraud—Based on Bivariate Probit Estimation Based on Partially Observable*[J]. *Nankai Economic Research*, 2020(02):92-113.
- [4] Zhu Hongjun, He Xianjie, Tao Lin. *Can China's securities analysts improve the efficiency of the*

- capital market—Empirical evidence based on stock price synchronization and stock price information content [J]. *Journal of Financial Research*,2007(02):110-121.
- [5] Yi Zhihong, Li Jiang, Female analysts focus on synchronicity with stock prices [J]. *Journal of Financial Research*, 2015(11):175-189.
- [6] Morck, R., B. Yeung and W. Yu. The Information Content of Stock Markets: Why do Emerging Markets have Synchronous Stock Price Movements? [J]. *Journal of Financial Economics*, 2000, 58(1/2): 215-238.
- [7] West, K. Dividend Innovations and Stock Price Volatility [J]. *Econometrica*, 1988, 56(1) : 37-61.
- [8] Pan Yue, Dai Yiyi, Lin Chaoqun. Information opacity, analyst attention and the risk of individual stock crash [J].*Journal of Financial Research*,2011(09):138-151.
- [9] Chen Qinyuan, MA Lijun, YI Zhihong. Analyst Tracking and Enterprise Innovation Performance: China's Logic [J]. *Nankai Business Review*,2017,(3):15-27.
- [10] Feng Xunan, LI Xinyu. Can Chinese securities analysts reflect the company's characteristic information?— based on the evidence of stock price fluctuation synchronization and analyst follow-up [J].*Economic Science*,2011(04):99-106.
- [11] Zhang Zongxin, YANG Wancheng. Reputation Model or Information Model: How Chinese Securities Analysts Affect the Market? *Economic Research Journal*, 2016,51(09):104-117.
- [12] Xu Nianxing, YU Shangyao, YI Zhihong. Herd behavior of institutional investors and stock price crash risk [J].*Management World*,2013(07):31-43.
- [13] Roll, R. The Stochastic Dependence of Security Price Changes and Transaction Volumes: Implications for the Mixture-of-Distributions Hypothesis [J]. *Journal of Finance*, 1988, 43(3): 541-566.
- [14] Zhu Xiaoting, YANG Shizhong. Information Content Analysis of Timeliness of Accounting Information Disclosure—An Empirical Study Based on the Annual Report Data of Chinese Listed Companies from 2002 to 2004[J].*Accounting Research*,2006(11):16-23+96.
- [15] Piotroski, J. D., and D. T. Roulstone. The Influence of Analysts, Institutional Investors, and Insiders on the Incorporation of Market, Industry, and Firm-Specific Information into Stock Prices[J]. *The Accounting Review*, 2004, 79(4) 1119-1151.
- [16] Chan, K., and A. Hameed. Stock Price Synchronicity and Analyst Coverage in Emerging Markets[J]. *Journal of Financial Economics*, 2006, 80(1) : 115-147
- [17] Huang, A. H., R. Lehavy, A. Y. Zang, and R. Zheng. Analyst Information Discovery and Interpretation Roles: A Topic Modeling Approach[R]. Hong Kong University of Science and Technology, 2016.
- [18] Crawford, S. S., D. T. Roulstone, and E. C. So. Analyst Initiations of Coverage and Stock Return Synchronicity[J]. *Accounting Review*, 2012, 87(5) : 1527-1553