The Impact of Analysts' Forecast Behavior on Companies

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Abstract. As an important information intermediary between public companies and investors, analysts are gaining an increasingly significant position in the capital market. They make use of their expertise and professional skills to interpret and analyze market information, and lead investors to make decisions by writing research reports. Hence, it is vitally essential for analysts to forecast relevant events or market participants' behaviors correctly and accurately in the investment process of the market. Excessive deviation from the forecasts may damage the interests of investors and contribute to a bubble in the capital market. This paper focuses on the factors affecting analysts' forecast accuracy, such as analysts' valuation model selection preferences, systematic optimism bias, information disclosure quality, etc. By systematically combing the remarkable literature on analysts' forecasting behaviors and influences, this paper summarizes the impacts of both analysts' forecasting behaviors and the prediction accuracy on firms' share prices, investments and innovations, as well as puts forward suggestions for analysts themselves and for regulatory.

Keywords: Analysts forecast behavior, Analysts forecast accuracy, Valuation model selection, Systemic optimism bias.

1. Introduction

In the past few decades, scholars have conducted extensive and in-depth research and discussion in analyst forecasts and analyst focus areas. As emerging information transmitters in the external capital market, analysts can provide forecast reports to the market under the information intelligence network and reputation performance incentive, which assists in restraining the inefficient investment of managers caused by information asymmetry [1]. Lehavy et al. have studied the relationship between analyst tracking, earnings forecasting behavior, and the readability of annual financial reports. They found that when the reports were more complex or less readable, investors could be more likely to use analyst forecasts as an important reference to investment, and the professional interpretation of analysts would be in a more significant position. And vice versa [2]. Secondly, different countries have different accounting standards. A study by Bae et al. found that the accounting standards in the home country of analysts were different from those in the country of the predicted company, which would adversely affect the accuracy of analysts' forecasts [2]. Based on the theme of analysts' forecasting behavior, this essay summarizes and integrates the factors influencing the analysts themselves in the process of analyst prediction, which would have impacts on public companies in stock price, innovation, investment, and other aspects. The research conclusions of this paper are of great significance to understanding the value and effectiveness of the analyst valuation process and the factors affecting the information content of analyst research reports, as well as providing some reference for how to use and evaluate analyst research reports.

2. Preferences of Analysts' Valuation Model Selection

Initially, analysts prefer a past or future short-term relative valuation model in practice [3]. According to the survey of the selection of analyst valuation model, the majority of analysts will apply more simple and intuitive relative valuation methods during the actual valuation process, such as the P/E model and P/B model, instead of using the absolute valuation method, like discounted cash flow analysis [4]. On the one hand, Demirakos et al. discovered that, as per different UK industry research, the relative valuation model is the most commonly used valuation model for securities analysts. On the other hand, in the research of the American Securities Analysts Research Report,

Tan et al. found that up to 80% of the research reports used the relative valuation model as the valuation model [3]. The fact that analysts prefer relative valuation models indicates that it is difficult for most companies, especially their long-term financial data, to be accurately predicted, while the most recent financial data are more reliable and sufficient.

Second, analysts are more likely to select a dynamic valuation model based on short-term expected financial data [3]. In conformity with the assumption of future sustainability in company valuation, analysts tend to use dynamic valuation models to value companies, such as dynamic price-to-book ratio model, dynamic price-to-sales ratio model, etc., as these valuations are usually based on future financial data which can better match the value of going concern. As a result, analysts are fond of using expected data to value companies, especially reliable and predictable short-term future data. Sayed's research in emerging markets of Asia spotted that analysts prefer dynamic valuation models. The relevant literature indicates that only in rare cases would analysts possibly choose the static valuation model [3].

Third, analysts have a preference for the market-price valuation model [3]. Unlike the enterprise value valuation model, the market price valuation model concentrates only on the market price per share of listed companies outstanding on the stock market. Consequently, the market valuation model is simpler and faster in real company valuations and gains more popularity among analysts.

Fourth, in recent years, an increasing number of analysts have preferred to adopt multiple valuation models simultaneously [3]. Because each kind of valuation model has its limitations, they all reveal part of the intrinsic value of the enterprise from different perspectives. These intrinsic values are essentially equal to the weighted sum of multiple valuations generated by multiple valuation models [3]. This is one of the reasons why analysts begin to pay attention to and employ various valuation models in practice.

In the selection of the valuation model, analysts generally prefer the relative, dynamic, market price, and single valuation model, especially the dynamic P/E model [3]. Nevertheless, analysts' preferences will vary by industry, usage, and other reasons.

3. Factors Affecting the Accuracy of Analysts' Forecasts

3.1. Valuation Model Selection

Analyst valuation model selection will affect the information content of investment opinion [4]. When analysts adopt the absolute valuation model, the information content of the rating adjustment would be higher, indicating that investors reckon the investment opinions derived by the absolute valuation model are more valuable. Nonetheless, due to the differences between corporate environment and analyst characteristics, the absolute valuation model has dissimilar effects in enhancing the information content of rating adjustments. Absolute valuation models are more advantageous and have more incremental value for rating adjustment information content when company growth possibility is higher, uncertainty is higher, brokerage firms are weaker, and the level of competition among analysts is more intense [4].

3.2. Systemic Optimism Bias

Abundant behavioral finance studies have shown the existence of widespread systemic optimism bias in analysts' forecasts. Optimistic deviations from analysts' earnings forecasts can exacerbate the degree of stock price misjudgment and market risk. Zhang’s et al. research indicated that brokers’ and listed companies’ geographies will significantly reduce the optimism bias of analysts' surplus forecast results [5]. They think this phenomenon is mainly related to the more convenient communication between brokerage firms and listed companies in the same geographical area, stronger cooperation between brokers and enterprises, and the role of local governments as a bridge between them. These factors can make it less difficult for brokerage analysts to cooperate and decrease the difficulty of obtaining information, and can also weaken the incentive for brokerage analysts to deliberately overestimate listed companies' surpluses [5].

3.3. Quality of Information Disclosure

As an important information intermediary in the capital market, analysts are both information interpreters and information providers. Analysts are capable of accelerating information flow and improving capital market efficiency by releasing research reports. Consequently, the ability of analysts to grab information and the quality of the disclosure information obtained is particularly essential to the accuracy of analysts' forecasts. The following are the factors affecting the disclosure and quality of corporate and business information.

The quality of information disclosure and the peer MD & A tone all have a distinct adverse impact on the analysts ' forecast bias, i.e., the positive peer MD & A tone assists in reducing the analysts' forecast bias to the target enterprise [6]. Further analysis reveals that after maintaining the quality of information disclosure constant, the active peer MD & A tone will still significantly reduce the deviation of the analyst forecast, and such a reverse impact is more prominent in enterprises with low-quality information disclosure [6]. The MD & A tone disclosed by enterprises is informative because it can support analysts increase the accuracy of predicting the future development prospects of target enterprises, thus allowing investors to make more sensible choices. Simultaneously, the supervisory authority should take action to improve the disclosure of MD & A information, especially the important information related to investor decision-making. In addition, Cao et al. also highlighted the importance of information disclosure. MD & A is one of the vital channels for listed companies to reflect corporate information. They should disclose more comprehensive, more relevant, and more critical information to reduce information asymmetry and improve the transparency of information [6].

Regardless of considering macroeconomic policies, the comparability of accounting information can lower analysts' surplus forecast bias and the divergence of surplus forecast and can attract more analysts to track [7]. In the period of tightening macroeconomic policy, the macroeconomic and information environments in which enterprises operate are subject to greater uncertainty. Under other conditions unchanged, securities analysts are inclined to be conservative and prudent in coping with the uncertain environment and make full use of public and private information to reduce the forecast deviation and the divergence of the surplus forecast. To improve the environment, enterprises will actively provide more comparable accounting information. As a result, analysts will make more accurate earnings forecasts for public companies, and analysts will be less divided, attracting more securities analysts to follow up [7].

3.4. Influence of CSR Rating and Analyst Selection

In addition to the impact of information disclosure quality, the accuracy of analysts' earnings forecasts is also influenced by Corporate Social Responsibility rating, analyst selection, and other factors. Quine et al. discovered that the greater the divergence of corporate CSR rating, the lower the accuracy of analysts' surplus forecast, and the greater the optimistic deviation and divergence of the surplus forecast, indicating that the rating discrepancy will affect the judgment of capital market participants [8]. The profit forecast quality of Chinese analysts has improved since the abolition of analyst selection, signifying that the New Fortune selection before the cancellation did not encourage analysts to release high-quality forecasts [9].

4. Impact of Analysts on Corporate Stock Price, Investment, and Innovation

4.1. The Impact of Analysts on Corporate Share Prices

Research shows that the more negative information contained in the analyst research reports, the lower the synchronization of the company's stock price would be. This negative relationship would become more pronounced when the research reports are published by star analysts and companies with low information transparency. Negative analyst research reports will further inhibit the company's stock price synchronization by increasing investor attention [10]. Bao et al. verified that

the divergence of analysts is a negative intermediary between the voluntary disclosure of intellectual property rights (IPRs) and the risk of stock price collapse by establishing a dyadic hypothesis. In other words, the IPR's voluntary information disclosure reduces the risk of stock price crash by lowering analysts' forecast disagreement [11].

4.2. The Impact of Analysts on Corporate Investment

Innovation and development require long-term sources of funds. However, based on the theory of information asymmetry and the theory of financing optimal order, enterprises will increase their capital demand and encounter financing difficulties. Increasing the attention of analysts can reduce the information asymmetry and the problem of adverse selection, thus relieving the financing pressure on enterprises. He et al. detected that star analysts can promote corporate investment behavior by easing financing constraints and enhancing stock liquidity [12]. Further analysis certifies that star analysts are capable of interpreting the investment behaviors of different profit groups, without having obvious selective preference, and are more influential compared with those samples having no star analysts tracking. Star analysts play an active role in the value mining of companies by positively interpreting investment behavior pathways [12].

4.3. The Impact of Analysts on Corporate Innovation

Analysts' attention has a positive impact on corporate innovation outputs [13]. It can promote substantial and strategic innovation in the corporation. Analysts' attention assists enterprises in solving the problem of financing difficulties and insufficient capital by reducing the degree of information asymmetry. It also strengthens the supervision of the management to improve the internal governance of enterprises and mobilize the managers' willingness to innovate, thus in turn facilitating the generation of business innovation [13]. Enterprises can empower digital technology to enhance the innovation performance from the channel mechanism that analysts focus on, and digital transformation can in turn effectively boost the innovation performance of enterprises [14]. Additionally, Xuan et al. also realized that the academic background of analyst executives positively affects the firm's innovation performance. Specifically, the innovation performance of firms with executives who are equipped with academic backgrounds is better than that of firms without academic backgrounds. Simultaneously, the larger the size of executives with academic backgrounds, the more their strengths can be fully utilized to enhance innovation performance [15]. Analyst focus also augments the positive sensitivity of executives' academic background to firms' innovation performance, i.e., analysts' attention is considered to have a stronger "information intermediary" effect than the "performance pressure" effect in China [15]. On the whole, analysts' focus positively moderates corporate innovation.

5. Conclusion

Based on the theme of analysts 'prediction behavior, this paper summarizes and integrates the analysts' preference for the valuation model and the factors affecting the analysts' forecast behavior in the process of analyst prediction, thus having an impact on listed companies in stock price, innovation, investment, and other aspects. First and foremost, analysts will prefer the relative valuation model, the dynamic valuation model, and the valuation model of the market price, and are increasingly inclined to use multiple valuation models comprehensively. The preference of the valuation model will contribute to differences in the prediction results. Second, analysts have an optimism bias in corporate earnings forecasts. External factors such as the quality of information disclosure, peer MD & A tone, and macroeconomic policies will also affect the accuracy of analysts' forecasts. Specifically, optimistic bias in analyst earnings forecasts will increase stock price misjudgment and market risk and reduce forecast accuracy; information disclosure quality and peer MD & A tone will have reverse effects on analyst forecast bias. Accordingly, to decrease the divergence of prediction, analysts should avoid the herd effect when selecting the valuation model,

but should rationally choose the applicable valuation model conforming to the specific situation of different enterprises. Furthermore, analysts are supposed to constantly enhance their professional competence to ensure the accuracy, effectiveness and independent objectivity of analysts' research. Simultaneously, public companies should improve the internal management and information disclosure mechanism and boost the efficiency of enterprise innovation, achieving high-quality innovation. Relevant regulatory agencies ought to optimize and upgrade the information management system of listed companies, reduce the information asymmetry in the capital market, strengthen the external supervision of analysts and companies, and refine the investment mechanism.

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