A Balancing Act Between Accuracy and Timeliness: Evidence from Analyst Forecasts in China

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Teamwork is crucial in many organizations, including financial institutions. Organizations evaluate the performance of teams based on both the outcome and the timeliness. Analysts are a good example for evaluating teamwork in these two dimensions. Firstly, analyst reports include earnings forecasts, which serve as a solid basis for evaluating the performance of analyst teams on accuracy. Secondly, analysts may need to revise their earnings forecasts in response to corporate events. These events can be considered "temporal challenges" and analysts must provide timely revisions since their clients require updated forecasts for their investment decisions. However, there is limited literature on analyst teamwork.

A recent study compares the performance of team analysts and individual analysts. The authors found that analyst teams were less accurate but timelier than individual analysts. They used I/B/E/S data to identify analyst teams and individual analysts. However, the I/B/E/S is no longer a suitable database for analyst team research since it does not include analyst detailed information, such as whether the analyst is part of a team or working individually. Researchers must use a translation file to obtain the relevant information (the file links I/B/E/S analysts with their credentials). However, after 2007, Thomson stopped including the translation file in the academic version of I/B/E/S. To overcome this data deficiency, recent research collected data by searching analyst reports and LinkedIn and found that analyst teams were more accurate and elicited stronger market reactions compared to individual analysts. However, their data collection was manual and covered a relatively short period (2013-2016), and their paper only focuses on forecast accuracy. In practice, accuracy and timeliness are always considered together when evaluating performance.

In this paper, we examine how analyst teams balance accuracy and timeliness using Chinese data from 2007 to 2020. There are two reasons for this examination. Firstly, there is a debate on the popularity of teamwork in China. On one hand, the rigid social hierarchy in Chinese traditional culture, such as Confucianism, may hinder teamwork. On the other hand, the growing presence of Western companies in China using Western management principles may facilitate teamwork. Secondly, the China Stock Market & Accounting Research Database records detailed information on both teams and individuals, allowing us to examine the impacts of these dimensions on team performance and have a longer sample period compared to previous studies.

The main hypothesis of this paper is that analysts face a trade-off between accuracy and timeliness, and that compared to individual analysts, team analysts may not necessarily be better at balancing these two dimensions due to the challenges of collaboration. To test this hypothesis, we construct a measure called the accuracy-timeliness tradeoff (AT), which is calculated as the product of accuracy and timeliness. This measure provides a combined representation of accuracy and timeliness and allows us to consider both dimensions simultaneously for the first time. Using the measure, we

conduct the following analyses.

First, we examine the importance of an analyst's ability to balance accuracy and timeliness. We find that there is a greater market reaction to revisions made by analysts who achieve a better trade-off, and these analysts are more likely to be hired as fund managers. These results indicate that investors prefer analysts who can balance accuracy and timeliness, and the ability to tradeoff matters in an analyst's future career outcomes. Overall, we show that the ability of analysts to balance accuracy and timeliness is valued not only in the external capital market but also in their future career advancement.

Given the importance of this measure, we examine the factors that impact *AT*. We compare the earnings forecast ability between team analysts and individual analysts and find that team analysts are 0.53% more accurate than individual analysts after controlling for analyst characteristics, which is consistent with the literature. However, we also find that individual analysts are 3.42% timelier than teams. This confirms the existence of a trade-off between accuracy and timeliness. More accurate forecasts that are significantly delayed may not necessarily be better than less accurate but timelier forecasts. Further, our results show that team analysts perform worse in balancing accuracy and timeliness compared to individual analysts.

We then continue to explore why team analysts have a lower ability to balance accuracy and timeliness. We first test the impact of diversity on team analyst performance. Our diversity measure combines education diversity, gender diversity, and experience diversity. Our results show that although diversity has a positive impact on accuracy, it has a negative impact on timeliness and the ability to balance accuracy and timeliness. A one-unit increase in diversity is associated with a 4.7% decrease in the trade-off ability. This could be due to difficulty coordinating information collection and production among highly diverse analyst teams, or the impact of Confucianism, which, according to previous literature, could limit teamwork due to its rigid social hierarchy. Using the number of Confucian temples in the home province of the lead analyst as a proxy, we find that Confucian principles have a negative impact on accuracy and the ability to balance accuracy and timeliness.

We also investigate what factors can enhance a team's ability to achieve a balance between accuracy and timeliness. Our results suggest that the ability to balance accuracy and timeliness can be improved by boosting member competencies, developing relationships with researched firms, and enhancing connections among team members. For example, the performance of teams can improve significantly when one or more star analysts serve on the team, or when at least one team member comes from the province where the covered firm is headquartered, or when two or more team members graduate from the same college.

In conclusion, our findings illustrate the feasibility of considering both accuracy and timeliness simultaneously and show the factors that influence the ability to balance these two dimensions. These findings have practical implications for brokers when it comes to constructing analyst teams.