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Analysts' experience and interpretation of discretionary accruals in predicting future earnings☆

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ABSTRACT

Our paper investigates whether analysts' experience mitigates their forecast over-optimism associated with high discretionary accruals. Prior literature shows that analysts' forecast optimism is associated with high total accruals and working capital accruals, and this forecasting inefficiency can be mitigated by analysts' experience. We extend this line of research by first showing that forecast over-optimism is associated with higher discretionary accruals. We then show that analysts' experience with the related industry and their experience of decomposing earnings into cash flows and accruals appear to mitigate analysts' over-optimism related to discretionary accruals while analysts' firm and general experiences do not. Our study provides new evidence on how experience affects analysts' use of discretionary accruals.

1. Introduction

This study investigates whether and how financial analysts' experiences help them interpret discretionary accruals when forecasting earnings. Prior literature shows that the accrual component of earnings is less persistent than the cash flow component (Ahmed, Nainar, & Zhou, 2005; Sloan, 1996) and that the market fails to properly weight the persistence of accruals in valuations (Sloan, 1996). Bradshaw, Richardson, and Sloan (2001) report that sophisticated information intermediaries, such as financial analysts and auditors, also do not fully understand the implications of accruals on future earnings. They show that sell-side financial analysts issue more optimistic forecasts for firms with higher working capital accruals and total accruals. The association between analysts' overoptimistic forecasts and high working capital accruals, however, seems to be partially mitigated by analysts' general experience (Drake & Myers, 2011).

Since accruals capture the economic effect of an event in the period in which it occurs, rather than in the period in which cash is exchanged, managers' judgments play an important role in the recognition and measurement of accruals. The component of accruals that is subject to managerial discretion is less persistent than the non-discretionary component; yet financial analysts treat discretionary and non-discretionary accruals similarly when predicting future earnings (Ahmed et al., 2005). The market also overprices discretionary accruals, which to a large extent drives the mispricing of total accruals (Xie, 2001). Prior studies, however, do not provide evidence on whether and how analysts' experiences help mitigate their misinterpretation of discretionary accruals. Our study fills this gap.

As a baseline analysis, we first investigate whether discretionary accruals are associated with analysts' overoptimistic forecasts and whether this association is similar to that between non-discretionary accruals and optimistic forecasts. Bradshaw et al. (2001) show that analysts' forecasts are increasingly overoptimistic in the level of the forecasted firms' working capital accruals. We adopt the straightforward research design in Bradshaw et al. (2001) to examine this question but focus on discretionary accruals. Since discretionary accruals are even less predictable and their persistence and reversals are more difficult to understand, we predict that extreme levels of discretionary accruals exacerbate analysts' over-optimism related to the inefficient use of accruals.

We split total accruals into a performance-adjusted discretionary component and a non-discretionary component, based on the Jones model (Kothari et al., 2005). We rank firm-level discretionary and non-discretionary accruals into deciles each year and compute firm-level forecast errors in twelve 30-day windows over the year. We find that discretionary accruals and optimistic forecast errors are positively correlated; that is, analysts' forecasts are increasingly overoptimistic as discretionary accruals become more positive. This correlation is statistically significant throughout the year, although the actual level of correlation decreases over time. Non-discretionary accruals are also positively correlated with optimistic forecast errors, but the correlation is much weaker in both the magnitude and statistical significance. This

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result holds regardless of whether we control for the effect of operating cash flow. While this is not the focus of our study, this result provides the basis for our analysis of the mitigating effect of analysts' experiences.

We then investigate whether and how analysts' experiences moderate their misinterpretation of discretionary accruals in forecasting earnings. Barth and Hutton (2004) find that analysts' forecast revisions reflect information about accrual and earnings persistence. As such, more experienced analysts are more likely to discern the nature of discretionary accruals and reflect the difference in the persistence between discretionary accruals and non-discretionary accruals in their forecasts. Different types of experience, however, lead to different types of knowledge and not all types of experience will lead to the knowledge and skills necessary to forecast well in the different situations faced by analysts (Clement, Koonce, & Lopez, 2007). Consequently, we examine four types of analysts' experience: general, firm-specific, industry-specific and task-specific. General experience is measured as the number of forecasts an analyst has made; firm-specific experience as the number of forecasts made for a specific firm; industry-specific experience as the number of forecasts made for firms in a specific industry; and task-specific experience as the number of cash flow forecasts made along with earnings forecasts.

We add each measure of analysts' experience to the baseline model and interact it with the deciles of discretionary accruals. We find that, while all experience types are negatively associated with analysts' overoptimism, how they mitigate overoptimistic forecasts varies with experience type and whether the accrual component is discretionary or non-discretionary. General experience moderates the association of overoptimistic forecasts with non-discretionary accruals but not discretionary accruals, while industry-specific experience moderates that with discretionary accruals but not non-discretionary accruals. Experience with the task of earnings decomposition moderate the associations of overoptimistic forecasts with both discretionary and non-discretionary accruals, with stronger effects on the association with discretionary accruals. These results hold after controlling for an array of firm characteristics, including size, growth, firm age, analyst coverage, loss, equity offering, and stock returns.

Our results suggest that analysts' experience of forecasting earnings can mitigate their misinterpretation of discretionary accruals. Consistent with the idea advanced in prior research that different types of experience generate different types of knowledge and skills, we find that different types of experience have different effects on analysts' interpretations of discretionary and non-discretionary accruals.

Our paper contributes to the analyst experience literature in several ways. Prior research shows that analysts with a longer history following a firm have higher forecast accuracy (Mikhail, Walther, & Willis, 1997) and better incorporate prior earnings and returns information into their forecasts (Mikhail, Walther, & Willis, 2003). Drake and Myers (2011), however, find that analysts' general experience in forecasting earnings, but not their specific experience with a firm, helps mitigate their misinterpretations of working capital accruals.

First, our study extends this line of research by differentiating the discretionary and non-discretionary components of accruals when investigating how analysts' experience mitigates their misinterpretation of accruals. We show that the association between analysts' overoptimistic forecasts and high accruals varies with whether accruals are discretionary. More importantly, we show that the mitigating effect of analysts' experience on this association also varies with whether accruals are discretionary.

Second, our study examines two additional dimensions of analyst experience, i.e., analysts' industry-specific experience and experience of earnings decomposition in addition to their general and firm-specific experience, when investigating analysts' misinterpretations of accruals. Our study provides new insights about analyst experience by showing that different types of experience moderate analysts' misinterpretations of discretionary and non-discretionary accruals in different ways.

Finally, our finding should be useful to analysts themselves and their employers with respect to the selection and training of analysts as we show that analysts' industry-specific experience and experience of earnings decomposition are particularly useful in mitigating forecasting optimism related to discretionary accruals. It may also be useful to investors who will be better able to discern the quality of analysts' earnings forecasts.

The remainder of this paper is organized as follows. Section 2 provides a literature review and develops our hypotheses. Section 3 describes the research methodology. Our results are presented in Section 4. Section 5 concludes with a summary and discussion.

2. Hypothesis development and literature review

2.1. Misinterpretation of discretionary accruals

Analysts are important information intermediaries (Schipper, 1991). They are generally considered to be sophisticated users of financial information. Bradshaw et al. (2001), however, find that financial analysts fail to fully incorporate the reversals of accruals in predicting future earnings. They show that analysts' earnings forecasts are overly optimistic when working capital accruals (and total accruals) are high. Subsequent studies further support their findings but disagree on whether financial analysts perform better or worse than the overall market in incorporating accruals into earnings forecasts (Elgers, Lo, & Pfeiffer, 2003; Kang & Yoo, 2007).

Since managerial judgments play an important role in recognizing and measuring accruals, the component of accruals subject to managerial discretion is even more difficult for outsiders to interpret. Xie (2001) reports that the mispricing of accruals documented in Sloan (1996) is to a large extent driven by discretionary accruals. Ahmed et al. (2005) find that analysts fail to account for the significantly lower persistence of discretionary accruals than non-discretionary accruals and thus overweight discretionary accruals. Analysts' inefficient use of discretionary accruals in forecasting earnings motivates the question of whether analysts' overoptimistic earnings forecasts for firms with high accruals are driven by high discretionary accruals.

In addition, we expect analysts to encounter greater difficulty in understanding discretionary accruals than non-discretionary accruals for two reasons. First, discretionary accruals are more transient and noisy in reflecting a firm's operating outcome. Second, managers can use discretionary accruals for opportunistic purposes. Therefore, we expect that analysts misinterpret discretionary accruals when predicting future earnings and that their misinterpretation of discretionary accruals is more severe than that of non-discretionary accruals. With respect to analysts' overoptimistic forecasts, we present our first two hypotheses as follows:

H1. Analysts' earnings forecasts are more optimistically biased when firms report higher discretionary accruals.

H1a. Analysts' overoptimistic earnings forecasts are more associated with discretionary accruals than with non-discretionary accruals.

2.2. The moderating effect of analysts' experience

While prior studies suggest that financial analysts, on average, fail to account for the varying persistence of cash flows and accruals, the quality of their forecasts and recommendations vary across individual analysts (e.g., Clarke, Ferris, Jayaraman, & Lee, 2006; Sinha, Brown, & Das, 1997). One important attribute of forecast quality is forecast accuracy. The variation in forecasting accuracy could be due, in part, to individual analyst's experience (Clement, 1999; Mikhail et al., 1997).

A plausible explanation for the impact of experience on analysts' forecast accuracy is the "Learning by Doing" theory (Anzai & Simon,