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Examination of the information content of management range forecasts

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ABSTRACT

We investigate the significance, direction and accuracy of EPS and sales range forecasts, voluntarily disclosed by management. We explore the information content of these voluntary forecasts by highlighting the information contained within their upper and lower bounds (forecast width), contrary to the previous literature that uses midpoint estimates as an expectation proxy. We use the forecast width to determine manager's forecasting direction, i.e. optimistic or pessimistic, and we assert it as an ex ante estimate of the forecast error that derives when the actual yearend figures are released. We further explore the forecasting accuracy of management forecasts and present evidence for optimistic versus pessimistic forecasts. Finally we test, whether investors can benefit by utilizing the information that lies within the forecast bounds in predicting future stock returns. We find evidence that range forecasts' upper and lower limits enclose significant information, i.e. forecast width is a significant number, only for EPS forecasts rather for sales forecasts. Regarding manager's forecasting direction; we confirm overconfidence (optimistic direction) when managers choose to provide estimates for the EPS figure, rather than when they decide to provide estimates for the sales' figures. Further, we provide evidence of increased forecast accuracy in the case of pessimistic forecasts, contrary to optimistic forecasts. Finally, the findings indicate a negative and significant association between forecast width and future stock returns in the case of EPS forecasts. Investors can benefit when making investment decisions by treating forecast width as an ex ante forecast error relative to the actual yearend figures, attributed possibly to management uncertainty on future economic prospects.

1. Introduction

Management forecasts are voluntary disclosures that provide ex ante information on the expectations about yearend reporting figures. Managers discuss their expectations about future performance publicly, instead of selectively feeding them to analysts following. According to (Han and Tan, 2007), these forecasts are considered to be among the key voluntary management disclosure strategies. Furthermore, it is well established that management forecasts are an important source of financial information to capital markets participants (Hirst et al., 2008; Beyer et al., 2010; Siougle et al., 2014). Diamond and Verrecchia (1991) present voluntary disclosures' negative association with information asymmetry. Verrecchia (2001) concludes that the demand for and the supply of voluntary disclosures, is mainly driven by stock market considerations. Managers issue forecasts towards the direction that analysts and investors expect them to disclose new information and reduce the asymmetry. Lower information asymmetry is aimed since it is assumed to enhance higher liquidity (Diamond and Verrecchia, 1991) and lower cost-of-capital (Leuz and Verrecchia, 2000).

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Evidence regarding the relationship between information asymmetry and firm behavior presents that firms issuing management earnings forecasts have wider bid-ask spreads the period prior to the forecast disclosure (Coller and Yohn, 1997).

Through public management forecasts, managers attempt to establish a figure benchmark against which their performance will be measured in the year end. Previous research documents that management estimates for yearend figures, especially those that are regarded earnings benchmarks, attracted great amount of managers' attention since mid-1990's (Waymire, 1984; King et al., 1990). Nevertheless, the enforcement of the Regulation on Fair Disclosure (Reg. FD 2000) signaled significant changes within the disclosure environment strengthening the importance of management forecasts (Heflin et al., 2012). After the enforcement of Regulation on Fair Disclosure (Reg. FD 2000), changes in both the frequency and the form of management forecasts were witnessed. Specifically, the number of released management estimates increased substantially (Brown and Caylor 2005) and management forecasts have taken the form of range forecasts in recent years (Ciconte et al., 2014; Tang et al., 2015).

Prior literature on management forecasts extensively uses the midpoint of management forecasts (Feng and McVay 2010; Gong et al., 2011) to evaluate management forecast news. Range forecasts are regarded as indications of manager's lack of confidence and inability to release a point forecast (King et al., 1990; Hughes and Pae, 2004).This practice simplifies managers' range forecasts to single point estimates. It ignores the information conveyed by the upper and lower range of management forecasts and is likely to result in measuring forecast news with error. The concern with the error measurement is particularly pronounced when actual yearend figures eventually become publicly available and fall outside the forecast limits (either above or below), as they are set by the upper and lower forecast bound. The same management forecast may convey good news to a group of investors and bad news to another group of investors, depending on whether they base their expectation on the upper or lower bound. For example in cases of pessimistic forecasts, for the group of investors who choose to fixate on the lower bound, management forecast may convey good news, but also bad news for investors who choose to fixate on the upper bound. Analogous situation may hold for optimistic forecasts. Further, using the forecast midpoint smoothes the bounds' effect and creates even vaguer signal to the market.

Given these considerations our study attempts to extend prior literature that examines management forecasting activity. We contribute to existing literature by further exploring the significance, direction and accuracy of EPS and sales range forecasts. We build on the ground of research that supports the intuition of differing information content conveyed by the upper and lower bounds in the case of management range forecasts. We are aware of a limited number of studies that try to investigate the importance of the upper and lower bound in management forecasts (Cheng et al., 2013; Tang and Zhang, 2016). Tang and Zhang (2016) examine the information content of range forecasts by investigating the overlapping between management forecast ranges and ranges formed from individual analysts. They (Tang and Zhang, 2016) find that non-over-lapping forecasts receive stronger announcement response by analysts and investors. In our analysis we examine if the management forecast width can improve investors' perception in the time interval between the announcement of managements' forecast and official yearend figures i.e. if investors should make investment decisions by taking into account the forecast width before the formation of the actual yearend figures. We also test for the significance and magnitude of EPS forecast width comparative to sales forecast width. We finally examine the direction and accuracy of EPS and sales range forecasts.

We argue that, in the case of range forecasts, upper and lower limits enclose significant information and thus we treat them as separate estimates. We test if investors efficiently utilize the information content deriving from the difference between the upper and lower forecast bound. Further, Roychowdhury and Watts (2007) argue that managers insert forecast bias into their estimates in order to achieve specific results, e.g. walk down earnings expectations and boost stock price (Dutta and Gigler, 2002; Burgstahler and Eames, 2006). We expect such bias to be tracked onto the voluntary management estimates. We examine management sales and EPS forecasts according to the forecasting direction, by separating them into optimistic and pessimistic subgroups. In order to determine the forecasting direction, i.e. optimistic or pessimistic, we use forecast range and its position compared to actual year end figures. We finally examine each subgroup's accuracy and we test if the differences between the subgroups are statistically significant.

In order to further support our results we conduct robustness test by exploring the impact of size or news effects on the analysis.

Our empirical evidence highlights the importance of management range forecasts. The results support that there is significant information content within management forecast bounds, in EPS range forecasts rather than in sales range forecasts. Investors can benefit by taking into account the EPS forecast width when making investment decisions and treat it as an ex ante estimation of the ex post forecast error. We provide evidence that the forecast width represents a significant percentage of the actual forecast error calculated when actual figures become publicly available. Regarding the forecasting direction, i.e. optimistic or pessimistic managers, we find the pessimistic forecasting behavior to relate to more accurate forecasts. The optimistic forecasting behavior signals management overconfidence which is not confirmed by the actual year end figures. Finally, our results appear to hold when controlling for size and news effects, regarding the forecasting accuracy and direction, i.e. optimistic – pessimistic.

Our evidence is important for the users of financial reporting information. We highlight the importance of management range forecasts and their differing magnitude between EPS and sales forecasts; we provide evidence that investors can benefit in the prediction of future stock returns by treating forecast width as an ex ante forecast error relative to actual yearend figures. Furthermore, our study supports the idea of the differing information content regarding management forecasting bias (optimistic – pessimistic) and accuracy when using as benchmarks the upper and lower bound of range forecasts.

The rest of the paper is organized as follows: Section 2 discusses the related literature, and hypotheses' development; Section 3 describes our research design; Section 4 describes the sample; Section 5 presents the empirical findings; Section 6 presents the robustness test and Section 7 concludes.