How much attention do investors pay to rounding in earnings forecasts?

Evidence exists that investors are subject to attentional constraints when making economic decisions and as a result focus on subsets of publicly available information that are more salient, i.e. that tend to stand out and are easier to process. Selective attention to salient stimuli can be economically justified if time and attention are costly.

A large literature to date examines limited investor attention to information released by firms, e.g. in earnings announcements and annual reports. A number of studies focus on how the form of information released by analysts, being key intermediaries in capital markets, affects investors' abilities to assimilate earnings-related information.

In our study we focus on the *roundness* of analyst earnings-per-share (EPS) forecasts (hereafter referred to as *rounding*). Rounding manifests itself in forecasts that end in zero or five (e.g. $1.00, $1.50, $1.15). We examine whether and to what extent investors pay attention to the rounding feature of analyst forecasts at forecast revision announcements, given all other informative forecast characteristics that they can observe. The characteristics that investors use in appraising forecast quality include: analysts' prior forecasting ability, brokerage firm affiliation, forecast frequency, forecast timeliness, firm-specific experience, firm and industry expertise.

Rounding represents a common type of measurement error in discrete quantitative data based on subjects' responses or observers' assessments. It reflects a cognitive process associated with less effort, uncertainty and imprecision. Consistent with this notion, prior studies document that financial analysts issuing rounded forecasts are usually less informed and exert lower effort. The forecasts of such analysts are also, on average, less accurate.

On the one hand, rounding is likely to be less informative to investors than other forecast attributes because, unlike these other characteristics, rounding is binary. Apart from revealing that a forecast is less accurate, the rounding feature has no further implication for the relative precision of the forecast. On the other hand, the rounding feature of a forecast is a more salient and easy-to-process characteristic and may thus serve as a summary costless indicator of forecast accuracy. By focusing on the rounding of analyst forecasts, we aim to assess variation in investor attention to salience along three dimensions.

First, we examine whether investors respond more strongly to rounding as a salient forecast feature than to other more informative but less salient forecast characteristics (e.g. forecast horizon, prior forecast accuracy, firm experience, forecast frequency, forecast timeliness, broker size). Second, we ascertain whether investor reaction to salient forecast information is affected by the repetition of the salient feature. Finally, we study the variation in investor attention to salience by investor type.

In our empirical tests, we document that when responding to analyst forecast revisions investors place a larger weight on rounding than on other more informative but less salient forecast characteristics. The investor response to rounding is more pronounced in the presence of multiple rounded forecasts, disclosed in analyst reports simultaneously, and is attributed primarily to less sophisticated investors. We also provide evidence on investors' delayed assimilation of the information content in rounded forecasts subsequent to the forecast announcement date. This result is consistent with investors' reliance on rounding acting as a deterrent for investors to fully appraise all remaining informative cues.

Our evidence suggests that both analysts and investors fail to understand the costs associated with rounded forecasts. For analysts, the simplicity of avoiding a rounded forecast by adding or subtracting an extra cent implies lack of effort and lack of incentives to be precise (e.g. low trading gain potential on the stock followed). This is consistent with prior evidence that analysts issue rounded forecasts as a result of cost-benefit considerations, i.e. when there are low economic incentives to issue accurate forecasts. Also, in the presence of multiple tasks, analysts may ignore rounding as a signal of lower quality since accuracy in analyst forecasts has a much smaller role in determining their compensation than other factors, such as increase in analyst visibility and customer rating, stock picking, and attracting investment banking business.

From an investor perspective, attending more to salient and easy-to-process forecast features, such as rounding, implies less attention to informationally equivalent or more informative forecast characteristics (e.g. prior forecast accuracy and analyst firm-specific experience). While investors may lose money by ignoring all aspects of the economic environment, inattention to the whole set of available information may be economically justified because time and attention are costly. Selective attention is further justified by the vast amount of available information, which increases information processing costs. Therefore, salience in earnings-related signals may affect investors' assimilation of information given the opportunity cost of time needed to process all informative cues.

Our study sheds light on the scope of limited investor attention. It unravels an important role for salient cognitive reference points in influencing investor perceptions, which may have important valuation consequences. An interesting avenue for further research would be to explore whether firms or analysts strategically use salient cognitive reference points (e.g. focal colours, vertical and horizontal lines) as a way of influencing investor perceptions.

Our evidence also reveals an important role for the repetition of salient quantitative information in influencing investor judgements, which would be interesting to investigate further in the context of companies' annual reports. Finally, there is evidence suggesting that analysts tend to neglect relevant financial statement information. In this regard, it will be an interesting avenue for future research to examine analysts' attention to salient earnings-related firm disclosures with varying information content.

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Notes:

- *This blog post is based on the authors' paper Investor attention to rounding as a salient forecast feature, International Journal of Forecasting.*
- *The post gives the views of its authors, not the position of LSE Business Review or the London School of Economics.*
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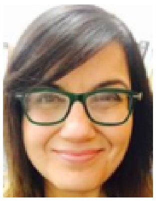

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