Analysts’ Reluctance to Voice Conservative Opinions and the Informational Value of Long-term Earnings Growth Forecasts

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Abstract

In explaining the poor informational value of analysts’ long-term earnings growth forecasts, studies have focused on the excessively aggressive forecasts induced by analysts’ incentives and/or cognitive biases. This study reveals that the forecasts’ poor informational value is driven by analysts’ reluctance to issue conservative forecasts, which may also be induced by their incentives and/or biases. We predict that this reluctance allows each firm’s conservative forecast to be heavily influenced by the firm’s past performance and to be the noisy predictors to distinguish high-growth firms from low-growth ones. Consistent with our prediction, we find that each firm’s most conservative forecasts are those most strongly influenced by past performance and have the least predictive power.

Keywords: long-term earnings growth, conservative forecasts, cognitive bias, analyst incentive structure

JEL Classification Numbers: G2, G14, G17, G23

1. Introduction

Long-term earnings growth expectations are crucial to stock price valuations. A competitive market should therefore induce financial analysts to issue accurate LTG forecasts. However, the extant research reveals that LTG forecasts are especially optimistic for past winners and fail to provide the information to distinguish between high-growth and low-growth firms: they have little predictive power concerning relative growth (La Porta, 1996; Chan et al., 2003). There are two major explanations for the poor informational value of such forecasts.

The first explanation attributes an LTG forecast’s poor informational value to excessively aggressive forecasts induced by analysts’ cognitive bias. Findings in psychology indicate that market participants are susceptible to cognitive biases; for instance, confirmation bias (Wason, 1960) causes market participants such as financial analysts to consider only the evidence that supports their beliefs, producing forecasts that are bullish for firms with good past performance (Kahneman and Riepe, 1998). The second explanation attributes the poor informational value of LTG forecasts to excessively aggressive forecasts induced by analysts’ incentive structures. Substantial studies (Hunton and McEwen, 1997; Dechow et al., 2000) have found that analysts are rewarded whenever their employers win investment banking deals. Studies argue that the excessively aggressive forecasts induced by the promotion of investment banking deals have reduced informational value (e.g., Rajan and Ser-vaes, 1997; Agrawal and Chen, 2005). Moreover, Francis and Philbrick (1993) argue that analysts’ desire for information and access to management may produce excessively aggressive forecasts.

We can say that most studies have regarded excessively aggressive forecasts as a key detractor from the informational value of LTG forecasts. Since long-term growth forecasts tend to be optimistic, studies have naturally focused on the occurrence of excessively aggressive forecasts. However, forecasts’ poor informational value could be caused by analysts’ reluctance to issue conservative ones.

McNichols and O’Brien (1997) report that analysts are reluctant to voice conservative opinions. Hayes (1998) develops a model assuming that analysts gather information and issue reports to generate brokerage commissions; his model predicts that analysts’ motivation to issue reports is lower for stocks that are not expected to perform satisfactorily. However, their reluctance to voice conservative opinions is explicable not only through brokerage commissions but also through analysts’ cognitive bias and incentives. Analysts might refrain from issuing conservative forecasts because of their belief in the persistence of a firm’s superior performance or to avoid a negative impact on investment banking deals or their relationship with management. This reluctance to issue conservative opinions could result in forecast optimism for past winners and low predictive power of a forecast concerning relative growth.

Thus, this study presents an empirical analysis of...
whether the poor informational value of LTG forecasts is driven by analysts’ reluctance to issue conservative forecasts rather than the existence of excessive aggressive forecasts.

2. Hypothesis development

To test whether the poor informational value of LTG forecasts is driven mainly by analysts’ reluctance to issue conservative forecasts, we introduce a novel methodology: we examine the difference in the influence of firms’ past long-term performance and of the predictive power for relative growth among the most aggressive, most conservative, and consensus (median) forecasts for each firm. We test the hypotheses described below.

Analysts’ reluctance to issue conservative forecasts causes several conservative forecasts for the firm tend to go unreported; therefore, the reluctance, which results in forecast optimism, induces each firm’s most conservative (reported) forecast to be upwardly biased, while each firm’s most aggressive forecast is not influenced by the reluctance. Thus, if forecast optimism for past winners were driven by the reluctance, the most conservative (reported) forecasts for each firm with high past long-term performance (past winner) is more likely to be upwardly biased than is the most conservative (reported) forecast for each firm with low past long-term performance (past loser). Consequently, each firm’s most conservative (reported) forecasts would be more heavily influenced by firms’ past long-term performance than other forecasts would be. Hence, we first test the following hypothesis:

Hypothesis 1: The influence of a firm’s past long-term performance is stronger for each firm’s most conservative forecast than for the consensus and most aggressive forecast.

Analysts’ reluctance to issue conservative forecasts affects the cross-sectional distribution of each firm’s most conservative forecast rather than that of each firm’s most aggressive forecast. Thus, if analysts’ reluctance to issue conservative forecasts significantly induces the forecasts to be noisier predictors for sorting out high-growth firms from low-growth firms, the reluctance especially lowers the predictive power of each firm’s most conservative (reported) forecasts. In other words, if the low predictive power were driven mainly by analysts’ reluctance to issue conservative forecasts, the predictive power for relative growth would be lower for each firm’s most conservative forecast than for other forecasts. Accordingly, we next test the following hypothesis:

Hypothesis 2: The predictive power for relative growth is lower for each firm’s most conservative forecast than for the consensus and most aggressive forecasts.

3. Influence of firms’ past performance

This section tests Hypothesis 1 by analyzing the difference in the influence of firms’ past performance among the forecasts.

3.1 Data and Methodology

We obtained our sample of analysts’ earnings forecasts from the unadjusted file of the Institutional Brokers Estimate System Summary (IBES). We collected data from stocks listed on the New York Stock Exchange (NYSE), American Stock Exchange (Amex), and NASDAQ that received at least three LTG forecasts. We excluded the shares of non-US firms and low-grade stocks.1 The sample period spans the first-quarter end of 1988 to the quarterly end of 2007. The number of eligible firms ranges from 898 to 1923; on average, the sample comprises about 1450 firms.

As a candidate for the past long-term performance indicator, we consider the following indicators:

Long-term earnings growth: we include the geometric average of trailing EPS (earnings per share) growth rates. Then, we normalize the geometric average of the growth rate. Since a growth rate cannot be calculated when earnings are negative, we handle such cases by scaling the one-year (four-quarter) change in trailing EPS by the stock price as of the base quarter and normalize the time series average of the changes. This normalized value of EPS change relative to price is assigned to a firm with negative profits.

Long-term stock return: firms’ past performance could be captured by stock returns. We include normalized log stock returns.

Long-term growth in OIBD (the operating income before depreciation): we also include the normalized geometric average of OIBD growth rates.

As an indicator of firms’ past long-term performance, we consider growth rates or stock returns over the preceding five years.2 The reason for using these indicators is not only that these variable could represents firm’s past long-term performance, but also that the preference for past winners as identified by each firm’s past long-term performance indicator does not improve the predictive power for relative growth.3

To compare the influence of firms’ past long-term performance on the most aggressive/conservative forecasts with that on the consensus forecast, we evaluate the influence of firms’ past performance on the difference between the most aggressive/conservative forecasts and the consensus (median) forecasts.

We should note, however, that these differences are still systematically correlated with the levels of consensus forecast and analyst coverage; as the level of consensus growth forecast and/or analyst coverage grows,  

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1 These are defined as stocks whose share price is lower than $1 (i.e., penny stocks).
2 We also perform the analyses using the growth rates or stock returns from the preceding three years (12 quarters) and find that our result is not dependant on the settings.
3 We analyzed an association between a realized profit growth and each indicators. The detailed result is available on request from the authors.
the most aggressive/conservative forecasts tend to more diverge from the consensus forecasts. Thus, we control for the consensus forecast and analyst coverage levels. We compare the influence of firms’ past long-term performance among the forecasts as described below.

First, we perform a quintile analysis by dividing the firms into five portfolios on the basis of the difference between the most aggressive/conservative forecasts and the consensus forecasts adjusted according to the consensus forecast and analyst coverage levels; we then compare the average values of the past performance indicators among the quintiles.

The adjusted difference between the most aggressive/conservative forecasts and the consensus forecasts is calculated as follows. We denote the most aggressive (highest) long-term earnings growth forecast for firm i at time t as hLTG_{i,t}; the most conservative (lowest) long-term earnings growth forecast is denoted as lLTG_{i,t}; the consensus forecast, the median value of the analysts’ forecasts, is denoted as mLTG_{i,t}. First, we divide the firms into five groups based on the basis of analysts’ firm coverage, defined by the log of the number of analysts who issue a long-term earnings growth forecast for the firm; second, within each group, firms are again divided into five groups based on mLTG_{i,t} (the consensus forecast); finally, after forming a set of 25 (5 x 5) groups, we normalize hLTG_{i,t} mLTG_{i,t} / lLTG_{i,t} mLTG_{i,t} within each group as the adjusted hLTG_{i,t} mLTG_{i,t} / lLTG_{i,t} mLTG_{i,t}.

At the end of each quarter between 1988 and 2007 (80 quarters), all the firms are divided into five portfolios, from H5 (the highest) to L1 (the lowest), on the basis of the adjusted hLTG_{i,t} mLTG_{i,t}; the firms are also divided into five portfolios, from L5 to L1, on the basis of the adjusted lLTG_{i,t} mLTG_{i,t}. The average of each normalized past performance indicator (the long-term earnings growth, the long-term OIBD growth, and the long-term stock return) is calculated for each quintile. We compare the H5 value with that of H1 and the L5 value with that of L1. If each normalized past performance indicator is significantly higher for H5/L5 than for H1/L1, we can say that the most aggressive/conservative forecast is more heavily influenced by firms’ past performance than is the consensus forecast.

We also perform the following multivariate regression analysis: for each quarter, the difference in the most aggressive/conservative forecasts and the consensus forecast (hLTG_{i,t} mLTG_{i,t} / lLTG_{i,t} mLTG_{i,t}) is regressed on three variables: the past long-term performance indicators, the consensus forecast, and the level of analyst coverage; the inclusion of the consensus forecast and analyst coverage as explanatory variables is intended to control for the effect of these factors on hLTG_{i,t} mLTG_{i,t} and lLTG_{i,t} mLTG_{i,t}. If the coefficient of each performance indicator becomes significantly positive (negative), the forecast is likely to be more (less) influenced by firms’ past performance than is the consensus forecast.

### Table 1 Influence of firms’ past performance

<table>
<thead>
<tr>
<th></th>
<th>Earnings Growth</th>
<th>Stock return</th>
<th>Growth in OIBD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H5 (High)</strong></td>
<td>-0.009</td>
<td>-0.152</td>
<td>-0.034</td>
</tr>
<tr>
<td>H4</td>
<td>0.040</td>
<td>-0.041</td>
<td>0.017</td>
</tr>
<tr>
<td>H3</td>
<td>0.020</td>
<td>0.027</td>
<td>0.001</td>
</tr>
<tr>
<td>H2</td>
<td>0.023</td>
<td>0.077</td>
<td>0.009</td>
</tr>
<tr>
<td>H1 (Low)</td>
<td>0.008</td>
<td>0.085</td>
<td>0.008</td>
</tr>
<tr>
<td><strong>L5 (Low)</strong></td>
<td>-0.017</td>
<td>-0.236</td>
<td>-0.042</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>-0.014</td>
<td>-0.087</td>
<td>-0.022</td>
</tr>
<tr>
<td><strong>Coefficient</strong></td>
<td>(-1.20)</td>
<td>(-4.85***</td>
<td>(-1.89**</td>
</tr>
</tbody>
</table>

Note: In each table, we show the average of each past performance indicator. H5-H1/L5-L1 represents the difference between H5 and H1/L5 and L1 mean values. Moreover, Average Coefficient represents the average coefficient of each past performance indicator. The figures in parentheses are autocorrelation-consistent t-statistics. Finally, *** and ** indicate one-sided statistical significance at 1%, and 5%, respectively.

### 3.2 Results

Table 1-b shows a significant positive relationship between hLTG_{i,t} mLTG_{i,t} and lLTG_{i,t} mLTG_{i,t}. If the coefficient of each performance indicator becomes significantly positive (negative), the forecast is likely to be more (less) influenced by firms’ past performance than is the consensus forecast.

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4 Further detail on this argument is available on request from the authors.

5 All significance tests in our study are performed on the basis of autocorrelation consistent t-statistics, also used by Jegadeesh et al. (2004). Since a long-term earnings growth forecast is considered a growth forecast over three to five years (12 to 20 quarters), we set the parameter setting with regard to the number of non-zero serial covariances for calculating the t-statistics to 11.

6 All the variables are normalized.
nings growth between the consensus forecast and the most aggressive growth forecast. Thus, our results suggest that the the influence of past firm’s performance is the strongest on each firm’s most conservative forecast, supporting Hypothesis 1.

4. Predictive power for relative growth

This section tests Hypothesis 2 by examining the differences in predictive power for relative growth among the most aggressive, most conservative, and consensus forecasts.

4.1 Methodology

To compare the predictive power of each firm’s most aggressive (conservative) forecast with that of each firm’s consensus forecast, we first examine the relationship between the subsequent earnings growth and the adjusted difference between the most aggressive (conservative) forecast and the consensus forecast (the adjusted hLTG, the adjusted mLTG, the adjusted LLTG). At the end of each quarter, all firms are assigned to one of five groups, from H5 to H1, on the basis of the adjusted hLTG, mLTG, and from L5 to L1 on the basis of the adjusted LLTG. We compare the averages of the normalized subsequent three- and five-year earnings growths between H5 and H1 and between L5 and L1. If the H5/L5 value is higher than the H1/L1 value, we can say that the most aggressive (conservative) forecast has more predictive power to distinguish high-growth firms from low growth ones than does the consensus forecast.

Furthermore, we regress the subsequent three- and five-year earnings growths at the end of each quarter on the three variables: the difference between the most aggressive (conservative) forecasts and the consensus forecast (hLTG, mLTG, LLTG), the consensus forecast, and the level of analyst coverage. If the coefficient of hLTG, mLTG, LLTG is significantly positive, we can say that the most aggressive/conservative forecast has more predictive power than does the consensus forecast.

4.2 Results

The result, shown in Table 2, reveals that the subsequent three- and five-year earnings growths are significantly higher for H5 than for H1 and that the coefficient of hLTG is significantly positive. This result indicates that the predictive power for relative growth is higher for the most aggressive forecast than for the consensus forecast. Furthermore, both the normalized subsequent three- and five-year growth rates are significantly lower for L5 than for L1, and the coefficient of LLT is significantly negative. This result indicates that the predictive power is lower for the most conservative forecast than for the consensus forecast.

These results support Hypothesis 2—that the predictive power for relative growth is lowest for each firm’s most conservative forecast.

Note: In each table, we show normalized subsequent 5-year and 3-year profit growth rates. H5–H1/L5–L1 represents the difference between the mean subsequent profit growth rate for H5/L5 and H1/L1. Average Coefficient represents the average coefficient of hLTG, mLTG, LLT in the regression models. The figures in parentheses are autocorrelation-consistent t-statistics. *** indicates one-sided statistical significance at 1%.

5. Conclusions

Studies have argued that the poor informational value of LTG forecasts is driven mainly by excessively aggressive forecasts induced by analysts’ incentives and/or cognitive biases. However, since analysts might be reluctant to issue conservative forecasts owing to their incentives and/or cognitive biases, these incentives and cognitive biases could also reduce forecasts’ informational value by making analysts reluctant to issue conservative forecasts. Thus, this study has examined whether the poor informational value of LTG forecasts is driven mainly by analysts’ reluctance to issue conservative forecasts. To test this possibility, we introduced a novel empirical analysis method: we examined whether the influence of firms’ past long-term performance and the predictive power for relative growth firms differ across the long-term growth forecasts for single firms.

If the forecast optimism of LTG forecasts for stocks with high past performance were driven mainly by analysts’ reluctance to issue conservative forecasts, each
firm’s conservative forecast would be most heavily influenced by firms’ past performance. In addition, if forecasts’ low predictive power for relative growth were driven mainly by analysts’ reluctance to issue conservative forecasts, each firm’s conservative forecast would have the lowest predictive power for relative growth.

Consistent with our prediction, we found that the influence of firms’ past performance is the strongest on the most conservative forecast and that the most conservative forecast has less predictive power than do the consensus and most aggressive forecasts.

Our empirical findings strongly support that the poor informational value of LTG forecasts is driven by analysts’ reluctance to issue conservative forecasts rather than by the existence of excessively aggressive forecasts.

Our study sheds more light on analysts’ behavior regarding issuing conservative opinions. Furthermore, our findings offer the following significant contributions to the discussion regarding analyst forecast behavior.

In psychological terms, our finding raises the possibility that investors’ cognitive biases (e.g., confirmation biases) strongly affect analysts’ willingness to voice conservative opinions.

In addition, our finding raises the possibility regarding how analyst incentive structures affect analysts’ forecast behavior. Studies have argued that the desire to promote investment banking deals or maintain good relationships with management induces excessively upwardly biased forecasts. However, our findings raise the possibility that these analysts’ incentives induce analysts to refrain from issuing conservative forecasts rather than issuing excessively optimistic forecasts.

References