Can Analysts Analyze Mergers?

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Abstract

We examine how mergers and acquisitions (M&As) shape analyst coverage decisions and whether this process affects research quality and reveals information about future performance of merged firms. Since the target firm is delisted after the completion of the M&A transaction, we expect the analysts covering the target firm to drop coverage of the merged firm. While most of the target analysts *do* drop coverage, those target analysts who retain coverage provide the most accurate earnings forecasts. Moreover, the long-run stock performance of the merged firm increases with the fraction of target analysts retaining coverage. However, we do not find this relation with acquirer analysts. Our results suggest that target and acquirer analysts go through different decision processes, and target analysts prefer to cover merged firms that they can forecast accurately and firms that are undervalued.

Keywords: Mergers and acquisitions, analyst coverage, forecast accuracy, stock performance.

JEL Classifications: G24, G29, G34.

I. Introduction

An extensive literature examines the performance of mergers and acquisitions (M&As), and finds that investors suffer substantial losses after some large scale M&A transactions.[1] Since financial analysts have expertise and private information on the firms they cover, a natural question is what investors can learn from the analysts covering merging firms about the M&A transaction. In particular, large scale M&As not only reshape merging firms, but also lead to significant changes in analyst coverage of these firms. So far there has been little work linking analysts' decisions to add, drop and maintain coverage of merging firms to the prospects and future performance of M&As.

With a large sample of M&A transactions during 1985-2005, this paper examines coverage decisions of three groups of analysts: those covering the target firm (target analysts), those covering the acquiring firm (acquirer analysts), and those who do not cover either merging firm (new analysts) prior to the M&A deal. This paper is also the first to examine whether coverage decisions of different groups of analysts reveal information regarding how well they can forecast the earnings of the merged firm *and* the current valuation of the merged firm.

One of our key results is that M&As lead to different coverage decision processes for target analysts and acquirer analysts. The target is delisted following a successful M&A deal (we focus on publicly listed acquirer and target firms), while the acquiring firm continues its operations after absorbing the target's assets. Moreover, many acquiring firms are large conglomerates while most targets are small firms with fewer business segments. Therefore, the decision of target analysts to cover the merged firm is similar to initiating coverage for a new firm that is much larger and more complex, while acquirer analysts decide whether to *continue* covering the acquiring firm. Hence, we expect that target analysts are less likely to retain coverage for the merged firm than acquirer

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[1] For example, Loughran and Vijh (1997) and Rau and Vermaelen (1998) find stock mergers underperform cash mergers, and Shelifer and Vishny (2003) attribute this to stock market driven merger decisions. Moeller, Schlingemann, and Stulz (2005) documents substantial losses of acquiring firms' shareholders during the late 1990s.

analysts. Consistent with this prediction, we find that the probability of a target analyst retaining coverage for the merged firm is 18% lower than that of an acquirer analyst. In diversifying mergers, target analysts are 26% more likely to drop coverage than acquirer analysts.

An interesting question is why some target analysts choose to cover the merged firm following the delisting of the target. One reason is that these staying target analysts have superior knowledge of both merging firms and the M&A transaction. This may not be true for acquirer analysts, since they simply decide whether to extend coverage for essentially the same firm. Therefore, the remaining target analysts can be more accurate in forecasting earnings for the merged firm than the remaining acquirer analysts. We find that the target analysts who choose to retain coverage are the most accurate in forecasting earnings among all the analysts covering the merged firms (including newly added analysts). The forecast error of a remaining target analyst is 6% lower than that of a remaining acquirer analyst. The difference in forecast errors between these two groups of analysts is 16% after a diversifying merger, where the information loss from the delisting of the target is more severe as compared to a related merger. Hence, the knowledge of the target, possessed by the remaining target analysts but not necessarily by (remaining) acquirer analysts, can lead to more accurate forecasts. We also find a positive and significant relationship between the accuracy of the *consensus* forecast of the merged firm and the fraction of target analysts retaining coverage. However, we do not find this relation for acquirer analysts.

Prior literature shows that analysts are reluctant to publicly criticize firms that they cover, but overly optimistic opinions about the firms may tarnish analysts' reputation.[2] These conflicting incentives suggest that analysts are more likely to cover firms for which their (private) assessment is more favorable. In our M&A context, this implies that another reason a target analyst chooses to

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[2] There is an extensive strand of literature on how analysts' reputation, institutional investors' evaluation of analysts' research, and investment banking relationships affect the accuracy of analysts' earnings forecasts and recommendations (see, e.g., Stickel, 1992; Lin and McNichols, 1998; Michaely and Womack, 1999; Dechow, Hutton, and Sloan, 2000; Hong and Kubik, 2003; and Michaely and Womack, 2005, for a review).

cover the merged firms is because she holds a favorable assessment of the merger. If this is the case, we should expect a positive relationship between the fraction of target analysts retaining coverage and future performance of the merged firm. Once again, this relation may not hold for acquirer analysts because they are not forced to make a coverage decision for a new firm like target analysts do. Consistent with these predictions, we find that the fraction of target analysts who choose to retain coverage is positively associated with the long-term abnormal stock performance of the merged firm. This result is robust to different performance measures and persists after controlling for firm and M&A deal characteristics. We do not find such a relation for the fraction or the number of staying acquirer analysts. We also find some evidence that merged firms that attract a greater number of new analysts have better future stock performance.

Regarding the determinants of analysts' coverage decisions, we find that an analyst, covering either the acquiring or target firm before the M&A deal, is more likely to retain coverage in deals with more favorable market reaction and when the acquirer is larger and has higher past return on assets. These results suggest that analysts are attracted to transactions that may lead to more future business for investment banks. We also find that an analyst's reputation increases the likelihood of providing coverage for the merged firm, but she is more likely to drop coverage when the acquiring firm is a conglomerate.[3] These findings suggest that increased information uncertainty which results from the M&A transaction discourages analysts, especially those with inferior forecasting ability, to retain coverage. Finally, we find that target analysts are more likely to provide coverage when a greater fraction of the deal is paid by the acquirer's stock, and the superiority of forecasting accuracy of the remaining target analysts over acquirer analysts is also more pronounced in these deals. These results again demonstrate that target analysts' coverage decision can affect the information

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[3] For the literature on the determinants of analyst coverage, see, for example, Bhushan (1989), Bhushan and O'Brien (1990), Brennan and Hughes (1991), and Barth, Kasznik, and McNichols (2001). In particular, prior literature shows that the quality of analyst coverage is a major determinant in firms' choice of underwriters (e.g., Mikhail, Walther, and Willis, 1999; Krigman, Shaw, and Womack, 2001; Clarke et al., 2007).

environment in M&A deals with more complexity and uncertainty.

Our paper contributes to the literature on M&As and the literature on the role of analysts in facilitating information transmission. Most of the literature studying the long-term stock performance of post-merger firms focuses on firm and deal characteristics without examining how analysts' coverage decisions can reveal prospects of the M&A transaction and future performance. We extend this literature by documenting that, as a group, the target analysts who choose to provide coverage for the merged firm can predict better long-term stock performance.[4] McNichols and O'Brien (1997) track a small group of individual analysts' decisions of adding and dropping coverage and link these decisions to the degree of optimism in their research reports. By contrast, we focus on how M&As affect different groups of analysts' decisions to initiate, retain or drop coverage of the merged firms, and examine how the coverage decisions affect research quality and long-term performance of the merged firms.[5] Das, Guo and Zhang (2006) examine analyst coverage decisions and the performance of IPO firms. They find that greater (unexpected) analyst coverage is associated with better firm performance. Fundamental differences between the two types of corporate events help to differentiate our work from theirs. IPOs introduce private firms to the capital markets for the *first* time, and thus all the analysts are 'symmetric' in that they decide whether to initiate coverage for firms with no prior coverage. Large scale M&As, however, lead to significant changes to merging firms that already have analyst coverage. Hence, we can compare analysts covering the target vs. those covering the acquirer, and find that these two groups of analysts go through different coverage decision processes, leading to different implications for the

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[4] These results also extend the literature on the investment value of analysts' research, which generally focuses on the overall and specific aspects of analysts' earnings forecasts and recommendations (e.g., Stickel, 1995; Womack, 1996; Barber et al., 2001; Chen and Jiang, 2006).

[5] Prior research also finds that the effectiveness of analysts as information intermediaries is weakened in environments with heightened information uncertainty, such as those generated by large scale M&As (e.g., Abarbanell and Bernard, 1992; Zhang, 2008). However, this line of research focuses on how changes in firms affect the information transmission process without examining the impact of changes in analysts on research quality of the firms.

information environment at merged firms.

Section II describes the M&A sample and analyst data, and Section III presents results on the determinants of analyst coverage decisions, the effects of analyst turnovers on the research quality of the merged firms, and whether the turnovers reveal information on the future performance of merged firms. Section IV concludes. The Appendices contain explanations of all the variables.

II. Data

M&A sample

The initial sample is extracted from the Securities Data Company's (SDC) M&A database based on the following criteria: (1) an M&A deal is announced between January 1, 1985 and December 31, 2005; (2) both the acquiring and target firms are publicly listed and traded in the U.S.; (3) the mode of the deals is "merger" or "acquisition"; and, (4) the status of the deal is "completed." These criteria yield a sample of 6,662 deals. For each completed deal, we manually cross-check the accuracy of the information from SDC using both the CRSP and Dow Jones News Retrieval Services to exclude those deals in which the target firm is delisted for reasons other than the M&A. We also require that both target and acquiring firms are included in the CRSP database and S&P's COMPUSTAT Research Tape, from which financial statement and stock price data are extracted. These additional filters reduce the sample size to 4,009 deals.

We further require each acquiring firm in the sample to have a one-year pre-event window and a one-year post-event window during which there is no other M&A transaction. This requirement ensures that any change in analyst coverage and/or their research quality is not confounded by multiple events of the same acquirer thus reducing our sample to 2,260 deals. Finally, we require that the size of the target firm to be at least 5% of the size of the acquiring firm

and that the deal value is at least $10 million.[6] We impose these criteria so that the M&A

transactions in our sample represent substantial investment for the acquiring firms, and they render

our final sample of 1,787 deals from 1985 to 2005.

Table 1 provides descriptive statistics for our M&A sample, which is also divided into four

sub-sample periods. Not surprisingly, most of the deals are announced during the booming stock

market of the late 1990s; the average deal value increased from $567 million in the late 1980s to

$1,993 million after 2000. One quarter of the 1,787 transactions are diversifying mergers, defined

by the target and acquiring firms having different 2-digit SIC codes. Sixty-two percent (thirty-eight

percent) of the transactions are stock (cash) acquisitions, defined as more than half of the deal value

financed by the acquirer's stock (cash); 81% of the transactions are mergers and the remaining 19%

are tender offers. There is a significant drop in the number of tender offers in the 1990s and a

significant increase in stock-financed mergers (as compared to the 1980s), consistent with previous

studies (e.g., Holmstrom and Kaplan, 2001). Table 1 also shows that on average the acquirer is

more than twice as large as the target in terms of enterprise value (the median acquirer to target ratio

is about four to one). The acquirer's market-to-book ratio tends to be higher than that of the target,

suggesting that (relatively) more highly valued firms tend to acquire less highly valued ones (e.g.,

Shleifer and Vishny, 2003).

Data on analysts and turnovers around M&As

We construct a panel data set of over 49,000 one-year-ahead earnings forecasts for the

sample firms around M&A transactions made by 19,000 deal-specific analysts (i.e., some analysts

may cover multiple deals). We merge data on individual analysts and their affiliated investment

banks with the characteristics of merging firms, industries and M&A deals. Information on analysts'

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[6] Firm size is measured by the "enterprise value," or the sum of market value of equity, book value of debt, and preferred
stocks at the fiscal year end prior to the M&A announcement.

one-year-ahead earnings forecasts is obtained from the I/B/E/S Detailed History file. Comprehensive data coverage by I/B/E/S began in 1985, the first year of our M&A sample.

Figure 1 plots analyst turnovers for the merging firms around M&As. To avoid obtaining noisy earnings forecasts immediately before an M&A transaction, we define "pre-merger analysts" as those who provide one-year-ahead earnings forecasts for the fiscal year *prior to* the deal *announcement* year (Year −1). Similarly, in order to avoid contaminated earnings forecasts after deal completion, we define "post-merger analysts" as those who provide one-year-ahead earnings forecasts for the fiscal year *following* the deal *completion* year (Year +1). Accordingly, an analyst who has covered either merging firm retains coverage of the merged firm if she is both a "pre-merger analyst" and a "post-merger analyst." Using these definitions, Figure 1 shows an increase in analyst coverage changes around M&A deals; i.e., from Year −1 to +1, especially for target firms. During the two years before the deal announcement date (Year −3 to −2 and from Year −2 to −1), about 30% of the analysts drop coverage for the acquiring firm per year. An average of fourteen analysts covers the acquiring firm in Year −1 and 55% of these analysts drop coverage for the merged firm in Year +1. For the target firms, during the two years prior to deal announcement, around 32% of target analysts drop coverage each year. An average of eight analysts covers the target firm in Year −1 and 78% of these analysts drop coverage after the M&A transaction. Among the analysts covering the merged firm (fifteen analysts), about half of them did not cover either merging firm prior to the M&A transaction. This is significantly higher than the 'normal' (initiation) rate of around 30% per year (not shown in the graph).

These seemingly high turnover rates around M&As are in part driven by the event window as defined above (from Year −1 to +1). Using our definitions, an analyst would have to cover a merging firm for three or more years in order to be classified as retaining coverage for the merged firm—the completion of many M&A transactions (from deal announcement date) takes more than

one year. We also construct an alternative set of measures using a shorter, calendar-year based event

window to correct for the possibly overstated analyst turnover measures. Not surprisingly, the

turnover rates based on these new measures are lower, with 40.3% of acquiring firm analysts and

71.6% of target analysts dropping coverage in Year +1, and 37.1% of analysts initiating coverage of

the merged firms. The details from the construction of these two sets of measures are presented in

Appendix A. We also rerun all the empirical tests based on the alternative turnover measures and all

of our main results remain unchanged. See Section III.4 below for more details.[7]

III. Empirical Tests and Results

In this section we first examine determinants of analyst coverage decisions. Next, we

compare the coverage decisions between target and acquirer analysts and examine the effects on

research quality of merged firms. In our final set of tests, we examine the relationship between the

fraction of analysts retaining coverage and the long-run stock performance of merged firms. We

briefly discuss a number of robustness checks at the end of the section. Appendix B lists all the

variables used in the paper.

III.1 Determinants of analyst coverage around M&As

We use the following Probit model to examine individual analyst's coverage decisions:

$$\text{Prob(an analyst retaining coverage} =1) = \alpha + \beta\{ \text{ Acquiring firm variables } \} + \gamma\{ \text{ Deal variables}\}$$

$$+ \phi\{\text{Analyst variables}\} + \eta\{\text{Other controls}\} + \varepsilon. \qquad (1)$$

The dependent variable equals one if an acquirer analyst (Panel A of Table 2), a target analyst (Panel

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[7] We also find (not reported) that there are significant cross-sectional variations in analyst turnovers across deals and the twelve industries, as classified by Fama and French (1997). The utility industry experiences the highest percentage of analysts dropping coverage after M&As (66.3% for acquirer analysts and 83.8% for target analysts), followed by the business equipment and telecommunications industries (62.2% for acquirer analysts and 75.4% for target analysts). The non-durable goods industry has the best record in retaining analyst coverage (47.6% for acquirer analysts and 68.0% for target analysts). In our empirical tests below we include industry dummies as controls.

B), or either an acquirer or target analyst (Panel C) continues to cover the post-merger firm, and zero otherwise. We report marginal probabilities in all the panels. We include three sets of explanatory variables: measures of analyst research quality and reputation, characteristics of the acquiring firm and of the M&A transaction. All the analyst and firm variables are measured as of the fiscal year end immediately before the year in which the M&A deal is announced. We also include year and industry dummy variables in all the models. Standard errors are clustered by analyst to allow for possible dependence in coverage decisions (of multiple firms) made by the same analyst.

During our interviews with analysts, they informed us that corporate clients often cite the quality of analyst coverage as a major determinant in their choice of underwriters. This is also supported by recent research (e.g., Krigman, Shaw, and Womack, 2001; Clarke et al., 2007). Hence, we expect that higher quality and more reputable analysts are more likely to retain coverage after the M&A transaction is completed. We measure an analyst's reputation by whether she has been selected as an "All Star" analyst by the *Institutional Investors* magazine prior to the M&A deal and whether she works for a top tier investment bank.[8] The research quality of an analyst is measured from several dimensions: 1) the number of years an analyst has issued earnings forecasts in I/B/E/S prior to deal announcement (Experience); 2) whether she has covered firms from the other merging firm's industry (Cross_Cover); and 3) the accuracy of her earnings forecasts for a merging firm prior to the current M&A deal (FE).[9]

Panels A and B of Table 2 shows that an analyst, covering either the acquiring or the target firm, is more likely to retain coverage of the merged firm if she has been elected an "All Star" prior

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[8] Following prior work, the reputation of an investment bank is measured by the binary variable "IB Reputation," which equals one if the investment bank is a top-tier bank. We identify top-tier investment banks as the ten underwriters with the highest Carter-Manaster ranking (Carter and Manaster, 1990).

[9] Following prior research, we define forecast error as the absolute value of the difference between an analyst's *first* earnings forecast and the actual earning (scaled by the firm's stock price during the forecasting month). We focus on the unsigned forecast errors because prior literature finds that when analysts face conflicts of interest, they can either be optimistic or pessimistic in their forecasts. Thus, while the sign of the earnings forecast error can be positive or negative, more accurate forecasts (and higher research quality) correspond to smaller magnitudes in the forecast error.

to the M&A deal or covered the *other* merging firm's *industry* ("Cross Cover" dummy equals 1).

Analysts' years of work experience and their affiliation with a top-tier investment bank increase the

likelihood of an *acquirer* analyst maintaining her coverage of the merged firm. However, these

attributes do not seem to matter in target analysts' decision. If a *target* analyst is more accurate in

her earnings forecasts, proxied by her earnings forecast error (scaled by stock prices) prior to the

M&A deal, she is more likely to retain coverage of the merged firm,[10] but forecast accuracy does not

appear to affect an acquirer analyst's retention decision.

Prior research suggests that analysts' compensation is tied to their success in generating

investment banking business and trading commission for their employers (e.g., Stickel, 1992;

Michaely and Womack, 1999). Hence, we expect that analysts are more likely to cover merged

firms that can generate more trading and banking business in the future. Consistent with the benefits

of providing coverage, Panels A and B indicate that an analyst (covering either merging firm) is

more likely to retain coverage if the acquiring firm is larger (A_mktcap) and has higher return on

assets (A_ROA). In addition, the likelihood of retaining coverage for either an acquirer or target

analyst also increases for acquiring firms with higher abnormal returns (A_CAR).[11] These measures

indicate the market's enthusiasm toward the deal, which can also lead to more investment banking

and trading business. Higher returns on assets and abnormal returns for the acquiring returns can

also proxy for higher-quality M&A deals, and these deals are attractive for both groups of analysts.

A large M&A transaction will likely give rise to or exacerbate information uncertainty of the

merged firm, making it more costly for analysts to gather and process information as compared to

the stand alone firms prior to the M&A deal. Therefore, we expect that the cost of providing

coverage for the merged firm increases with the scale and complexity of the integration process

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[10] This is consistent with the findings in Mikhail et al. (1999) and Hong and Kubik (2003), among others, that an analyst is more likely to experience turnover if her forecast accuracy is lower than her peers.

[11] The variable 'A_CAR' is calculated using different event windows (in days): (-1, +1), (-3, +3), (-5, +5), and between deal announcement and completion dates.

between the two merging firms. Consistent with the cost of providing coverage, Panels A and B

indicate that both acquirer and target analysts' retention decisions are inversely related to the

acquirer's conglomerate status ('A_Conglomerate' dummy). An acquiring firm being a

conglomerate, i.e., one with multiple business segments before the pending M&A deal is associated

with a greater degree of information asymmetry, and thus higher costs for analysts to provide

coverage.

One of the unique aspects of using M&As as our empirical setting is that it allows us to

separately examine the coverage decisions of analysts following the target firm vs. those covering

the acquiring firm. The completion of an M&A transaction indicates the end of the target firm as a

publicly listed standalone company, while the acquirer moves on after taking over the target's assets

and operations. In our sample, many acquiring firms are large conglomerates while most targets are

much smaller firms with fewer business segments. These facts imply two different decision

processes: 1) target analysts decide whether to initiate coverage for a firm that is larger and more

complex; and 2) acquirer analysts decide whether to continue covering the same firm. Since

analysts suffer a reputation loss from poor research quality when covering firms that they are not

familiar with, we expect that target analysts, most of whom are industry specialists (of the target

firms), are more likely to drop coverage after the M&As than acquirer analysts, especially after

diversifying mergers.[12]

The results in Panels A and B of Table 2 support these conjectures. First, the average size of

the firms covered by a target analyst prior to the current M&A deal (Avg_mktcap) is positively

related to the likelihood of covering the merged firm (Panel B: the coefficients in all the models are

significant at 1%). We do not observe such a relation for acquirer analysts. Second, the experience

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[12] With a sample of 103 focus-increasing spinoffs, Gilson et al. (2001) find that firms experience a significant increase in coverage by analysts that specialize in subsidiary firms' industries after the spinoff. These specialists contribute to an increase in analyst forecast accuracy.

of cross-industry coverage seems to play a much more significant role in a target analyst's retention decision than for an acquirer analyst. A target analyst who has covered the acquirer industry is 13.3% to 17.8% more likely to cover the merged firm than those without such experience (Panel B: the coefficients in all the models are significant at 1%). By contrast, the cross-industry coverage experience raises an acquirer analyst's likelihood of retaining coverage by only 6.8% to 9.6% (Panel A). Third, target analysts are 4.5% to 5.3% more likely to drop coverage after a diversifying merger relative to a related merger (Panel B: Columns 3 and 4; significant at 1%). However, the retention decision of acquirer analysts does not seem to be affected by whether the deal is diversifying or not (Panel A: Columns 3 and 4).

Target and acquirer analysts are also attracted by different M&A deal characteristics. Target analysts are more likely to cover a merged firm if the target is larger (in size) relative to the acquirer, and when the deal structure is more complex—a greater fraction of the deal is paid by the acquirer stock ('Paystock' is a continuous variable). In these deals, the knowledge of the target firm, possessed by the remaining target analysts, can be particularly valuable. Finally, as discussed above, target analysts' coverage decision is positively affected by her forecast accuracy (prior to the M&A deal), but the same does not hold for acquirer analysts.

In Panel C, we pool the analysts covering both merging firms in one Probit regression and include a dummy variable for target analysts. Consistent with the findings in Panel A and B, we find that a target analyst is 18% more likely to drop coverage than an acquirer analyst (Model 1; significant at 1%). We also interact the target analyst dummy with the 'diversifying' dummy and the 'Cross_Cover' dummy. We find statistically and economically significant coefficients on both interaction terms. First, target analysts are 25.5% less likely to retain coverage than acquirer analysts in diversifying mergers (−15.2% −10.3%, Column 2). Second, a target analyst with cross-industry experience is 31% (4.5% + 26.5%, Column 3) more likely to cover the merged firm than

the *target analysts* without such experience, versus an increase in likelihood by only 4.5% for an acquirer analyst with such experience over other acquirer analysts.

Overall, the results from Table 2 indicate an asymmetry in the decision processes of the two groups of analysts. Since target analysts must decide whether to initiate coverage for a new firm— the post-merger acquiring firm, they are much more likely to drop coverage as compared to acquirer analysts. However, as our results on cross coverage indicate, those remaining target analysts are more likely to have superior knowledge of both merging firms' industries than those staying acquirer analysts. The difference in the decision processes between target analysts and acquirer analysts makes it interesting to compare the research quality of target analysts who choose to retain coverage versus that of the remaining acquirer analysts. We examine this next.

III.2. Earnings forecasts for merged firms

A successful M&A transaction involves the combination of two separate entities and the delisting of the target firm (publicly listed and traded). Both the integration process and information loss from target delisting will likely exacerbate information uncertainty of the merged firm. As a result, it may take an extended period of time for (all the) analysts to fully understand and evaluate the effects of these changes on the merged firm. As discussed earlier, the impact of a large scale M&A transaction on the target is much greater than that on the acquirer because the target firm will be delisted while the acquiring firm continues its operations. Moreover, many acquiring (target) firms are large conglomerates (small, single-segment firms), while most analysts (covering either merging firm) are industry specialists and do not cover firms outside the industry of their focus. These facts imply that acquirer analysts may be more knowledgeable about the operations of the merged firm. However, target analysts and acquirer analysts go through different decision processes in providing coverage for the merged firms. In particular, as documented above, while most target

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analysts drop coverage, those who decide to cover the merged firm tend to be more accurate in their earnings forecasts (of the target firm prior to the M&A deal) *and* have good knowledge of both merging firms' industries. Acquirer analysts on the other hand simply decide whether to extend coverage for the acquiring firm beyond the M&A transaction. In fact, the majority of acquirer analysts do continue their coverage, even though some of them may not have a good understanding of the target firm or the merger. Therefore, the asymmetric decision processes imply that the average quality among the remaining target analysts can be higher than that of the remaining acquirer analysts.

It remains an interesting empirical question to compare the research quality of those target analysts who choose to retain coverage of the merged firm vs. that of those acquirer analysts who have made the same decision. We conduct our analysis on research quality at both the analyst level and the firm/deal level.

Table 3 presents univariate results on the attributes of research quality for different groups of analysts. Panel A compares the attributes of research quality *prior to* the M&A transaction between the acquirer analysts who choose to retain coverage ("A_Stay") and those who drop coverage of the merged firm ("A_Left"). Similar comparisons are also made between the target analysts retaining coverage ("T_Stay") and those dropping coverage ("T_Left"). Across all quality measures, it appears that the analysts who retain coverage have higher average quality than those who drop coverage, regardless of whether they have covered the acquiring or the target firm prior to the M&A transaction. More importantly, among the analysts who retain coverage for the merged firm, the remaining target analysts ("T_Stay") appear to have higher quality along many dimensions than the remaining acquirer analysts ("A_Stay"). For example, the remaining target analysts have worked more years in the profession (Experience), covered a larger number of firms, and are more likely to have the "All Star" status. In addition, consistent with the results from Table 2, the remaining target

analysts are more likely to have cross-industry coverage experience: 73% of the remaining target analysts have covered the acquiring firm's industry prior to the M&A deal, while only 22% of the target analysts who drop coverage have done so; a striking difference of 51%. A much smaller difference is observed between the two groups of acquiring firm analysts: 19% of "A_Left" have covered the target firm's industry vs. 27% for "A_Stay" analysts.

In Panel B of Table 3, we compare forecast errors for the merged firms among three groups of analysts covering the merged firm: "A_Stay", "T_Stay", and seasoned, newly added analysts. These seasoned, newly added analysts are defined as the group of analysts who have not covered either merging firm prior to the M&A deal but have issued earnings forecasts for other firms (Seasoned_New). We also examine how the forecast errors vary across different deal characteristics that proxy for degree of information uncertainty of the merged firm. These include the size of the M&A transaction (Relative Size), whether the acquirer is a conglomerate and whether the deal is diversifying or not. Once again (and following prior work), we define forecast error as the absolute value of the difference between the actual earnings and the first earnings forecast made by an analyst for the fiscal year after the deal completion date, scaled by the stock price of the merged firm at the end of the forecasting month.

Not surprisingly, for all three groups of analysts, forecast errors are higher for deals with higher information uncertainty. For the whole sample, we find that the remaining target firm analysts are the most accurate in forecasting earnings (with the smallest forecast error) for the merged firm. The superior forecasting ability of these analysts is more evident in larger deals, after diversifying mergers, and when the acquiring firm is a conglomerate. By contrast, the remaining acquiring firm analysts are only marginally more accurate than the (seasoned) newly added analysts in the whole sample, as well as in the subsamples.

These results provide preliminary evidence that the average forecasting ability of remaining target analysts is higher than that of remaining acquirer analysts due to the asymmetric selection processes. To further differentiate the research quality between these two groups of analysts, we next perform multivariate regression analyses at both the analyst and firm/deal levels.

Results from OLS regressions (analyst level)

We compare the research quality of all the analysts covering the merged firm by employing the following OLS model:

$$FE\_Post = \alpha + \beta(T\_analyst) + \phi\{Analyst\ characteristics\} + \eta\{Information\ Uncertainty\}$$

$$+ \gamma\{Information\ Uncertainty*T\_analyst\} + \varepsilon, \tag{2}$$

where β is the coefficient on the target analyst dummy, and ϕ, η, and γ are vectors of coefficients. The dependent variable is the individual analysts' forecast errors for the merged firm (FE_Post). This is defined as the absolute value of the difference between the actual earnings and the *first annual* earnings forecast after the deal completion date scaled by the stock price of the merged firm at the end of forecasting month. To compare forecast accuracy across different groups of analysts, we include dummy variables to indicate whether an analyst has covered the target firm (T_Analyst) or neither merging firm prior to the M&A deal (New_Analyst). We then assign those who have covered the acquiring firm as the default group. We include the same set of variables measuring the degree of information uncertainty of the merger (and the merged firm) as those in Table 3, Panel B. We also include variables measuring analyst quality and reputation, as those in Table 2. Standard errors are clustered at the analyst level to allow for possible dependence among forecasts (of different firms) made by the same analyst.

The results are presented in Table 4. Consistent with our hypothesis on the negative impact of heightened information uncertainty and deal complexity on research quality, we find analyst

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forecast error increases with the size of the transaction ("relative size"), after a diversifying merger, or when the acquirer is a conglomerate and the acquirer stock is the main method of payment. More importantly, after controlling for individual analysts' research quality and reputation (prior to the M&A deal), we find a negative and significant relation between the 'T_analyst' dummy and forecast errors in all the models (including Column 6, where we include all the controls and interaction terms). For example, the coefficient in Column 1 suggests that the forecast error of a remaining target analyst is about 6% lower than that of a remaining acquirer analyst (significant at 1%). In diversifying mergers, the forecast error of a remaining target analyst is 15% to 16% lower than that of a staying acquirer analyst (Columns 2 and 6, the coefficient on the interaction between "T_analyst" and "Diversifying" dummies is significant at 1%). Moreover, in deals with more complexity—a greater fraction of the deal is paid by the acquirer stock, the superiority of the remaining target analysts over staying acquirer analysts is also more pronounced (Columns 5 and 6). These results confirm our univariate findings (Table 3, Panel B) that the average forecasting ability of the remaining target analysts is higher than that of the remaining acquirer analysts. Finally, the coefficient on the 'New_Analyst' dummy is not statistically significant in any of the models. This suggests that the forecasting accuracy of a remaining acquirer analyst is not higher than that of an analyst who has not covered either merging firm prior to the M&A transaction.

The comparison in research quality between the remaining target and acquirer analysts supports our hypothesis that the asymmetric selection processes for acquirer and target analysts play an important role in determining the research quality among the analysts covering the merged firm. In particular, while target analysts are less likely to cover the merged firm (*ex ante*), those who choose to provide coverage have higher forecast ability (*ex post*) than the remaining acquirer analysts. In diversifying mergers, the information loss from the delisting of the target is more severe relative to a related merger. Since a staying target analyst is more likely to have knowledge in both

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the acquirer and target industries than a staying acquirer analyst, especially in diversifying mergers as we have shown in Tables 2 and 3, such knowledge also contributes to the greater forecast accuracy of the target analysts in diversifying mergers.

Results on the Accuracy of the **Consensus** *Forecast (firm level)*

In Table 4, we examine forecast accuracy of *individual* analysts and find that remaining target analysts have higher forecast quality than the remaining acquirer analysts. We now examine whether the remaining target analysts, *as a group,* can improve the overall research quality of the merged firm because of their superior forecasting ability (individually). We employ the following OLS model at the (merged) firm level:

$$\text{Consensus\_FE} = \alpha + \boldsymbol{\phi}\{\text{Analyst composition variables}\} + \boldsymbol{\gamma}\{\text{Change in analyst quality variables}\}$$

$$+ \boldsymbol{\eta}\{\text{Info/uncertainty variables}\} + \boldsymbol{\varphi}\{\text{Info/uncertainty} * \text{T\_post\%}\} + \varepsilon \qquad (4)$$

The dependent variable is the forecast error of the *consensus* earnings forecast (average of all individual forecasts) for the merged firm. This is defined to be the absolute value of the difference between the actual earnings and the first consensus (annual) earnings forecast after the deal completion date, scaled by the stock price of the merged firm at the end of forecasting month; $\boldsymbol{\phi}$, $\boldsymbol{\eta}$, $\boldsymbol{\gamma}$, and $\boldsymbol{\varphi}$ are vectors of coefficients.

The results are presented in Table 5. First, we denote the fraction of acquirer analysts retaining coverage (over the number of acquirer analysts before the M&A deal) as 'A_Stay%' and find that it has no impact on the accuracy of consensus forecast of the merged firm (Columns 1 and 5). Second, we interpret the new analysts' role as partially replacing analysts (covering acquirer and/or target) who drop coverage following the M&A transaction. Hence, we use the number of new analysts scaled by the number of analysts covering the *acquirer* prior to the merger as the independent variable (New%). We do not find that a greater fraction of new analysts replacing

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acquirer analysts is associated with higher accuracy of the consensus forecast (Columns 2 and 5).

Finally, we use 'T_Stay%' to denote the fraction of target analysts retaining coverage (over the number of target analysts before the M&A deal). Consistent with the analyst level results above, a greater fraction of target analysts retaining coverage is associated with higher accuracy of the consensus forecast of the merged firm.[13] This relationship is robust to controlling for the fractions of acquirer analysts and new analysts retaining or adding coverage (Column 5). In particular, a 1% increase in the fraction of target analysts leads to a 9% decrease in the forecast error (Column 3, significant at 1%). Once again, the positive impact of the target analysts appears to be more pronounced in diversifying mergers, but we do not find the coefficient on the interaction term to be statistically significant (Column 4).[14]

Overall, our results in this section show that the asymmetric selection processes of acquirer and target analysts have significant impact on the research quality of the merged firms. While target analysts are more likely to drop coverage of the merged firms, those who choose to stay have superior forecasting ability, especially in diversifying mergers. As a group, these remaining target analysts can also improve the overall research quality of the merged firms.

III.3 Long-term performance of merged firms

Existing literature has shown that analysts are reluctant to publicly criticize firms that they cover; but, overly optimistic (and thus inaccurate) opinions about the firms may tarnish their reputation. These different incentives suggest that analysts are more likely to cover firms in which

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[13] In our calculations of 'A_Stay%' and 'T_Stay%', we require that at least three analysts covered the acquirer and the target before the M&A deal. We also *exclude* those analysts who have covered both the acquiring and target firms before the M&A deal. Our results are robust to the inclusion of these analysts when calculating 'A_Stay%' and 'T_Stay%.' In fact, the positive relations between 'T_Stay%' and consensus forecast accuracy (Table 5) and long-run stock performance of the merged firm (Table 6 below) become *stronger* using the alternative definitions.

[14] We also include interactions between 'T_Stay%' and 'Paystock' and the dummy on whether the acquirer is a conglomerate. These interaction terms are not statistically significant, and are not reported in Table 5 to save space.

their (private) assessment of the firms is more favorable. In our M&A context, this implies that an additional reason a target analyst chooses to cover the merged firms is because she holds a favorable assessment of the merger. Therefore, we should expect a positive relationship between the fraction of target analysts retaining coverage and future performance of the merged firm. However, this relation may not hold for acquirer analysts, as they are not forced to make a coverage decision for a new firm like the target analysts. Given the complicated process of completing an M&A deal and implementing synergies in the merged firm, as well as the large amount of new information revealed during the process, the market may not immediately understand why certain groups analysts choose to retain, drop, or add coverage of the merged firms. Thus, similar to many other studies following a major corporate event, we hypothesize that a higher fraction of target analysts retaining coverage is associated with better long-term stock performance of the merged firms, but the same relation may not hold for acquirer analysts.[15]

To measure long-term stock performance, we employ two sets of return measures, Cumulative Abnormal Return (CAR) and Buy-and-Hold Abnormal Return (BHR), commonly used in the long-run event study literature.[16] Specifically, the variable 'CAR_3yr' is the cumulative abnormal returns (over benchmark returns) during the three years after the merger completion date; whereas the variable 'BHR_3yrs' measures the three-year abnormal, buy-and-hold returns. We also run tests using one- and two-year abnormal returns (CAR and BHR) and obtain qualitatively similar results; for brevity, we do not report these results using shorter return windows.[17]

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[15] See, e.g., Loughran and Ritter (1997) for SEOs, Loughran and Vijh (1997) and Rau and Vermaelen (1998) for M&As.

[16] For example, Barber and Lyon (1997) document that the control firm approach eliminates the skewness bias associated with the long-run buy-and-hold abnormal returns, and that the size and market-to-book matched control firm approach yields well-specified statistics. Rau and Vermaelen (1998) and Barber et al. (1999) show that the pre-event performance of the acquiring firms plays an important role in explaining the post-acquisition long-run abnormal performance. Finally, Fama (1998) suggests that abnormal returns can be estimated by using returns on matching portfolios or by an asset pricing model.

[17] For the calculations of both CAR and BHR returns, the benchmark portfolios for abnormal returns are constructed based on size, book-to-market and momentum. The details are provided in Daniel, Grinblatt, Titman, and Wermers (1997) and Wermers (2004). We thank Russ Wermers for providing the data on benchmark portfolios.

In a multivariate context (Table 6, Panels A through C), we examine whether the decision processes of acquirer and target analysts (new analysts) to retain (add) coverage of the merged firm have an impact on the long-term post-acquisition stock performance of merged firms. We control for factors that have been shown to influence the long-term abnormal stock performance. For example, consistent with previous studies (e.g., Loughran and Vijh, 1997; Rau and Vermaelen, 1998), we find that acquirer size is positively related to the long-term abnormal returns, while diversifying transactions are negatively related to long-term performance of mergers.

After controlling for firm and deal characteristics, we find (Panel A) that the fraction of acquirer analysts retaining coverage of the merged firm (A_Stay%) has no impact on the long-run stock performance. There is some evidence that more new analysts initiating coverage indicates better long-run performance (Panel B). Once again, we use the number of new analysts scaled by the number of analysts covering the acquirer prior to the merger as the independent variable (New%).[18] In Panel C, Table 6, we find a positive and significant relationship between the fraction of target analysts who choose to cover the merged firm (T_Stay%) and long-run stock performance. The coefficient in Column 1 suggests that a one percent increase in T_Stay leads to an increase of 0.27% in the three-year CAR of the merged firm. Given that an average of eight analysts cover the target prior to deal announcement, each additional target analyst covering the merged firm (an increase of 12.5% in T_Stay) is associated with an increase of 3.34% in abnormal returns. This result is robust to both measures of long-run abnormal stock returns and the inclusion of the fraction of acquirer analysts retaining coverage or the number of new analysts as a fraction of acquirer analysts prior to the merger. We also interact the "T_Stay%" variable with various deal

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[18] We also use the log of the number of new analysts as the explanatory variable (results not reported) and find it to be positively and significantly related with better long-run performance. In these models, we also include the size of the *merged* firm as a control as prior literature finds larger firms attract more analysts. This result is similar to Das et al. (2006), who find that more analyst coverage is associated with better long-run performance of IPO firms, for which all the analysts provide coverage for the first time.

characteristics (diversifying and paystock dummies), but the coefficients on these interactions are not statistically significant.

These results support our hypothesis on how the different selection processes among target and acquirer analysts reveal information about the prospect of the merger. A greater number of target analysts covering the merged firm indicate that more target analysts hold high expectations of the merger, and their expectations are borne out as these deals have better long-term performance. We do not find such a relation for the fraction or the number of staying acquirer analysts, as these analysts are not forced to make a decision to cover a new firm like target analysts do. These results also suggest that the market does not immediately understand why certain analysts choose to retain, drop or add coverage of the merged firms. Thus, our results provide new insight regarding the information environment surrounding M&As.

III.4. Robustness checks

We briefly discuss results from robustness tests using alternative definitions on analyst turnovers and the composition of analysts covering merged firms. First, as discussed in Section II.2, to avoid obtaining noisy earnings forecasts during the announcement and completion of an M&A transaction, we use a long event window and fiscal years to define pre-merger analysts and post-merger analysts. However, the calculation of analyst turnovers based on these definitions may overstate the percentage of analysts dropping coverage and understate the percentage of analysts retaining coverage of the merged firm. To correct for the potential over or understatement in calculating analyst turnovers, we reconstruct these variables using a shorter event window and calendar time periods. The details of the constructions of both sets of measures are discussed in Appendix A. We then recalculate the changes in analyst coverage variables, and, not surprisingly, we observe a lower (higher) fraction of analysts dropping (retaining) coverage of the merged firm

around the M&A transaction. We also redo all the analyses pertaining to the determinants of analyst coverage and its impact on research quality of the merged firm using the new variables. All of our main results continue to hold.

Second, the calculation of the percentage of analysts (who have covered either merging firm) dropping coverage of the merged firm is based on identifying those who no longer make earnings forecasts for the merged firm. A potential concern for this definition is that it may include analysts who have covered a merging firm prior to the M&A deal but 'disappeared' from the I/B/E/S database after deal completion because they either retired or left the analyst profession.[19] As a result, our measure of the percentage of analysts dropping coverage may be biased upwards. We recalculate the percentage of analysts dropping coverage, excluding those analysts disappearing from the I/B/E/S database after the deal completion date. We replicate the analyses using the new measure and find similar results.

IV. Conclusions

Large scale M&A transactions significantly transform merging firms and lead to considerable changes to analyst coverage. Despite extensive work on M&As and financial analysts, prior research has not examined whether investors can learn from analysts' decisions to add, drop and maintain coverage of merging firms. With a large sample of M&A deals during 1985-2005, we examine analyst turnovers around M&As and finds that this turnover process has significant impact on the research quality of the merged firm. It also reveals important information about merger prospect and future firm performance.

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[19] Wu and Zang (2008) indicate that for some of the analysts who disappear from I/B/E/S do not cease to be sell-side analysts. In fact, they document that some of them have become research executives within the same industry and some move to another brokerage firm that is not covered by I/B/E/S.

Analysts covering the target firm and those covering the acquiring firm go through different decision processes. Since the target is delisted following the completion of the M&A transaction, the decision of target analysts to cover the merged firm is similar to initiating coverage for a new firm that tends to be much larger and more complex. Acquirer analysts on the other hand simply decide whether to extend coverage of essentially the same firm. As a result, target analysts are much more likely to drop coverage than acquirer analysts, especially after a diversifying merger. Interestingly, those target analysts who choose to cover the merged firm are the most accurate in forecasting earnings and their dominance in forecasting accuracy is more pronounced in diversifying mergers. The accuracy of the consensus forecast and long-run stock performance of the merged firm also increases with the fraction of target analysts who choose to retain coverage. However, we do not find such a relation for the fraction of acquirer analysts retaining coverage for the merged firm.

Our results support the hypothesis that analysts' knowledge and information about the merger is an important determinant of analyst turnovers, earnings forecast accuracy, and long-run stock performance of the merged firm. These results also contribute to existing knowledge on the performance of M&A transactions. In particular, target analysts only choose to cover merged firms for which they have superior knowledge and a favorable assessment. On the other hand, while the acquirer analysts are more likely to retain coverage since they are not forced to make a coverage decision for a new firm, the average forecasting quality among the retained analysts is lower than that of retained target analysts. As a group, their retention decision cannot predict future performance of the merged firms.

Appendix A: Measures of Analyst Coverage before and after M&As

We construct two sets of measures for analyst coverage and changes in coverage based upon different definitions of the M&A event window and pre- and post-merger analysts.

Our first set of measures, used to derive results presented in the paper, defines pre- and post-merger analysts based on the *fiscal* years for which analysts provide earnings forecasts. Specifically, for merging firms in the sample, we obtain analyst codes from I/B/E/S on analysts who provide one-year-ahead earnings forecasts for the fiscal year *prior to* the deal *announcement* year (Year –1). We define these analysts as the "pre-merger analysts". Similarly, we obtain codes on analysts who provide one-year-ahead earnings forecasts for the fiscal year *following* the deal *completion* year (Year +1). We define these analysts as the "post-merger analysts." We use the fiscal year before the deal announcement year and the fiscal year after the deal completion year to extract information on analysts and their earnings forecasts. This is due to the fact that the earnings forecasts immediately before the announcement, during the announcement and completion, and after the completion of an M&A transaction can be noisy. Among the pre- and post-merger analysts, we identify separately those analysts covering the acquiring firms and those covering the target firms (the "acquiring firm analysts" and "target firm analysts") prior to the merger. In addition, among the post-merger analysts, we identify those who did not cover either merging firm prior to the merger (the "new analyst").

An analyst is identified as dropping coverage for the merged firm if she is in the "pre-merger analysts" group but not in the "post-merger analysts" group; whereas retaining coverage is defined as being in both the "pre-merger analysts" group (for either merging firm) *and* the "post-merger analysts" group. Finally, an analyst is identified as initiating coverage for the merged firm if she is *not* in the "pre-merger analysts" group but in the "post-merger analysts" group. Based upon these definitions, we document that, on average, 57% of the analysts covering the acquiring firm and 79% of the analysts covering the target firm prior to the M&A transaction drop coverage for the merged firm, while 58% of the analysts covering the merged firm are newly added.

The seemingly high turnover rates are not surprising given the long coverage window. In particular, an analyst would have to continue covering a merging firm for at least three years in order to be qualified as retaining or dropping coverage for a merged firm as the completion of most M&A transactions in our sample takes more than one year. For example, a firm with fiscal year end of December 31st announced a merger on January 3rd of 1999 and completed the merger on May 25th of 2000. Then, according to our definition, an analyst is a pre-merger analyst if she provides one-

year-ahead earnings forecasts for the fiscal year of 1998. An analyst is a post-merger analyst if she provides one-year-ahead earnings forecasts for the fiscal year of 2001. Therefore, an analyst would have to continue covering the firm from 1998 to 2001 to be classified as retaining coverage for the firm.

Since the above definitions on pre- and post-merger analysts may overstate analyst turnovers around M&As, we also construct a second set of measures with a shorter M&A event window and calendar year based time periods. Specifically, we first define the "M&A event period" as the period starting from 20 days leading to the deal announcement date to 20 days after the deal completion date. We then define the "pre-merger analysts" as the analysts who provide at least one earnings forecast during the twelve (calendar) months prior to the event period (Year –1). Similarly, we define the "post-merger analysts" as those who provide at least one earnings forecast during the twelve months after the deal completion date (Year +1). We identify an analyst as retaining coverage if she is in both the "pre-merger analysts" and "post-merger analysts" groups.

Not surprisingly, most of the turnover rates around mergers (from Year -1 to Year +1) are lower than those using the previous set of measures, because the total duration from Year -1 to Year +1 (including the M&A event period) under the current set of measures is shorter. On average, about 40% of the analysts covering the acquiring firm drop converge and 37% of the analysts covering the merged firm are newly added; both of which are not significantly different from the annual turnover rates in the non-event years. However, the turnover rates for analysts covering the target firm remains high – around 72% of target firm analysts drop coverage for the merged firm. This is much higher than the turnover rates (31%) prior to the event year.

Two points are worth noting. First, while the turnover measures can be constructed using different time windows, analyst research quality of the merged firm, measured by the accuracy of earnings forecasts, must be examined using analysts' one-year-ahead earnings forecasts for the fiscal year *after* the deal completion year (Year +1). This is to ensure that we compare analysts' earnings forecasts for the same merged firms at the same fiscal year end. Second, while analyst turnover rates differ when using different event/time windows, we observe significant cross-section variations in turnovers using either set of definitions of pre- and post-merger analysts. It is the cross-sectional variations in turnovers, rather than the absolute turnovers from Year -1 to Year +1, that we focus on in our empirical analysis.

Appendix B

B.1 Firm and Deal Characteristics

A_ROA – earnings before depreciations over the total assets of an acquiring firm;

ln (A_mktcap) – natural log of market value of equity of an acquiring firm;

A_MTB – the market value of equity over the book value of common equity of an acquiring firm;

A_Conglomerate – a dummy variable equal to one if an acquiring firm has more than one reporting segments and zero otherwise;

A_CAR – cumulative abnormal returns of an acquiring firm around different event windows (-1, +1), (-3, +3), (-5, +5) and between merger announcement and completion date. The method used to calculate A_CARs is the standard market model with CRSP value-weighted market portfolio as the benchmark portfolio;

Paystock – a continuous variable between 0 and 1 indicating the fraction of the deal is paid by the acquirer stock (1 means the entire deal is paid by the acquirer stock);

Diversifying – a dummy variable equal to one if the merger is diversifying and zero otherwise. Diversifying mergers are defined as those deals in which target firms and acquiring firms do not share the same 2-digit SIC codes;

Deal Size – the total dollar amount of considerations paid by the acquirer, excluding fees and expenses;

Relative_size – the ratio of target firm size to acquiring firm size. Firm size is measured as market value of equity plus the book value of debt and preferred stocks;

MA_Advisor – a dummy variable equal to one if an analyst's investment bank is also the financial advisor for the M&A deal, zero otherwise;

B.2 Changes in Analyst Coverage and Analyst Composition

A_Stay – the group of analysts who covered the acquiring firms prior to the M&A deal retaining coverage of the merged firms;

T_Stay – the group of analysts who covered the target firms prior to the M&A deal retaining coverage of the merged firms;

Seasoned_New – the group of analysts covering the merged firm who did not cover either the acquiring or the target firm prior to the M&A deal but have issued earnings estimates for other firms prior to the deal;

T_Analyst – a dummy variable equal to one if an analyst has covered the target firm prior to merger and zero otherwise;

New_Analyst – a dummy variable equal to one if an analyst has not covered either merging firm prior to merger and zero otherwise;

A_Stay% – the ratio of the number of acquirer analysts retaining coverage of the merged firm over the number of analysts covering the acquiring firm prior to the M&A transaction;

T_Stay% – the ratio of the number of target analysts retaining coverage of the merged firm over the number of analysts covering the target firm prior to the M&A transaction;

New% – the ratio of the number of newly added analysts covering the merged firms over the number of analysts covering the *acquirer* firm prior to the M&A transaction;

B.3 Analyst Research Quality

Experience – number of years an analyst has issued earnings forecasts in I/B/E/S;

 # Firms – number of firms an analyst has issued earnings forecasts for in I/B/E/S prior to the merger, i.e., number of firms an analyst covers;

Avg_mktcap – average market capitalization of all the firms an analyst covers prior to the merger;

Cross Cover – a dummy variable equal to one if an analyst covering the acquiring firm (target firm) has covered the industry of the target firm (acquiring firm) and zero otherwise. An acquirer analyst has cross-covered the target firm's industry if she has covered at least one firm with the same first 2-digit SIC as that of the target firm;

FE – Analyst earnings forecast error is defined as the absolute proximity of an analyst's first forecast to actual earnings, scaled by acquiring or target firm's stock price at the forecasting month.

All Star – a dummy variable equal to one if an analyst has been elected as an All Star analyst based upon the annual survey conducted by the institutional investor magazine prior to mergers.

IB_Reputation – a dummy variable equal to one if an analyst works for a top-tier investment bank and zero otherwise. We identify a top-tier investment bank as the ten underwriters with the highest Carter-Manaster ranks in Carter et al. (1998);

B.4 Long-run Stock Performance Post Merger

CAR_3yr – cumulative abnormal returns during three years after the merger completion date. The benchmark portfolio to calculate the abnormal returns are obtained from Russ Wermers' website. The benchmark portfolio is constructed based on size, book-to-market and momentum. The details of the benchmark portfolio are provided in Daniel, Grinblatt, Titman, and Wermers (1997) and Wermers (2004).

BHR_3yrs – three year abnormal buy-and-hold returns after the merger completion date. The benchmark portfolio to calculate the abnormal returns are obtained from Russ Wermers' website. The details of the benchmark portfolio are provided in Daniel, Grinblatt, Titman, and Wermers (1997) and Wermers (2004). The portfolio is constructed based on size, book-to-market and momentum.

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Figure 1 Change in Analyst Coverage around M&As
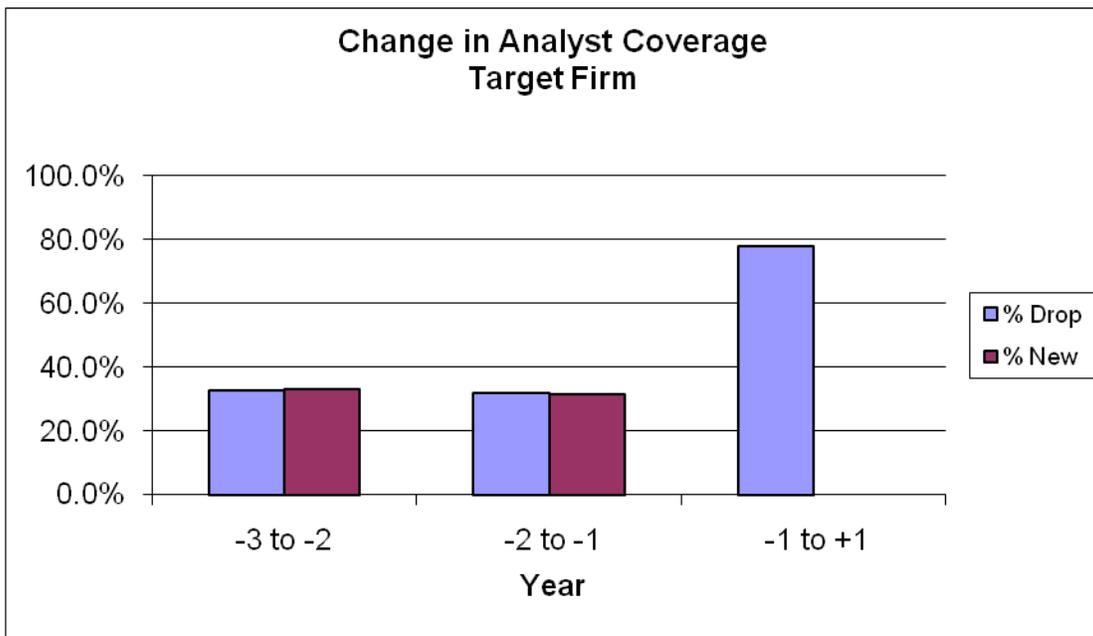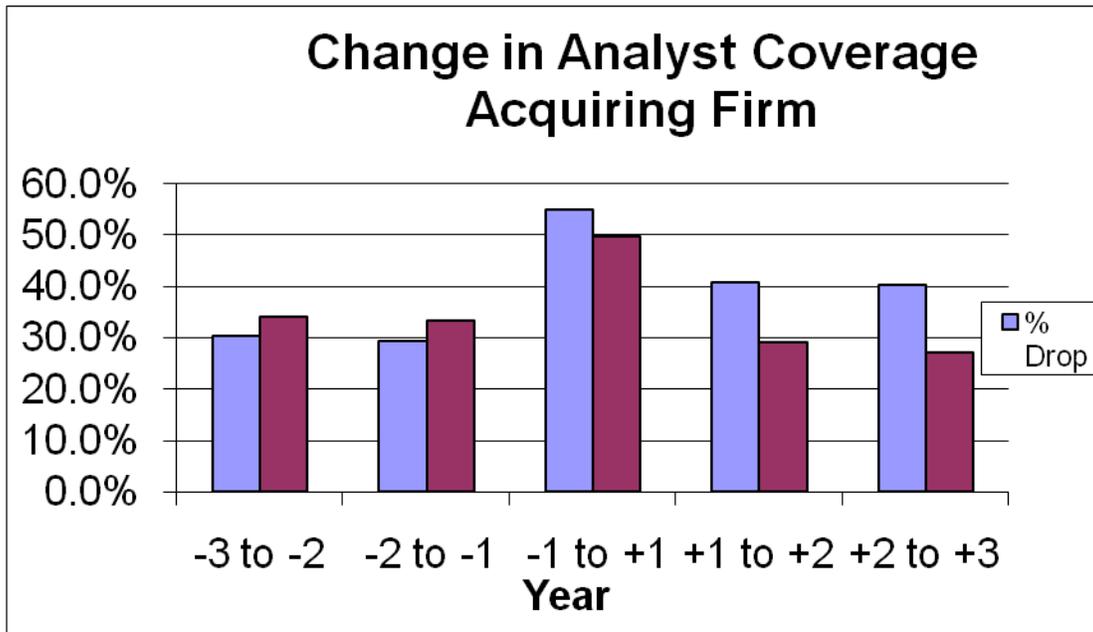
The Y-axis represents the percentage of analysts that drop (% Drop) or add coverage (% New) for acquiring or target firms. Year –1 is defined as the fiscal year one year prior to the deal announcement date, and Year +1 is defined as the fiscal year one year after the deal completion date; Year –2 is defined as the fiscal year prior to Year –1, Year +2 is the fiscal year after Year +1, and so forth. An analyst drops coverage for a merged firm if she provides one-year-ahead earnings forecasts for the acquiring firm in Year –1, but no longer provides one-year-ahead earnings forecasts for the merged firm in Year +1.

Table 1 Descriptive Statistics of the M&A Sample

This table reports summary statistics of 1,787 mergers and acquisitions announced between 1985 and 2005. Mean and median values of each variable are reported for the four sub-periods as well as the total period. Acquiring firms' and target firms' assets ("A_Assets" and "T_Assets"), market capitalization ("A_Market Cap" or "T_Market Cap"), and market-to-book ratios of assets ("A_MTB" or "T_MTB") are measured as of the fiscal year-end prior to merger announcement date. "Deal size" is the total amount of considerations paid by the acquirer, excluding fees and expenses. "Relative size" is the ratio of target firms' market value to acquiring firms' market value, measured as of the fiscal year-end prior to merger announcement. Market value of the firm is measured as the sum of the market value of equity, book value of debt and preferred stock. "Diversifying" is a dummy variable equal to one if target and acquiring firms have different 2-digit SIC codes, and zero otherwise. "Stock" is a dummy variable equal to one if more than 50% of the deal payment is made by stock, and zero otherwise. "Tender" is a dummy variable equal to one for tender offers, and zero for mergers.

Time Period	1985-1989		1990-1994		1995-1999		2000-2005		All Years	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
A_Assets	2,811.36	630.75	4,727.61	579.65	5,030.79	661.00	11,748.95	1,174.31	6,744.24	799.00
T_Assets	1,194.62	176.71	2,154.68	177.27	1,742.00	229.23	2,714.40	342.54	2,010.65	240.63
A _Market Cap	1,089.89	396.75	1,843.24	457.93	2,890.90	568.98	5,962.00	944.77	3,445.54	609.51
T_Market Cap	332.68	100.62	416.07	90.20	1,008.99	135.10	1,318.76	208.85	931.30	139.98
A_MTB	1.54	1.24	1.90	1.35	2.12	1.52	2.78	1.40	2.21	1.41
T_MTB	1.46	1.17	1.60	1.18	1.77	1.29	1.99	1.24	1.77	1.24
Deal Size	566.69	167.00	617.74	150.55	1,567.33	231.42	1,992.51	303.38	1,435.89	227.84
Relative Size (T/A)	0.56	0.28	0.39	0.26	0.45	0.27	0.41	0.24	0.45	0.26
Diversifying (%)	41	--	22	--	23	--	21	--	25	--
Stock (%)	37	--	69	--	69	--	63	--	62	--
Tender (%)	46	--	19	--	16	--	12	--	19	--
# of Deals	271		215		746		555		1,787	

Table 2 Probit Models – Determinants of Individual Analysts' Coverage Decisions

The table reports regression results for the determinants of an analyst's coverage decision using Probit models. The dependent variable equals one if an acquiring firm analyst (Panel A), a target firm analyst (Panel B), and either an acquiring firm or target firm analyst (Panel C) continues to cover the merged firm, and zero otherwise. We include three sets of independent variables: analyst quality, firm and deal characteristics. All independent variables are measured as of the end of the fiscal year prior to merger announcement date. The coefficients are estimates of the *marginal* effects on the probability of analyst retaining coverage. Robust z-statistics are reported below the estimation coefficients. Standard errors are clustered by analyst.
* Significant at 10%; ** Significant at 5%; *** Significant at 1%.

Panel A Determinants of Acquirer *Analysts' Coverage Decisions*
(Dependent Variable =1 if an acquirer analyst retains coverage for a merged firm, 0 otherwise)

	(1)	(2)	(3)	(4)
Experience	0.0191***	0.0196***	0.0212***	0.0186**
	(2.836)	(2.885)	(3.060)	(2.507)
Cross Cover	0.0677***	0.0745***	0.0756***	0.0959***
	(4.575)	(4.993)	(4.689)	(5.291)
Avg_mktcap	0.00573	-0.00856*	-0.00495	-0.00580
	(1.392)	(-1.806)	(-1.023)	(-1.083)
All Star	0.138***	0.137***	0.137***	0.140***
	(9.593)	(9.480)	(9.301)	(8.844)
IB Reputation	0.0559**	0.0617***	0.0587**	0.0432*
	(2.452)	(2.665)	(2.533)	(1.729)
FE	0.000	0.000	0.0001	-0.153
	(0.0328)	(0.279)	(0.405)	(-1.443)
A_ROA		0.104***	0.140***	0.0594
		(2.756)	(3.662)	(1.304)
ln(A_mktcap)		0.0219***	0.0247***	0.0215***
		(6.304)	(6.696)	(5.080)
A_Conglomerate		-0.0236**	-0.0339***	-0.0439***
		(-2.331)	(-3.248)	(-3.825)
A_CAR			0.0165	0.0352**
			(1.236)	(2.323)
Paystock			-0.0132	0.000
			(-1.205)	(0.0476)
Diversifying			-0.0004	0.0109
			(-0.0441)	(0.886)
Relative Size			-0.0210**	-0.0127
			(-1.971)	(-1.007)
MA_Advisor				0.0523
				(0.634)
Industry & Year Dummies	---Included------------------------------------			
Observations	17,331	17,079	16,637	13,297
Pseudo R-squared	0.03	0.03	0.03	0.03

(Table 2 continued)

Panel B Determinants of Target *Analysts' Coverage Decisions*
(Dependent Variable =1 if a target analyst retains coverage for a merged firm, 0 otherwise)

	(1)	(2)	(3)	(4)
Experience	0.0040	0.0030	0.0048	0.0011
	(0.640)	(0.473)	(0.731)	(0.164)
Cross Cover	0.178***	0.178***	0.152***	0.134***
	(10.97)	(10.86)	(7.735)	(5.610)
Avg_mktcap	0.0331***	0.0289***	0.0247***	0.0259***
	(8.845)	(7.173)	(5.836)	(5.401)
All Star	0.113***	0.115***	0.119***	0.125***
	(7.937)	(8.006)	(7.988)	(7.500)
IB Reputation	0.0016	0.0032	0.0004	0.0055
	(0.0756)	(0.149)	(0.0181)	(0.227)
FE	-0.0565**	-0.0487**	-0.0338	-0.0182
	(-2.091)	(-1.977)	(-1.462)	(-0.715)
A_ROA		0.153***	0.177***	0.0704
		(3.368)	(3.675)	(1.276)
ln(A_mktcap)		0.0103***	0.0174***	0.0165***
		(3.162)	(4.765)	(3.917)
A_Conglomerate		-0.0478***	-0.0377***	-0.0491***
		(-4.752)	(-3.593)	(-4.049)
A_CAR			0.0569***	0.0648***
			(4.285)	(4.347)
Paystock			0.0717***	0.0715***
			(5.760)	(4.980)
Diversifying			-0.0448***	-0.0528***
			(-3.769)	(-3.836)
Relative Size			0.0175**	0.0186**
			(2.167)	(2.023)
MA_Advisor				0.0947
				(0.631)
Industry & Year Dummies	---Included--			
Observations	11,280	11,082	10,726	8,796
Pseudo R-squared	0.06	0.06	0.07	0.06

(Table 2 continued)

Panel C Determinants of **Target and Acquirer** *Analysts' Coverage Decisions*
(Dependent Var. =1 if a target or acquirer analyst retains coverage for a merged firm, 0 otherwise)

	(1)	(2)	(3)	(4)	(5)
T_Analyst	-0.178***	-0.152***	-0.407***	-0.235***	-0.426***
	(-22.74)	(-17.23)	(-12.09)	(-17.85)	(-11.04)
Experience	-0.000	-0.000	-0.000	-0.000	-0.000
	(-0.000)	(-0.044)	(-0.067)	(0.043)	(-0.019)
Cross Cover	0.100***	0.107***	0.0451***	0.103***	0.0625***
	(7.092)	(7.526)	(2.739)	(7.250)	(3.706)
Avg_mktcap	0.0155***	0.0148***	0.0147***	0.0145***	0.0126***
	(3.857)	(3.672)	(3.664)	(3.611)	(3.092)
All Star	0.143***	0.142***	0.141***	0.143***	0.141***
	(10.23)	(10.17)	(10.14)	(10.23)	(10.07)
IB Reputation	0.0389*	0.0388*	0.0389*	0.0387*	0.0381*
	(1.842)	(1.838)	(1.840)	(1.831)	(1.811)
FE	-0.175*	-0.172*	-0.183*	-0.148	-0.157
	(-1.756)	(-1.717)	(-1.834)	(-1.472)	(-1.559)
A_ROA	0.119***	0.130***	0.125***	0.124***	0.128***
	(3.622)	(3.900)	(3.757)	(3.766)	(3.851)
ln(A_mktcap)	0.0142***	0.0138***	0.0139***	0.0141***	0.0136***
	(4.286)	(4.159)	(4.185)	(4.260)	(4.105)
A_Conglomerate	-0.0514***	-0.0509***	-0.0507***	-0.0511***	-0.0495***
	(-5.600)	(-5.544)	(-5.542)	(-5.579)	(-5.404)
A_CAR	0.0508***	0.0522***	0.0486***	0.0522***	0.0504***
	(4.312)	(4.429)	(4.135)	(4.434)	(4.273)
Paystock	0.0372***	0.0382***	0.0383***	-0.000	0.0104
	(3.645)	(3.731)	(3.732)	(-0.066)	(0.828)
Diversifying	-0.0123	0.0318***	-0.009	-0.0122	0.0090
	(-1.255)	(2.618)	(-1.016)	(-1.236)	(0.728)
Relative Size	-0.0045	-0.0053	-0.0021	-0.0044	-0.044***
	(-0.556)	(-0.642)	(-0.256)	(-0.545)	(-3.048)
MA_Advisor	0.0877	0.0898	0.0924	0.0886	0.0917
	(1.149)	(1.188)	(1.215)	(1.170)	(1.224)
T_Analyst*Diversify		-0.103***			-0.0487***
		(-6.389)			(-2.677)
T_Analyst*Cross Cover			0.265***		0.225***
			(7.289)		
T_Analyst*Paystock				0.0948***	0.0769***
				(5.412)	(4.314)
T_Analyst*Relative Size					0.0603***
					(3.546)
Industry & Year Dummies			Included		
Observations	18,963	18,963	18,963	18,963	8,963
Pseudo R-squared	0.06	0.06	0.06	0.06	0.06

Table 3 Univariate comparisons of individual analyst's research quality

This table presents results from comparing means and medians of various measures of analyst research quality for different groups of analysts. In each panel, T-test and Wilcoxon Z-tests are used to test whether the differences in mean and median of analysts' distribution are significantly different from zero.

Panel A Research quality measures prior to the M&A transaction

Panel A compares various dimensions of research quality *prior to* the M&A transaction between the groups of analysts who have covered the acquiring firm ("A_Stay" vs. "A_Left") and those who have covered the target firm ("T_Stay" vs. "T_Left"). Definitions of the variables are provided in Appendix B.

	Experience		# of Firms covered		Avg mktcap		Forecast Error	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
A_Stay	6.95	6.00	15.7	14.0	7683.2	3194.3	-0.002	-0.0027
A_Left	6.32	5.00	15.2	13.0	6762.1	3034.6	-0.003	-0.003
Difference	0.63***	1.00***	0.5***	1.00***	921.1***	159.7**	0.001	0.0003*
T_Stay	7.03	6.00	16.2	14.0	6808.5	3161.6	-0.002	-0.001
T_Left	6.29	5.00	14.7	12.0	5804.2	2354.1	-0.004	-0.001
Difference	0.73***	1.00***	1.5***	2.0***	1004.3***	807.5***	0.002	0.0009
T_Stay – A_Stay	0.08***	0	0.57***	0	-874.69	-32.7	0.001	0.002**

	All-Star	Top 10 IB	Cross-Cover	No. Observations
	Mean	Mean	Mean	
A_Stay	0.22	0.06	0.27	8,009
A_Left	0.12	0.04	0.19	9,719
Difference	0.10***	0.02***	0.08***	
T_Stay	0.24	0.05	0.73	2,899
T_Left	0.13	0.04	0.22	8,572
Difference	0.11***	0.01***	0.51***	
T_Stay – A_Stay	0.02***	-0.01	0.46***	

(Table 3 continued)
Panel B Analysts' Forecast Accuracy for the Merged Firms

Panel B compares analyst forecast errors for merged firms among the three groups of analysts for the total M&A sample and subsamples partitioning on various deal characteristics that proxy for information uncertainty. The three groups of analysts are: "A_Stay", "T_Stay", and "Seasoned_New", which is defined as the group of analysts who have not covered merging firms prior to the M&A deal but have issued earnings forecasts for other firms. Analysts' forecast errors for the merged firms are measured as the absolute value of the difference between the actual earnings and the first earnings forecast made by an analyst for the fiscal year following the deal completion (scaled by the stock price of the merged firm at the end of forecasting month). Definitions of other variables are provided in Appendix B.

	Total sample		Diversifying Mergers			
			Yes		No	
	Mean	Median	Mean	Median	Mean	Median
A_Stay	0.028	0.004	0.044	0.005	0.022	0.004
T_Stay	0.023	0.003	0.036	0.002	0.020	0.003
Seasoned_New	0.034	0.004	0.048	0.004	0.029	0.004
A_Stay – T_Stay	0.005***	0.001***	0.008**	0.003***	0.002	0.001
A_Stay – Seasoned_New	-0.006*	0.000	-0.004	0.001	-0.007**	0.000

	Relative Size				Conglomerate			
	Big		Small		Yes		No	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
A_Stay	0.041	0.005	0.025	0.004	0.039	0.005	0.023	0.004
T_Stay	0.022	0.004	0.020	0.004	0.024	0.003	0.023	0.003
Season_New	0.037	0.005	0.032	0.003	0.036	0.004	0.033	0.004
A_Stay – T_Stay	0.019***	0.001***	0.005	0.000	0.015**	0.002*	0.000	0.001
A_Stay – Seasoned_New	0.004	0.000	-0.007	0.001	0.003	0.001	-0.010**	0.000

Table 4 Research quality of merged firms – individual analyst level

This table reports regression results on the forecast errors of the merged firm for analysts who have covered the target (T_Analyst) or the acquirer (default group), or neither merging firm (New_Analyst) prior to the M&A transactions. The dependent variable is individual analysts' earnings forecast errors for the merged firm, measured as the absolute value of the difference between the actual earnings and the first earnings forecast made by an analyst for the fiscal year following the deal completion (scaled by the stock price of the merged firm at the end of forecasting month). Definitions of other variables are provided in Appendix B. All models include year and industry dummies. Robust t-statistics are reported in parentheses. Standard errors are clustered by analyst. * Significant at 10%; ** Significant at 5%; *** Significant at 1%.

Independent variable	Dependent variable = analysts' forecast errors for the merged firms					
	(1)	(2)	(3)	(4)	(5)	(6)
T_Analyst	-0.0571***	-0.0336***	-0.0496**	-0.0692***	-0.0199*	-0.0179*
	(-3.062)	(-2.789)	(-2.411)	(-2.930)	(-1.692)	(-1.688)
New_Analyst	-0.0288	-0.0288	-0.0283	-0.0282	-0.0295	-0.0289
	(-1.070)	(-1.070)	(-1.044)	(-1.051)	(-1.086)	(-1.059)
Experience	0.0033	0.0032	0.0033	0.0033	0.0033	0.0033
	(0.973)	(0.959)	(0.976)	(0.978)	(0.972)	(0.962)
Avg_mktcap	-0.0123	-0.0125	-0.0123	-0.0124	-0.0119	-0.0122
	(-1.600)	(-1.632)	(-1.605)	(-1.614)	(-1.556)	(-1.588)
All Star	-0.0333	-0.0330	-0.0330	-0.0332	-0.0337	-0.0333
	(-1.438)	(-1.429)	(-1.426)	(-1.435)	(-1.450)	(-1.436)
IB Reputation	-0.0186	-0.0196	-0.0188	-0.0186	-0.0187	-0.0200
	(-1.113)	(-1.160)	(-1.124)	(-1.116)	(-1.116)	(-1.178)
A_Conglomerate	0.0454*	0.0467*	0.0506*	0.0458*	0.0452*	0.0502*
	(1.754)	(1.800)	(1.669)	(1.765)	(1.741)	(1.652)
Diversifying	0.116***	0.135***	0.116***	0.116***	0.116***	0.136***
	(2.668)	(2.727)	(2.658)	(2.668)	(2.668)	(2.690)
Relative Size	0.0143***	0.0149***	0.0141***	0.0073	0.0138***	0.0081
	(2.683)	(2.777)	(2.634)	(0.952)	(2.585)	(1.048)
Paystock	0.0704***	0.0703***	0.0705***	0.0709***	0.0799***	0.0849***
	(2.729)	(2.729)	(2.728)	(2.725)	(2.898)	(2.917)
T_Analyst *Diversifying		-0.125***				-0.132***
		(-3.016)				(-2.788)
T_Analyst *Conglomerate			-0.0250			-0.0170
			(-1.094)			(-0.710)
T_Analyst *Relative_Size				0.0243*		0.0206
				(1.654)		(1.507)
T_Analyst *Paystock					-0.0557**	-0.0828***
					(-2.324)	(-3.089)
Industry & Year Dummies	--Included---					
Constant	-0.0378	-0.0442	-0.0398	-0.0353	-0.0457	-0.0557
	(-0.724)	(-0.829)	(-0.755)	(-0.688)	(-0.845)	(-1.001)
Observations	12,373	12,373	12,373	12,373	12,373	12,373

R-squared	0.01	0.01	0.01	0.01	0.01	0.01

Table 5 Research quality of merged firms – firm level

This table reports regression results on the consensus earnings forecast errors of merged firms. The dependent variable "CFE_Post" is the consensus analysts' forecast errors of the merged firms, measured as the absolute value of the difference between the actual earnings and the first consensus earnings forecast for the fiscal year following the deal completion, scaled by the stock price of the merged firm at the end of forecasting month. "A_Stay%" is the ratio of the number of acquirer analysts retaining coverage for the merged firm over the number of analysts covering the acquiring firm prior to the M&A deal; "T_Stay%" is the ratio of the number of target analysts retaining coverage over the number of analysts covering the target prior to the deal; "New%" is the ratio of the number of newly added analysts over the number of analysts covering the *acquiring* firm prior to the M&A deal. "Chg_AllStar" is defined as the difference in the percentages of the All Star analysts between the analysts covering an acquiring firm prior to mergers and the analysts covering a merged firm post-merger; "Chg_Experiene" is the difference in the average number of years issuing earnings forecasts in I/B/E/S between the analysts covering an acquiring firm prior to mergers and the analysts covering a merged firm. Definitions of other variables are provided in Appendix B. All models include year and industry dummies. Robust t-statistics are reported in parentheses. * Significant at 10%; ** Significant at 5%; *** Significant at 1%.

	CFE_Post (1)	CFE_Post (2)	CFE_Post (3)	CFE_Post (4)	CFE_Post (5)
A_Stay%	-0.068				-0.069
	(-1.38)				(-1.29)
New%		-0.007			-0.008
		(-1.31)			(-1.43)
T_Stay%			-0.091***	-0.085***	-0.086***
			(-3.23)	(-2.95)	(-3.11)
Chg_Experience	-0.006	-0.002	-0.008	-0.008	-0.008
	(-1.11)	(-0.49)	(-1.19)	(-1.19)	(-1.19)
Chg_Allstar	-0.002	-0.004	-0.008	-0.008	0.0009
	(-0.13)	(-0.18)	(-0.33)	(-0.34)	(0.039)
A_Conglomearte	0.032	0.023	0.030	0.030	0.029
	(1.42)	(1.02)	(1.27)	(1.27)	(1.24)
Diversifying	0.044	0.062**	0.046	0.049	0.047
	(1.59)	(2.16)	(1.56)	(1.52)	(1.58)
Relative Size	0.067	0.063*	0.074*	0.074*	0.072*
	(1.64)	(1.76)	(1.74)	(1.74)	(1.66)
Paystock	0.006	0.021	0.011	0.011	0.014
	(0.32)	(0.99)	(0.51)	(0.52)	(0.64)
T_Stay%*Diversifying				-0.033	
				(-0.48)	
Industry and year dummy	---------------------------------------Included-----------------------------------				
Constant	0.042	-0.003	0.019	0.044	0.018
	(0.49)	(-0.06)	(0.23)	(0.51)	(0.21)
Observations	1,035	1,189	979	979	973
R-squared	0.08	0.08	0.08	0.08	0.08

Table 6 Analyst Coverage and Long-run (abnormal) Stock Performance

This table reports regression results on post-merger long-run (abnormal) stock performance. The dependent variables are 3-year cumulative abnormal returns (CAR_3yrs) and 3-year buy-and-hold abnormal returns (BHR_3yrs) after the completion year of the M&A deal. The returns are adjusted by the benchmark portfolio obtained from Daniel, Grinblatt, Titman, and Wermers (1997) and Wermers (2004). "A_Stay%" (Panel A) is the ratio of the number of acquirer analysts retaining coverage for the merged firm over the number of analysts covering the acquiring firm prior to the M&A deal; "New%" is the ratio of the number of newly added analysts over the number of analysts covering the *acquiring* firm prior to the M&A deal (Panel B); "T_Stay%" is the ratio of the number of target analysts retaining coverage over the number of analysts covering the target prior to the deal (Panel C). Definitions of other variables are provided in Appendix B. Robust t-statistics are reported below the estimation coefficients. * Significant at 10%; ** Significant at 5%; *** Significant at 1%.

Panel A Remaining Acquirer Analysts (A_Stay%) and Stock Performance

	CAR_3yrs (1)	CAR_3yrs (2)	CAR_3yrs (3)	BHR_3yrs (4)	BHR_3yrs (5)	BHR_3yrs (6)
A_Stay%	0.097	0.132	0.096	0.194	0.228	-0.020
	(0.94)	(1.17)	(0.56)	(1.40)	(1.35)	(0.14)
ln(A_mktcap)	0.069**	0.070**	0.071***	0.029	0.030	0.033
	(2.54)	(2.58)	(2.58)	(1.16)	(1.21)	(1.33)
Ln(DealSize)	-0.073***	-0.074***	-0.075***	-0.039*	-0.040*	-0.042*
	(3.09)	(3.13)	(3.14)	(1.75)	(1.82)	(1.91)
Diversifying	-0.127**	-0.069	-0.071	-0.108**	-0.053	-0.065
	(2.28)	(0.57)	(0.58)	(2.35)	(0.51)	(0.66)
Paystock	0.061	0.060	0.038	-0.006	-0.007	-0.161
	(1.13)	(1.12)	(0.32)	(0.11)	(0.12)	(1.46)
A_Stay%*Diversifying		-0.142	-0.137		-0.136	-0.103
		(0.54)	(0.52)		(0.53)	(0.42)
A_Stay%*Paystock			0.053			0.367
			(0.22)			(1.30)
Constant	-0.110	-0.126	-0.112	-0.086	-0.101	-0.007
	(0.87)	(0.96)	(0.80)	(0.69)	(0.77)	(0.05)
Observations	1153	1153	1153	1153	1153	1153
R-squared	0.02	0.02	0.02	0.01	0.01	0.01

Table 6 (Continued)

Panel B Newly Added Analysts (New%) and Stock Performance

	CAR_3yrs (1)	CAR_3yrs (2)	CAR_3yrs (3)	BHR_3yrs (4)	BHR_3yrs (5)	BHR_3yrs (6)
New%	0.052**	0.030	0.037	0.048	0.023	0.044
	(2.25)	(1.49)	(0.91)	(1.64)	(1.10)	(1.12)
ln(A_mktcap)	0.090***	0.093***	0.093***	0.037	0.041*	0.041*
	(3.22)	(3.35)	(3.35)	(1.63)	(1.79)	(1.80)
Ln(DealSize)	-0.079***	-0.081***	-0.081***	-0.033	-0.035*	-0.035*
	(3.31)	(3.39)	(3.38)	(1.58)	(1.69)	(1.69)
Diversifying	-0.127**	-0.204***	-0.201***	-0.103**	-0.192***	-0.184***
	(2.23)	(3.31)	(3.18)	(2.23)	(3.02)	(3.06)
Paystock	0.044	0.044	0.053	-0.032	-0.032	-0.005
	(0.82)	(0.82)	(0.86)	(0.60)	(0.61)	(0.09)
New%*Diversifying		0.089*	0.086		0.103	0.095
		(1.82)	(1.58)		(1.50)	(1.52)
New%*Paystock			-0.011			-0.032
			(0.21)			(0.56)
Constant	-0.228*	-0.219*	-0.226*	-0.127	-0.116	-0.134
	(1.86)	(1.79)	(1.81)	(1.11)	(1.03)	(1.13)
Observations	1252	1252	1252	1252	1252	1252
R-squared	0.02	0.02	0.02	0.01	0.01	0.01

Table 6 (Continued)

Panel C Remaining Target Analysts (T_Stay%) and Stock Performance

	CAR_3yrs (1)	CAR_3yrs (2)	CAR_3yrs (3)	BHR_3yrs (4)	BHR_3yrs (5)	BHR_3yrs (6)
T_Stay%	0.267**	0.275**	0.432**	0.378**	0.390*	0.460*
	(2.49)	(2.43)	(2.26)	(2.09)	(1.86)	(1.94)
A_Stay%			0.124			0.198
			(1.05)			(1.27)
New%			0.040			0.048
			(1.43)			(1.33)
ln(A_mktcap)	0.078***	0.078***	0.092***	0.007	0.007	0.035
	(2.62)	(2.61)	(3.03)	(0.21)	(0.21)	(1.34)
Ln(DealSize)	-0.067**	-0.066**	-0.090***	-0.010	-0.010	-0.048*
	(2.46)	(2.46)	(3.43)	(0.31)	(0.30)	(1.96)
Diversifying	-0.140**	-0.136**	-0.146**	-0.084	-0.078	-0.105**
	(2.38)	(2.12)	(2.19)	(1.58)	(1.43)	(2.02)
Paystock	-0.033	-0.033	-0.012	-0.090*	-0.089*	-0.086
	(0.67)	(0.66)	(0.21)	(1.77)	(1.75)	(1.54)
T_Stay%*Diversifying		-0.047	-0.076		-0.071	-0.139
		(0.15)	(0.24)		(0.22)	(0.44)
T_Stay%*Paystock			-0.186			-0.019
			(0.83)			(0.06)
Constant	-0.145	-0.146	-0.210	-0.019	-0.021	-0.123
	(1.17)	(1.18)	(1.40)	(0.15)	(0.17)	(0.83)
Observations	1171	1171	1020	1171	1171	1020
R-squared	0.02	0.02	0.03	0.01	0.01	0.03