Analyst Specialization and Conglomerate Stock Breakups

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ABSTRACT

This paper examines whether firms emerging from conglomerate stock breakups are able to affect the types of financial analysts that cover their firms as well as the quality of information generated about their performance. Our sample comprises 103 focus-increasing spin-offs, equity carve-outs, and targeted stock offerings between 1990 and 1995. We find that, after these transactions, sample firms experience a significant increase in coverage by analysts that specialize in subsidiary firms’ industries, and a 30–50% increase in analyst forecast accuracy for parent and subsidiary firms. The improvement in forecast accuracy is partially attributable to expanded disclosure. However, forecast improvements for specialists exceed those for non-specialists, leading us to conclude that corporate focus can facilitate improved capital market intermediation by financial analysts with industry expertise.

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1. Introduction

This paper examines how managers’ decisions to increase corporate focus through conglomerate stock breakups affect the types of financial analysts that cover their firms as well as the quality of information being generated about their firms’ performance.

Prior research on breakups suggests that they create value by allowing firms to rely on capital markets for managerial incentive pay and better monitoring of capital investments. After breakups, managers of more focused business units can be compensated using their own unit’s stock performance, rather than unit accounting performance or stock performance of a multi-business entity. Moreover, breakups prevent managers from using internal capital markets to divert excess cash from profitable business segments to fund capital investments in poorly performing segments. Instead, each business unit has to subject its financing and investment decisions to the scrutiny of the external capital market. Breakups are also hypothesized to create value by decreasing information asymmetries among market participants. All of these benefits presuppose that after a breakup there is a liquid, well functioning capital market for the post-breakup firms with specialized financial analysts covering the stocks and disseminating information on their performance to investors.

Casual evidence indicates that conglomerate stock breakups are likely to change the type of analysts that follow the breakup firms. The financial press frequently mentions that breakups lead to increased coverage by analysts that specialize in the industries of the firms emerging from such transactions. For example, a *Business Week* article on Westinghouse’s decision to spin-off its industrial unit claimed that a split would help Wall Street “figure out how to value a $9.5 billion company with one foot in a TV studio, and the other in a nuclear-waste dump”[Taylor 1996]. Prior to being broken up, Westinghouse was followed by a combination of power and entertainment analysts. Neither group had extensive expertise in the full range of Westinghouse’s activities. The breakup permitted each analyst group to focus only on the segment in which it specialized.

Investment bankers that we interviewed in connection with this research project echoed the sentiments expressed in the financial press. In particular, they argued that conglomerate stock breakups are likely to lead to additional analyst coverage as well as improved pricing. For example, one banker stated that “spin-offs improve analyst coverage and lead to more efficient pricing of a firm’s stock.” To support his view, the banker cited evidence from USX’s 1991 targeted stock offering, which created separate

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2 Kudla and McInish [1988]; Nanda [1991]; Habib, Johnsen, and Naik [1997]; and Nanda and Narayanan [1997].
tracking stocks for the firm’s two core businesses, oil and steel. Following
the transaction, thirty additional analysts began covering the new stocks, in-
cluding energy specialists with CS First Boston, Lehman Brothers, Morgan
Stanley, PaineWebber, Salomon Brothers, and UBS Securities, in addition
to steel analysts with A. G. Edwards, Bear Sterns, Goldman Sachs, Kemper
Securities, Lehman Brothers, and Merrill Lynch. Many investment bankers
informed us that they often used increased quantity and quality of analyst
coverage as a selling point for firms considering breakups.

Despite sentiment in the financial press and among practitioners that
conglomerate stock breakups increase the quantity and quality of analyst
coverage as well as improve the information environment for post-breakup
firms, to our knowledge there is relatively little academic analysis of this
phenomenon. In section 2, we argue that breakups are likely to increase
the quantity of analyst coverage for post-breakup firms because they increase
investor interest in these firms and because they create new investment bank-
ing opportunities for brokerage houses. Breakups are also likely to increase
the quality of analyst coverage for post breakup firms. Analysts that cover
multi-business firms are likely to have expertise in only a subset of its oper-
ations. This mismatch between analysts’ expertise and firms’ business focus
is compounded by the tendency for brokerage houses to assign only one
analyst to cover a particular stock. Breakups that reorganize conglomer-
ates into more focused entities, therefore, potentially attract analysts with
industry expertise. These specialists are likely to improve the information
environment for post-breakup firms through more accurate forecasting of
their performance.

Section 3 describes the process used to identify conglomerate stock
breakups for our empirical tests. The final sample comprises 103 focus-
increasing spin-offs, equity carve-outs, and targeted stock offerings over the
period 1990 to 1995. In this section, we also discuss our method for classifying
analysts as industry specialists. Using our specialist classification scheme,
we find that for our sample firms, specialists make more frequent and timely
earnings forecasts than non-specialists.

Tests of changes in analyst composition and earnings forecast accuracy
are reported in section 4. Conglomerate stock breakups in our sample are
accompanied by a significant increase in analyst coverage. On average, the
level of analyst coverage for breakup firms increases by 45% in the three fiscal
years following a breakup. The increase in coverage by industry specialists is
particularly pronounced, but occurs only for newly created subsidiary firms
and not for parent firms.

Tests of changes in analysts’ earnings forecast accuracy surrounding con-
glomerate stock breakups show an improvement of 30–50% in the post-
breakup period, a finding consistent with prior studies. We recognize that

3 As discussed in the next section, two prior studies examine analyst earnings forecast accu-
racy around spin-offs (Bliss [1997] and Krishnaswami and Subramaniam [1998]) but neither
looks at the identity of the analysts that cover the breakup firms.
this improvement is likely to be due to two effects: the increase in disclosure, in the form of disaggregated financial statements, that accompanies a breakup and the improved ability of industry specialists to utilize their expertise in forecasting the performance of pure plays. Therefore, our cross-sectional tests use earnings forecast accuracy of non-specialists to control for any effect of increased disclosure around breakups. Before breakups, we find that specialists and non-specialists have similar earnings forecast accuracy. After breakups, the forecast accuracy of specialists is significantly higher than that of non-specialists.

Further empirical analysis shows that the post-breakup increase in earnings forecast accuracy for specialists relative to non-specialists holds for both parent and subsidiary firms as well as for different types of breakups. Also, the findings are quite different from those for a sample of non-conglomerate stock breakups, where improvements in analyst earnings forecast accuracy in the post-breakup period are primarily explained by expanded disclosure rather than improved by performance of specialists.

We summarize our findings and discuss their implications in section 5.

2. Implications of Conglomerate Stock Breakups for Financial Analysts

We argue that conglomerate stock breakups are likely to lead to changes in both the number and the type of financial analysts that cover post-breakup firms. As a result, we expect that breakups will affect the information environment in which firms operate.

Since investors do not directly reimburse brokerage houses for the costs of analysts’ research, returns to providing analyst coverage come from incremental trading commissions and investment banking fees that analysts are able to generate for their employers. Demand for financial analyst coverage for a particular firm is, therefore, derived from investor demand for trading in the firm’s stock and the firm’s demand for investment banking services. Both these demand factors are likely to be affected by conglomerate stock breakups. Trading volume will increase following a breakup if investors are attracted by anticipated improvements in performance for the breakup firms or by the pure-play stocks that are created. Demand for investment banking services is likely to increase because breakup firms can no longer use excess cash from one unit to finance shortfalls in others.4 In addition to the above demand effects, the supply of analyst coverage is likely to increase after a breakup because more information is available on each of the post-breakup firms, thereby lowering research costs (Bhushan [1989]). As a result of both demand and supply effects, therefore, we expect that breakups are likely to lead to an increase in the level of analyst coverage for the firms emerging from such transactions.

4 Krishnaswami and Subramaniam [1998] find evidence of an increase in external financing demands by parent firms after spin-offs.
The quality of analyst coverage around conglomerate stock breakups is also likely to improve. Two features of analyst coverage, which are reflected empirically in the I/B/E/S database, underlie this prediction. First, in selecting firms that they follow, analysts typically specialize by industry. Dunn and Nathan [1998] find evidence of analyst specialization by industry, reporting that the average analyst included on I/B/E/S covers 17 stocks in four SIC codes. Given the roughly ninety different SIC codes, this pattern suggests strong industry specialization. Dunn and Nathan [1998] also report that an average of 66% of revenues for firms covered by a given analyst are from a single industry.

The second feature of analyst coverage relevant to changes in the quality of analysts covering breakup firms is that brokerage houses usually assign only one analyst to follow a particular stock. This phenomenon was confirmed through our field interviews with investment banks and is supported with I/B/E/S data. We find that coverage by multiple analysts from the same brokerage house, which is two analysts in almost all cases, occurs for only 8% of the firm years in our sample. Using Nelson’s Directory of Investment Research to track analyst coverage for these firm-years, we find that the multiple analyst coverage is driven almost exclusively by analyst turnover.

These institutional features suggest that a firm is likely to be followed primarily by analysts that specialize in its dominant business. Moreover, given the costs of analyzing a multi-business firm, it is unlikely that all the analysts with industry expertise will choose to follow conglomerates. Costs to analysts include learning about different business segments that are outside of their current expertise and potential loss of reputation due to inaccurate earnings forecasts.

After a breakup, we hypothesize that two types of changes will occur. First, new analysts with relevant industry expertise will begin covering the newly public subsidiary. Second, additional analysts specializing in the more focused parent firm’s industry will begin following the parent. Both these effects of breakups were widely suggested by investment bankers in our field interviews.

Conglomerate stock breakups are also likely to be accompanied by increased analyst earnings forecast accuracy. Forecast accuracy is likely to increase for two reasons. First, the additional disclosure, in the form of disaggregated financial statements, that accompanies breakups is likely to make it easier for analysts to forecast earnings. Second, the increased ability of specialists to utilize their industry expertise when covering post-breakup firms should lead to improved forecast accuracy.5

Two prior studies find that analyst earnings forecast accuracy improves around spin-offs (Bliss [1997] and Krishnaswami and Subramaniam [1998]). However, neither study examines whether post-breakup firms attract analysts with industry expertise. They also do not explore whether the

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5 Jacob, Lys, and Neale [1999] and Dunn and Nathan [1998] find that industry specialization by analysts is associated with increased earnings forecast accuracy.
documented increase in forecast accuracy is due to expanded disclosure or an improvement in specialists’ forecasting ability. Distinguishing between these explanations has important implications for managers of conglomerates. If forecast accuracy improvements come purely from increased disclosure, managers may be able to expand segment reporting to achieve similar benefits in the capital market. Alternatively, if improved forecast accuracy comes primarily from a more effective match of firms’ businesses with analysts’ industry expertise, such benefits are more likely to be achieved through a breakup rather than expanded segment reporting.

3. Sample and Data

Section 3.1 describes the sample selection procedure and provides descriptive data on the sample firms. Section 3.2 discusses the analyst data used in the empirical tests, and section 3.3 develops the approach used to identify industry specialists.

3.1 SAMPLE

Our sample comprises 103 firms that undertake spin-offs, equity carve-outs, or targeted stock offerings of non-core businesses in the period 1990 to 1995. The sample time period is chosen to generate a large number of deals at reasonable collection cost. Securities Data Corporation maintains a historical database of all mergers, acquisitions, divestitures, and stock offerings. We searched this database between 1990 and 1995 to obtain the initial sample of spin-offs, equity carve-outs, and targeted stock offerings. The sample period ends in 1995 so that we are able to have three years of post-breakup data available for the parent and subsidiary firms. Our search identified 326 potential deals. Transactions are included in the final sample if they satisfy the following requirements: the pre-breakup firm was publicly traded at least one year prior to breakup, the parent and subsidiary firms were publicly traded at least one year after the breakup, and the parent and subsidiary firms operated in different I/B/E/S industries after the breakup. After eliminating firms that fail to satisfy these criteria, we are left with a final sample of 103 transactions.

Four of the sample deals are difficult to analyze separately since they are part of a sequence of breakups made by the same firm in adjacent years. Our empirical tests treat these transactions as single events. For example, ITT’s

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6 Spin-offs are defined as the separation of two or more business units into separate publicly traded companies. For example, ITT spun off its insurance subsidiary (ITT Hartford) and industrial equipment subsidiary (ITT Industries) in 1995, leaving the parent with the Sheraton Hotel chain. In an equity carve-out, a parent sells stock in a subsidiary to investors through a public offering. For example, RJR Nabisco sold 19% of its Nabisco food business in this way in 1995. Finally, a targeted stock offering creates pure plays on two or more business units of a firm by exchanging shares in the combined firm for separate shares in the sub-units. For example, USX Corp. created pure plays on its steel and energy businesses in 1991 by issuing stockholders two new classes of shares, USX-US Steel Group and USX-Marathon Oil Group.
TABLE 1
Conglomerate Stock Breakups Classified by Calendar Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Spin-offs</th>
<th>Equity carve-outs</th>
<th>Targeted stock offerings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>7</td>
<td>5</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>1991</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>1992</td>
<td>7</td>
<td>10</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>1993</td>
<td>6</td>
<td>9</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>1994</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>1995</td>
<td>9</td>
<td>9</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>54</td>
<td>3</td>
<td>103</td>
</tr>
</tbody>
</table>

Each conglomerate stock breakup is assigned to a calendar year based upon its distribution date. Our empirical tests treat four of the sample deals as single events since they are part of a sequence of breakups made by the same firm in adjacent years. After these consolidations, the empirical tests have a maximum of 99 observations.

Spin-off of Rayonier in February 1994, its December 1994 equity carve-out of 19% of ITT Educational Services, and the spin-off of ITT Hartford and ITT Industries in December 1995 are treated as one observation in the empirical tests, rather than as three separate events. After these consolidations, the empirical tests have a maximum of 99 observations.

Table 1 provides information on the timing and nature of the sample deals. The number of transactions increases in almost every year from 1990 (12 deals) to 1994 (24 deals). This pattern is due to increases in the number of equity carve-outs and spin-offs during the period. Equity carve-outs represent 52% of the total sample deals, spin-offs represent 45%, and targeted stock offerings only 3%.

Table 2 provides summary statistics on the transactions (in panel A) and selected financial data (in panel B) for the sample firms surrounding the breakup. As reported in panel A, the conglomerate firms sell an average of 77% of the equity in the subsidiaries. Prior to the breakup, the average sample firm reported that it operated in roughly three business segments.

As described in panel B, breakup firms are relatively large and parent firms are significantly larger than subsidiaries. Median assets for the breakup firms are approximately $3.0 billion one fiscal year prior to the breakup. At the end of the first full fiscal year following the breakup, median assets for the parent are $2.7 billion and are approximately $0.4 billion for the subsidiary.

There is also evidence that sample firms show an improvement in financial performance following breakups. The post-breakup firms have combined median sales and net income that are higher than the pre-breakup conglomerate. Moreover, the median accounting return on equity (ROE) for the pre-breakup firm in fiscal year –1 is 10%. After the breakup, median ROEs are 12–13% for the parent firms and 10–12% for the subsidiaries. A similar pattern is observed for accounting return on assets (ROA), indicating that the ROE improvements are not due to a change in leverage for
TABLE 2
Descriptive Statistics

Panel A: This panel provides information on the conglomerate’s pre-transaction level of diversification as well as the subsidiary’s initial public float. (Maximum number of observations = 99)

<table>
<thead>
<tr>
<th></th>
<th>Panel A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of business segments reported by the conglomerate in fiscal year −1</td>
<td>2.9</td>
</tr>
<tr>
<td>Average percentage of subsidiary stock initially distributed</td>
<td>77.4</td>
</tr>
</tbody>
</table>

Panel B: This panel provides information on firms’ financial performance around conglomerate stock breakups. (Maximum number of observations = 99)

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assets ($M)</td>
</tr>
<tr>
<td>Conglomerate</td>
<td></td>
</tr>
<tr>
<td>Fiscal year −2</td>
<td>2,973</td>
</tr>
<tr>
<td>−1</td>
<td>3,016</td>
</tr>
<tr>
<td>Parent</td>
<td></td>
</tr>
<tr>
<td>Fiscal year +1</td>
<td>2,694</td>
</tr>
<tr>
<td>+2</td>
<td>3,146</td>
</tr>
<tr>
<td>+3</td>
<td>2,993</td>
</tr>
<tr>
<td>Subsidiary</td>
<td></td>
</tr>
<tr>
<td>Fiscal year +1</td>
<td>393</td>
</tr>
<tr>
<td>+2</td>
<td>428</td>
</tr>
<tr>
<td>+3</td>
<td>513</td>
</tr>
</tbody>
</table>

Assets equals Compustat item (CS) CS#6. Sales equals CS#12. Net income equals CS#18. Return on equity equals CS#18 divided by CS#60. Return on assets equals CS#18 divided by CS#6.

the parent and/or subsidiary firms after the breakup. These findings are consistent with the prior evidence that focus-increasing breakups add value for shareholders.7

3.2 ANALYST DATA

Our empirical tests use data on the number, industry specialization, and earnings forecasts of analysts who follow the sample firms in years surrounding the breakup. The primary source of this data is the I/B/E/S Detail Tape. From this database we collect the number and identity of analysts who covered the sample firms in the two fiscal years before the breakup and who covered the parent and subsidiary firms in the three subsequent fiscal years. Firms that are not included on the I/B/E/S Detail Tape for a particular year are conservatively assumed to have zero analyst coverage in that year.

For each of the analysts who follow the sample firms, we collect data on the number and timing of all annual earnings forecasts made during the

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two-year period prior to fiscal year-end for fiscal years \(-2, -1, +1, +2, \) and \(+3\) relative to the breakup. Actual earnings reported by I/B/E/S are also collected so that we can compute analyst earnings forecast errors.\(^8\) Finally, to identify the industry specialization of analysts who follow the sample firms, we collect the names and industry codes of all other firms that they covered from the I/B/E/S \textit{Detail Tape}.

3.3 INDUSTRY SPECIALIST ANALYSTS AND THEIR EARNINGS FORECAST ATTRIBUTES

For the sample firms, each analyst covering at least five other firms with the same I/B/E/S industry code as the sample firm in question is classified as a specialist.\(^9\) Before a breakup, analysts are defined as specialists if they follow at least five firms in the parent’s industry, the conglomerate’s dominant industry. After the breakup, specialists are separately identified for the parent and subsidiary firms.\(^10\)

To understand the attributes of the earnings forecasting process for specialists and non-specialists, we examine the frequency and timing of their forecasts for the sample firms. Analyst forecast frequency is the number of annual earnings forecasts that an analyst made for a particular firm in the two years prior to a given fiscal year-end. Table 3 presents the mean number of annual earnings forecasts made by analysts for the sample firms in the pre- and post-breakup periods. Before the breakup, specialists make an average of roughly five forecasts per firm-year compared to only four for non-specialists. A similar pattern is observed for the sample firms following the breakup. The differences between the estimates for specialists and non-specialists is highly statistically significant both before and after the breakup.

To assess whether there is a difference in the timing of initial earnings forecasts for specialists and non-specialists, we examine the forecast horizons of their initial forecasts for each firm-year. The initial forecast is the first forecast that the analyst made for a particular firm during the two years prior to fiscal year end. The horizon of this first forecast is the number of days between the forecast date and the corresponding fiscal

\(^8\) I/B/E/S reports that it excludes special and one-time items from its actual earnings numbers since analysts claim that they forecast earnings before such items. Nonetheless, we reported all of our analyst earnings forecast accuracy tests using earnings before special items as reported in \textit{Compustat}. Theses findings were qualitatively similar to those reported.

\(^9\) We also repeated our empirical tests using three, four, and six firms in an industry as the cutoff for classifying analysts as industry specialists. The findings are not sensitive to these changes.

\(^10\) Analysts covering the conglomerate that are specialists in the subsidiary industry are not considered to be specialists for the conglomerate because the subsidiaries are considerably smaller in size than the parent firms. As a result, these analysts are classified as non-specialists prior to the breakup and as specialists after. To assess whether this classification affects our results, we replicate our tests expanding the definition of pre-breakup specialists to include subsidiary specialists who follow the conglomerate. The findings are qualitatively similar to those reported in the paper.
Table 3
Frequency and Timing of Analyst Earnings Forecasts Around Conglomerate Stock Breakups

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Earnings forecast frequency</td>
</tr>
<tr>
<td>Pre-breakup</td>
<td></td>
</tr>
<tr>
<td>(N = 2,858)</td>
<td></td>
</tr>
<tr>
<td>Specialists</td>
<td>4.96**</td>
</tr>
<tr>
<td>Non-specialists</td>
<td>3.94</td>
</tr>
<tr>
<td>Post-breakup</td>
<td></td>
</tr>
<tr>
<td>(N = 5,883)</td>
<td></td>
</tr>
<tr>
<td>Specialists</td>
<td>4.84**</td>
</tr>
<tr>
<td>Non-specialists</td>
<td>3.74</td>
</tr>
</tbody>
</table>

Individual analyst annual earnings forecasts are obtained from the I/B/E/S database. Earnings forecast frequency equals the number of annual earnings forecasts that an analyst makes per fiscal year for a given firm. Time horizon of initial forecast equals the number of days between an analyst's initial annual earnings forecast for a given fiscal year for a given firm and the end of the fiscal year to which the prediction applies. Preceding a breakup, a specialist is defined as an analyst who maintains coverage on the conglomerate and at least five other firms with the conglomerate's I/B/E/S industry classification code. Following a breakup, a specialist can be either a parent-or subsidiary-industry specialist. A parent-industry (subsidiary-industry) specialist is defined as an analyst who maintains coverage on the parent (subsidiary) and at least five other firms with the same I/B/E/S industry classification code as the parent (subsidiary). ** significant difference from non-specialist value at the 1% level using a two-sided t test.

In summary, specialists who cover a firm make more regular earnings forecasts and earlier initial forecasts during the year than other analysts covering the same firm, suggesting that specialists are superior information intermediaries on some important dimensions.

4. Tests and Results

We next examine whether conglomerate stock breakups are associated with increases in coverage by total analysts and specialists, and whether such breakups enable specialists to better utilize their industry expertise in forecasting earnings. Section 4.1 presents tests of changes in coverage by all analysts and by specialists around the sample breakups. Section 4.2 examines the accuracy of earnings forecasts made by specialists and non-specialists around the sample breakups. Tests on a sample of non-conglomerate stock breakups are discussed in section 4.3.
**TABLE 4**  
Analyst Coverage Around Conglomerate Stock Breakups

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Total analysts</th>
<th>Parent analysts</th>
<th>Subsidiary analysts</th>
<th>Parent-industry specialists</th>
<th>Subsidiary-industry specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>−2</td>
<td>16.5</td>
<td>—</td>
<td>—</td>
<td>9.1</td>
<td>1.7</td>
</tr>
<tr>
<td>−1</td>
<td>15.4</td>
<td>—</td>
<td>—</td>
<td>8.8</td>
<td>1.7</td>
</tr>
<tr>
<td>+1</td>
<td>20.9**</td>
<td>14.4</td>
<td>8.0</td>
<td>8.8</td>
<td>4.1**</td>
</tr>
<tr>
<td>+2</td>
<td>21.6**</td>
<td>14.1</td>
<td>8.5</td>
<td>8.6</td>
<td>4.9**</td>
</tr>
<tr>
<td>+3</td>
<td>22.3**</td>
<td>13.7</td>
<td>9.5</td>
<td>8.4</td>
<td>5.9**</td>
</tr>
</tbody>
</table>

In fiscal years −1 and −2, total analysts equals the number of analysts who maintain coverage on the conglomerate. In fiscal years +1, +2, and +3, total analysts equals the number of analysts who maintain coverage on either the parent or subsidiary. In fiscal years +1, +2, and +3, parent (subsidiary) analysts equals the number of analysts who maintain coverage on the parent (subsidiary). In fiscal years −1 and −2, a parent-industry (subsidiary-industry) specialist is defined as an analyst who maintains coverage on the conglomerate and at least five firms other than the conglomerate with the same I/B/E/S industry classification code as the parent (subsidiary). In fiscal years +1, +2, and +3, a parent-industry (subsidiary-industry) specialist is defined as an analyst who maintains coverage on the parent (subsidiary) and at least five other firms with the same I/B/E/S industry classification code as the parent (subsidiary). Maximum number of observations = 99.

** significantly different from fiscal year −1 at the 1% level using a two sided t test.

4.1 CHANGES IN TOTAL ANALYST AND SPECIALIST COVERAGE

To test whether conglomerate stock breakups are associated with increases in total analyst and specialist coverage, we examine analyst following and the identity of analysts that cover the breakup firms in the two fiscal years before and three fiscal years after the breakup. In the pre-breakup period, total coverage is defined as the number of analysts who issued at least one earnings forecast for the breakup firm. In the post-breakup period, total coverage is the number of different analysts who issued at least one earnings forecast for either the parent or subsidiary. This ensures that analysts who cover both the parent and subsidiary firms are counted only once.

Table 4 reports mean total analyst coverage for the sample firms in each of the two fiscal years before and three fiscal years after the breakup. In fiscal years −2 and −1 coverage is relatively stable, with a mean of 16.5 and 15.4 analysts per firm, respectively. However, one fiscal year after the breakup the combined parent and subsidiary firms are covered by 20.9 different analysts, a significantly higher level than during the pre-breakup period. The post-breakup coverage for parent firms is roughly 14 analysts, and 8 to 9 analysts for the subsidiary. Further, increases are reported for coverage of the combined firm in fiscal years +2 and +3, to 21.6 and 22.3 analysts, primarily due to an increase in coverage of the subsidiary. Unreported findings for median coverage show a similar pattern.

11 The sum of mean coverage for parent and subsidiary firms in the post-breakup years does not equal the mean coverage for the combined firms since some analysts continue to cover both firms after the breakup. These analysts are only counted once in the combined results to avoid double-counting.
Table 4 also reports the mean number of industry specialists covering the
sample firms. In the pre-breakup period, an average of 8.8 analysts specialize
in the parent firm’s industry, the conglomerate’s dominant industry. This
average declines modestly after the breakup to 8.8, 8.6 and 8.4 in years +1, +2 and +3, respectively. In contrast, there is a significant increase in
specialist coverage for the subsidiary. Before the breakup, an average of 1.7 subsidiary specialists follow the conglomerate. After the breakup, the
mean number of specialists covering the subsidiary firms increases to 4.1
analysts in year +1, 4.9 in year +2, and 5.9 in year +3. Thus, relative to
time period, there is a 247% increase in specialist coverage by year +3 for
subsidiaries. The subsidiary specialist totals for all fiscal years in the post-
breakup period are significantly higher than the value in fiscal year −1.

In summary, our results indicate that stock breakups are successful in
attracting new analyst coverage, particularly for subsidiary firms. There is a
45% increase in total analyst coverage for the breakup firms, and an almost
250% increase in coverage by subsidiary specialists.

4.2 SPECIALIST FORECASTING ABILITY AROUND STOCK BREAKUPS

We next examine how conglomerate stock breakups affect analyst earn-
ings forecast accuracy. Prior research indicates that there is a significant
improvement in analyst earnings forecast accuracy for parent firms following
a spin-off (Bliss [1997], and Krishnaswami and Subramaniam [1998]). How-
ever, those studies do not examine whether this increase is due to expanded
disclosure of pure play performance or improved forecasting by industry
specialists.

Using I/B/E/S actual earnings and individual analyst forecasts from the
I/B/E/S Detail Tape, we compute the absolute earnings forecast error (AEFE)
as follows:

\[
AEFE = \frac{|AF - AE|}{PRICE} \tag{1}
\]

AF is the individual analyst earnings forecast for the fiscal year. A
given analyst typically makes multiple forecasts of a firm’s earnings each
year. AE equals I/B/E/S actual earnings for the fiscal year to which the
prediction applies, and PRICE equals the end-of-fiscal-year stock price.
Before the breakup, AEFE is calculated for the conglomerate firm. Af-
ter the breakup, it is computed for the parent and subsidiary firms
separately.

Table 5 reports mean standardized absolute earnings forecast errors for
all analysts in the years surrounding our sample breakups. Mean absolute
forecast errors for the conglomerate are 2.66% and 2.82% of the stock
price in fiscal years −2 and −1. Consistent with prior research, after the
breakup there is a decline in mean absolute forecast errors for both parent
and subsidiary firms. The mean absolute forecast errors for parent firms
decline steadily from 2.28% in year +1 to 1.52% in year +3. For subsidiary
firms, mean absolute forecasts errors are 1.55%, 1.84%, and 1.78% in fiscal
**TABLE 5**

Analyst Earnings Forecast Errors Around Conglomerate Stock Breakups

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>AEFE (as % of price)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conglomerate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal year −2</td>
<td>6,593</td>
<td>2.66%</td>
</tr>
<tr>
<td>−1</td>
<td>6,349</td>
<td>2.82</td>
</tr>
</tbody>
</table>

| Parent           |    |                      |
| Fiscal year +1   | 6,146 | 2.28**               |
| +2               | 5,805 | 1.84**               |
| +3               | 5,142 | 1.52**               |

| Subsidiary       |    |                      |
| Fiscal year +1   | 2,487 | 1.55**               |
| +2               | 3,210 | 1.84**               |
| +3               | 3,249 | 1.78**               |

Individual analyst annual earnings forecasts are obtained from the I/B/E/S database. AEFE is |AF-AE|/PRICE where AF equals the individual analyst earnings forecast, AE equals I/B/E/S actual earnings for the fiscal year to which the prediction applies, and PRICE equals the end-of-fiscal-year stock price. All significance tests use Newey-West standard errors to take into account possible serial correlation due to the fact that analysts typically make multiple earnings forecasts per fiscal year for a given firm.

**significantly different from fiscal year −1 at the 1% level using a two sided t test.

As discussed earlier, the improvement in analyst earnings forecast accuracy around conglomerate stock breakups is potentially attributable to two factors. First, more information is available after a breakup about the breakup businesses. Second, specialists are better able to utilize their industry expertise for the post-breakup firms. Increased disclosure makes it easier for both specialists and non-specialists to make earnings forecasts. To control for the effect of increased disclosure on analyst earnings forecast accuracy, we conduct cross-sectional tests that compare the performance of specialists and non-specialists.

The cross-sectional tests use the following model to explain analysts’ earnings forecast accuracy surrounding breakups:

\[
AEFE = f(HORIZON, SPEC, Firm and year fixed effects)
\]

AEFE is defined as in equation (1). HORIZON equals the natural logarithm of the number of days between the analyst earnings forecast and the end of the fiscal year to which the prediction applies. The HORIZON coefficient controls for differences in the timing of analyst earnings forecasts, which has been shown to affect forecast accuracy (O’Brien [1988]). SPEC

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12 Test statistics are estimated using Newey-West standard errors to take into account possible serial correlation due to the fact that analysts typically make multiple earnings forecasts per fiscal year for a given firm.
takes on the value of one if the analyst is classified as specialist, and zero otherwise. The SPEC coefficient reflects any difference in forecast accuracy between specialists and non-specialists. To control for differences in the predictability of earnings across firms and time, the model includes firm and year fixed effects (see O’Brien [1988]).

Equation (2) is estimated separately for conglomerate firms before the breakup, the parent and subsidiary firms combined after the breakup, and the parent and subsidiary firms separately after the breakup. To test whether there is any change in the forecast accuracy of specialists relative to non-specialists around conglomerate stock breakups, we compare the pre- and post-breakup SPEC coefficients. All significance tests use Newey-West standard errors to take into account possible serial correlation due to the fact that analysts typically makes multiple earnings forecasts per fiscal year for a given firm.

The estimated coefficients are reported in Table 6. Prior to the breakup, the SPEC estimate is $-0.02$ and statistically insignificant, indicating that specialists are unable to benefit from their industry expertise in the pre-breakup period, perhaps because of the mismatch between their expertise and the conglomerate’s business scope.

### Table 6

**Comparison of Specialist and Non-Specialist Earnings Forecast Accuracy Around Conglomerate Stock Breakups**

<table>
<thead>
<tr>
<th>Independent variable (Predicted sign)</th>
<th>Coefficient (p-value)</th>
<th>Conglomerate</th>
<th>Parent + Subsidiary</th>
<th>Parent</th>
<th>Subsidiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORIZON (+)</td>
<td></td>
<td>1.00</td>
<td>0.92</td>
<td>0.99</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(&lt;0.001)</td>
<td>(&lt;0.001)</td>
<td>(&lt;0.001)</td>
<td>(&lt;0.001)</td>
</tr>
<tr>
<td>SPEC (−)</td>
<td>$-0.02$</td>
<td></td>
<td>$-0.17*$</td>
<td>$-0.18*$</td>
<td>$-0.22**$</td>
</tr>
<tr>
<td></td>
<td>(0.40)</td>
<td></td>
<td>(0.02)</td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Number of observations</td>
<td></td>
<td>12,942</td>
<td>26,039</td>
<td>17,093</td>
<td>8,946</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td></td>
<td>0.67</td>
<td>0.48</td>
<td>0.46</td>
<td>0.52</td>
</tr>
</tbody>
</table>

The coefficients are estimated from the model $AEFE = f(HORIZON, SPEC, Firm and year fixed effects)$. The firm and year fixed effects are significant at the 0.001 level in all four models. Individual analyst annual earnings forecasts are obtained from the I/B/E/S database. $AEFE$ is $|AF-AE|/PRICE$ where AF equals the analyst earnings forecast, AE equals $I/B/E/S$ actual earnings for the fiscal year to which the prediction applies, and $PRICE$ equals the end-of-fiscal-year stock price. $HORIZON$ equals the natural logarithm of the number of days between the analyst earnings forecast and the end of the fiscal year to which the prediction applies. SPEC takes on the value of one if the analyst is classified as a specialist (zero otherwise). Preceding a breakup, a specialist is defined as an analyst who maintains coverage on the conglomerate and at least five other firms with the conglomerate’s $I/B/E/S$ industry classification code. Following a breakup, a specialist can be either a parent- or subsidiary-industry specialist. A parent-industry (subsidiary-industry) specialist is defined as an analyst who maintains coverage on the parent (subsidiary) and at least five other firms with the same $I/B/E/S$ industry classification code as the parent (subsidiary). For independent variables with a predicted sign, the numbers in parentheses are one-sided $p$-values. Otherwise, they are two-sided. All $p$-values are calculated using Newey-West standard errors to take into account possible serial correlation due to the fact that analysts typically make multiple earnings forecasts per fiscal year for a given firm.

* significantly less than the conglomerate SPEC estimate at the 5% level using a one-sided $t$ test.

** significantly less than the conglomerate SPEC estimate at the 10% level using a one-sided $t$ test.
After the breakup, the SPEC estimate is $-0.17$ for parent and subsidiary firms combined. This coefficient is statistically significant and is statistically different from the pre-breakup SPEC estimate at the 0.02 level in a one-tailed test. The SPEC estimate is $-0.18$ for parent firms. This coefficient is also statistically significant and is statistically different from the pre-breakup SPEC estimate at the 0.04 level in a one-tailed test. The SPEC estimate is $-0.22$ for subsidiaries, and is statistically different from zero. It is statistically different from the pre-breakup SPEC estimate at the 0.07 level in a one-tailed test.

The evidence from table 6, therefore, suggests that conglomerate breakups enable specialists to make more accurate earnings forecasts than non-specialists. This evidence is consistent with Jacob, Lys, and Neale [1999] and Dunn and Nathan [1998], who find that specialists’ earnings forecasting advantage is more pronounced for focused firms than for conglomerates.

The estimates in table 6 are also consistent with earlier findings (O’Brien [1988]). There are significant differences in analyst earnings forecast errors across different firms in the sample and over time, as indicated by the highly significant fixed firm and year effects. In addition, the coefficient on HORIZON is positive and highly significant.

One potential explanation for our findings of improved specialist forecast accuracy after breakups is that superior specialist analysts begin following the parent and subsidiary firms after the breakup. To test for this possibility, we examine the forecast performance of analysts that follow the conglomerate prior to the breakup and continue to follow either the parent or subsidiary afterwards. The findings indicate that the forecast advantage for specialists after conglomerate stock breakups holds for analysts that covered the conglomerate and one of the breakup firms continuously during the event period.

Finally, to assess whether the findings apply equally to equity carve-outs and spin-offs, we estimate the regression model described in equation (2) separately for each transaction type. One difference between carve-outs and spin-offs is that parent firms retain a continuing ownership interest in carve-outs but not in spin-offs. However, there is no reason to expect that this difference will lead to any difference in analyst forecast accuracy for carve-outs and spin-offs—analysts covering the parent after a carve-out can free-ride on forecasts for the subsidiary in making consolidated parent forecasts. Consistent with this hypothesis, our tests show that findings for carve-outs and spin-offs are similar to those for the full sample.

To summarize, our tests confirm earlier findings of an overall improvement in forecast accuracy around conglomerate stock breakups. While this

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13 Ideally, we would also analyze target stock deals separately. These types of transactions may well differ from equity carve outs and spin-offs since parent and subsidiary firms continue to operate under the conglomerate umbrella, leading to corporate costs and transfer prices that are not strictly arms length transactions. Consequently, it may be more difficult to separate the performance of the pure plays after the breakup. However, there are insufficient data points to analyze targeted stock deals separately.
effect is surely explained, in part, by increased disclosure since all analysts have access to disaggregated data for the parent and subsidiary after the breakup, we find that there is also a material incremental improvement in forecast accuracy for specialists relative to non-specialists. This finding is consistent with the hypothesis that the creation of more focused business units facilitates more effective analysis by industry specialists.

4.3 NON-CONGLOMERATE STOCK BREAKUPS

Non-conglomerate stock breakups, whose parent and subsidiary firms have the same I/B/E/S industry classification, do not offer the same opportunities for improved analysis by industry specialists as conglomerate breakups. Therefore, we do not expect to observe the same increase in analyst coverage and improvement in specialist forecast accuracy as that documented for the conglomerate breakups. To test this hypothesis, we repeat our analyses using a sample of breakups that do not reduce corporate scope. From the Securities Data Corporation database, we identify 45 stock breakup transactions between 1990 and 1995 where the subsidiary and parent firms are in the same line of business and meet our earlier data requirements.

We re-estimate our earlier tests using this sample. The results indicate that one fiscal year prior to the breakup, the combined firms are followed by an average of 18.2 analysts. In the three fiscal years following the breakup, the parent and subsidiary combined are followed by an average of 20.4 analysts. While this increase is statistically significant, the increase of roughly two analysts is less than half the increase shown by conglomerate breakup firms. In addition, coverage by specialists increases by less than one analyst around non-conglomerate stock breakups, from 13.7 in the fiscal year immediately before the sample deals to an average of 14.5 for the combined parent and subsidiary firms in the three fiscal years afterward.

Non-conglomerate breakups are accompanied by an increase in analyst earnings forecast accuracy, but the improvement is 17% lower than that documented for conglomerate breakups. This difference could, in part, reflect lower benefits to specialists from non-conglomerate breakups since there is no significant post-breakup improvement in forecast accuracy for specialists relative to non-specialists around such transactions. Overall, the above additional tests indicate the robustness of the paper’s main findings, that specialists play an important role in improving earnings forecast accuracy after conglomerate stock breakups.

5. Conclusions

This paper examines whether conglomerate stock breakups are accompanied by improvements in the quantity and quality of analyst coverage, leading to capital market benefits. Breakups create new publicly traded claims against a firm’s individual business segments. One alleged benefit of breakups is that they facilitate improved intermediation for a firm’s stock. We hypothesize that several economic forces underlie this idea. First, breakups
are likely to increase demand for analyst coverage by generating additional investor interest in more focused firms and through increased investment banking needs of breakup firms. Second, the quality of analysts covering the new firms is likely to increase since breakups make it easier for investment banks to assign industry specialists to cover the more focused entities.

We investigate these hypotheses using a sample of 103 conglomerate stock breakups undertaken during the period 1990 to 1995. We find that in the three years after a breakup, the sample firms experience a 45% average increase in overall analyst coverage. There is also a change in the type of analysts covering the breakup firms. Specifically, a significant number of industry specialists are attracted to the newly public subsidiary while specialists that followed the pre-breakup conglomerate continue to follow the post-breakup parent.

Cross-sectional results indicate that there is no significant difference in forecast accuracy between specialists and non-specialists in the pre-breakup period. In the post-breakup period, there is an improvement in forecast accuracy for both specialists and non-specialists. We attribute the general increase in forecast precision to the increase in information disclosed about the pure play companies following the breakup. However, after controlling for this effect, we find that the improvement in forecast accuracy for specialists is higher than that for non-specialists. This suggests that specialists contribute significantly to the improvement in analyst earnings forecast accuracy associated with breakups. Additional tests indicate that the improved forecast accuracy for specialists holds for both the parent and subsidiary firms, and for different types of breakups. Finally, there is evidence that the higher improvement in specialist forecast accuracy relative to non-specialists does not hold for a sample of non-conglomerate stock breakups.

The findings have important implications for our understanding of how corporate scope interacts with the information intermediation process in the capital markets. If the improvements in forecast accuracy are solely attributable to expanded disclosure, managers could probably have achieved similar benefits through increased segment disclosure without incurring the cost of a breakup. However, the benefits of increased specialist coverage are more likely to be achieved through a stock breakup rather than expanded segment disclosures.

As we discussed earlier, previous studies have documented that stock breakups have benefits other than improved stock intermediation. These include improved management incentives by linking compensation for business-unit managers to their stock performance and improved resource allocation by substituting reliance on internal capital markets with external markets. Both these benefits presuppose that there is a liquid, well functioning capital market created for the parent and subsidiary firms after the breakup. Our findings of improved specialist coverage and the resulting improvement in earnings forecast accuracy show that conglomerate breakup firms are able to create such a market for their stocks.
REFERENCES


