

Corporate Restructuring and Corporate Auctions

Audra L. Boone
School of Business Administration
College of William & Mary
Williamsburg, VA 23187
(757) 221-2954
audra.boone@business.wm.edu

J. Harold Mulherin
Department of Economics
Claremont McKenna College
Claremont, CA 91711
(909) 607-3141
harold.mulherin@claremontmckenna.edu

Initial Draft: January 2001
This Draft: November 2002

For comments on earlier drafts, we thank Russ Ezzell, Laura Field, Gerald Garvey, Gordon Hanka, Bob Hansen, Rick Harbaugh, Heather Hulburt, Ninon Kohers, Bill Kracaw, Michelle Lowry, Sarah Peck, Tim Simin, Janet Smith, session participants at the 2001 FMA Meetings and the 2001 Southern Finance Association Meetings, and seminar participants at Claremont McKenna College and the University of Oregon.

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Abstract

We study 298 firms that announce the intent to consider restructuring during the 1989 to 1998 period. We find that the actions taken subsequent to the initial restructuring consideration are equally divided between (i) being acquired, (ii) divesting one or more subsidiaries, or (iii) either terminating the process or declaring bankruptcy. There is a greater completion rate in the second half of the sample, which suggests that economy-wide factors influence the restructuring decision. For the average firm in the sample, restructuring is a positive net present value decision, although sustained positive shareholder returns accrue only to the firms that actually complete restructuring. For a sub-sample of firms that are acquired, we detail the private auction process that is initiated and conducted by the selling firms and their investment banks. In the private auction, 80 percent of the selling firms have multiple bidders, even though only 20 percent of these cases have more than one publicly announced bidder. The depth of the private auction affects the runup of stock prices prior to the formal acquisition offer, suggesting a reinterpretation of the traditional explanations for the variation in premiums across target firms. The use of private auctions by selling firms also suggests one reason for the absence of toeholds in many mergers as well as the occurrence of multiple public bids even when there is only a single public bidder in a merger.

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In this paper, we analyze the process of corporate restructuring during the 1990s. We begin with a sample of 298 firms that announce the intention to restructure during the 1989 to 1998 period. We then track the extent to which these firms actually restructure by either divesting assets or being acquired. We compare the valuation effects of the firms that divest, are acquired, and do not implement restructuring. For the firms that are acquired, we also provide a detailed analysis of the private auction process by which the firms are sold.

One aim of our study is to improve the understanding of the causes and effects of corporate restructuring during the 1990s. A recent portrayal by Holmstrom and Kaplan (2001, pp.132-133) depicts the 1990s as a period where “companies voluntarily restructured and adopted a shareholder value perspective” in part motivated by the fear of 1980s-style hostile takeovers. One question raised by such a depiction is why the restructuring in the 1990s took so long to unfold. Consistent with other research, we show that the majority of the restructuring in the 1990s occurred in the latter part of the decade. An innovation in our analysis is that we contrast both the proposed intention to restructure with actual implementation and thereby indicate the importance of economy-wide factors in the restructuring decision.

Our analysis also aims to better discern the nature of the competition in the merger market in the 1990s. Summarizing their comparison of the 1990s with other periods, Andrade, Mitchell and Stafford (2001, p.201) state, “The picture of mergers in the 1990s that emerges is one where merging parties ... negotiate a friendly stock swap.” One question that arises from such a picture is why bidding firms in the 1990s earn non-

positive returns. Theory (e.g., Bulow and Klemperer (1996)) would suggest that in friendly, negotiated mergers, target firms would be able to extract a lower fraction of rents. Yet bidders in the 1990s fared no better than in prior periods. Andrade, Mitchell and Stafford (2001, p. 118) note that competing bidders provide a possible explanation for the general result of breakeven bidder returns, but acknowledge that such an explanation appears less applicable to the 1990s, a period where mergers usually had only a single public bidder.

Our analysis of the sales process indicates that the emphasis on the number of public bidders provides an incomplete picture of the competitiveness of mergers in the 1990s. For a sub-set of firms in our sample that are acquired, we are able to gather details of the auction procedure by which the firms are sold. Working with their investment bank, the firms in the auction sample solicit private sealed-bids from potential buyers. In 80 percent of these cases, there are multiple written bids in the private auction, even though only 20 percent of the cases have more than one firm making a public bid for the selling firm. The use of private auctions by selling firms provides a possible reason why bidders only break even in the 1990s.

We also study the manner in which the use of private auctions affects the pattern of stock returns in the period surrounding the public announcement of formal merger bids. In his analysis of runup and markup, Schwert (1996) uses auction terminology to refer to the number of competing public bidders in a merger. He conjectures (p.188) that the runup before a public bid “foreshadows” a public auction. Our analysis of private auctions suggests, alternatively, that the magnitude of the runup “reflects” the depth of the private auction.

Our evidence on the nature of the sales process in the auction sample indicates a setting where the seller, rather than a potential bidder, initiates and administers the transaction. Broader recognition of such a setting may help to resolve puzzles in extant empirical results. For example, Betton and Eckbo (2000) report that a bidder in a takeover sometimes makes a second bid even in the absence of a competing public bidder. Perhaps the response by the public bidder reflects that bidder's and/or the seller's knowledge of the competing bidders in the private auction. Similarly, Betton and Eckbo (2000) report that bidders often do not invest in a toehold even though a toehold seems to be a profitable strategy. The absence of a toehold in many cases may stem from the control of the auction process by the selling firm as modeled by French and McCormick (1984), Bulow, Huang, and Klemperer (1999), and Hansen (2001).

We present our analysis as follows. Section 1 describes the sample of firms that announce the intention to restructure. Section 2 describes the sub-set of firms for which we can obtain information on the auction process. Section 3 reports the wealth effects of the different restructuring methods. Section 4 estimates the effect of the private auction process on the runup and markup around acquisition offers. Section 5 provides a summary and concluding comments.

1. The Sample

1.A. Sample Formation

We develop a sample of firms that announce that they are considering restructuring and then track which firms actually take restructuring actions such as divesting assets or being acquired. To form our sample, we employ keyword searches on Lexis/Nexis and

manual searches of the *Wall Street Journal Index* during the ten-year period from 1989 to 1998. On Lexis/Nexis, we search for firms announcing that they were evaluating “strategic options” or “strategic alternatives.” In the *Wall Street Journal Index*, we search the “Divestiture” section for firms that announced that they were considering restructuring. After the initial search, we eliminate privately held entities and non-U.S. companies by requiring that the firm’s common stock be listed in the Daily Stock Price Record at the time of the initial announcement.

These searches produced a sample of announcements of possible restructuring by 298 firms from the 1989 to 1998 period. Table 1 reports the distribution of the sample by the year of the initial announcement. Given that there are 298 sample firms in the ten-year period, there are roughly 30 observations per year. The annual number of observations ranges from 20 in 1989 to 52 in 1998. There are 130 firms (44 percent of the sample) in the first five years of the sample, 1989-1993, and 168 firms (56 percent) in the second five years, 1994-1998.

Table 1 also reports the average size of the sample firms. Size is based on equity value 21 days prior to the initial announcement date. The mean (median) firm size in the sample is \$2.295 billion (\$109 million). The largest firm in the sample is NYSE-listed Pfizer and the smallest firm is NASDAQ-listed EcoTyre Technologies. Both firms announced the intent to restructure in 1998. As a whole, 132 sample firms (44 percent) were listed on the NYSE at the time of the initial announcement, 140 (47 percent) were listed on NASDAQ, and 26 (9 percent) were listed on AMEX.

1.B. Categorization of the Initial Announcement

As reported in Table 2, the initial announcements can be grouped into four mutually exclusive categories. Thirty-three of the firms (11 percent) announced that they were considering restructuring following outside pressure. Roughly half of the cases of outside pressure entail a failed merger or third party takeover bid while the other half stem from blockholder activity or a proxy contest. Ninety-six firms (32 percent) announced that the potential restructuring included the possible sale of the entire corporation. Seventy-five firms (25 percent) made a broad statement that they were considering restructuring. Finally, ninety-four firms (32 percent) announced that they were evaluating the restructuring of a particular division or subsidiary of a firm.

An example of each of the four initial announcement categories is provided below:

Category: Outside Pressure

First Financial Corporation of Western Maryland, 1996

“First Financial Corporation of Western Maryland, a \$322 million-asset thrift in Cumberland, said this week it hired Alex Brown & Sons Inc. to determine various strategic options for the company, including its ‘possible sale.’ The announcement came just three weeks after the thrift’s largest investor, Seymour Holtzman of Boca Raton, Fla., urged the company in a filing to find a buyer. “Under Pressure, Md. Thrift Hires Adviser on Possible Sale,” *The American Banker*, August 22, 1996, p.6.

Category: Possible Sale

Comprehensive Care Corp., 1989

“Comprehensive Care Corp. said Thursday that it has appointed a special committee of directors to evaluate strategic alternatives, including a possible financial restructuring, asset sale or acquisition by another company. In a statement, the company said it believed that its stock was selling for less than true value, which played a role in the decision by its board to chart a new business strategy.” “Compcare Says It’s Considering Restructuring,” *Los Angeles Times*, February 10, 1989, p.D2.

Category: General Restructuring

Century Communications Corp. (1998)

“The Century Communications Corporation, the ninth-largest United States cable-television operator, said yesterday that it had hired the investment banker Donaldson, Lufkin & Jenrette Inc. to explore strategic options for the company. The company did not elaborate on the alternatives.”

“Century Communications is Exploring Options,” *New York Times*, December 17, 1998, p.C4.

Category: Specific Division

Monsanto (1996)

“Monsanto Co. said it will consider spinning off or selling its flagship chemical business, a move that would shift its focus to its promising agricultural biotechnology business... Company officials said it has hired Goldman, Sachs & Co. to analyze its options, which include a spinoff of chemical options or merging the business with another chemical company that would lead to an eventual spinoff. Less likely ... is an outright sale of the business, though such a move hasn’t been ruled out.”

“Monsanto May Shed Its Chemical Unit,” *Wall Street Journal*, October 11, 1996, p.A3.

The four examples suggest that the restructuring process weighed by the sample firms envisioned a variety of possible alternatives including financial restructuring, asset sales, spinoffs and outright sale of the company.

A notable aspect of the initial announcements that is indicated by the four examples above is that the news stories usually report that the firm has hired an investment bank as part of its evaluation of restructuring options. In total, 83 percent of the sample firms identify their investment bank in the initial announcement. Goldman Sachs has the highest incidence in the sample with 37 observations. The inclusion of the investment bank in the initial announcement indicates that the announcement is not merely cheap talk and also provides a contact for inquiries by parties interested in all or part of the assets of the restructuring firm.

1.C. Categorization by the Intermediate Announcement

For each of the 298 firms, we use Lexis/Nexis and other financial media to track any restructuring activity following the initial announcement. We categorize the firms based on whether they made an intermediate announcement that they were the object of an acquisition offer or had agreed to divest a subsidiary or other assets.

Table 3 reports the categorization of the sample based on the intermediate announcement of restructuring. Ninety-seven of the firms (33 percent) announced that they were the object of an acquisition offer. One hundred twelve firms (37 percent) announced that they had agreed to divest a unit or units. Hence, 70 percent of the sample firms that initially proposed restructuring later announced an actual restructuring action. The remaining 30 percent of the firms in the sample did not announce an acquisition offer or a divestiture subsequent to the initial consideration of restructuring.

1.D. Categorization by Event Completion

We also categorize the sample based on the completion of restructuring. For the 70 percent of the sample that announced an acquisition offer or divestiture agreement, we determine whether the planned restructuring was actually completed. For the remaining 30 percent of the sample, we examine whether there was any other evidence of the completion of the restructuring process.

Table 4 reports the categorization of the sample based on event completion. A total of 84 sample firms (28 percent) are acquired and 109 firms (37 percent) engage in a divestiture. The 109 divestitures include 10 spinoffs, 6 equity carve-outs, 73 asset sales and 20 divestiture programs, defined as sales of multiple divisions.

A total of 16 firms (5 percent) are defined to have an unsuccessful restructuring. These firms made an intermediate announcement of an acquisition offer or an agreement to divest that was later cancelled. This category includes 13 firms in an unsuccessful acquisition and 3 firms in an unsuccessful divestiture.

As also reported in Table 4, however, this narrow definition of an unsuccessful restructuring understates the cases where restructuring does not come to fruition. Thirty-

six firms (12 percent) complete the restructuring process by announcing that they are no longer for sale. For example, on June 21, 1993, the *Wall Street Journal* reported that Tambrands was exploring a possible sale of the company. Although there were rumors of possible bidders, no definitive acquisition offers arose. On September 30, 1993, Tambrands announced that it would remain as an independent entity.

A further 20 firms (7 percent) complete the restructuring process by announcing bankruptcy. Finally, 33 firms (11 percent) that initially announced the intent to consider restructuring make no subsequent public statement related to restructuring and are categorized as having no completion announcement.

Table 5 divides the sample into two five-year periods, 1989-1993 and 1994-1998, to report the incidence of the event completion categories over time. As already noted from Table 1, there are more restructuring announcements in the second half of the sample. Another distinct difference between time periods is the incidence of the “no longer for sale” category. In the 1989 to 1993 period, 27 of the firms (21 percent) ultimately announce that they are no longer for sale. By contrast, in the 1994 to 1998 period, only 9 of the firms (5 percent) announce that they are no longer for sale. Hence, not only are there more initial restructuring announcements in the second half of the sample, but the rate of completed restructuring is higher: in the 1989 to 1993 period, 55 percent of the firms are acquired or divest, while in the 1994 to 1998 period, 73 percent of the firms are acquired or divest.

The differential rate of restructuring in the first and second half of the 1990s appears to be tied to overall economic conditions. Using data from Yahoo Finance, we can compute the annual return on the S&P 500 for intervals within the period of the

sample, 1989-1998. For the first five years of the sample, 1989-1993, the mean annual return of the S&P 500 was 12 percent (median = 7 percent). By contrast, for the second half of the sample, 1994-1998, the mean annual return of the S&P 500 was 22 percent (median = 27 percent). The improved economic conditions proxied by the higher returns in the stock market in the second half of the 1990s appear to be associated with a greater incidence of proposed as well as completed restructurings.

The association between the completion rate of restructuring and the state of the economy is of direct importance to practitioners of risk arbitrage. Commenting on the state of the merger market in the first half of the 1990s, a December 7, 1992, article in *Investment Dealers' Digest* asks "Is Risk Arbitrage Dead?" An arbitrageur quoted in the article states, "The key is recession, doing merger arbitrage in a recession. This is a period of time when you shouldn't do merger arbitrage." Confirming this sentiment with data on 4,750 mergers over the 1963 to 1998 time period, Mitchell and Pulvino (2001) find that merger deals are more likely to fail in down markets.

1.E. The Interaction of Initial and Completion Categories

To further study the nature of the restructuring of the sample firms, Table 6 reports the interaction of the initial announcement categories (described in Table 2) and the event completion categories (described in Table 4). Panel A reports the number of observations in each cross category. All of the cells are non-zero, indicating that each initial category has a variety of outcomes.

Panel B of Table 6 reports the fraction of completion outcomes for each initial announcement category. Although each of the initial announcement categories has a variety of outcomes, there are some observable differences in outcomes across categories.

More than half of the firms in the outside pressure category are subsequently acquired. Similarly, 45 percent of the firms that indicate that the restructuring includes a possible sale of the company are subsequently acquired. By contrast, only 29 percent of the firms that make a general initial restructuring announcement are later acquired. For the firms that initially announce that the potential restructuring entails a specific division, 87 percent actually divest a division.

1.F. The Length of the Restructuring Process

As a final description of the overall sample, we estimate the length of the restructuring process. Information is presented for three intervals: (1) initial announcement to intermediate announcement, (2) intermediate announcement to event completion, and (3) the full restructuring period from initial announcement to event completion. For each interval, the mean and median calendar days are reported, as well as the number of observations.

Data for the full sample are presented in Panel A of Table 7. Data are available for the 265 firms with an event completion announcement. The average restructuring takes 345 days, or roughly a calendar year. The median restructuring period is 281 calendar days. For the 209 firms with an intermediate announcement, the data indicate that the period prior to the intermediate announcement date comprises the majority of the restructuring period. On average, firms announce a potential restructuring 207 days before an actual restructuring is publicly reported.

Panel B of Table 7 indicates that the length of the restructuring period is similar across the four initial announcement categories. For each category, restructuring averages more than 300 calendar days. Moreover, the interval between the initial and intermediate

announcements is longer than the interval between the intermediate announcement and event completion.

Panel C of Table 7 reports the length of restructuring period based on the five event completion categories. The longest interval is for the 16 restructurings classified as unsuccessful. The shortest interval is for the 36 firms that conclude restructuring by announcing that they are no longer for sale.

2. The Auction Sample

In this section we look deeper into the restructuring process by studying 50 sample firms that were acquired via an auction. For these 50 firms, SEC documents provide an extremely rich depiction of the decisions entailed in the restructuring process. For related use of SEC merger documents, see the analysis of fairness opinions by DeAngelo (1990) and the analysis of insider trading by Sanders and Zdanowicz (1992).

2.A. Development of the Auction Sample

To form the auction sample, we begin with the 97 sample firms that were the object of an acquisition offer. (See Table 3.) We then searched for SEC filings related to the offer. For the 1989 to 1993, we searched the SEC filings on Lexis/Nexis. For 1993 to the present, we searched the SEC EDGAR filings. From this search, we could find no information on the takeover in 29 cases and found incomplete information in 18 cases.

For 50 of the acquisition offers, we found information in the SEC documents on both the private initiation date of the restructuring process as well as the manner in which the auction was conducted. To provide a flavor for the available material, the Appendix to this paper provides extensive information taken directly from the SEC documents for

two of the firms in the auction sample, Falcon Building Products and Outlet Communications.

2.B. Length of the Restructuring Process for the Auction Sample

One of the pieces of information available for the 50 firms in the auction sample is the date on which the restructuring process actually began. We label this date the private date. This date usually precedes the initial announcement date in our sample. As an example, in November 1997, Pete's Brewing Company privately hired Morgan Stanley to assist in analyzing strategic alternatives and then publicly announced this on February 17, 1998.

The cases in the Appendix provide other examples of the time between the private date and the initial public announcement date. For Falcon Building Products, on September 6, 1996, the firm's Board of Directors urged management to determine appropriate measures to increase shareholder value and in December of the same year the firm issued a press release saying that it had hired Merrill Lynch and Smith Barney to explore strategic alternatives. For Outlet Communications, on December 16, 1994, the firm's Board authorized management to retain an investment bank and on March 21, 1995, the firm issued a press release that it had retained Goldman Sachs to help explore strategic alternatives.

As reported in Table 8, the interval between the private date and the initial announcement date averages 112 calendar days for the 50 firms in the auction sample. For these firms, the interval from initial announcement to event completion is 348 days. Hence, accounting for the private date prior to the public revelation of the intent to restructure increases the length of the restructuring period by 32 percent. The length of

the interval between the private date and the initial public announcement has a wide range. The minimum value is zero, indicating a case where the restructuring process begins on the initial announcement date. The maximum value is 606 calendar days.

Table 8 also bifurcates the auction sample into the 44 successful acquisitions and the 6 unsuccessful acquisitions in the auction sample. The unsuccessful acquisitions had a longer restructuring interval in total. Moreover, the periods from private date to initial announcement and from initial announcement to intermediate date were both lengthier for the unsuccessful acquisitions.

2.C. The Auction Process

In this section, we describe the details of the auction process for the 50 firms in the auction sample. The auctions we study resemble the setting in French and McCormick (1984) in that the selling firm, rather than a potential bidder, structures the takeover process. Many of the cases in the auction sample have hybrid features along the lines of the discussion in Klemperer (2002) where an auction is used to determine the high bidder and then negotiation is performed to determine the final acquisition price. An especially cogent summary of the private auction process is provided in Hansen (2001).

The private auction process can be summarized as follows. Starting at the private date and proceeding through the initial restructuring announcement and the merger agreement at the intermediate date, the firms and their investment banks administer the auction. The process begins with initial contacts with potential buyers. The next step is the signing of confidentiality and standstill agreements where the potential buyers receive initial access to non-public information but also make commitments not to initiate unsolicited attempts to buy the selling firm. The subsequent stage is detailed due

diligence by a select group of potential buyers, where the selection of potential buyers is often based on the prices in non-binding bids. The auction process culminates with final written offers.

Table 9 sketches the details of the auction process for one sample firm, Mediq Inc. On October 17, 1997, the firm authorized Salomon Smith Barney to conduct an auction of the firm and on October 29, 1997, publicly announced that the firm was exploring strategic alternatives. In the course of the next month, the firm and its investment bank contacted 50 potential buyers and signed confidentiality and standstill agreements with 39 firms. By November 17, 1997, Mediq received 20 written indications of interest and instructed Salomon to contact the potential buyers that made the six highest indications of interest. Each of the six potential buyers visited the firm; three made formal written offers. After consideration of the offers and further negotiations with the two highest bidders, the Mediq Board approved a merger with Bruckman, Rosser, Sherrill & Co. The merger was announced on the newswire on January 15, 1998, and appeared in the New York Times the following day.

Table 10 summarizes the process for the 50 firms in the auction sample. Between seven and 174 firms were initially contacted by the selling firms and their investment banks. An average of 63.2 potential buyers were initially contacted. The median was 50. The case from the Appendix on Falcon Building Products indicates that the number of firms contacted is a choice variable for the selling firm.

Of the firms initially contacted, an average of 28.7 firms (median of 18) indicated interest by signing confidentiality agreements. After the initial review of confidential information, an average of 6.3 firms continue further due diligence and/or submit

preliminary proposals. This reduction in the number of potential bidders at the due diligence stage is based both on the choice of the potential buyers as well as the decision of the selling firm. For example, in the case of Outlet Communications discussed in the Appendix, 12 of the 45 firms signing confidentiality agreements later submitted preliminary proposals. The selling firm invited 8 of these twelve firms to conduct further due diligence.

An average of 2.6 potential bidders submitted binding written offers for the selling firms. The median number of written offers was 2. In only 20 percent of the cases in the auction sample was there only a single written bid in the auction.

The data on the number of bids in the auction can be contrasted with the number of competing public bids for the firms in the auction sample. On average, there are 1.3 competing public bids. The median is 1; indeed, 38 of the 50 firms (76 percent) have only a single public bidder.

Research such as Schwert (2000) and Andrade, Mitchell and Stafford (2001) often classifies the competitiveness of a takeover based on the number of public bidders. Under such a classification, the takeovers in our auction sample, like most takeovers in the 1990s, would be classified as lacking competition. However, the details of the auction process reported in Table 10 indicate an extremely competitive setting.

The selling firms in the auction sample often use the reported competitiveness of the auction process to justify the price of the merger agreement. For example, the board of directors of Outlet Communications justified its decision to sell to NBC by noting that

“NBC's proposal was the result of a five-month public auction process conducted with the assistance of Goldman Sachs in which approximately 80 potential acquirors had contacted, or were contacted by, the Company or Goldman Sachs, or both, 12 of such parties submitted preliminary acquisition proposals and five of such parties submitted definitive acquisition proposals.” [SEC EDGAR, DEF 14C, January 12, 1996.]

3. Valuing the Sequential Restructuring Process

In this section, we estimate the effect of restructuring on the value of the sample firms. While we use traditional event study methods, we take care to capture the complexity of the restructuring process that is described in the previous sections of the paper by analyzing both the initial consideration of restructuring as well as the subsequent definitive restructuring actions. We estimate the wealth effects around the three specific restructuring dates: the initial announcement, the intermediate announcement, and event completion. As an estimate of the full value of restructuring, we also sum the event returns across the different dates. Our procedure resembles that used by Mikkelson and Ruback (1985) in their study of 13d announcements.

For each date, we estimate returns for two windows: $(-1,+1)$ and $(-5,+5)$, where day 0 is the date of the particular announcement as determined from Lexis/Nexis and the *Wall Street Journal*. In results not reported in the paper, we also study the $(-20,+20)$ window and obtain similar findings. Our measure of abnormal returns is the net-of-market, buy-and-hold return, where the market is proxied by the CRSP value-weighted index. In results not reported in the paper, we also estimate abnormal returns using a market model and by estimating cumulative abnormal returns and obtain similar findings. The robustness of the results to various estimation procedures is consistent with Fama's (1991) observations about event studies that employ narrow windows.

3.A. Wealth Effects at the Initial Announcement of Restructuring

Table 11 reports the wealth changes for the sample firms at the initial announcement. As reported in Panel A, the initial restructuring announcement is, on

average, associated with an increase in shareholder wealth. The average, net-of-market return is 6.41 percent for the (-1,+1) window and is comparable in size for the (-5,+5) window. The positive and significant returns indicate that the initial announcement is viewed by the market as a substantive step toward restructuring, on average.

Panel B of Table 11 reports the results for sub-samples based on the four initial announcement categories. All four categories have positive abnormal returns, on average. The largest returns are for the sub-sample where the initial announcement included the statement that the firm was considering the possible sale of the entire corporation. Recalling from Table 6 that roughly half of these firms were subsequently acquired, the above-average returns at the initial announcement likely reflect takeover anticipation by the market.

3.B. Wealth Effects at the Intermediate Announcement of Restructuring

Table 12 reports the wealth effects at the intermediate restructuring announcement date. Data are available for 208 firms: 96 firms that announce that they are the target of an acquisition offer and 112 firms that announce an agreement to divest a unit. One of the 97 firms reported in Table 3 to be the object of an acquisition offer is unavailable for analysis because it delists prior to the intermediate announcement date.

Panel A of Table 12 indicates that the intermediate announcement of restructuring is associated with an average wealth increase for the sample firms. The abnormal return for the (-1,+1) window is 5.24 percent and for the (-5,+5) window is 6.80 percent.

As reported in Panel B of Table 12, the largest gains at the intermediate date accrue to the firms that are the object of an acquisition offer. In the (-1,+1) window around the acquisition offer, the abnormal return is 9.85 percent. The abnormal return is

slightly larger, 12.31 percent, for the (-5,+5) window. The firms divesting a unit also experience positive returns, albeit smaller in magnitude.

3.C. Combined Wealth Effects for the Initial and Intermediate Announcements

Because of the complex, sequential nature of the restructuring process for the firms in our sample, a separate emphasis on either the initial announcement date or the intermediate announcement date would underestimate the valuation effects of the restructuring that takes place in the sample. To estimate the combined wealth effects across the two dates, we sum the returns for the initial and the intermediate announcements. The results are reported in Table 13. Panel A indicates that, on average, restructuring creates wealth. The abnormal returns for the (-1,+1) window are 12.84 percent and for the (-5,+5) window are 15.86 percent.

Panel B of Table 13 reports the results based on the two intermediate announcement categories. The results indicate that acquired firms experience large summed returns on the initial and intermediate dates. The average abnormal return for the (-1+1) window is 22.55 percent and for the (-5,+5) window is 28.64 percent. Firms engaging in divestitures also experience a positive appreciation in wealth of more than 4 percent.

3.D. Wealth Effects at Event Completion

To extend the analysis beyond the firms that either are acquired or that engage in a divestiture, we next analyze the firms that make any type of event completion announcement. In addition to acquisitions and divestitures, this includes firms that file for bankruptcy and that announce that they are no longer for sale.

Table 14 reports the wealth effects for the 264 firms with an event completion announcement. As reported in Panel A, the average abnormal return is negative.

Panel B of Table 14 reports the results by event completion category. For the acquired and divesting firms, the abnormal returns are roughly zero, indicating that the completion of the event is not a surprise to the market. By contrast, for the firms that are in an unsuccessful restructuring (13 failed acquisitions and 3 failed divestitures), the returns at event completion are significantly negative.

The firms that announce that they are no longer for sale also experience negative abnormal returns upon making that announcement. Hence, the cancellation of the restructuring for these firms is bad news and is not due to a positive reassessment of their operating conditions.

Similarly, the firms that complete restructuring by filing for bankruptcy also have negative abnormal returns in the window around this announcement. The result that the bankruptcy filing has incremental, negative information is consistent with Clark and Weinstein (1983).

3.E. The Full Value of Corporate Restructuring

As an estimate of the full value of corporate restructuring, Table 15 reports the combined wealth effects for the three stages of the restructuring process: the initial announcement date, the intermediate announcement date, and the event completion date. The wealth effects are estimated by summing the abnormal returns for the three dates. For the firms in the “no longer for sale” and “bankruptcy” categories, the estimates reflect only the initial and event completion dates.

Panel A of Table 15 reports the results for the sample of 264 firms with an event completion announcement. The results indicate that, on average, restructuring increases shareholder wealth. For both the (-1,+1) and (-1,+5) windows, the abnormal return averages more than 7 percent.

Panel B of Table 15 reports the results by event completion category. The results indicate that the positive gains from restructuring come from firms that are either acquired or that engage in a divestiture. Firms that are acquired have the largest wealth appreciation, on the magnitude of 30 percent for the (-5,+5) window. Firms that divest units have gains approaching 5 percent.

Both the firms that are involved in a failed acquisition or divestiture and the firms that announce that they are no longer for sale experience insignificant changes in wealth for the entire restructuring period. Hence, any positive returns at the initial announcement are given up when the restructuring fails to occur. Consistent with prior research on mergers (Bradley, Desai and Kim (1983)) and divestitures (Hite, Owers, and Rogers (1987)), restructuring must be completed for firms to garner sustained, positive wealth effects.

For the 20 firms where the restructuring process leads to a Chapter 11 filing, the combined wealth effects are significantly negative. Among other things, this result indicates that one cost of considering restructuring is that the information revealed in the restructuring process is not always positive.

In summary, the event study analysis indicates that restructuring creates value for the sample firms, a result consistent with prior research. But the analysis also indicates the importance of recognizing the complexity of the restructuring process when

estimating the effects on value. Because the firms in our sample restructure via a sequential process, it is important to incorporate the initial restructuring consideration, as well as the actual restructuring action, to avoid underestimating the effect on shareholder value.

4. Runup and Markup for the Auction Sample

The event study analysis indicates the importance of capturing the complexity of the process when studying the stock market reaction to restructuring announcements. As a related illustration of the effect of the underlying process on the interpretation of market reactions, we study the stock price behavior of the 50 firms in the auction sample around the time of their formal acquisition offer. We estimate the extent to which the runup and markup of these firms are affected by the number of bidders in both the private auction and public sale of the firm.

This analysis is motivated by recent work by Schwert (1996, 2000) that adopts an auction framework in studying the runup and markup related to acquisitions. In his analysis, Schwert (1996, 2000) classifies a takeover as an auction when there is more than one bidder making a formal, public attempt to acquire the target firm. Among other things, Schwert (1996, 2000) finds that the markup is higher when there is a public auction (i.e., multiple public bidders).

As previously discussed in the context of Table 10, the 50 firms in our auction sample generally were the subject of competitive bidding prior to any public announcement of a formal takeover. Indeed, for a large majority of the firms in the auction sample, the public announcement of the acquisition occurs at the end, rather than

at the beginning, of the takeover process. To distinguish such competitive bidding from the auction terminology used by Schwert (1996, 2000), we label the pre-public auction in our sample as the private auction and the bidders in this auction as the private bidders.

We follow Schwert (2000) in defining the runup period as the $(-63,-1)$ window and the markup period as the $(0,+63)$ window, both relative to the acquisition offer. Abnormal returns for these two windows are calculated using a market model that is estimated over a 253-day period that ends 127 days before the acquisition offer.

The estimates of runup and markup for the auction sample are reported in Table 16. Panel A indicates that, consistent with prior research, both the runup and markup are positive for the 50 firms in the auction sample. Also consistent with prior research, the results in Panel B indicate that the markup is much larger for the sample of 12 firms with multiple public bidders.

Panel C bifurcates the analysis based on the 10 firms with only a single private bidder and the 40 firms with multiple private bidders. The results indicate that both the runup and the markup are larger for the firms with multiple private bidders. In his 1996 paper, Schwert (p.188) conjectures that the runup may foreshadow a public auction. The results in Panel C of Table 16 suggest that runup may also reflect the depth of the private auction.

Panel D of Table 16 reports the interaction of the public and private bidder categories. There are three combinations, as the auction sample has no cases where there is a combination of a single private bidder and multiple public bidders. The results in Panel D report an interesting hierarchy. The 10 firms in the auction sample with both a single private and a single public bidder have relatively low values for both the run up

and the markup. The 28 firms with multiple private bidders but a single public bidder have the highest runup but the lowest markup. The 12 firms with both multiple private and public bidders have the highest markup.

The results for the auction sample suggest a possible reinterpretation of the traditional explanation for the variation in takeover premiums across target firms. For example, in summarizing his analysis of takeover premiums, Schwert (1996, p.187) states, “the type of competition feared by the bidder is the best systematic explanation for variation in takeover premiums, and whether this type of competition will occur is not generally known before the first bid occurs.” The data describing the auction sample in Table 10 suggest, however, that much of the competition in a takeover occurs well before the first public announcement of an acquisition offer. Moreover, the results in Table 16 suggest that the nature of the competition before the first acquisition announcement can be as important as the competition subsequent to public revelation of the takeover.

5. Summary and Conclusion

In the traditional nomenclature of corporate takeovers, the buying firm is labeled the bidder and the selling firm is labeled the target. Such labeling implies that the buyer is the initiator of the transaction. The firms in our sample do not fit this standard taxonomy.

We begin with a sample of 298 firms that announce the intention to restructure in the 1989 to 1998 period. Using the terminology of Holmstrom and Kaplan (2001), our sample appears to include firms that voluntarily restructure. We find, however, that only 70 percent of the firms that initially consider restructuring actually complete the process by divesting assets or by being acquired. The rate of completed restructuring is higher in

the second part of the sample period, suggesting that economy-wide factors are an important facet of the restructuring decision.

We also show that an incorporation of the complexity of the process is important in valuing the effects of restructuring. Due to the sequential nature of the process of restructuring for the sample firms, a full valuation of restructuring includes both the announcement of the initial consideration of restructuring as well as the date of the definitive restructuring action.

Our most novel analysis details the auction procedure used by many of the sample firms that are acquired. Defying the traditional taxonomy of the bidder as the initiator of a takeover, the firms in the auction sample administer the transaction in a setting resembling models such as French and McCormick (1984) and Hansen (2001). These auctions usually have more than one bidder submitting a final written offer and indicate that the takeover market in the 1990s was much more competitive than is depicted by looking only at the number of public bidders.

We provide evidence that the depth of the private auction employed by many of the sample firms affects the runup preceding the formal acquisition announcement. Our evidence on the auction process may also shed light on other extant puzzles in the takeover literature. For example, Betton and Eckbo (2000) document both the profitability of gaining a toehold and the absence of a toehold in many acquisitions. This result may merely stem from the control of the sales process by the selling firm as modeled by Bulow, Huang, and Klemperer (1999).

As noted by Hansen (1987, pp. 91-93) transactions in the market for corporate control include both direct bargaining between a buyer and a seller as well as various

forms of auctions. In our future work we plan to delve further into the choice of sales methods used in mergers and acquisitions. Using an extended sample, we will analyze the factors that determine when selling and buying firms directly negotiate and when the selling firms employ an auction.

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Appendix. Examples of the Auction Process.

This Appendix provides examples of the auction process for two of the sample firms, Falcon Building Products and Outlet Communications.

Each entry lists (i) the sample firm (initial announcement year), (ii) the source document, and (iii) excerpts on the auction process taken directly from the source document, maintaining spelling and punctuation.

Falcon Building Products (1996)

Source Document: 424B3 Filing, May 22, 1997, SEC EDGAR

(Note: in the document, the target firm, Falcon Building Products, is referred to as the “Company.” The bidder is Investcorp.)

Excerpts on the Auction Process: At a regularly scheduled Board of Director’s meeting on September 6, 1996, the Board asked management to determine if there were any strategic measures available to increase shareholder value. Pursuant to the Board’s directive, management asked Merrill Lynch and Smith Barney, with whom the Company had ongoing investment banking relationships, to investigate various strategies to enhance stockholder value, including (i) merging the company with logical strategic partners and (ii) selling all or parts of the Company to strategic and/or financial buyers. Management asked Merrill Lynch and Smith Barney to make preliminary inquiries among a limited number of highly qualified potential buyers.

At the regularly scheduled meeting of the Board of Directors on November 13, 1996, management, Merrill Lynch, and Smith Barney indicated to the Board that, in the event the Board elected to explore alternatives leading to the sale of the Company, it could proceed in any of the following ways: (i) continue discussions with the small group of potential buyers that Merrill Lynch and Smith Barney had contacted in the hope that one or more of them, in an effort to avoid a lengthy auction process, would offer a premium price and move quickly to consummate a transaction, (ii) conduct a “controlled auction” with a larger group (5-20) of potential buyers or (iii) conduct a full-scale, publicly-disclosed auction of the Company.

After extensive discussion and evaluation of the advantages and disadvantages of each option, the Board authorized management to continue to pursue discussion with the buyers that had already been contacted. Thereafter, as directed by the Board, Merrill Lynch and Smith Barney continued discussions with the five potential buyers previously selected, each of whom had signed confidentiality agreements and received confidential information about the Company.

Two of these possible buyers submitted preliminary indications of interest. At a Board meeting on November 21, 1996, management and the Financial Advisors reviewed the two indications of interest that the Company had received. The Board noted that neither

indication of interest was at a price sufficient to justify foregoing a broader sale process. The Board decided that a full-scale, publicly disclosed auction represented the best way to maximize value for all shareholders.

On December 2, 1996, the Company issued a press release stating that the Company had hired Financial Advisors to explore strategic alternatives, including the possible sale of the Company or one or more of its business units. The Financial Advisors contacted or, as a result of the public announcement, were contacted by 151 parties interested in considering the potential acquisition of the entire Company or one or more of its operating units. Confidentiality agreements were entered into with 87 potential buyers.

By mid-January 1997, the Company had received 32 written indications of interest from potential buyers, 12 of which expressed interest in acquiring the Company as a whole. Management, with the Financial Advisors' assistance, selected 15 potential buyers to proceed to the next stage of the auction process. The Company included in this group 11 of the 12 bidders that expressed interest in acquiring the Company as a whole and four bidders that expressed interest in acquiring the DeVilbiss subsidiary. Eleven of such potential bidders visited selected manufacturing sites and the remaining four parties elected not to proceed further.

On February 10, 1997, each of the 11 remaining potential buyers received a second letter requesting that they submit their "best and final" offer by March 12, 1997. On March 12, 1997, the Company received three offers for the Company and two for the separate sale of DeVilbiss.

A special Board of Directors' meeting was held on March 14, 1997 to review these offers. The Board, with the assistance of management and the Financial Advisors, determined that the sale of the entire Company provided the most attractive alternative for the Company's stockholders and that the offer from Investcorp was economically and structurally superior to the other two offers for the entire Company. At the conclusion of the Board meeting, the Board directed management: (i) to negotiate with Investcorp, (ii) to notify the second highest bidder that its bid was inadequate and (iii) not to pursue further discussions with the lowest bidder for the entire Company or with those bidders offering to purchase DeVilbiss alone.

Consistent with the terms of the bidding process, the specific terms of the three bids were not disclosed to the other bidders. However, pursuant to the Board of Directors' direction, the second highest bidder was informed that its bid was inadequate. On Tuesday March 18, 1997, the second highest bidder submitted a revised bid, but its revised offer price (\$17.50 per share) remained less than the price per share ultimately offered by Investcorp.

Negotiations with Investcorp began on March 17 and continued through March 20, 1997. At a special meeting of the Board of Directors on March 20, 1997, the Board voted to accept the Investcorp offer.

Outlet Communications (1995)

Source Document: DEF 14C, January 12, 1996, SEC EDGAR

(Note: in the document, the target, Outlet Communications, is referred to as the "Company.")

Excerpts on the Auction Process: During the last quarter of 1994 and the first quarter of 1995, the Company was approached by several parties interested in discussing an acquisition of the Company. The Company entered into confidentiality agreements and had informal discussions with several of these parties.

On December 16, 1994, the Board authorized management to retain an investment banker to assist the Company in exploring various strategic alternatives to enhance stockholder value. On February 7, 1995, the Company engaged Goldman, Sachs & Co. ("Goldman Sachs") as its financial advisor to assist the Board in connection therewith.

On March 21, the Company issued a press release announcing that it had retained Goldman Sachs as its financial advisor to help the Company explore strategic alternatives, including a possible business combination, the sale of all or a portion of the Company, potential acquisitions or other similar transactions.

Thereafter, with the assistance of its financial and legal advisors, the Board evaluated a variety of strategic alternatives for the Company. The Board determined that, as a part of such evaluation, offers for the acquisition of the Company should be solicited pursuant to a controlled auction process. The Board authorized Goldman Sachs to begin contacting potential acquirors for the Company. During March, April and May, approximately 80 interested parties contacted, or were contacted by, the Company or Goldman Sachs, or both. In April and May, 45 interested parties entered into confidentiality agreements with the Company in order to receive confidential information regarding the Company to assist each such party in making a preliminary proposal for the Company or portions thereof.

In response to a request from Goldman Sachs for preliminary proposals, on or prior to May 17, 12 such proposals were received, 10 for the entire equity interest in the Company (ranging in value from approximately \$32.00 per share to \$38.00 per share) and two for less than all the assets of the Company. Of these 12 bidders, eight were invited to conduct due diligence with respect to the Company and attend management presentations during May and June in anticipation of submitting final proposals on June 28. In addition, NBC also requested access to the Company's confidential information and, after signing a confidentiality agreement, was permitted to perform due diligence.

On June 28, five of the nine bidders who performed due diligence on the Company submitted definitive proposals to acquire the Company, ranging in value from approximately \$246 million (\$36.25 per share) to \$289 million (\$42.25 per share). In this

round of bidding, NBC submitted an offer of \$38.00 per share in the form of common stock of General Electric Company, a New York corporation ("GE"), the parent of NBC. NBC's offer also provided that NBC would be prepared to acquire the Company for equivalent consideration in an all-cash transaction. Renaissance Communications Corp., a Delaware corporation ("Renaissance"), submitted an offer of \$42.25 per share in cash.

On June 29 and 30, the Company and its financial and legal advisors negotiated the terms of a merger agreement with Renaissance (the "Renaissance Merger Agreement") providing for the acquisition of the Company by Renaissance for \$42.25 per share in cash (the "Renaissance Merger").

On June 30, the Board met to consider the Renaissance offer. The Renaissance Merger Agreement was executed later the same day and a joint press release was issued announcing the Renaissance Merger Agreement.

On July 28, the Board received a written offer from NBC to acquire the Company for \$47.25 per share in cash. On July 31, the Company issued a press release announcing that it had received the NBC proposal and would consider it.

On August 2, the Board met to consider and act upon NBC's proposal and on any revised proposal that might be received from Renaissance. Based upon the Board's review and consideration of the terms of the Merger Agreement and, among other things, the oral opinion of Goldman Sachs, the Board members who were present unanimously determined that the Merger is fair to, and in the best interests of, the Company and the holders of Company Common Stock, approved the Merger Agreement and recommended that the holders of outstanding shares of Company Common Stock approve and adopt the Merger Agreement. The Board also simultaneously terminated the Renaissance Merger Agreement.

Table 1. Sample by Year of Initial Announcement of Restructuring. This table reports the number and size of the sample firms by year of the initial announcement of restructuring. The sample was formed via keyword searches on Lexis/Nexis (electronically) and the “Divestiture” section of the Wall Street Journal Index (manually) for firms announcing that they were considering or evaluating “strategic alternatives” or “strategic options.” There are a total of 298 firms across the 1989-1998 period. Firm size equals equity value (in \$millions) 21 days prior to the initial announcement date as taken from CRSP.

Year	# Observations	% of Sample	Firm Size (\$millions)	
			Mean	Median
1989	20	6.7%	95	40
1990	24	8.1%	551	122
1991	34	11.4%	850	84
1992	24	8.1%	1,223	160
1993	28	9.4%	638	56
1994	23	7.7%	3,618	723
1995	33	11.1%	1,505	265
1996	38	12.8%	2,533	358
1997	22	7.4%	9,231	138
1998	52	17.4%	3,085	63
Full Sample	298	100%	2,295	109

Table 2. Categorization by Initial Announcement of Restructuring. This table reports the incidence of the sample across four initial announcement categories. The initial announcements were categorized by reviewing both the announcement itself and the news stories for the 298 sample firms in the preceding year. The sample was formed via keyword searches on Lexis/Nexis (electronically) and the “Divestiture” section of the Wall Street Journal Index (manually) for firms announcing that they were considering or evaluating “strategic alternatives” or “strategic options.”

Initial Announcement Category	# Observations	% of Sample	Description of the Announcement Category
Outside Pressure	33	11%	Considering restructuring after a failed merger, blockholder activity, or proxy contest, as reported in the announcement story and/or news stories within the previous year.
Possible Sale	96	32%	Announcement states that sale of the entire firm is one of the restructuring alternatives to be considered.
General Restructuring	75	25%	Broad statement that firm is considering restructuring alternatives. No specifics about the sale of the entire firm or a division.
Specific Division	94	32%	Announcement states that firm is reviewing options for a division or subsidiary of the firm.
Full Sample	298	100%	

Table 3. Sample Categorized by Intermediate Announcement of Restructuring. This table reports the distribution of the sample across three intermediate announcement categories. The categorization is based on a review of Lexis/Nexis, the Wall Street Journal, and other financial media in the period subsequent to the initial announcement date. *Acquisition Offer* refers to firms for which there is an announcement that the firm is the object of an acquisition offer. *To Divest Unit* refers to firms that announced a planned divestiture. *No Intermediate Announcement* refers to firms that did not announce an acquisition offer or a planned divestiture in the period following the initial announcement date.

Intermediate Announcement Category	# Observations	% of sample
Acquisition Offer	97	33%
To Divest Unit	112	37%
No Intermediate Announcement	89	30%
Full Sample	298	100%

Table 4. Sample Categorized by Event Completion. This table reports the distribution of the sample across six event completion categories. The categorization of event completion is based on a review of Lexis/Nexis, the Wall Street Journal, and other financial media in the period subsequent to the initial announcement date. *Acquired* refers to firms that were taken over. *Divested* refers to firms that completed a divestiture of a unit(s). *Unsuccessful* refers to firms that announced that they were the object of a formal agreement that was later terminated. (This category includes 3 cancelled divestitures.) *No Longer for Sale* refers to firms that never received an acquisition offer and ended the restructuring attempt by stating that they were no longer seeking a buyer. *Bankruptcy* refers to firms that filed for Chapter 11. *No Completion Announcement* refers to firms that were not acquired, did not divest a unit, and did not announce an end to the restructuring attempt.

Event Completion Category	# Observations	% of Sample
Acquired	84	28%
Divested	109	37%
Unsuccessful	16	5%
Other		
No Longer For Sale	36	12%
Bankruptcy	20	7%
No Completion Announcement	33	11%
Full Sample	298	100%

Table 5. Event Completion by Time Period. This table reports the distribution of the six event completion categories over time. The placement in a time period is based on the initial announcement date. The categorization of event completion is based on a review of Lexis/Nexis, the Wall Street Journal, and other financial media in the period subsequent to the initial announcement date. *Acquired* refers to firms that were taken over. *Divested* refers to firms that completed a divestiture of a unit(s). *Unsuccessful* refers to firms that announced that they were the object of a formal agreement that was later terminated. (This category includes 3 cancelled divestitures.) *No Longer for Sale* refers to firms that never received an acquisition offer and ended the restructuring attempt by stating that they were no longer seeking a buyer. *Bankruptcy* refers to firms that filed for Chapter 11. *No Completion Announcement* refers to firms that were not acquired, did not divest a unit, and did not announce an end to the restructuring attempt.

Event Completion Category	1989-1993		1994-1998	
	# obs	% obs	# obs	% obs
Acquired	32	25%	52	31%
Divested	39	30%	70	42%
Unsuccessful	6	5%	10	6%
Other				
No Longer For Sale	27	21%	9	5%
Bankruptcy	8	6%	12	7%
No Completion Announced	18	14%	15	9%
Full Sample	130	100%	168	100%

Table 6. Interaction of Initial Announcement Category and Event Completion Category. This table reports the interaction of the initial announcement (described in Table 2) and event completion (described in Table 4).

Panel A. Number of Observations

<u>Initial Announcement</u>	<u>Event Completion</u>						Subsample
	Acquired	Divested	Unsuccessful	No Longer for Sale	Bankrupt	No Completion Announcement	
Prior Activity	18	2	2	5	2	4	33
Possible Sale	43	7	6	22	10	8	96
General Restructuring	22	18	7	5	7	16	75
Specific Division	1	82	1	4	1	5	94

Panel B. Fraction Based on Initial Announcement

<u>Initial Announcement</u>	<u>Event Completion</u>						Subsample
	Acquired	Divested	Unsuccessful	No Longer for Sale	Bankrupt	No Completion Announcement	
Prior Activity	55%	6%	6%	15%	6%	12%	100%
Possible Sale	45%	7%	6%	23%	10%	8%	100%
General Restructuring	29%	24%	9%	7%	9%	21%	100%
Specific Division	1%	87%	1%	4%	1%	5%	100%

Table 7. Length of the Restructuring Period. This table reports the mean (median) length of time, in calendar days, of the restructuring period for the sample firms. Note that 89 firms do not have an intermediate announcement and 33 firms do not have an event completion.

Sample	Initial to Intermediate	Intermediate to Completion	Initial to Complete
Panel A. Full Sample			
Full Sample	207 (141) N=209	149 (120) N=209	345 (281) N=265
Panel B. Categorized by Initial Announcement			
Prior Activity	218 (126) N=22	177 (151) N=22	390 (306) N=29
Possible Sale	213 (140) N=56	160 (145) N=56	331 (268) N=88
General Restructuring	234 (172) N=47	167 (133) N=47	388 (319) N=59
Specific Division	184 (141) N=84	124 (99) N=84	315 (256) N=89
Panel C. Categorized by Event Completion			
Acquired	200 (123) N=84	170 (151) N=84	369 (303) N=84
Divested Unit	203 (150) N=109	127 (100) N=109	330 (273) N=109
Unsuccessful	267 (174) N=16	191 (107) N=16	458 (384) N=16
No Longer for Sale	n.a.	n.a.	256 (220) N=36
Bankruptcy	n.a.	n.a.	391 (367) N=20

Table 8. Auction Sample: Length of the Restructuring Process. This table reports the mean [median] length of time, in calendar days, of the restructuring period for 50 sample firms undergoing an auction. The *Private Date* is determined by reading the “Merger Background” section of the SEC filings related to the acquisition.

Sample	Private Date to Initial Announcement	Initial to Intermediate	Intermediate to Completion	Private Date to Completion
Full Auction Sample (N=50)	112 [70]	198 [119]	150 [121]	460 [398]
Successful Acquisitions (N=44)	101 [70]	177 [115]	147 [121]	425 [384]
Unsuccessful Acquisitions (N=6)	194 [171]	357 [323]	166 [141]	717 [661]

Table 9. Auction Process for Mediq Inc. (source: S-4, SEC EDGAR, Feb. 13, 1998)

Date	Event
Oct. 17, '97	Company authorized Salomon Smith Barney to conduct an auction
Oct. 29, '97	Press release: Salomon Smith Barney to explore strategic alternatives, including the possible sale of the Company.
Oct. 17 to Nov. 17, '97	50 potential buyers contacted. Confidentiality and standstill agreements with 39 potential buyers. Letter setting forth the procedures of the auction process, the deadline for firm offers and other bidding requirements sent to potential buyers.
Nov. 17, '97	20 written indications of interest had been received. Salomon Smith Barney to contact the six highest indications of interest.
Dec. 3, '97 to Jan. 8, '98	The six potential buyers conducted extensive meetings with members of the Company's senior management, visited Company headquarters and had access to the Data Room.
Jan. 8, '98	Company received written offers from 3 of the six second-round bidders.
Jan. 9, '98	Board determined that the proposal from BRS was best offer. Board directed executive management, with assistance of advisors, to (i) commence negotiations with BRS, (ii) ascertain whether the second highest bidder would raise its bid, (iii) not hold discussion with the third bidder at that time. Second highest bidder not willing to increase its bid.
Jan. 11, '98	BRS was asked to increase the value of its bid. Increased the cash portion of its bid.
Jan.14, 1998	Mediq Board voted unanimously to approve the Merger.
Jan 15, '98	PR Newswire story on Lexis/Nexis: "Bruckmann, Rosser, Sherrill & Co., Inc. to Acquire Mediq Incorporated"
Jan 16, '98	New York Times: "Mediq Agrees to Be Acquired for \$526 Million"

Table 10. The Auction Process. This table describes the process for 50 sample firms undergoing a private auction. The information on the auction process is taken from the “Merger Background” section of the SEC filings related to the acquisition. *Contact* refers to the number of potential bidders initially contacted by the target firm and/or the firm’s investment bank. *Confidentiality* refers to the number of potential bidders that sign confidentiality agreements. *Due Diligence* refers to the number of potential bidders accepting the invitation to perform advanced due diligence of the target firm. *Written Private Offers* refers to the number of bidders that submit binding written offers for the target firm. *Competing Public Bids* refers to the number of competing bidders that make a formal, publicly announced offer for the target firm. Note that not all variables have a complete set of 50 observations due to the absence of some data in the SEC documents.

	Contact	Confidentiality	Due Diligence	Written Private Offers	Competing Public Bids
Mean	63.2	28.7	6.3	2.6	1.3
Median	50	18	5	2	1
Maximum	174	87	20	6	3
Minimum	7	2	1	1	1
# Observations	37	35	39	50	50

Table 11. Wealth Effects at the Initial Announcement of Restructuring. This table reports the shareholder wealth effects at the initial announcement of restructuring for the 298 sample firms. Sample formation is described in Table 1. Panel A reports the results for the full sample and Panel B reports the results for the four initial announcement categories described in Table 2. The estimates of wealth effects are net-of-market, buy-and-hold abnormal returns, where the market index is the CRSP value-weighted index. The estimates are provided for two event windows, (-1,+1) and (-5,+5), where day 0 is the date of the initial announcement of the restructuring as determined from Lexis/Nexis and the Wall Street Journal. The reported statistics are mean (p-value of the t-statistic testing the null hypothesis that the mean abnormal return equals zero) and median (p-value of a signed rank test).

	<u>Mean (p-value), Median (p-value)</u>	
	<u>(-1,+1)</u>	<u>(-5,+5)</u>
<hr/>		
Panel A. Full Sample [N=298]		
Mean	6.41% (<.001)	7.19% (<.001)
Median	3.72% (<.001)	4.28% (<.001)
<hr/>		
Panel B. Sample Categorized by Initial Announcement		
Prior Activity [N=33]	6.88% (0.011) 1.83% (0.015)	6.91% (0.005) 2.05% (0.005)
Possible Sale [N=96]	12.23% (<.001) 11.40% (<.001)	13.93% (<.001) 11.26% (<.001)
General Restructuring [N=75]	3.00% (0.130) 2.64% (0.043)	3.21% (0.178) 3.84% (0.043)
Specific Division [N=94]	3.05% (<.001) 1.33% (<.001)	3.59% (<.001) 2.45% (<.001)
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Table 12. Wealth Effects at the Intermediate Announcement of Restructuring. This table reports the shareholder wealth effects at the intermediate announcement of restructuring. Sample formation is described in Table 1. The two intermediate announcement categories are described in Table 3. Panel A reports the results for the full sample of 208 firms making intermediate announcements. (Note that one firm is delisted prior to making an intermediate announcement.) Panel B reports the results for the two intermediate announcement categories. The estimates of wealth effects are net-of-market, buy-and-hold abnormal returns, where the market index is the CRSP value-weighted index. The estimates are provided for two event windows, (-1,+1) and (-5,+5), where day 0 is the date of the intermediate announcement of the restructuring as determined from Lexis/Nexis and the Wall Street Journal. The reported statistics are mean (p-value of the t-statistic testing the null hypothesis that the mean abnormal return equals zero) and median (p-value of a signed rank test).

	<u>Mean (p-value), Median (p-value)</u>	
	<u>(-1,+1)</u>	<u>(-5,+5)</u>
Panel A. Full Sample [N=208]		
Mean	5.24% (<.001)	6.80% (<.001)
Median	2.20% (<.001)	3.33% (<.001)
Panel B. Sample Categorized by Intermediate Announcement		
Acquisition Offer [N=96]	9.85% (<.001) 8.82% (<.001)	12.31% (<.001) 10.41% (<.001)
To Divest Unit [N=112]	1.28% (0.087) 0.54% (0.095)	2.07% (0.157) -0.15% (0.815)

Table 13. Combined Wealth Effects for the Initial and Intermediate Announcements of Restructuring. This table reports the summed shareholder wealth effects for the initial and intermediate announcements of restructuring. Sample formation is described in Table 1. Panel A reports the results for the full sample of 208 firms making intermediate announcements. (Note that one firm is delisted prior to making an intermediate announcement.) Panel B reports the results for the two intermediate announcement categories described in Table 3. The estimates of wealth effects are net-of-market, buy-and-hold abnormal returns, where the market index is the CRSP value-weighted index. The estimates are provided for two windows, (-1,+1) and (-5,+5), where day 0 is the date of the announcement as determined from Lexis/Nexis and the Wall Street Journal. The reported statistics are mean (p-value of the t-statistic testing the null hypothesis that the mean abnormal return equals zero) and median (p-value of a signed rank test).

	<u>Mean (p-value), Median (p-value)</u>	
	<u>(-1,+1)</u>	<u>(-5,+5)</u>
Panel A. Full Sample [N=208]		
Mean	12.84% (<.001)	15.86% (<.001)
Median	7.47% (<.001)	10.96% (<.001)
Panel B. Sample Categorized by Intermediate Announcement		
Acquisition Offer [N=96]	22.55% (<.001) 21.96% (<.001)	28.64% (<.001) 24.38% (<.001)
To Divest Unit [N=112]	4.54% (0.001) 2.90% (<.001)	4.70% (0.028) 2.98% (0.003)

Table 14. Wealth Effects at Event Completion. This table reports the shareholder wealth effects at the announcement of the completion of restructuring. Sample formation is described in Table 1. Panel A reports the results for the full sample of 264 firms with event completion announcements. (Note that one firm is delisted prior to the intermediate announcement and 33 firms have no observed completion announcement.) Panel B reports the results for the five event completion categories described in Table 4. The estimates of wealth effects are net-of-market, buy-and-hold abnormal returns, where the market index is the CRSP value-weighted index. The estimates are provided for two event windows, (-1,+1) and (-5,+5), where day 0 is the date of the event completion announcement as determined from Lexis/Nexis and the Wall Street Journal. The reported statistics are mean (p-value of the t-statistic testing the null hypothesis that the mean abnormal return equals zero) and median (p-value of a signed rank test).

	<u>Mean (p-value), Median (p-value)</u>	
	<u>(-1,+1)</u>	<u>(-5,+5)</u>
<hr/>		
Panel A. Full Sample [N=264]		
Mean	-3.51% (<.001)	-5.49% (<.001)
Median	-0.63% (0.001)	-1.45% (<.001)
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Panel B. Sample Categorized by Event Completion		
Acquired [N=83]	1.09% (0.164) -0.05% (0.969)	0.33% (0.635) -0.29% (0.592)
Divested [N=109]	-0.40% (0.576) 0.08% (0.412)	0.47% (0.683) -0.68% (0.719)
Unsuccessful [N=16]	-13.57% (0.010) -12.51% (0.011)	-23.89% (.0003) -19.04% (<.001)
No Longer for Sale [N=36]	-10.77% (<.001) -7.21% (<.001)	-14.11% (<.001) -11.22% (<.001)
Bankruptcy [N=20]	-22.90% (0.012) -14.43% (0.007)	-31.78% (0.001) -22.23% (0.001)

Table 15. Combined Wealth Effects at for the Initial, Intermediate and Event Completion Announcements. This table reports the summed shareholder wealth effects for the three announcements of corporate restructuring restructuring. Sample formation is described in Table 1. Panel A reports the results for the full sample of 264 firms with event completion announcements. (Note that one firm is delisted prior to the intermediate announcement and 33 firms have no observed completion announcement.) Panel B reports the results for the five event completion categories described in Table 4. The estimates of wealth effects are net-of-market, buy-and-hold abnormal returns, where the market index is the CRSP value-weighted index. The estimates are provided for two event windows, (-1,+1) and (-5,+5), where day 0 is the date of the announcement as determined from Lexis/Nexis and the Wall Street Journal. The reported statistics are mean (p-value of the t-statistic testing the null hypothesis that the mean abnormal return equals zero) and median (p-value of a signed rank test).

	<u>Mean (p-value), Median (p-value)</u>	
	<u>(-1,+1)</u>	<u>(-5,+5)</u>
Panel A. Full Sample [N=264]		
Mean	7.35% (<.001)	7.47% (0.001)
Median	4.80% (<.001)	6.33% (<.001)
Panel B. Sample Categorized by Event Completion		
Acquired [N=83]	23.21% (<.001) 21.20% (<.001)	29.53% (<.001) 23.01% (<.001)
Divested [N=109]	4.75% (0.002) 3.20% (<.001)	4.91% (0.049) 2.68% (0.028)
Unsuccessful [N=16]	8.93% (0.283) 6.54% (0.231)	-0.10% (0.994) 6.17% (0.900)
No Longer for Sale [N=36]	-3.94% (0.163) -0.23% (0.367)	-5.72% (0.148) -4.09% (0.271)
Bankruptcy [N=20]	-25.19% (0.023) -22.20% (0.036)	-40.51% (0.001) -39.90% (0.001)

Table 16. Runup and Markup for the Auction Sample. This table reports the runup and markup for the 50 sample firms with data available on the auction process. Details of the auction process are described in Table 13. Runup is estimated over the (-63,-1) period and markup is estimated over the (0, +63) period, both relative to the acquisition announcement date. For each firm, the abnormal returns are calculated with a market model estimated over a 253 day period that ends 127 days before the acquisition announcement. Panel A reports the mean (p-value of the t-statistic testing the null hypothesis that the mean abnormal return equals zero) for the full sample of 50 observations. Panel B reports the results based on the number of public bidders, where Multiple Public Bidders refers to cases where more than one firm made a competing offer for the target. (Note that in these cases, the announcement date is the first acquisition announcement.) Panel C reports the results based on the number of private bidders, where Multiple Private Bidders refers to cases where more than one firm made a formal written offer for the target in the auction. Panel D reports the results based on an interaction of the number of public and private bidders. (Note that in the auction sample, there are no observed cases of a single private bidder and multiple public bidders.)

	Runup	Markup
Panel A. Full Sample [N=50]		
Mean (p-value)	10.58% (0.006)	7.84% (0.031)
Panel B. Sample Based on the Number of Public Bidders		
Single Public Bidder [N=38]	11.33% (0.009)	4.08% (0.319)
Multiple Public Bidders [N=12]	8.19% (0.349)	19.74% (0.010)
Panel C. Sample Based on the Number of Private Bidders		
Single Private Bidder [N=10]	3.61% (0.723)	4.29% (0.739)
Multiple Private Bidders [N=40]	12.32% (0.003)	8.73% (0.010)
Panel D. Sample Based on the Number of Private and Public Bidders		
Single Private, Single Public [N=10]	3.61% (0.723)	4.29% (0.739)
Multiple Private, Single Public [N=28]	14.09% (0.003)	4.01% (0.255)
Multiple Private, Multiple Public [N=12]	8.19% (0.349)	19.74% (0.010)