

Causes and Effects of Corporate Refocusing Programs

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We study the precursors and outcomes of refocusing episodes by 107 diversified firms that were not taken over between 1984 and 1993. These firms had more value-reducing diversification policies than diversified firms that did not refocus. However, major disciplinary or incentive-altering events (including management turnover, outside shareholder pressure, changes in management compensation, and financial distress) usually occurred before refocusing took place. The cumulative abnormal returns over a firm's refocusing-related announcements averaged 7.3% and were significantly related to the amount of value reduction associated with the refocuser's diversification policy.

Despite the weakening disciplinary role of the takeover market, there has been a rash of divestiture and split-up announcements by such prominent firms as AT&T, ITT, W. R. Grace, and others. These internal breakups are consistent with at least three explanations for the average value reduction of diversification during the 1980s and 1990s documented in Lang and Stulz (1994), Berger and Ofek (1995, 1996), and Comment and Jarrell (1995).

One possibility is that the refocusings were motivated by a gradual decrease over time in the benefits of creating an internal capital market [see Subrahmanyam and Titman (1999)]. Diversified firms create a larger internal capital market, which creates potential benefits by relaxing firmwide external funding constraints (Stulz 1990), and by giving headquarters control rights that enable it to actively shift funds toward more valuable projects (Stein 1997). These internalization benefits help to explain cross-sectional

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variation in the (generally positive) abnormal returns of bidding firms making diversifying acquisitions in the 1960s (Hubbard and Palia 1999). However, as public U.S. stock markets have become broader and more liquid, the advantage of internal capital markets relative to external markets has gradually decreased.

A second explanation for the increase in refocusing activity is that changes in regulatory and competitive conditions in the 1980s made focus more valuable. Shleifer and Vishny (1991) contend that less vigorous antitrust enforcement increased the ability of firms to achieve large scale in a single line of business. It has also been argued that effective management of organizations is reduced as they become more complex, so that increased focus could be motivated by the desire to enhance managerial efficiency. See, for example, Weston, Chung, and Hoag (1990, p. 236). As competitive pressures have intensified, the benefit of improved managerial efficiency has gradually increased.

Finally, the internal refocusing programs may be spurred by a reduction in agency conflicts between owners and managers. In contrast to the previous two explanations, one based on agency costs is inconsistent with the refocusing activity occurring voluntarily. Moreover, the agency explanation suggests that drastic changes in the firm's focus quickly follow events that reduce agency conflicts, in contrast to the more gradual shift toward focus suggested by the competing explanations.

To explore the antecedents and results of internal refocusing programs, we compare 107 diversified firms that underwent major refocusings during 1985 to 1993 without being taken over to a matched sample of 107 control firms. We find that corporate control events frequently precede the decrease in diversification. Twenty-two percent of refocusings are preceded by a change in CEO, 27% by a new outside blockholder, 19% by financial distress, 13% by an unsuccessful takeover bid, 12% by activism from pension fund investors, and 11% by a new compensation plan, each of which is significantly higher than the corresponding percentage for the matched control firms.

The finding on CEO turnover confirms evidence in Scherer (1988) and Ravenscraft and Scherer (1991), and supports Boot's (1992) argument that bad managers avoid the admission of past mistakes by not divesting, whereas new managers divest to gain from past managers' mistakes. The financial distress results augment Allen and McConnell's (1998) finding that carve-out subsidiaries exhibit poor operating performance and high leverage prior to the carve-out. Overall, 62% of our sample of divesting firms experienced at least one major corporate control event before restructuring. In contrast, just 18% of the matched firms had one of these events occur during the same time frame. The overall results on corporate control events confirm the evidence of Denis, Denis, and Sarin (1997), who show that 54% of firms decreasing diversification during 1985–1989 had at least one major

corporate control event occur during the year prior to the diversification decrease, versus 27% for other firms.

We also show that the valuation consequences of diversification, estimated using Berger and Ofek's (1995) excess value measure, strongly affect the probability of divestiture. After controlling for other determinants of refocusing, we find that firms with the greatest value loss due to diversification are the most likely to have divestitures. Thus the firms that refocus are more likely to attract external pressure, and are more likely to be viewed negatively by the market.

We find that the characteristics of the diversification program affect refocusing likelihood. Firms are most likely to refocus when they have diversified into unrelated lines of business, when lines of business have experienced negative cash flow, and when the firm has a relatively high proportion of unallocated headquarters expenses. The first result is consistent with past findings that unrelated diversification is most damaging. The second result suggests that firms are quickest to refocus in response to immediate performance problems and, by implication, inefficient cross-subsidization. The last result is consistent with the view that internal capital markets supported by significant headquarters staff have proven to be inefficient. This evidence is exploratory and calls for more detailed research into the organizational economics of the diversified firm.

Finally, we examine the market reaction to restructuring-related announcements. The cumulative abnormal return (CAR) over a firm's refocusing-related announcements averages 7.3%. Moreover, cross-sectional variation in the magnitude of the CAR is positively related to the amount of value that was being destroyed by the refocuser's diversification policy. This result is consistent with divestitures reversing, at least in part, the value destruction from unsuccessful diversification strategies. Our finding complements those of John and Ofek (1995) and Allen et al. (1995). John and Ofek show that focus-increasing asset sales are associated with operating performance increases and that focus-increasing divestitures are associated with more positive seller stock returns at the divestiture announcement. Allen et al. examine spinoffs that originated as earlier acquisitions and find that announcement period returns at the time of the spinoff are significantly inversely related to the acquisition announcement period returns (of the bidder alone, and of the combined bidder and target).

Taken together, the results from our various tests are more consistent with the reduction of agency conflicts explaining the trend toward increased focus, rather than changes in the benefits from internal capital markets or changes in the regulatory or competitive environments. The finding that refocusing is more likely for firms with negative cash flow segments and greater headquarters expenses are consistent with both the agency and internal capital markets explanations. However, the evidence that most of the restructurings were preceded by events of external pressure, occurred at

firms with large diversification discounts, and were associated with large abnormal returns argues in favor of the agency cost explanation. These pieces of evidence indicate that managers usually had to be pressured into undertaking the restructuring and that the diversification policies being undone were destroying considerable value. If a gradual reduction in the benefits of internal capital markets motivated the refocusing, managers would not need to be strongly pressured and the value reduction from diversification would be more moderate.

As mentioned above, our findings on the relation between events of external pressure and refocusing are similar to those of Denis, Denis, and Sarin (1997). Our contribution differs from theirs mainly with respect to four dimensions of the refocusing decision that they do not examine. First, we explore the role of internal governance parameters and show that at least one (CEO option-based compensation) affects divestiture likelihood, and that several others (e.g., percentage of insiders on the board) do not. Second, we show that the characteristics of the diversification policy affect the probability of refocusing. Third, we test whether the market views the divestitures as reversing part of the value loss from diversification and find that it does. Finally, whereas the emphasis in Denis, Denis, and Sarin (1997) is on cross-sectional relations between managerial ownership and the level (and value effect) of diversification, our analysis emphasizes decreases in diversification and thus facilitates sharper tests of the motives for refocusing.

In Section 1 we present sample selection details and describe the sample. In Section 2 we examine the effect of market discipline on the decision to refocus. We present tests of the relation between value destruction from diversification and the probability of refocusing in Section 3. Section 4 examines the role of internal control mechanisms in motivating firms to refocus. Section 5 documents the market reaction to refocusing-related announcements and examines what factors explain the cross-sectional variation in market reaction. We summarize the results and offer our conclusions in Section 6. Appendix A provides additional details on our empirical approach and variable construction, and Appendix B provides details about the refocusing programs and the events of market discipline for our sample.

1. Sample Selection and Estimation of Segment Values

1.1 Sample Selection and Description

To identify our sample of refocusers, we obtain data for all firms that appeared on the Compustat Industry Segment (CIS) database during 1984–1993 that have total sales of at least \$100 million in 1984 (or their first year of existence), and no segments in the financial services industry (SIC codes between 6000 and 6999).¹ Firms with financial services segments are

¹ FASB no. 14 and SEC regulation S-K require firms to report audited segment information for segments whose sales, assets, or profits exceed 10% of consolidated totals.

removed from consideration because applying the valuation methods we use is problematic for such firms.

We use three levels of screening to identify the refocusing firms within the CIS observations. First, we gather information on the number of segments and the revenue-based Herfindahl index of each observation. The Herfindahl index, H , is calculated across n business segments as the sum of the squares of each segment i 's sales, S_i , as a proportion of total sales:

$$H = \frac{\sum_{i=1}^n S_i^2}{(\sum_{i=1}^n S_i)^2}. \quad (1)$$

Thus the closer H is to one, the more the firm's sales are concentrated within a few segments. Firms pass the first screen if they have at least one year during 1985–1993 in which they have both a decrease in the number of segments reported on the CIS database and an increase of at least 0.1 in their Herfindahl index.

The second screen eliminates firms without available Compustat data, firms for which we cannot calculate at least one of our three excess value measures, and firms in which the decrease in the number of segments is reversed within several years. The remaining 295 firms are examined in detail using Lexis/Nexis and the *Wall Street Journal* Index. We use this final screen because firms may decrease their number of reported segments without refocusing, due to such events as reconfigurations of existing lines of business or decreases to below 10% in the contribution of segment sales to firm sales. We also use the news stories to ascertain the time period over which each refocusing program occurs and to gather information on events that could reduce agency conflicts. Information on these events was gathered for the period from 12 months before the first divestiture announcement until 1 month after the announcement. Our procedures result in a sample of 107 refocusing observations.

Table 1 describes the sample of refocusing firms. Panel A shows that refocusings were more frequent during 1985–1988 than 1989–1993. Panel B demonstrates that the refocusing programs represent substantial restructurings. Both the drop in the number of reported segments and the increase in the revenue-based Herfindahl index from before to after the refocusing show that the extent of diversification was cut roughly in half. The divested businesses represented 49% (18%) of the parent's market value of equity (book value of assets) in the year prior to the start of the refocusing program. Finally, the last row of panel B portrays the short time frames of the restructurings, with a median of 2 years between the fiscal year prior to the first sale and the fiscal year of the last sale.

Appendix B provides details on the sample of 107 refocusing firms. The fourth column shows that just nine firms reported more than two segments by the end of their refocusing period. The value sold column reveals that the sum of all available prices paid for the equity of the divested divisions

Table 1
Description of refocus sample

A. Sample frequencies by first year of refocus program					
Fiscal year 0	Number of firms			Frequence	
1984	5			0.047	
1985	11			0.103	
1986	18			0.168	
1987	14			0.131	
1988	12			0.112	
1989	9			0.084	
1990	8			0.075	
1991	13			0.121	
1992	9			0.084	
1993	8			0.075	
Total	107			1.000	
B. Descriptive statistics					
Variable	Mean	Median	Std	Low	High
Number of segments before the refocus	3.514	3.000	1.239	2.000	7.000
Number of segments after the refocus	1.505	1.000	0.744	1.000	5.000
Change in the number of segments	−2.009	−2.000	1.042	−1.000	−6.000
Sales Herfindahl before the refocus	0.486	0.466	0.184	0.184	0.883
Sales Herfindahl after the refocus	0.837	1.000	0.214	0.362	1.000
Change in the sales Herfindahl	0.344	0.291	0.197	0.105	0.748
Number of divisions sold	3.617	3.000	2.887	1.000	15.000
Minimum value divested/market equity	1.185	0.489	2.392	0.025	15.730
Minimum value divested/total assets	0.238	0.176	0.286	0.013	1.369
Length of the refocusing program	1.887	2.000	1.030	1.000	5.000

The minimum value divested is the sum of all available sale prices of the divisions divested. Ratios using the minimum value divested are only included in the descriptive statistic calculations if the divestiture price is available for at least one divestiture. The length of the refocusing program is the number of years between the fiscal year prior to the first sale and the fiscal year of the last sale.

ranges, among firms with at least one available price, from a low of \$3 million for two divisions sold by North Star Universal to a high of \$5.1 billion for three divisions divested by Burlington Northern.

The return column reports the cumulative abnormal returns (CARs) from each firm's total set of divestiture-related announcements. For each divestiture we compute daily abnormal excess returns as the actual announcement returns minus the firm's expected daily return. Expected daily returns are computed using a market model estimated over the 250-trading-day period that ends prior to the firm's first refocusing announcement. The CAR for each divestiture cumulates the daily returns from the day before through the day after the announcement, and the total CAR reported in the return column of Appendix B cumulates the CARs for all of the firm's divestiture-related announcements. The largest negative reaction is Newmont Mining's CAR of -20.5%. Newmont announced a restructuring to fend off T. Boone Pickens' hostile takeover attempt, and subsequently sold or spun off six divisions. Arbitrators valued the restructuring at a lower amount than Pickens' offer, but the restructuring dissuaded the Pickens group from pursuing the takeover. In conjunction with the restructuring, Newmont also sanctioned

employment contracts for 25 executives. Thus, although we later report that the refocusings are generally value enhancing, in some cases managers appear to remain strongly entrenched after refocusing. In such cases, the refocusing announced may fall short of market expectations, leading to the negative stock price reaction.

The last six columns of Appendix B detail the events of market discipline that occurred in the year preceding the start of each refocusing program. A perusal of these columns along with the individual CARs reveals that many of the most extreme market reactions were associated with refocusings in response to events of financial distress. The large market reactions in these cases are likely due in part to the fact that the expected return to equity holders from changing the firm's expected cash flows (because of refocusing) is larger when the amount of equity invested is smaller (i.e., when financial leverage is greater).

Our tests compare the refocusing firms to a nonrefocusing sample. In order to limit data collection costs for the non-refocusing sample, we use a matched control sample. The pool of potential matched firms includes those 1985–1993 observations of multisegment firms that did not enter the initial refocusing sample of 295 firms, had total sales of at least \$100 million in 1984 (or their first year of existence), and had no financial services segments. To qualify as a matched control, the observation must be for the same year as the refocuser, have book value of assets within 20% of its matched refocuser, and have a revenue-based Herfindahl index within 0.2 of its matched refocuser. When these criteria resulted in multiple matches, we selected the match that minimized the sum of the size and Herfindahl index deviations. After selecting the matched firms, we followed the same procedures used for the refocusing firms to gather information on events that could reduce agency conflicts.

Table 2 compares the refocusing and matched control samples. For the refocusers, all variables are measured in the year prior to refocusing. The refocusers and controls have similar values for most of the variables reported. With respect to the matching variables, the deviations between the refocusers and their matched controls are, on average, within 3% for book value of assets and within .01 for the Herfindahl index. The only area in which the two samples appear to differ is in their performance prior to the refocusing year. Refocusers had somewhat slower growth (annual rate of change in sales) and a lower return on assets (EBITD/assets).

2. Refocusing and Market Discipline

2.1 The Effect of Market Discipline on Refocusing

Both Lang and Stulz (1994) and Berger and Ofek (1995) document large average value losses associated with diversification strategies in the 1980s. In addition, Comment and Jarrell (1995) and John and Ofek (1995) find

Table 2
Comparative statistics of diversified firms that do or do not refocus

Variable	No refocus	Mean refocus	Difference	No refocus	Median refocus	Difference
Total assets	1849	1806	43	749	760	-11
Leverage	0.308	0.325	-0.017	0.280	0.294	-0.013
Sales growth	0.084	0.067	0.017	0.068	0.048	0.021**
ROA (EBITD/assets)	0.152	0.114	0.038*	0.149	0.112	0.037*
Sales Herfindahl index	0.492	0.486	0.005	0.496	0.466	0.030
Number of segment	3.233	3.514	-0.281	3.000	3.000	0.000**

The sample includes 107 firms that refocused during the period 1985–1993. Each refocusing firm has a matched control firm of similar size and sales Herfindahl index at the end of year -1 .

*,** denote significance at the 1% and 5% levels, respectively.

that stock prices increase significantly around increases in corporate focus. Although prominent examples like General Electric illustrate apparently successful diversification, the findings in these articles naturally raise the question of why so many unsuccessful diversification programs persist. Diversification may benefit managers because it brings growth which increases power and prestige [Jensen (1986) and Stulz (1990)], and compensation [Jensen and Murphy (1990)]. Moreover, diversification reduces the risk of the manager's undiversified personal wealth portfolio [Amihud and Lev (1981)] and increases the shareholders' dependence on her knowledge of the mix of businesses operated by the firm [Shleifer and Vishny (1989)]. As a result, managers may pursue diversification even if doing so reduces shareholder wealth.

If agency problems lead managers to pursue value-reducing diversification strategies, reductions in agency conflicts may need to occur before firms refocus. Agency conflicts can be reduced through several forms of market discipline. Dissatisfied stakeholders can press for the replacement of the CEO, consistent with Weisbach's (1995) finding that the likelihood of divesting "unsuccessful" acquisitions is positively correlated with CEO changes. Pension fund activism may reduce agency costs and lead to value-enhancing actions, although the evidence on this issue is mixed [see Opler and Sokobin (1996) and Wahal (1996)]. Product market competition can restrict managers' ability to continue to operate inefficiently [Hart (1983)], particularly if the resulting poor performance leads to financial distress [see John, Lang, and Netter (1992) and Ofek (1993)]. Finally, discipline imposed by the market for corporate control can temper agency problems at diversified firms [see Jensen and Ruback (1983), Bhagat, Shleifer, and Vishny (1990), and Berger and Ofek (1996)].

Table 3 shows the number of times various events occurred during the 13 month period examined for the 107 refocusers and their matched controls. The period extends from 12 months before the first sale or refocusing announcement until 1 month after that announcement. We examine four categories of events: management turnover, outside shareholder pressure,

management compensation, and financial distress. Note that we do not construct the categories, nor the events within each category, to be mutually exclusive. The results indicate that corporate control events often precede refocusing. About 31% of the refocusers have a change in top management in the 13 month period we examine. A top management change is defined as any change in the set of individuals holding the titles CEO, president, or chairman of the board. The 31% management turnover rate is not significantly greater than the 22% rate for the matched controls. It is, however, much greater than the 11.5% rate reported by Warner, Watts, and Wruck (1988) from *Wall Street Journal* reports of the same definition of top management change for a random sample of 269 NYSE/AMEX firms during 1963–1978.² When we restrict attention to CEO turnover, the 22% rate for refocusers significantly exceeds the 7% rate for the controls and is much higher than the annual CEO turnover rates of 8% and 9% documented by Weisbach (1988) and Denis and Denis (1995). This result complements the finding of Denis, Denis, and Sarin (1997), who also find a significant difference in CEO turnover between refocusing firms and firms with no change in diversification.

We find that 27% of refocusers have a new outside blockholder, 13% are targets of unsuccessful takeover bids, 12% are targets of pension fund activism by one of nine major funds, and 33% have one of these events of outside shareholder pressure occur.³ All four figures are significantly higher than the corresponding percentages for the controls, which experienced no unsuccessful takeover bids, had new outside blockholders (pension fund activism) in just 8% (3%) of the observations, and had at least one of the events of outside shareholder pressure with just 8% frequency.

A major change in the performance-based component of compensation (with respect to the mechanism used, the criteria, or the potential magnitude) can better align managers' interests with those of shareholders. For example, Dial and Murphy (1995) report that General Dynamics implemented a strategy that included downsizing, restructuring, and exit only after it engaged a new management team whose compensation was closely tied to shareholder wealth creation. We find that, in the year prior to restructuring, firms that refocused introduced new compensation plans with greater frequency than

² A different definition of top management turnover is reported by Mikkelsen and Partch (1997) for our sample period. They find that complete turnover of the set of individuals holding the three top offices of CEO, president, and board chairman occurs at rates of 23.3% for the 5 year period 1984–1988, and 16.1% for 1989–1993. These rates are obviously not directly comparable to the annual rates of change in any of the individuals in this set, which is the definition used by Warner, Watts, and Wruck and by us.

³ The data on pension fund activism are those used in Wahal (1996), and were kindly provided to us by the author. He examines all instances during 1987–1993 in which one of nine pension funds identified as "active" by Institutional Shareholder Services sent letters to investee firms targeting issues of performance, takeover defenses, or corporate governance. The nine funds had combined assets of \$424 billion at the end of 1993. The 12% (3%) frequency of activism by pension fund investors for our refocusing (control) sample is based on the 1987–1993 period only, which includes 60 firms for each of the matched samples.

Table 3
Corporate control events in the year prior to refocusing

Group; action	Refocus		Control		Difference
	Occurrences	Frequency	Occurrence	Frequency	Frequency
Management turnover					
New CEO	23	0.215	7	0.065	0.150*
New top manager	33	0.308	23	0.215	0.093
Outside shareholder pressure					
Activism by pension fund investor	7	0.117	2	0.033	0.083***
New outside block holder	29	0.271	8	0.075	0.196*
Unsuccessful takeover bid	14	0.131	0	0.000	0.131*
Total — outside pressure	35	0.327	8	0.075	0.252*
Management compensation					
New compensation plan	10	0.106	1	0.012	0.095*
Financial Distress					
Dividend cut	7	0.065	4	0.037	0.028
Debt restructuring	12	0.112	0	0.000	0.112*
Chapter 11 filing	3	0.028	0	0.000	0.028***
Total — financial distress	20	0.187	4	0.037	0.150*
Summary					
New CEO, outside pressure, compensation plan, or financial distress	66	0.617	19	0.178	0.439*
At least one event	68	0.636	33	0.308	0.327*

The sample includes 107 firms that refocused during the 1985–1993 period. Each refocusing firm is matched with a control firm of similar size and sales Herfindahl index at the end of year -1 . The table presents the total number and frequency of various events that occurred in a 13 month period for the refocus and matched control samples. The period extends from 12 months before the first sale or refocusing announcement until 1 month after that announcement. The frequency of activism by pension fund investors is calculated for the period 1987–1993 only, which includes 60 firms. The frequency of a new compensation plan is calculated for 179 firms with available proxy statement data for year -1 .

*,*** denote significance at the 1% and 10% levels, respectively.

the matched control firms. We define a compensation plan as new only if a new form of compensation is used or a major adjustment in the extent to which compensation is performance-based occurs. The new plans we identify usually involve the introduction of stock option-based compensation. Eleven percent of the refocusing firms introduced a new compensation plan, versus just 1% for the controls. Thus, along with outside sources of discipline, internal changes in performance-based compensation are associated with the decision to refocus.

A number of the refocusers also experienced signs of financial distress in the period preceding the restructuring. Financial distress may reduce agency problems because when value-reducing behavior by the manager runs the risk of ending the firm's existence, the manager's desire to retain her job aligns her interests with those of the owners. Seven percent of the refocusers cut their dividend to common stockholders, 11% restructure debt agreements, 3% file for bankruptcy protection, and 19% exhibit at least one of these indications of financial distress. With the exception of the dividend cuts, the control firms do not exhibit any of these indications of financial distress during the 13 month period examined.

In total, 62% of the refocusers experience at least one of the incentive-aligning events in the period preceding the refocusing (excluding non-CEO management turnover). In contrast, just 18% of the controls experience one of these events. This evidence is thus consistent with the reduction of agency problems via external disciplinary events and new compensation arrangements playing an important part in corporate refocusing.⁴

3. Value Loss from Diversification and Subsequent Refocusing

3.1 Estimating Segment Values Using Comparable Firm Multiples

Whether or not a refocusing episode occurs is also likely to depend on the success of diversification. To measure diversification's value effect, we follow the procedures described in Berger and Ofek (1995). We measure the percentage difference between a firm's total value and the sum of imputed values for its segments as stand-alone entities (see Appendix A for additional details not described below). We calculate the imputed value of each segment by multiplying the median ratio, for single-segment firms in the same industry, of total capital to one of three accounting items (assets, sales, or EBITD) by the segment's level of the accounting item. The industry median ratios are based on the narrowest SIC grouping that includes at least five single-line businesses with at least \$20 million of sales and sufficient data for computing the ratios.⁵

The sum of the imputed values of a company's segments estimates the value of the firm if all of its segments are operated as stand-alone businesses. The natural log of the ratio of a firm's actual value to its imputed value is our measure of excess value, or the gain or loss in value from diversification. Negative excess value indicates that diversification reduces the value of segments below that of their stand-alone counterparts.

3.2 Total Value Destruction and Subsequent Refocusings

To investigate whether value destruction drives refocusing, we compare the excess values of refocusers, measured in the year prior to the start of their refocusing, to those of all nonrefocusers. Table 4 shows that diversification is more value reducing among subsequent refocusers than among the matched

⁴ Our concern is with whether external disciplinary events and new compensation arrangements affect diversified firms' decision on whether to divest businesses. A somewhat related issue (which we do not examine) is whether focused firms are also more likely to engage in asset sales when, for example, they are distressed or change CEOs. There are some indications in the prior literature that focused firms do respond to such pressures with asset sales [e.g., Brown, James, and Mooradian (1994) find that short-term lenders play a pivotal role in asset sales by a sample that includes both focused and diversified firms].

⁵ The SIC code classifications are assigned by Compustat in its business segment file. These business segment SIC codes are maintained on a historical basis so that, in contrast to the firm-level SIC codes on Compustat, industry membership will not be misclassified for past years in cases of industry changes. Therefore, the substantial disagreement between Compustat and CRSP classifications of firm-level SIC codes [Guenther and Rosman (1994); Kahle and Walkling (1996)] does not imply any measurement error in Compustat's assignment of business segment SIC codes.

Table 4
Value destruction in diversified firms that do or do not refocus

Variable	Mean			Median		
	No refocus	refocus	Difference	No refocus	refocus	Difference
Excess value, asset multiplier	-0.099	-0.273	0.174*	-0.184	-0.286	0.102***
Excess value, sales multiplier	-0.130	-0.305	0.175**	-0.172	-0.312	0.140**
Excess value, EBITD multiplier	-0.120	-0.238	0.119**	-0.123	-0.251	0.128***

The sample includes 107 firms that refocused during the period 1985–1993. Each refocusing firm has a matched control firm of similar size and sales Herfindahl index at the end of year -1 . Excess value is the natural logarithm of actual value/imputed value where actual value is total book value of debt plus market value of equity, and imputed value is the sum of imputed values of the firm's segments. Each segment's imputed value is the segment's assets (sales, EBITD) multiplied by its industry median ratio of capital to the particular accounting item.

***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

control firms. Using the asset (sales, EBITD) multiplier, the mean value loss among firms that begin refocusing the following year is 27% (31%, 24%), which is 17% (18%, 12%) more than the loss among the matched control firms. The differences in mean value destruction between the refocusers and the matched controls are significant at the .05 level. These results are consistent with restructuring occurring among multisection firms whose diversification policies result in greater value losses. The inferences remain similar when the median value destruction of refocusers and nonrefocusers is compared. Restructuring firms destroy 10% more value based on the asset multiplier, 14% more using the sales multiplier, and 13% more using the EBITD multiplier, all significant at the .10 level or better.

The validity of the Table 4 results using the multiplier method depends on management disclosure policies. Theoretical models of managerial disclosure decisions suggest that managers may have incentives to misstate segment data to both providers of capital and product market competitors [see Darrough and Stoughton (1990), Wagenhofer (1990), Feltham, Giger, and Hughes (1992), Feltham and Xie (1992), Newman and Sansing (1993), and Hayes and Lundholm (1996)]. In the setting we examine, managers have incentives to overstate value-relevant data on segments being divested. Reported earnings, sales, and assets of segments about to be divested could all be overstated by “borrowing” from the future (when new owners will control the segment). For example, earnings and assets could be overstated by extending more liberal credit terms without increasing bad debt expense and the corresponding allowance for doubtful accounts receivable. Earnings, however, are likely to be subject to the greatest incentives to overstate and are also easiest to overstate [see Givoly, Hayn, and D'Souza (1993) for an assessment of the quality of segment sales and earnings figures]. Such overstatements could potentially explain part of the excess value differences documented in Table 4, since they would artificially inflate the imputed values of segments about to be divested.⁶ If managerial manipu-

⁶ Noise is also introduced into the imputed segment values by the fact that some segments consist of diverse

lation of segment data does contribute to the reported results, however, it is surprising that the excess value differences between refocusing and non-refocusing firms are smallest using the EBITD multiplier.⁷ Moreover, the earnings-management explanation is also inconsistent with the return on assets (ROA) and sales growth measures being smaller for refocusing firms than for the matched controls.⁸

The univariate tests in Tables 2 and 4 show that refocusers perform worse than the controls, have larger diversification discounts, but are otherwise similar. We examine the Pearson correlation coefficients for the set of variables used in Tables 2 and 4 in order to identify the relations among the firm characteristics. The results (which are not presented in a table) show that the pairwise correlations among the three excess value measures range between 43% and 68%. These relatively high correlations provide some assurance that the various excess value measures are measuring the same economic construct. The correlations are also generally consistent with excess value capturing an economic construct distinct from the other performance measures we use. Although the 50% correlation between the asset multiplier measure of excess value and return on assets ROA is high, the remaining excess value measures have correlations with ROA that are much lower, and of opposite sign to one another. Moreover, the correlations between the excess value measures and sales growth are also small.

Although the descriptive evidence from the univariate tests in Tables 2–4 is suggestive of refocusing firms being worse performers that have larger diversification discounts and more events of market discipline, we need to evaluate each explanatory variable after incorporating the effects of the other variables on divestiture likelihood. We therefore perform multivariate logit regressions in which a refocusing indicator is the dependent variable, and is set to 1 if the firm refocuses, 0 otherwise. The continuous independent variables are excess value, ROA, sales growth, and leverage. The three indicator explanatory variables, capturing events of market discipline, are set to 1 for the presence of a new CEO, one or more events of outside shareholder pressure, and one or more events of financial distress, 0 otherwise. These

industries [Benartzi (1995)]. No directional bias in imputed segment values results from cases where a segment consists of diverse industries rather than similar industries. In addition, management's ability to report multiple industries within one segment is limited by regulatory oversight from the SEC [see Benartzi (1995) for examples].

⁷ Examining past earnings patterns to reliably detect potential earnings management is subject to insurmountable difficulties for poorly performing firms [Dechow, Sloan, and Sweeney (1995)], let alone poorly performing segments.

⁸ One could also attempt to explain the univariate differences in excess value between refocusers and nonrefocusers on the basis of some type of selection bias. If segments of diversified firms are intrinsically worse than stand-alone firms, then imputing values based on the median pure play firm in the segment's industry overstates the value that the segment would have if divested. Such an explanation requires diversified firms to develop and acquire segments with intrinsically poor growth prospects, high risks, etc., relative to their industries.

variables are measured the same way as in Table 3. All explanatory variables are measured in the year prior to refocusing.

Panel A of Table 5 presents estimates from the following logit model of refocusing likelihood:⁹

$$\text{FOCUS}_{i,t} = f(\text{EXVAL}_{i,t-1}, \text{ROA}_{i,t-1}, \text{GROWTH}_{i,t-1}, \text{LEV}_{i,t-1}, \text{NEWCEO}_{i,t-1}, \text{PRESSURE}_{i,t-1}, \text{DISTRESS}_{i,t-1}), \quad (2)$$

where the variables are

$\text{FOCUS}_{i,t}$	=	indicator of whether firm i begins a refocusing program in year t .
$\text{EXVAL}_{i,t-1}$	=	firm i 's excess value at the end of year $t - 1$ (see Appendix A).
$\text{ROA}_{i,t-1}$	=	firm i 's year $t - 1$ return (EBITD) on year $t - 2$ assets.
$\text{GROWTH}_{i,t-1}$	=	firm i 's annual rate of change in sales from year $t - 2$ to year $t - 1$.
$\text{LEV}_{i,t-1}$	=	leverage (book value of debt/total assets) of firm i at the end of year $t - 1$.
$\text{NEWCEO}_{i,t-1}$	=	indicator of whether firm i 's CEO was replaced during the period extending from 12 months before the first sale or refocusing announcement until 1 month after that announcement.
$\text{PRESSURE}_{i,t-1}$	=	an indicator of whether firm i experienced at least one event of outside shareholder pressure during the period extending from 12 months before the first sale or refocusing announcement until 1 month after that announcement. The events of outside shareholder pressure are activism by a pension fund investor, the addition of an outside blockholder, and an unsuccessful takeover bid.

⁹ In order to conserve space, we do not report the coefficient estimates for the constant terms of the logit models.

$\text{DISTRESS}_{i,t-1}$ = an indicator of whether firm i experienced at least one event of financial distress during the period extending from 12 months before the first sale or refocusing announcement until 1 month after that announcement. The events of financial distress are a dividend cut, debt restructuring, and filing for protection from creditors under Chapter 11 of the U.S. bankruptcy code.

In addition to reporting the raw coefficient estimates from the logit estimation, we also provide a measure of the economic importance of the explanatory variables. This measure is the increase in the probability that the dependent variable takes the value of 1 for a change of 1 quartile from the median (a change from 0 to 1) in the value of each continuous (indicator) independent variable, holding all other continuous (indicator) independent variables constant at their medians (at 0).¹⁰ We express all of the probability changes as increases by replacing the median of the continuous variable being evaluated with either its 25th or 75th percentile (whichever leads to a probability increase).¹¹

The results in panel A of Table 5 show that excess value has a negative relation with refocusing probability, indicating that firms destroying more value with their diversification strategy are, all else being equal, more likely to refocus. For all three excess value measures, the coefficient estimate is negative. The significance of the estimates varies, with the asset multiplier measure of excess value of marginal significance, the sales multiplier measure significant at the .10 level, and the EBITD measure significant at the .01 level. The economic importance of the excess value measures is fairly high. Changing the asset (sales, EBITD) multiplier measure of excess value

¹⁰ We adjust the inconsistent estimates of the intercept term to correct for choice-based sampling using the procedure outlined by Manski and Lerman (1977). Caudill and Jackson (1989) discuss the measurement of marginal effects in logit models with indicator explanatory variables. For the marginal effects of the continuous variables, note that the nonlinearity of the logit model could make inferences sensitive to the evaluation point chosen.

¹¹ Our logit models of refocusing likelihood do not attempt to incorporate the method of divestiture into the analysis. Firms divest business units either with asset sales to a third party or with spinoffs. Spinoffs, which usually escape taxation at the parent level, are pro rata distributions of shares of a controlled subsidiary to the shareholders of the parent. Our 107 refocusing firms divested 385 business units using 363 asset sales and 22 spinoffs. Alford and Berger (1998) investigate the choice between sales and spinoffs, conditional on having already made the decision to divest. They note that whether versus how to divest can be thought of as separate nodes of a nested logit model in which an answer to the question of whether to divest may be affected by the answer to the question of how to divest. We do not attempt to use Alford and Berger's results to formally model the nested decision for the following reasons. First, just 6% of the divestitures in our sample are spinoffs. Moreover, the majority of firms in our sample that use spinoffs also use asset sales, so that our analysis would need to be done at the divested unit level rather than the parent firm level to incorporate the effects of divestiture method. Relatedly, we do not have many of the data items we would require to perform analysis at the divested unit level. Finally, the inferences of main concern in our logit models are the effects of excess value and the corporate control events, and the results on these variables are robust to the alternative specifications that we are able to employ.

Table 5
Refocus likelihood models

Independent variable	Coefficient estimate (<i>p</i> -value)	Change in probability	Coefficient estimate (<i>p</i> -value)	Change in probability	Coefficient estimate (<i>p</i> -value)	Change in probability
Panel A. Matched sample						
Excess value, asset multiplier	−0.993 (0.104)	1.275%				
Excess value, sales multiplier			−0.570*** (0.068)	1.865%		
Excess value, EBITD multiplier					−1.738* (0.009)	4.870%
Return on assets	−5.322 (0.157)	2.301%	−7.634* (0.010)	2.161%	−15.775* (0.002)	9.481%
Sales growth	3.000** (0.024)	2.481%	2.359** (0.035)	2.204%	2.591** (0.064)	2.493%
Leverage	2.000 (0.141)	2.177%	0.528 (0.527)	0.623%	−0.363 (0.789)	0.313%
New CEO	1.056** (0.069)	14.160%	1.236** (0.018)	19.692%	0.556 (0.384)	7.254%
Outside shareholder pressure	1.933* (0.000)	33.350%	1.814* (0.000)	33.240%	2.056* (0.000)	39.700%
Financial distress	0.931 (0.236)	11.949%	1.066 (0.123)	16.138%		
<i>N</i> = 0 (no refocus)	80		106		69	
<i>N</i> = 1 (refocus)	79		105		69	
Model <i>p</i> -value	0.0004		0.0001		0.0007	
Pseudo- <i>R</i> ²	0.120		0.108		0.130	

Panel A reports logit regressions estimating the likelihood of refocusing. The dependent variable equals 1 if the firm refocused in the following year and 0 otherwise. The sample includes 107 firms that refocused during the period 1985–1993. Each refocusing firm has a matched control firm of similar size and sales Herfindahl index at the end of year -1 . All independent variables are measured in the year prior to classifying the observation as refocusing or not refocusing. The change in probability is defined as the percentage increase in the probability of refocusing when the variable's median is replaced with either its 25th or 75th percentile (whichever leads to a probability increase), and all other variables are evaluated at their medians. When all of the explanatory variables have their median values, the probabilities of refocusing are 9.953% (asset multiplier regression), 11.765% (sales multiplier regression), and 12.084% (EBITD multiplier regression). Two-tailed *p*-values for the coefficient estimates are in parentheses. *, **, *** denote significance at the 1%, 5%, and 10% levels, respectively.

from its median to its 25th percentile increases the refocusing probability by 1.3% (1.9%, 4.9%) from its base level of about 10%. The marginal effect on refocusing likelihood of a 1 quartile change in the other performance-related variables, sales growth, and ROA tends to be slightly larger than that of excess value, and both ROA and sales growth generally have statistically significant effects on the decision to refocus.¹²

¹² We have also estimated all of the logit regressions reported in the article with additional performance

Table 5
(continued)

Independent variable	Coefficient estimate (<i>p</i> -value)	Change in probability	Coefficient estimate (<i>p</i> -value)	Change in probability	Coefficient estimate (<i>p</i> -value)	Change in probability
Panel B. Full sample, years assigned randomly to nonrefocusing firms						
Excess value, asset multiplier	-1.310* (0.002)	3.127%				
Excess value, sales multiplier			-0.854* (0.000)	3.331%		
Excess value, EBITD multiplier					-1.133* (0.007)	2.577%
Return on assets	-0.232 (0.905)	0.085%	-2.255 (0.111)	0.216%	-5.505* (0.010)	2.235%
Total assets	-0.298* (0.001)	4.259%	-0.143*** (0.059)	1.933%	-0.245** (0.016)	3.531%
Sales growth	-0.055 (0.862)	0.046%	-0.018 (0.949)	0.015%	-0.064 (0.883)	0.055%
Leverage	0.946 (0.165)	1.147%	0.888 (0.113)	1.093%	-0.251 (0.759)	0.285%
Sales Herfindahl	-2.264* (0.002)	3.932%	-2.037* (0.001)	3.555%	-3.001* (0.000)	5.601%
<i>N</i> = 0 (no refocus)	500		645		469	
<i>N</i> = 1 (refocus)	79		105		69	
Model <i>p</i> -value	0.0001		0.0001		0.0001	
Pseudo- <i>R</i> ²	0.058		0.051		0.061	

Panel B logit regressions estimating refocus likelihood models. The dependent variable equals 1 if the firm started refocusing during the year and 0 if it continued to report two or more segments. To achieve consistency with the years of the refocusing observations, a year (1985–1993) is assigned randomly to each of the nonrefocusing firms with complete data. All independent variables are measured in the year prior to classifying the observation as refocusing or not refocusing. The change in probability is defined as the percentage increase in the probability of refocusing when the variable's median is replaced with either its 25th or 75th percentile (whichever leads to a probability increase), and all other variables are evaluated at their medians. When all of the explanatory variables have their median values, the probabilities of refocusing are 11.764% (asset multiplier regression), 12.013% (sales multiplier regression), and 12.263% (EBITD multiplier regression), respectively. Two-tailed *p*-values for the coefficient estimates are in parentheses.

***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

The disciplinary events, especially outside shareholder pressure, are important determinants of refocusing. Experiencing one or more events of outside shareholder pressure in the previous year increases a firm's probability of refocusing by between 33.2% and 39.7% (significant at the .01 level). The replacement of the CEO during the previous year increases the

measures such as EBITDA/sales added to the explanatory variables. The additional performance measure is sometimes significantly related to refocusing likelihood, but its addition does not affect the inferences on the excess value measures.

chances of restructuring by between 7.3% and 19.7%, with the estimate on this variable significant in two of the three logit models. Events of financial distress do not have a significant effect on refocusing activity in our logit estimations.¹³ Overall, the results in panel A of Table 5 show that firms that reduce market value through diversification, perform poorly, and attract disciplinary events (particularly outside shareholder pressure) are more likely to refocus.¹⁴

The matched sample used in panel A of Table 5, and throughout the article, lowers data collection costs by using only a subset of the nonrefocusing diversified firms. However, the matched-firm design does not allow testing of the effect of the matching variables on the likelihood of refocusing. As a sensitivity test of the matched sample design, we present tests in panel B of Table 5 that use the full set of nonrefocusing firms with available information. The independent variables in panel B exclude the three indicators of events of market discipline used in panel A, since we did not collect these data for the full set of nonrefocusing companies. On the other hand, in addition to the variables used in panel A, we add the two matching measures to the explanatory variables used in panel B. Thus size (log of total assets) and the extent of diversification (the revenue-based Herfindahl index) are included among the independent variables. In the logit regressions we report in panel B, we follow Zmijewski (1984) by assigning randomly a year (1985–1993) to each of the nonrefocusing firms to achieve consistency with the years of the refocusing observations. As in panel A, all explanatory variables are measured in the year prior to classifying the observation as refocusing or nonrefocusing.

The results reported in panel B provide some additional insights into the refocusing decision. Compared with panel A, the probability increases in panel B indicate that ROA is a less important input to the refocusing decision for the full sample than for the matched sample. In contrast, the size and Herfindahl index variables used in selecting the matched sample are shown to be statistically and economically important in the full sample. The magnitude and significance of the estimates on excess value are generally somewhat greater than they were in panel A (additional tests not reported in a table show that the panel A results on excess value are very similar

¹³ Note that we excluded the financial distress indicator variable from the logit regression that uses the EBITD multiplier measure of excess value. Only 3.7% of the 107 nonrefocusing firms had an event of financial distress (see Table 3), and only 69 of these firms had available data for the EBITD excess value regression. Thus the inclusion of the financial distress variable in this regression resulted in quasicomplete separation in the sample points and questionable validity of the model fit from the logit estimation.

¹⁴ Because the regressions estimated in Tables 5, 6, and 9 pool observations across years, we are assuming that the models estimated are stationary over the 1985–1993 period. In addition, some of the estimated models include up to two of the same firms within the refocusing sample because these two firms experienced separate refocusing episodes. Including the same firm in different years may violate the assumption that the observations are independent. Therefore we also estimated all regressions using only the first refocusing episode for each refocusing firm. All inferences remained identical to those reported in the tables.

Table 6
Diversification characteristics and refocusing

Independent variable	Coefficient estimate (<i>p</i> -value)	Change in probability	Coefficient estimate (<i>p</i> -value)	Change in probability
Excess value, sales multiplier			−0.713** (0.033)	3.163%
Number of segments	0.282** (0.034)	3.941%	0.157 (0.303)	2.321%
Number of related segments	−0.299* (0.078)	4.207%	−0.110 (0.586)	1.600%
A segment with negative CF	0.802** (0.022)	13.200%	0.511 (0.213)	8.415%
Unallocated expenses	20.700** (0.030)	2.895%	18.025*** (0.088)	2.748%
Return on assets			−6.438** (0.035)	4.347%
Sales growth			2.483** (0.034)	3.111%
Leverage			0.455 (0.607)	0.722%
New CEO			1.173** (0.030)	22.739%
Outside shareholder pressure			1.687* (0.000)	35.424%
Financial distress			0.944 (0.170)	17.413%
<i>N</i> = 0 (no refocus)	107		105	
<i>N</i> = 1 (refocus)	107		106	
Model <i>p</i> -value	0.0010		0.0001	
Pseudo- <i>R</i> ²	0.149		0.139	

Logit regressions estimating refocus likelihood models. The dependent variable equals 1 if the firm started refocusing in the following year and 0 otherwise. The sample includes 107 firms that refocused during the period 1985–1993. Each refocusing firm has a matched control firm of similar size and sales Herfindahl index at the end of year -1 . The change in probability is defined as the percentage increase in the probability of refocusing when the variable's median is replaced with either its 25th or 75th percentile (whichever leads to a probability increase), and all other variables are evaluated at their medians. For the indicator variable, the change in probability is based on changing the variable from a value of 0 to 1. When all of the explanatory variables have their median values, the probabilities of refocusing are 14.919% (first regression) and 16.877% (second regression), respectively. The number of related segments is the difference between the total number of segments reported by the firm and the number of segments with different main 2 digit SIC codes. The segment with negative CF variable is an indicator equal to 1 if the firm reported at least one segment with negative EBITD in year -1 . The unallocated expenses variable is the maximum of the difference between the sum of segment EBITD and total firm EBITD scaled by sales, and 0. Two-tailed *p*-values for the coefficient estimates are in parentheses.

*, **, *** denote significance at the 1%, 5%, and 10% levels, respectively.

to those in panel B when the indicator variables for the events of market discipline are excluded from the panel A regressions). A diversified firm destroying more value than three quarters, rather than half, of the panel B sample is between 2.6% and 3.3% more likely to refocus. The probability changes resulting from changes in the excess value measures are generally larger than those resulting from changes in the other variables, with size and the extent of diversification (i.e., the matching variables for the other tables) being the only exceptions. Overall the panel B results show that diversified firms are more likely to refocus when their diversification programs are less valuable, the firm is small, and the extent of prerefocusing diversification is large. The results also provide much weaker evidence that the likelihood of refocusing is increased by poor performance (as measured by ROA) and high leverage.

3.3 Diversification Characteristics and Subsequent Refocusing

We have established that firms with greater value losses from diversification are more likely to refocus. We now examine how individual determinants of the value loss influence the probability of refocusing. We investigate the effects of three factors: the extent to which the diversified lines of business are related; the existence of unprofitable segments; and the proportion of firm expenses not allocated to specific lines of business (unallocated expenses).

Table 6 presents the results of logistic regressions of the sources of diversification's valuation effect on the decision to refocus. The first regression uses only the sources of diversification's value effect as independent variables, whereas the second regression also includes the sales multiplier measure of excess value and the control variables from panel A of Table 5. We omit the additional explanatory variables from the first regression because the sources of diversification's value effect contribute to the excess value and performance-related variables, and may affect whether events of market discipline occur. The sources of diversification's value effect that we test probably represent only a subset of all of the factors influencing diversification's success. Thus we expect that diversification's total value effect (and the general performance-related variables) will better explain the decision to refocus than will the individual diversification characteristics we examine. Our main interest, however, is in whether specific characteristics of the diversification program are associated with refocusing likelihood, rather than in whether these characteristics add incremental explanatory power beyond that provided by measures such as excess value and the disciplinary events. Thus we emphasize the results from the first regression.

The first regression's results show that each of the three diversification characteristics significantly affects the probability of restructuring. The significantly positive coefficient estimate on the number of segments indicates that firms with more segments are more likely to refocus. Relatedness among the segments, however, completely mitigates this tendency, with the

significant coefficient of -0.299 on the related segments variable of approximately equal magnitude to the positive coefficient on the number of segments variable.¹⁵ This result is consistent with the arguments of many authors, following Rumelt (1974), that related diversified firms perform better than conglomerates. Our finding is also consistent with Daley, Mehrotra, and Sivakumar's (1997) result that spinoffs of unrelated businesses create more value than spinoffs of related segments, and with Berger and Ofek's (1995) finding that relatedness mitigates the value loss from diversification.

The estimate on the negative cash flow indicator is significantly positive, consistent with the presence of negative cash flow segments increasing the likelihood of refocusing. This finding supports arguments by Meyer, Milgrom, and Roberts (1992), Rajan and Zingales (1996), and Scharfstein and Stein (1996), who all present models which point to the managers of subunits with the poorest prospects being the most inclined to engage in personal rent-seeking activities. The Meyer, Milgrom, and Roberts and Scharfstein and Stein articles also show that such behavior can result in excessive investment cross-subsidies from better- to worse-performing segments, and Berger and Ofek (1995), Lamont (1997), and Shin and Stulz (1996) provide support for this contention.

Finally, we use the difference, scaled by sales, between the sum of the segments' EBITD and the firm's EBITD, when nonnegative, to measure unallocated expenses.¹⁶ Unallocated expenses represent either the expenses that are not associated with the activities of individual business lines, or the net losses of business segments too small to be reported separately. In either case, the unallocated expenses are expenditures that do not directly produce any profit, and empirically we observe that they appear to explain the profitability loss from diversification (i.e., we find that when these expenses are left unallocated, the profitability of segments from diversified firms is equal to that of stand-alone companies). The results in the first column of Table 6 show that the coefficient on the unallocated expense measure is significantly positive, consistent with diversified firms that allocate less of their expenses to separately reported business lines being more likely to refocus.

The second regression in Table 6 shows that, as expected, the significance of the coefficients on the diversification characteristics decreases in the second regression, which adds the excess value measure, the performance-related controls, and the corporate control events as explanatory variables. The coefficients on the related segments variable and on the negative cash flow indicator retain the same signs as in the first regression, but at de-

¹⁵ To measure relatedness, we classify all segments within a firm that have different SIC codes at the two-digit level as unrelated. We then measure the difference between the total number of segments reported by a firm and its number of unrelated segments. This related-segments variable varies between 0, when no segments are related, and -1 , when no segments differ.

¹⁶ The measure actually captures the difference between unallocated revenues and unallocated expenses.

creased significance levels. Of interest, the coefficient on unallocated expenses remains similar in magnitude and retains significance at the .10 level. The Table 6 results provide exploratory evidence that specific diversification characteristics affect the likelihood of refocusing. However, with the exception of unallocated expenses, the incremental explanatory power of these characteristics is not statistically significant after incorporating the total excess value measure and the control variables into the analysis.¹⁷

4. Further Evidence on the Causes of Refocusing Programs

The preceding sections provide evidence that both value loss from diversification and events of market discipline affect diversified firms' decisions on whether to refocus. To examine how the interaction between corporate control events and value loss affects the likelihood of refocusing, we divide the matched sample into four groups and compare the proportion of refocusers across the groups. Table 7 shows that two dimensions determine the group that a firm is placed in. The columns of Table 7 separate value losers and nonlosers, with a firm defined as a loser if its sales multiplier measure of excess value falls below zero. The rows of the table separate firms that have been subject to events of market discipline from those firms not subject to such events. All events from Table 3, other than non-CEO management changes, are included as events of market discipline.

The Table 7 results show that value destruction and reduction of agency problems both affect the decision to divest. Firms with both negative excess value and one or more disciplinary events are most likely to refocus, with 82% of such firms divesting. In contrast, refocusing by nonlosers with no disciplinary events is strikingly lower (with the difference significant at the .01 level), with just 16% selling businesses. Moreover, the 40% refocusing frequency among losers not subject to disciplinary events is significantly lower (.01 level) than the 82% rate among losers that are subject to such events. This last comparison indicates that firms with negative excess value are significantly more likely to refocus if they also are subjected to events of market discipline.¹⁸

¹⁷ The results for the second regression in Table 6 remain very similar when the asset and EBITD measures of excess value are used in place of the sales measure reported in the table. All coefficient estimates retain the same sign, and the only large change in significance levels is a drop to below the .10 level on unallocated expenses when the EBITD excess value measure is used. In addition, comparing these results to those reported in panel A of Table 5 shows that, for all three excess value measures, the coefficient estimate on excess value is only marginally changed by the addition of the three diversification characteristics to the refocusing likelihood regression. This is consistent with the three characteristics capturing only a portion of diversification's total value impact.

¹⁸ To test the conjecture that events of market discipline are more likely at firms that had been destroying more value, we measure excess value in the fiscal year prior to the 13 month period that we examined for events of market discipline. We then compare the means and medians of these prior year excess values for firms that were or were not subject to various events of market discipline. The results show that, for all three measures of excess value and all three events of market discipline examined, the prior year excess

Table 7
Value loss, changes in agency costs, and the decision to refocus

		Loser	Nonloser
Agency reduction	Number of firms that refocus	49	17
	Number of firms that do not refocus	11	8
	Total number of firms	60	25
	Percent refocusers	0.82	0.68
	<i>p</i> -value vs. upper-left quadrant	(n/a)	(0.16)
No agency reduction	Number of firms that refocus	34	7
	Number of firms that do not refocus	50	38
	Total number of firms	84	45
	Percent refocusers	0.40	0.16
	<i>p</i> -value vs. upper-left quadrant	(0.01)	(0.01)

Counts and frequencies of refocusing categorized by whether the diversified firm was subject to events of market discipline that could reduce agency problems and whether the firm lost value by being diversified. The sample includes 107 firms that refocused during the period 1985–1993. Each refocusing firm has a matched control firm of similar size and sales Herfindahl index at the end of year -1 . A firm is defined as a loser if its sales multiplier measure of excess value is below zero at the end of year -1 . A firm is defined as having had agency reduction if it had a new CEO, outside pressure, or events of financial distress during year -1 . The two-tailed *p*-values are from tests of the significance of the difference in sample proportions of refocusers between each quadrant and the upper-left quadrant.

It is of interest to consider further the bottom panel of Table 7, which contains the firms not subject to external pressure. Forty-one of these 129 firms refocus, indicating that even without market discipline nearly one-third of diversified firms choose to refocus. Moreover, comparing the top-left and bottom-left quadrants of Table 7 reveals that of the 83 losers that refocused, 34 of them did so without external threats. Thus internal control mechanisms alone appear to lead to divestitures within a sizable minority of the unsuccessful diversified firms that refocus.

We investigate this conjecture by including governance and compensation variables along with the explanatory variables from Table 5, panel B in a model of refocusing likelihood. The results (not reported in a table) show that CEO options granted (or, alternatively, CEO-vested option ownership) increase the likelihood of refocusing. In contrast, CEO stock ownership does not. The stock ownership result contrasts with the findings of Denis et al. (1997). Our results are, however, consistent with the managerial risk aversion motive for diversification suggested by Amihud and Lev (1981), and further supported by May (1995), and with Tufano's (1996) evidence that option ownership reduces hedging in the gold mining industry, whereas stock ownership increases it. We did not find that CEO tenure or the percentage of insiders on the board was associated with the probability of refocusing.

values are lower for firms subsequently subject to a disciplinary event. The differences in mean (median) excess value are significant in four (two) of the nine comparisons.

Table 8
Abnormal returns around the refocusing-related announcements

Variable	Obs	Mean	Median	% positive
Abnormal return day -1	404	0.002	0.000	51.98%
Abnormal return day 0	404	0.011*	0.041*	61.14%*
Abnormal return day 1	404	0.006*	0.000	50.99%
Cumulative abnormal return days -1 to 1	404	0.019*	0.007*	59.41%*
CAR restructuring announcement	29	0.030***	0.008	62.07%
CAR first announcement	105	0.036*	0.012*	63.81%*
CAR second or later announcement	299	0.013*	0.006*	57.86%*
CAR all sale-related announcements	105	0.073*	0.044*	73.33%*

Abnormal returns of 404 refocusing-related announcements made by 105 firms. The events include 339 asset sale (or spinoff) announcements and 65 announcements that sales are under consideration or that a general restructuring has been approved. Abnormal returns are calculated using a market model with β calculated over 250 days prior to the event, and the equally weighted market portfolio used as the proxy for the market return.

*,*** denote significance at the 1% and 10% levels, respectively.

5. The Market's Reaction to the Refocusing

We examine the market reaction to divestiture-related announcements of the refocusing firms by computing abnormal excess returns as the actual announcement day returns minus the firm's expected daily return. Expected daily returns are computed using a market model estimated over the 250-trading-day period that ends prior to the firm's first refocusing announcement. Table 8 reports the abnormal stock returns of the sellers for each of 404 refocusing-related announcements made by the 105 refocusing firms. The abnormal return to the seller on the day preceding, the day of, and the day following the announcement is reported, along with the CAR over the 3-day period. The top four rows of the table show that the mean and median abnormal returns (and the percentage of these returns that are positive) are significantly greater than zero (50%) at the .01 level for both day 0 and the cumulative 3-day period. The average CAR for the seller is 1.9%, consistent with previous research.¹⁹

The 404 refocusing-related announcements include 339 divestiture announcements, 29 announcements of planned restructuring programs, and 36 announcements of the amount of consideration received for previously announced sales.²⁰ The bottom four rows of Table 8 provide CARs for

¹⁹ Using 2-day windows ending on day 0, Jain (1985) and Hite, Owers, and Rogers (1987) document CARs of 0.5% and 1.7%. Using 3-day windows ending on day 0, Klein (1986) and John and Ofek (1995) find CARs of 1.1% and 1.5%. For samples restricted to voluntary spinoffs, the CARs for 2-day windows ending on day 0 have been documented at 2.9% by Schipper and Smith (1983) and 3.3% by Miles and Rosenfeld (1983) and Hite and Owers (1983).

²⁰ The 339 divestitures consist of 320 asset sales and 19 spinoffs. We do not perform a separate analysis of the market reactions to the two types of divestiture because we have so few spinoff observations. In addition, previous research indicates a significantly positive reaction to both divestiture methods.

various subsets of the 404 refocusing-related announcements. The 29 announcements of planned restructuring programs result in an average cumulative return for the announcer of 3%, significant at the .10 level. Many of these 29 announcements are the first of a series of announcements made by the refocusing firm. For all 105 refocusing firms, the CAR for the first announcement made averages 3.6%, with 63.8% positive, both of which are significant at the .01 level. The resolution of uncertainty may be smaller for second and subsequent announcements by refocusing firms. Therefore it is perhaps unsurprising that the CAR for second or later announcements by these firms averages a considerably smaller 1.3%, still significant at the .01 level. Finally, it is of interest to document the CAR over all of the 3-day announcement windows for each refocusing firm. The last row of Table 8 shows that the market reacts very favorably to the total refocusing program of the sample firms. The CAR over all refocusing announcements is 7.3% on average, 4.4% at the median, and is positive for 73.3% of the refocusing firms.

The positive market reaction to the refocusing is consistent with the view that firms are reversing value-destroying policies. We investigate this possibility further in Table 9 by regressing the total CAR from all refocusing announcements on the firm's excess value measure and other variables. In addition to the variables used in Table 5, we include indicator variables for the events of market discipline reported in Table 3. These events generally precede all of the refocusing announcements. The occurrence of disciplinary events may reduce the market's surprise at the time of a divestiture, but may also induce more value-increasing divestitures than those that occur for firms not subject to such events. Finally, we include a control variable for the number of sale-related announcements reported by the firm.

The results show a negative relation between excess value and the cumulative abnormal returns, significant at the .01 level for all three excess value measures, and generally insignificant coefficient estimates on the remaining variables. Thus firms with more value-reducing diversification policies appear to realize greater value from refocusing.²¹ These results are consistent with the value loss from operating diverse businesses within one corporation being reversed (at least in part) when the diverse businesses are split apart. If the diversification discount had resulted only from past, irreversible mistakes, we would not expect excess value to be inversely related to the CARs from divestiture-related announcements.²²

²¹ As Lanen and Thompson (1988) demonstrate, a caveat to this conclusion is that cross-sectional associations between stock price reactions and a firm characteristic do not necessarily suggest that the characteristic has the same cross-sectional association with cash flow effects. Lanen and Thompson show that this caveat applies to any analysis of firm-specific decisions where the prior probability of a firm making a specific choice is likely to differ across firms because of cross-sectional differences in firm characteristics.

²² When we perform the Table 9 regression with the excess value measure excluded, the magnitudes and significance levels of the coefficient estimates on the agency variables are similar to those reported.

Table 9
Excess value and the announcement returns

Dependent variable		CAR refocusing	
Observations	78	103	67
Adjusted R^2	0.054	0.154	0.153
Intercept	0.052 (0.636)	0.139 (0.162)	0.116 (0.291)
Excess value, asset multiplier	-0.135* (0.006)		
Excess value, sales multiplier		-0.075* (0.004)	
Excess value, EBITD multiplier			-0.099** (0.012)
Return on assets	0.001 (0.998)	-0.272 (0.268)	-0.731** (0.013)
Total assets	-0.016 (0.188)	-0.016 (0.129)	-0.011 (0.343)
Sales growth	0.058 (0.513)	0.047 (0.562)	0.005 (0.947)
Leverage	0.007 (0.938)	-0.055 (0.504)	0.087 (0.388)
Sales Herfindahl	0.087 (0.313)	0.040 (0.577)	0.099 (0.230)
New CEO dummy	-0.044 (0.244)	-0.059*** (0.078)	-0.071*** (0.092)
Financial distress dummy	0.066 (0.160)	0.100** (0.014)	-0.002 (0.965)
Outside pressure dummy	0.050 (0.158)	0.038 (0.202)	0.050 (0.147)
Number of sale-related events	0.002 (0.721)	0.006 (0.210)	0.007 (0.212)

Linear regressions relating the total cumulative abnormal returns of all refocus-related announcements to excess value prior to the first announcement and other control variables. The excess value variables are defined in table 4. Two-tailed p -values are in parentheses.

*, **, *** denote significance at the 1%, 5%, and 10% levels, respectively.

6. Conclusions

We study the antecedents and consequences of corporate refocusing programs. Corporate reorganizations are complex events with causes and effects that likely differ across situations. We attempt to capture some of this complexity by examining the effect of several factors on the likelihood of refocusing. The measures we investigate are the value impact of the diversification program, the characteristics of the diversification program, various events of market discipline, and various corporate governance variables.

We find that one cause of refocusings is the desire to enhance shareholder value. Diversified firms that refocus have significantly greater value losses from their diversification policies than multisegment firms that do not refocus. Individual characteristics of the diversification program also affect whether companies restructure. Relatedness among the lines of business reduces the probability of refocusing, whereas the presence of unprofitable segments and larger central overhead expenses increase refocusing likelihood.

If agency problems play a role in creating suboptimal diversification policies, such problems may have to be reduced before managers will undertake a divestiture program. Consistent with this conjecture, we find that corporate control events often precede refocusings. About 31% of refocusers have a change in top management in the period before their restructuring, three times the rate reported by Warner, Watts, and Wruck (1988) for a random sample of firms during an earlier time period. Moreover, 62% of refocusers have at least one corporate control event (other than non-CEO turnover) in the year preceding their first divestiture, whereas only about 18% of a matched sample have one of these events. Our evidence is thus consistent with the view that reduction in agency problems via corporate control events plays a crucial role in corporate refocusing choices.

Events of market discipline increase the likelihood of divestiture, after controlling for diversification's valuation consequences. Firms for which the valuation effect of diversification is negative refocus twice as frequently if they have been the target of one or more events of market discipline. We do not find, however, that external pressure is pervasive among refocusing firms that had value-reducing diversification policies. The presence of some negative excess value firms that refocus without external forces being brought to bear suggests that internal control mechanisms alone may correct value-reducing diversification in some firms. We test this implication and find that the level of, and the change in, CEO option ownership provides an effective internal incentive mechanism to induce CEOs to restructure. Future research examining the internal motives for refocusing in more detail could shed additional light on the effectiveness of various corporate governance mechanisms.

Finally, we examine the market reaction to restructuring-related announcements and find that the cumulative abnormal returns over all of the refocusing-related announcements of a refocusing firm average 7.3%, and that these abnormal returns are significantly related to the amount of value that was being destroyed by the refocuser's diversification policy. These results are consistent with refocusing creating economically significant enhancements to shareholder wealth. The fact that the gain from refocusing is positively related to the amount of value that was being destroyed indicates that divesting divisions from a diversified firm can reverse (at least in part)

the value reduction arising from operating multiple lines of business within one firm.

Several areas for future research are suggested by our findings. Events of external pressure are effective in inducing managers to undertake value-enhancing refocusing activity. Why then must such large value reductions occur before external pressure is brought to bear? This question can be attacked by exploring the costs faced by those who create external pressure, and how these costs vary across outside blockholders, creditors, pension funds, and others. Another interesting issue arises from our exploratory evidence that internal capital markets supported by significant headquarters staff are inefficient, on average. Because the creation of an internal capital market is a frequently cited motive for diversification, particularly within less developed external capital markets, it is of interest to examine how the internal market benefits of diversification vary across countries and time. Finally, a related issue is to examine what factors create the cross-sectional variation in diversification's value effect. We find that the compensation policy of the CEO (with respect to stock options) affects the likelihood of refocusing. It would be of interest to know whether the compensation policy for divisional managers helps to explain which firms have less value reduction from their diversification policies.

Appendix A

Multiplier Estimation of Imputed Value and Excess Value:

Equations A.1 and A.2 illustrate the approach:

$$I(V) = \sum_{i=1}^n AI_i * \left(\text{Ind}_i \left(\frac{V}{AI} \right)_{mf} \right) \quad (\text{A.1})$$

$$\text{EXVAL} = \ln \left(\frac{V}{I(V)} \right) \quad (\text{A.2})$$

where:

$I(V)$	=	the imputed value of the sum of a firm's segments as stand-alone firms.
AI_i	=	segment i 's value of the accounting item (sales, assets, or EBITD) used in the valuation multiple.
$\text{Ind}_i \left(\frac{V}{AI} \right)_{mf}$	=	the multiple of total capital to an accounting item (sales, assets, or EBITD) for the median single-segment firm in segment i 's industry.
EXVAL	=	the firm's excess value.
V	=	the firm's total capital (market value of common equity + book value of debt).
n	=	the total number of segments in segment i 's firm.

Equation (A.1) shows that the firm's imputed value is the sum of segment-imputed values, which are obtained by multiplying an industry median multiplier of total capital to an accounting item by the segment's level of the accounting item. Equation (A.2) shows that the firm's excess value measure is the natural logarithm of the ratio of the firm's actual value to its imputed value.

To compute excess value using the sales multiplier, we multiply the industry median multiple of capital-to-sales for the stand-alone firms in the segment's industry by the segment's sales to obtain the imputed capital of the segment. We repeat this process for each of the firm's segments and then sum to obtain the firm's imputed value. Finally, we find the firm's excess value by taking the natural logarithm of the ratio of actual to imputed value. Extreme excess values are excluded from the analysis, with "extreme" defined for all three multipliers as natural logarithms of actual to imputed value above 1.386 or below -1.386 (i.e., actual values either more than four times imputed, or less than one-fourth imputed).

The asset multiple imputed values are found in an analogous manner. Another issue that arises is that it is much more common for the segment asset figures from the CIS tape to disagree with the Compustat firm totals than is the case with sales. The segment sum is usually less than the firm figure, indicating that the problem arises from unallocated assets. We deal with this problem in one of two ways: If the sum of the segment asset figures for a firm deviates from the firm's asset figure by more than 25%, we exclude the observation from all analyses using the asset multiples. If the deviation is within 25%, we adjust the firm's imputed value to reflect the fact that the multipliers have been multiplied by segment asset figures that are too small or too large. Specifically, the firm's imputed value is grossed up or down by the percentage deviation between the sum of its segments' assets and total firm assets. The excess value measure based on asset multiples is then found in the same way as the measure using sales multiples.

The earnings before interest, taxes, and depreciation (EBITD) multiple imputed values use the same adjustment procedures as the asset multiple imputed values. One additional issue is how to treat segments with negative EBITDs, since multiplier approaches do not typically assign negative values to firms with negative earnings. We address this issue by replacing the EBITD multiplier with the segment's sales multiplier imputed value.

Appendix B

Table B.1
Description of Firms that Refocused

Name	Start refocus	#Segmen	#Div	Value sold	with sold	Return	Mgt	Ust	Par	Div	Deb	c11
ABITIBI PRICE INC	9106	6	3	4	336	3	-0.019	1	0	0	0	0
ACME-CLEVELAND CORP	8606	3	2	1	0	0	0.012	0	0	0	0	0
ALLEGHENY INTERNATIONAL	8602	5	1	15	492	5	0.452	0	1	1	0	1
ALLIED PRODUCTS	9102	3	1	8	77	2	0.108	0	0	0	0	1
ALLIS-CHALMERS CORP	8502	4	1	13	700	7	0.478	0	0	0	0	1
AMDURA CORP	8901	4	1	6	134	3	0.345	1	0	1	0	1
AMERICAN CYANAMID CO	8812	4	2	8	465	1	0.050	0	0	1	0	0
AMERICAN MAIZE-PRODS	8809	3	2	2	25	1	-0.016	2	0	0	0	0
ANACOMP INC	8607	2	1	3	0	0	-0.076	0	0	0	0	0
APACHE CORP	8707	2	1	5	108	2	0.017	0	0	0	0	0
ARDEN GROUP INC	9309	3	1	2	40	2	0.086	0	0	0	0	0

Table B.1
(continued)

Name	Start refocus	#Segmen Start	#Div End	Value sold	with sold	value	Return	Mgt	Ust	Par	Div	Deb	c11
ARMCO INC	9111	5	2	5	150	3	-0.160	1	0	0	1	0	0
ASTROTECH INTL	8710	3	1	3	11	1	0.291	2	0	0	1	1	0
BAIRNCO CORP	9206	4	2	2	0	0	0.116	0	0	1	0	0	0
BAXTER INTERNATIONAL INC	9204	4	2	3	1024	2	0.133	2	0	0	0	0	0
BELL INDUSTRIES INC	9210	4	3	1	0	0	0.023	0	0	1	0	0	0
BERGEN BRUNSWIG CORP	8711	3	2	1	40	1	0.007	0	0	0	0	0	0
BERGEN BRUNSWIG CORP	9202	2	1	1	78	1	0.038	0	0	0	0	0	0
BURLINGTON NORTHERN INC	8712	4	1	3	5086	3	-0.048	0	0	1	0	0	0
BUSINESS RECORDS HLDG	8602	3	1	2	108	1	0.160	0	0	0	0	0	0
CARDINAL HEALTH INC	8803	2	1	1	27	1	0.086	0	0	0	0	0	0
COMMUNITY PSYCHIATRIC	8904	3	1	1	131	1	0.011	0	0	1	0	0	0
COOPER COMPANIES INC	8710	4	1	4	261	4	0.162	0	1	1	0	0	0
CPC INTERNATIONAL INC	8703	3	2	5	982	3	0.098	2	1	1	0	0	0
CROSS (A.T.) & CO	9303	2	1	1	8	1	0.044	1	0	0	0	0	0
CRSS INC	9107	7	2	2	64	2	-0.075	1	0	0	0	0	0
DEKALB ENERGY CO	8602	5	1	4	105	3	0.095	2	0	0	1	0	0
DI GIORGIO CORP	8606	4	1	3	70	2	0.187	0	0	1	0	0	0
DIGICON INC	8603	3	1	6	23	3	0.271	0	0	1	0	1	0
DRAVO CORP	8602	4	1	8	10	1	-0.167	2	0	1	0	0	0
DUCOMMUN INC	8709	2	1	1	120	1	0.126	2	0	0	0	0	0
ECOLAB INC	8701	4	2	7	615	2	0.037	0	0	0	0	0	0
EL PASO ELECTRIC CO	9001	5	1	2	0	0	0.026	1	0	0	1	0	0
ETHYL CORP	8905	5	2	4	3678	4	-0.031	0	0	0	0	0	0
FAIRFIELD COMUNITIES INC	9312	2	1	1	41	1	0.357	1	0	1	0	0	1
FEDERAL-MOGUL CORP	9110	3	1	1	150	1	0.004	0	0	0	0	1	0
FERRO CORP	8508	6	4	3	0	0	-0.056	0	0	0	0	0	0
FURON CO	9201	5	1	7	0	0	0.059	1	0	1	0	0	0
GENCORP INC	8702	5	3	8	1528	6	0.012	1	1	1	0	0	0
GENERAL DYNAMICS CORP	9109	6	3	9	2612	6	0.303	1	0	0	0	0	0
GENERAL HOST CORP	8605	4	1	4	355	3	0.139	0	0	0	0	0	0
GRACE (W.R.) & CO	9010	4	2	10	632	6	0.036	1	0	0	0	0	0
GRC INTL INC	8905	3	1	4	5	2	0.243	2	0	1	0	0	0
HANOVER DIRECT INC	8905	2	1	4	28	3	0.025	0	0	1	0	0	0
INTERCO INC	8812	4	2	9	953	7	-0.190	0	1	0	0	0	0
INTERLAKE CORP	8602	4	2	1	49	1	0.101	0	0	0	0	0	0
JOHNSON WORLDWIDE	9405	2	1	2	0	0	0.007	1	0	0	0	0	0
KYSOR INDUSTRIAL CORP	8510	4	2	1	0	0	0.023	0	0	0	0	0	0
LAC MINERALS LTD	8807	3	1	2	62	2	0.091	0	0	1	0	0	0
LONE STAR TECHNOLOGIES	9302	3	2	1	150	1	0.330	0	0	0	1	0	0
LUKENS INC	9307	5	2	2	0	0	-0.007	0	0	0	0	0	0
MAXUS ENERGY CORP	8605	4	1	5	1517	4	0.031	0	1	0	0	0	0
MCDERMOTT INTL INC	8712	4	2	1	68	1	0.030	0	0	1	0	0	0
MCKESSON CORP	8701	6	5	8	0	0	-0.003	1	0	0	0	0	0
MEDALIST INDS	9204	4	1	5	65	1	#N/A	0	0	1	0	0	0
MORRISON KNUDSEN CORP	8802	4	2	2	14	1	0.021	1	1	1	0	0	0
NATIONAL INTERGROUP INC	9001	4	1	4	278	3	0.560	2	0	1	0	0	0
NATIONAL SEMICONDUCTOR	8812	2	1	2	488	2	0.092	0	0	1	0	0	0
NATIONAL-STANDARD CO	9001	2	1	8	0	0	0.170	0	0	0	0	0	0
NAVISTAR INTERNATIONAL	8411	2	1	2	488	1	-0.122	0	0	0	0	1	0
NEWMOUNT MINING CORP	8609	3	1	6	1024	6	-0.205	0	1	1	0	0	0
NICOR INC	8602	5	3	5	0	0	0.091	1	0	0	1	0	0
NORTH STAR UNIVERSAL INC	9009	3	1	4	3	2	-0.043	0	0	0	0	0	0
NOVA CORP ALTA	8906	7	2	2	516	2	0.166	0	0	0	0	0	0
NUI CORP	8710	4	1	1	17	1	0.173	0	0	0	0	0	0
OFFSHORE LOGISTICS	9010	2	1	1	0	0	-0.038	0	0	0	0	0	0
OGDEN CORP	8507	4	2	3	728	3	0.078	0	0	0	0	0	0
OUTBOARD MARINE CORP	8908	4	1	2	235	2	0.035	0	1	1	0	0	0

Table B.1
(continued)

Name	Start refocus	#Segmen	#Div	Value sold	with sold	value	Return	Mgt	Ust	Par	Div	Deb	c11
OWENS & MINOR INC	9201	3	1	2	53	2	0.070	0	0	0	0	0	0
OWENS CORNING FIBERGLAS	8602	5	2	8	236	1	0.179	0	1	0	0	1	0
PACIFIC ENTERPRISES	9205	4	1	4	686	3	-0.153	1	0	0	0	1	0
PANHANDLE EASTERN CORP	8608	4	1	2	1161	1	-0.021	0	1	0	0	0	0
PARAMOUNT COMMUNICATIO	8409	7	2	5	1290	2	-0.012	0	0	0	0	0	0
PLACER DOME INC	8909	2	1	3	663	3	0.007	1	0	0	0	0	0
POPE EVANS & ROBBINS INC	8505	2	1	1	52	1	-0.116	0	0	0	0	0	0
READING & BATES CORP	8705	4	1	4	92	2	0.178	0	0	0	1	1	0
RITE AID CORP	9408	3	1	2	217	4	0.183	0	0	0	0	0	0
ROBBINS & MYERS INC	8412	3	2	2	14	1	-0.026	0	0	0	0	0	0
ROBBINS & MYERS INC	9103	2	1	2	19	1	-0.011	0	0	0	0	0	0
ROLLINS TRUCK LEASING	8806	3	1	2	44	2	0.110	0	0	0	0	0	0
RYDER SYSTEM INC	9307	3	2	1	280	1	0.016	0	0	0	0	0	0
SENECA FOODS CORP	8604	4	3	2	42	1	0.069	0	0	0	0	0	0
SHERWIN-WILLIAMS CO	8507	4	2	3	240	1	0.062	0	1	0	0	0	0
SIZZLER INTL INC	8612	4	1	2	0	0	0.008	1	0	0	0	0	0
SOUTHEASTERN PUBLIC SVC	9309	4	1	3	87	2	#N/A	0	0	0	0	0	0
SOUTHERN NEW ENG TELE	8604	2	1	2	0	0	-0.022	2	0	0	0	0	0
SUDBURY INC	9203	2	1	6	0	0	-0.079	1	0	0	0	0	1
SYNTEX CORP	8410	6	2	3	60	1	0.050	0	0	0	0	0	0
TASTY BAKING CO	9303	2	1	1	0	0	0.059	1	0	0	0	0	0
TELE-COMMUNICATIONS	9103	2	1	2	1246	2	0.085	0	0	0	0	0	0
THIOL CP	8902	3	1	2	1920	1	0.067	0	0	0	0	0	0
TRANSTECHNOLOGY CORP	9201	3	2	1	38	1	0.241	1	0	1	0	1	0
TRIARC COS INC	9207	7	1	1	21	1	-0.026	1	0	1	0	0	0
TYLER CORP/DE	8803	3	1	3	677	3	0.255	0	0	0	0	0	0
UNC INC	8809	4	1	2	119	2	0.045	0	0	0	0	0	0
UNION CORP	8702	5	1	5	69	1	0.143	1	0	0	0	0	0
UNITED INNS INC	8812	3	1	2	11	1	-0.054	0	0	1	0	0	0
UNIVAR CORP	8512	4	1	1	82	1	0.031	0	0	0	0	0	0
UNIVERSAL CORP/VA	9109	4	3	1	44	1	0.148	0	0	0	0	0	0
UPJOHN CO	8412	3	2	2	257	1	0.049	0	0	0	0	0	0
USX-U S STEEL GROUP	9104	2	1	2	0	2	0.062	0	0	1	0	0	0
VARLEN CORP	8808	3	2	4	0	0	-0.046	0	0	0	0	0	0
VULCAN MATERIALS CO	8710	4	2	2	0	0	0.043	0	0	0	0	0	0
WHITTAKER CORP	8503	5	2	4	147	2	0.443	0	1	0	0	0	0
WHITTAKER CORP	8904	2	1	15	368	4	0.293	0	1	0	0	0	0
XEROX CORP	8504	3	1	5	693	6	0.020	0	0	0	0	0	0
ZAPATA CORP	8808	3	2	4	895	4	-0.080	0	0	0	0	1	0

with value — represent the number of divisions sold with available sale price.

Return — the cumulative abnormal return from all announcement related to the refocus.

Mgt — equals 1 if CEO change, 2 if only president or chairman change, and 0 otherwise.

Ust — equals 1 if unsuccessful takeover.

Par — equals 1 if partial acquisition.

Div — equals 1 if dividend cut.

Det — equals 1 if debt restructuring.

c11 — equals 1 if filed for chapter 11.

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