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Causes and Effects of Corporate Refocusing Programs

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Abstract

We study the precursors and outcomes of refocusing episodes by diversified firms that were not taken over. Those that refocus have more value-reducing diversification policies than those not refocusing. Major disciplinary or incentive-altering events (including management turnover, outside shareholder pressure, changes in management compensation, and financial distress) usually must occur, however, before managers refocus. Consistent with divestitures reversing, at least in part, value destruction from unsuccessful diversification strategies, the cumulative abnormal returns over a firm's refocusing-related announcements average 7.3%, and are 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 recently by such prominent firms as AT&T, ITT, W. R. Grace, and many others. These internal breakups likely indicate that the diversification policies being reversed were unsuccessful. However, given the persistent average value-reduction of diversification documented in Lang and Stulz (1994), Berger and Ofek (1995, 1996), and Comment and Jarrell (1995), many failed diversification policies appear to persist for some time before de-diversification occurs. The internal refocusing programs may thus be spurred by a reduction in agency conflicts between owners and managers. To study this question, we examine the precursors and outcomes of major corporate refocusing programs during 1985 to 1993.

To explore the antecedents and results of internal refocusing programs, we examine in detail 107 diversified firms that underwent major refocusings without being taken over, and 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. Overall, 62% of our sample of divesting firms has at least one major corporate control event occur in the period immediately prior to the restructuring. In contrast, just 18% of the matched firms has one or more of these events occur during the same time frame. These findings confirm evidence by Denis et al. (1997), who show that 54% of firms decreasing diversification during 1985-1989 have at least one major corporate control event occur during the year prior to the diversification decrease, versus 27% for firms with no change in diversification.

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 the diversification policies that are most value-reducing are the most likely to be reversed through divestiture. Thus, the

firms that refocus are more likely to attract external pressure, and are more likely to be viewed negatively by the market.

Exploratory evidence indicates that more related diversification programs are less likely to lead to refocusing, whereas negative cash-flow lines of business and higher central overhead expenses increase the probability of restructuring. The results are consistent with more related diversification being more successful, with unprofitable business lines signaling poor performance (and possibly excessive cross-subsidization), and with diversified companies with more centralized administrations being less efficient. The evidence on firm characteristics, while admittedly just scratching the surface, points to the potential value of more detailed investigations of organizational design and centralization in management.[1]

Additional exploratory tests show that the level of, and the change in, CEO option ownership provides an effective internal incentive mechanism to induce CEOs to restructure. The implication is that providing CEOs with forms of performance-based incentive compensation that increase risk tolerance can help to reverse suboptimal diversification policies. We do not find evidence, however, that CEO stock ownership, CEO tenure, or board independence affect whether firms voluntarily refocus. Alternatively, the firms that refocused without events of market discipline occurring may have done so to reduce a significant threat of such events. Our tests instead show that neither the probability of takeover nor the probability of financial distress is associated with the likelihood of refocusing.

Finally, we examine the market reaction to restructuring-related announcements. Consistent with divestitures reversing, at least in part, value destruction from unsuccessful diversification strategies, the cumulative abnormal return (CAR) over a firm's refocusing-related announcements averages 7.3%, and is significantly related to the amount of value that was being destroyed by the refocuser's diversification policy.

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

[1]For example, Christie et al. (1995) find that more diversified firms tend to be less centralized, and our results suggest that the extent to which this is true is associated with the success of the diversification program.

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 1984-1993 observations on the Compustat Industry Segment (CIS) database 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).[2] We require firms to have sales of at least $100 million to facilitate gathering detailed transaction information from news stories. Firms with financial services segments are 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:

$$H = \frac{\sum_{i=1}^{n} S_i^2}{\left(\sum_{i=1}^{n} S_i\right)^2} \tag{1}$$

Thus, the closer H is to one, the more the firm's sales are concentrated within a few of its segments. Firms pass the first screen if they have at least one year during 1985-1993 in which

[2]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.

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 various NEXIS files, 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. Our procedures result in a sample of 107 refocusing observations.

Table 1 describes the sample of refocusing firms. Panel A shows that refocusings are more frequent during 1985-1988 than 1989-1993. Panel B demonstrates that the refocusing programs represent substantial restructurings. Both the number of reported segments and the revenue-based Herfindahl index show that the extent of diversification is cut roughly in half by the refocusing. At the median, three divisions are sold and the divested businesses with price (book value) information available represent 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. The last row of panel B portrays the short time-frames of the restructurings, with a median of two 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 report more than two segments by the end their refocusing period. The value sold column reveals that the sum of all available prices paid for the equity of the divested divisions 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 CARs from each firm's refocusing-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. Arbitragers 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 the refocusings are generally value-enhancing, in some cases managers appear to remain strongly entrenched after refocusing. In such cases, the refocusing announcements made may be seen by the market as less value-enhancing than those shareholders had expected. The last six columns of the appendix detail the events of market discipline that occurred in the year preceding the start of each refocusing program. Examining these columns along with the individual CARs reveals that many of the most extreme CARs are associated with firms that refocused in response to events of financial distress. The effect of financial leverage on the market value of equity is obviously high for such firms.

We select a matched control sample against which to compare the refocusing firms. The pool of potential matched firms includes those 1985-1993 observations of multisegment firms that never enter the initial refocusing sample of 295 firms, have total sales of at least $100 million in 1984 (or their first year of existence), and have no segments in the financial services industry. 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. These criteria often result in identifying multiple potential matches for a refocusing firm. In such cases, the matched firm selected is the one that minimizes the sum of the size and Herfindahl index deviations.

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 performance. Refocusers have 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 that shareholder value increases significantly around increases in corporate focus. Although prominent examples like General Electric illustrate apparently successful diversifications, the findings in these papers naturally raise the question of why so many unsuccessful diversification programs persist. Diversification may benefit the manager because managing a larger firm increases her power, 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 maintain a diversification strategy even if doing so reduces shareholder wealth.[3]

If agency problems lead managers to maintain value-reducing diversification strategies, reductions in agency costs may need to occur before most firms will refocus. Agency costs 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 Wahal (1996) and Opler and Sokobin (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 et

[3]Fluck and Lynch (1996) show that managers may enter into acquisitions to increase shareholder wealth even though retaining the acquired business past the time when its profitability improves will harm shareholder wealth.

al. (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 et al. (1990) and Berger and Ofek (1996)].

We gather information on events that could reduce agency problems from the Wall Street Journal Index and various NEXIS files. These events are gathered for both the refocusing sample and the matched control sample for the period from 12 months before the first divestiture announcement until one month after the announcement.

Table 3 shows the number of times various events occurred during the 13 month window examined for the 107 refocusers and their matched controls. We examine four categories of events: management turnover, outside shareholder pressure, management compensation, and financial distress. Note that we do not construct the categories to be mutually exclusive. The results indicate that corporate control events often precede refocusings. About 31% of the refocusers have a change in top management in the period before their restructuring. 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. When we restrict attention to CEO turnover, the 22% rate for refocusers significantly exceeds the 7% rate for the controls. This result complements the finding of Denis et al. (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.[4] All four figures

[4]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,

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 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 experience signs of financial distress in the period preceding the restructuring. Financial distress can 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 thirteen month period examined.

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.

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 the manager's decision to refocus.

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 be a function of how successful the diversification program is. 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.

[5]The SIC code classifications are assigned by Compustat in its business segment file. These business segment SIC codes are maintained on an 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.

3.2 Total value destruction and subsequent refocusings

To investigate whether the magnitude of the value loss from diversification affects the likelihood of refocusing, we see whether diversified firms in which more value is being destroyed are more likely to undertake major divestitures. 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 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 better than the .05 level. These results are consistent with restructuring occurring at those multisegment 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 better than the .10 level.

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.[6] 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). 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

[6]See Darrough and Stoughton (1990), Wagenhofer (1990), Feltham and Xie (1992), Feltham, Gigler, and Hughes (1992), Newman and Sansing (1993), and Hayes and Lundholm (1996).

they would artificially inflate the imputed values of segments about to be divested.[7] If managerial manipulation of segment data does contribute to the reported results, however, it is surprising that the excess value differences between refocusing and nonrefocusing firms are smallest using the EBITD multiplier. Moreover, the earnings-management explanation is also inconsistent with the 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 are worse performing than the controls, have larger diversification discounts, and 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 is suggestive, we need to evaluate each explanatory variable after incorporating the effects of the other variables on

[7]Noise is also introduced into the imputed segment values by the fact that some segments consist of diverse industries (Benartzi (1995)). No directional bias in imputed segment values results, however, 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).

[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.

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 the following year, 0 otherwise. The independent variables are excess value, ROA, sales growth, and leverage. All explanatory variables are measured in the year prior to refocusing.

Panel A of table 5 presents estimations of the refocusing likelihood models.[9] To provide some measure of the economic importance of the explanatory variables, we present the increase in the probability that the dependent variable takes the value of one for a one quartile change from the median in the value of each independent variable in all logit regressions, holding all other independent variables constant at their medians.[10] We express all of the probability changes as increases by replacing the median of the variable being evaluated with either its 25th- or 75th-percentile (whichever leads to a probability increase).

The table 5, panel A, results show that excess value has a strong negative relation with refocusing probability, indicating that firms destroying more value with their diversification strategy are, all else equal, more likely to refocus. For all three excess value measures, the coefficient estimate is negative and significant at the .05 level. The effect of value destruction on divestiture likelihood appears to be important economically as well as statistically. Changing the asset (sales, EBITD) multiplier measure of excess value from its median to its 25th-percentile increases the refocusing probability by 3.9% (4.4%, 9.3%). ROA is the only other explanatory variable to consistently have t-statistics and probability increases greater than those on the excess value measures.[11] Thus, firms with smaller ROAs and more value-reducing diversification are more likely to refocus.

The matched sample used in panel A of table 5 uses only a subset of the nonrefocusing diversified firms, and does not allow the effect of the matching variables on the likelihood

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

[10] Note that the nonlinearity of the logit model could make inferences sensitive to the evaluation point chosen.

[11] We have also estimated all of the logit regressions reported in the paper with additional performance 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.

of refocusing to be tested. To address these drawbacks of the matched sample design, we present robustness tests in panel B of table 5 that use the full set of nonrefocusing firms with available information. 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 have averaged the data so that there is one observation per firm. Because two firms appear in the refocusing sample more than once, the refocusing sample is smaller than in panel A.

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. For all three measures, the magnitude and significance of the estimates on excess value are somewhat greater than they were in panel A. A diversified firm destroying more value than three quarters, rather than half, of the panel B sample is 2.3% (3.6%, 2.7%) more likely to refocus. Relative to the refocusing probability of 10% (11.3%, 9.3%) when all of the explanatory variables are at their medians, these increases in the likelihood of divesting represent nearly identical proportional increases to those reported in panel A. The probability changes resulting from changes in the excess value measures are generally larger than those resulting from changes in the other variables, with the extent of diversification being the only exception. 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 pre-refocusing 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 refocusings

We have established that firms with greater value losses from diversification are more likely to refocus. We now ask whether potential determinants of the value loss also 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 amount of overhead expenses that is not allocated to specific lines of business (unallocated overhead).

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 table 5 control variables. We omit the additional explanatory variables from the first regression because including the total value effect of diversification and performance-related control variables may weaken our ability to discern how the components of the total value loss affect restructuring decisions.

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.[12] 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 et al.'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.

[12]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 zero, when no segments are related, and the number of firm segments minus one, when no segments differ.

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 et al. (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 et al. and Scharfstein and Stein papers also show that such behavior can result in excessive investment cross-subsidies from better to worse-performing segments, and Berger and Ofek (1995), Lamont (1996), and Shin and Stulz (1996) provide support for this contention.

Finally, we use the difference between the sum of the segments' EBITD and the firm's EBITD, when nonnegative, to measure unallocated overhead expenses (the measure actually captures the difference between unallocated revenues and unallocated expenses). Our interest in this measure stems from the fact that unallocated overhead expenses appear to represent a deadweight loss from diversification (i.e., we find that when the central overhead expenses are left unallocated, the profitability of segments from diversified firms is equal to that of standalone companies). The results in the first column of table 6 show that the coefficient on the unallocated overhead measure is significantly positive, consistent with diversified firms with greater deadweight-losses from centralized overhead expenses being more likely to refocus.

The second column of table 6 shows that, as expected, the significance of the coefficients on the diversification characteristics generally decreases in the second regression, which adds the excess value measure and the controls 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 decreased significance levels. Interestingly, the coefficient on unallocated overhead expenses actually increases slightly in both magnitude and significance. The table 6 results provide exploratory evidence that specific diversification characteristics affect the likelihood of refocusing, but, with the exception of unallocated overhead 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.

4. Further evidence on the causes of refocusing programs

The preceding sections have provided 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 non-losers, 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 refocus frequently, with 82% of such firms divesting. In contrast, refocusing by non-losers with no disciplinary events is significantly lower (.01 level), with just 16% selling businesses. Moreover, the 40% refocusing frequency among losers not subject to disciplinary events is also significantly lower (.01 level) than the 82% rate among losers that are subject to such events. The evidence in table 7 is thus consistent with reduction of agency problems through events of market discipline being necessary before the majority of firms with negative excess value will refocus.[13]

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, including 34 of the

[13]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 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.

84 value losers. The latter figure indicates that even without market discipline, many firms reverse value-reducing diversification. 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. (1996). 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 whereas stock ownership increases it. No support is obtained for CEO tenure or the percentage of insiders on the board being associated with the probability of refocusing.

Alternatively, the firms that refocused without events of market discipline occurring may have done so to reduce a significant threat of such events. We examine this possibility by using takeover probability and financial distress likelihood measures as the explanatory variables in a refocusing likelihood model. The takeover probability measure is calculated using Berger and Ofek's (1996) model, and financial distress likelihood is measured using Altman's (1968) Z-score. We exclude our other variables from the model because the non-governance measures are explanatory variables in Berger and Ofek's (1996) and Altman's (1968) models, while the governance measures reduce the sample size. The results (not reported in a table) provide no support for the threat of disciplinary events affecting the likelihood of restructuring.

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 cumulative abnormal return (CAR) over the three-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 zero and the cumulative three-day period. The average CAR for the seller is 1.9%, consistent with previous research.[14]

The 404 refocusing-related announcements include 339 asset sale (or spinoff) announcements, 29 announcements of planned restructuring programs, and 36 announcements of the amount of consideration received for previously announced sales. The bottom four rows of table 8 therefore provide CARs for 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 63.81% 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

[14]Using two-day windows ending on day zero, Jain (1985) and Hite et al. (1987) document CARs of 0.5% and 1.7%. Using three-day windows ending on day zero, Klein (1986) and John and Ofek (1995) find CARs of 1.1% and 1.5%. For samples restricted to voluntary spin-offs, the CARs for two-day windows ending on day zero have been documented at 2.9% by Schipper and Smith (1983) and 3.3% by Miles and Rosenfeld (1983) and Hite and Owers (1983).

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 three-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, 3.4% on median, and is positive for 73.33% of the refocusing firms. All of these figures are significant at better than the .01 level.

The positive market reaction to the refocusing-related announcements is consistent with the market viewing the reversal of suboptimal diversification strategies as reversing part of the value destruction of these policies. We investigate this possibility further in table 9 by performing regressions of the total CAR from all refocusing announcements by a refocusing firm on the firm's excess value, and other variables, measured in the year preceding the first refocusing announcement. 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 enhancements from refocusing.[15] 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 di-

[15] 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.

versification 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.[16]

7. Conclusions

We study the antecedents and consequences of corporate divestiture 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 as high a rate as that 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 reduction in agency problems via corporate control events playing a part in the manager's decision to refocus.

[16] 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.

Events of market discipline have an effect on divestiture likelihood incremental to that of 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 substantial minority of 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. We do not find support, however, for CEO stock ownership, CEO tenure, or board independence affecting whether firms voluntarily refocus. 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 in 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.

Appendix A

Multiplier estimation of imputed value and excess value: Equations 2 and 3 illustrate the

approach:

$$I(V) = \sum_{i=1}^{n} AI_i * (Ind_i(\frac{V}{AI})_{mf}) \quad (2)$$

$$EXVAL = \ln(\frac{V}{I(V)}) \quad (3)$$

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.
$Ind_i(\frac{V}{AI})_{mf}$	=	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 2 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 3 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.

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Table 1

DESCRIPTION OF REFOCUS SAMPLE.

A. SAMPLE FREQUENCIES BY FIRST YEAR OF REFOCUS PROGRAM

Fiscal Year 0	number of firms	Frequency
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]	1.185	0.489	2.392	0.025	15.730
Minimum value divested/total assets[1]	0.283	0.176	0.286	0.013	1.369
Length of the refocus program[2]	1.887	2.000	1.030	1.000	5.000

[1] The minimum value divested is the sum of all available sale prices of the divisions divested. The ratio is calculated only if value is available for at least one divestiture.

[2] The number of years between the fiscal year prior to the first sale and the fiscal year of the last sale.

Table 2

COMPARATIVE STATISTICS OF DIVERSIFIED FIRMS THAT DO OR DO NOT REFOCUS.

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

	Mean			Median		
Variable	No refocus	Refocus	Difference	No refocus	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[b]
Return on Assets (EBITD/assets)	0.152	0.114	0.038[a]	0.149	0.112	0.037[a]
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[b]

[a] denotes significance at the 1% level.

[b] denotes significance at the 5% level.

Table 3

CORPORATE CONTROL EVENTS IN YEAR -1

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

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

[1] The frequency of activism by pension fund investors is calculated for the period 1987-1993 only, which includes 60 firms.

[2] The frequency of a new compensation plan is calculated for 179 firms with available proxy statement data for year -1.

[a] denotes significance at the 1% level.

[c] denotes significance at the 10% level.

Table 4

VALUE DESTRUCTION IN DIVERSIFIED FIRMS THAT DO OR DO NOT REFOCUS.

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

	Mean			Median		
Variable	No refocus	Refocus	Difference	No refocus	Refocus	Difference
Excess value, asset multiplier[1]	-0.099	-0.273	0.174[a]	-0.184	-0.286	0.102[c]
Excess value, Sales multiplier[2]	-0.130	-0.305	0.175[b]	-0.172	-0.312	0.140[b]
Excess value, EBITD multiplier[3]	-0.120	-0.239	0.119[b]	-0.123	-0.251	0.128[c]

[1] 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 multiplied by its industry median capital-to-assets ratio.

[2] The natural logarithm of actual value/imputed value with each segment's imputed value equal to the segment's sales multiplied by its industry median capital-to-sales ratio.

[3] The natural logarithm of actual value/imputed value with each segment's imputed value equal to the segment's EBITD multiplied by its industry median capital-to-EBITD ratio.

[a] denotes significance at the 1% level.

[b] denotes significance at the 5% level.

[c] denotes significance at the 10% level.

Table 5
Panel A
REFOCUS LIKELIHOOD MODELS - MATCHED SAMPLE

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 with 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 takeover 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 takeover are 50.104% (asset multiplier regression), 49.411% (sales multiplier regression), and 53.931% (EBITD multiplier regression). Two-tailed P-values are in parentheses.

Independent variable	Coefficient estimate (p-value)	Change in probability	Coefficient estimate (p-value)	Change in probability	Coefficient estimate (p-value)	Change in probability
Excess value, asset multiplier	-1.154[b] (0.048)	3.909%				
Excess value, sales multiplier			-0.591[b] (0.035)	4.360%		
Excess value, EBITD multiplier					-1.699[a] (0.007)	9.349%
Return on assets	-7.062[b] (0.037)	7.695%	-10.109[a] (0.000)	7.382%	-15.358[a] (0.001)	15.759%
Sales growth	1.502 (0.198)	3.131%	0.864 (0.382)	1.803%	1.071 (0.362)	2.212%
Leverage	1.499 (0.201)	4.155%	0.303[b] (0.035)	0.843%	-0.033 (0.785)	0.654%
N = 0 (no refocus)	80		106		69	
N = 1 (refocus)	79		105		69	

[a] denotes significance at the 1% level.
[b] denotes significance at the 5% level.

Table 5
Panel B
REFOCUS LIKELIHOOD MODELS - FULL SAMPLE, ONE OBSERVATION PER FIRM

Logit regressions estimating refocus likelihood models. The dependent variable equals 1 if the firm started refocusing in the following year and 0 if the firm reported two or more segments for the year and did not refocus during the period 1985-1993. A firm has only one observation, which is the average of all times the firm enters the sample. 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 takeover 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 takeover are 10.024% (asset multiplier regression), 11.329% (sales multiplier regression), and 9.333% (EBITD multiplier regression) respectively. Two-tailed P-values are in parentheses.

Independent variable	Coefficient estimate (p-value)	Change in probability	Coefficient estimate (p-value)	Change in probability	Coefficient estimate (p-value)	Change in probability
Excess value, asset multiplier	-1.420[a] (0.001)	2.338%				
Excess value, sales multiplier			-1.097[a] (0.000)	3.645%		
Excess value, EBITD multiplier					-1.778[a] (0.000)	2.672%
Return on assets	-0.994 (0.685)	0.314%	-4.604[b] (0.013)	0.685%	-3.597 (0.130)	1.108%
Total assets	-0.295[a] (0.001)	3.346%	-0.164[b] (0.035)	1.952%	-0.197[b] (0.041)	2.012%
Sales growth	-0.499 (0.408)	0.216%	-0.906 (0.128)	0.440%	0.276[c] (0.063)	0.136%
Leverage	1.558 (0.146)	1.513%	1.631[b] (0.012)	1.765%	0.215 (0.800)	0.186%
Sales Herfindahl	-2.270[a] (0.002)	3.367%	-2.367[a] (0.000)	3.913%	-2.778[a] (0.001)	3.992%
N = 0 (no refocus)	612		670		586	
N = 1 (refocus)	78		103		67	

[a],[b],[c] denotes significance at the 1%, 5%, and 10% levels.

Table 6

DIVERSIFICATION CHARACTERISTICS AND REFOCUSING

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 with 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 takeover 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 takeover are 39.686% (first regression) and 40.801% (second regression) respectively. Two-tailed P-values are in parentheses.

Independent variable	Coefficient estimate (p-value)	Change in probability	Coefficient estimate (p-value)	Change in probability
Excess value, sales multiplier			-0.737[b] (0.021)	5.341%
Number of segments	0.282[b] (0.034)	6.900%	0.259[c] (0.067)	6.365%
Number of related segments[1]	-0.299[a] (0.078)	7.331%	-0.163 (0.374)	3.991%
A segment with negative CF[2]	0.802[b] (0.022)	19.794%	0.595 (0.120)	14.741%
Unallocated cost/sales[3]	20.700[b] (0.030)	5.167%	23.866[b] (0.027)	6.001%
Return on assets			-8.525[a] (0.002)	9.261%
Sales growth			1.074 (0.312)	2.183%
Leverage			0.297 (0.728)	0.798%
N = 0 (no refocus)	107		105	
N = 1 (refocus)	107		106	

[1] The difference between the total number of segments reported by the firm and the number of segments with a different main 2 digit SIC code.

[2] An indicator variable that equals 1 if the firm reported at least one segment with negative EBITD in year -1.

[3] The maximum between the difference of the sum of segment EBITD and total firm EBITD scaled by sales, and 0.

[a],[b],[c] denotes significance at the 1%, 5%, and 10% levels.

Table 7

VALUE LOSS, CHANGES IN AGENCY COSTS, AND THE DECISION TO REFOCUS

		Loser[1]	non-loser
Agency reduction[2]	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
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

No agency event

[1] A firm is defined as a loser if its sales multiplier measure of excess value is below zero.

[2] Agency reduction occurs if the firm has a new CEO, or outside pressure, or events of financial distress.

Table 8

ABNORMAL RETURNS AROUND THE REFOCUSING-RELATED ANNOUNCEMENTS

Abnormal returns of 404 refocusing-related announcements made by 105 firms. The events include 339 asset sale (or spin-off) 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 βs calculated over 250 days prior to the event, and the equally weighted market portfolio used as the proxy for the market return.

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

[a] denotes significance at the 1% level.

[c] denotes significance at the 10% level.

Table 9

EXCESS VALUE AND THE ANNOUNCEMENT RETURNS

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. Two-tailed P-values are in parentheses.

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

[a],[b],[c] denotes significance at the 1%, 5%, and 10% levels.