

Implications of the Trend and Performance of Business Diversification: An Empirical Investigation

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Abstract

This study analyzes the relationship between business diversification and operating performance. Using a sample of 1,528 firms over the 1990 to 1996 period, our results show that diversified firms perform significantly better than single segment firms. Thus, the previously identified value discount in diversified firms cannot be attributed to poor operating performance. In comparing diversifying and focusing firms, our results indicate that diversifying firms increase their leverage and suffer a nominal decline in operating performance. On the other hand, focusing firms reduce their leverage and improve their operating performance.

An Empirical Examination of the Trend and Performance Effects of Business Diversification

INTRODUCTION

In an efficient market setting, firms must continually restructure themselves to reach and maintain a value maximizing dynamic equilibrium. The most frequently adopted approach to restructuring has been the re-scaling and re-scoping of operations by corporations to achieve optimal span that, at least in theory, leads to shareholder wealth maximization. Firms have redefined their business strategies and have changed the scale and composition of their business portfolios through diversifying acquisitions and through refocusing divestments. The existing evidence on corporate diversification suggests that diversified firms suffer value losses (Berger and Ofek (1995), and Servaes (1996) among others). Although there have been attempts to trace the origins of value destruction to agency conflicts (Denis et al, 1997), inability to generate diversification related benefits (Comment and Jarrell (1994), and/or nonexistence of benefits of internal capital markets related gains (Morck et al, 1990), the findings have been at best inconclusive. Surprisingly, one major factor --poor operating performance-- that may directly result in value destruction has not been investigated.

In this paper, we seek to trace the origins of the value discount in diversified firms to firm operating/accounting performance. If operating factors such as poor asset deployment, inefficient processing strategies, lack of coordination, and diseconomies of scale and scope lead to value destruction, we should expect to find a negative relation between the degree of business diversification and operating performance. We investigate the relationship between the degree of corporate diversification and firm operating performance in terms of return on assets and return on equity.

Initially, we analyze whether the trend of increasing corporate focus documented for the 1980s

is continuing into the decade of 1990s. We find, consistent with previous literature, that while focused firms dominate and tend to increase their representation in the sample, more diversified firms lose their proportional share in the sample over time. In addition, there is a continuous monotonic decline in the average number of business segments reported by firms from 1.89 in 1990 to 1.75 in 1996. Further, not only the direction from diversification to focus is consistent across years, but also the strength of the focus trend increases over time. Out of all the 1,528 sample firms, 155 report diversifying moves and 279 report focusing moves, on average changing their segments by +1.38 and -1.59, respectively, over the seven year period from 1990 to 1996.

In the next stage of our investigation we examine firm-specific characteristics that precipitate the decision by firms to opt for narrow versus broad business scope. We find that firm size and degree of diversification are monotonically and positively related. In terms of debt financing, more diversified firms have significantly higher leverage than less diversified firms. Our multiple regression specification results show that after controlling for size and leverage differentials, multi-segment firms outperform single segment firms, and higher degree of diversification is associated with better operating performance.

In addition to cross-sectional analysis of the relation between level of diversification and performance, we investigate changes in diversification levels and the related changes in financial structure and performance. We identify firm-specific characteristics that induce a shift in corporate scope. We find that there are significant firm characteristic differentials associated with the strategic choice of expanding or reducing corporate scope. In general, diversifying firms appear to have initial poor performance, a lower asset base, higher growth opportunities, lower asset utilization efficiency, and a narrower corporate scope

relative to focusing firms.

Finally, in terms of implications of shifts in corporate scope, we find that while both diversifying and focusing groups gain in terms of a rise in the market to book ratios, only focusing firms experience an operating performance gain. While diversifying firms experience a rise in leverage and a decline in the bankruptcy score, focusing firms show a decline in leverage and a rise in the bankruptcy score. However, the changes are statistically insignificant.

The paper proceeds as follows. Section 2 discusses the relevant literature on this topic. In Section 3 we explain sample construction and present our data description and trends in diversification/focus over the sample period. Section 4 examines financial structure and performance differentials between the focused and diversified firms and relates corporate scope and financial performance in a multivariate setting. Section 5 addresses the question of dynamics of business scope adjustment. Section 6 concludes the paper.

LITERATURE

There have been numerous studies addressing the question of what caused the rise of the conglomerate mergers wave in the 1960s and its fall in the 1980s, giving way to a more focused business strategy. The logic advanced in favor of diversification include managerial economies of scale and efficiency gains through creation of an additional layer of management specifically undertaking the coordinating function among various specialized divisions. A multi-segment corporation with a well-designed organizational structure may combine the benefits of specialization with those of diversification through a more efficient decision process.

Diversification may yield financial synergies and increased debt capacity. Lewellen (1971)

suggests that by combining projects with uncorrelated cash streams, diversified firms are able to ensure stability of earnings. This coinsurance effect, by allowing greater debt capacity, generates value through an increased interest tax shield and through the smoothening out of losses and gains. Majd and Myers (1987) suggest that under certain conditions, the overall tax liability of a multi-segment corporation may be less than that of a single segment firm. In addition, Williamson (1986) suggests that diversified firms reap the benefit of internal capital markets that are more cost efficient than external capital markets. Stulz (1990) suggests that by avoiding the need to go to external capital market for funds, diversified firms are able to mitigate the under-investment problem highlighted by Myers (1977).

Diversification may be induced by poor performance and growth constraints. Gort et al (1985) suggest that firms diversify to tap the comparative advantage of new businesses relative to the existing business. Lang and Stulz (1994) support this argument by providing evidence that firms diversify away from low growth to potentially high growth activities.

Historically, firms may have chosen to adopt diversification to avoid antitrust restrictions. Stigler (1966) argued that the 1950 merger act may have led firms to expand in diverse lines of businesses. However, even then diversification was not value enhancing (Servaes, 1996). Shleifer and Vishny (1991) conjecture that firms having excess cash and experiencing an environment favorable to issuing equity escaped the antitrust regulation by acquiring businesses outside their main line of business.

However, a growing volume of empirical evidence suggests the existence of adverse

valuation consequences due to diversification. One rationalization advanced by Bhide (1990) is that previous product and capital market inefficiencies, incompleteness, and information asymmetries made external market interactions costly, making internal capital markets transactions advantageous and value-creating for diversified firms. The current trend of rising capital market sophistication, reduced regulation, and better information transparency has eroded the benefits of diversification (Markides, 1995). At the same time, because of the increased business environment uncertainty and volatility there has been greater information and control loss in diversified firms (Hill and Hoskisson, 1987), the costs of diversification have gone up.

However, Servaes (1996) shows that even in the 1960s and 1970s, diversified firms were not valued at a premium; rather there was a substantial discount in the 1960s that declined to zero in the 1970s. In addition, event study results comparing acquirers' return to diversifying versus non-diversifying acquisitions suggest that the former acquisitions had negative value consequences (Morck et al, 1990; Eckbo, 1985; and Sicherman and Pettway, 1987).

There is also evidence that diversification adversely affects market performance. Comment and Jarrell (1994) report a negative relation between abnormal stock returns and various measures of diversification. Similarly, Lang and Stulz (1994) report a negative relation between the degree of diversification and Tobin's Q.

Recently, the evidence of value creation by increasing focus has been interpreted as an indicator of value destruction by diversification. Berger and Ofek (1995), for example, suggest that the recent trend towards increase in focus as reported among others by Comment and Jarrell (1994) and

Liebeskind and Opler (1993) is a consequence of corporations realizing that unrelated diversification decreases firm value. Since increase in focus has been shown to lead to positive valuation effects for sellers (John and Ofek, 1994), it is proposed that initial diversification may have been value destroying. Comment and Jarrell (1994) argue that increased emphasis on focus, combined with a positive relation between stock performance and change in focus, and inability of diversified firms to tap the benefits of internal capital markets, confirms diseconomies of scope in the 1980s.

Tracing the Source of Value Losses in Agency Behavior of Management

Given that diversification facilitates creation of internal capital markets, Jensen's (1986) argument that managers with larger debt capacity and access to free cash flow may undertake non-value maximizing investments, may explain non-value maximizing diversification. Further, due to the inter-segment transfer of cash, there is a greater possibility of managers undertaking negative value enhancing projects relative to single-segment firms. A related hypothesis in terms of "cross-subsidization" (Meyers, Milgrom and Roberts, 1992) predicts that as a part of a conglomerate, negative net worth subsidiaries tend to survive for a longer period and contribute to value destruction. On a similar note, Stulz (1990) suggests that diversified firms having access to internally generated funds may have a problem of over-investment. Managers may actually be investing in negative net-present-value projects since they are able to avoid market evaluation and monitoring of their projects.

Over-diversification can result in negative synergy and diseconomies of scope. Additionally, over-diversification may lead to information asymmetries and coordination related distortions, making

conglomerates more likely to suffer profitability and value losses (Meyerson, 1982; and Harris et al, 1982).

It is argued that managers derive private benefits from diversification, in terms of added power and prestige associated with managing large conglomerates, as well as size related compensation benefits (Jensen, 1986; and Jensen and Murphy, 1991). In addition to scale expansion, diversification also helps managers diversify the risk of their personal human capital, which is tied to the firm that they manage (Amihud and Lev, 1981). Morck et al (1990) and Amihud and Lev (1981) provide empirical evidence to this effect. Also, there is a managerial desire for entrenchment playing its role in suboptimal diversification strategy. Shleifer and Vishny (1989) argue that managers, in a bid to make themselves indispensable to the firms they manage, may opt for diversification at the cost of negative shareholders' wealth consequences.

Denis et al (1997) provide evidence on the agency hypothesis by analyzing diversification level and changes therein, as influenced by ownership structure and the market for corporate control. They interpret their findings of a negative relation between the level of diversification and insider ownership as evidence of divergent interests of firm managers and shareholders. They also argue that the evidence of a negative relation between outside block ownership and the level of diversification is a manifestation of agency conflict in terms of managers not being monitored by external shareholders. However, they do not find support for the argument that firms with higher managerial and outside block ownership undertake more valuable diversification. More importantly, they find little direct evidence that value loss from diversification is related to either managerial or outside block ownership.

Obviously, while a large volume of literature documents value discount associated with

diversification, there appears to be a significant gap in our understanding of the source of that value discount. Specifically, the issue of linkage between operating performances and diversification begs more attention. Relating the degree of firm diversification to return on assets and equity is critical to understanding if the market is discounting diversified firms due to their diseconomies of scope, negative synergy and excessive spreading of managerial resources over an unmanageably large regime. In this paper we focus on this aspect of corporate diversification strategy.

SAMPLE COMPOSITION AND DATA DESCRIPTION

Sample Selection

We rely on the Compustat active firms library to construct our sample. The sample covers the seven-year period from 1990 to 1996. The initial sample consisted of all NYSE, AMEX and NASDAQ listed firms that had sales revenue exceeding \$100 million. From this initial sample, we excluded firms belonging to the financial services industry (SIC 6000-6999) and regulated utilities (SIC 4900-4999). In addition, we excluded the firms that did not have business segment data continuously available over the entire seven-year period of the study - years 1990-96. A total of 1554 firms met these criteria. We also excluded 26 ADR firms from the sample. These procedures resulted in a final sample of 1,528 firms being chosen for the study.

We classify firms as domestic or multinational depending on the ratio of foreign sales to total sales (zero or positive). We define a firm as product-focused if it operates in a single business segment or product-diversified if it operates in multiple business segments. In our statistical tests, we

use panel data since we have both time series and cross-sectional data. A missing variable in one year requires the elimination of the firm for the entire period. As a result, we have a sample of 1,127 firms that meet our complete data criteria.

A breakdown of this sample into various categories according to type of diversification strategy is as follows:

<u>Year</u>	<u>Product</u>		<u>Geographic</u>		<u>Total</u>
	<u>Diversified</u>	<u>Focused</u>	<u>MNC</u>	<u>Domestic</u>	
1994	370	757	568	559	1127
1995	383	744	560	567	1127
1996	399	728	544	583	1127

Variable Measurement

Return on equity (ROE) and return on assets (ROA) are used to measure firm operating performance. In the univariate tests we use the number of business segments to define diversity. In the multivariate tests, we use the sales based entropy measure of total product diversification (Jacquemin and Berry, 1979), calculated as

$$\text{Total Product Diversification} = \sum_{i=1}^n P_i \ln(1/P_i)$$

where P_i = share of the i^{th} business segment's sales as a percent of total firm sales, and n = number of the firm's business segments.

We use several control variables to clearly delineate the effect of diversification strategies on firm performance. Specifically, we control for firm leverage, measured by the ratio of total debt to

total assets, total asset turnover, firm size, proxied by log of total sales, past firm growth rate, proxied by the five year compounded growth rate of sales, and growth opportunities, proxied by the ratio of market value to book value. The percentage of foreign sales to total sales (FSTS) is our measure of international diversification.

Sample Description and Trend

Table 1, Panel A shows the sample composition over the 1990-1996 period. The total sample of 1,528 firms is divided into subgroups according to the number of business segments reported. Clearly, the largest group consists of firms reporting a single business segment. In all the sample years, single segment firms form about 60 percent of the total sample size. Moreover, there is a steady increase in the number of single segment firms over the entire period. The second largest subgroup is of firms having two business segments, constituting about 15 percent of the total sample. Approximately, 12.5 percent of the sample firms report three business segments. There appears to be no particular trend over time in the number of firms reporting two or three segments. While the group of firms reporting four segments or five or more segments constitute a small proportion, there appears to be an almost monotonic decline over the years in the size of these two groups. Similarly, though forming an extremely small proportion, the subgroup reporting six segments also becomes smaller over time. The number of firms reporting seven or more segments appears to be of minimal economic significance. There emerges a preliminary indication that, while focused firms dominate and tend to increase their representation in the sample, firms with two and three segments remain at the same proportional levels. The more diversified firms lose their proportional share in the sample over time. Since the same firms constitute the sample in each year, the changing sample composition reflects

firms' tendency to focus by reducing the number of business segments.

[Table 1 About Here]

A more concrete indication of a trend toward focus is evident in Panel B of Table 1. As the diagonal elements show, there is a continuous monotonic decline in the average number of business segments reported by firms from 1.899 in 1990 to 1.749 in 1996. A more interesting picture of the focus trend emerges when we compare the inter-year differences in the average number of segments reported. While the changes over the 4-year windows between 1990-94 (-0.064) and 1991-1995 (-0.066) are not statistically significant, the change over the similar window for 1992-1996 is significant. In fact, while none of the changes in the three-year windows beginning 1990, 1991 or 1992 is significant, the decline in the average number of segments between 1993-1996 is statistically significant. Thus, not only the direction from diversification to focus is consistent across years, but also the strength of the focus trend increases over time. This finding is further supported by a statistically significant decline in the number of segments reported for 1994-96 two-year window.

The results in Panel B are consistent with previously reported results by Comment and Jarrell (1994) and Denis et al (1997). While Denis et al (1997) report a decline in the average number of segments from 2.4 in 1985 to 2.1 in 1989, our results show continuing focus with the average number of segments declining from 1.90 in 1990 to 1.75 in 1996.

Obviously, not all the firms were focusing over this period. In Table 2, we report a decomposition of corporate business scope adjustments by firm subgroups formed on the basis of number of segments reported. We report the changes in average number of segments and the number of firms diversifying and focusing in each category. While single segment firms diversified by

increasing, on average, 1.46 segments, only 9.5 percent of those firms undertook the move to expand into new businesses. While 47 of the 238 two segment firms increased the number of segments by an average of 1.36 segments (significant), there were 72 firms that reported on the average a decrease of 1 segment. The difference between the number of diversifying and focusing firms is statistically significant.

[Table 2 About Here]

Of 181 firms with three segments, while 16 report an average increase of 1.25 segments, another 66 report a focusing move, on average reducing 1.30 segments. While the difference between the average increase and decrease in segments is not statistically significant, the number of diversifying firms is significantly less than the number of focusing firms. The group of firms with four segments have the same story to tell, but more convincingly as the proportion of firms reporting diversification is much less than those reporting focus. We group the firms reporting five or more segments into one category. The results are a clear indication of a trend toward increased focus by these firms. While Only 5.7 percent of firms report an increase in their number of segments by an average of 1.20 segments, a much larger proportion of firms (78.4 percent) report a decrease in their number of segments by a higher average decline. Both the differences, namely, that between average segment changes and between the number of firms reporting diversifying or focusing moves, are statistically significant.

Out of all of the 1,528 sample firms, 155 report diversifying moves and 279 report focusing moves, on average changing their segments by +1.38 and -1.59, respectively. Again, both the differences are statistically significant. The remaining 1094 firms opt for the status quo. Overall,

Tables 1 and 2 indicate a continuous trend towards increased corporate focus, both in terms of increased number of single segment firms and in terms of lower average number of segments reported.

Financial Structure and Performance Differentials

The logical question is what accounts for this trend. What motivates the increase in focus? We address this issue by relating the financial structure and performance attributes of the sample firms to their degree of diversification. For this purpose we focus on 1127 firms for which we have complete data over the three-year period between 1994 and 1996. Initially, we analyze financial structure and performance differentials between focused and diversified firms in a univariate setup. At the next stage, we relate firm operating performance to the degree of diversification in a pooled data multiple regression framework.

In Table 3 we present summary statistics for the three sample years pertaining to the 1127 firms. In all the sample years the average entropy index of business diversification is approximately 0.25, while the ratio of foreign sales to total sales, measuring the degree of international diversification, lies between 13.77% in 1994 to 15.65% in 1996. Average size of sample firms increases from \$1,722 million in 1994 to \$2,074 million in 1996. In terms of performance, ROA (ROE) ranges from 5.16% (11.69%) in 1996 to 5.45% (10.58%) in 1994. Asset utilization efficiency as measured by the total asset turnover ratio is close to 1.4 in all the three sample years. The sample average debt to asset ratio is 23%.

[Table 3 About Here]

Next, we compare firm-specific characteristics across diversified and focused firms. Table 4

contains the results of univariate mean comparison tests. The results show that the scale and scope dimensions of corporate span are directly related and are complements, as multi-segment firms are significantly larger than single segment firms in all the three sample years. In addition, we find that product diversified firms are also more diversified geographically as they generate a higher proportion of their total revenues from foreign sales compared to focused firms. Thus, the product and international diversification dimensions of corporate scope complement each other. However, firms with larger scale and scope appear to be less efficient in utilizing their assets for sales revenue generation. The results hold consistently for the three sample periods.

[Table 4 About Here]

The variations in market to book ratios (MBFE) across the two groups suggest that focused firms have nominally higher growth opportunities, although the differences are not statistically significant. Leverage, as measured by the ratio of total debt to total assets (DTA), is positively related to diversification, as diversified firms carry significantly higher debt compared to focused firms consistently across all the sample years. Although this finding is consistent with Lewellen's (1971) argument of increased debt capacity due to the coinsurance effect, the results contrast with Comment and Jarrell's (1994) finding that either there is no increase in debt capacity, or managers do not choose to utilize additional debt capacity.

The next logical question is whether the size and financial structural differences translate into differential financial performance across focused and diversified firms. Our bivariate statistical tests reveal an interesting phenomenon. We find that in terms of return on equity, diversified firms consistently outperform focused firms in all the sample years, with the performance differences being

statistically significant for the years 1995 and 1996. In contrast, when performance is measured by return on assets, there is no significant difference between focused and diversified firms, except in 1994 when the focused firms outperform the diversified firms. One possible explanation for the inconsistency across the two performance measures may be in terms of the difference in the degree of debt financing across focused and diversified firms.

We isolate the influence of leverage and other firm-specific factors on performance in a multivariate setup that allows us to more conclusively relate performance with the degree of diversification. While many studies have attributed value discounting to diversification, comment and Jarrell (1994) report stock return gains attributable to increase in focus. Similarly, John and Ofek (1995), in the context of asset sales, report that focus increasing asset sales result in operating performance gains. Therefore, we may expect to see a negative relationship between degree of diversification and our proxies for operating performance. Initially, the question is addressed in a static framework. Specifically, we examine whether the differences in the degree of diversification explain the cross-sectional variations in the operating performance of sample firms. The results are presented in Table 5.

[Table 5 About Here]

In Panel A, we present results of the analysis of pooled data for the three sample years. In the first regression (model P-1), where performance is proxied by ROE, we find that the coefficient of the indicator variable (BUSDUM =1 for diversified and =0 for focused firms) is significant and positive. This implies that even after controlling for firm specific factors-- asset utilization efficiency, growth, leverage, size, and growth opportunities-- diversified firms as a group have higher return on equity than

focused firms. When the continuous entropy measure of product diversification replaces the indicator variable (model P-2), its significant positive coefficient indicates that firms with a higher degree of product diversification outperform the less diversified ones. In the next regression (model P-3), we also control for degree of international diversification as it may be moderating the relationship between firm performance and the degree of business diversification (Hitt et al, 1997). We find that even after controlling for foreign diversification, product diversification positively influences return on equity.

With respect to control variables, while growth opportunities (MBFE) and size (LOGSALE) are significantly positively related to equity return, leverage has a significant influence on performance. As expected, efficient asset utilization, as measured by the total asset turnover ratio (ATO), results in higher profitability. Firm growth (GRSLS) and the degree of international diversification (FSTS) do not influence return on equity.

The second set of regressions utilizes ROA as a proxy for firm performance. Here, no clear picture of a relation between performance and business diversification emerges. While the indicator variable appears with a negative coefficient, the continuous entropy measures have positive coefficients. However, all the diversification measure coefficients are insignificant. In terms of control variables, the results are broadly similar to those from the models using ROE as the performance proxy, except that in the present case, past growth significantly and positively associates with performance, and the degree of international diversification appears to worsen the return on assets.

We replicate the regression analysis for each of the individual sample years, namely, 1994, 1995, and 1996. The results are identical to the ones reported for the pooled regression analysis. That is, in terms of ROE, multi-segment firms outperform single segment firms, and a higher degree of

product diversification associates with a higher level of performance. In addition, while firm size, growth opportunities, and asset utilization efficiency lead to higher ROE, leverage appears as a negative influence. Finally, the degree of international diversification or past growth (except for 1996) does not seem to influence firm performance in terms of ROE.

When performance is proxied by ROA, we find that product diversification does not influence firm performance. The coefficient for the entropy measure has a positive sign for 1994 and 1995, and a negative sign for 1996. However, none of the entropy coefficients in any of these regressions, and for any of the sample years, is statistically significant. Thus, at best, we can conclude that the degree of product diversification does not influence firm return on assets. (The control variables relate to ROA in a way identical to that reported previously for the pooled regression models.)

Overall, we find that while diversified firms outperform focused firm in terms of ROE, they are no worse than focused firms in terms of ROA. Thus, our results indicate that poor operating performance cannot be a possible explanation for the value discount that is generally attributed to diversification.

Changes in the Levels of Diversification

The analysis to this point has focused on static cross-sectional analysis of diversification and focus dimensions of corporate span. In this section we conduct a very preliminary analysis of changes in diversification or focus levels of the firms in terms of increase or decrease, respectively, in the number of segments reported. For this purpose, we divide our 7-year sample span into three 2-year windows. The 1990-1992 window is the pre-strategic shift period, the 1992-94 is the scope adjustment (diversification level shift) window, and the 1994-96 is the post shift window.

As a first step we ask what firm-specific characteristics precipitate a decision to diversify or focus. We compare and test for any difference in the base year financial characteristics (the initial conditions) between firms opting to diversify versus those choosing to focus. Our mean comparison test results are reported in Table 6. As the results in Panel A suggest, focusing firms are larger in size than diversifying firms, with the difference being statistically significant for size proxied by total assets. While focusing firms do have higher equity, net income, and net sales, they are not significantly different from diversifying firms. In general, there appears to exist a tendency for smaller firms to expand their corporate scope, and for larger firms to reduce their scope by reducing the number of segments.

[Table 6 About Here]

It is possible that the motivation to change scope comes from poor performance.¹ When we compare performance across the two groups, we find (Table 6, Panel B) that diversifying firms have significantly lower 5-year average returns, a higher beta (though not significantly so), a significantly lower dividend yield, a lower P/E ratio (insignificantly different), and a higher market to book (M/B) relative to focusing firms. A possible interpretation is that although diversifying firms are initially underperformers, the market recognizes their future prospects, through high M/B and thus potential growth opportunities, and provides an inducement for them to expand their scale and scope.

The diversifying firms seem to have a significantly higher current ratio, a lower debt/asset ratio and a higher bankruptcy measure relative to focusing firms (Table 6, Panel C). The diversification

¹See, for example, Lang and Stulz (1994).

move may well be motivated by a desire to generate and utilize additional debt capacity.

In terms of accounting performance, differences in return on equity and return on assets for diversifying and focusing firms are not significant (Table 6, Panel D). However, net profit margin for focusing firms is significantly higher than for diversifying firms.

Gort et al (1985) and Lang and Stulz (1994) suggest that firms with low growth opportunities try to diversify. In our sample, diversifying firms have a lower income growth but a higher sales growth relative to focusing firms (Table 6, Panel E). Despite a higher sales growth, a lower net income growth may induce firms to diversify to realize an increase in their profitability. In fact, a lower asset turnover ratio for diversifying firms may indicate inefficient asset utilization, and to escape that inefficiency these firms may expand into new businesses.

Finally, as expected, diversifying firms start with a lower average number of business segments (1.83) relative to focusing firms (3.66), but end up with significantly higher average number of business segments (3.22) compared to focusing firms (2.07) over the 7-year period.

The results in Table 6 suggest that there are significant differences in the initial financial conditions that motivate the strategic choice of expanding versus reducing corporate scope. Diversifying firms appear to have initial poor performance, lower asset base, higher growth opportunities, lower asset utilization efficiency and a narrower corporate scope relative to focusing firms.

At the next stage, we address the issue of the impact of changes in corporate scope on the financial structure and performance of firms. We compare the pre- and post-scope adjustment financial ratios to identify the effects of diversification and focus strategies. In Table 7, Panel A we

report the changes for focusing firms. While these firms reduce their size in terms of their assets, the reduction is not statistically significant in either of the windows. Similarly, there is a statistically insignificant decline in net sales in the 1-year and 2-year windows. While net income increases significantly in the 1-year window, the increase in the 2-year window is insignificant. Performance seems to significantly improve for these firms in terms of all three measures (ROE, ROA and net profit margin) over the 1-year window and in terms of net profit margin in the 2-year window. Focusing firms also appear to realize a statistically significant increase in their market to book ratio in the post-focus period. Though statistically insignificant, leverage also declines in both post-focus windows.

[Table 7 About Here]

Our results for diversifying firms in Table 7, Panel B, indicate that while size in terms of total assets, sales, and net income increases in both the post-diversification windows, the changes are not significant. In terms of financial performance, while the 1-year window shows an improvement for ROA, ROE and net profit margin, the 2-year window shows a nominal decline for ROE and ROA, and an increase in net profit margin. However, all the performance shifts are statistically insignificant. As in the case for focusing firms, this group also realizes a significant increase in the market to book ratio over the 2-year window. In addition, consistent with the coinsurance hypothesis, diversifying firms seem to increase their leverage in the post diversification period, although the change is not statistically significant. An interesting observation relates to geographic scope expansion by business scope expanding firms. There appears to be a complementarity in product and geographic diversification strategies. Diversifying firms increase their average number of geographic segments from 3.35 two years prior to diversification period to 3.57 two years after the business diversification.

Overall, as a consequence of corporate scope adjustment, while focusing firms appear to gain in performance and in market to book terms, diversifying firms only seem to gain in market to book terms. The question arises as to whether the changes in the two groups' financial structure and performance are statistically significantly different from each other. In Table 8, we report the comparative changes across the two groups. Over the 1-year window, change in size (total assets), performance (ROA) and bankruptcy ratios are significantly different across the two groups. Over the 2-year window the changes in size (total assets and net sales) and performance (ROA) appear to be significantly different for the two groups. Thus, it appears that whatever the motivation for span expansion or contraction, there are significant financial implications of the strategic shifts and those implications differ across diversifying and focusing groups.

[Table 8 About Here]

CONCLUSIONS

The study analyzes the trends and performance implications of business diversification to establish if poor operating performance can be a possible explanation for the widely documented value discount for diversified firms. Using Compustat data on business segments for 1,528 firms over the seven-year period from 1990 to 1996, we identify the factors influencing corporate span choices and the impact of these choices on financial structure and corporate performance. Our analysis of the relationship between operating performance, proxied by ROE, and business diversification, proxied by the sales based entropy measure, reveals that diversified firms, as a group, perform significantly better than single segment firms. Further, a higher degree of product diversification translates into higher return on equity. If we measure operating performance in terms of ROA, diversified firms do not

seem to underperform focused firms and degree of diversification, at best, is unrelated to return on assets. The results indicate that the widely documented value discount in diversified firms (see, for example, Berger and Ofek (1995), Denis et al (1997), and Servaes (1996), among others) cannot be attributed to poor operating performance.

The analysis to identify and distinguish between firms that choose to diversify or focus reveals that there is a tendency for smaller firms to expand their scope and for larger firms to reduce their number of business segments. Diversifying firms appear to be initial under-performers and experience lower income growth relative to the focusing group. Thus, diversification may be motivated by a desire to escape poor performance and low income growth. In addition, diversifying firms may opt for expanding into new businesses to remedy their relatively lower asset utilization efficiency, and to increase their debt capacity. We find that while diversifying firms appear to increase their leverage and improve their market to book ratio in the post-scope adjustment period, they suffer a nominal performance loss after expanding their business scope. The case for focusing firms is opposite to that for diversifying firms. They appear to experience a decline in leverage and an increase in the bankruptcy measure, but they gain in terms of improved performance as proxied by net profit margin.

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TABLE 1

SAMPLE DESCRIPTION AND COMPARISON OF AVERAGE NUMBER OF BUSINESS SEGMENTS REPORTED

The diagonal elements, in Panel B, represent the average number of segments reported in the year. The off diagonal cell elements represent the difference in the number of segments for the year shown in the column and the year shown in the corresponding row.

Panel A: Number of Firms in Different Business Segment Groups

SEGMENTS	1990	1991	1992	1993	1994	1995	1996
1	901	905	907	902	910	922	935
2	238	252	238	254	231	237	249
3	181	177	197	205	220	214	208
4	120	113	108	103	97	97	91
5	51	53	52	50	49	35	29
6	25	18	16	15	15	14	9
7	6	5	5	3	3	4	5
8	2	---	1	1	1	2	1
9	1	2	---	---	---	---	---
10	3	3	4	2	2	1	1
TOTAL	1,528	1,528	1,528	1,528	1,528	1,528	1,528

Panel B: Average Number of Business Segments Reported by Sample Firms and Inter-Year Difference

<u>YEAR</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
1990	1.899	-0.0353	-0.373	-0.0524	-0.064	-0.1014**	-0.1499***
1991		1.864	-0.002	-0.0170	-0.028	-0.0661	-0.1145***
1992			1.862	-0.0151	-0.0268	-0.0641	-0.1126***
1993				1.847	-0.012	-0.0491	-0.0975**
1994					1.835	-0.0373	-0.0857**
1995						1.798	-0.0484

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 2

SEGMENT-WISE BREAKDOWN OF DIVERSIFICATION AND FOCUS MOVES OVER THE 7 YEAR PERIOD

Column 1	Column 2	Mean Positive Change (No. of Firms) Column 3	Mean Negative Change (No. of Firms) Column 4	Zero Change (No. of Firms) Column 5	Difference ^{a,b} Column 3 – Column 4
1 Segment	Business Segments	1.46	----	0	1.46***
	Firms	(78)	----	(823)	----
2 Segments	Business Segments	1.36	1.00	0	0.36***
	Firms	(47)	(72)	(119)	-25**
3 Segments	Business Segments	1.25	1.30	0	-0.05
	Firms	(16)	(66)	(99)	50***
4 Segments	Business Segments	1.22	1.62	0	0.40
	Firms	(9)	(72)	(39)	-63*
5 Segments	Business Segments	1.20	2.44	0	-1.24**
	Firms	(5)	(69)	(14)	-64***
All Segments	Business Segments	1.38	1.59	0	-0.20**
	Firms	(155)	(279)	(1094)	-124***

^a Significance of difference between the number of firms tested using binomial test.

^b For observations less than 30, Mann-Whitney test used for mean comparison.

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 3**SUMMARY STATISTICS FOR THE 1127 FIRMS IN PANEL DATA SET**

ATO = Asset turnover; DTA = Total debt to total assets; ENTROPY = Entropy measure of business diversification; FSTS = Ratio of foreign sales to total sales; ROA [ROE] = Return on assets [equity]; SALE = Net sales in \$ Millions.

Period	1996		1995		1994	
Variable	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
ATO	1.42	0.96	1.44	0.92	1.43	0.94
DTA, %	23.49	17.27	23.73	16.90	23.40	17.05
ENTROPY	0.25	0.41	0.26	0.42	0.26	0.43
FSTS, %	15.65	21.53	15.05	20.94	13.77	20.01
ROA, %	5.16	6.32	5.32	6.43	5.45	6.26
ROE, %	10.58	15.59	10.90	16.08	11.69	14.56
SALE	2,074	3,698	1,923	3,450	1,722	3,149

TABLE 4

MEAN COMPARISON TESTS: FOCUSED VERSUS DIVERSIFIED FIRMS

ATO = Asset turnover; DTA = Total debt to total assets; ENTROPY = Entropy measure of business diversification; FSTS = Ratio of foreign sales to total sales; MBFE = Market to book ratio; ROA [ROE] = Return on assets [equity]; SALE = Net sales in \$ Millions.

Period	1996			1995			1994		
Variable	Focused	Diversified	Difference	Focused	Diversified	Difference	Focused	Diversified	Difference
ATO	1.52	1.23	-0.28***	1.53	1.27	-0.26***	1.55	1.24	-0.31***
DTA	22.21	26.09	3.88***	22.23	26.65	4.41***	21.65	26.60	4.95***
ENTROPY	0.00	0.76	0.76***	0.00	0.76	0.76***	0.00	0.75	0.75***
FSTS	12.92	21.23	8.31***	12.49	20.04	7.56***	11.38	18.11	6.72***
MBFE	2.51	2.42	-0.10	2.59	2.45	-0.15	2.30	2.15	-0.15
ROA	5.21	5.04	-0.18	5.48	5.00	-0.49	6.00	4.43	-1.57***
ROE	9.55	12.69	3.13***	10.23	12.18	1.94**	11.63	11.80	0.17
SALE	1,564	3,117	1,553	1,391	2,958	1,567	1,143	2,777	1,634

***, ** Significant at the 0.01 and 0.05 levels, respectively.

TABLE 5

REGRESSION RESULTS FOR DIVERSIFICATION-PERFORMANCE RELATION (Pooled Data 1994-1996)

INTERCEPT = Intercept; GRSLS = Five year compounded growth net sales; ATO = Total asset turnover; DTA = Total debt to total assets; BUSDUM = Dummy variable = 0 for single segment firms and = 1 for multi-segment firms; ROE [ROA] Return on equity [assets]; LOGSALE = Log of net sales; MBFE = Market to book ratio; FSTS = Ratio of foreign sales to total sales; ENTROPY = Product diversification measure. Figures in Italics below the coefficient values are probability values.

DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLS	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROE	POOLED	-2.220	1.578***	0.018	-0.105***	1.345***	1.642***			1.543**	0.086
	<i>P-1</i>	<i>0.210</i>	<i>0.000</i>	<i>0.382</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>			<i>0.030</i>	
	POOLED	-1.755	1.696***	0.023	-0.104***	1.198***	1.628***		3.116***		0.089
<i>P-2</i>	<i>0.313</i>	<i>0.000</i>	<i>0.272</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>		<i>0.000</i>			
ROE	POOLED	-1.717	1.645***	0.024	-0.106***	1.231***	1.631***	-0.011	3.173***		0.089
	<i>P-3</i>	<i>0.323</i>	<i>0.000</i>	<i>0.267</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.495</i>	<i>0.000</i>		
	POOLED	4.377***	0.456***	0.028***	-0.139***	0.274***	0.593***			-0.127	0.166
<i>P-4</i>	<i>0.000</i>	<i>0.001</i>	<i>0.001</i>	<i>0.000</i>	<i>0.006</i>	<i>0.000</i>			<i>0.661</i>		
ROA	POOLED	4.416***	0.464***	0.029***	0.139***	0.257**	0.594***		0.024		0.167
	<i>P-5</i>	<i>0.000</i>	<i>0.001</i>	<i>0.001</i>	<i>0.000</i>	<i>0.011</i>	<i>0.000</i>		<i>0.942</i>		
	POOLED	4.456***	0.380***	0.029***	-0.141***	0.314***	0.598***	-0.018***	0.110		0.168

P-6 *0.000* *0.009* *0.001* *0.000* *0.025* *0.000* *0.005* *0.744*

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 5 (Continued)

REGRESSION RESULTS FOR DIVERSIFICATION-PERFORMANCE RELATION (1994)

INTERCEPT = Intercept; GRSLs = Five year compounded growth net sales; ATO = Total asset turnover; DTA = Total debt to total assets; BUSDUM = Dummy variable = 0 for single segment firms and = 1 for multi-segment firms; ROE [ROA] = Return on equity [assets]; LOGSALE = Log of net sales; MBFE = Market to book ratio; FSTS = Ratio of foreign sales to total sales; ENTROPY = Product diversification measure. Figures in Italics below the coefficient values are probability values.

DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLs	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROE	1994	-4.286*	1.000**	-0.034	-0.074***	1.406***	2.206***			2.638***	0.149
		<i>0.064</i>	<i>0.031</i>	<i>0.232</i>	<i>0.004</i>	<i>0.000</i>	<i>0.000</i>			<i>0.007</i>	
	1994	-3.787	1.101**	-0.029	-0.073***	1.282***	2.181***		4.070***		0.153
		<i>0.102</i>	<i>0.018</i>	<i>0.314</i>	<i>0.005</i>	<i>0.000</i>	<i>0.000</i>		<i>0.000</i>		
	1994	-3.782	0.989**	-0.028	-0.077***	1.365***	2.191***	-0.024	4.197***		0.153
		<i>0.103</i>	<i>0.037</i>	<i>0.328</i>	<i>0.003</i>	<i>0.000</i>	<i>0.000</i>	<i>0.256</i>	<i>0.000</i>		
DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLs	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROA	1994	3.907***	0.215	0.007	-0.120***	0.203	0.889***			0.316	0.242
		<i>0.000</i>	<i>0.226</i>	<i>0.493</i>	<i>0.000</i>	<i>0.112</i>	<i>0.000</i>			<i>0.394</i>	
	1994	3.940***	0.218	0.007	-0.119***	0.199	0.886***		0.359		0.243
		<i>0.000</i>	<i>0.220</i>	<i>0.484</i>	<i>0.000</i>	<i>0.123</i>	<i>0.000</i>		<i>0.409</i>		
	1994	3.944**	0.134	0.008	-0.122***	0.262**	8.894***	-0.018**	0.454		0.244
		<i>0.000</i>	<i>0.461</i>	<i>0.449</i>	<i>0.000</i>	<i>0.047</i>	<i>0.000</i>	<i>0.026</i>	<i>0.298</i>		

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 5 (Continued)

REGRESSION RESULTS FOR DIVERSIFICATION-PERFORMANCE RELATION (1995)

INTERCEPT = Intercept; GRSLs = Five year compounded growth net sales; ATO = Total asset turnover; DTA = Total debt to total assets; BUSDUM = Dummy variable = 0 for single segment firms and = 1 for multi-segment firms; ROE [ROA] = Return on equity [assets]; LOGSALE = Log of net sales; MBFE = Market to book ratio; FSTS = Ratio of foreign sales to total sales; ENTROPY = Product diversification measure. Figures in Italics below the coefficient values are probability values.

DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLs	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROE	1995	-1.942	1.272**	0.014	-0.130***	1.308***	1.841***			2.110**	0.132
		<i>0.421</i>	<i>0.012</i>	<i>0.648</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>			<i>0.036</i>	
	1995	-1.637	1.346***	0.016	-0.129**	1.243**	1.825**		2.799**		0.133
		<i>0.498</i>	<i>0.008</i>	<i>0.606</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>		<i>0.016</i>		
	1995	-1.636	1.343***	0.016	-0.129***	1.244***	1.826***	-0.0004	2.801**		0.132
		<i>0.499</i>	<i>0.010</i>	<i>0.606</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.985</i>	<i>0.016</i>		
DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLs	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROA	1995	4.414***	0.350***	0.023**	-0.129***	0.218*	0.655***			0.220	0.210
		<i>0.000</i>	<i>0.068</i>	<i>0.048</i>	<i>0.000</i>	<i>0.093</i>	<i>0.000</i>			<i>0.565</i>	
	1995	4.413***	0.346*	0.022*	0.129***	0.226*	0.653***		0.129		0.210
		<i>0.000</i>	<i>0.073</i>	<i>0.052</i>	<i>0.000</i>	<i>0.086</i>	<i>0.000</i>		<i>0.769</i>		
	1995	4.427***	0.315	0.023***	-0.130***	0.245***	0.656***	-0.006	0.160		0.210
		<i>0.000</i>	<i>0.112</i>	<i>0.050</i>	<i>0.000</i>	<i>0.068</i>	<i>0.000</i>	<i>0.493</i>	<i>0.719</i>		

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 5 (Continued)

REGRESSION RESULTS FOR DIVERSIFICATION-PERFORMANCE RELATION (1996)

INTERCEPT = Intercept; GRSLs = Five year compounded growth net sales; ATO = Total asset turnover; DTA = Total debt to total assets; BUSDUM = Dummy variable = 0 for single segment firms and = 1 for multi-segment firms; ROE [ROA] = Return on equity [assets]; LOGSALE = Log of net sales; MBFE = Market to book ratio; FSTS = Ratio of foreign sales to total sales; ENTROPY = Product diversification measure. Figures in Italics below the coefficient values are probability values.

DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLs	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROE	1996	-1.077 <i>0.632</i>	1.893*** <i>0.000</i>	0.075*** <i>0.008</i>	-0.062** <i>0.013</i>	1.198*** <i>0.000</i>	1.190*** <i>0.000</i>			0.632 <i>0.500</i>	0.080
	1996	-0.838 <i>0.709</i>	1.998*** <i>0.000</i>	0.078*** <i>0.006</i>	-0.063** <i>0.013</i>	1.088*** <i>0.001</i>	1.188*** <i>0.000</i>		1.903* <i>0.073</i>		0.087
	1996	-0.812 <i>0.718</i>	1.960*** <i>0.000</i>	0.078*** <i>0.006</i>	-0.064** <i>0.012</i>	1.111*** <i>0.001</i>	1.190*** <i>0.000</i>	-0.007 <i>0.720</i>	1.937* <i>0.069</i>		0.081
DEPENDENT VARIABLE	PERIOD	INTERCEPT	ATO	GRSLs	DTA	LOGSALE	MBFE	FSTS	ENTROPY	BUSDUM	R-SQR
ROA	1996	4.878*** <i>0.000</i>	0.434** <i>0.018</i>	0.050*** <i>0.000</i>	-0.130*** <i>0.000</i>	0.192 <i>0.125</i>	0.586*** <i>0.000</i>			-0.566 <i>0.123</i>	0.233
	1996	4.860*** <i>0.000</i>	0.434** <i>0.019</i>	0.050** <i>0.000</i>	-0.131** <i>0.000</i>	0.185 <i>0.142</i>	0.589*** <i>0.000</i>		-0.508 <i>0.223</i>		0.233
	1996	4.946*** <i>0.000</i>	0.311* <i>0.098</i>	0.051*** <i>0.000</i>	-0.134*** <i>0.000</i>	0.259** <i>0.043</i>	0.597*** <i>0.000</i>	-0.026*** <i>0.003</i>	-0.396 <i>0.342</i>		0.238

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 6
DIVERSIFYING VERSUS FOCUSING FIRMS: COMPARISON OF
BASE YEAR (1990) CONDITIONS

Panel A: Size

Variable	Diversifying	Focusing	Difference
Assets, \$ million	2,122	3,529	-1,407***
Equity, \$ million	721	1,003	-281
Net Income, \$ million	74	120	-46
Net Sales, \$ million	2,309	3,050	-741

Panel B: Market Performance

Variable	Diversifying	Focusing	Difference
Return – 1 Year, %	9.81	14.79	-4.98
Return – 5 Year, %	11.77	15.81	-4.04
Beta	0.86	0.6	0.05
Market to Book Ratio	1.69	1.5	0.19
Dividend Yield, %	2.16	2.74	-0.58
P/E Ratio	14.17	16.95	-2.78

Panel C: Financial Structure

Variable	Diversifying	Focusing	Difference
Debt to Assets Ratio	28.95	30.33	-1.38
Asset Turnover	1.14	1.27	-0.13
Current Ratio	2.05	1.68	0.20
Bankruptcy-Z Measure	2.79	2.59	0.75

Panel D: Financial Performance

Variable	Diversifying	Focusing	Difference
Return on Equity, %	11.54	10.79	0.75
Return on Assets, %	2.38	3.68	-1.30
Net Profit Margin, %	1.29	3.32	-2.03

Panel E: Growth and Diversification

Variable	Diversifying	Focusing	Difference
Net Income Growth 5-Year	12.15	12.95	-0.80
Sales Growth 5-Year	20.05	6.33	13.72***
Business Segments	1.83	3.66	-1.83**
Geographic Segments	3.35	3.44	-0.09
Business Segments 1996	3.22	2.07	1.15***

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 7

CORPORATE SCOPE ADJUSTMENTS: CHANGES IN FINANCIAL
STRUCTURE AND PERFORMANCE**Panel A: Focusing Firms**

Variable	1-Year Post	1-Year Pre	1-Year Change	2-Year Post	2-Year Pre	2-Year Change
Assets, \$ million	3,545	4,567	-1,022	3,801	4,388	-587
Net Income, \$ million	171	53	118**	216	132	83
Net Sales, \$ million	3,348	3,477	-128	3,540	3,477	62
Return on Equity, %	11.68	2.10	9.58***	13.51	21.54	-8.02
Return on Assets, %	4.82	1.42	3.39**	4.74	3.45	1.28
Net Profit Margin, %	4.10	0.7715	3.33***	4.61	3.06	1.55**
Debt to Assets, %	27.54	28.65	-1.1155	26.67	29.08	-2.40
Geographic Segments	3.55	3.44	0.11	3.55	3.47	0.08
Market to Book	2.89	1.90	0.99	3.20	1.39	1.8***

Panel B: Diversifying Firms

Variable	1-Year Post	1-Year Pre	1-Year Change	2-Year Post	2-Year Pre	2-Year Change
Assets, \$ million	3733.57	2570.83	1162.73	4015.95	2542.61	1473.33
Net Income, \$ million	162.18	92.92	69.25	173.73	78.82	94.91
Net Sales, \$ million	3,401	2,405	996	3,600	2,489	1,111
Return on Equity, %	12.91	7.77	5.13	4.61	9.14	-4.53
Return on Assets, %	3.57	2.63	0.9346	1.72	3.20	-1.473
Net Profit Margin, %	3.18	0.433	2.75	2.29	-20.71	23.01
Debt to Assets, %	28.65	27.15	1.49	29.81	27.84	1.97
Geographic Segments	3.55	3.42	0.12	3.574	3.356	0.21***
Market to Book	2.62	2.07	0.5484	2.75	1.65	1.09**

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 8

MEAN COMPARISON TEST OF CHANGES IN THE FINANCIAL STRUCTURE AND PERFORMANCE ACROSS DIVERSIFYING AND FOCUSING FIRMS

<u>Variable</u>	<u>1-YEAR WINDOW</u>			<u>2-YEAR WINDOW</u>		
	<u>Diversifying</u>	<u>Focusing</u>	<u>Difference</u>	<u>Diversifying</u>	<u>Focusing</u>	<u>Difference</u>
Assets	1,163	-1,021	2,184	1,473	-587	2,060
Net Sales	996	-129	1,125	1,112	63	1,049
Return on Equity	5.13	9.58	-4.44	-4.53	-8.08	3.54
Return on Assets	0.93	3.39	-2.46**	-1.47	1.28	-2.75*
Debt to Total Assets	1.49	-1.39	2.89	1.977	-2.63	4.61
Bankruptcy-Z Measure	-0.46	0.25	-0.71**	-0.19	-0.14	-0.05

***, **, * Significant at the 0.01, 0.05, and 0.10 levels, respectively.