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Corporate Investment Activity, Industrial and Global Diversification and Internal Capital Markets

Ozgur Berk Kan
Old Dominion University

CORPORATE INVESTMENT ACTIVITY, INDUSTRIAL AND GLOBAL DIVERSIFICATION AND INTERNAL CAPITAL MARKETS

by

Ozgur Berk KAN

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Approved by:

John Doukas (Director)

Vinod Agarwal (Member)

Mohammad Najand (Member)

ABSTRACT

CORPORATE INVESTMENT ACTIVITY, INDUSTRIAL AND GLOBAL DIVERSIFICATION AND INTERNAL CAPITAL MARKETS

Ozgur Berk KAN
Old Dominion University
Director: Dr. John Doukas

Recent empirical studies document the average industrially diversified firm trades at a discount than a portfolio of comparable single-segment firms while geographically diversified firms are shown to face similar, if not higher, discounts. They attribute the diversification discount to inefficient allocation of capital in diversified firms. Most of this literature uses aggregate capital expenditures and cash flows data across divisions obtained from Compustat industry-segment and geographic-segment data tapes. In our first paper, we employ firm-specific data to examine the pre- and post-acquisition performance of firms engaging in diversifying and non-diversifying investments in order to determine whether the diversification discount may be attributed to the act of diversification itself. Consistent with the diversification literature, our results show, prior to the acquisition, diversified firms trade at a discount in comparison to their imputed values and single-segment firms. We also find the valuation of single- and multi-segment bidders deteriorates systematically as we approach the acquisition year. Post-acquisition evidence indicates the valuation of diversifying and non-diversifying single- and multi-segment firms worsens. Our results suggest the core cash flows of multi-segment diversifying (focusing) bidders are used to finance both core and non-core capital expenditures despite the fact that the non-core (core) business exhibits superior performance relative to the core (non-core) business while the non-core (core) business should have been allocated more funds based on segment performance. Overall, our results suggest diversification fails to reverse poor performance in multi-segment firms because they retain relatively poor performing business segments where considerable amount of capital resources are transferred from the better performing segments of the firm. In our second paper, we investigate whether the act of geographic and industrial diversification destroy value when they take place by employing firm-specific data of bidders that engage in diversifying and non-diversifying overseas investments in the form of M&As. Our results indicate the valuation of single- and multi-segment overseas bidders worsens as the acquisition year nears. Consistent with the recent industrial and geographic diversification literature, our findings indicate not only the extent of industrial diversification, but also the extent of international involvement of bidders has

significant adverse valuation consequences. Our results also show the act of geographic diversification destroys value when it takes place in the form of M&As for domestic bidders. Post-acquisition evidence indicates diversifying multi-segment bidders gain from overseas acquisitions lending support to Morck and Yeung (1998), while single-segment bidders and focusing multi-segment bidders face valuation declines, domestic single-segment bidders diversifying overseas being hurt the most. The workings of the internal capital markets around the overseas investment decision indicate both core and non-core capital expenditures of multi-segment bidders utilize their own segment cash flows providing evidence against cross-subsidization in industrially diversified bidders. The cross-sectional examination of bidders' valuation lends some support to agency theory and internalization theory explanation of geographic diversification. The cash flow of the core business seems to contribute to firm value of single-segment and focusing multi-segment bidders suggesting the value losses associated with industrial diversification might stem from the inadequate contribution of non-core lines of business. The evidence that both core and non-core cash flows of diversifying multi-segment bidders contribute to firm value 2 years after the acquisition implies that these firms reap the benefits in an expanded multinational network as suggested by Doukas and Travlos (1988).

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1. INTRODUCTION

Recent empirical evidence documents the average diversified firm trades at a discount than a portfolio of comparable single-segment firms. This literature implies diversification itself is the reason that diversified firms produce different cash flows than they would if split into single-segment firms (Lang and Stulz (1994), Berger and Ofek (1995)).[1] Empirical evidence also shows diversified firms that regain focus elicit positive stock market reactions and improve their subsequent performance (Bhagat, Shleifer and Vishny (1990), Comment and Jarrell (1995), John and Ofek (1995), Scharfstein (1998), Megginson, Morgan and Nail (1999), Gertner, Powers and Scharfstein (1999), Schlingemann, Stulz and Walkling (2001)).

While the recent empirical literature documents diversification is associated with significant value losses, there is no agreement on how diversification destroys firm value. Researchers have identified a number of explanations for this discount. Jensen (1986) and Stulz (1990) argue that cash-rich firms may overinvest in lines of business with poor investment opportunities. Namely, inefficient investments in diversified firms lead to agency costs that outweigh the benefits of internal capital markets. In support of this view, Lamont (1997), Shin and Stulz (1998), Scharfstein (1998) show diversified firms trade at a discount because they inefficiently allocate funds (cross-subsidization) among divisions.[2] Another plausible reason for the diversification discount is that division managers of diversified firms have weak incentives to maximize firm value (Rotemberg and Saloner (1994), Hermalin and Katz (1994)). Meyer, Milgrom and Roberts (1992), Scharfstein and Stein (2000), and Rajan, Servaes and Zingales (2000) argue rent-seeking behavior by segment managers may lead to inefficient investment decisions in diversified firms. Rajan, Servaes and Zingales (2000) also find diversified firms with greater dispersion of investment opportunities tend to transfer resources from divisions with good investment opportunities to small divisions with poor investment opportunities.

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[1] See also Berger and Ofek (1996), Servaes (1996) Lins and Servaes (1999a, 1999b), Graham, Lemmon and Wolf (2002), Billett and Mauer (1999), Campa and Kedia (1999), Rajan, Servaes and Zingales (2000)).

[2] This draws on Jensen's (1986) "free cash flow hypothesis" that states that managers of firms with excess cash flow tend to invest more than they should.

Lang and Stulz (1994), however, argue that diversification could be motivated by firm's lack of internal growth prospects, implying that the act of diversification itself may not necessarily be harmful to firm value. Similarly, Jensen (1986) asserts poorly managed firms with limited growth opportunities are more likely to diversify. Indeed Hyland (1999) and Campa and Kedia (1999) find firms that diversify trade at a discount relative to their industry peers prior to undertaking diversification, implying that the diversification discount itself may be partly attributable to selection bias. Chevalier (2000) also provides evidence in support of the selection bias hypothesis. Graham, Lemmon, and Wolf (2002), however, show diversifying firms do not trade at a discount prior to diversification, but target firms do trade at a substantial discount prior to being acquired.

Unlike the industrial diversification, most of the theoretical and empirical studies on global diversification suggest a wealth increasing effect on the firm in terms of profitability, excess returns and higher market value. (Leftwich (1974), Mikhail and Shawky (1979), Errunza and Senbet (1981, 1984), Kim and Lyn (1986)). The theoretical and empirical literature argues for value enhancing aspects of geographic diversification. Foreign direct investment (FDI) literature argues that firms expand overseas to exploit firm specific information based intangible assets by transferring the intangible assets overseas within an internal market in the same firm (Caves (1971), Buckley and Casson (1976), Dunning (1977), Rugman (1980), Prahalad (1998)). However, in the theoretical and empirical literature, not so many studies have addressed the valuation impacts of industrial and global diversification at the same time. Sambharya (1995) finds only the interaction of global and product diversification leads to an enhancement in the performance of multinationals. Morck and Yeung (1998) find industrial diversification, global diversification and firm size enhance value in the presence of intangible assets. Bodnar, Tang, and Weintrop (1998) find that global diversification leads to significant increases in value measures, while industrial diversification leads to significant value losses.

On the other hand, a recent stream of literature provides empirical evidence that global diversification hurts firm value. Christophe (1997) and Christophe and Pfeiffer (1998) provide evidence that geographical diversification makes U.S. multinationals

destroy value. Similarly, Denis, Denis and Yost (2000) document that U.S. firms pursue further global diversification even though it leads to valuation losses. Their results suggest, on average, global diversification leads to valuation losses of 18 percent while industrial diversification leads to valuation losses of 20 percent.

In addition, very few studies in the theoretical or empirical literature have addressed the direct link between the nature of the corporate investment activity and the valuation consequences associated with it. The empirical evidence available only for domestic acquisitions in the U.S. has produced conflicting results. Graham, Lemmon and Wolf (2002) find single-segment firms that diversify by reporting changes or internal growth do not experience a valuation discount while single-segment firms that diversify by acquisitions experience a significant discount. Billett and Mauer (1999) find that the internal capital markets have an adverse effect on the value of industrially diversified firms but they cannot find any evidence of a significant link between diversification discount and inefficient capital markets. Their main finding is that internal capital market activity influences the valuation of industrially diversified firms only when resources are transferred to business segments with good investment opportunities and that would be financially constrained if they were operating as single-segment firms. Chevalier (2000) finds evidence that the cash flows of one merger partner are predictive of the investment behaviour of the other partner in the pre-merger period which might be interpreted as evidence of cross-subsidization. Chevalier further demonstrates the evidence in favor of cross-subsidization in the empirical literature may be due to perseverant differences between the investment opportunities of single- and multi-segment firms. However, no study in the theoretical or empirical literature has addressed the nature of domestic and international investment activity, the changes in industrial and geographic focus and their valuation consequences.

In the first paper, we investigate whether the act of industrial diversification destroys value. We analyze the performance of single- and multi-segment firms that undertake diversifying and non-diversifying acquisitions in the years before and after an acquisition. In addition, we compare how the internal capital markets of diversified firms work before and after an acquisition in an attempt to gain additional insights about the efficiency of allocating capital across core and non-core business segments. These issues

are addressed for an initial sample of 10128 mergers and acquisitions (M&As) completed by U.S. firms over the 1991-1997 period.

Consistent with the diversification literature, our results show that diversified firms, expected to conduct acquisitions, trade at a discount in comparison to their imputed value and single-segment firms that conduct similar types of acquisitions. We also show the valuation of single- and multi-segment bidders deteriorates considerably with respect to their industry peers prior to the act of diversification. Post-acquisition results indicate the valuation of diversifying single- and multi-segment firms worsens. A similar performance is also recorded for focusing single- and multi-segment firms. This evidence casts doubt that the act of diversification itself is harmful to firm value.

An examination of bidders' internal capital markets around major investment decisions reveals that the internal capital markets of bidders are active. Interestingly, even though core business of multi-segment firms subsidize the capital expenditures of their non-core business segments, we find capital resources in multi-segment bidders before and after the merger are allocated to business segments that have previously achieved higher growth in sales and cash flows. This evidence is in contrast with the view of inefficient internal capital markets in diversified firms. A closer analysis of the influence of internal capital market and firm specific variables suggests the act of not divesting the inferior performing business segment (core business in diversifying and non-core business in focusing multi-segment bidders) might be held largely responsible for the value loss of resource constrained firm in the post-acquisition period, especially in multi-segment bidders that diversify further.

In the second paper, we employ a sample of 1599 pure overseas M&As completed by the U.S. firms over the 1991-1997 period to examine the impact of global and industrial diversification on firm value when they take place. First, we analyze the valuation of single- and multi-segment firms that pursue global expansion through industrially focusing/diversifying investments before and after investment is made via overseas M&As. Our evidence indicates the bidders included in our sample, especially single-segment bidders, experience deteriorating performance prior to an overseas acquisition and further confirms the well-documented diversification discount arising from industrial diversification between single- and multi-segment bidders. Interestingly,

stand-alone bidders exhibit a severe discount in year 0, the year in which they expand their international involvement by engaging in overseas acquisitions. Further analysis indicates not only the extent of industrial diversification, but also the extent of prior international involvement of bidders has significant adverse valuation consequences. Our post-acquisition results show the act of global diversification destroys value when it takes place in the form of M&As for domestic bidders. A detailed analysis indicates multi-segment bidders that diversify into unrelated lines of business gain from overseas acquisitions while single-segment bidders and focusing multi-segment bidders experience subsequent valuation declines. The bidders that already have international exposure experience further valuation declines and can not gain any benefits from further global expansion. The bidders that face the most severe valuation losses are the domestic single-segment bidders that conduct diversifying acquisitions.

Second, we examine the internal dynamics of firms involved in capital investments and analyze the workings of the internal capital markets around the overseas investment decision of the firm. The pre-acquisition analysis indicates focusing multi-segment firms use more assets and make larger capital expenditures in core than in non-core divisions because they generate more sales than their non-core divisions while diversifying multi-segment firms commit larger capital expenditures in non-core divisions as the sales and assets of their core and non-core segments are virtually undistinguishable. Single-segment firms, on the other hand, invest in unrelated business when they experience higher growth in sales than single-segment firms that choose to invest in related business. Following the overseas acquisition, the core (non-core) business segments of focusing (diversifying) bidders continue to generate higher cash flows per dollar of sales than their non-core (core) business segments and they also begin to generate significantly more cash flows than the core business of diversifying multi-segment bidders. Likewise, the bidders continue to invest more of their segment sales in the relatively efficient line of business in terms of cash generating ability after the acquisition, as well. In addition, a closer examination of core and non-core capital expenditures yields different results about the workings of internal capital markets in bidder firms making diversifying and non-diversifying overseas acquisitions. Our evidence suggests core capital expenditures of diversifying single-segment bidders are

influenced by cash flows of the core business. Both core and non-core capital expenditures of focusing multi-segment bidders seem to rely on their own segment cash flows and diversifying multi-segment bidders exhibit similar but nor persistent behavior.

Finally, a closer look at the valuation of bidders shows, in support of the agency theory explanation of diversification, the higher presence of insider ownership in focusing bidders is accompanied by higher valuations. In support of the internalization theory of global diversification, the presence of knowledge based (R&D) and marketing based (advertising) intangibles seem to contribute to overseas bidders' valuation. Only multi-segment bidders that diversify into unrelated lines of business seem to benefit from global diversification while all other bidders seem to suffer from its adverse impact. The cash flow of the core business seems to contribute to firm value of single-segment and focusing multi-segment bidders while the cash flow of the non-core business seems to play a trivial role on valuation suggesting that the value losses associated with industrial diversification might stem from the inadequate contribution of peripheral (non-core) lines of business in industrially diversified firms. The evidence that both core and non-core cash flows of diversifying multi-segment bidders adds to firm value only 2 years after the acquisition suggests that they might have begun to harvest the benefits in an expanded multinational network as suggested by Doukas and Travlos (1988).

The remainder of the papers proceed as follows. Section 2.1 describes the sources of data and sample selection. Section 2.2 presents evidence on the pre-acquisition performance of bidders. Section 2.3 examines the determinants of firm's diversification activities. Section 2.4 examines the post-acquisition performance of single- and multi-segment bidders involved in diversifying and non-diversifying investments. Section 2.5 examines the workings and efficiency of bidder's internal capital markets. Section 2.6 examines the role of internal capital markets and other firm specific characteristics on bidders' valuation and Section 2.7 concludes the first paper.

Section 3.1 describes the sources of data and sample selection. Section 3.2 presents evidence on the pre-acquisition performance of the bidders. Section 3.3 examines the determinants of firm's industrial diversification motives overseas. Section 3.4 examines the post-acquisition performance of bidders that engaged in diversifying and non-diversifying acquisitions. Section 3.5 examines the working of bidder's internal

capital markets. Section 3.6 examines the role of internal capital markets and other firm specific characteristics on bidders' valuation and Section 3.7 concludes the second paper.

Finally, Section 4 makes concluding remarks about the two papers that analyze the valuation and internal dynamics of the bidders that prompt industrial diversification and industrial and global diversification by engaging in domestic and overseas acquisitions, respectively.

2. DOMESTIC CORPORATE INVESTMENT ACTIVITY, INDUSTRIAL DIVERSIFICATION AND INTERNAL CAPITAL MARKETS

Recent empirical evidence documents that the average diversified firm trades at a discount than a portfolio of comparable single-segment firms. This literature implies diversification itself is the reason that diversified firms produce different cash flows than they would if split into single-segment firms (Lang and Stulz (1994), Berger and Ofek (1995)).[3] Empirical evidence also shows that diversified firms that regain focus elicit positive stock market reactions and improve their subsequent performance (Bhagat, Shleifer and Vishny (1990), Comment and Jarrell (1995), John and Ofek (1995), Scharfstein (1998), Megginson, Morgan and Nail (1999), Gertner, Powers and Scharfstein (1999), Schlingemann, Stulz and Walkling (2001)).

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with good investment opportunities to small divisions with poor investment opportunities. Lang and Stulz (1994), however, argue that diversification could be motivated by firm's lack of internal growth prospects, implying that the act of diversification itself may not necessarily be harmful to firm value. Similarly, Jensen (1986) asserts that poorly managed firms with limited growth opportunities are more likely to diversify. Indeed Hyland (1999) and Campa and Kedia (1999) find firms that diversify trade at a discount relative to their industry peers prior to undertaking diversification, implying the diversification discount itself may be partly attributable to selection bias. Chevalier (2000) also provides evidence in support of the selection bias hypothesis. Graham, Lemmon, and Wolf (2002), however, show diversifying firms do not trade at a discount prior to diversification, but target firms do trade at a substantial discount prior to being acquired.

In this paper we investigate whether the act of diversification destroys value. We analyze the performance of single- and multi-segment firms that undertake diversifying and non-diversifying acquisitions in the years before and after an acquisition. In addition, we compare how the internal capital markets of diversified firms work before and after an acquisition in an attempt to gain additional insights about the efficiency of allocating capital across core and non-core business segments. These issues are addressed for an initial sample of 10128 mergers and acquisitions completed by U.S. firms over the 1991-1997 period.

Consistent with the diversification literature, our results show diversified firms, expected to conduct acquisitions, trade at a discount in comparison to their imputed value and single-segment firms that conduct similar types of acquisitions. We also show the valuation of single- and multi-segment bidders deteriorates considerably with respect to their industry peers prior to the act of diversification. Post-acquisition results indicate the valuation of diversifying single- and multi-segment firms worsens. A similar performance is also recorded for focusing single- and multi-segment firms. This evidence casts doubt that the act of diversification itself is harmful to firm value.

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their non-core business segments, we find capital resources in multi-segment bidders before and after the merger are allocated to business segments that have previously achieved higher growth in sales and cash flows. This evidence is in contrast with the view of inefficient internal capital markets in diversified firms. A closer analysis of the influence of internal capital market and firm specific variables suggests that the act of not divesting the inferior performing business segment (core business in diversifying and non-core business in focusing multi-segment bidders) might be held largely responsible for the value loss of resource constrained firm in the post-acquisition period, especially in multi-segment bidders diversifying further.

The remainder of the paper proceeds as follows. Section 2.1 describes the sources of data and sample selection. Section 2.2 presents evidence on the pre-acquisition performance of bidders. Section 2.3 examines the determinants of firm's diversification activities. Section 2.4 examines the post-acquisition performance of single- and multi-segment bidders involved in diversifying and non-diversifying investments. Section 2.5 examines the workings and efficiency of bidder's internal capital markets. Section 2.6 examines the role of internal capital markets and other firm specific characteristics on bidders' valuation and section 2.7 concludes the paper.

2.1. Data Selection, Sources and Industrial Classification

2.1.A. Sources of Data and Sample Selection

Our sample consists of domestic acquisitions made by the U.S. bidders between January 1, 1991 and December 31, 1997 reported in the Domestic Acquisitions roster of Securities Data Corporation's Mergers & Acquisitions (M&A) Journal. The rosters of M&A Journal include all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The rosters report the name, the Standard Industrial Classification (SIC) code (at 2 digit level before 1993, at 4 digit level starting 1993), the business definition of target firms or businesses, the name, and the business definition of bidder firms.[5] Our sample does not include transactions associated with target firms or businesses that operated in non-manufacturing industries (i.e., Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89)) as Q

[5] They also report the value of acquisition, the method of payment, whether the target is divested or not, the completion day of the acquisition and the advisors to both parties.

ratios and other measures may be inappropriate for financial firms. The Domestic Acquisitions roster of M&A Journal reports 11410 domestic acquisitions over the 1991-1997 period, of which 1282 acquisitions were made by bidders that completed acquisitions in foreign countries in the same calendar year as well. We focus exclusively on domestic acquisitions and, therefore, our initial sample consists of 10128 acquisitions.

We observe the acquisitions activity in certain industries is more intense than in others based on the 2 digit SIC code industrial classification of target firms in the initial sample.[6] For instance, in the mining division, oil and gas extraction industry (2-digit SIC code 13, 573 acquisitions) is the most active industry. In the manufacturing division, food and kindred products (2-digit SIC code 20, 328 acquisitions), printing, publishing and allied industries (2-digit SIC code 27, 498 acquisitions), chemicals and allied products (2-digit SIC code 28, 573 acquisitions), industrial and commercial machinery and computer equipment (2-digit SIC code 35, 704 acquisitions), electronics and other electrical equipment (2-digit SIC code 36, 610 acquisitions) and measuring, analyzing and controlling instruments (2-digit SIC code 38, 648 acquisitions) are the industries with high acquisitions activity. In the transportation division, communications, communications (2-digit SIC code 48, 866 acquisitions) is the most active industry followed by electric, gas and sanitary services (2-digit SIC code 49, 434 acquisitions). While previous studies exclude electric, gas and sanitary services out of their samples because they are regulated, we decided to keep them in our sample in the wake of deregulation in those industries. In the wholesale trade division, wholesale trade of durables (2-digit SIC code 50, 771 acquisitions) is the leading industry followed by wholesale trade of nondurables (2-digit SIC code 51, 470 acquisitions) and miscellaneous retail (2-digit SIC code 59, 372 acquisitions).

2.1.B. Industrial Classification

In the corporate diversification literature, several sources and measures have been used to analyze firms that operate in unrelated lines of business[7]. The recent

[6] Industrial classification of target firms in the initial sample are not reported but available upon request.

[7] Ravenscraft and Scherer (1987) use the Line of Business sample of the Federal Trade Commission. Wernerfelt and Montgomery (1988), Liebeskind and Opler (1992), and Lichtenberg (1992) use census data to measure diversification in terms of different SIC codes for plants. Servaes (1996) uses Dun and Bradstreet's Million Dollar Directory to determine the number of business segments operated by a firm for the 1962-1974 period. Hubbard and Palia (1999) obtain the 4 digit SIC code of bidders and targets from

diversification literature determines a firm's industrial diversity by using the 2 digit SIC code [8], the 3 digit SIC code[9], or the 4 digit SIC code[10]. In addition, Lamont (1997) uses his personal judgement to classify oil dependent and nonoil dependent business segments. In a similar fashion, Scharfstein (1998) pools related business segments into "divisions" which are unrelated to each other, but the business segments in each division are highly related. Matsusaka (1993) uses the most advanced method to identify vertical linkages between businesses. He uses economy-wide industry input-output matrices to identify vertical linkages between industries.

The Compustat Industry Segment File is used to collect information about the business segments of bidder firms in our sample. SEC regulation S-K and FASB-SFAS No. 14 require firms to report segment information for fiscal years ending after December 15, 1977. Firms must report information for segments representing 10 percent or more of consolidated sales. The Compustat Industry Segment File reports this information: net sales, operating profit (earnings before interest and taxes; EBIT), depreciation, assets, and capital expenditures on a segment level basis for all active Compustat firms other than utility subsidiaries. Compustat assigns a primary and a secondary SIC code to each business segment of the firm, as well as a main SIC code to the firm at the 4 digit level. However, we must point out that the main SIC code of the firm reported by Compustat is not always representative of the firm's main cash generating line of business (core business). For example, Compustat reports that General Electric has a main SIC code of 3600; Electronic and Electrical Equipment and Components for 1997. Nevertheless, the business segment that generates the highest amount of sales in GE (both in amount and percentage of annual sales) is Financing activities; SIC codes 6141 and 6159 by about half of the aggregated sales of GE in year 1997.

As Servaes (1996) points out, a straightforward examination of the 4-digit SIC codes of the segments of the firm does not reveal the degree of diversification of the firm.

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different issues of Standard and Poor's Register of Corporations, Directors and Executives to construct their sample of mergers for the1961-1970 period but make their classification based on 2 digit SIC codes.

[8] See Servaes (1996), Berger and Ofek (1995, 1996), Hubbard and Palia (1999), and Lins and Servaes (1999a, 1999b).

[9] See Shin and Stulz (1998), Scharfstein (1998), and Gertner, Powers and Scharfstein (1999).

[10] See Morck, Shleifer and Vishny (1990), Comment and Jarrell (1995).

He argues that the use of the 4-digit SIC code would be too wide to identify the industrial structure of the firm. The rationale for using 2-digit SIC codes is that industries with the same 2 digit SIC codes are closely related and require comparable management skills. In addition, as Shin and Stulz (1998) note, one of the difficulties in using segment data is to identify the business segments that are reorganized by firms over time. Rajan et. al.(2000) mention this type of inconsistency in reporting from year to year and they circumvent this problem mainly by making sure that no data is obtained from data stretch over a period of more than one year for their specific diversity computations. Similarly, Shin and Stulz eliminate high cash flow segment-years and the firms whose largest and smallest segments share the same 2 digit SIC code. However, the elimination of high cash flow segment-years may disguise the impact of cross subsidization on firm's investment activity. In addition, the elimination of the largest and the smallest segments with the same 2 digit SIC code may bias the results by ignoring the comparable management skills between those segments. As reported by Graham, Lemmon and Wolf (2002) single-segment firms that diversify by reporting changes do not experience any diversification discount while those that diversify through acquisitions experience significant valuation discount suggesting that the investment activity rather than the reporting changes has a significant impact on the industrial diversity of the firms and the related valuation consequences. In this study, we also examine the effects of cross subsidization on the investment activity of the other segments of the firm. Therefore, we need a more refined measure of segment information to determine the industrial structure of and the capital allocation within the firm.

Following Servaes (1996), we define a line of business at the 2 digit SIC level augmented by a procedure similar to those used by Lamont (1997, p106) and Scharfstein (1998). We make use of the primary and secondary SIC codes of each segment in the bidder firm as reported by Compustat Industry Segment File. Lamont is mainly concerned with the presence of oil drilling industries (2 digit SIC code of 13) in primary and/or secondary SIC codes of business segments in oil dependent firms, with more weight on primary SIC codes. We treat the primary and secondary SIC codes of business segments to be of equal importance and we partition the sales, operating income, assets, capital expenditures and depreciation of each reported segment into two. The resulting

figures are aggregated into distinct business segments based on their 2-digit SIC code to determine the sales, operating income, assets, capital expenditures and depreciation of each distinct segment defined at the 2 digit SIC code. Our procedure resembles that of Scharfstein (1998) who pools related segments into "divisions" depending on his judgement of relatedness. Our measure of relatedness for distinct business segments is based on sharing the same 2-digit SIC code obtained from our procedure explained above. We do not count the segments having less than 10 percent of the sales or assets as a viable segment in compliance with FASB-SFAS No 14. We, then, define the "core business" of the firm as the 2-digit SIC code of the business segment that has the highest share of aggregated sales of the firm (either in million dollars or in percentage of sales) for a given year. All the remaining business segments are counted as "non-core business" segments. For stand-alone (single-segment) bidders, the only business segment is defined as the core business. This procedure, for instance, classifies General Electric as a Financing firm whose core business has a 2 digit main SIC code of 61 for 1997, rather than an Electric and Electronics firm with a 2 digit main SIC code of 36. The distinct business segment which brings in the highest amount of cash into General Electric is the Financing activities in 1997.

Unlike Chevalier (2000) we are not in search of an overlap between the SIC code of the target firm and the SIC code of any one of the reported business segments of the bidder at any SIC level. Chevalier (2000), who concentrates on "diversifying mergers" only, classifies mergers as related in instances of an overlap of 2-digit SIC codes among any of the reported business segments of the target and the bidder firms in the merger of industrially diversified firms. We define acquisitions as "diversifying" (or unrelated) when the 2-digit SIC code of the target does not match with the 2-digit SIC code of the bidder's core business generating the highest amount (and percentage) of sales for the bidder. On the other hand, we define acquisitions as "focusing" when the 2 digit SIC code of the target matches with the bidder's core business that generates the highest amount (and percentage) of sales. We carry out this classification both for the year prior to the acquisition and for the year of the acquisition. Both procedures yield almost identical results. Throughout the study, we will report results based on the classification prior to the year of the acquisition (year–1).

When we examine the type of domestic acquisitions by the industrial classification of bidder firms based on the 2-digit SIC codes of their core business we observe that target firms in manufacturing industries having been acquired by bidder firms in finance and service industries as well.[11] Most of these acquisitions have been carried out by bidders with core businesses in holding offices and business services. The evidence suggests the bulk of the acquisitions (2994 out of 5247 classified acquisitions) is "focusing" in nature and certain industries are more active investing through acquisitions than others Our research focus is not on non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89) and bidders in those industries will be eliminated from our sample in later stages.

2.1.C. Sample Characteristics and Summary Statistics

Table 1 presents the annual number and frequency of 10128 domestic acquisitions included in the initial sample. The number of acquisitions is increasing systematically over the years. The majority of acquisitions is focusing in nature throughout the 1991-1997 period. It is interesting to note the number of focusing acquisitions has increased over the years as well. More than 57 percent of acquisitions represent investments within the core business of the bidder. In 1997, 59.30 percent of acquisitions are classified as focusing relative to 53.37 percent in 1991. A considerable portion of the investment activity, however, is directed outside the core business of the bidder. About 43 percent of bidders' investments, on average, are directed towards unrelated lines of business.

[INSERT TABLE 1 HERE]

Table 2 presents the description and number of acquisitions included in our final sample of domestic acquisitions. We identified 10128 domestic acquisition announcements in the M&A journal that were also confirmed by The Wall Street Journal. The initial sample included the group of acquisitions in which both the bidder and the target firm were domiciled in the U.S. The group of acquisitions made by bidders undertaking acquisitions overseas on the same calendar year were excluded because of the difficulty in identifying their expansion motives. As a result of this process we ended up with 10128 acquisitions in our initial sample.

[11] Industrial classification of bidder firms in the initial sample are not reported but available upon request.

Out of our 10128 acquisitions of the initial sample, we could not find any information about bidder firms in Compustat for 4881 acquisitions. This brought the sample size down to 5247 from 10128 acquisitions. Then, we eliminated acquisitions made by firms whose core businesses lie in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We eliminated 393 M&As, made by firms operating in non-manufacturing industries, that brought our sample size down to 4854 acquisitions from 5247 acquisitions. The acquisitions by non-manufacturing bidders were eliminated because they are likely to be driven by the diversification or investment motives of financial, holding and service firms.

The next step involved the elimination of bidder firms that acquired several targets operating both within their own core business and outside their core line of business. We found 845 acquisitions of this nature (i.e., investments classified as focusing and diversifying). This brought our sample size down to 4009 acquisitions. Finally, we combined several acquisitions made either within the core (focusing) or outside the core (diversifying) line of business by the same bidder on the same calendar year into one firm-year observation. We found 829 additional acquisitions made by the same bidder in either core or non-core lines of business and, therefore, our final sample includes 3180 firm-year observations. On average, 61.79 percent of bidders in our final sample invest in lines of business identical to their core business (focusing acquisitions). Over the years, there is a slight increase in pursuing focusing rather than diversifying acquisitions of bidders included in our final sample.

[INSERT TABLE 2 HERE]

Table 3 presents the type of acquisitions across industries based on the industry classification of bidder's core business at 2 digit SIC code level. This evidence confirms the previous observation that bidders in most industries have a preference for related acquisitions (i.e., expand their core line of business), while in very few industries bidders have a preference for unrelated acquisitions (i.e., expand outside their core line of business).

[INSERT TABLE 3 HERE]

Table 4 provides summary statistics of bidders included in the final sample. The statistics in this table are calculated based on information available the year before the acquisition. The mean [median] annual sales of bidder firms is $ 1.845 billion [$276 million], implying that bidders are on average mid sized firms. The average [median] market value of bidders is $1.623 billion [$ 232 million] and the average [median] value of total assets of bidders is $1.879 billion [$230 million]. These statistics also suggest that bidders are mid sized firms.

The average [median] foreign sales to total sales ratio of bidders is 7.86 percent [0.00 percent] indicating that bidders that made acquisitions in U.S. have a very low degree of international involvement. The average [median] debt to total capital ratio is 39.25 percent [37.73 percent] suggesting that bidders are considerably levered and, therefore, at substantial creditor scrutiny. The average [median] insider ownership is 20.37 percent [12.83 percent] indicating that insiders of bidding firms have large ownership stakes. However, these figures are almost double of what Denis et. al. (1997) report for percentage ownership of officers and directors[12]. In addition, the average [median] institutional ownership is 38.72 percent [39.70 percent]. Both average and median values of debt and ownership structure demonstrate that managers of bidding firms are under considerable scrutiny by creditors, insider and institutional owners that might explain the larger number of focusing acquisitions.

The average [median] number of lines of business (number of business segments) is 1.45 [1.00] implying the bidders in this sample are mostly single segment (specialized) firms. The summary statistics also show the average [median] number of acquisitions made in a single year is 1.26 [1.00]. This seems to suggest that bidders are not desperate seeking growth through multiple acquisitions per year. The average [median] size of firm-year acquisitions is $248 million [$42.5 million] indicating that most of the target firms are not large firms in terms of value. The average [median] of size of firm-year acquisitions scaled by firm sales (not reported) is 51.83 percent [16.11 percent]. Similarly, the average [median] of size of firm-year acquisitions scaled by firm assets (not reported) is 40.71 percent [18.92 percent]. These observations support that the

[12] Denis et. al. (1997, Table I) report percentage ownership of insiders with a mean of 11.7 percent and a median of 6.4 percent. The difference between our results and Denis et. al. might help to explain higher frequency of focusing acquisitions in our sample.

amount of capital spent in acquisitions are enough to create a new business segment and to significantly change the corporate structure within the bidder firm as they exceed the 10 percent threshold imposed by SFAS No 14 for segment information.

[INSERT TABLE 4 HERE]

2.2. Bidder's Pre-Acquisition Performance

One of our objectives in this study is to measure the effects of diversification on bidder's performance after the acquisition and draw inferences about the value of internal capital markets associated with diversification. To gain insights into the effects of diversification itself, we estimate bidder's pre- and post-acquisition performance using two valuation measures. The valuation measures consist of Tobin's Q and Excess Market Value (EMV). Tobin's Q is computed as the market value of outstanding shares plus the liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value is defined as the market value of equity less book value of equity normalized by total sales.

The imputed value of a segment is computed by multiplying sales-based (asset-based) multiples, or weights, of the distinct business segments at the 2 digit SIC level with the median valuation measures (Q or EMV) obtained from single-segment firms operating in the same 2 digit SIC industries. We compute the sales-based (and asset-based) multiples as the ratio of annual segment sales (assets) for each distinct line of business defined at 2 digit SIC code divided by the total sales (assets) of the bidder firm in that year[13]. Sales-based and asset-based computations yield very similar results and we will report results based on sales-multiples computations. We compute the median of valuation measures of single-segment firms that share the same 2 digit SIC code with the distinct business segments of the bidder. Even though previous studies in the literature have controlled for industry effects, none has controlled for the size of the business segments of the firm. The size of the stand-alone firms in our study has to fall within the range of 50% to 200% of the size of the business segment of the bidder in that year. If the

[13] Several studies attach no weights to different business segments within a firm while computing the diversification discount (Servaes (1996) and Gertner, Powers and Scharfstein (1999)). Such diversification discount measures might prove fruitful only if diversified firms consist of business segments when no distinct business segment information is available. Some other studies (Lang and Stulz (1994), Berger and Ofek (1995,1996) among others) measure the diversification discount using industry matched stand alone firms to determine the imputed value of diversified firms by sales or assets multiplier approaches.

number of stand alone firms are less than five in a year, we extend the size restriction to within 25% and 400% of the size of the segment's assets. Thus, we obtain imputed value of measures for bidders as weighted sum of median valuation measures of size-matched stand-alone firms operating in the same 2 digit SIC code with the distinct business segments of the bidder as follows:

$$\text{IMPUTEDQ}= \sum_{j=1}^{n} w_j Q_{IND\,j} = \sum_{j=1}^{n} w_j \text{ median } \{Q_{1j}, Q_{2j}, \ldots\ldots, Q_{Nj}\} \qquad (1)$$

where w_j is the sales-based (asset-based) weight of the firm's sales (assets) in business segment j, and Q(or EMV) $_{IND\,j}$ is the size matched median valuation of single-segment bidders that operate in the same 2 digit SIC code business with the business of segment j of the bidder.

We also estimate the bidders' industry-adjusted valuation measures (valuation premium /discount) using the approach of Berger and Ofek (1995). Namely, we compute the natural logarithm of the ratio of raw valuation measures of bidders to their imputed values; that is ln(Q/IMPUTEDQ) or ln(EMV/IMPUTEDEMV), as industry-adjusted valuation variables.

2.2.A. Pre-Acquisition Performance: Tobin's Q Values

Pre-acquisition raw and industry-adjusted performance measures for bidder firms are presented in Table 5. Panel A reports bidders' raw and industry-adjusted values of Tobin's Q 3 years before the acquisition (year –3) till the year of the acquisition (year 0). Bidders experience increasing mean and median raw Q values from year –3 to year 0 and mean Q values persistently exceed median Q values. Bidders with diverse business operations (multi-segment bidders) always have significantly lower mean and median raw Q values than bidders with a single line of business (single-segment bidders) during the pre-acquisition period, suggesting that single-segment firms have superior pre-acquisition performance than multi-segment firms. This result holds for every single year throughout the pre-acquisition period for all acquisitions as well as for firms conducting focusing and diversifying acquisitions. Namely, the pre-acquisition performance of focused (single-segment) bidders is considerably stronger in comparison to the pre-acquisition performance of diversified (multi-segment) bidders regardless of whether they invest in related or unrelated business.

The pre-acquisition industry-adjusted Q values indicate that multi-segment bidders, whether they plan to focus or diversify later, bear a significant valuation discount in the pre-acquisition period. The valuation discount for focusing and diversifying multi-segment bidders does not appear to be significantly different in any of the pre-acquisition years. Interestingly, the valuation discount in multi-segment firms increases significantly with median discount values of –13.52%, -14.92%, and –17.61% in years –3, -2, and –1, respectively. This phenomenon is more pronounced for multi-segment bidders that make further diversifying acquisitions. If Q values attest performance, the evidence suggests that the performance of diversified firms decreases as we near the acquisition year. The poor performance of diversified firms is consistent with the extant diversification literature documenting that diversified firms trade at a discount, but inconsistent with the view that internal capital markets improve corporate performance. Moreover, the results seem to support the argument that the weak pre-diversification performance of diversified firms might be the reason firms undertake diversifying investments.

On the other hand, single-segment bidders trade at par or exhibit mildly inferior performance relative to their industry peers for the same period, with median values of –1.52%, 0.00%, and –1.42% in years –3, -2, and, -1, respectively. It is interesting to note most of this marginal valuation discount in single-segment bidders stems from bidders that conduct focusing acquisitions in year 0. While this does not represent a significant decline relative to comparable industry Q values, it indicates mild weakness relative to its industry that might be associated with the decision to invest externally. The mean and median valuation difference between focusing and diversifying single-segment bidders is statistically significant at conventional levels in all three pre-acquisition years.

In general, the pre-acquisition evidence indicates that multi-segment bidders trade at a considerable discounts than single-segment bidders, with median difference values of –12.00%, -13.87%, and –15.26% in years –3, -2, and, -1, respectively. Focusing single-segment bidders trade at minor valuation discounts than multi-segment bidders that conduct similar type of acquisitions, with median difference values of –10.89% (with p-value of 0.002), -14.65%(with p-value of 0.002), and –12.62%(with p-value of 0.002) in years –3, -2, and, -1, respectively. Diversifying single-segment bidders trade at an

insignificant premium or at par while multi-segment bidders that engage in similar acquisitions trade at deep discounts in the pre-acquisition period. The mean and median valuation difference is statistically significant in all three pre-acquisition years.

This result and the more dramatic declines in Q for diversified bidders corroborates the view that external investments through acquisitions are likely to be motivated by valuation declines. The evidence appears to be consistent with several studies finding that the typical bidder has a lower Q ratio before diversifying (Lang, Stulz and Walkling (1989), Hyland (1999) and Campa and Kedia (1999)). While our results are also consistent with diversification discount literature documenting that diversified firms trade at a discount, it does not necessarily imply the act of diversification itself destroys firm value. Based on these results, however, it can be argued that past diversifying investments by multi-segment firms have failed to improve performance. Hence, the pre-acquisition evidence appears to cast doubt on the value of internal capital markets.

[INSERT TABLE 5 HERE]

2.2.B. Pre-Acquisition Performance: Excess Market Value

Panel B of Table 5 presents bidders' raw and industry-adjusted excess market values for the pre-acquisition period. The raw EMV of bidders represents the additional market value created by bidders above their book value per unit of sales while the industry-adjusted EMVs measure bidders' value creation relative to that of their industry peers (i.e., measured by the weighted sum of similar stand-alone firms). To a large extent these valuation results resemble those of Q values. The raw results show that, on average, bidders experience positive and increasing excess market values as they near the acquisition year. Multi-segment bidders have considerably lower excess market values than single-segment firms. The mean and median differences are statistically significant.

Industry-adjusted mean and median excess market values fall as we draw closer to the acquisition year. The industry-adjusted excess market values of multi-segment bidders confirm that they trade at a loss ranging from 14.90 percent in year-3 to 22.18 percent in the acquisition year. Single-segment bidders, however, experience significant gains relative to their industry peers with the exception of a sharp decline in year 0. Single-segment firms' excess market value is above their industry peers in the year of acquisition by 5.22 percent, while multi-segment bidders incur a 22.18 percent value loss

in year 0. It is also interesting to note that the excess market value of single-segment bidders declines relative to their industry peers during the pre-acquisition period. The overall evidence suggests the excess market value of multi-segment firms is significantly lower in comparison to the excess market value of single-segment firms. This is consistent with our previous evidence and the diversification literature (Lang and Stulz (1994), Berger and Ofek (1995), among others) reporting that diversified firms trade at a discount relative to focused firms. Furthermore, these findings suggest the firm's acquisition activity is related to its pre-acquisition value losses. The losses are pronounced for diversified bidders as we draw closer to the acquisition year, while focused firms realize small declines during the acquisition year only. It is also important to note the pre-acquisition median difference between the excess market values of diversified and focused bidders is more pronounced for firms that do not plan to invest outside their core business. This seems to suggest that diversified firms that decide to undertake acquisitions in their core business do so because they have experienced somewhat greater losses during the pre-acquisition period than diversified bidders that plan to pursue diversifying acquisitions. For instance, in year -1 the median losses are 24.36 percent for multi-segment firms that add related assets to their operations and 13.43 percent for multi-segment firms that diversify outside their core business a year later, respectively. The difference, however, is not statistically significant at conventional levels.

Overall, the pre-acquisition valuation analysis confirms that multi-segment bidders have inferior performance than their industry peers. Single-segment bidders, however, experience minor discounts. In addition, multi-segment bidders experience significantly lower industry-adjusted Qs and EMVs than single-segment bidders making similar acquisitions. Furthermore, the valuation discount in multi-segment bidders appears to increase as they near the acquisition year. These findings are consistent with the recorded discount in the diversification literature that implies that diversification does not create value. However, if diversification has not worked in the past, an important question that remains unanswered is why firms undertake investment strategies that appear to destroy firm value. Namely, while both single- and multi-segment firms engage

in focusing and diversifying investment, it is not yet known what determines the bidder's type of investment activity. In the next section we attempt to shed light on this issue.

2.3 Why Firms Diversify: Logistic Regression Analysis

The pre-acquisition analysis seems to link the acquisition activity of the firm to its valuation decline prior to its external investment decision. This association appears to be strong for multi-segment firms. In this section we use logistic regression analysis to investigate why firms are likely to diversify. Specifically, we focus on the determinants of firm's diversification decision. This is expected to shed more light on the relative importance of the external growth, cash flow/agency cost, and internal capital markets hypotheses that have been put forward as explanations of the corporate diversification motive. The external growth hypothesis asserts that bidders' poor performance and their low internal growth opportunities force them to undertake diversifying investments. The free cash flow/agency cost hypothesis, however, states that the diversifying investment activities are driven by managers' objectives at the expense of shareholders wealth. Finally, the internal capital markets hypothesis argues that corporate diversification stems from the efficiency gains of internal capital markets in diversified firms.

In the multivariate logistic regressions the dependent variable is an indicator variable, DIVERD, that takes the value of one when a bidder undertakes a diversifying acquisition and zero otherwise. The following variables are included in these regressions: The natural logarithm of annual firm sales, LN(SALES), is used to control for the size of the bidders. We include the imputed Q value of the firm, IMPUTEDQ, that is computed based on sales multiples of distinct business segments. This measure allows us to determine whether the diversification decision of the firm is driven by the state of growth opportunities of the bidder's industry. Namely, whether diversifying investments are linked to the low growth opportunities of the bidder's industry. The industry-adjusted Tobin's Q, INDADJQ, the natural logarithm of the ratio of the firm Q divided by its imputed value; is used to measure the growth opportunities (and the valuation) of the firm relative to its industry peers.[14]

[14] Chevalier (2000), however, suggests that actual Q values are more representative of the investment opportunities of the firm rather than its industry adjusted values.

The DEBT variable is the amount of total debt as percentage of invested capital. DEBT is used to capture the monitoring effect of external capital markets on managers (Jensen (1986), Stulz (1990), among others). The INSIDER variable is the percentage of the outstanding shares of the bidder held by the insiders. The insider ownership variable is used to test whether firms with lower insider ownership are more likely to diversify. The percentage of the outstanding shares of the bidder held by institutions, INSTITUTE, is also used in the analysis. We use the institutional ownership variable to examine whether firms with lower institutional ownership are more likely to diversify, revealing agency costs in the firms as a complement to insider ownership [15].

The RDEXP measures the R&D expenditures of the bidder normalized by its total sales. It is a continuous variable used to control for the firm's level of growth opportunities. Namely, to examine how much the firm is investing in its growth opportunities (Hyland (1999)). In addition to the intangible nature of R&D expenditures, bidders may also possess intangibles observed in their advertising expenditures. The ADVEXP variable measures bidder's advertising expenditures normalized by its total sales. This is also a continuous variable. The core cash flow (CCF) and non-core cash flow (NCCF) variables are used to explore the cash generating ability of the core and non-core segments of bidders in the pre-acquisition period. They are defined as the cash flows (operating income plus depreciation) from the operations of the core and non-core business segments of the bidder, respectively, normalized by bidder's segment sales. Furthermore, we account for the method of payments using two indicator variables. CASHD takes the value of one if the payment was made in cash and zero otherwise. STOCKD is set equal to one if the payment was made in stock and zero otherwise [16].

We also include a binary variable that identifies whether the target was a divestiture, DIVESTD. This variable takes the value of one if the target was divested by its parent company. All independent variables are measured in year -1, the calendar year before the acquisition. Besides, we include calendar year dummies in the regression to control for changes in the corporate control market. The logistic regression takes the following form:

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[15] See McConnell and Servaes (1990, 1995), Denis et al (1997).

[16] See Travlos (1987), Servaes (1991), Martin (1996), Megginson, Morgan and Nail (1999), and Rappaport and Sirower (1999)

DIVERD = f (LN(SALES), IMPUTEDQ or (EMV), INDADJQ or (EMV), DEBT, INSIDER, INSTITUTE, RDEXP, ADVEXP, CCF, NCCF, CASHD, STOCKD, DIVESTD)

Table 6 presents the regression results. Panel A reports the coefficients of the logistic regressions for single-segment firms while Panel B reports results for multi-segment firms. The intercept, as shown in Panel A, is positive and statistically significant, implying single-segment bidders are likely to consider diversification strategies. However, the intercept ranges between 0.315 and 0.4130, indicating only 32-41 percent of single-segment firms are likely to undertake diversifying acquisitions. The size variable, LN(SALES), is statistically significant in only the last two regressions suggesting single-segment bidders with high annual sales are significantly more likely to acquire targets operating outside their core business.

The coefficient of the imputed Q variable, IMPUTEDQ, is negative and significant implying the bidder's diversification decision is influenced by the growth opportunities of its industry. The coefficient of the industry-adjusted Q variable, INDADJQ, is insignificant suggesting the bidder's decision to diversify is not likely to be influenced by its performance relative to its industry. Similar results are obtained in regressions 2 and 7 when EMV is used as an alternative valuation measure to Tobin's Q. In regression 2, the coefficient of the industry adjusted EMV turns positive and significant at the 10% level suggesting the relative valuation of the firm to its industry might encourage the firm to pursue industrial diversification.

Leverage appears to discourage single-segment bidders from making diversifying acquisitions. The coefficient of the DEBT variable is negative and significant at the 1% level. This is consistent with the view that debt serves as a monitoring mechanism of managerial misconduct. Hence, we conclude that debt serves as a monitoring mechanism of managerial misconduct for single-segment firms. We also find that the coefficients of INSIDER and INSTITUTE variables are negative and significant, suggesting insider and institutional owners of single-segment firms discourage diversifying acquisitions. These results imply diversification is likely to be more pronounced in firms with weak insider and institutional ownership characteristics.

The coefficient of the R&D expenditures variable, RDEXP, is positive and significant suggesting single-segment firms with high knowledge-based intangibles are more likely to diversify. This observation suggests single-segment firms in our sample are unlikely to diversify because they have depleted their internal growth opportunities. In sum, diversification of single-segment firms appears to be driven by opportunities to exploit their knowledge-based advantage. On the other hand, the coefficient of ADVEXP variable is negative, but not significant in all regressions, implying marketing-based intangibles are unrelated to the firm's decision to diversify.

The coefficient of core cash flow variable (CCF) is negative and insignificant implying cash flow increases are not likely to encourage expanding outside the core business of single-segment firms. Among the other control variables, the CASHD variable has the strongest association with diversification. Its coefficient is negative and statistically significant in all regressions, implying single-segments firms would prefer to invest in non-diversifying projects if the transaction was required to be settled in cash.

The coefficients of similar regressions for multi-segment bidders are reported in Panel B and suggest they have a stronger diversification motive than single-segment firms. The intercepts of multi-segment bidders are not only positive and statistically significant, as before, but substantially larger in comparison to those of single-segment firms. The intercept ranges between 0.555 and 0.668, indicating 56-67 percent of these firms are likely to undertake diversifying acquisitions. The size variable, LN(SALES), gains significance in the last two regressions suggesting larger multi-segment firms are more likely to conduct acquisitions outside their core business. Consistent with the single-segment results, the coefficient of the imputed Q, IMPUTEDQ, variable is negative and significant. Hence, multi-segment bidder's diversification decision is also influenced by the growth opportunities of its industry. Specifically, this result suggests that firms that operate in high-Q industries are unlikely to diversify, while firms that operate in low-Q industries are more likely to invest and expand outside their core businesses. Consistent with Campa and Kedia (1999), Lamont and Polk (2001), and Maksimovic and Phillips (2001), this result implies adverse industry shocks are likely to drive the firm's decision to invest in peripheral lines of business.

The coefficient of the industry-adjusted Q variable, INDADJQ, is insignificant indicating multi-segment bidder's decision to diversify is unlikely to be influenced by its performance relative to its industry. Similarly, the coefficient of the INDADJEMV variable is statistically insignificant.

In contrast with the evidence on the effects of leverage on the diversification decision of single-segment firms, leverage appears to have a positive and significant influence on the diversification decision of multi-segment bidders. The coefficient of the DEBT variable is 0.001 and significant at conventional levels. This implies the investment activities of diversified firms are less likely to be subject to the same degree of market scrutiny than single-segment bidders. This, then, might be one of the reasons diversified firms are found to trade at a discount. We conclude that debt serves as a monitoring mechanism of managerial misconduct for single-segment firms, but not for multi-segment firms. Increases in debt by multi-segment firms are likely to fund unrelated acquisitions.

The coefficients of INSIDER and INSTITUTE variables are negative and significant, suggesting the monitoring power of insider and institutional is more stringent on the diversifying activities of managers ownership in multi-segment firms. Therefore, these results mean diversification is likely to be more pronounced in firms with low levels of insider and institutional ownership.

The coefficient of the R&D expenditures variable, RDEXP, is insignificant suggesting the knowledge-based intangibles of multi-segment bidders does not lead to greater diversification. This is in sharp contrast with the evidence reported for single-segment firms in our sample. In brief, diversification of multi-segment firms does not appear to be influenced by their knowledge-based assets. The coefficient of ADVEXP variable is not significant in all regressions, implying marketing-based intangibles are unrelated to the firm's decision to diversify. [17]

The relation between the firm's diversification decision and the different cash flow streams (i.e., core and non-core cash flows) is intended to shed light on how internal capital markets impact on the nature of the investment decision. Unlike the single-

[17] See Doukas, Pantzalis and Kim (1999) for a detailed discussion of knowledge based and marketing based intangibles

segment bidders, the coefficient of the core cash flow variable, (CCF), is -0.274 and significant at 5% level. This result suggests multi-segment firms that have higher core cash flows are not likely to invest in unrelated lines of businesses. The results also show non-core cash flows in multi-segment bidders do not influence the diversification decision of the firm, as shown by the insignificant coefficient of the NCCF variable. These results suggest bidders' internal capital markets appear to be active.

Finally, the STOCKD variable has a strongest association with diversification relative to the other control variables. Its coefficient is negative and statistically significant in most regressions, pointing out that multi-segments firms prefer to invest in non-diversifying projects if the transaction requires to be settled in stock. This suggests diversifying acquisitions are viewed as riskier projects by multi-segment firms and, therefore, they would prefer to hedge by using stock instead.

In sum, the evidence shows single- and multi-segment firms in good performing industries are less likely to diversify. For single-segment bidders, debt, insider and institutional ownership act as diversification deterrents. However, for multi-segment firms debt does not appear to have the same adverse effects on diversification. High intangible assets are more likely to encourage diversification in single- than multi-segment firms. While core cash flows influence the diversification decision of multi-segment firms, they do not have same effect on the investment decision of single-segment firms. Moreover, the evidence supports that single-segments firms do not seem to prefer investing in diversifying projects when the transaction is required to be settled in cash.

[INSERT TABLE 6 HERE]

2.4. Post-Acquisition Performance

Having examined the pre-acquisition performance and the determinants of the diversification decision of single- and multi-segment bidders, in this section we examine their post-acquisition performance associated with diversifying and non-diversifying investments in order to gain additional insights about the long-term effects of their investment decisions. Specifically, we are interested to determine whether the post-acquisition performance of the firm is linked to the act of diversification itself.

2.4.A. Single- and Multi-Segment Bidders' Post-Acquisition Performance

The post-acquisition raw and industry-adjusted performance measures for single- and multi-segment bidders are reported in Table 7. Panel A reports bidders' raw and industry-adjusted values of Tobin's Q 3 years after the acquisition (year +3) from the acquisition year (year 0). The evidence shows the post-acquisition performance of single- and multi-segment bidders is inferior to their industry peers regardless of the type of investment they engaged in. This implies their investments have failed to add firm value. Given that single-segment firms did not have a persistent inferior performance than their industry peers during the pre-acquisition period, their performance deterioration after the acquisition suggests, in general, that their investment is an important determinant of their post-acquisition performance. The industry-adjusted performance of multi-segment firms, however, is worse than that of single-segment firms throughout the three-year post-acquisition period. The difference is statistically significant at conventional levels. This indicates that acquisitions failed to reverse the poor pre-acquisition performance of multi-segment firms while they had an adverse effect on the post-acquisition performance of single-segment firms. Hence, the investment decision of single-segment firms appears responsible for their post-acquisition performance decline. However, to what extent the poor post-acquisition performance of multi-segment firms is attributed to their investment decision remains unknown, given that their pre-acquisition performance was inferior to that of their industry peers as well.

What is more interesting is that the post-acquisition performance of multi-segment bidders that acquired firms outside their core business gets much worse than that of similar bidders that did not diversify their operations. The evidence suggests that focusing investments by multi-segment firms did not worsen their post-acquisition performance while further diversifying investments did. Therefore, increased corporate diversity by multi-segment bidders seems to exacerbate the poor industry-adjusted pre-acquisition performance after the acquisition. The industry-adjusted Q median difference, however, between focusing and diversifying multi-segment bidders is not statistically significant at conventional levels. While these results suggest further diversification is more harmful than corporate focus and, perhaps, not an optimum investment strategy for multi-segment firms, non-diversifying investments by multi-segment firms also fail to reverse bidders' performance considerably. Therefore, these findings seem to suggest that

the weak post-acquisition performance of multi-segment firms can be partially attributed to both the level of diversity and the act of diversification itself.

Multi-segment bidders with poor pre-acquisition performance remain poor performers even after the acquisition regardless of what investment strategy they pursue. When multi-segment firms invest inside their core business, they continue to underperform their industry at the same level in the years after the acquisition. This implies that their core investments fail to restore the overall competitive advantage of the firm. When multi-segment firms with poor past performance undertake diversifying investments they fail to enhance their post-acquisition performance and suffer from further performance declines. Hence, expansion outside their core business worsens the overall firm performance instead of improving it. These findings also suggest the expansion of their internal capital market does not help to reverse their past poor performance. While this evidence suggests the benefits of internal capital markets fail to outweigh the costs of diversification, the inferior pre-and post-acquisition performance of diversified firms also suggests their past and recent investments have consistently failed to enhance firm value. This seems to lead to the conclusion that diversified firms are plagued by operating and structural inefficiencies they can not overcome by undertaking either diversifying or non-diversifying investments. This result seems to be consistent with another stream of empirical literature showing diversified firms that regain focus, especially by divestitures, experience positive stock market reactions and improve subsequent performance [18]. In addition, our results lend some support to Rajan et. al. (2000) who find that increases in corporate diversity are followed by firm value decreases.

The evidence also points out that the creation of internal capital markets by single-segment firms does not enhance performance. If internal capital markets work to the benefit of firm performance, single-segment bidders should benefit from diversifying acquisitions. In contrast to the prediction of the internal capital market hypothesis, diversifying investments by single-segment firms fail to enhance their post-acquisition performance. In fact, the evidence shows that diversifying investments by single-segment

[18] See Bhagat and Vishny (1990), Comment and Jarrell (1995), John and Ofek (1995), Scharfstein (1998), Megginson, Morgan and Nail (1999), Gertner, Powers and Scharfstein (1999), and Schlingemann, Stulz, and Walkling (1999).

firms with good past performance experience performance declines during the post-acquisition period. In addition, their post-acquisition performance seems to be significantly lower in comparison to that of their industry peers and diversifying single-segment firms suffer from the same degree of percentage valuation discount as focusing single-segment firms do in the post-acquisition period. What is important to note here is that the pre-acquisition performance of single-segment firms, especially that of diversifying single-segment bidders, was not persistently inferior to that of their industry peers. Therefore, the pre- and post-acquisition performance of single-segment firms reveals that their investments have been detrimental to firm value. The post-acquisition performance of single-segment firms that expand their operations in the same industry deteriorates dramatically relative to that of their industry peers. This significantly poor post-acquisition performance of single-segment firms might be related to overinvesting. Single-segment firms that invest in new lines of business realize further losses after the acquisition and their post-acquisition performance is significantly below that of their industry peers. Consequently, the benefits derived from the creation of internal capital markets by the diversifying acquisitions of single-segment firms do not seem to offset the costs of diversification.

Panel B reports similar post-acquisition performance results for both single- and multi-segment bidders based on the excess market value performance metric. Overall, regardless of the performance measure used, the evidence indicates that single- and multi-segment bidders, whether they undertake focusing or diversifying investments, experience negative performance relative to their industry peers after the acquisition.

[INSERT TABLE 7 HERE]

2.4.B. Cross-Sectional Regression Analysis of Bidders' Post-Acquisition Performance

In this section we examine further the relation between the change in post-acquisition performance and the type of assets acquired by single- and multi-segment bidders. We measure the change in the post-acquisition performance of bidders using changes in Q and EMV values in the three years after the acquisition relative to their values in year –1, the year prior to the acquisition, scaled by average Q and EMV values during the three year pre-acquisition period. We also estimate the change in the industry

adjusted valuation of bidders in all three years after the acquisition relative to the valuation prior to the acquisition year.

We regress the post-acquisition change in the different performance measures against the following indicator variables: MULTIDIVERD is a variable that takes the value of one when a multi-segment bidder conducts a diversifying acquisition and zero otherwise, SINGLEFOCUSD takes the value of one if a single-segment bidders makes a focusing acquisition and zero otherwise, SINGLEDIVERD takes the value of one if a single-segment bidders conducts a diversifying acquisition and zero otherwise. Hence, the constant captures the impact on post-acquisition performance when a multi-segment bidder makes a focusing acquisition.

Table 8 reports the coefficients of the three indicator variables. The constant is positive and significant in the six regressions of Panel A implying that the post-acquisition raw performance of focusing multi-segment bidders improves. As the coefficients of the other three indicator variables show, the post-acquisition performance of diversifying multi-segment bidders as well as that of the single-segment bidders does not improve as much as the performance of focusing multi-segment bidders. Interestingly, three years after the acquisition, the performance of these bidders falls significantly below that of focusing multi-segment bidders. It should be noted that the magnitude and the significance of the coefficients of the indicator variables in the EMV regressions are somewhat smaller. These results are consistent with the evidence reported in Panels A and B of Table 7.

Panel B of Table 8 reports similar regressions using the change in bidders' industry-adjusted valuation measures as the dependent variable. The constant in these regressions is negative and but not statistically significant. In sharp contrast with the previous evidence, this suggests that focusing acquisitions by multi-segment bidders do not improve their post-acquisition value relative to a comparable portfolio of stand alone firms. The coefficients of the other indicator variables imply single-segment and diversifying multi-segment bidders experience worse valuation relatives. The regression results are largely consistent with our previous univariate findings, suggesting both single- and multi-segment bidders experience negative performance relative to their industry peers and to a comparable portfolio of stand alone firms, respectively, after the

acquisition regardless of the type of acquisition they choose to expand their existing operations.

[INSERT TABLE 8 HERE]

2.5. Are Internal Capital Markets Efficient?

The internal capital markets of diversified firms permit them to finance projects that external capital markets would not, because of informational asymmetries and agency costs. As a result, it is argued that diversification creates value for shareholders because it gives rise to internal capital markets providing increased monitoring incentives, easier asset redeployment and allocation of funds to liquidity-constrained divisions relative to external capital markets (Stein (1997) among others). In addition, diversification increases efficiency of firms that are liquidity-constrained because management allocates more funds to the more efficient divisions. Our analysis so far, consistent with a number of recent papers, shows diversification by diversified and focused firms does not enhance performance. In this section, we examine whether the act of diversification is unsuccessful because bidders' internal capital markets fail to allocate financial resources efficiently between core and non-core business divisions before and after diversifying and non-diversifying acquisitions or because performance of firms is held back by the diversity of business segments even if their internal capital markets are operating efficiently.

2.5.A. Pre-Acquisition Analysis of Bidder's Core and Non-core Sales, Cash Flows, and Capital Expenditures

2.5.A.1 Core and Non-core Sales

In this section we analyze the cash flows and investments of the core and non-core business segments of bidders before they engage in diversifying and non-diversifying acquisitions. The results are reported in Table 9. Panel A shows the mean and median sales of the core and non-core businesses of bidders measured as the natural logarithm of segment sales in dollar values. Mean and median sales of single- and multi-segment bidders show diversified bidders generate more sales indicating a difference in size. It is also shown that the core sales of multi-segment bidders exceed those of the non-core sales of multi-segment bidders whether they elect to diversify two years later or not. The difference is statistically significant at conventional levels. This pattern holds

the year before and the acquisition year as well. This suggests that the core business of multi-segment bidders in our sample are, indeed, the main cash generating entities of these firms. When we compare the mean and median core sales between focusing and diversifying multi-segment bidders, we do not find a substantive difference. Similarly, the difference between the mean and median values of non-core sales of focusing and diversifying multi-segment bidders is not statistically significant at any conventional level. The pre-acquisition core and non-core sales of multi-segment bidders suggest that there is not any dramatic difference in the sales generating ability of core and non-core segments between focusing and diversifying multi-segment bidders. Focusing single-segment bidders, however, have greater mean and median sales than diversifying single-segment firms, but this is statistically significant at 10% level only in year of the acquisition.

2.5.A.2 Core and Non-core Assets

Panel B of the same table presents the size of assets, measured as the natural logarithm of the assets in dollars, for the core and non-core business of multi-segment bidders. The size of assets of single-segment firms is also reported. The mean and median values indicate the core business of focusing multi-segment bidders rely on a much greater asset base than their non-core business segments during the pre-acquisition period. The difference is statistically significant at 1% level. Less dramatic difference is observed for multi-segment bidders that plan to invest outside their core business two years later. It is interesting to note, there is no difference between multi-segment firms that eventually invest in unrelated business relative to similar firms that invest in core-related business. Consistent with our previous results, this suggests that multi-segment firms deploy more assets in the lines of business that generate more sales. That is, more capital was invested in the core business of multi-segment firms, and as a result they generate greater sales.

Mean and median differences in terms of size of assets, as shown in Panel B, confirm there is a significant difference in size between single- and multi-segment bidders that engage in a similar type of acquisition. This difference is significant at 1% level of significance in the pre-acquisition period. Moreover, the asset size of core business of focusing multi-segment bidders is larger than that of diversifying multi-

segment bidders, but the difference is not statistically significant with the exception of means in year 0 at 10% level of significance. Similarly, the non-core businesses of focusing multi-segment bidders are smaller than those of their diversifying counterparts, but the difference is not statistically significant at any conventional level in the pre-acquisition period. However, sales and asset based Herfindahl indexes[19] show the degree of diversity for focusing multi-segment bidders is considerably lower compared to diversifying multi-segment bidders in the pre-acquisition period.

On the other hand, focusing single-segment bidders exhibit greater mean and median asset values than diversifying single-segment bidders in the pre-acquisition period. The assets of focusing single-segment bidders increase over time and at a higher rate than those of diversifying single-segment bidders in the pre-acquisition period. Mean and median differences become significant in years –1 and 0.

2.5.A.3 Core and Non-core Growth in Sales and Cash Flows

Panel C presents and compares the sales growth of bidders' business segments in the pre-acquisition period. In general, irrespective of the acquisition motive of the bidder, single- and multi-segment firms experience growth in sales. The core business of multi-segment bidders achieve lower mean and median growth in sales than single-segment firms that engage in a similar type of acquisition. The median difference is consistently significant at 1% level. This result suggests that single-segment firms that plan to expand their operations through acquisitions achieve higher growth in sales than the core business segment of multi-segment firms irrespective of the type of acquisition. This further implies the decision to invest in core-related or core-unrelated lines of business might be driven by different motives in single- and multi-segment firms. This is consistent with Chevalier (2000) who argues that previous diversification studies might be subject to selection bias because single- and multi segment firms are unlikely to have identical investment opportunities.

From year –2 to year –1 the core business segments of focusing and diversifying multi-segment bidders experience a lower but not statistically significant growth in sales than their non-core business segments. From year –1 to the year of acquisition, the core businesses of diversifying multi-segment bidders continue to experience lower growth in

[19] The asset and sales based Herfindahl indexes are not reported but available upon request.

sales than their non-core business segment. The median difference is -0.043 (-4.3 percent) and statistically significant at 1% level. For the same period, the core business of focusing multi-segment bidders achieve significantly higher growth in sales (with a median of 1.134) than their non-core (with a median of 1.107) segments that is 0.027 (2.7 percent) and it is statistically significant at 5% level. This suggests the core business of diversifying multi-segment firms have incurred a growth-in-sales decline relative to that of their non-core business in years -2 and -1, while similar firms that plan to invest in their core business have experienced a growth-in-sales increase relative to that of their non-core business over the same period. Namely, multi-segment bidders that focus (diversify) experience greater sales increases (decreases) in their core than their non-core business from year -2 and -1 to the acquisition year. The mean and median core growth-in-sales difference between diversified firms that focus relative to similar firms that diversify further is 0.025 and 0.020, respectively, from year -2 to -1 and the median difference is statistically significant at the 5% level. From year -1 to 0 the mean and median difference in growth of sales is 0.141 and 0.070, respectively, and significant at the 1% level. These results suggest diversification is inversely related with the growth-in-sales of the core business of multi-segment firms. Diversified firms that do not experience declines in their core sales are more likely to invest inside their core, while diversified firms that experience declines in their core sales are more likely to invest outside their core business.

Similarly, single-segment firms that invest in unrelated business appear to experience lower growth in sales than single-segment firms that choose to invest in related business. The mean and median difference is 0.084 (8.4 percent) and 0.031 (3.1 percent) from year −1 to 0, respectively, and significant at the 5% level. This might suggest single-segment bidders that have reached their full potential in their business need to invest in other lines of business to achieve comparable growth in sales to single-segment firms that do not diversify. In general, single-segment firms enjoy higher growth in sales than the core and non-core segments of multi-segment firms.

Panel D presents cash flows for core and non-core business segments of bidding firms during the pre-acquisition period. We define cash flows as the operating income plus depreciation for core and non-core business segments scaled by segment sales from

the previous year. These results confirm our previous pre-acquisition findings for both single- and multi-segment bidders. Diversified firms that choose to diversify further experience lower cash flows from their core business than similar firms that do not diversify. The median differences are 0.027 (2.7 percent) and 0.031 (3.1 percent) in years-1 and 0, respectively, and statistically significant at the 1% level. That is, the core segments of focusing multi-segment firms generate 2.7 and 3.1 dollars more per 100 dollars of sales in years -1 and 0, respectively, than the core segments of similar firms that diversify. These differences are economically significant as well.

The pre-acquisition cash flows suggest diversifying multi-segment bidders are able to generate significantly more cash flows from their non-core competencies and capitalize on them by strengthening their non-core businesses. This implies diversifying multi-segment bidders might have reached a saturation state in their core business and therefore search for growth outside of their core business. This is consistent with the view of buying external growth opportunities conjectured by Lang and Stulz (1994) and Hyland (1999). Our results are consistent with those reported in Panel B of Table 6 that revealed that the core cash flows of diversified bidders have a significantly negative impact on their diversification decision. Namely, multi-segment bidders that generate higher cash flows from their core business elect to acquire targets that would augment their core business while those that can not generate high cash flows choose to conduct acquisitions unrelated to their core businesses.

Single-segment firms that diversify are firms that generate lower cash flows than similar firms that invest in related business during the pre-acquisition period. The median differences are 0.003 and 0.019 in years −1 and 0, respectively, and statistically significant at 1% level in year 0. Focusing single-segment bidders experience considerable cash flow increases in the pre-acquisition period while diversifying single-segment bidders experience a decline. Mean and median cash flows of focusing single-segment bidders exceed those of diversifying single-segment bidders. The mean and median differences are significant at conventional levels in year 0.

Overall, the evidence implies when the core business of single- and multi-segment firms achieve higher cash flows they tend to invest in their core business. On the other hand, they invest outside their core business when the sales growth and cash flows

of the core business are considerably lower, especially when the core cash flows of multi-segment bidders fall significantly behind the cash flows of non-core segments in the pre-acquisition period.

2.5.A.4 Core and Non-core Capital Expenditures

Panel E provides a comparison of bidder's core and non-core capital expenditures relative to their corresponding segment sales in the pre-acquisition period. The results show multi-segment bidders invest more (less) in their core lines of business when their core (non-core) sales growth and cash flows exceed the sales growth and cash flows of their non-core (core) business. The difference between the core capital expenditures of multi-segment firms that invest more of their capital resources in their core relative to those that invest more in non-core business is statistically significant at conventional levels. These results do not appear to support cross-subsidization between the core and non-core divisions of multi-segment firms that invest more in their core business during the pre-acquisition period. However, the evidence indicates internal capital markets are active in that transfer of funds from core to non-core lines of business occurs in multi-segment firms that elect to invest outside their core business, but it should be noted that these firms generate more cash flows per dollar of sales from their non-core business. Consequently, the extent of cross-subsidization in diversifying multi-segment firms is rather difficult to be assessed from these univariate results.

The capital expenditures of single-segment firms that undertake focusing investments exceed those of similar firms that invest in unrelated lines of business. This pattern of capital expenditures coupled with the evidence reported in Panels C and D suggest single-segment firms that remain focused generate more cash flows and achieve higher sales growth than their counterparts that diversify.

Overall, the pre-acquisition analysis indicates multi-segment firms deploy more assets and undertake larger capital expenditures in those divisions generating more sales growth and cash flows. This is consistent with Whited (2001) who finds that there is no inefficient allocation of funds in diversified firms after controlling for measurement errors. Focusing multi-segment firms use more assets and make larger capital expenditures in core than in non-core divisions because they generate more cash flows than their non-core divisions. Diversifying multi-segment firms, however, employ more

assets in core divisions, but commit larger capital expenditures in non-core divisions when the growth in sales and cash flows of their core division are inferior than those of their non-core divisions prior to the acquisition. Single-segment firms invest in unrelated business when they experience lower growth in sales and cash flow than single-segment firms that choose to invest in related business. Furthermore, the capital expenditures of single-segment firms that make focusing investments exceed those of similar firms that invest in unrelated business.

In sum, the pre-acquisition analysis highlights that multi-segment firms tend to invest more in those lines of business that generate superior performance results in terms of growth in sales and cash flows. This pattern is also observed in single-segment firms undertaking similar investments. This does not appear to be consistent with non-optimal investing. Consequently, the claim that the act of diversification itself is the cause of the diversification discount, documented in Section 2 and other studies, does not appear to be corroborated from the analysis thus far.

[INSERT TABLE 9 HERE]

2.5.B. Post-Acquisition Analysis of Bidder's Core and Non-core Sales, Cash Flows, and Capital Expenditures

In this section we examine the post-acquisition segment performance of both single- and multi-segment bidders involved in diversifying and non-diversifying investments in order to gain additional insights about the long-term effects of their investment decisions. The results are reported in Table 10.

2.5.B.1 Core and Non-core Sales

Consistent with the pre-acquisition pattern of sales of diversified firms, Panel A shows the mean and median sales of the core business of multi-segment bidders investing within their core business persistently generate more sales than their non-core business during the post-acquisition period. The difference is statistically significant at conventional levels. Similarly, multi-segment bidders that invested outside their core business continue to create significantly more sales from their core rather the non-core lines of business in the post-acquisition years. A comparison of the mean and median post-acquisition core sales of multi-segment bidders that invested inside their core business relative to those that invested outside their core business shows no significant

difference. The mean and median differences of the non-core sales between diversifying and non-diversifying bidders are also statistically insignificant. These results imply both core and non-core segment sales of multi-segment firms do not dramatically differ in the post-acquisition period regardless of whether they diversify or not. Mean and median sales of single- and multi-segment bidders show diversified bidders generate more sales consistent with the pre-acquisition sales, indicating a difference in size.

Overall, the post-acquisition core and non-core sales of multi-segment bidders, consistent with the pre-acquisition evidence, suggest there is no substantive difference in the sales generating ability of core and non-core segments between focusing and diversifying multi-segment bidders. Focusing single-segment bidders also register insignificant mean and median differences in sales than diversifying single-segment firms, implying single-segment bidders that invest outside their core business did not increase their core sales dramatically as well.

2.5.B.2 Core and Non-core Assets

Panel B presents the size of assets of the core and non-core business of multi-segment bidders in the post-acquisition period. The size of assets of single-segment firms is also reported. The mean and median values show the core business of multi-segment bidders continues to exceed the asset base of their non-core business segments during the post-acquisition years. The median difference is statistically significant at 1% level for non-diversifying and at 5% level for diversifying bidders. The mean and median core difference between diversifying and non-diversifying bidders is marginally significant, implying that the core-asset base of focusing bidders is marginally larger than that of diversifying bidders. The mean and median non-core difference between diversifying and non-diversifying bidders is statistically insignificant at conventional levels. However, sales and asset based Herfindahl indexes[20] show that the degree of diversity in focusing multi-segment bidders continues to be significantly lower compared to diversifying multi-segment bidders in the post-acquisition period, as they were in the pre-acquisition period.

Focusing single-segment bidders have a larger asset base than that of the core-asset base of diversifying single-segment firms. The mean and median difference is

[20] The asset and sales based Herfindahl indexes are not reported but available upon request.

statistically significant at 1% level. Mean and median differences in core and non-core assets between single-and multi-segment bidders that engage in acquisitions show that multi-segment bidders are much larger in size. The mean and median differences are significant at 1% level of significance.

2.5.B.3 Core and Non-core Growth in Sales and Cash Flows

The growth in sales for the core and non-core business segments of focusing and diversifying bidders for the post-acquisition period is presented in Panel C. In the post-acquisition period, the core business of focusing and diversifying multi-segment bidders reach lower growth in sales than single-segment firms that engaged in a similar type of acquisitions. These results are consistent with the pre-acquisition sales, indicating the growth in sales of diversified firms remains lower relative to that of single-segment firms irrespective of their investment strategy. The mean and median differences are statistically significant at conventional levels. This difference persists in year +1 and +2 after the acquisition. The pre- and post-acquisition growth in sales comparison between single- and multi-segment firms is consistent with the diversification discount literature.

The median growth in sales difference between focusing multi- and single-segment bidders in favor of single-segment bidders ranges from 7.2 percent in year +1 to 3.5 percent in year +2. For the core business segments of diversifying multi- and single-segment bidders the median growth in sales difference ranges from 9.4 percent in year +1 to 5.8 percent in year +2. For the non-core business segments of diversifying multi- and single-segment bidders the median growth in sales difference ranges from 13.2 percent in year +1 to 7.0 percent in year+2. These results suggest diversifying investments undertaken by single-segment firms produce greater growth in sales than that of multi-segment firms. Hence, diversity increases by single-segment firms yields superior sales performance relative to that of diversifying multi-segment firms in the post-acquisition period.

A comparison between focusing and diversifying multi-segment bidders shows the core sales growth of focusing multi-segment bidders are significantly higher in year+1, but not different than that of diversifying multi-segment bidders in year+2. Moreover, the evidence shows there is no significant difference between the non-core sales growth of focusing and diversifying multi-segment bidders in the post-acquisition

years. While the post-acquisition non-core sales growth for multi-segment firms that diversify improves during the post-acquisition period, it is not different from that of multi-segment firms that remain focused. Namely, multi-segment bidders that diversified as a result of lower sales increases in their core relative to their non-core business prior to the acquisition years fail to alter that pattern in the post-acquisition years. Multi-segment bidders, however, that invest inside their core business because their core sales were superior to those of their non-core segments, continue to have superior core growth in sales in the post-acquisition period.

Cash flows for core and non-core business segments of bidding firms during the post-acquisition period are presented in Panel D. We have documented that firms investing outside their core business had lower sales growth and cash flows from their core business than similar firms that did not diversify during the pre-acquisition period. This pattern of sales growth and cash flow performance persists in the post-acquisition period. The superior sales performance of the core sales of focusing multi-segment bidders translates into superior cash flows as well. In both post-acquisition years, the core cash flows of focusing multi-segment bidders substantially exceed those of the diversifying multi-segment bidders. The median cash flow differences are statistically significant at the 1 percent level as well. The evidence shows even though the non-core sales of diversifying multi-segment bidders are larger than those of focusing multi-segment bidders in the post-acquisition years they do not translate into cash flows. The non-core cash flows of diversifying multi-segment bidders are not significantly different from the non-core cash flows of focusing multi-segment bidders in the post-acquisition years, indicating that diversification by multi-segment bidders did not improve the cash flow performance of their non-core business significantly. Hence, in the post-acquisition period diversifying multi-segment firms continue to have inferior core cash flows relative to that of focusing multi-segment firms, while their non-core cash flows are not significantly different from those of focusing multi-segment firms. The median core cash flow difference between focusing and diversifying multi-segment bidders is 0.029 and 0.021 in years +1 and +2, respectively, and statistically significant at 1% level of significance. For the non-core cash flows, the difference shows the non-core cash flows of diversifying bidders do not exceed those of focusing bidders. The median non-core

cash flows difference is 0.004 and 0.001 in years +1 and +2, respectively, and is insignificant at conventional levels.

The median difference in core cash flows between focusing and diversifying single-segment bidders is statistically significant at conventional levels in favor of focusing single-segment firms. The post-acquisition non-core cash flows of diversifying single-segment bidders are found to be even greater [0.195 in year+1 and 0.175 year+2] than the core cash flows of the focusing single-segment bidders[0.152 in year+1 and 0.140 in year+2] in the post-acquisition years. These results suggest when a single-segment firm experiences an adverse cash flow shock, it is able to reverse it by diversifying into a new line of business generating higher cash flows compared to the core business of the firm. Consequently, we interpret these results as demonstrating internal capital markets play a non-trivial role when firms face the choice of investing within or outside their core business.

Our pre- and post-acquisition analysis of cash flows in multi-segment bidders that undertake either focusing or diversifying investments shows these transactions are not beneficial because they fail to reverse past poor performance. This leads to the conclusion that the benefits of diversification fail to emerge even though these firms invest in the more efficient lines of business. However, these firms still retain inefficient business segments.

2.5.B.4 Core and Non-core Capital Expenditures

Our pre-acquisition analysis, reported in Table 9, indicates multi-segment bidders that invest more (less) in their core lines of business generate more (less) cash flows and sales growth from their core (non-core) business. Bidder's core and non-core capital expenditures for the post-acquisition period, presented in Panel E, show focusing (diversifying) multi-segment bidders invest more (less) in their core than in their non-core lines of business. This seems to be dictated by the differences in their core and non-core sales growth and cash flows reported earlier. The difference between multi-segment firms that invest more in their core relative to those that invest more in non-core business is statistically significant at conventional levels. The median difference is 0.009 and 0.013, and is significant at the one percent level. This evidence suggests the core capital expenditures of focusing multi-segment firms rise with the cash flow increases of the

core business segment. Diversifying multi-segment firms invest significantly more in their non-core than core business because they have substantially more cash flows from their non-core lines of business over the same period. Consistent with our regression results in Table 11, this indicates there is no inefficient allocation of capital between core and non-core business segments in diversifying multi-divisional firms.

The post-acquisition capital expenditures of single-segment firms show those that diversify commit significantly more capital resources in their non-core than core business investment activities. The median difference is -0.022 and -0.018 in year +1 and +2, respectively, and significant at the one percent level. A comparison between the core capital expenditures of non-diversifying and diversifying single-segment bidders indicates that the former use somewhat more capital on their core business than similar firms that diversify. This evidence suggests the non-core capital investments of diversifying single-segment firms grow at a lower rate than their cash flows, indicating there is cross-subsidization of capital from core to non-core business segment.

[INSERT TABLE 10 HERE]

2.5.C. Core and Non-core Capital Expenditures of Bidders: A Cross-Sectional Regression Analysis

In this section we examine the relation between capital expenditures and cash flows in an attempt to shed more light on whether capital resources are allocated efficiently between core and non-core businesses. If internal capital markets in diversified firms work efficiently, they should finance projects of business segments with the highest growth opportunities. Therefore, given that the core (non-core) business segments of focusing (diversifying) multi-segment firms generate significantly more cash flows than their non-core (core) business segments, and to the extent that cash flows of a business segment are recognized as a proxy for its own investment opportunities (Fazzari, Hubbard and Petersen (1988)), it is expected that the core (non-core) capital expenditures of focusing (diversifying) multi-segment firms should primarily be determined by its own cash flows. If, however, capital expenditures of non-core business of focusing multi-segment firms are sensitive to the core cash flows that would imply capital resources are inefficiently allocated from core business to non-core business.

We use cross-sectional regressions to examine whether systematic capital misallocation takes place across the core and non-core divisions of bidding firms while we control for firm characteristics[21]. We examine whether diversified bidders practice inefficient capital budgeting in the sense that they underinvest in the divisions generating relatively high percent of cash flows to sales and overinvest in divisions generating a relatively low percent of cash flows to sales. If segment cash flows to sales measure growth prospects, investing in segments with relatively low (high) cash flows to sales is equivalent of overinvesting in lines of business with relatively low (high) growth opportunities. If diversified firms have greater access to capital, they are also expected to invest more than single-segment firms.

We regress the core capital expenditures of the firm in year 0, the year of the acquisition, normalized by the segment sales in year -1, against the core-cash flow, CCF, and the non-core-cash flow, NCCF, variables in year -1 while we control for other firm effects as well. Similar regressions are estimated for the core capital expenditures in years +1 and +2 after the acquisition. A similar set of regressions is estimated using the non-core capital expenditures as the dependent variable.

Table 11 presents the regression results. The regressions in Panel A1 show the capital expenditures of focusing single-segment firms are significantly and positively affected by their own cash flows while the regressions in Panel A2 show none of these variables can explain the core capital expenditures of diversifying single-segment firms. The regressions in Panel B show the non-core capital expenditures of diversifying single-segment firms are sensitive to the firm's core cash flows in years +1 and +2. The non-core cash flows, however, do not have the same influence on the non-core capital expenditures in year +1 as they do in year +2. In year +2, the non-core capital expenditures are slightly more sensitive to the non-core than core cash flows. These results confirm there is an active internal capital market even in newly diversifying stand-alone firms. This result coupled with their post-acquisition cash flows, reported in Panel D of Table 10, suggests non-core business investments are supported by core cash flows because these firms generate more cash flows from their non-core than core business.

[21] The rationale of routine capital misallocation in diversified firms is based on the free cash flow hypothesis of Jensen (1986) that posits that managers with excess free cash flows tend to overinvest.

Hence, the use of core cash flows to finance the capital expenditures of their non-core business does not appear to be inefficient since capital resources are directed to the business segment with greater growth opportunities.

The regressions in Panel C1 show there is a positive and significant relation between core-cash flows and the core capital expenditures of the multi-segment firm that undertake focusing acquisitions. All coefficients of the core-cash flow variable are positive and significant at conventional levels, implying core-cash flows are consistently used for investments in the core business of the firm. However, the non-core cash flow variable has a negative and insignificant impact on the capital expenditures of the core business of the firm, implying there is no transfer of capital from non-core segments to the core segment of focusing multi-segment firms. The core capital expenditures of multi-segment firms that invest outside their core business, reported in Panel C2, also show that core-cash-flows are employed for investments in the core business of the firm. As before, the non-core cash-flow variable has no significant bearing on the core capital expenditures of diversifying multi-segment bidders.

The non-core capital expenditures of non-diversifying and diversifying multi-segment bidders, shown in Panels D1and D2, are sensitive to both core and non-core cash flows, implying that core cash flows are also used to fund the capital expenditures of non-core business in diversified firms. These results are consistent with the findings of Shin and Stulz (1998) who find the capital expenditures of the largest business segments depend only on their own cash flows while the capital expenditures of the smallest segments depend on the cash flows of the largest segment as well as their own. There is a systematic transfer of funds from the core to the non-core business in multi-segment firms. This is consistent with the internal capital market efficiency hypothesis that predicts that capital resources should be used to finance projects with higher growth opportunities in diversifying multi-segment firms. Hence, the allocation of capital between core and non-core business segments in diversifying multi-segment firms does not seem inefficient. This is consistent with Whited (2001) who finds no inefficient allocation of resources in diversified firms after controlling for measurement errors. It is also interesting to note that the non-core capital expenditures of diversifying multi-segment firms are primarily determined by their own cash flows. The non-core

businesses of diversifying multi-segment firms, as seen in Table 9, generate higher cash flows to sales and have higher growth in sales than their core business. In contrast with the internal capital market efficiency hypothesis, there is diversion of capital in focusing multi-segment firms from core to non-core business despite the fact that their core cash flows and growth in sales exceed those of their non-core business, as shown in Panel D of Table 10. These results are in support of cross-subsidization in internal capital markets of diversified firms.

In sum, these results suggest that there is misallocation of capital to inefficient uses (i.e., business segments with low growth opportunities) in focusing but not in diversifying multi-segment bidders. The allocation of capital resources in focusing and diversifying single-segment bidders appears to be consistent with internal capital market efficiency.

[INSERT TABLE 11 HERE]

2.6. Explaining the Diversification Discount

Our results so far show that both single- and multi-segment firms that diversify do so because the benefits of diversification into lines of business other than their core competency seem more lucrative than they would have obtained by focusing on their core business. Tables 9 and 10 show focusing single- and multi-segment firms achieve higher cash flows from their core business compared to similar firms that diversify into non-core related lines of business both in the pre- and the post-acquisition period. Similarly, focusing multi-segment firms generate higher cash flows from their core business while single- and multi-segment firms that choose to diversify generate more cash flows per unit of sales from their new or already existing non-core business segments compared to their core business segments. In support of this contention, our evidence in Tables 9, 10, and 11 show when bidders create higher cash flows from their core business they have a propensity to invest in their core business while bidders that generate lower cash flows from core business compared to other lines of business tend to invest outside their core business. To examine what causes the momentum in value loss in diversified firms, we regress bidders' post-acquisition valuation measures on segment cash flow and capital expenditure variables while we account for firm specific effects.

The emphasis of our analysis is on the cash flows of both core and non-core business segments of the bidders. Our previous results from Table 11 show that the core cash flows explain much of the core capital expenditures of both focusing and diversifying multi-segment firms as well as the core capital expenditures of focusing single-segment firms while both core and non-core cash flows explain the non-core capital expenditures of multi-segment firms irrespective of their diversification motive. However, we have no information about how segment cash flows translate into the valuation of single- and multi-segment bidders that make acquisitions either inside or outside their core business. We also include calendar year dummies and control for the firm specific effects. The firm specific control variables (not reported in the tables) capture the effects of debt, insider and institutional ownership, R&D expenditures and the medium of payment used in the acquisitions.

Panel A of Table 12 report the results of our regressions for overall single-segment bidders as well as focusing and diversifying single-segment bidders. The coefficient of the diversifying acquisition dummy, DIVERD, is positive and significant in years 0 and 1 implying that focusing single-segment bidders are invariably discounted relative to diversifying single-segment bidders. The coefficient of the size variable, LN(SALES), is negative and statistically significant suggesting that larger single-segment bidders have lower valuations, and this size effect is valid for both focusing and diversifying bidders. This observation suggests the valuation of bidders that grow beyond their optimal size, especially the ones that diversify into unrelated lines of business, are discounted by the markets. However, we must note that the bidders in our sample are the firms that elect to grow rapidly by engaging in diversifying and non-diversifying acquisitions. The insider ownership variable, INSIDER, has positive and significant coefficient. This evidence suggests the monitoring ability of insiders might contribute to firm valuation by avoiding inefficient investment behavior. Similarly, the presence of knowledge based intangible assets, captured by positive and significant coefficient of R&D expenditures, has a positive impact on valuation of single-segment bidders. However, such a positive effect arising from high R&D expenditures is mainly pronounced for focusing single-segment bidders. The core capital expenditures of single-segment firms was found to be higher than that of diversifying single-segment bidders in

the pre- and the post-acquisition period. However, the coefficient of the core cash flow variable, CCF, is positive and statistically significant at conventional levels in all regressions. This suggests the valuation of single-segment bidders, that engaged in either diversifying or non-diversifying acquisitions in year 0, is primarily determined by the cash flows of core business in years 0, 1 and 2. On the contrary, the non-core cash flow of diversifying single-segment firms, even though their cash generating ability is higher, has no significant influence on their valuation 2 years after the acquisition. These are the lines of business that diversifying single-segment bidders have entered because the cash flows of their core business lagged significantly behind those of focusing single-segment bidders but the core business segment still empowers a considerable portion of the assets.

Panel B reports the results of our valuation regressions for overall multi-segment bidders as well as for focusing and diversifying multi-segment bidders. Similar to single-segment bidders, the coefficient of the size variable, LN(SALES), is negative and statistically significant suggesting that larger multi-segment bidders have lower valuations, but unlike single-segment bidders, this size effect is valid only for diversifying multi-segment bidders. This observation, coupled with the fact that focusing multi-segment bidders recuperate some of their valuation following an acquisition, suggests the valuation of bidders growing beyond their optimal size into unrelated lines of business are discounted by the markets like in single-segment bidders. However, we must note the multi-segment bidders in our sample are the firms that elect to grow rapidly by engaging in diversifying and non-diversifying acquisitions, too. In contrast to single-segment bidders, the higher presence of insiders in multi-segment bidders seems to destroy value.

The univariate results in Table 9 and 10 indicated the cash flow generating ability of core business of focusing multi-segment firms is higher than that of their non-core business segments and is significantly higher than that of core business of diversifying multi-segment bidders both in the pre- and the post-acquisition period. The same variable was also found to have a significant impact on how much the firm invested in the core and non-core business of the firm in Table 11. Similar to single-segment firms, the valuation of multi-segment firms is positively and significantly influenced by the cash flows of the core business, and this result is valid for both focusing and diversifying

bidders. Even though the non-core cash flows seem to have a contribution to valuation of multi-segment firms, the non-core cash flows of focusing multi-segment firms, however, do not have a significant impact on firm valuation. These findings suggest the valuation of multi-segment bidders that have more productive assets in their core business (focusing multi-segment bidders) is principally assessed by the cash flows of the core business while the cash flows of the relatively poor performing peripheral lines of business do not contribute to the valuation of the firm. However, we must also note the capital expenditures of non-core business segments in focusing multi-segment firms rely on the cash flows of the core business, as well. This points to a valuation opportunity cost inherent in this type of firms and further suggests that they would be better off by divesting their non-core business and then by investing the proceeds in their core business as larger size firms (the ones beyond their optimal sized) are found to be discounted .

The cash flows of the core business and, unlike multi-segment firms that focus, the non-core business in diversifying multi-segment firms have a significant contribution to firm valuation after the acquisition. However, our previous evidence indicated this type of firms prefer to conduct major investments outside the core business because their core business has poor performance relative to non-core business segments. Furthermore, our evidence in Table 11 indicated the core cash flows of diversifying multi-segment firms have a significant impact on their non-core capital expenditures as well as on their own core capital expenditures. This significant influence of core business cash flows in valuation of multi-segment firms that elect to diversify can be attributed to the fact that the core business continues to be the largest business segment generating the highest amount of cash flows in dollars, even though not per dollar of sales, and that it continues to divert funds from its own cash flows to capital expenditures of more efficient peripheral lines of business. These findings suggest the diversification might pay off in multi-segment bidders that invest firmly in their non-core business segments that generate higher cash flows per unit of sales compared to core business segments.

However, those diversifying multi-segment bidders might still be suffering from the relative cash flow generating inefficiency of their core business segments that make the bulk of their assets. We must once more note that larger size firms are found to be

discounted. This might point to a more severe valuation opportunity cost inherent in diversifying multi-segment firms than in the ones that elect to focus on the core business. The internal political struggles of this type of firms might make it difficult for them to divest the inefficient core business that holds more assets to invest the proceeds in their efficient peripheral lines of business.

[INSERT TABLE 12 HERE]

In sum, our results show that the market assesses the valuation of diversifying and non-diversifying single- and multi-segment firms based on the cash flow generating ability of their core business. In diversifying multi-segment bidders, the non-core cash flows have a significant influence on the valuation of the firm, too. However, the market also assesses the resource constrained setting of the bidders. Bidders that grow beyond their optimal size are penalized, too. The fact that industrially diversified firms do not deprive their relatively inefficient segments that generate relatively lower cash flows is a burden to be shouldered by the relatively efficient business segments. Such an opportunity cost emerges in focusing multi-segment bidders whose poor performing non-core business segments do not contribute to firm valuation. On the other hand, less efficient core business segments of diversifying multi-segment bidders are harder to divest as they contribute to the valuation of firm and fund the capital expenditures of more efficient non-core business segments.

2.7.Conclusion

In this paper, we investigate whether diversification destroys value when it takes place. Consistent with the diversification literature, our results show multi-segment firms that conduct diversifying and non-diversifying acquisitions suffer from a substantial discount relative to their imputed value and stand-alone firms that undertake similar types of investments before and after the acquisition. Prior to diversification, the valuation of both single- and multi-segment bidders weakens and, interestingly, continues to deteriorate after the acquisition. This result suggests investing merely in a certain line of business does not lead to reversal of poor performance in neither single- nor multi-segment bidders.

We find the internal capital markets of multi-segment bidders are active around important investment decisions and a majority of capital resources are allocated to

business segments that achieve higher sales growth and cash flows before and after an acquisition. However, the evidence also indicates core business segments in multi-segment firms subsidize the capital expenditures of non-core business segments regardless of whether they operate efficient or inefficient business segments. These findings suggest the internal capital markets of bidders are not involved in non-optimal investment strategies but firms might still face consequences of cross-subsidization from core to non-core business segments In addition, as diversified firms still retain their relatively inefficient segments generating relatively lower cash flows, there appears to be a strain carried by the relatively efficient business segments. That might explain why our results should be interpreted in line with other studies that address the workings of internal capital markets and the valuation of firms around disinvestment (divestiture) decision of firms[22]. Our results lend support to Campa and Kedia (1999), who show firms diversify and refocus throughout time from poor industries (higher exit industries) into industries with better prospects when benefits exceed costs, in addition to a recent stream of literature that examines the impact of exogenous shocks to industry cash flows on firm valuation[23]. As a final note, our results may help to explain why General Electric is regarded to be one of the exceptional performers in the market despite the fact that it is one of the most diversified firms and that it continues to conduct acquisitions aggressively in every line of business that it operates in. Like Rajan et. al (2000) argue the success of GE emanates from the business model that looks at business segments independently and divests unprofitable businesses rather than keeping them as deadweight in the corporate structure. However, the hesitance of other diversified firms to divest poor performing segments while investing in promising segments does not seem to be a viable solution to overcome the discount attributed to diversification.

[22] See Scharfstein (1998), Gertner, Powers, and Scharfstein (1999), and Schlingemann, Stulz and Walkling (2001), Maksimovic and Phillips (2001) in addition to Boot (1992), Kaplan and Weisbach (1992), Comment and Jarrell (1995), John and Ofek (1995), Daley, Vikas and Ranjini (1997), Allen and McConnell (1998).

[23] See Lamont and Polk (2000, 2001)

3. INTERNATIONAL CORPORATE INVESTMENT ACTIVITY, GLOBAL AND INDUSTRIAL DIVERSIFICATION AND INTERNAL CAPITAL MARKETS

Over the last decades, stock markets in the U.S., other developed countries, and emerging countries have traded industrially diversified firms at significant valuation discounts relative to sum of comparable specialized firms. (Lang and Stulz (1994), Berger and Ofek (1995, 1996), Servaes (1996), Lins and Servaes (1999a, 1999b), Graham, Lemmon and Wolf (2002), Billett and Mauer (1999), Campa and Kedia (1999), Rajan, Servaes and Zingales (2000)). The recent empirical literature lends some support to the view that agency costs in diversified firms exceed the benefits obtained from the creation of internal capital markets and inefficient investment policies or cross-subsidization in industrially diversified firms lead to a valuation discount (Servaes (1996), Berger and Ofek (1995,1996), Gertner, Powers and Scharfstein (1999)). In addition to diversification motives of the managers, Lang and Stulz (1994) and Hyland (1999) argue that the firms might have exhausted their internal growth prospects, as well.

Unlike the industrial diversification, most of the theoretical and empirical studies on global diversification suggest a wealth increasing effect on the firm in terms of profitability, excess returns and higher market value. (Leftwich (1974), Mikhail and Shawky (1979), Errunza and Senbet (1981, 1984), Kim and Lyn (1986)). Foreign direct investment (FDI) literature argues that firms expand overseas to exploit firm specific information based intangible assets by transferring the intangible assets overseas within an internal market in the same firm (Caves (1971), Buckley and Casson (1976), Dunning (1977), Rugman (1980), Prahalad (1998)). However, in the theoretical and empirical literature, not so many studies have addressed the valuation impacts of industrial and global diversification at the same time. Sambharya (1995) finds only the interaction of geographic and product diversification leads to an enhancement in the performance of multinationals. Morck and Yeung (1998) find that industrial diversification, geographic diversification and firm size enhance value in the presence of intangible assets. Bodnar, Tang, and Weintrop (1998) find that global diversification leads to significant increases in value measures, while industrial diversification leads to significant value losses.

On the other hand, a recent stream of literature provides empirical evidence demonstrating that global diversification hurts firm value. Christophe (1997) and

Christophe and Pfeiffer (1998) provide evidence that global diversification makes U.S. multinationals destroy value. Similarly, Denis, Denis and Yost (2000) document that U.S. firms pursue further global diversification even though it leads to valuation losses. Their results suggest, on average, global diversification leads to valuation losses of 18 percent while industrial diversification leads to valuation losses of 20 percent.

In addition, very few studies in the theoretical or empirical literature have addressed the direct link between the nature of the corporate investment activity and the valuation consequences associated with it. The empirical evidence available only for domestic acquisitions in the U.S. has produced conflicting results. Graham, Lemmon and Wolf (2002) find single-segment firms that diversify by reporting changes or internal growth do not experience a valuation discount while single-segment firms that diversify by acquisitions experience a significant discount. Billett and Mauer (1999) find the internal capital markets have an adverse effect on the value of industrially diversified firms but they cannot find any evidence of a significant link between diversification discount and inefficient capital markets. Their main finding is that internal capital market activity influences the valuation of industrially diversified firms only when resources are transferred to business segments with good investment opportunities and that would be financially constrained if operating as single-segment firms. Chevalier (2000) finds evidence showing the cash flows of one merger partner are predictive of the investment behaviour of the other partner in the pre-merger period which might be interpreted as evidence of cross-subsidization. Chevalier further demonstrates the evidence in favor of cross-subsidization in the empirical literature may be due to perseverant differences between the investment opportunities of single- and multi-segment firms. However, no study in the theoretical or empirical literature has addressed the nature of international investment activity, the changes in industrial and geographic focus and the valuation consequences.

In this study, we employ a sample of 1599 pure overseas mergers and acquisitions (M&As) completed by the U.S. firms over the 1991-1997 period to examine the impact of global and industrial diversification on firm value when they take place. First, we analyze the valuation of single- and multi-segment firms pursuing overseas expansion through industrially focusing/diversifying investments before and after investment is

made via overseas M&As. Our evidence indicates the bidders included in our sample, especially single-segment bidders, experience deteriorating performance prior to an overseas acquisition and further confirms the well-documented diversification discount arising from industrial diversification between single- and multi-segment bidders. Interestingly, stand-alone bidders exhibit a severe discount in year 0, the year in which they expand their international involvement by engaging in overseas acquisitions. Further analysis indicates not only the extent of industrial diversification but also the extent of prior international involvement of bidders has significant adverse valuation consequences. Our post-acquisition results show the act of global diversification destroys value when it takes place in the form of M&As for domestic bidders. A detailed analysis indicates multi-segment bidders that diversify into unrelated lines of business gain from overseas acquisitions while single-segment bidders and industrially focusing multi-segment bidders experience subsequent valuation declines. The bidders that already have international exposure experience further valuation declines and can not gain any benefits from further global expansion. The bidders that face the most severe valuation losses are the domestic single-segment bidders that conduct diversifying acquisitions.

Second, we examine the internal dynamics of firms involved in capital investments and analyze the workings of the internal capital markets around the overseas investment decision of the firm. The pre-acquisition analysis indicates that focusing multi-segment firms use more assets and make larger capital expenditures in core than in non-core divisions because they generate more sales than their non-core divisions while diversifying multi-segment firms commit larger capital expenditures in non-core divisions as the sales and assets of their core and non-core segments are virtually undistinguishable. Single-segment firms, on the other hand, invest in unrelated business when they experience higher growth in sales than single-segment firms choosing to invest in related business. Following the overseas acquisition, the core (non-core) business segments of focusing (diversifying) bidders continue to generate higher cash flows per dollar of sales than their non-core (core) business segments and they also begin to generate significantly more cash flows than the core business of diversifying multi-segment bidders. Likewise, the bidders continue to invest more of their segment sales in the relatively efficient line of business in terms of cash generating ability after the

acquisition, as well. In addition, a closer examination of core and non-core capital expenditures yields different results about the workings of internal capital markets in bidder firms that make diversifying and non-diversifying overseas acquisitions. Our evidence suggests core capital expenditures of diversifying single-segment bidders are influenced by cash flows of the core business. Similarly, both core and non-core capital expenditures of diversifying and non-diversifying multi-segment bidders seem to rely on their own segment cash flows.

Finally, a closer look at the valuation of bidders shows, in support of the agency theory explanation of diversification, the higher presence of insider ownership in focusing bidders is accompanied by higher valuations. In support of the internalization theory of global diversification, the presence of knowledge based (R&D) and marketing based (advertising) intangibles seem to contribute to overseas bidders' valuation. Only multi-segment bidders that diversify into unrelated lines of business seem to benefit from geographic diversification while all other bidders seem to suffer from its adverse impact. The cash flow of the core business seems to contribute to firm value of single-segment and focusing multi-segment bidders while the cash flow of the non-core business seems to play a trivial role on valuation suggesting that the value losses associated with industrial diversification might stem from the inadequate contribution of peripheral (non-core) lines of business in industrially diversified firms. The evidence that both core and non-core cash flows of diversifying multi-segment bidders adds to firm value only 2 years after the acquisition suggests that they might have begun to harvest the benefits in an expanded multinational network as suggested by Doukas and Travlos (1988).

The remainder of the paper proceeds as follows. Section 3.1 describes the sources of data and sample selection. Section 3.2 presents evidence on the pre-acquisition performance of the bidders. Section 3.3 examines the determinants of firm's industrial diversification motives overseas. Section 3.4 examines the post-acquisition performance of bidders that engaged in diversifying and non-diversifying acquisitions. Section 3.5 examines the working of bidder's internal capital markets. Section 3.6 examines the role of internal capital markets and other firm specific characteristics on bidders' valuation and section 3.7 concludes the paper.

3.1. Data Selection, Sources, Industrial and Geographic Classification

3.1.A. Sources of Data and Sample Selection

Our sample consists of overseas acquisitions made by the U.S. bidders between January 1, 1991 and December 31, 1997 reported in the U.S. Acquisitions Overseas roster of Securities Data Corporation's Mergers & Acquisitions (M&A) Journal. The rosters of M&A Journal include all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The rosters report the name, the Standard Industrial Classification (SIC) code (at 2 digit SIC level before 1993, at 4 digit SIC level starting 1993), the business definition and the country of target firms or businesses, the name, and the business definition of bidder firms.[24] Our sample does not include transactions associated with target firms or businesses that operated in non-manufacturing industries (i.e., Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89)) as Q ratios and other measures may be inappropriate for financial firms. The U.S. Acquisitions Overseas roster of M&A Journal reports 2688 overseas acquisitions made by the U.S. bidders over the 1991-1997 period, of which 1089 overseas acquisitions were made by bidders that completed acquisitions in the U.S. in the same calendar year as well. We focus exclusively on foreign acquisitions and, therefore, our initial sample consists of 1599 pure overseas acquisitions.

We classify the geographic diversity of the target firm's country as "Developed" or "Emerging" in accordance with the emerging market definition of IFC's Emerging Markets Data Base. According to this definition "All stock markets in developing countries are considered to be 'emerging'. Developing countries are those classified by the World Bank as either low- or middle-income economies, regardless of their particular stage of development." We notice the majority of the targets in our initial sample are located in developed countries on the overall and at the 2 digit SIC code level as reported by the U.S. Acquisitions Overseas roster of M&A Journal[25]. 1226 target firms or businesses of 1599 overseas acquisitions (76.67 percent) are in developed countries while the remaining 373 acquisitions (23.33 percent) are in emerging countries. This

[24] They also report the value of acquisition, the method of payment, whether the target is divested or not, the completion day of the acquisition and the advisors to both parties.

[25] Industrial classification of target firms in the initial sample are not reported but available upon request.

observation suggests that the U.S. firms prefer to expand into developed overseas markets through M&As where they can acquire readily available firms.

We observe the overseas acquisitions activity is more concentrated in some industries than in others based on the 2 digit SIC code industrial classification of target firms in our initial sample. For example, in manufacturing division, chemicals and allied products (2-digit SIC code 28, 146 acquisitions), industrial and commercial machinery and computer equipment (2-digit SIC code 35, 170 acquisitions), electronics and other electrical equipment (2-digit SIC code 36, 149 acquisitions) are the dominant industries. While previous studies exclude electric, gas and sanitary services (2 digit SIC code 49) out of their samples because they are regulated, we decided to keep them in our sample in the wake of deregulation in those industries. In wholesale trade division, wholesale trade of durables (2-digit SIC code 50, 125 acquisitions) is the leading industry.

3.1.B. Industrial Classification

In the corporate diversification literature, several sources and measures have been used to analyze firms operating in unrelated lines of business[26]. The recent diversification literature determines a firm's industrial diversity by using the 2 digit SIC code [27], the 3 digit SIC code[28], or the 4 digit SIC code[29]. In addition, Lamont (1997) uses his personal judgement to classify oil dependent and non-oil dependent business segments. In a similar fashion, Scharfstein (1998) pools related business segments into "divisions" which are unrelated to each other, but the business segments in each division are highly related. Matsusaka (1993) uses the most advanced method to identify vertical linkages between businesses. He uses economy-wide industry input-output matrices to identify vertical linkages between industries.

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[26] Ravenscraft and Scherer (1987) use the Line of Business sample of the Federal Trade Commission. Wernerfelt and Montgomery (1988), Liebeskind and Opler (1992), and Lichtenberg (1992) use census data to measure diversification in terms of different SIC codes for plants. Servaes (1996) uses Dun and Bradstreet's Million Dollar Directory to determine the number of business segments operated by a firm for the 1962-1974 period. Hubbard and Palia (1999) obtain the 4 digit SIC code of bidders and targets from different issues of Standard and Poor's Register of Corporations, Directors and Executives to construct their sample of mergers for the1961-1970 period but make their classification based on 2 digit SIC codes.

[27] See Servaes (1996), Berger and Ofek (1995, 1996), Hubbard and Palia (1999), and Lins and Servaes (1999a, 1999b).

[28] See Shin and Stulz (1998), Scharfstein (1998), and Gertner, Powers and Scharfstein (1999).

[29] See Morck, Shleifer and Vishny (1990), Comment and Jarrell (1995).

The Compustat Industry Segment File is used to collect information about the business segments of bidder firms in our sample. SEC regulation S-K and FASB-SFAS No. 14 require firms to report segment information for fiscal years ending after December 15, 1977. Firms must report information for segments representing 10 percent or more of consolidated sales. The Compustat Industry Segment File reports this information: net sales, operating profit (earnings before interest and taxes; EBIT), depreciation, assets, and capital expenditures on a segment level basis for all active Compustat firms other than utility subsidiaries. Compustat assigns a primary and a secondary SIC code to each business segment of the firm, as well as a main SIC code to the firm at the 4 digit level. However, we must point out that the main SIC code of the firm reported by Compustat is not always representative of the firm's main cash generating line of business (core business). For example, Compustat reports that General Electric has a main SIC code of 3600; Electronic and Electrical Equipment and Components for 1997. Nevertheless, the business segment generating the highest amount of sales in GE (both in amount and percentage of annual sales) is Financing activities; SIC codes 6141 and 6159 by about half of the aggregated sales of GE in year 1997.

As Servaes (1996) points out, a straightforward examination of the 4-digit SIC codes of the segments of the firm does not reveal the degree of diversification of the firm. He argues the use of the 4-digit SIC code would be too wide to identify the industrial structure of the firm. The rationale for using 2-digit SIC codes is that industries with the same 2 digit SIC codes are closely related and require comparable management skills. In addition, as Shin and Stulz (1998) note, one of the difficulties in using segment data is to identify the business segments that are reorganized by firms over time. Rajan et. al.(2000) mention this type of inconsistency in reporting from year to year and they circumvent this problem mainly by making sure no data is obtained from data stretch over a period more than one year for their specific diversity computations. Similarly, Shin and Stulz eliminate high cash flow segment-years and the firms whose largest and smallest segments share the same 2 digit SIC code. However, the elimination of high cash flow segment-years may disguise the impact of cross subsidization on firm's investment activity. In addition, the elimination of the largest and the smallest segments with the same 2 digit SIC code may bias the results by ignoring the comparable

management skills between those segments. As reported by Graham, Lemmon and Wolf (2002), single-segment firms that diversify by reporting changes do not experience any diversification discount while those that diversify through acquisitions experience significant valuation discount suggesting the investment activity rather than the reporting changes has a significant impact on the industrial diversity of the firms and the related valuation consequences. In this study, we also examine the effects of cross subsidization on the investment activity of the other segments of the firm. Therefore, we need a more refined measure of segment information to determine the industrial structure of and the capital allocation within the firm.

Following Servaes (1996), we define a line of business at the 2 digit SIC level augmented by a procedure similar to the ones used by Lamont (1997, p106) and Scharfstein (1998). We make use of the primary and secondary SIC codes of each segment in the bidder firm as reported by Compustat Industry Segment File. Lamont is mainly concerned with the presence of oil drilling industries (2 digit SIC code of 13) in primary and/or secondary SIC codes of business segments in oil dependent firms, with more weight on primary SIC codes. We treat the primary and secondary SIC codes of business segments to be of equal importance and we partition the sales, operating income, assets, capital expenditures and depreciation of each reported segment into two. The resulting figures are aggregated into distinct business segments based on their 2-digit SIC code to determine the sales, operating income, assets, capital expenditures and depreciation of each distinct segment defined at the 2 digit SIC code. Our procedure resembles that of Scharfstein (1998) who pools related segments into "divisions" depending on his judgement of relatedness. Our measure of relatedness for distinct business segments is based on sharing the same 2-digit SIC code obtained from our procedure explained above. We do not count the segments that have less than 10 percent of the sales or assets as a viable segment in compliance with FASB-SFAS No 14. We, then, define the "core business" of the firm as the 2-digit SIC code of the business segment having the highest share of aggregated sales of the firm (either in million dollars or in percentage of sales) for a given year. All the remaining business segments are counted as "non-core business" segments. For stand-alone (single-segment) bidders, the only business segment is defined as the core business. This procedure, for instance,

classifies General Electric as a Financing firm whose core business has a 2 digit main SIC code of 61 for 1997, rather than an Electric and Electronics firm with a 2 digit main SIC code of 36. The distinct business segment which brings in the highest amount of cash into General Electric is the Financing activities in 1997.

Unlike Chevalier (2000) we are not in search of an overlap between the SIC code of the target firm and the SIC code of any one of the reported business segments of the bidder at any SIC level. Chevalier (2000), who concentrates on "diversifying mergers" only, classifies mergers as related in instances of an overlap of 2-digit SIC codes among any of the reported business segments of the target and the bidder firms in the merger of industrially diversified firms. We define acquisitions as "diversifying" (or unrelated) when the 2-digit SIC code of the target does not match with the 2-digit SIC code of the bidder's core business that generates the highest amount (and percentage) of sales for the bidder. On the other hand, we define acquisitions as "focusing" when the 2 digit SIC code of the target matches with that of the bidder's core business that generates the highest amount (and percentage) of sales. We carry out this classification both for the year prior to the acquisition and for the year of the acquisition. Both procedures yield almost identical results. Throughout the study, we will report results based on the classification prior to the year of the acquisition (year–1).

When we examine the type of overseas acquisitions by the industrial classification of bidder firms based on the 2 digit SIC codes of their core business we observe target firms in manufacturing industries have been acquired by bidder firms in finance and service industries as well [30]. Most of these acquisitions have been carried out by bidders with core businesses in business services. The evidence suggests the majority of acquisitions (644 out of 1072 classified acquisitions) is "focusing" in nature and certain industries are more active investing through acquisitions. Our research focus is not on non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89) and bidders in those industries will be eliminated from our sample in later stages.

3.1.C. Sample Characteristics and Summary Statistics

Table 13 presents the annual number and frequency of 1599 overseas acquisitions included in the initial sample. The number of overseas acquisitions is increasing systematically over years. The majority of the overseas acquisitions is focusing in nature in the 1991-1997 period. More than 60 percent of the classified overseas acquisitions represent investments within the core business of the bidder while bidders acquire overseas targets in unrelated lines of business with their own core business in about 40 percent of the acquisitions. Interestingly, the U.S. bidders that make acquisitions in developed overseas markets are less inclined to acquire targets in their core business. More than 56 percent of target firms or businesses acquired by U.S. bidders in developed markets are in the core business of the bidder, while this percentage is almost 70 percent for target firms or businesses acquired in emerging markets. This evidence suggests U.S. bidders are more likely to acquire targets in their core businesses when they expand into less developed/emerging markets. This result lends some support to internalization hypothesis of global diversification asserting that firms expand overseas to capitalize on their intangible assets.

[INSERT TABLE 13 HERE]

Table 14 presents the description and number of overseas acquisitions included in our final sample. We initially identified 1599 overseas acquisition announcements in the M&A journal that were also confirmed by The Wall Street Journal. The initial sample included the group of acquisitions in which the target firm was domiciled outside the U.S. The group of acquisitions made by bidders that carried out acquisitions in the U.S. on the same calendar year were excluded because of the difficulty in identifying their expansion motives. As a result of this process we proceeded with 1599 overseas acquisitions in our initial sample.

Out of our 1599 acquisitions in the initial sample, we could not find any information about bidder firms in Compustat for 541 acquisitions. This brought the sample size down to 1058 from 1599 acquisitions. Then, we eliminated acquisitions made by firms whose core businesses lie in non-manufacturing industries: Finance,

[30] Industrial classification of bidder firms in the initial sample are not reported but available upon request.

Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We eliminated 55 M&As, made by firms operating in non-manufacturing industries and that brought our sample size down to 1003 acquisitions from 1058 acquisitions. The acquisitions by non -manufacturing bidders were eliminated because they are likely to be driven by the diversification or investment motives of financial, holding and service firms.

The next step involved the elimination of bidder firms that acquired several targets operating both within their own core business and outside their core line of business. We found 142 acquisitions of this nature (i.e., investments classified as focusing and diversifying). This brought our sample size down to 861 acquisitions. Finally, we combined several acquisitions made either within the core (focusing) or outside the core (diversifying) line of business by the same bidder on the same calendar year into one firm-year observation. We found 117 additional acquisitions made by the same bidder in either the core or the non-core lines of business and, therefore, our final sample includes 744 firm-year observations representing the pure global expansion objective of bidder firms through M&As. On average, 63.31 percent of bidders in our final sample acquire target firms operating in lines of business that share the same 2 digit SIC code with their core business (focusing acquisitions) while bidder firms that invest in overseas target firms operating outside their core lines of business (diversifying acquisitions) represent 36.69 percent of firm-year observations in our final sample.

[INSERT TABLE 14 HERE]

Table 15 presents the type of overseas acquisitions across industries based on the industry classification of bidder's core business at 2 digit SIC code level. This evidence confirms the previous observation that bidders in most industries have a preference for related acquisitions (i.e., expand their core line of business), while in very few industries bidders have a preference for unrelated acquisitions (i.e., expand outside their core line of business).

[INSERT TABLE 15 HERE]

Table 16 provides summary statistics of overseas bidders included in the final sample. The statistics in the table are calculated based on information available the year

before the acquisition. The mean [median] annual sales of bidder firms is $ 3.969 billion [$739 million], implying the overseas bidders are on average mid sized firms. The average [median] market value of bidders is $4 billion [$676 million] and the average [median] value of total assets of bidders is $4.573 billion [$594 million]. These statistics also suggest that bidders are mid sized firms.

The average [median] foreign sales to total sales ratio (FSTS) of bidders is 21.53 percent [16.38 percent] indicating the bidders that made overseas acquisitions already have a considerable degree of international involvement before they conduct an overseas acquisition. The average [median] debt to total capital ratio for the bidders in our final sample is 38.76 percent [37.40 percent] suggesting bidders are considerably levered and, therefore, are at substantial creditor scrutiny. The average [median] insider ownership is 14.83 percent [7.31 percent] suggesting insiders do not have large stakes[31]. In addition, the average [median] institutional ownership is 47.23 percent [51.14 percent]. Both average and median values of debt and ownership structure show bidder firms are under considerable scrutiny by creditors and institutional owners that might explain the larger number of focusing acquisitions.

The average [median] number of lines of business (number of business segments) is 1.63 [1.00] implying the bidders in the final sample are mostly single-segment (specialized) firms. The summary statistics also show the average [median] number of acquisitions made in a single year is 1.15 [1.00]. This seems to suggest the bidders are not seeking global expansion aggressively through multiple acquisitions. The average [median] size of firm-year acquisitions is $183 million [$54.65 million] indicating most of the overseas target firms are not large firms in terms of value. The average [median] of size of firm-year acquisitions scaled by firm sales (not reported) is 27.90 percent [8.90 percent]. Similarly, the average [median] of size of firm-year acquisitions scaled by firm assets (not reported) is 27.57 percent [8.38 percent]. These observations suggest the amount of capital spent in overseas acquisitions are not as great as that spent in domestic acquisitions, and are marginally enough to create a new business segment overseas within the multinational network of the bidders.

[INSERT TABLE 16 HERE]

3.2. Bidder's Pre-Acquisition Performance

One of our objectives in this study is to measure the effects of global and industrial diversification on bidder's performance after the acquisition and draw inferences about the value of internal capital markets associated with global and industrial diversification. To gain insights into the effects of industrial and global diversification, we estimate the bidder's pre- and post-acquisition performance using two valuation measures. The valuation measures consist of Tobin's Q and Excess Market Value (EMV). Tobin's Q is computed as the market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value is defined as the market value of equity less book value of equity normalized by total sales.

The imputed value of a segment is computed by multiplying sales-based (asset-based) multiples, or weights, of the distinct business segments at the 2 digit SIC level with the median valuation measures (Q or EMV) obtained from domestic single-segment firms operating in the same 2 digit SIC industries[32]. We compute the sales-based (asset-based) weights as the ratio of annual segment sales (assets) for each distinct line of business defined at 2 digit SIC code divided by the total sales (assets) of the bidder firm in that year.[33] Sales-based and asset-based computations yield very similar results and we will report results based on sales-multiples computations. We compute the median of valuation measures of domestic single-segment firms sharing the same 2 digit SIC code

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[31] Denis et. al. (1997, Table I) report percentage ownership of officers and directors with a mean of 11.7 percent and a median of 6.4 percent. Our figures for insider ownership of overseas bidders are close to what Denis et. al report.

[32] In the literature no consensus has been reached about the effects of global diversification on firm value yet. One stream of literature argues for increased values associated with global diversification (Errunza and Senbet (1981, 1984), Kogut (1988), Bodnar, Tang and Weintrop (1998), and Morck and Yeung (1998)). On the other hand, a recent stream of literature provides empirical evidence that global diversification hurts firm value (Christophe (1997), Christophe and Pfeiffer (1998), and Denis, Denis and Yost (2000)). The domestic single-segment firms included in our control sample have foreign sales to total sales ratio of less than 10 percent.

[33] Several studies attach no weights to different business segments within a firm while computing the diversification discount (Servaes (1996) and Gertner, Powers and Scharfstein (1999)). Such diversification discount measures might prove fruitful only if diversified firms consist of business segments when no distinct business segment information is available. Some other studies (Lang and Stulz (1994), Berger and Ofek (1995,1996) among others) measure the diversification discount using industry matched stand alone firms to determine the imputed value of diversified firms by sales or assets multiplier approaches.

with the distinct business segments of the bidder. Even though previous studies in the literature have controlled for industry effects, none has controlled for the size of the business segments of the firm. The size of the stand-alone firms in our study has to fall within the range of 50% to 200% of the size of the business segment of the bidder in that year. If the number of stand-alone firms are less than five in a year, we extend the size restriction to within 25% and 400% of the size of business segment in that year. Thus, we obtain imputed value of measures for bidders as weighted sum of median valuation measures of size-matched domestic stand-alone firms operating in the same 2 digit SIC code with the distinct business segments of the bidder as follows:

$$\text{IMPUTEDQ}= \sum_{j=1}^{n} w_j Q_{IND_j} = \sum_{j=1}^{n} w_j \text{ median } \{Q_{1j}, Q_{2j}, \ldots\ldots, Q_{Nj}\} \qquad (2)$$

where w_j is the sales-based (asset-based) weight of the firm's sales (assets) in business segment j, and Q(or EMV) $_{IND_j}$ is the size matched median valuation of domestic single-segment bidders that operate in the same 2 digit SIC code business with the business of segment j of the bidder.

We also estimate the bidders' industry-adjusted valuation measures (valuation premium/discount) using the approach of Berger and Ofek (1995). Namely, we compute the natural logarithm of the ratio of raw valuation measures to their imputed values; that is LN(Q/IMPUTEDQ) or LN(EMV/IMPUTEDEMV).

3.2.A. Pre-Acquisition Performance: Tobin's Q and Excess Market Value

Pre-acquisition performance measures for bidder firms are presented in Table 17. Panel A reports bidders' raw and industry-adjusted values of Tobin's Q 3 years before the acquisition (year –3) till the year of the acquisition (year 0). Bidders' mean Q values are higher than median Q values, and both mean and median raw Q values increase from year –3 to year 0. Multi-segment bidders have lower mean and median raw Q values than single-segment bidders in the pre-acquisition period. However, the significance of that relative discount declines gradually as we near year 0 due to the relatively slower pace of improvement in single-segment bidders. In year 0, even though multi-segment bidders are at a loss compared to single segment bidders, the difference of medians is not statistically significant at conventional levels. This evidence suggests that multi-segment bidders might have improved their raw performance better than single-segment bidders

before making an overseas acquisition. Such an improvement in the pre-acquisition performance is especially notable for focusing multi-segment bidders that are at an insignificant discount relative to single-segment bidders that make similar type of acquisitions, and their performance improves considerably in the pre-acquisition period. On the other hand, diversifying multi-segment bidders are still at a significant loss compared to diversifying single-segment bidders prior to the acquisition even though the magnitude of that discount declines as we near year 0.

The industry-adjusted Q values of bidders, both mean and median, are significantly negative in the pre-acquisition period. This suggests both single- and multi-segment bidders that will conduct overseas acquisitions suffer from a significant valuation discount in the pre-acquisition period, and discount increases as we near year 0. Median industry-adjusted Q values decline significantly in the pre-acquisition period and the decline of Q in single-segment firms relative to their industries is more noticeable. The industry-adjusted Q values of multi-segment bidders are always lower than those of single-segment bidders in the pre-acquisition period but their difference is not statistically significant at any conventional level except in year –3. In addition, we notice such a discount observed in multi-segment bidders relative to single-segment bidders exists in the pre-acquisition period for both focusing and diversifying groups of bidders but the difference is not persistently statistically significant. In addition, focusing bidders always have lower but occasionally statistically significant industry-adjusted Q values than diversifying bidders. This evidence might suggest that focusing bidders, whether single- or multi-segment, may be more willing to capitalize on their core businesses by performing similar operations overseas.

Panel B of Table 17 reports the raw and industry-adjusted EMV of overseas bidders in the pre-acquisition period. Overseas bidders experience positive and increasing EMVs with means greater than medians in the pre-acquisition period. The multi-segment bidders always have lower mean and median EMVs than single-segment bidders and their difference is statistically significant at conventional levels. Likewise, both focusing and diversifying multi-segment bidders have lower EMVs relative to single-segment bidders making similar type of acquisitions. However, the difference of medians between focusing multi- and single-segment bidders is not statistically significant at any

conventional level while the difference of both means and medians is statistically significant at 1% level for diversifying bidders. In addition, there is not a discernable EMV difference between focusing and diversifying bidders in the pre-acquisition period other than the insignificantly higher mean EMV of focusing bidders over diversifying bidders. Furthermore, focusing multi-segment bidders have greater median EMVs than diversifying multi-segment bidders while focusing single-segment bidders have lower median EMVs than diversifying single-segment bidders, but again their difference is not statistically significant at any conventional level in the pre-acquisition period.

The industry-adjusted EMVs indicate that overseas bidders experience significantly lower EMVs than their industry peers and face declines in their industry-adjusted EMVs prior to the acquisition. However, the significant discount observed in overseas bidders throughout the pre-acquisition period is confined to multi-segment bidders while it is pronounced for single-segment firms only in year 0, the year of the acquisition. This evidence suggests the act of geographic diversification might have hurt the relative EMV of stand-alone firms. Multi-segment bidders experience significantly lower industry-adjusted EMVs than single-segment bidders irrespective of the type of acquisition, except for diversifying bidders in year -2. In addition, the difference in industry-adjusted EMVs between multi- and single segment firms is more noticeable in focusing group of bidders. It is also noteworthy that focusing bidders always have higher percentage discount, both in Q-based and EMV-based results, in the pre-acquisition period relative to bidders that conduct diversifying acquisitions overseas. Hence, when we examine the difference between focusing and diversifying groups of bidders, focusing bidders have persistently lower industry-adjusted EMVs than diversifying bidders, unlike the raw EMV figures, but this result is not statistically significant at any conventional level. In addition, a similar difference between focusing and diversifying bidders is observed for both multi- and single-segment bidders, but their difference is not significant in the pre-acquisition period, as well. Our main finding so far is that, in year 0, the year of the acquisition, the percentage discount in single-segment bidders increases abruptly while there is not a notable change in valuation of multi-segment bidders. This evidence suggests the act of overseas investment activity might have hurt the performance of bidders and requires further investigation.

[INSERT TABLE 17 HERE]

3.2.B. Pre-Acquisition Performance, Industrial and Global Diversification

In the literature several studies have addressed the effects of global diversification on firm value but no consensus has been reached yet. Errunza and Senbet (1981, 1984) document a positive relationship between the excess value of a firm and its international involvement. The FDI literature argues that firms expand overseas to exploit firm specific intangibles within an internal market in the same firm[34]. Kogut (1988) suggests the development of a multinational network systematically contributes to firm value. Bodnar, Tang and Weintrop (1998) find global diversification is associated with increases in firm value of 5.4 percent while industrial diversification is associated with value losses of 2.2 percent. In addition, Morck and Yeung (1998) show industrial diversification and geographic diversification contribute to firm value in the presence of intangible assets. On the other hand, a recent stream of literature provides empirical evidence that global diversification hurts firm value. Christophe (1997) and Christophe and Pfeiffer (1998) provide evidence that global diversification makes U.S. multinationals destroy value. Similarly, Denis, Denis and Yost (2000) document U.S. firms pursue further global diversification even though it leads to valuation losses. Their findings indicate global diversification is coupled with value losses of 18 percent while industrial diversification is coupled with value losses of 20 percent. In the next section, we examine whether the international involvement of bidders has any effect on the value of bidder.

Several measures have been used in the empirical literature to capture the multinational involvement of a firm but foreign sales to total sales (FSTS) ratio is the one with widest acceptance. Sullivan (1994) shows the foreign sales to total sales ratio is the unambiguous measure of international involvement of a firm. We classify bidders as "multinational" if the bidder has a multinational involvement with foreign sales to total sales ratio of 10 percent or higher, and as "domestic" if the bidder has a foreign sales to total sales ratio of less than 10 percent.[35] This procedure classifies the majority of our

[34] See Caves (1971), Buckley and Casson (1976), Dunning (1977), Rugman (1980), Prahalad (1998).

[35] Denis, Denis and Yost (2000) define firms as multinationals if they report any non-zero foreign sales. In some regressions they use the benchmark of 10% as a robustness check to their Table VI and report that

sample "multinational" in the year prior to the acquisition as the median FSTS was found to be 16.38 percent in Table 16.

Panel C of Table 17 presents the industry-adjusted Tobin's Q of domestic and multinational bidders prior to making a major investment overseas. Domestic multi-segment bidders suffer from a valuation discount while domestic single-segment bidders are at par or at premium relative to their industry peers prior to the acquisition but they exhibit some degree of significant valuation discount in year 0, the year of the acquisition. This observation suggests that domestic single-segment firms might have experienced some value loss due to the act of global diversification. Consequently, domestic multi-segment bidders appear to be at a valuation discount relative to domestic single-segment bidders, and the mean and median difference in percentage valuation is statistically significant at conventional levels. On the other hand, multinational multi- and single-segment bidders experience similar degrees of valuation discounts in the pre-acquisition period, and the mean and median percentage valuation difference between multi- and single-segment bidders is not statistically significant at conventional levels.

More interestingly, we note that the mean and median valuation difference between domestic and multinational bidders is statistically significant prior to making an overseas acquisition. Multinational single-segment bidders are valued at significant discounts relative to domestic single-segment bidders while multinational multi-segment bidders are at an insignificant discount relative to domestic multi-segment firms. This evidence suggests multinational bidders, whether single- or multi-segment firms, might be experiencing some value loss due to the level of international involvement. Our results also suggest that multi-segment firms, whether domestic or multinational, suffer from value losses arising from industrial diversification, and in addition, multinational firms experience value destruction due to global diversification. Panel D of Table 17 provides similar evidence based on bidders' industry-adjusted EMV valuation.

On the overall, our evidence shows that bidders experience some value loss prior to making a major investment overseas. In addition, our evidence confirms the diversification discount documented in industrially diversified firms, and further

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their estimates for diversification discount get smaller but remain statistically significant. In our analysis we impose the limit of 10 percent foreign sales to total sales.

demonstrates both industrial and global diversification leads to value losses, multinational multi-segment firms being hit the worst. The evidence that international involvement leads to value destruction lends support to Christophe (1997), Christophe and Pfeiffer (1998) and Denis, Denis and Yost (2000) who find that global diversification is also associated with value losses. Nevertheless, as all types of firms conduct focusing and diversifying investments overseas no matter how industrially or globally diversified they are, we do not know what determines the type of investment they engage in. In the next section, we will try to shed light on this issue.

3.3. The Decision to Diversify Overseas: Logistic Regressions

The pre-acquisition analysis seems to link the overseas acquisition activity of the bidders to valuation decline, especially in multinational firms, prior to external investment decision even though bidders that have overseas exposure trade at a significant discount relative to domestic firms. In this section, we investigate why firms diversify in overseas markets using logistic regression analysis. Specifically, we focus on the determinants of a firm's industrial diversification activity when they expand globally. This is expected to shed more light on the relative importance of the internalization hypothesis of global expansion in addition to external growth, cash flow/agency cost, and internal capital markets hypotheses that have been brought to explain the industrial and global diversification motives. The internalization hypothesis of global diversification argues that firms expand overseas to exploit firm specific information based intangible assets by transferring the intangible assets within an internal market in the same firm.[36] The external growth hypothesis asserts that bidders' poor past performance and low internal growth opportunities make them undertake diversifying investments. The free cash flow/agency cost hypothesis, however, states the diversifying investment activities of the firm are driven by managers' objectives rather than the maximization of shareholder wealth. Finally, the internal capital markets hypothesis argues that corporate diversification stems from the inefficiencies of internal capital markets in diversified firms. Khanna and Palepu (1997) argue that firms may be in search of creating their own globally dispersed internal capital markets through their multinational network and

diversified firms in emerging countries may overcome institutional obstacles by imitating the functions of several institutions present only in developed countries.

In the multivariate regressions, the dependent variable is an indicator variable, DIVERD, takings the value of one when a bidder undertakes an industrially diversifying acquisition and zero otherwise. The following variables are included in our logistic regressions: as a measure of international involvement of a firm FSTSD is a dummy variable used to distinguish between domestic and multinational bidders. It takes the value of one when the bidder has multinational involvement with foreign sales to total sales ratio of 10 percent or higher, and zero when the bidder has a foreign sales to total sales ratio of less than 10 percent. We also use the ratio of foreign sales to total sales, FSTS. The natural logarithm of annual firm sales, LN(SALES), is used to control for the size of the bidders. We include the imputed Q value of the firm, IMPUTEDQ, that is based on sales multiples of distinct business segments. This measure allows us to determine whether the diversification decision of the firm is driven by the state of growth opportunities of the bidder's industry. Namely, whether diversifying investments are linked to the low growth opportunities of the bidder's industry. The industry-adjusted Tobin's Q, INDADJQ, is the natural logarithm of the ratio of the firm Q divided by its imputed value and it is used to measure the growth opportunities (and the valuation) of the firm relative to its industry peers[37].

The DEBT variable is the amount of total debt as percentage of invested capital. DEBT is used to capture the monitoring effect of external capital markets on managers (Jensen (1986), Stulz (1990), among others). The INSIDER variable is the percentage of the outstanding shares of the bidder held by the insiders. The insider ownership variable is used to test whether firms with lower insider ownership are more likely to diversify. The percentage of the outstanding shares of the bidder held by institutions, INSTITUTE, is also used in the analysis. We use the institutional ownership variable to test whether

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[36] See Caves (1971), Buckley and Casson (1976), Dunning (1977), Rugman (1980), Prahalad (1998). In addition, Kogut (1988) suggests that the development of a multinational network systematically contributes to the value of the firm.

[37] Chevalier (2000), however, suggests that actual Q values are more representative of the investment opportunities of the firm rather than its industry adjusted values.

firms with lower institutional ownership are more likely to diversify, revealing agency costs in the firms as a complement to insider ownership.[38]

The RDEXP measures the R&D expenditures of the bidder normalized by firm sales. It is a continuous variable used to control for the firm's level of growth opportunities. It is used to examine how much the firm is investing in its internal growth opportunities (Hyland (1999)). In addition to the intangible nature of R&D expenditures, bidders may possess intangibles observed in their advertising expenditures. The ADVEXP variable measures bidders' advertising expenditures normalized by the total sales. This is also a continuous variable. The CCF (core cash flow) and NCCF (non-core cash flow) variables are used to explore the cash generating ability of core and non-core segments of bidders in the pre-acquisition period. They are defined as the cash flows (operating income plus depreciation) from operations of the core and non-core business segments of the bidder, respectively, normalized by bidder's segment sales. Furthermore, we account for the method of payments using two indicator variables.[39] CASHD takes the value of one if the payment was made in cash, and zero otherwise. STOCKD is set equal to one if the payment was made in stocks, and zero otherwise. In transactions involving both cash and stocks with comparable amounts, both CASHD and STOCKD take on values of one.

We also include a binary variable identifying whether the target was a divestiture, DIVESTD. This variable takes the value of one if the target was divested by its parent company, and zero otherwise. In addition, as we observed in Table 13 many overseas transactions taking place in emerging markets are focusing in nature. We, therefore, include the economic development of the target as another variable. EMERGE is a continuous variable taking values between zero and one. EMERGE is defined as the number of acquisitions made in emerging markets to the overall number of overseas acquisitions by the bidder on the same calendar year. This variable is used to capture the geographic internalization motives of the bidders. In the logistic regressions the constant term and all independent variables refer to the overseas diversification motives of domestic firms. We also include interactive terms of each independent variable with the

[38] See McConnell and Servaes (1990, 1995), Denis et.al. (1997).

multinational involvement dummy (FSTSD) to find out the impact of each independent variable on overseas diversification decision for domestic and multinational bidders. All independent variables are measures in year –1, the calendar year before the acquisition. Besides we include calendar year dummies in the regressions to control for changes in the corporate control market. The logistic regression takes the following form:

DIVERD = f(FSTSD (or FSTS), INDADJQ or (INDADJEMV), DEBT, INSIDER, INSTITUTE, RDEXP, ADVEXP, CCF, NCCF, CASHD, STOCKD, DIVESTD, EMERGE)

Table 18 reports the results of the cross-sectional logistics regressions relating the firm characteristics to types of overseas acquisition for single-segment and multi-segment bidders, respectively. On the overall, cross-sectional logistic regressions exhibit different underlying incentives for industrial diversification of single- and multi-segment bidders conducting major investments overseas. In addition, the level of international involvement of the bidders has a significant impact on most of the underlying characteristics. Both single- and multi-segment bidders have a significant tendency to diversify into unrelated activities overseas given that they conduct acquisitions overseas. This tendency is highly accounted for in multi-segment bidders. The size effect emerges only for single-segment firms and the high growth prospects of the industry operated in has a significant impact on the overseas diversification motives of multi-segment bidders only discouraging them from diversifying into unrelated lines of business.

Debt does not serve a monitoring mechanism for single-segment overseas bidders but the introduction of debt into the capital structure discourages domestic multi-segment bidders from pursuing overseas expansion into lines of businesses related to their core business while multinational multi-segment bidders do not seem to be influenced from the scrutiny of lenders in a multinational network structure. The presence of knowledge based (R&D) and marketing based (advertising) intangibles affects single- and multi-segment bidders differently. Domestic single-segment bidders with knowledge based intangibles (R&D intensive) are more likely to focus into related lines of businesses overseas while multinational single-segment bidders with similar intangibles seem to be indifferent. On the other hand, multi-segment bidders with high advertising expenditures

[39] See Travlos (1987), Servaes (1991), Martin (1996), Megginson, Morgan and Nail (1999), and Rappaport and Sirower (1999).

are more likely to diversify into lines of businesses unrelated to their core business in overseas markets in order to exploit their marketing based intangibles.

The cash flows of the bidders impact the industrial diversification motive of their overseas expansion, too. Stand-alone firms with previous multinational exposure are more likely to conduct focusing acquisitions overseas if their business generates high cash flows. On the other hand, domestic multi segment bidders with higher non-core cash flows are significantly more likely to pursue industrial diversification in overseas markets. The method of payment in overseas acquisitions has a different impact on bidders. Domestic single-segment bidders that pay their targets in cash and multinational single-segment bidders that pay their targets in stock are more likely to make focusing acquisitions. Similarly, domestic multi-segment bidders that pay their targets in cash are more likely to diversify into unrelated lines of businesses while multi-segment bidders that pay their targets in equity are more likely to make focusing acquisitions overseas. Whether the target firm is divested or not has an impact on the overseas diversification decision of multi-segment bidders only. Multinational multi-segment bidders are more likely to acquire overseas targets operating in their core business if they are divested from their parents. The stage of economic development of the target market impacts the geographic diversification motives of single-segment bidders only. Domestic single-segment bidders are more likely to conduct focusing acquisitions in emerging countries while multinational single-segment bidders are indifferent about whether the target firm's country is an emerging or a developed country.

[INSERT TABLE 18 HERE]

3.4. Post-Acquisition Performance

In this section, we examine the post-acquisition performance of single- and multi-segment bidders that conducted focusing and diversifying investments overseas in order to gain insights about the long-term effects of the act of global and industrial diversification.

3.4.A. Post Acquisition Performance: Tobin's Q and Excess Market Value

The post-acquisition raw and industry-adjusted performance measures for single- and multi-segment overseas bidders are reported in Table 19. Panel A reports bidders'

raw and industry-adjusted Tobin's Q values from the year of the acquisition (year 0) to 3 years after the acquisition (year +3). Bidders have increasing median Q ratios after an overseas acquisition. Both multi- and single-segment bidders exhibit a soundly increasing raw performance in the post-acquisition period, too. However, the valuation difference that was evident (and statistically significant) prior to the acquisition between multi- and single-segment bidders, especially diversifying bidders, does not persist in the post-acquisition period. Multi-segment bidders exhibit an insignificant value loss relative to single-segment bidders in the post acquisition period, and such an insignificant difference in Q ratios between multi- and single-segment overseas bidders persists for both focusing and diversifying bidders. In addition, there is no statistically significant difference between focusing and diversifying groups of bidders at any conventional level in the post-acquisition period.

The industry-adjusted Q ratios demonstrate that bidders experience significant valuation discounts following the overseas acquisition. There is not a noticeable difference in the valuation of multi-segment bidders before and after the acquisition. The most striking evidence is that single-segment bidders that made overseas acquisitions in year 0 experience a valuation discount as severe as multi-segment bidders do, irrespective of the type of acquisition they conduct. The diversifying single-segment bidders begin to experience a significant amount of discount while the significant discount observed in focusing single-segment bidders prior to the acquisition increases in the post-acquisition period. Hence, a significant discount is pronounced for both focusing and diversifying stand-alone firms in the post-acquisition period. In addition, there is not evidence of a significant valuation difference of bidders whether they are single- or multi-segment firms, or whether they engaged in a focusing or a diversifying investment, even though industrially diversified bidders appear at a minor value loss relative to stand-alone bidders.

Panel B of Table 19 reports the post-acquisition valuation of overseas bidders based on raw and industry-adjusted EMV measures. The evidence in Panel B shows single-segment bidders experience a severe percentage discount in their EMVs, but not as much as multi-segment bidders do, in years 0 and 1. The mean and median difference between single- and multi-segment bidders is statistically significant at 1% level in those

years but it loses significance 2 years after the acquisition. Focusing bidders exhibit a similar pattern while there is not such a significant valuation difference between diversifying single- and multi-segment bidders in the post-acquisition period.

The evidence in the post-acquisition period suggests the act of overseas diversification hurt value, especially for stand-alone firms. Stand-alone firms conducting overseas acquisitions experience significant value losses relative to the pre-acquisition period. Diversifying stand-alone bidders are hurt the most as they did not experience any significant value loss in the pre-acquisition period while focusing stand-alone bidders, that already faced some value loss in the pre-acquisition period, experience further value losses. Industrially diversified bidders that conducted focusing investments overseas faced further value losses while diversifying multi-segment bidders improved their performance after the acquisition. This observation lends some support to Morck and Yeung (1998) who find industrial and global diversification coupled with high intangibles lead to increases in firm value. In addition, our evidence in Table 17 showed there is a significant valuation difference between domestic and multi-segment bidders prior to making a major investment overseas. Hence, the international involvement of the firm appears to have a significant adverse impact on the value of the firm and we will examine the valuation of domestic and multinational single- and multi-segment bidders next.

[INSERT TABLE 19 HERE]

3.4.B. Post-Acquisition Performance: Valuation and Global Diversification

Panel C of Table 19 reports the post-acquisition industry-adjusted valuation of domestic and multinational bidders based on Tobin's Q measure. We note that the valuation of single- and multi-segment bidders is not statistically different from each other in the post-acquisition period for both domestic and multinational bidders. However, the evidence in Table 17 showed there was a statistically significant valuation difference between domestic multi- and single-segment bidders prior to acquisition. This result confirms our finding that domestic stand-alone firms might have destroyed value when they expanded overseas while stand-alone firms having multinational exposure were already at a valuation loss prior to making a major investment overseas.

The extent of the valuation discount in domestic bidders is always lower than that of multinational bidders in the post-acquisition period, and the difference is statistically significant in years 0, 1, and 2. We note that, even though domestic stand-alone bidders experienced some value loss after conducting an overseas acquisition, a significant valuation difference persists between domestic and multinational stand-alone bidders in the post-acquisition period. On the other hand, there is not evidence of a statistically significant valuation difference between domestic and multinational industrially diversified bidders. This evidence suggests multi-segment firms experience value losses due to global diversification in addition to diversifying across different lines of business. The significant global valuation difference we observed in the pre-acquisition period in both focusing and diversifying stand-alone bidders persists only between focusing domestic and multinational stand-alone bidders while there is not evidence of a significant difference between diversifying domestic and multinational stand-alone bidders in the post acquisition period. This result suggests stand-alone firms that conducted diversifying acquisitions overseas faced further value losses by diversifying into lines of business unrelated to their core business. The evidence in Table 17 indicated there was not any significant difference between domestic and multinational multi-segment bidders. However, in the post-acquisition period the analysis of focusing and diversifying group of multi-segment bidders indicates domestic multi-segment firms that acquired overseas targets operating in their core business are significantly valued above their multinational counterparts in years 0 and 1 while diversifying domestic multi-segment bidders have insignificantly lower valuations than diversifying multinational multi-segment bidders.

Panel D of Table 19 reports the industry-adjusted valuation of bidders in the post-acquisition period based on EMV measure. The evidence yields similar qualitative results like we obtained from valuation results computed by Tobin's Q measure. Overall, our results suggest stand-alone firms with some international involvement are always valued below their domestic counterparts, and the act of global expansion leads to value losses in both domestic and multinational stand-alone firms. Similarly, multi-segment firms that have majority of their operations in the U.S. do not face a severe discount as much as

their multinational counterparts do. Our main finding is that, in addition to industrial diversification, the act of global diversification leads to value losses, too.

C. The Effect of Overseas Diversification on Bidders' Post Acquisition Valuation

In this section we examine further the relation between the change in post-acquisition performance and the type of assets acquired by domestic and multinational single- and multi-segment bidders. We measure the change in the post-acquisition performance of bidders using changes in Q and EMV values in the three years after the acquisition relative to their values in year –1, the year prior to the acquisition, scaled by average Q and EMV values during the three year pre-acquisition period. We also estimate the change in the industry adjusted valuation of bidders in all three years after the acquisition relative to the valuation prior to the acquisition year.

We regress the post-acquisition change in different performance measures against the following indicator variables: SINGLEFOCUSD is an indicator variable taking the value of one if the bidder is a single-segment firm that makes a focusing acquisition overseas, and zero otherwise. MULTIDIVERD takes the value of one if a multi-segment bidder makes a diversifying acquisition overseas, and zero otherwise. MULTIFOCUSD takes the value of one if a multi-segment bidder makes a focusing acquisition and zero otherwise. Hence, the constant term captures the impact on post-acquisition performance when a single-segment bidder makes a diversifying overseas acquisition in year 0, assuming such firms are the ones experiencing the most serious adverse impact arising from both industrial and global expansion.

Table 20 presents the coefficients of the three indicator variables in the post-acquisition period. The dependent variable in Panel A1 is the change in raw Tobin's Q and EMV measures of overseas bidders from the end of year –1 till the end of years 1, 2 and 3 scaled by the average measure of the bidder in the pre-acquisition period. The constant term is positive and statistically significant in Panel A1 implying that all bidders experience improvement in their raw Tobin's Q and EMV following an overseas acquisition. The coefficients of indicator variables for raw Q measures are not significantly different from zero. On the other hand, the coefficients of indicator variables for SINGLEFOCUSD and MULTIDIVERD are positive and statistically significant for the change in raw EMV to years 1 and 2. This suggests that single-

segment bidders that conducted focusing acquisitions and multi-segment bidders that conducted diversifying acquisitions have improved their raw performance better than other bidders.

The dependent variable in Panel A2 is the change in the percentage industry-adjusted valuation measures of the overseas bidder from the end of year –1 till the end of years 1, 2 and 3. The constant term is negative and statistically significant in five of the six regressions. This suggests the performance of single-segment bidders that made diversifying acquisition overseas deteriorates significantly relative to their industry peers following an overseas acquisition, even though they might have improved their raw performance over the same period. In addition, the indicator variables for bidders that conduct focusing acquisitions, both single- and multi-segment bidders, are not statistically significant. This suggests that focusing bidders face deteriorating industry-adjusted performance after an overseas acquisition as diversifying single-segment bidders experience. Only one of the indicator variables, MULTIDIVERD, has statistically significant and positive coefficients in the cross-sectional regressions for years 2 and 3 suggesting that multi-segment bidders that acquire overseas targets outside their core business are not adversely affected from overseas expansion. Namely, simultaneous global and industrial diversification does not seem to hurt multi-segment bidders. This result might lend some support to Morck and Yeung (1998) who find that industrial and geographic diversification work in the presence of intangible assets.

[INSERT TABLE 20 HERE]

We must note the extent of international involvement of bidders had a significant impact on the valuation of bidders. Our evidence in Table 17 and 19 indicated both global and industrial diversification destroy value. Next, we will examine the impact of the international involvement on the change of post-acquisition performance of single- and multi-segment bidders that made diversifying and non-diversifying overseas investments in year 0. Panels B1 and B2 of Table 20 report the results of cross-sectional regressions relating the change in performance measures of overseas bidders following the overseas acquisition in year 0. The dependent variables in panel B1 and B2 are the same as we have in panels A1 and A2, respectively. We include the degree of internationalization of the bidders as an explanatory variable to capture the effect of

previous international involvement of the bidder firms. We define the bidder firms with foreign sales to total sales ratio (FSTS) less than 10 percent as domestic firms and the bidder firms with FSTS greater than or equal to 10 percent as multinational firms.

The constant term in the cross-sectional regressions captures the effect of the overseas acquisition on single-segment domestic bidders that make a diversifying acquisition in year 0. We include indicator variables to capture the impact of the industrial and global diversification of bidders. The term SINGLE refers to stand-alone (single-segment) bidders in our cross-sectional regressions while MULTI refers to industrially diversified (multi-segment) bidders. In addition, to capture the type of acquisition we introduce FOCUS for bidders that make focusing acquisitions while DIVER denotes acquisition outside the core business of the bidder. Similarly DOMESTIC refers to domestic bidders that have foreign sales to total sales ratio of less than 10 percent while MNE refers to multinational bidders that have foreign sales to total sales ratio of 10 percent or greater.

The constant term has positive and significant coefficients in raw Tobin's Q regressions of Panel B1 indicating single-segment domestic bidders that make diversifying acquisitions improve their raw performance significantly in the post-acquisition period. Single-segment multinational firms that conduct diversifying acquisitions have positive and statistically significant coefficients in raw Tobin's Q regressions suggesting that multinational single-segment bidders that conduct diversifying acquisitions have significantly improved their raw performance following an overseas acquisition. Similarly, the EMV regressions indicate that overseas bidders improve their raw performance. In sum, the regression results for raw performance measures confirm our results in Table 19 that bidders experience some improvement in their raw performance after an overseas acquisition whether measured in Tobin's Q or EMV.

Panel B2 reports the coefficients of the indicator variables for the change in the industry-adjusted valuation measures of the overseas bidder from the end of year –1 until the end of years 1, 2 and 3. The constant term in the regressions is negative and statistically significant suggesting the performance of single-segment domestic bidders that made diversifying investments overseas is severely impaired following the overseas

acquisition. The indicator variables appear to have positive and statistically significant coefficients for almost all of the post-acquisition period, especially in years 2 and 3 for industry-adjusted Tobin's Q and in year 2 for industry-adjusted EMV. This evidence suggests single-segment domestic bidders that make diversifying acquisitions are most negatively impacted while all other bidders are not hurt as much as single-segment diversifying domestic bidders do following an acquisition. In addition, multi-segment bidders, whether domestic or multinational, acquiring overseas targets operating outside their core business seem to have benefited from such an investment strategy.

Overall, our results suggest that multi-segment bidders diversifying into unrelated lines of business gain from overseas acquisitions while single-segment bidders and focusing multi-segment bidders experience consequent valuation declines. Moreover, our results suggest the act of global diversification destroys value when it takes place in the form of M&As for domestic bidders. The bidders that already have international exposure experience further valuation declines and can not recuperate any benefits from further global diversification. The bidders facing the most adverse valuation loss are the domestic single-segment bidders that expand both geographically and industrially.

3.5. Internal Capital Markets, Are They Efficient?

The internal capital markets of diversified firms permit them to finance projects that external capital markets would not, because of informational asymmetries and agency costs. As a result, it is argued that diversification creates value for shareholders because it gives rise to internal capital markets providing increased monitoring incentives, easier asset redeployment, and easier allocation of funds to liquidity-constrained divisions relative to external capital markets (Stein (1997) among others). Additionally, diversification is argued to increase efficiency of liquidity-constrained firms because management allocates more funds to the more efficient divisions. Our analysis so far, consistent with a number of recent papers, shows that global diversification by diversified and focused firms does not enhance performance. In this section, we examine whether diversification is unsuccessful because bidders' internal capital markets fail to allocate financial resources efficiently between core and non-core business divisions before and after diversifying and non-diversifying acquisitions.

3.5.A. Pre-acquisition Analysis of Bidder's Core and Non-core Sales, Cash Flows, and Capital Expenditures

3.5.A.1 Core and Non-core Sales

In this section we analyze the cash flows and investments of the core and non-core business segments of bidders before they engage in diversifying and non-diversifying overseas acquisitions. The results are reported in Table 21. Panel A shows the mean and median sales of the core and non-core business measured as the natural logarithm of segment sales in dollars. Mean and median sales of single- and multi-segment bidders indicate that industrially diversified bidders generate more sales thus illustrating a difference in size. In addition, the core business sales of multi-segment bidders that will make focusing acquisitions two years later exceeds their non-core business sales significantly. On the other hand, the mean and the median core sales of diversifying multi-segment bidders are not significantly different from their sales of non-core business segments. This suggests the core business of focusing multi-segment bidders generate more sales relative to non-core business and the fraction of core sales in focusing multi-segment bidders is greater relative to diversifying multi-segment firms. This also indirectly suggests diversifying multi-segment bidders are more industrially diversified.

The mean and median core business sales difference between focusing and diversifying bidders, whether single-or multi-segment, is statistically significant. On the other hand, the difference between the mean and median values of non-core sales of focusing and diversifying multi-segment bidders is not statistically significant at any conventional level. This evidence suggests there is difference in sales generating ability of core segments between focusing and diversifying bidders, but not of non-core business segments of multi-segment bidders. This also suggests that bidders tend to invest outside their core business when core sales drop consistent with the growth seeking view of Lang and Stulz (1994) and Hyland (1999).

3.5.A.2 Core and Non-core Assets

Panel B reports the size of assets, measured as the natural logarithm of the assets in dollars, of the core and non-core business of multi-segment bidders. The size of assets

of single-segment firms is also reported. The mean and median values indicate the core business of focusing multi-segment bidders rely on much greater asset base than their non-core business segments prior to acquisition. However, such a significant difference is not observed in multi-segment bidders investing outside their core business. In addition, the asset size of core business of focusing bidders is significantly larger than those of diversifying bidders in the pre-acquisition period. On the other hand, the non-core businesses of focusing multi-segment bidders are smaller than those of diversifying multi-segment bidders, but the difference is not significant at any conventional level prior to the acquisition. It is interesting to note that there is a great degree of difference between firms that eventually invest in unrelated business relative to similar firms investing in core-related business. Consistent with our previous results, this suggests that firms deploy more assets in the lines of business that generate more sales. That is, more capital is invested in the core business of focusing firms as a result of their greater sales generating ability. Mean and median differences in terms of size of assets, as shown in Panel B, confirm there is a significant difference in size between single-and multi-segment bidders that engage in a similar type of acquisition.

3.5.A.3 Core and Non-core Growth in Sales and Cash Flows

Panel C presents and compares the sales growth of bidders' business segments in the pre-acquisition period. In general, irrespective of the bidder's corporate structure and acquisition motive, single- and multi-segment firms experience growth in segment sales. The core business of multi-segment bidders achieve lower mean and median growth in sales than single-segment firms engaging in a similar type of acquisition. The median difference is persistently significant at 1% level. This result suggests that irrespective of the type of acquisition single-segment firms plan to make, they experience higher growth in sales than the core business segment of multi-segment firms. This further implies the decision to invest in core-related or non-core-unrelated lines of business might be driven by different motives for single-segment and multi-segment firms as indicated by evidence in Table 18. This also lends support to Chevalier (2000) who argues for selection bias while explaining the investment opportunities faced by single- and multi-segment firms.

From year –2 to year –1 the core business segment of focusing (diversifying) multi-segment bidders experience a lower (higher), but not statistically significant, growth in sales than their non-core business segments. From year –1 to the year of acquisition, the core business of focusing multi-segment bidders achieve insignificantly higher growth in sales than their non-core segments. For the same period, the core business of diversifying multi-segment bidders experiences insignificantly lower growth in sales than their non-core business segment. Namely, multi-segment bidders that focus (diversify) experience greater sales increases (decreases) in their core than their non-core business from year -1 to the acquisition year. The mean and median core and non-core growth in sales difference between multi-segment firms that focus relative to similar firms that diversify further is not statistically significant at any conventional level. These results suggest the industrial diversification direction of geographic expansion is not significantly related with the sales growth of the core business of multi-segment firms prior to the acquisition decision.

Similarly, single-segment firms investing in unrelated business appear to experience higher growth in sales than single-segment firms choosing to invest in related business. The median difference is -0.060 and -0.037, respectively, and significant at the 5% level from year –2 to year -1. This suggests that single-segment bidders might have reached their full potential in their business and might need to invest in other lines of business to benefit from the creation of internal capital markets. In addition, single-segment firms enjoy higher growth in sales than the core and non-core segments of multi-segment firms and the differences are statistically significant in the pre-acquisition period.

Panel D presents cash flows for core and non-core business segments of bidding firms during the pre-acquisition period. We defined cash flows as the operating income plus depreciation for core and non-core business segments scaled by segment sales from the previous year. The logistic regressions in Table 18 indicated multinational single-segment bidders with higher core cash flows are significantly more inclined to focus in their core business while multi-segment bidders having higher non-core cash flows are significantly more inclined to invest outside their core business. However, our evidence in Panel D indicates there is no statistically significant difference in the cash flow

generating ability between single- and multi-segment and between focusing and diversifying bidders. The only exception is the notably high cash flow of core business of focusing multi-segment bidders in year 0 over its non-core business and the core business of diversifying multi-segment bidders.

3.5.A.4 Core and Non-core Capital Expenditures

Panel E provides a comparison of bidder's core and non-core capital expenditures relative to their segment sales in the pre-acquisition period. The results show multi-segment bidders invest more in their core business when their core sales exceed the sales of their non-core business (focusing multi-segment bidders). On the other hand, multi-segment bidders invest significantly more in their non-core business when they are more diversified or when there is no discernable difference between their core and non-core business sales and assets (diversifying multi-segment bidders). In addition, focusing multi-segment bidders invest significantly more in their core business than diversifying multi-segment bidders. The capital expenditures of single-segment firms that undertake focusing investments exceed those of similar firms that invest in unrelated lines of business, but the difference is statistically insignificant. These results do not appear to directly support cross-subsidization between core and non-core divisions of multi-segment firms conducting major investments overseas. However, the evidence indicates that internal capital markets might be active in that transfer of funds from core to non-core lines of business occurs in multi-segment firms that elect to invest outside their core business. Consequently, the extent of cross-subsidization in diversifying multi-segment firms is rather difficult to assess from these univariate results.

Overall, the pre-acquisition analysis indicates that focusing multi-segment firms use more assets and make larger capital expenditures in core than in non-core divisions because they generate more sales than their non-core divisions while diversifying multi-segment firms commit larger capital expenditures in non-core divisions as the sales and assets of their core and non-core segments are virtually undistinguishable. Single-segment firms, on the other hand, invest in unrelated business when they experience higher growth in sales than single-segment firms that choose to invest in related business. Furthermore, the capital expenditures of single-segment firms that make focusing

investments insignificantly exceed those of similar firms that invest in unrelated business.

[INSERT TABLE 21 HERE]

3.5.B. Post-Acquisition Analysis of Bidder's Core and Non-core Sales, Cash Flows, and Capital Expenditures

As discussed earlier, the question is whether diversification destroys firm value because firms perform poorly in allocating capital across core and non-core business divisions or because the greater diversity of cash generating ability between business segments leads to a valuation loss in addition to geographic diversification motives of bidders. In this section we examine the post-acquisition performance of single- and multi-segment bidders involved in diversifying and non-diversifying investments in order to gain additional insights about the long-term effects of their investment decisions. The results are reported in Table 22.

3.5.B.1 Core and Non-core Sales

Consistent with the pre-acquisition pattern of sales of diversified firms, Panel A shows the core business of multi-segment bidders that invested in their core business generates significantly more sales than their non-core business during the post-acquisition period while multi-segment bidders that invested outside their core business continue to generate comparable amount of sales from their core and non-core business in the post-acquisition years. This result suggests diversifying acquisitions by multi-segment firms did not dramatically improve the sales performance of non-core business in the post-acquisition period and they are still more industrially diversified compared to focusing multi-segment bidders. A comparison of the post-acquisition core sales of multi-segment bidders that invested inside their core business relative to those that invested outside their core business, continues to exhibit significant differences in favor of focusing multi-segment bidders. The mean and median differences of the non-core sales between diversifying and non-diversifying bidders are statistically insignificant. These results imply that non-core segment sales of multi-segment firms do not dramatically differ regardless whether they diversify or not. Similarly, the core business of focusing single-segment bidders generates more sales relative to diversifying single-

segment bidders like they did prior to the overseas acquisition. Mean and median sales of single- and multi-segment bidders show multi-segment bidders generate more sales consistent with the pre-acquisition sales indicating a difference in size. Overall, the post-acquisition core sales of multi-segment bidders, consistent with the pre-acquisition evidence, suggest there is some degree of difference in the sales generating ability of core segments between focusing and diversifying multi-segment bidders. Focusing single-segment bidders also register significant mean and median differences in sales than diversifying single-segment firms, implying that focusing single-segment bidders that invest outside their core business still lag behind focusing single-segment bidders.

3.5.B.2 Core and Non-Core Assets

Panel B presents the size of assets of the core and non-core business of multi-segment bidders in the post-acquisition period. The size of assets of single-segment firms is also reported. The mean and median values show the core business of focusing multi-segment bidders continues to exceed the asset base of their non-core business segments during the post-acquisition years and the difference is statistically significant at 5% level while such a significant difference is not pronounced for diversifying bidders. The mean and median core asset difference between focusing and diversifying bidders, whether single- or multi-segment, is statistically significant at conventional levels, suggesting the core asset base of focusing bidders is significantly larger than that of diversifying bidders. The mean and median non-core asset difference between diversifying and non-diversifying multi-segment bidders is statistically insignificant at conventional levels. The core-asset base of diversifying single-segment bidders is significantly larger than that of their non-core asset base in post-acquisition period as these segments are in their infant stages and are very few in number.

3.5.B.3 Core and Non-Core Growth in Sales and Cash Flows

The growth in sales for the core and non-core business segments of focusing and diversifying bidders in the post-acquisition period is reported in Panel C. The core business of focusing and diversifying multi-segment bidders reach lower growth in sales than single-segment firms that engaged in a similar type of acquisition, but only the difference in core sales growth between diversifying single- and multi-segment is statistically significant in year +1. These results contradict with the pre-acquisition sales

when the growth in sales of multi-segment firms remained significantly below that of single-segment firms irrespective of the investment strategy they follow. The median growth in core sales difference between focusing multi- and single-segment bidders in favor of single-segment bidders ranges from 1.1% in year +1 to 3.6% in year+2. For the core business segments of diversifying multi- and single-segment bidders the median growth in sales difference ranges from 6.3% in year +1 to –1.1% in year +2. For the non-core business segments of diversifying multi- and single-segment bidders the median growth in sales difference ranges from –0.2% in year +1 to –14.4% in year+2. A comparison between focusing and diversifying multi-segment bidders shows the core sales growth of focusing multi-segment bidders are significantly higher in year+1, but not different than that of diversifying multi-segment bidders in year+2. Moreover, the evidence shows there is no significant difference between the non-core sales growth of focusing and diversifying multi-segment bidders in the post-acquisition years. Multi-segment bidders that invest inside their core business because their core sales were superior to those of their non-core segments continue to have superior core sales growth in year +1.

Cash flows of the core and non-core business segments of bidding firms during the post-acquisition period are presented in Panel D of Table 22. We documented that multi-segment firms that invested outside their core business had lower sales and cash flows from their core business than similar firms that did not diversify during the pre-acquisition period. This pattern of cash flow performance persists in the post-acquisition period and the superior sales performance of the core sales of focusing single- and multi-segment bidders translates into superior cash flows as well. In both post-acquisition years, the core cash flows of focusing single- and multi-segment bidders substantially exceed those of the diversifying bidders and the median cash flow differences are statistically significant at conventional levels. The non-core cash flows of diversifying multi-segment bidders are not different from those of focusing multi-segment bidders in the post-acquisition years even though they are greater than their own core cash flows, indicating that diversification by multi-segment bidders failed to improve the cash flow performance of their non-core business significantly. Hence, in the post-acquisition period diversifying multi-segment firms continue to have inferior core cash flows relative

to that of focusing multi-segment firms, while their non-core cash flows are not significantly different from those of focusing multi-segment firms.

Table 21 results indicate that diversifying multi-segment firms generate significantly lower sales than similar firms investing in related business during the pre-acquisition period. As Panel D shows, focusing multi-segment bidders generate more sales and cash flows from their core business by investing within their core businesses than similar firms that invest in non-core lines of business. For the non-core sales and cash flows, the difference suggests the non-core sales of diversifying bidders significantly exceed those of focusing bidders, but not in terms of cash flows. The median non-core cash flows difference are 0.007 and -0.002 and are insignificant at conventional levels. These results imply that geographic expansion of the internal capital markets of diversifying bidders does not appear to be beneficial. While single-segment bidders that remain focused achieve higher sales growth than the core business of both focusing and diversifying multi-segment bidders, they yield significantly lower cash flows. The median core cash flow difference between focusing and diversifying single-segment bidders is statistically significant at conventional levels in year +2. Consistent with previous studies showing that diversification does not enhance shareholders wealth, analysis of pre- and post-acquisition cash flows of multi-segment bidders that engage in diversifying investment activities suggests that diversification is not beneficial. In addition, overseas diversifying investment activities by single-segment firms show diversification is not prosperous.

3.5.B.4 Core and Non-core Capital Expenditures

Our analysis, reported in Table 21 and 22, indicates that multi-segment bidders that invest more in their core business generate more sales and employ a greater asset base in their core business before and after the acquisition, which translates into higher cash flows after the acquisition as well. On the other hand, multi-segment bidders that invest outside their core business generate comparable amounts of sales and employ comparable asset base in their non-core business, which translates into weaker cash flows relative to focusing multi-segment bidders. Bidder's core and non-core capital expenditures in the post-acquisition period, presented in Panel E of Table 22, show that focusing (diversifying) multi-segment bidders invest significantly more (less) in their

core than in their non-core lines of business. This seems to be dictated by the differences in their core and non-core sales and cash flows in the post-acquisition period, reported earlier. In addition, focusing multi-segment firms invest significantly more capital in their core business than diversifying multi-segment bidders. This evidence suggests the core capital expenditures of focusing multi-segment firms rise with core sales and cash flow increases. Likewise, our evidence in Table 23 indicate that multi-segment firms that do not invest outside their core business appear to avoid cross-subsidization in the post-acquisition period. Diversifying multi-segment firms, however, invest significantly more in their non-core than core business, but they do not generate substantially more sales cash flows from their non-core lines of business over the same period. This indicates there is misallocation of capital between core and non-core business segments in diversifying multi-divisional firms as evidenced in panel C2 of Table 23.

[INSERT TABLE 22 HERE]

3.5.C. Core and Non-Core Capital Expenditures of Bidders: A Cross-Sectional Regression Analysis

In this section we examine the relationship between capital expenditures and cash flows in an attempt to shed more light on whether internal capital markets allocate capital resources between core and non-core businesses efficiently. If internal capital markets in diversified firms work efficiently, they should finance projects of business segments with the highest growth opportunities. Our evidence so far indicates that focusing bidders generate more sales from their core business. Given that focusing multi-segment bidders generate more cash flow from their core sales relative to diversifying multi-segment bidders and invest more in their core business, it is expected that the core capital expenditures of multi-segment firms should be primarily determined by its own cash flows if internal capital markets work efficiently. If, however, capital expenditures of non-core business are sensitive to the core cash flows, that would imply the capital is diverted from projects with high growth opportunities (core business) to projects with low growth opportunities.

We use cross-sectional regressions to examine whether systematic capital misallocation takes place across the core and non-core segments of bidder firms while we

control for firm characteristics[40]. We examine whether diversified bidders practice inefficient capital budgeting in the sense that they underinvest in divisions generating a relatively high percent of sales and overinvest in divisions generating a relatively low percent of sales. If segment cash flows to sales measure growth prospects, overinvesting (underinvesting) in segments with relatively low (high) cash flows to sales is equivalent of overinvesting (underinvesting) in lines of business with relatively low (high) growth opportunities. If diversified firms have greater access to capital, they are also expected to invest more than single-segment firms.

We regress the capital expenditures of the bidders in years 0, the year of the acquisition, being normalized by the segment sales in year −1 against the core-cash flow, CCF, the non-core-cash flow, NCCF, variables in year −1 while we control for other effects as well. We introduce a dummy variable FSTSD to distinguish between domestic and multinational bidders. Following Sullivan (1994), we use foreign sales to total sales ratio as the measure of internationalization. FSTSD is an indicator variable and takes the value of one if the bidder has a foreign sales to total sales ratio of 10 percent or more, and a value of zero if the bidder has a foreign sales to total sales ratio of less than 10 percent. Similar regressions are estimated for the core capital expenditures in year +1 and +2 after the acquisition. A similar set of regressions is estimated using the non-core capital expenditures as the dependent variable.

Table 23 presents the regression results. The regressions in Panel A1 show the core capital expenditures of single-segment bidders that make focusing overseas acquisitions in year 0 can not be explained by the cash flows of the core business (the only business segment) neither in the year of the acquisition nor in the following two years. In Panel A2, we note the core capital expenditures of domestic single-segment firms that make diversifying acquisitions are affected from the cash flows of the core business in years 1 and 2. In the last three regressions, we examine the impact of the international involvement of the firm on capital expenditures as well. The coefficient of the core cash flow variable is always positive and statistically significant while its interactive term is negative and statistically significant. These results suggest the money

[40] The rationale of routine capital misallocation in diversified firms is based on the free cash flow hypothesis of Jensen (1986) that posits that managers with excess free cash flows tend to overinvest.

invested in the core business is originated in the core business. However, for single-segment firms with an overseas exposure the core cash flow variable is not as significant as it is for domestic single-segment firms that make diversifying acquisitions in explaining the investment in core business in the year of the acquisition and in the following years.

In Panels B1 and B2, we examine the core capital expenditures of focusing and diversifying multi-segment bidders, respectively. Panel B1 results show the cash flow generated only in the core business of the focusing multi-segment firms has a significant impact on the core capital expenditures, except for year 1 in which the non-core cash flows have a significant impact as well. However, in the last three regressions where we include the level of international involvement of the bidders, the impact of the core cash flow for core capital expenditures of focusing multinational multi-segment firms is not as strong as it is in focusing domestic multi-segment firms in years 0, +1, and +2. We also noticed the coefficient of non-core cash flows is positive and significant in year +1 which might be interpreted as evidence in favor of a subsidy from non-core business segments to the core business. However, the same term becomes negative and significant in year +2 suggesting the increase in non-core cash flows leads to a subsidization from the cash flows of the core business to non-core business segments. Panel B2 reports the regression results of core capital expenditures of multi-segment firms that make diversifying overseas acquisitions in year 0. In years 0 and 1, only the core cash flows of diversifying multi-segment firms has a significant and positive impact on the core capital expenditures, but such an effect does not endure in the next year. This result suggests the investments in the core business of multi-segment firms that make diversifying acquisitions overseas are mainly affected by their core cash flows around the time they make the investment.

Panels C1 and C2 report the cross-sectional regression results for the non-core capital expenditures of multi-segment bidders that make focusing and diversifying acquisitions, respectively. The evidence in Panel C1 shows there is a direct and significant relationship between the non-core capital expenditures of focusing multi-segment firms and their non-core cash flows in years 0, 1, and 2. This relationship retains its significance for domestic multi-segment bidders but appears to be weaker for the non-

core capital expenditures of multinational multi-segment bidders that make focusing acquisitions overseas. In year 2, we also notice the coefficient of the core cash flows is positive and significant implying there is some degree of cross subsidization from core cash flows to non-core capital expenditures of domestic multi-segment firms two years after the focusing overseas acquisition. However, such a relationship is not as significant for the multi-segment firms with existing overseas exposure. Panel C2 results show in year 0, the year of the acquisition, none of the internal capital market variables has explanatory power on the non-core capital expenditures of multi-segment firms that make diversifying acquisitions overseas. In years 1 and 2, we see non-core cash flows have a positive and significant impact on the non-core capital expenditures of multi-segment bidders that make diversifying acquisitions in year 0. When we examine the impact of the degree of international involvement on the non-core capital expenditures, non-core cash flows sustain a positive and significant impact on the non-core capital expenditures of domestic multi-segment bidders that make diversifying acquisitions. In addition, the coefficient of the core cash flows gain significance for domestic bidders in years 1 and 2. This suggests that some capital is diverted from core business to non-core capital expenditures and might be interpreted as evidence of cross-subsidization in domestic bidders. However, for multinational multi-segment firms that make diversifying acquisitions, the core cash flows lose their significance on non-core capital expenditures and non-core cash flows are not as significant as domestic multi-segment bidders that make similar type of acquisitions.

Overall our evidence provides different results about the workings of internal capital markets and capital expenditures of bidders that make diversifying and non-diversifying overseas acquisitions. The core cash flow of bidders significantly and positively impacts the core capital expenditures of single-segment firms that make diversifying acquisitions and of multi-segment bidders indicating that own cash flows govern the capital expenditures of these segments. In addition, core cash flows influence the non-core capital expenditures of domestic multi-segment bidders that make diversifying acquisitions providing evidence in favor of cross subsidization in those firms. Furthermore, only the non-core cash flows of multi-segment bidders have a significant impact on the capital expenditures of non-core business in both focusing and

diversifying multi-segment bidders. Our evidence suggests the capital expenditures of both core and non-core business segments of focusing multi-segment bidders rely only on their own cash flows while those of non-core business segments of diversifying domestic multi-segment bidders rely on both core and non-core cash flows.

[INSERT TABLE 23 HERE]

3.6. Explaining The Impact of Global and Industrial Diversification

Our results in Table 21 indicated the core (non-core) business segments of focusing (diversifying) bidders generated higher cash flows per dollar of sales than their non-core (core) business segments before the acquisition and the bidders invested more of their segment sales in those relatively efficient line of business. In Table 22, we observed the core (non-core) business segments of focusing (diversifying) bidders continued to generate higher cash flows per dollar of sales than their non-core (core) business segments after the acquisition and they also began to generate significantly more cash flows than the core business of diversifying multi-segment bidders. Likewise, the bidders continued to invest more of their segment sales in the relatively efficient line of business in terms of cash generating ability after the acquisition, as well.

In this section we regress bidders' post acquisition valuation measures on firm specific effects, especially segment cash flows, to examine the link between the valuation of the firm and its drivers. Namely, we are investigating how cash flows translate into the valuation of single- and multi-segment firms that conduct focusing and diversifying acquisitions overseas. Thus, the emphasis of our analysis will be on the cash flows of both core and non-core business segments of the bidders as well as on the extent of their geographic diversification. The firm specific control variables capture the effects of the size of the firm, debt, insider and institutional ownership, and R&D and advertising expenditures[41].

Panel A of Table 24 presents the results of our post-acquisition valuation regressions in years 0, 1, and 2 for overall single-segment bidders as well as for focusing and diversifying single-segment bidders. The coefficient of the size variable appears

[41] In another set of regression (not reported), we introduce interactive terms of independent variables with the international involvement indicator as we did in Tables 18 and 23. These regressions yield marginally different qualitative or quantitative results.

negative and significant in the year of the acquisition suggesting that larger single-segment bidders are valued below smaller ones, but this effect stems mainly from diversifying single-segment bidders. Our results confirm our previous findings that single-segment bidders that conduct acquisitions overseas suffer from a significant valuation discount arising from global diversification. The negative and statistically significant coefficient of the international involvement dummy, FSTSD, shows that single-segment bidders suffer from valuation losses of 16.0 %, 17.3% and 30.1% in years 0, 1 and 2, respectively. However, this discount associated with global diversification appears mainly in single-segment bidders that conduct focusing acquisitions while it becomes apparent in diversifying single-segment bidders only 2 years after the acquisition (with a valuation discount of 38.5% arising from the international involvement). Our results also suggest the presence of high insider ownership contributes to firm value as the coefficient of the INSIDER variable bears statistical significance in years 0, 1 and 2 for focusing single-segment bidders. This effect might arise from the prominent monitoring ability of insiders in stand-alone firms that continue to invest in their core business. The presence of high R&D expenditures (knowledge-based intangibles) appears to foster the valuation of single-segment bidders, whether they made focusing or diversifying acquisitions, in years 1 and 2. Similarly, the presence of high advertising expenditures (marketing based intangibles) appears to enhance the firm value in the same period, but the following regressions indicate the value enhancing effect of marketing based intangibles is pronounced only for diversifying single-segment bidders. More interestingly, the driving force behind the valuation of single-segment bidders is their cash flow generating ability from their core business. In all three years, the coefficient of core cash flow variable, CCF, is positive and statistically significant suggesting the cash flow generated in the core business of the bidder contributes to firm value. However, the cash flow generated in the core business of the diversifying single-segment bidders appears to contribute to firm value in years 0 and 1 but not in year 2, amid they diversified into other lines of business overseas.

Panel B of Table 24 presents the results of the same regressions in years 0, 1, and 2 for overall multi-segment bidders as well as for focusing and diversifying multi-segment bidders. The international involvement dummy, FSTSD, does not have any

explanatory power for the valuation of overall multi-segment bidders. However, that same variable is negative for focusing and is positive for diversifying multi-segment bidders, implying that global diversification might lead to valuation declines in focusing multi-segment firms while it might lead to valuation increases in diversifying multi-segment firms. This observation lends some partial support to Morck and Yeung (1998) who find the combination of industrial and geographic diversification adds to firm value in the presence of intangible assets. The variable that seems statistically significant for focusing, but not for overall or diversifying, multi-segment bidders is INSIDER, the insider ownership variable. It is positive and statistically significant in years 0 and 1 suggesting that the monitoring ability of insiders in focusing multi-segment contributes to firm value, like it was in stand-alone firms that continue to invest in their core business. The presence of high knowledge-based intangibles, captured by R&D expenditures, appears to enhance the valuation of multi-segment bidders. However, the value enhancing peculiarity of R&D expenditures is primarily pronounced for diversifying multi-segment bidders while it appears to lead to valuation declines in focusing multi-segment firms. Similarly, the presence of high advertising expenditures (marketing based intangibles) appears to enhance the firm value in the same period but, unlike the R&D expenditures, the value enhancing effect of marketing based intangibles is pronounced only for focusing multi-segment bidders. Furthermore, the valuation of multi-segment bidders seem to be influenced by the cash flow generating ability of their core business in years 1 and 2 and of their non-core business in years 0 and 2. Core cash flows significantly, and positively, impact the valuation of focusing multi-segment bidders in years 1 and 2 while the non-core cash flows appear to be significant in year 0. On the other hand, the cash flow generated in the core and the non-core business of diversifying multi-segment bidders contribute significantly to firm value only in year 2. This result suggests that diversifying multi-segment bidders might have begun to reap the benefits of both core and non-core business segment cash flows 2 years after the acquisition in their augmented multinational network[42].

[INSERT TABLE 24 HERE]

[42] See Doukas and Travlos (1988).

Overall, our results show the extent of international involvement has an adverse impact on the valuation of bidders with the exception of diversifying multi-segment bidders that seem to benefit from pursuing further global and industrial diversification. The insider ownership seems to contribute to the valuation of bidders that invest in their core business, whether they are single- or multi-segment firms, lending partial support to the agency cost theory of diversification. This effect might be explained by the increased monitoring ability of insiders who have better access to firm specific information over creditors or institutional stakeholders. The presence of knowledge based (R&D) and marketing based (advertising) intangibles seem to contribute to bidders' valuation lending support to internalization theory of global diversification. Finally, the cash flows of the bidders seem to dictate their valuation. The cash flow of the core business in single-segment bidders, whether they focus or diversify, appears to contribute to firm value while focusing multi-segment bidders begin to benefit from the contribution of core cash flows after the acquisition. However, the cash flow of the non-core business does not seem to display an enduring effect on firm valuation. This observation casts doubt on the contribution of non-core business segments to firm valuation and might be interpreted as one of the underlying causes of well documented diversification discount in industrially diversified firms.

3.7.Conclusion

In this paper, we investigate whether the act of global and industrial diversification destroy value when they take place. We find the performance of overseas bidders worsens prior to an acquisition. We also confirm the diversification discount between stand-alone and industrially diversified bidders. Our findings indicate not only the extent of industrial diversification, but also the extent of international involvement of bidders has significant adverse valuation consequences and our results further demonstrate that the act of global diversification destroys value when it takes place in the form of M&As for domestic bidders. In support of Morck and Yeung (1998), multi-segment bidders that diversify into unrelated lines of business seem to gain from overseas acquisitions while single-segment bidders and focusing multi-segment bidders experience subsequent valuation declines. The bidders facing the most severe valuation

losses appear to be the domestic single-segment bidders that conduct diversifying overseas acquisitions.

The internal dynamics and the workings of the internal capital markets around the overseas investment decision of the firm indicate both core and non-core capital expenditures of focusing multi-segment bidders count on their own segment cash flows, and diversifying multi-segment bidders exhibit similar behavior to a lesser extent. The cross-sectional examination of bidders' valuation lend some support to agency theory explanation of diversification by revealing valuation increases in focusing firms with high insider ownership and to internalization theory explanation of global diversification with the positive contribution of R&D and advertising expenditures. The cash flow of the core business seems to contribute to firm value of single-segment and focusing multi-segment bidders while the cash flow of the non-core business seems to play a trivial role on firm valuation suggesting the value losses associated with industrial diversification might stem from the inadequate contribution of peripheral (non-core) lines of business in industrially diversified firms. The evidence that both core and non-core cash flows of diversifying multi-segment bidders adds to firm value only 2 years after the acquisition suggests that they might have begun to harvest the benefits in an expanded multinational network as suggested by Doukas and Travlos (1988).

4. CONCLUSION

In this study we investigate whether the act of industrial diversification and global diversification destroy or enhance value when they take place. In Section 2, we analyze the single- and multi-segment U.S. bidders that engage in diversifying and non-diversifying investments in the form of domestic acquisitions to examine the impact of industrial diversification when it takes place in the form of M&As. Consistent with the diversification literature, our results show multi-segment firms that conduct diversifying and non-diversifying acquisitions suffer from a substantial discount relative to their imputed value and stand-alone firms that undertake similar types of investments before and after the acquisition. Prior to diversification, the valuation of both single- and multi-segment bidders weakens and, interestingly, continues to deteriorate after the acquisition. This result suggests investing merely in a certain line of business does not lead to reversal of poor performance in neither single- nor multi-segment bidders.

We find the internal capital markets of multi-segment bidders are active around important investment decisions and majority of capital resources are allocated to business segments with higher sales growth and cash flows before and after an acquisition. However, the evidence also indicates core business segments in multi-segment firms subsidize the capital expenditures of non-core business segments regardless of whether they operate efficient or inefficient business segments. These findings suggest internal capital markets of bidders are not involved in non-optimal investment strategies but firms might still face consequences of cross-subsidization from core to non-core business segments In addition, as diversified firms still retain their relatively inefficient segments generating relatively lower cash flows, there appears to be a strain carried by the relatively efficient business segments. That might explain why our results should be interpreted in line with other studies that address the workings of internal capital markets and the valuation of firms around disinvestment (divestiture) decision of firms[43]. Our results lend support to Campa and Kedia (1999), who show firms diversify and refocus throughout time from poor industries (higher exit industries) into industries with better

[43] See Scharfstein (1998), Gertner, Powers, and Scharfstein (1999), and Schlingemann, Stulz and Walkling (2001), Maksimovic and Phillips (2001) in addition to Boot (1992), Kaplan and Weisbach (1992), Comment and Jarrell (1995), John and Ofek (1995), Daley, Vikas and Ranjini (1997), Allen and McConnell (1998).

prospects when benefits exceed costs, in addition to a recent stream of literature that examines the impact of exogenous shocks to industry cash flows on firm valuation[44]. As a final note, our results may help to explain why General Electric is regarded to be one of the exceptional performers in the market despite the fact that it is one of the most diversified firms and it continues to conduct acquisitions aggressively in every line of business it operates in. Like Rajan et. al (2000) argue the success of GE emanates from the business model that looks at business segments independently and that divests unprofitable businesses rather than keeping them as deadweight in the corporate structure. However, the hesitance of other diversified firms to divest poor performing segments while investing in promising segments does not seem to be a viable solution to overcome the discount attributed to diversification.

In Section 3, we analyze the single- and multi-segment U.S. bidders, whether they are domestic or multinational firms, that engage in diversifying and non-diversifying overseas investments to examine the impact of both industrial and global diversification when they take place in the form of overseas M&As. We find the performance of overseas bidders worsens prior to an acquisition. We also confirm the diversification discount between stand-alone and industrially diversified bidders. Our findings indicate not only the extent of industrial diversification, but also the extent of international involvement of bidders has significant adverse valuation consequences and our results further demonstrate the act of global diversification destroys value when it takes place in the form of M&As for domestic bidders. In support of Morck and Yeung (1998), multi-segment bidders diversifying into unrelated lines of business seem to gain from overseas acquisitions while single-segment bidders and focusing multi-segment bidders experience subsequent valuation declines. The bidders facing the most severe valuation losses appear to be the domestic single-segment bidders conducting diversifying overseas acquisitions.

The internal dynamics and the workings of the internal capital markets around the overseas investment decision of the firm indicate both core and non-core capital expenditures of focusing multi-segment bidders count on their own segment cash flows, and diversifying multi-segment bidders exhibit similar behavior to a lesser extent. The

[44] See Lamont and Polk (2000, 2001)

cross-sectional examination of bidders' valuation lend some support to agency theory explanation of diversification by revealing valuation increases in focusing firms with high insider ownership and to internalization theory explanation of global diversification with the positive contribution of R&D and advertising expenditures. The cash flow of the core business seems to contribute to firm value of single-segment and focusing multi-segment bidders while the cash flow of the non-core business seems to play a trivial role on firm valuation suggesting that the value losses associated with industrial diversification might stem from the inadequate contribution of peripheral (non-core) lines of business in industrially diversified firms. The evidence that both core and non-core cash flows of diversifying multi-segment bidders adds to firm value only 2 years after the acquisition suggests they might have begun to harvest the benefits in an expanded multinational network as suggested by Doukas and Travlos (1988).

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Appendix A

Industry Classifications of U.S. Target Firms based on the 2 digit SIC Classification

The table presents the industry classification of target firms based on the 2 digit SIC code classification over the 1991-1997 period. The initial sample consists of 10128 U.S. acquisitions. The sample excludes acquisitions of bidder firms that make overseas acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89).

Industry Classification of U.S. Target Firms at the 2 Digit SIC Code

2Digit SIC	Title and Description of Industries	Number of Acquisitions	
Division A: Agriculture, Forestry and Fishing			
01-09	Agriculture, Forestry and Fishing	105	
	Total		105
Divison B: Mining			
10	Metal Mining	49	
12	Coal Mining	32	
13	Oil and Gas Extraction	573	
14	Mining and Quarrying Nonmtl Minerals, Except Fuels	36	
	Total		690
Division C: Construction			
15	Building Construction, Gen Contractors and Oprt Builders	82	
16	Heavy Construction other than Building Const-Contractors	43	
17	Construction-Special Trade Contractors	106	
	Total		231
Division D: Manufacturing			
20	Food and Kindred Products	328	
21	Tobacco Products	5	
22	Textile Mill Products	114	
23	Apparel and Other Finished Products	113	
24	Lumber and Wood Products, Except Furniture	82	
25	Furniture and Fixtures	75	
26	Paper and Allied Products	142	
27	Printing, Publishing and Allied Industries	498	
28	Chemicals and Allied Products	573	
29	Petroleum Refining and Related Industries	41	
30	Rubber and Miscellaneous Plastic Products	225	
31	Leather and Leather Products	27	
32	Stone, Clay, Glass and Concrete Products	94	
33	Primary Metal Products	181	
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	257	

35	Industrial and Commercial Machinery and Computer Equipment	704	
36	Electronics and Other Electrical Equipment and Components, Except Computer Equipment	610	
37	Transportation Equipment	209	
38	Measuring, Analyzing and Controlling Instruments: Photographic; Medical and Optical Goods; Watches and Clocks	648	
39	Miscellaneous Manufacturing Industries	169	
	Total		5095
Division E: Transportation, Communications, Electric, Gas, and Sanitary Services			
40	Railroad Transportation	43	
41	Transit and Passenger Transportation	58	
42	Motor Freight Transportation, Warehousing	141	
44	Water Transportation	41	
45	Air Transportation	52	
46	Pipe Lines, Except Natural Gas	24	
47	Transportation Services	75	
48	Communications	866	
49	Electric, Gas and Sanitary Services	434	
	Total		1734
Division F: Wholesale Trade			
50	Wholesale Trade- Durable Goods	771	
51	Wholesale Trade- Nondurable Goods	470	
52	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers	41	
53	General Merchandise Stores	52	
54	Food Stores	122	
55	Automotive Dealers, Gas Service Stations	81	
56	Apparel and Accessory Stores	62	
57	Home Furniture, Furnishing, and Equipment Stores	105	
58	Eating and Drinking Places	197	
59	Miscellaneous Retail	372	
	Total		2273
	TOTAL		10128

Appendix B

Type of U.S. Acquisitions by Industry Classification of Bidder Firms based on the 2 digit SIC Code

The table presents the type of U.S. acquisitions by the industry classification of bidder firm's core business at the 2 digit SIC code in the year prior to the acquisition. The initial sample consists of 10128 U.S. acquisitions. The sample excludes acquisitions of bidder firms that make overseas acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target.

Type of U.S. Acquisitions by Industry Classification of Bidder Firms based on the 2 Digit SIC Code

2-Digit SIC	Title and Description of Industries	Number of Acquisitions			
		Focusing	Diversifying	Total	
Division A: Agriculture, Forestry and Fishing					
01-09	Agriculture, Forestry and Fishing	35	7	42	
	Total	35	7	42	42
Division B: Mining					
10	Metal Mining	14	4	18	
12	Coal Mining	1	-	1	
13	Oil and Gas Extraction	236	37	273	
14	Mining and Quarrying Nonmetal Minerals, Except Fuels	12	11	23	
	Total	263	52	315	315
Division C: Construction					
15	Building Construction, Gen Contractors and Oprt Builders	30	6	36	
16	Heavy Construction other than Building Const-Contractors	7	24	31	
17	Construction-Special Trade Contractors	7	11	18	
	Total	44	41	85	85
Division D: Manufacturing					
20	Food and Kindred Products	120	59	179	
21	Tobacco Products	2	-	2	
22	Textile Mill Products	44	40	84	
23	Apparel and Other Finished Products	25	25	50	
24	Lumber and Wood Products, Except Furniture	19	22	41	
25	Furniture and Fixtures	16	15	31	
26	Paper and Allied Products	56	34	90	
27	Printing, Publishing and Allied Industries	166	63	229	
28	Chemicals and Allied Products	207	131	338	
29	Petroleum Refining and Related Industries	7	44	51	

30	Rubber and Miscellaneous Plastic Products	41	48	89	
31	Leather and Leather Products	7	3	10	
32	Stone, Clay, Glass and Concrete Products	12	28	40	
33	Primary Metal Products	59	55	114	
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	46	85	131	
35	Industrial and Commercial Machinery and Computer Equipment	187	176	363	
36	Electronics and Other Electrical Equipment and Components, Except Computer Equipment	179	113	292	
37	Transportation Equipment	60	96	156	
38	Measuring, Analyzing and Controlling Instruments: Photo graphic; Medical and Optical Goods; Watches and Clocks	219	113	332	
39	Miscellaneous Manufacturing Industries	36	18	54	
	Total	1508	1168	2676	2676
Division E: Transportation, Communications, Electric, Gas, Sanitary Services					
40	Railroad Transportation	21	5	26	
41	Transit and Passenger Transportation	12	2	14	
42	Motor Freight Transportation and Warehousing	44	20	64	
44	Water Transportation	17	14	31	
45	Air Transportation	15	5	20	
46	Pipe Lines, Except Natural Gas	1	9	10	
47	Transportation Services	4	3	7	
48	Communications	255	22	277	
49	Electric, Gas and Sanitary Services	140	137	277	
	Total	509	217	726	726
Division F: Wholesale Trade					
50	Wholesale Trade- Durable Goods	191	156	347	
51	Wholesale Trade- Nondurable Goods	99	93	192	
52	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers	4	7	11	
53	General Merchandise Stores	17	13	30	
54	Food Stores	34	7	41	
55	Automotive Dealers, Gas Service Stations	20	2	22	
56	Apparel and Accessory Stores	20	12	32	
57	Home Furniture, Furnishing, and Equipment Stores	18	7	25	
58	Eating and Drinking Places	82	14	96	
59	Miscellaneous Retail	150	64	214	
	Total	635	375	1010	1010
Division G: Finance, Insurance, and Real Estate					
60	Depository Institutions	-	8	8	
61	Non-Depository Institutions	-	7	7	
62	Security and Commodity Brokers, Dealers, Exchanges and Services	-	3	3	
63	Insurance Carriers	-	35	35	
64	Insurance Agents, Brokers, and Services	-	3	3	
65	Real Estate	-	12	12	
67	Holding and Other Investment Offices	-	60	60	
68	Unclassified	-	1	1	
	Total		129	129	129
Division H: Services					

70	Hotels, Rooming Houses, Camps, and other Lodging Places	-	1	1	
72	Personal Services	-	13	13	
73	Business Services	-	132	132	
75	Automotive Repair Services and Parking	-	1	1	
78	Motion Pictures	-	7	7	
79	Amusement and Recreation Services	-	9	9	
80	Health Services	-	67	67	
82	Educational Services	-	1	1	
87	Engineering, Accounting and Research Services	-	32	32	
	Total		263	263	263
Division K: Services					
99	Non-classifiable establishments	-	1	1	
	Total		1	1	1
	TOTAL	2994	2253	5247	5247

Appendix C

Sales-Based Herfindahl Index for Bidder Firms That Make U.S. Acquisitions

		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)
Year -2	Multi Segment (M)	5021 [5016] (n=522)	5217 [5200] (n=209)	4891 [4938] (n=313)
	Single Segment (S)	9562 [10000] (n=1511)	9619 [10000] (n=1064)	9429 [10000] (n=447)
Year -1	Multi Segment (M)	4908 [5002] (n=652)	5036 [5026] (n=260)	4823 [4966] (n=392)
	Single Segment (S)	9621 [10000] (n=1900)	9690 [10000] (n=1331)	9463 [10000] (n=578)
Year 0	Multi Segment (M)	5011 [5002] (n=673)	5184 [5018] (n=296)	4894 [4966] (n=441)
	Single Segment (S)	9447 [10000] (n=2190)	9569 [10000] (n=1518)	9170 [10000] (n=672)
Year 1	Multi Segment (M)	5170 [5008] (n=735)	5431 [5100] (n=296)	4994 [4962] (n=439)
	Single Segment (S)	9111 [10000] (n=2245)	9290 [10000] (n=1554)	8709 [10000] (n=691)
Year 2	Multi Segment (M)	5300 [5018] (n=610)	5623 [5200] (n=241)	5090 [4973] (n=369)
	Single Segment (S)	9003 [10000] (n=1821)	9240 [10000] (n=1241)	8495 [10000] (n=580)

Appendix D

Industry Classifications of Overseas Target Firms based on the 2 digit SIC Code Classification

The table presents the industry classification of overseas target firms based on the 2 digit SIC code classification over the 1991-1997 period. The sample consists of 1599 overseas acquisitions. The sample excludes acquisitions of bidder firms that make domestic acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). The geographic diversity of the target firm's country has been classified as "Developed" or "Emerging" in accordance with the emerging market definition of *IFC's Emerging Markets Data Base*. According to this definition " *All stock markets in developing countries are considered to be 'emerging'. Developing countries are those classified by the World Bank as either low- or middle-income economies, regardless of their particular stage of development..*".

Industry Classification of Overseas Target Firms at the 2 Digit SIC Code

2Digit SIC	Title and Description of Industries	Developed Countries	Emerging Countries	All Countries	TOTAL
Division A: Agriculture, Forestry and Fishing					
01-09	Agriculture, Forestry and Fishing	9	6	15	
	Total	9	6	15	15
Divison B: Mining					
10	Metal Mining	11	12	23	
12	Coal Mining	3	1	4	
13	Oil and Gas Extraction	46	32	78	
14	Mining and Quarrying Nonmtl Minerals, Except Fuels	2	3	5	
	Total	62	48	110	110
Division C: Construction					
15	Building Construction, Gen Contractors and Oprt Builders	8	-	8	
16	Heavy Construction other than Building Const-Contractors	3	-	3	
17	Construction-Special Trade Contractors	9	-	9	
	Total	20	-	20	20
Division D: Manufacturing					
20	Food and Kindred Products	44	25	69	
21	Tobacco Products	-	3	3	
22	Textile Mill Products	16	5	21	
23	Apparel and Other Finished Products	8	3	11	
24	Lumber and Wood Products, Except Furniture	6	2	8	
25	Furniture and Fixtures	5	1	6	
26	Paper and Allied Products	30	18	48	
27	Printing, Publishing and Allied Industries	37	7	44	

28	Chemicals and Allied Products	110	36	146	
29	Petroleum Refining and Related Industries	7	4	11	
30	Rubber and Miscellaneous Plastic Products	39	4	43	
31	Leather and Leather Products	5	-	5	
32	Stone, Clay, Glass and Concrete Products	18	2	20	
33	Primary Metal Products	36	6	42	
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	45	8	53	
35	Industrial and Commercial Machinery and Computer Equipment	148	22	170	
36	Electronics and Other Electrical Equipment and Components, Except Computer Equipment	118	31	149	
37	Transportation Equipment	38	10	48	
38	Measuring, Analyzing and Controlling Instruments: Photographic; Medical and Optical Goods; Watches and Clocks	79	13	92	
39	Miscallenous Manufacturing Industries	16	-	16	
	Total	805	200	1005	1005
Division E: Transportation, Communications, Electric, Gas, and Sanitary Services					
40	Railroad Transportation	5	-	5	
41	Transit and Passenger Transportation	-	1	1	
42	Motor Freight Transportation, Warehousing	10	1	11	
44	Water Transportation	11	1	12	
45	Air Transportation	13	8	21	
46	Pipe Lines, Except Natural Gas	1	1	2	
47	Transportation Services	23	6	29	
48	Communications	53	27	80	
49	Electric, Gas and Sanitary Services	29	17	46	
	Total	145	62	207	207
Division F: Wholesale Trade					
50	Wholesale Trade- Durable Goods	91	34	125	
51	Wholesale Trade- Nondurable Goods	51	14	65	
52	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers	2	-	2	
53	General Merchandise Stores	3	-	3	
54	Food Stores	4	2	6	
55	Automotive Dealers, Gas Service Stations	5	1	6	
56	Apparel and Accessory Stores	4	-	4	
57	Home Furniture, Furnishing, and Equipment Stores	4	-	4	
58	Eating and Drinking Places	9	5	14	
59	Miscellaneous Retail	12	1	13	
	Total	185	57	242	242
	TOTAL	1226	373	1599	1599

Appendix E

Type of Overseas Acquisitions by Industry Classification of Bidder Firms based on 2 digit SIC Code

The table presents the type of overseas acquisitions by the industry classification of bidder firm's core business at the 2 digit SIC code in the year prior to the acquisition. The sample consists of 1599 overseas acquisitions. The sample excludes acquisitions of bidder firms that make domestic acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target.

Type of Overseas Acquisitions by Industry Classification of Bidder Firms based on the 2 Digit SIC Code

2-Digit SIC	Title and Description of Industries	Number of Acquisitions			
		Focusing	Diversifying	Total	
Division A: Agriculture, Forestry and Fishing					
01-09	Agriculture, Forestry and Fishing	2	3	5	
	Total	2	3	5	5
Division B: Mining					
10	Metal Mining	12	4	16	
13	Oil and Gas Extraction	31	5	36	
14	Mining and Quarrying Nonmetal Minerals, Except Fuels	1	1	2	
	Total	44	10	54	54
Division C: Construction					
17	Construction-Special Trade Contractors	1	2	3	
	Total	1	2	3	3
Division D: Manufacturing					
20	Food and Kindred Products	41	17	58	
21	Tobacco Products	1	-	1	
22	Textile Mill Products	14	6	20	
23	Apparel and Other Finished Products	4	2	6	
24	Lumber and Wood Products, Except Furniture	2	-	2	
25	Furniture and Fixtures	3	8	11	
26	Paper and Allied Products	24	12	36	
27	Printing, Publishing and Allied Industries	20	6	26	
28	Chemicals and Allied Products	92	51	143	
29	Petroleum Refining and Related Industries	10	15	25	
30	Rubber and Miscellaneous Plastic Products	8	17	25	
31	Leather and Leather Products	2	3	5	
32	Stone, Clay, Glass and Concrete Products	2	2	4	
33	Primary Metal Products	8	6	14	
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	16	16	32	
35	Industrial and Commercial Machinery and Computer Equipment	68	52	120	

36	Electronics and Other Electrical Equipment and Components, Except Computer Equipment	66	40	106	
37	Transportation Equipment	27	27	54	
38	Measuring, Analyzing and Controlling Instruments: Photo graphic; Medical and Optical Goods; Watches and Clocks	49	27	76	
39	Miscellaneous Manufacturing Industries	4	9	13	
	Total	461	316	777	777
Division E: Transportation, Communications, Electric, Gas, Sanitary Services					
40	Railroad Transportation	4	-	4	
42	Motor Freight Transportation and Warehousing	5	3	8	
44	Water Transportation	4	4	8	
45	Air Transportation	7	-	7	
47	Transportation Services	6	3	9	
48	Communications	23	1	24	
49	Electric, Gas and Sanitary Services	27	4	31	
	Total	76	15	91	91
Division F: Wholesale Trade					
50	Wholesale Trade- Durable Goods	29	9	38	
51	Wholesale Trade- Nondurable Goods	13	6	19	
52	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers	2	-	2	
53	General Merchandise Stores	2	1	3	
54	Food Stores	1	-	1	
56	Apparel and Accessory Stores	-	1	1	
58	Eating and Drinking Places	7	-	7	
59	Miscellaneous Retail	6	10	16	
	Total	60	27	87	87
Division G: Finance, Insurance, and Real Estate					
60	Depository Institutions	-	4	4	
61	Non-Depository Institutions	-	3	3	
62	Security and Commodity Brokers, Dealers, Exchanges and Services	-	2	2	
63	Insurance Carriers	-	5	5	
64	Insurance Agents, Brokers, and Services	-	1	1	
		-	15	15	15
Division H: Services					
73	Business Services	-	28	28	
78	Motion Pictures	-	2	2	
80	Health Services	-	6	6	
87	Engineering, Accounting and Research Services	-	4	4	
	Total	-	40	40	40
	TOTAL	644	428	1072	1072

Appendix F
Foreign Sales to Total Sales Ratio and Sales-Based Herfindahl Index for Bidder Firms That Make Overseas Acquisitions

Foreign Sales to Total Sales Ratio (%) for Bidders That Make Foreign Acquisitions

		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)
Year -2	Multi Segment (M)	24.42 [22.18] (n=180)	23.73 [23.78] (n=83)	25.02 [21.89] (n=97)
	Single Segment (S)	17.63 [9.20] (n=320)	17.55 [10.42] (n=226)	17.80 [8.30] (n=94)
Year -1	Multi Segment (M)	24.62 [20.36] (n=201)	24.88 [21.74] (n=91)	24.41 [19.19] (n=110)
	Single Segment (S)	19.92 [11.45] (n=368)	20.22 [13.15] (n=262)	19.19 [9.97] (n=106)
Year 0	Multi Segment (M)	25.68 [22.64] (n=220)	26.54 [24.20] (n=99)	24.99 [20.62] (n=121)
	Single Segment (S)	23.66 [18.75] (n=409)	23.94 [19.66] (n=289)	22.98 [16.05] (n=120)
Year 1	Multi Segment (M)	28.44 [26.46] (n=221)	30.13 [28.42] (n=101)	27.02 [23.83] (n=120)
	Single Segment (S)	27.40 [24.97] (n=415)	28.37 [27.22] (n=287)	25.25 [21.76] (n=128)
Year 2	Multi Segment (M)	27.52 [23.64] (n=184)	27.03 [23.62] (n=78)	27.87 [23.83] (n=106)
	Single Segment (S)	29.07 [26.36] (n=341)	29.97 [27.21] (n=244)	26.81 [23.74] (n=97)

Sales-Based Herfindahl Index for Bidders That Make Foreign Acquisitions

		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)
Year -2	Multi Segment (M)	5124 [5002] (n=184)	5310 [5004] (n=86)	4961 [4989] (n=98)
	Single Segment (S)	9395 [10000] (n=323)	9347 [10000] (n=222)	9500 [10000] (n=101)
Year -1	Multi Segment (M)	5000 [5002] (n=212)	5140 [5032] (n=99)	4877 [4843] (n=113)
	Single Segment (S)	9477 [10000] (n=389)	9436 [10000] (n=274)	9577 [10000] (n=115)
Year 0	Multi Segment (M)	4929 [5000] (n=234)	5054 [5032] (n=109)	4820 [4714] (n=125)
	Single Segment (S)	9506 [10000] (n=440)	9476 [10000] (n=310)	9578 [10000] (n=130)
Year 1	Multi Segment (M)	4938 [5002] (n=235)	5112 [5050] (n=111)	4782 [4865] (n=124)
	Single Segment (S)	9141 [10000] (n=456)	9066 [10000] (n=319)	9317 [10000] (n=137)
Year 2	Multi Segment (M)	5027 [4926] (n=189)	5159 [5072] (n=84)	4921 [4715] (n=105)
	Single Segment (S)	9164 [10000] (n=367)	9158 [10000] (n=263)	9180 [10000] (n=104)

VITA

OZGUR BERK KAN

School of Business and Public Administration

Old Dominion University

Norfolk, VA

Ozgur Berk Kan earned a B.Sc. in Electrical and Electronics Engineering in 1993 and an MBA in Finance and Organization in 1997 from Middle East Technical University, Ankara, Turkey. He recently published papers in Y.K Economic Review, Applied Economics and Applied Economics Letters. He earned his Ph.D. in Business Administration with concentration in Finance in old Dominion University, Norfolk, VA in November 2001.

Table 1

Number and Frequency of U.S. Acquisitions by U.S. Bidders per Year

The table presents the number and frequency of 10128 U.S. completed acquisition announcements reported in the *M&A Journal* and confirmed by the *Wall Street Journal* over the 1991-1997 period. The sample excludes acquisitions of bidder firms that make overseas acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). An acquisition is defined as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. Acquisitions that were reported in the M&A Journal but for which Compustat data was not available have been identified as "*other*".

Number and Frequency Distribution of U.S. Acquisitions by Year

Year	Focusing	Diversifying	Other	Total	Frequency(%)
1991	198 53.37%	173 46.63%	389	760	7.50
1992	228 50.33%	225 49.67%	395	848	8.37
1993	356 56.51%	274 43.49%	731	1361	13.44
1994	428 56.91%	324 43.09%	748	1500	14.81
1995	488 57.68%	358 42.32%	942	1788	17.65
1996	588 58.74%	413 41.26%	879	1880	18.56
1997	708 59.30%	486 40.70%	797	1991	19.66
AllYears 1991-97	2994 57.06%	2253 42.94%	4881	10128	100.00

Table 2
Sample Description of U.S. Acquisitions by Year

The table presents the final number of U.S. acquisitions that are included in the sample. The initial sample consists of 10128 U.S. acquisitions. The sample excludes acquisitions of bidder firms that make overseas acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). An acquisition is defined as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target.

Sample Description of U.S. Acquisitions by Year

	1991	1992	1993	1994	1995	1996	1997	1991-1997
Number of U.S. acquisitions for which we found the merger announcement in the M&A Journal and confirmed with The Wall Street Journal.	760	848	1361	1500	1788	1880	1991	10128
Number of U.S. acquisitions for which the bidder data was not available in COMPUSTAT.	389	395	731	748	942	879	797	4881
Number of U.S. acquisitions made by bidder firms whose core business is in non-manufacturing industries such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89).	18	22	40	66	58	98	91	393
Number of dual U.S. acquisitions in core and non-core lines of business by bidders on the same calendar years.	47	50	98	104	140	166	240	845
Number of additional U.S. acquisitions made by the bidder in core or non-core lines of business on the same calendar year.	47	49	89	101	147	169	227	829
Number of U.S. firm-year acquisitions included in the final sample	259	332	403	481	501	568	636	3180
Number and frequency of focusing acquisitions in the final sample	155	168	248	300	308	377	409	1965
	59.85%	50.60%	61.54%	62.37%	61.48%	66.37%	64.31%	61.79%
Number and frequency of diversifying acquisitions in the final sample	104	164	155	181	193	191	227	1215
	40.15%	49.40%	38.46%	37.63%	38.52%	33.63%	35.69%	38.21%

Table 3

Type of U.S. Acquisitions by Industry Classification of Bidder Firms based on 2 digit SIC Code

The table presents the type of U.S. firm-year acquisitions by the industry classification of bidder firm's core business at the 2 digit SIC code in the year prior to the acquisition. The sample consists of 3180 U.S. firm-year acquisitions. The sample excludes acquisitions of bidder firms that make overseas acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target.

Type of U.S. Acquisitions by Industry Classification of Bidder Firms based on the 2 Digit SIC Code

2-Digit SIC	Title and Description of Industries	Number of Acquisitions			TOTAL
		Focusing	Diversifying	Total	
Division A: Agriculture, Forestry and Fishing					
01-09	Agriculture, Forestry and Fishing	10	3	13	
	Total	10	3	13	13
Division B: Mining					
10	Metal Mining	12	3	15	
12	Coal Mining	1	-	1	
13	Oil and Gas Extraction	155	21	176	
14	Mining and Quarrying Nonmetal Minerals, Except Fuels	3	4	7	
	Total	171	28	199	199
Division C: Construction					
15	Building Construction, Gen Contractors and Oprt Builders	23	6	29	
16	Heavy Construction other than Building Const-Contractors	5	13	18	
17	Construction-Special Trade Contractors	5	8	13	
	Total	33	27	60	60
Division D: Manufacturing					
20	Food and Kindred Products	75	30	105	
21	Tobacco Products	2	-	2	
22	Textile Mill Products	29	23	52	
23	Apparel and Other Finished Products	16	21	37	
24	Lumber and Wood Products, Except Furniture	11	15	26	
25	Furniture and Fixtures	11	8	19	
26	Paper and Allied Products	39	22	61	
27	Printing, Publishing and Allied Industries	104	37	141	
28	Chemicals and Allied Products	151	86	237	

29	Petroleum Refining and Related Industries	6	32	38	
30	Rubber and Miscellaneous Plastic Products	33	38	71	
31	Leather and Leather Products	6	2	8	
32	Stone, Clay, Glass and Concrete Products	10	21	31	
33	Primary Metal Products	42	41	83	
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	28	61	89	
35	Industrial and Commercial Machinery and Computer Equipment	155	136	291	
36	Electronics and Other Electrical Equipment and Components, Except Computer Equipment	137	89	226	
37	Transportation Equipment	42	64	106	
38	Measuring, Analyzing and Controlling Instruments: Photo graphic; Medical and Optical Goods; Watches and Clocks	151	74	225	
39	Miscellaneous Manufacturing Industries	30	13	43	
	Total	1078	813	1891	1891
Division E: Transportation, Communications, Electric, Gas, Sanitary Services					
40	Railroad Transportation	14	4	18	
41	Transit and Passenger Transportation	5	2	7	
42	Motor Freight Transportation and Warehousing	26	11	37	
44	Water Transportation	10	10	20	
45	Air Transportation	14	5	19	
46	Pipe Lines, Except Natural Gas	-	6	6	
47	Transportation Services	4	3	7	
48	Communications	158	17	175	
49	Electric, Gas and Sanitary Services	85	86	171	
	Total	316	144	460	460
Division F: Wholesale Trade					
50	Wholesale Trade- Durable Goods	90	79	169	
51	Wholesale Trade- Nondurable Goods	55	52	107	
52	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers	1	4	5	
53	General Merchandise Stores	14	10	24	
54	Food Stores	29	5	34	
55	Automotive Dealers, Gas Service Stations	12	2	14	
56	Apparel and Accessory Stores	17	12	29	
57	Home Furniture, Furnishing, and Equipment Stores	14	6	20	
58	Eating and Drinking Places	66	7	73	
59	Miscellaneous Retail	59	23	82	
	Total	357	200	557	557
TOTAL		1965	1215	3180	3180

Table 4
Summary Statistics of Bidder Firms and U.S. Acquisitions

The table presents the summary statistics for bidder firms that made acquisitions in the U.S. over the 1991-1997 period. The sample consists of 3180 firm-year acquisitions and includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not cover bidder and target firms which are in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We combine the value of acquisitions for bidder firms that made more than one acquisition in a calendar year and count it as one acquisition-year observation. Total Sales is defined as the gross sales of the bidder firm net of sales discounts in million $. Foreign/Total Sales is the percentage of foreign sales of the bidder firm divided by net sales. Market Value is defined as the number of shares multiplied by the average stock price of the bidder firm in million $. Total Assets is defined as current assets plus net property, plant, and equipment plus other noncurrent assets of the bidder firm in million $. Debt/Total Capital is percentage of total debt divided by invested capital. Number of Segments is the number of distinct lines of business the bidder firm is operating at the 2 digit SIC code level. Number of Acquisitions is the total number of acquisitions completed by the bidder firm in the year of the acquisition. Insider ownership and institutional ownership are the average number of shares held by insiders and held by institutions divided by the average number of shares outstanding for the bidder firm respectively. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets of the bidder firm. All values refer to the year prior to the acquisition unless otherwise noted above.

Summary Statistics and Sample Characteristics

	N	Mean	Median	Minimum	Maximum
Total Sales (million $)	2749	1,845.20	276.58	10.00	123,276.20
Foreign/Total Sales (%)	2780	7.86	0.00	0.00	95.23
Market Value (million $)	2626	1,622.97	231.93	10.02	99,981.00
Total Assets (million $)	2788	1,879.40	230.72	10.04	184,325.50
Debt/Total Capital (%)	2999	39.25	37.73	0.00	94.93
Number of Segments	3180	1.45	1.00	1.00	7.00
Number of Acquisitions/year	3180	1.26	1.00	1.00	13.00
Size of Acquisition(s) (million $)	1631	248.13	42.50	5.00	21,350.00
Insider Ownership (%)	2788	20.37	12.83	0.00	89.00
Institutional Ownership (%)	2714	38.72	39.70	0.00	89.96
Tobin's Q	2570	1.349	1.017	0.10	9.68

Table 5
Pre-Acquisition Valuation Measures of Bidder Firms

The table presents the pre-acquisition raw and industry-adjusted (percentage valuation premium/discount) valuation measures of bidder firms that made acquisitions only in U.S. The sample consists of 3180 U.S. firm-acquisitions over the 1991-97 period. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not cover target firms in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. The numbers in cells are the means, the numbers in [ ] brackets are the medians, and the numbers in parentheses are the number of observations. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value (EMV) is defined as the market value of equity less book value of equity normalized by total sales. Industry-adjusted valuation measures are computed using the methodology of Berger and Ofek (1995); namely the natural logarithm of the ratio of raw valuation measure to their imputed value. Imputed performance measures are computed by multiplying the weights of different business segments with the median value of the performance measures for stand alone firms that are in the same 2 digit SIC code industry and that have size within 50% and 200% of the size of the bidding firm's business segment. Year 0 is the year of acquisition. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A: Pre-Acquisition Tobin's Q for Bidder Firms That Make U.S. Acquisitions

		Raw Tobin's Q					Industry Adjusted Tobin'sQ				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year -3	All Firms	1.217	1.259	1.157	0.102**	0.035	-8.32***	-10.52***	-5.13**	-5.39	0.104
		[0.912]	[0.958]	[0.879]	[0.079***]	0.005	[-5.75***]	[-6.62***]	[-4.51**]	[-2.11]	0.203
		(n=2090)	(n=1237)	(n=853)			(n=2085)	(n=1233)	(n=852)		
	Multi Segment	0.984	1.043	0.945	0.098	0.077	-19.34***	-21.88***	-17.70***	-4.18	0.413
	(M)	[0.841]	[0.875]	[0.822]	[0.053*]	0.085	[-13.52***]	[-14.38***]	[-13.08***]	[-1.30]	0.375
		(n=610)	(n=240)	(n=370)			(n=608)	(n=238)	(n=370)		
	Single Segment	1.314	1.311	1.319	-0.008	0.913	-3.78*	-7.81***	4.53	-12.34***	0.006
	(S)	[0.961]	[0.975]	[0.928]	[0.047]	0.365	[-1.52*]	[-3.49***]	[0.03]	[-3.52]***	0.009
		(n=1480)	(n=997)	(n=483)			(n=1477)	(n=995)	(n=482)		
	Mmean-Smean p-value	-0.330*** 0.000	-0.268*** 0.000	-0.374*** 0.000			-15.56*** 0.000	-14.07*** 0.003	-22.23*** 0.000		
	[Mmed-Smed] p-value	[-0.120***] 0.000	[-0.100**] 0.038	[-0.106***] 0.002			[-12.00]*** 0.000	[-10.89]*** 0.002	[-13.11]*** 0.000		
Year -2	All Firms	1.306	1.343	1.250	0.093*	0.060	-6.25***	-7.81***	-3.92	-3.89	0.226
		[0.979]	[1.032]	[0.904]	[0.128***]	0.000	[-4.43***]	[-3.53***]	[-5.18**]	[1.65]	0.605
		(n=2282)	(n=1369)	(n=913)			(n=2276)	(n=1365)	(n=911)		
	Multi Segment	1.075	1.110	1.052	0.058	0.353	-16.30***	-18.25***	-15.05***	-3.20	0.522
	(M)	[0.895]	[0.970]	[0.876]	[0.094**]	0.027	[-14.92***]	[-14.65***]	[-15.06***]	[0.41]	0.795
		(n=632)	(n=248)	(n=384)			(n=628)	(n=245)	(n=383)		
	Single Segment	1.394	1.395	1.394	0.001	0.991	-2.43	-5.53**	4.16	-9.69**	0.025
	(S)	[1.023]	[1.061]	[0.948]	[0.113]	0.140	[0.00]	[0.00]	[3.62]	[-3.62]**	0.042
		(n=1650)	(n=1121)	(n=529)			(n=1648)	(n=1120)	(n=528)		
	Mmean-Smean p-value	-0.319*** 0.000	-0.285*** 0.000	-0.342*** 0.000			-13.87*** 0.000	-12.72*** 0.004	-19.21*** 0.000		
	[Mmed-Smed] p-value	[-0.128***] 0.000	[-0.091**] 0.032	[-0.072***] 0.004			[-14.92]*** 0.000	[-14.65]*** 0.002	[-18.68]*** 0.000		
Year -1	All Firms	1.350	1.388	1.291	0.097**	0.040	-7.71***	-8.79***	-6.05**	-2.74	0.356
		[1.017]	[1.089]	[0.915]	[0.174***]	0.000	[-5.39***]	[-3.80***]	[-7.23***]	[3.43]	0.968
		(n=2570)	(n=1559)	(n=1011)			(n=2564)	(n=1556)	(n=1008)		
	Multi Segment	1.092	1.154	1.052	0.102*	0.082	-19.05***	-20.64***	-18.04***	-2.60	0.607
	(M)	[0.912]	[1.025]	[0.874]	[0.151***]	0.008	[-17.61***]	[-14.95***]	[-17.71***]	[2.76]	0.918
		(n=663)	(n=259)	(n=404)			(n=659)	(n=257)	(n=402)		
	Single Segment	1.439	1.434	1.449	-0.015	0.815	-3.79**	-6.45***	1.90	-8.35**	0.032
	(S)	[1.066]	[1.108]	[0.996]	[0.112*]	0.076	[-1.42**]	[-2.33***]	[0.00]	[-2.33]*	0.082
		(n=1907)	(n=1300)	(n=607)			(n=1905)	(n=1299)	(n=606)		
	Mmean-Smean p-value	-0.347*** 0.000	-0.280*** 0.000	-0.397*** 0.000			-15.26*** 0.000	-14.19*** 0.002	-19.94*** 0.000		
	[Mmed-Smed] p-value	[-0.154***] 0.000	[-0.083**] 0.016	[-0.122***] 0.001			*[-16.19]*** 0.000*	*[-12.62]*** 0.002*	*[-17.71]*** 0.000*		
Year 0	All Firms	1.343	1.379	1.286	0.093**	0.027	-9.18***	-9.72***	-8.32***	-1.40	0.615
		[1.039]	[1.107]	[0.937]	[0.170***]	0.000	[-8.06***]	[-8.45***]	[-7.68***]	[-0.77]	0.955
		(n=2790)	(n=1714)	(n=1076)			(n=2784)	(n=1710)	(n=1074)		
	Multi Segment	1.111	1.169	1.072	0.097*	0.075	-19.85***	-19.56***	-20.04***	0.48	0.918
	(M)	[0.939]	[1.039]	[0.886]	[0.153***]	0.003	[-17.39***]	[-15.99***]	[-18.94***]	[2.95]	0.769
		(n=677)	(n=267)	(n=410)			(n=673)	(n=264)	(n=409)		
	Single Segment	1.418	1.418	1.417	0.001	0.990	-5.78***	-7.93***	-1.12	-6.81*	*0.058*
	(S)	[1.090]	[1.125]	[0.983]	[0.142**]	0.038	[-4.95***]	[-6.48***]	[-0.52]	[-5.96]*	0.097
		(n=2113)	(n=1447)	(n=666)			(n=2111)	(n=1446)	(n=665)		
	Mmean-Smean p-value	-0.307*** 0.000	-0.249*** 0.000	-0.345*** 0.000			-14.07*** 0.000	-11.63*** 0.004	-18.92*** 0.000		
	[Mmed-Smed] p-value	[-0.151***] 0.000	[-0.086**] 0.026	[-0.097***] 0.001			[-12.44]*** 0.000	[-9.51]*** 0.006	[-18.42]*** 0.000		

Panel B: Pre-Acquisition Excess Market Value (EMV) for Bidder Firms That Make U.S. Acquisitions

		Raw EMV					Industry Adjusted EMV				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year -3	All Firms	75.28	80.65	67.57	13.08**	0.018	1.87	-1.80	7.26	-9.06	0.168
		[34.10]	[37.10]	[30.60]	[6.50***]	0.009	[3.06]	[1.03]	[6.83]	[-5.80]	0.429
		(n=2197)	(n=1294)	(n=903)			(n=1857)	(n=1104)	(n=753)		
	Multi Segment	53.96	65.76	46.33	19.43***	0.004	-18.60***	-22.39***	-15.99**	-6.40	0.531
	(M)	[30.65]	[34.60]	[28.50]	[6.10**]	0.019	[-14.90***]	[-25.07***]	[-6.22**]	[-18.85]	0.220
		(n=670)	(n=263)	(n=407)			(n=582)	(n=238)	(n=344)		
	Single Segment	84.63	84.45	85.00	-0.55	0.946	11.22***	3.85	26.81***	-22.96**	0.011
	(S)	[36.30]	[37.70]	[34.25]	[3.45]	0.375	[10.01***]	[7.97]	[14.11***]	[-6.14]*	0.067
		(n=1527)	(n=1031)	(n=496)			(n=1275)	(n=866)	(n=409)		
	Mmean-Smean p-value	-30.67*** 0.000	-18.69*** 0.010	-38.67*** 0.000			-29.82*** 0.000	-26.24*** 0.003	-42.80*** 0.000		
	[Mmed-Smed] p-value	[-5.65**] 0.015	[-3.10] 0.714	[-5.75**] 0.034			[-24.91]*** 0.000	[-33.04]*** 0.000	[-20.33]*** 0.000		
Year -2	All Firms	83.11	90.28	72.65	17.63***	0.001	6.34**	4.44	9.21*	-4.77	0.441
		[40.30]	[44.35]	[34.50]	[9.85***]	0.001	[5.66**]	[5.65]	[5.76*]	[-0.11]	0.576
		(n=2389)	(n=1418	(n=971)			(n=2042)	(n=1229)	(n=813)		
	Multi Segment	58.15	66.79	52.54	14.25**	0.019	-18.22***	-24.26***	-14.23**	-10.03	0.281
	(M)	[38.10]	[42.40]	[33.80]	[8.60**]	0.016	[-12.19***]	[-21.99***]	[-7.78*]	[-14.21]	0.168
		(n=688)	(n=271)	(n=417)			(n=609)	(n=242)	(n=367)		
	Single Segment	93.21	95.83	87.79	8.04	0.296	16.78***	11.48***	28.50***	-17.02**	0.043
	(S)	[42.70]	[44.90]	[36.40]	[8.50**]	0.048	[15.83***]	[14.95***]	[19.41***]	[-4.46]*	0.076
		(n=1701)	(n=1147)	(n=554)			(n=1433)	(n=987)	(n=446)		
	Mmean-Smean p-value	-35.06*** 0.000	-29.04*** 0.000	-35.25*** 0.000			-35.00*** 0.000	-35.74*** 0.000	-42.73*** 0.000		
	[Mmed-Smed] p-value	[-4.60**] 0.018	[-2.50] 0.493	[-2.60] 0.167			[-28.02]*** 0.000	[-36.94]*** 0.000	[-27.19]*** 0.000		
Year -1	All Firms	89.41	97.57	76.95	20.62***	0.000	2.07	-0.73	6.42	-7.15	0.222
		[43.40]	[47.20]	[38.30]	[8.90***]	0.000	[3.89]	[5.17]	[2.13]	[3.04]	0.725
		(n=2673)	(n=1616)	(n=1057)			(n=2330)	(n=1418)	(n=912)		
	Multi Segment	63.06	76.47	54.38	22.09***	0.002	-23.41***	-28.50***	-19.93***	-8.57	0.369
	(M)	[38.60]	[47.70]	[32.95]	[14.75***]	0.001	[-16.25***]	[-24.36***]	[-13.43***]	[-10.93]	0.335
		(n=715)	(n=281)	(n=434)			(n=630)	(n=256)	(n=374)		
	Single Segment	99.04	102.01	92.67	9.34	0.193	11.51***	5.39	24.74***	-19.35**	0.011
	(S)	[45.95]	[46.90]	[42.80]	[4.10*]	0.053	[13.98***]	[13.13**]	[15.79***]	[-2.66]*	0.068
		(n=1958)	(n=1335)	(n=623)			(n=1700)	(n=1162)	(n=538)		
	Mmean-Smean p-value	-35.98*** 0.000	-25.54*** 0.001	-38.29*** 0.000			-34.92*** 0.000	-33.89*** 0.000	-44.67*** 0.000		
	[Mmed-Smed] p-value	[-7.35***] 0.000	[0.80] 0.440	[-9.85***] 0.004			[-30.23]*** 0.000	[-37.49]*** 0.000	[-29.22]*** 0.000		
Year 0	All Firms	94.32	103.10	80.49	22.61***	0.000	-1.95	-1.55	-2.58	1.03	0.848
		[50.10]	[56.45]	[40.20]	[16.25***]	0.000	[-0.01]	[0.00]	[-1.08]	[1.08]	0.723
		(n=2871)	(n=1756)	(n=1115)			(n=2575)	(n=1581)	(n=994)		
	Multi Segment	70.02	84.60	60.35	24.25***	0.002	-25.79***	-28.71***	-23.81***	-4.90	0.595
	(M)	[40.40]	[56.25]	[36.40]	[19.85***]	0.000	[-22.18***]	[-25.67***]	[-21.56***]	[-4.11]	0.617
		(n=727)	(n=290)	(n=437)			(n=665)	(n=269)	(n=396)		
	Single Segment	102.56	106.76	93.46	13.30**	0.048	6.36**	4.02	11.47**	-7.45	0.278
	(S)	[53.90]	[56.45]	[45.20]	[11.25**]	0.011	[5.22**]	[3.70]	[7.74**]	[-4.04]	0.251
		(n=2144)	(n=1466)	(n=678)			(n=1910)	(n=1312)	(n=598)		
	Mmean-Smean p-value	-32.54*** 0.000	-22.16*** 0.006	-33.11*** 0.000			-32.15*** 0.000	-32.73*** 0.000	-35.28*** 0.000		
	[Mmed-Smed] p-value	[-13.50***] 0.001	[-0.20] 0.544	[-8.80**] 0.015			[-27.40]*** 0.000	[-29.37]*** 0.007	[-29.30]*** 0.000		

Table 6

Cross Sectional Logistic Regressions Relating Firm Characteristics to Type of Acquisitions

The dependent variable in the logistic regression is the diversification dummy taking on value of one if the bidder makes a diversifying acquisition, and a value of zero if it makes a focusing acquisition. The sample includes 3180 firm year acquisitions. The size of the firm, LN(SALES) is the natural logarithm of annual sales. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets of the bidder firm. Excess Market Value (EMV) is the market value of equity less book value of equity normalized by total sales. IMPUTEDQ and IMPUTEDEMV are the theoretical imputed values of Tobin's Q and EMV, respectively, for the bidder if it were decomposed into its business segments based on sales multiples of business segments at 2 digit SIC level. INDADJQ and INDADJEMV are the industry-adjusted Tobin's Q and EMV of the bidders, respectively. DEBT is the percentage of total debt divided by invested capital. INSIDER and INSTITUTE are the percentage of shares held by insiders and institutions respectively. RDEXP and ADVEXP are the R&D and advertising expenditures of the bidder normalized by total sales. CCF and NCCF are the cash flows of the core and non-core business segments of the bidders normalized by segment sales from one year before. The cash flows are computed as operating income plus depreciation. CASHD and STOCKD are the dummy variables taking on value of one if the payment was made in cash or stock respectively, and zero otherwise. For payments made in both cash and stock, CASHD and STOCKD take on value of one. DIVESTD is a dummy variable taking on a value of one if the target was divested by its parent, and zero otherwise. All values are from one year before the acquisition. t-values are stated in parantheses. All regressions contain calendar year dummies. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A: Cross Sectional Logistic Regressions Relating Firm Characteristics to Type of Acquisitions for Single-Segment Firms

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Constant	0.344	0.315	0.389	0.321	0.326	0.413	0.381
	(6.737)***	(6.194)***	(7.171)***	(5.977)***	(6.446)***	(7.051)***	(6.529)***
LN(SALES)	0.006	0.007	0.010	0.006	0.003	0.014	0.014
	(0.966)	(1.110)	(1.477)	(0.940)	(0.566)	(2.108)**	(2.112)**
IMPUTEDQ	-0.039					-0.048	
	(-2.999)***					(-3.646)***	
INDADJQ	0.023					0.020	
	(1.536)					(1.354)	
IMPUTEDEMV		-0.036					-0.043
		(-3.225)***					(-3.793)***
INDADJEMV		0.014					0.012
		(1.684)*					(1.370)
DEBT			-0.001			-0.001	-0.001
			(-3.204)***			(-3.356)***	(-3.096)***
INSIDER			-0.001			-0.010	-0.001
			(-1.781)*			(-1.835)*	(-1.959)*
INSTITUTE			-0.001			-0.001	-0.001
			(-2.735)***			(-2.342)**	(-2.319)**
RDEXP				0.252		0.286	0.287
				(2.324)**		(2.601)***	(2.611)***
ADVEXP				-0.733		-0.597	-0.665
				(-1.422)		(-1.161)	(-1.294)
CCF					-0.024	-0.008	-0.004
					(-0.608)	(-0.199)	(-0.095)
CASHD	-0.072	-0.069	-0.065	-0.070	-0.069	-0.068	-0.065
	(-3.796)***	(-3.622)***	(-3.448)***	(-3.693)***	(-3.627)***	(-3.598)***	(-3.414)***
STOCKD	-0.028	-0.026	-0.034	-0.031	-0.028	-0.038	-0.035
	(-1.265)	(-1.201)	(-1.568)	(-1.421)	(-1.266)	(-1.723)*	(-1.609)
DIVESTD	-0.009	-0.009	-0.008	-0.010	-0.011	-0.003	-0.003
	(-0.414)	(-0.389)	(-0.357)	(-0.437)	(-0.482)	(-0.150)	(-0.133)
Likelihood ratio test statistic	4.271***	4.489***	4.152***	3.667***	3.346***	4.416***	4.499***
(d.f.)	(12)	(12)	(13)	(12)	(11)	(18)	(18)

Panel B: Cross Sectional Logistic Regressions Relating Firm Characteristics to Type of Acquisitions for Multi-Segment Firms

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Constant	0.627	0.555	0.646	0.644	0.655	0.668	0.608
	(7.067)***	(6.146)***	(6.416)***	(6.763)***	(7.130)***	(6.040)***	(5.303)***
LN(SALES)	0.016	0.016	0.008	0.002	0.002	0.021	0.021
	(1.455)	(1.453)	(0.703)	(0.183)	(0.202)	(1.699)*	(1.651)*
IMPUTEDQ	-0.128					-0.121	
	(-3.820)***					(-3.202)***	
INDADJQ	-0.006					0.001	
	(-0.182)					(0.032)	
IMPUTEDEMV		-0.103					-0.091
		(-3.609)***					(-2.836)***
INDADJEMV		0.011					0.015
		(0.626)					(0.837)
DEBT			0.001			0.001	0.001
			(1.868)*			(1.591)	(1.711)*
INSIDER			-0.002			-0.002	-0.002
			(-1.972)**			(-1.759)*	(-1.838)*
INSTITUTE			-0.002			-0.002	-0.002
			(-2.360)**			(-2.216)**	(-2.190)**
RDEXP				-0.855		0.557	0.326
				(-0.899)		(0.541)	(0.318)
ADVEXP				-0.369		0.399	0.207
				(-0.343)		(0.364)	(0.190)
CCF					-0.274	-0.247	-0.232
					(-2.254)**	(-2.022)**	(-1.891)*
NCCF					0.017	0.023	0.022
					(0.243)	(0.327)	(0.308)
CASHD	-0.057	-0.054	-0.057	-0.060	-0.053	-0.047	-0.046
	(-1.571)	(-1.497)	(-1.562)	(-1.652)*	(-1.448)	(-1.289)	(-1.249)
STOCKD	-0.106	-0.107	-0.113	-0.109	-0.106	-0.107	-0.108
	(-2.030)**	(-2.051)**	(-2.172)**	(-2.090)**	(-2.030)**	(-2.040)**	(-2.070)**
DIVESTD	-0.012	-0.004	-0.016	-0.015	-0.016	-0.011	-0.003
	(-0.295)	(-0.083)	(-0.386)	(-0.360)	(-0.376)	(-0.268)	(-0.065)
Likelihood ratio test statistic	2.250***	2.165***	1.726*	1.004	1.353	2.147***	2.073***
(d.f.)	(12)	(12)	(13)	(12)	(12)	(19)	(19)

Table 7
Post-Acquisition Valuation Measures of Bidder Firms

The table presents the post-acquisition raw and industry-adjusted (percentage valuation premium/discount) valuation measures of bidder firms that made acquisitions only in U.S. The sample consists of 3180 U.S. firm-acquisitions over the 1991-97 period. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not cover target firms in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. The numbers in cells are the means, the numbers in [ ] brackets are the medians, and the numbers in parentheses are the number of observations. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value (EMV) is defined as the market value of equity less book value of equity normalized by total sales. Industry-adjusted valuation measures are computed using the methodology of Berger and Ofek (1995); namely the natural logarithm of the ratio of raw valuation measures to their imputed value. Imputed industry adjusted performance measures are computed by multiplying the weights of different business segments with the median value of the performance measures for stand alone firms that are in the same 2 digit SIC code industry and that have size within 50% and 200% of the size of the bidding firm's business segment. Year 0 is the year of acquisition. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A: Post-Acquisition Tobin's Q for Bidder Firms That Make U.S. Acquisitions

		Raw Tobin's Q					Industry Adjusted Tobin'sQ				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year 0	All Firms	1.343	1.379	1.286	0.093**	0.027	-9.18***	-9.72***	-8.32***	-1.40	0.615
		[1.039]	[1.107]	[0.937]	[0.170***]	0.000	[-8.06***]	[-8.45***]	[-7.68***]	[-0.77]	0.955
		(n=2790)	(n=1714)	(n=1076)			(n=2784)	(n=1710)	(n=1074)		
	Multi Segment	1.111	1.169	1.072	0.097*	0.075	-19.85***	-19.56***	-20.04***	0.48	0.918
	(M)	[0.939]	[1.039]	[0.886]	[0.153***]	0.003	[-17.39***]	[-15.99***]	[-18.94***]	[2.95]	0.769
		(n=677)	(n=267)	(n=410)			(n=673)	(n=264)	(n=409)		
	Single Segment	1.418	1.418	1.417	0.001	0.990	-5.78***	-7.93***	-1.12	-6.81*	0.058
	(S)	[1.090]	[1.125]	[0.983]	[0.142**]	0.038	[-4.95***]	[-6.48***]	[-0.52]	[-5.96]*	0.097
		(n=2113)	(n=1447)	(n=666)			(n=2111)	(n=1446)	(n=665)		
	Mmean-Smean p-value	-0.307*** 0.000	-0.249*** 0.000	-0.345*** 0.000			-14.07*** 0.000	-11.63*** 0.004	-18.92*** 0.000		
	[Mmed-Smed] p-value	[-0.151***] 0.000	[-0.086**] 0.0260	[-0.097***] 0.001			[-12.44]*** 0.000	[-9.51]*** 0.006	[-18.42]*** 0.000		
Year 1	All Firms	1.271	1.286	1.246	0.040	0.338	-12.70***	-12.90***	-12.36***	-0.54	0.847
		[0.991]	[1.040]	[0.921]	[0.119***]	0.000	[-10.48***]	[-10.17***]	[-11.19***]	[1.02]	0.623
		(n=2826)	(n=1746)	(n=1080)			(n=2819)	(n=1742)	(n=1077)		
	Multi Segment	1.121	1.205	1.066	0.139**	0.020	-21.23***	-18.56***	-22.95***	4.39	0.361
	(M)	[0.969]	[1.070]	[0.918]	[0.152***]	0.001	[-17.07***]	[-13.63***]	[-19.49***]	[5.86]	0.244
		(n=678)	(n=266)	(n=412)			(n=673)	(n=263)	(n=410)		
	Single Segment	1.318	1.301	1.357	-0.056	0.332	-10.02***	-11.90***	-5.86*	-6.04*	0.092
	(S)	[1.000]	[1.036]	[0.923]	[0.113**]	0.036	[-8.23***]	[-9.33***]	[-6.75*]	[-2.58]	0.236
		(n=2148)	(n=1480)	(n=668)			(n=2146)	(n=1479)	(n=667)		
	Mmean-Smean p-value	-0.197*** 0.000	-0.096* 0.086	-0.291*** 0.000			-11.21*** 0.000	-6.66 0.108	-17.09*** 0.000		
	[Mmed-Smed] p-value	[-0.031*] 0.051	[0.034] 0.872	[-0.005] 0.162			[-8.84]*** 0.000	[-4.30] 0.153	[-12.74]*** 0.000		
Year 2	All Firms	1.225	1.244	1.194	0.050	0.236	-15.05***	-14.44***	-16.01***	1.57	0.607
		[0.987]	[1.060]	[0.898]	[0.162***]	0.000	[-12.43***]	[-11.26***]	[-14.52***]	[3.26]	0.324
		(n=2305)	(n=1403)	(n=902)			(n=2255)	(n=1370)	(n=885)		
	Multi Segment	1.102	1.196	1.044	0.152***	0.007	-22.90***	-20.56***	-24.36***	3.80	0.441
	(M)	[0.934]	[1.105]	[0.880]	[0.225***]	0.000	[-20.53***]	[-16.37***]	[-22.82***]	[6.45]	0.276
		(n=567)	(n=217)	(n=350)			(n=560)	(n=215)	(n=345)		
	Single Segment	1.265	1.253	1.290	-0.037	0.525	-12.46***	-13.30***	-10.67***	-2.63	0.512
	(S)	[1.006]	[1.046]	[0.912]	[0.134**]	0.050	[-9.76***]	[-9.86***]	[-8.98***]	[-0.88]	0.620
		(n=1738)	(n=1186)	(n=552)			(n=1695)	(n=1155)	(n=540)		
	Mmean-Smean p-value	-0.163*** 0.000	-0.057 0.268	-0.246*** 0.000			-10.44*** 0.001	-7.26* 0.091	-13.69*** 0.004		
	[Mmed-Smed] p-value	[-0.072] 0.176	[0.059] 0.354	[-0.032] 0.225			[-10.77]*** 0.001	[-6.51] 0.119	[-13.84]*** 0.003		
Year 3	All Firms	1.213	1.242	1.169	0.073	0.115	-14.91***	-14.39***	-15.67***	1.28	0.712
		[0.970]	[1.014]	[0.880]	[0.134***]	0.001	[-11.74***]	[-9.61***]	[-13.34***]	[3.73]	0.484
		(n=1796)	(n=1079)	(n=717)			(n=1747)	(n=1041)	(n=706)		
	Multi Segment	1.114	1.236	1.037	0.199***	0.003	-21.73***	-18.05***	-24.00***	5.95	0.299
	(M)	[0.932]	[1.113]	[0.871]	[0.242***]	0.000	[-17.94***]	[-13.35***]	[-20.70***]	[7.35]	0.252
		(n=464)	(n=178)	(n=286)			(n=458)	(n=175)	(n=283)		
	Single Segment	1.248	1.243	1.256	-0.013	0.843	-12.48***	-13.65***	-10.09**	-3.56	0.439
	(S)	[0.980]	[0.998]	[0.887]	[0.111*]	0.053	[-8.90***]	[-8.94***]	[-8.81***]	[-0.13]	0.513
		(n=1332)	(n=901)	(n=431)			(n=1289)	(n=866)	(n=423)		
	Mmean-Smean p-value	-0.134*** 0.001	-0.007 0.912	-0.219*** 0.001			-9.25*** 0.007	-4.40 0.397	-13.91*** 0.008		
	[Mmed-Smed] p-value	[-0.048] 0.656	[0.115] 0.145	[-0.016] 0.562			[-9.04]*** 0.010	[-4.41] 0.412	[-11.89]** 0.011		

Panel B: Post-Acquisition Excess Market Value (EMV) for Bidder Firms That Make U.S. Acquisitions

		Raw EMV					Industry Adjusted EMV				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year 0	All Firms	94.32	103.10	80.49	22.61***	0.000	-1.95	-1.55	-2.58	1.03	0.848
		[50.10]	[56.45]	[40.20]	[16.25***]	0.000	[-0.01]	[0.00]	[-1.08]	[1.08]	0.723
		(n=2871)	(n=1756)	(n=1115)			(n=2575)	(n=1581)	(n=994)		
	Multi Segment	70.02	84.60	60.35	24.25***	0.002	-25.79***	-28.71***	-23.81***	-4.90	0.595
	(M)	[40.40]	[56.25]	[36.40]	[19.85***]	0.000	[-22.18***]	[-25.67***]	[-21.56***]	[-4.11]	0.617
		(n=727)	(n=290)	(n=437)			(n=665)	(n=269)	(n=396)		
	Single Segment	102.56	106.76	93.46	13.30**	0.048	6.36**	4.02	11.47**	-7.45	0.278
	(S)	[53.90]	[56.45]	[45.20]	[11.25**]	0.011	[5.22**]	[3.70]	[7.74**]	[-4.04]	0.251
		(n=2144)	(n=1466)	(n=678)			(n=1910)	(n=1312)	(n=598)		
	Mmean-Smean p-value	-32.54*** 0.000	-22.16*** 0.006	-33.11*** 0.000			-32.15*** 0.000	-32.73*** 0.000	-35.28*** 0.000		
	[Mmed-Smed] p-value	[-13.50***] 0.001	[-0.20] 0.544	[-8.80**] 0.015			[-27.40]*** 0.000	[-29.37]*** 0.007	[-29.30]*** 0.000		
Year 1	All Firms	86.47	91.03	79.16	11.87**	0.017	-10.80***	-11.95***	-8.92**	-3.03	0.581
		[44.60]	[48.80]	[38.10]	[10.70***]	0.002	[-1.59***]	[-2.52***]	[0.00]	[-2.52]	0.618
		(n=2943)	(n=1814)	(n=1129)			(n=2580)	(n=1603)	(n=977)		
	Multi Segment	70.89	81.27	64.02	17.25**	0.016	-26.31***	-27.23***	-25.69***	-1.54	0.865
	(M)	[45.35]	[58.30]	[38.10]	[20.20***]	0.001	[-16.09***]	[-24.97***]	[-11.15***]	[-13.82]	0.728
		(n=726)	(n=289)	(n=437)			(n=655)	(n=264)	(n=391)		
	Single Segment	91.58	92.88	88.72	4.16	0.536	-5.53*	-8.93**	2.26	-11.19	0.111
	(S)	[43.80]	[46.90]	[38.05]	[8.85*]	0.068	[0.55]	[0.00]	[3.74]	[-3.74]	0.116
		(n=2217)	(n=1525)	(n=692)			(n=1925)	(n=1339)	(n=586)		
	Mmean-Smean p-value	-20.69*** 0.000	-11.61* 0.089	-24.70*** 0.000			-20.78*** 0.000	-18.30** 0.019	-27.95*** 0.001		
	[Mmed-Smed] p-value	[1.55] 0.960	[11.40] 0.130	[0.05] 0.717			[-16.64]*** 0.000	[-24.97]** 0.010	[-14.89]*** 0.001		
Year 2	All Firms	80.64	87.01	70.70	16.31***	0.001	-16.05***	-16.54***	-15.29***	-1.25	0.848
		[42.10]	[44.50]	[37.75]	[6.75***]	0.002	[-9.58***]	[-8.10***]	[-14.01***]	[5.91]	0.945
		(n=2427)	(n=1479)	(n=948)			(n=2055)	(n=1255)	(n=800)		
	Multi Segment	68.00	81.83	59.19	22.64***	0.003	-38.94***	-37.99***	-39.57***	1.58	0.883
	(M)	[44.60]	[60.80]	[38.85]	[21.95***]	0.000	[-27.95***]	[-26.25***]	[-29.67***]	[3.42]	0.950
		(n=609)	(n=237)	(n=372)			(n=544)	(n=216)	(n=328)		
	Single Segment	84.87	88.00	78.13	9.87	0.141	-7.81**	-12.08***	1.58	-13.66*	0.099
	(S)	[40.60]	[42.30]	[36.80]	[5.50*]	0.055	[-1.94*]	[-3.03**]	[0.00]	[-3.03]	0.169
		(n=1818)	(n=1242)	(n=576)			(n=1511)	(n=1039)	(n=472)		
	Mmean-Smean p-value	-16.87*** 0.004	-6.17 0.407	-18.94*** 0.006			-31.13*** 0.000	-25.91*** 0.004	-41.15*** 0.000		
	[Mmed-Smed] p-value	[4.00] 0.280	[18.50***] 0.010	[2.05] 0.801			[-26.01]*** 0.000	[-23.22]*** 0.005	[-29.67]*** 0.000		
Year 3	All Firms	79.91	85.11	72.12	12.99**	0.025	-14.78***	-15.89***	-13.10**	-2.79	0.689
		[41.60]	[43.50]	[39.40]	[4.10**]	0.014	[-5.85***]	[-9.67***]	[-1.78*]	[-7.89]	0.598
		(n=1899)	(n=1139)	(n=760)			(n=1584)	(n=953)	(n=631)		
	Multi Segment	69.01	85.40	58.69	26.71***	0.002	-26.21***	-21.81***	-29.03***	7.22	0.506
	(M)	[48.80]	[62.20]	[41.30]	[20.90***]	0.001	[-21.34***]	[-25.36***]	[-14.39***]	[-10.97]	0.954
		(n=497)	(n=192)	(n=305)			(n=435)	(n=170)	(n=265)		
	Single Segment	83.78	85.05	81.12	3.93	0.625	-10.45**	-14.60***	-1.56	-13.04	0.162
	(S)	[39.35]	[40.60]	[38.00]	[2.60]	0.122	[-1.04*]	[-5.77**]	[2.90]	[-8.67]	0.132
		(n=1402)	(n=947)	(n=455)			(n=1149)	(n=783)	(n=366)		
	Mmean-Smean p-value	-14.77*** 0.005	0.35 0.967	-22.43*** 0.004			-15.76** 0.021	-7.21 0.450	-27.47*** 0.010		
	[Mmed-Smed] p-value	[9.45*] 0.081	[21.60***] 0.004	[3.30] 0.501			[-20.30]** 0.011	[-19.59] 0.191	[-17.29]*** 0.009		

Table 8

Cross Sectional Regressions Relating Changes in Post-Acquisition Valuation Measures to Effects of Diversification

The dependent variables in the cross sectional regressions are the change in valuation measures of the domestic bidders from the end of year -1 till the end of years 1,2, and 3. The sample includes 3180 firm-year acquisitions. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets of the bidder firm. Excess Market Value (EMV) is computed as the market value of equity less the book value of equity normalized by total sales for the bidders. Industry-adjustment is made by using the methodology of Berger and Ofek (1995). The raw dependent variables are normalized by the pre-acquisition average of valuation measures. The constant term captures the effect of diversification on multi-segment firms that made focusing acquisitions. MULTIDIVERD is a dummy variable taking on the value of one if a multi-segment bidder made a diversifying acquisition, and zero otherwise. SINGLEFOCUSD is a dummy variable taking on the value of one if a single-segment bidder made a focusing acquisition, and zero otherwise. SINGLEDIVERD is a dummy variable taking on the value of one if a single-segment bidder made a diversifying acquisition, and zero otherwise. t-values for independent variables and p-value for the models are stated in parantheses. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A: Cross Sectional Regressions Relating Post-Acquisition Changes in Raw Valuation Measures to Effects of Diversification

Dependent Variables	Constant	MULTIDIVERD	SINGLEFOCUSD	SINGLEDIVERD	F-Value p-value	R^2 Adj-R^2
Δ Q(-1to+1)/AVGQ$_{(-1)}$	0.196	-0.061	-0.091	-0.044	1.373	0.001
	(4.142)***	(-0.996)	(-1.775)*	(-0.785)	(0.249)	0.000
Δ Q(-1to+2)/AVGQ$_{(-1)}$	0.235	-0.082	-0.109	-0.076	2.219*	0.002
	(5.902)***	(-1.599)	(-2.517)**	(-1.632)	(0.084)	0.001
Δ Q(-1to+3)/AVGQ$_{(-1)}$	0.324	-0.119	-0.147	-0.133	3.537**	0.003
	(7.738)***	(-2.209)**	(-3.238)***	(-2.707)***	(0.014)	0.002
Δ EMV (-1to+1)/(1+AVGEMV$_{(-1)}$)	0.097	-0.022	-0.062	-0.055	1.868	0.002
	(3.413)***	(-0.593)	(-2.003)**	(-1.645)*	(0.133)	0.001
Δ EMV (-1to+2)/(1+AVGEMV$_{(-1)}$)	0.118	-0.041	-0.067	-0.081	2.926**	0.003
	(4.657)***	(-1.266)	(-2.447)**	(-2.741)***	(0.033)	0.002
Δ EMV (-1to+3)/(1+AVGEMV$_{(-1)}$)	0.148	-0.040	-0.061	-0.090	3.228**	0.003
	(5.692)***	(-1.191)	(-2.160)**	(-2.943)***	(0.022)	0.002

Panel B: Cross Sectional Regressions Relating Post-Acquisition Changes in Industry-Adjusted Valuation Measures to Effects of Diversification

Dependent Variables	Constant	MULTIDIVERD	SINGLEFOCUSD	SINGLEDIVERD	F-Value p-value	R^2 Adj-R^2
Δ INDADJQ (-1to+1)	0.002	-0.045	-0.068	-0.092	1.948	0.002
	(0.069)	(-1.032)	(-1.846)*	(-2.300)**	(0.120)	0.001
Δ INDADJQ (-1to+2)	-0.001	-0.065	-0.068	-0.118	3.347**	0.003
	(-0.035)	(-1.534)	(-1.918)*	(-3.057)***	(0.018)	0.002
Δ INDADJQ (-1to+3)	-0.006	-0.044	-0.064	-0.085	2.076	0.002
	(-0.215)	(-1.137)	(-1.946)*	(-2.394)**	(0.101)	0.001
Δ INDADJEMV (-1to+1)	-0.048	-0.020	-0.103	-0.144	2.226*	0.002
	(-0.805)	(-0.257)	(-1.585)	(-2.043)**	(0.083)	0.001
Δ INDADJEMV (-1to+2)	-0.088	-0.028	-0.049	-0.123	1.597	0.002
	(-1.513)	(-0.378)	(-0.774)	(-1.802)*	(0.188)	0.001
Δ INDADJEMV (-1to+3)	-0.092	0.000	-0.097	-0.152	3.600**	0.003
	(-1.741)*	(0.006)	(-1.680)*	(-2.429)**	(0.013)	0.002

Table 9

Pre-Acquisition Univariate Analysis of Bidders' Core and Non-Core Business Performance

The table presents the means [medians] of the core and non-core business performance measures at the segment level of bidder firms that made domestic acquisitions over the 1991-1997 period. Year t is the year of the acquisition. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not include bidder and target firms in non-manufacturing industries such as Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). The sample also does not cover bidder firms that made both "*diversifying*" and "*focusing*" acquisitions in the same calendar year. We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. We combine the value of acquisitions for bidder firms that made more than one acquisition in a calendar year and count it as one acquisition-year observation. Cash Flow is defined as operating income plus depreciation. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A. Pre-Acquisition Sales for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
ln(Sales)t-2	Multi Segment (M)	19.656 [19.817] (n=208)	19.007 [19.103] (n=197)	0.649*** [0.714***]	0.000 0.000	19.616 [19.724] (n=313)	19.078 [19.106] (n=304)	0.538*** [0.618***]	0.001 0.001	0.040 [0.093]	0.815 0.953	-0.071 [-0.003]	0.690 0.563
	Single Segment (S)	18.648 [18.707] (n=1064)				18.615 [18.660] (n=447)				0.033 [0.047]	0.796 0.766		
	M-S p-value	1.008*** 0.000				1.001*** 0.000							
	[M-S] p-value	[1.110***] 0.000				[1.064***] 0.000							
ln(Sales)t-1	Multi Segment (M)	19.816 [19.850] (n=260)	19.069 [19.127] (n=258)	0.747*** [0.723***]	0.000 0.000	19.774 [19.998] (n=392)	19.196 [19.225] (n=392)	0.578*** [0.773***]	0.000 0.000	0.042 [-0.148]	0.782 0.972	-0.127 [-0.098]	0.418 0.372
	Single Segment (S)	18.812 [18.847] (n=1331)				18.743 [18.826] (n=577)				0.069 [0.021]	0.528 0.492		
	M-S p-value	1.004*** 0.000				1.031*** 0.000							
	[M-S] p-value	[1.003***] 0.000				[1.172***] 0.000							
ln(Sales)t	Multi Segment (M)	20.043 [20.044] (n=296)	19.257 [19.326] (n=288)	0.786*** [0.718***]	0.000 0.000	19.910 [20.084] (n=441)	19.377 [19.426] (n=428)	0.533*** [0.658***]	0.000 0.000	0.133 [-0.040]	0.327 0.488	-0.120 [-0.100]	0.419 0.460
	Single Segment (S)	19.055 [19.109] (n=1518)				18.883 [18.937] (n=666)	17.849 [17.831] (n=99)	1.034*** [1.106***]	0.000 0.000	0.172* [0.172*]	0.077 0.066		
	M-S p-value	0.988*** 0.000				1.027*** 0.000	1.528*** 0.000						
	[M-S] p-value	[0.935***] 0.000				[1.147***] 0.000	[1.595***] 0.000						

Panel B. Pre-Acquisition Assets for Core and Non-Core Business Segment of the Bidder

		Focusing	Acquisitions			Diversifying	Acquisitions						
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
ln(Assets)t-2	Multi Segment (M)	19.444 [19.469] (n=209)	18.869 [19.008] (n=198)	0.575*** [0.461***]	0.003 0.006	19.378 [19.457] (n=314)	19.051 [19.096] (n=305)	0.327** [0.361**]	0.048 0.049	0.066 [0.012]	0.702 0.865	-0.182 [-0.088]	0.326 0.325
	Single Segment (S)	18.596 [18.589] (n=1076)				18.463 [18.361] (n=449)				0.133 [0.228]	0.268 0.183		
	M-S p-value	0.848*** 0.000				0.915*** 0.000							
	[M-S] p-value	[0.880***] 0.000				[1.096***] 0.000							
ln(Assets)t-1	Multi Segment (M)	19.628 [19.625] (n=260)	18.945 [18.998] (n=258)	0.683*** [0.627***]	0.000 0.000	19.463 [19.613] (n=392)	19.183 [19.144] (n=392)	0.280* [0.469**]	0.057 0.042	0.165 [0.012]	0.289 0.455	-0.238 [-0.146]	0.155 0.217
	Single Segment (S)	18.797 [18.754] (n=1344)				18.609 [18.543] (n=585)				0.188* [0.211**]	0.060 0.044		
	M-S p-value	0.831*** 0.000				0.854*** 0.000							
	[M-S] p-value	[0.871***] 0.000				[1.070***] 0.000							
ln(Assets)t	Multi Segment (M)	19.914 [19.903] (n=296)	19.214 [19.311] (n=288)	0.700*** [0.592***]	0.000 0.000	19.650 [19.744] (n=441)	19.396 [19.419] (n=427)	0.254* [0.325**]	0.060 0.049	0.264* [0.159]	0.059 0.117	-0.182 [-0.108]	0.248 0.321
	Single Segment (S)	19.122 [19.095] (n=1526)				18.836 [18.817] (n=667)	18.372 [18.277] (n=98)	0.464* [0.540**]	0.080 0.015	0.286*** [0.278***]	0.001 0.001		
	M-S p-value	0.792*** 0.000				0.814*** 0.000	1.024*** 0.000						
	[M-S] p-value	[0.808***] 0.000				[0.927***] 0.000	[1.142***] 0.000						

Panel C. Pre-Acquisition Growth in Sales for the Core and Non-Core Business Segment of the Bidder

		Focusing	Acquisitions			Diversifying	Acquisitions						
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Sales t-1/Salest-2	Multi Segment (M)	1.205 [1.083] (n=206)	1.300 [1.109] (n=196)	-0.095 [-0.026]	0.241 0.791	1.180 [1.063] (n=311)	1.259 [1.075] (n=295)	-0.079 [-0.012]	0.140 0.323	0.025 [0.020**]	0.643 0.035	0.041 [0.034]	0.609 0.219
	Single Segment (S)	1.317 [1.172] (n=1039)				1.287 [1.152] (n=437)				0.030 [0.020]	0.380 0.132		
	M-S p-value	-0.112** 0.027				-0.107*** 0.007							
	[M-S] p-value	[-0.089***] 0.000				[-0.089***] 0.000							
Sales t/Sales t-1	Multi Segment (M)	1.325 [1.134] (n=259)	1.283 [1.107] (n=246)	0.042 [0.027**]	0.486 0.022	1.184 [1.064] (n=385)	1.282 [1.107] (n=370)	-0.098** [-0.043***]	0.030 0.003	0.141*** [0.070***]	0.002 0.000	0.001 [0.000]	0.978 0.901
	Single Segment (S)	1.430 [1.209] (n=1298)				1.346 [1.178] (n=543)				0.084** [0.031**]	0.011 0.022		
	M-S p-value	-0.105** 0.014				-0.162*** 0.000							
	[M-S] p-value	[-0.075***] 0.000				[-0.114***] 0.000							

Panel D. Pre-Acquisition Cash Flows for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cash Flow t-1/Sales t-2	Multi Segment (M)	0.206 [0.167] (n=202)	0.219 [0.170] (n=191)	-0.013 [-0.003]	0.651 0.268	0.164 [0.140] (n=308)	0.210 [0.156] (n=298)	-0.046** [-0.016*]	0.020 0.097	0.042** [0.027***]	0.015 0.001	0.009 [0.014]	0.758 0.647
	Single Segment (S)	0.181 [0.153] (n=1017)				0.164 [0.150] (n=425)				0.017 [0.003]	0.293 0.472		
	M-S p-value	0.025 0.159				0.000 0.996							
	[M-S] p-value	[0.014**] 0.035				[-0.010] 0.363							
Cash Flow t/Sales t-1	Multi Segment (M)	0.222 [0.169] (n=252)	0.200 [0.157] (n=241)	0.022 [0.012*]	0.258 0.067	0.158 [0.138] (n=384)	0.204 [0.165] (n=369)	-0.046*** [-0.027***]	0.004 0.003	0.064*** [0.031***]	0.000 0.000	-0.004 [-0.008]	0.837 0.596
	Single Segment (S)	0.201 [0.159] (n=1279)				0.150 [0.140] (n=542)				0.051*** [0.019***]	0.005 0.001		
	M-S p-value	0.021 0.235				0.008 0.612							
	[M-S] p-value	[0.010**] 0.043				[-0.002] 0.866							

Panel E. Pre-Acquisition Capital Expenditures for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cap Exp t-1/Sales t-2	Multi Segment (M)	0.149 [0.051] (n=202)	0.123 [0.047] (n=188)	0.026 [0.004]	0.501 0.272	0.078 [0.041] (n=308)	0.175 [0.049] (n=297)	-0.097** [-0.008***]	0.016 0.009	0.071*** [0.010**]	0.006 0.018	-0.052 [-0.002]	0.292 0.286
	Single Segment (S)	0.254 [0.063] (n=1021)				0.128 [0.051] (n=429)				0.126*** [0.012***]	0.000 0.008		
	M-S p-value	-0.105*** 0.002				-0.050** 0.020							
	[M-S] p-value	[-0.012*] 0.065				[-0.010***] 0.006							
Cap Exp t /Sales t-1	Multi Segment (M)	0.225 [0.055] (n=251)	0.124 [0.047] (n=240)	0.101** [0.008**]	0.038 0.030	0.086 [0.043] (n=382)	0.133 [0.052] (n=366)	-0.047** [-0.009***]	0.026 0.002	0.139*** [0.012***]	0.002 0.000	-0.009 [-0.005]	0.769 0.128
	Single Segment (S)	0.299 [0.063] (n=1291)				0.177 [0.057] (n=542)				0.122*** [0.006***]	0.001 0.006		
	M-S p-value	-0.074 0.140				-0.091*** 0.001							
	[M-S] p-value	[-0.008] 0.229				[-0.014***] 0.001							

Table 10

Post-Acquisition Univariate Analysis of Bidders' Core and Non-Core Business Performance

The table presents the means [medians] of the core and non-core business performance measures at the segment level of bidder firms that made domestic acquisitions over the 1991-1997 period. Year t is the year of the acquisition. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not include bidder and target firms in non-manufacturing industries such as Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). The sample also does not cover bidder firms that made both "*diversifying*" and "*focusing*" acquisitions in the same calendar year. We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. We combine the value of acquisitions for bidder firms that made more than one acquisition in a calendar year and count it as one acquisition-year observation. Cash Flow is defined as operating income plus depreciation. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A. Post-Acquisition Sales for Core and Non-Core Business Segments

			Focusing Acquisitions			Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
ln(Sales)t	Multi Segment (M)	20.043 [20.044] (n=296)	19.257 [19.326] (n=288)	0.786*** [0.718***]	0.000 0.000	19.910 [20.084] (n=441)	19.377 [19.426] (n=428)	0.533*** [0.658***]	0.000 0.000	0.133 [-0.040]	0.327 0.488	-0.120 [-0.100]	0.419 0.460
	Single Segment (S)	19.055 [19.109] (n=1518)				18.883 [18.937] (n=666)	17.849 [17.831] (n=99)	1.034*** [1.106***]	0.000 0.000	0.172* [0.172*]	0.077 0.066		
	M-S p-value	0.988*** 0.000				1.027*** 0.000	1.528*** 0.000						
	[M-S] p-value	[0.935***] 0.000				[1.147***] 0.000	[1.595***] 0.000						
ln(Sales)t+1	Multi Segment (M)	20.204 [20.200] (n=296)	19.362 [19.433] (n=270)	0.842*** [0.767***]	0.000 0.000	20.009 [20.140] (n=441)	19.490 [19.594] (n=415)	0.519*** [0.546***]	0.000 0.000	0.195 [0.060]	0.146 0.238	-0.128 [-0.161]	0.395 0.383
	Single Segment (S)	19.309 [19.363] (n=1554)				19.189 [19.241] (n=691)	17.934 [17.897] (n=155)	1.255*** [1.344***]	0.000 0.000	0.120 [0.122]	0.197 0.158		
	M-S p-value	0.895*** 0.000				0.820*** 0.000	1.556*** 0.000						
	[M-S] p-value	[0.837***] 0.000				[0.899***] 0.000	[1.697***] 0.000						
ln(Sales)t+2	Multi Segment (M)	20.356 [20.311] (n=241)	19.472 [19.576] (n=211)	0.884*** [0.735***]	0.000 0.000	20.153 [20.271] (n=370)	19.637 [19.824] (n=342)	0.516*** [0.447***]	0.000 0.001	0.203 [0.040]	0.156 0.246	-0.165 [-0.248]	0.344 0.361
	Single Segment (S)	19.404 [19.441] (n=1241)				19.288 [19.297] (n=581)	18.082 [17.971] (n=146)	1.206*** [1.326***]	0.000 0.000	0.116 [0.144]	0.258 0.165		
	M-S p-value	0.952*** 0.000				0.865*** 0.000	1.555*** 0.000						
	[M-S] p-value	[0.870***] 0.000				[0.974***] 0.000	[1.853***] 0.000						

Panel B. Post-Acquisition Assets for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
ln(Assets)t	Multi Segment (M)	19.914 [19.903] (n=296)	19.214 [19.311] (n=288)	0.700*** [0.592***]	0.000 0.000	19.650 [19.744] (n=441)	19.396 [19.419] (n=427)	0.254* [0.325**]	0.060 0.049	0.264* [0.159]	0.059 0.117	-0.182 [-0.108]	0.248 0.321
	Single Segment (S)	19.122 [19.095] (n=1526)				18.836 [18.817] (n=667)	18.372 [18.277] (n=98)	0.464* [0.540**]	0.080 0.015	0.286*** [0.278***]	0.001 0.001		
	M-S p-value	0.792*** 0.000				0.814*** 0.000	1.024*** 0.000						
	[M-S] p-value	[0.808***] 0.000				[0.927***] 0.000	[1.142***] 0.000						
ln(Assets)t+1	Multi Segment (M)	20.067 [19.987] (n=296)	19.345 [19.419] (n=271)	0.722*** [0.568***]	0.000 0.000	19.786 [19.743] (n=440)	19.484 [19.574] (n=413)	0.302** [0.169**]	0.027 0.041	0.281** [0.244*]	0.040 0.079	-0.139 [-0.155]	0.388 0.366
	Single Segment (S)	19.318 [19.331] (n=1543)				19.042 [18.984] (n=692)	18.181 [17.921] (n=157)	0.861*** [1.063***]	0.000 0.000	0.276*** [0.347***]	0.002 0.001		
	M-S p-value	0.749*** 0.000				0.744*** 0.000	1.303*** 0.000						
	[M-S] p-value	[0.656***] 0.000				[0.759***] 0.000	[1.653***] 0.000						
ln(Assets)t+2	Multi Segment (M)	20.226 [20.151] (n=239)	19.492 [19.622] (n=210)	0.734*** [0.529***]	0.000 0.000	19.958 [20.110] (n=368)	19.630 [19.699] (n=341)	0.328** [0.411**]	0.028 0.042	0.268* [0.041]	0.074 0.143	-0.138 [-0.077]	0.454 0.460
	Single Segment (S)	19.400 [19.447] (n=1232)				19.089 [19.204] (n=577)	18.248 [17.740] (n=141)	0.841*** [1.464***]	0.000 0.000	0.311*** [0.243***]	0.002 0.002		
	M-S p-value	0.826*** 0.000				0.869*** 0.000	1.382*** 0.000						
	[M-S] p-value	[0.704***] 0.000				[0.906***] 0.000	[1.959***] 0.000						

Panel C. Post Acquisition Growth in Sales for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Sales t+1/Sales t	Multi Segment (M)	1.275 [1.124] (n=293)	1.184 [1.090] (n=257)	0.091** [0.034***]	0.043 0.008	1.159 [1.081] (n=430)	1.204 [1.094] (n=396)	-0.045 [-0.013]	0.185 0.437	0.116*** [0.043***]	0.003 0.000	-0.020 [-0.004]	0.621 0.827
	Single Segment (S)	1.373 [1.196] (n=1469)				1.384 [1.175] (n=620)	1.704 [1.226] (n=80)	-0.320** [-0.051**]	0.048 0.045	-0.011 [0.021**]	0.753 0.033		
	M-S p-value	-0.098** 0.011				-0.225*** 0.000	-0.500*** 0.002						
	[M-S] p-value	[-0.072***] 0.000				[-0.094***] 0.000	[-0.132***] 0.000						
Sales t+2/Sales t+1	Multi Segment (M)	1.160 [1.085] (n=237)	1.135 [1.073] (n=198)	0.025 [0.012]	0.507 0.177	1.130 [1.065] (n=364)	1.236 [1.082] (n=320)	-0.106** [-0.017]	0.021 0.307	0.031 [0.020]	0.317 0.123	-0.101** [-0.009]	0.049 0.366
	Single Segment (S)	1.234 [1.120] (n=1177)				1.270 [1.123] (n=539)	1.404 [1.152] (n=101)	-0.134* [-0.029]	0.087 0.200	-0.036 [-0.003]	0.232 0.785		
	M-S p-value	-0.074** 0.016				-0.140*** 0.000	-0.168** 0.049						
	[M-S] p-value	[-0.035***] 0.010				[-0.058***] 0.000	[-0.070***] 0.003						

Panel D. Post-Acquisition Cash Flows for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cash Flow t+1/Salest	Multi	0.217	0.201	0.016	0.331	0.155	0.205	-0.050***	0.001	0.062***	0.000	-0.004	0.805
	Segment	[0.171]	[0.164]	[0.007]	0.229	[0.142]	[0.160]	[-0.018**]	0.016	[0.029***]	0.000	[0.004]	0.663
	(M)	(n=289)	(n=259)			(n=434)	(n=404)						
	Single	0.183				0.145	0.255	-0.110*	0.056	0.038*	0.067		
	Segment	[0.152]				[0.135]	[0.195]	[-0.060**]	0.011	[0.017***]	0.000		
	(S)	(n=1431)				(n=617)	(n=87)						
	M-S p-value	0.034** 0.031				0.010 0.615	-0.050 0.370						
	[M-S] p-value	[0.019***] 0.005				[0.007] 0.180	[-0.035] 0.393						
Cash Flow t+2/Sales t+1	Multi	0.205	0.182	0.023	0.230	0.164	0.202	-0.038**	0.021	0.041***	0.002	-0.020	0.360
	Segment	[0.170]	[0.160]	[0.010*]	0.098	[0.149]	[0.159]	[-0.010**]	0.038	[0.021***]	0.002	[0.001]	0.631
	(M)	(n=237)	(n=201)			(n=364)	(n=333)						
	Single	0.157				0.128	0.207	-0.079	0.112	0.029**	0.037		
	Segment	[0.140]				[0.123]	[0.175]	[-0.052***]	0.002	[0.017***]	0.007		
	(S)	(n=1157)				(n=521)	(n=97)						
	M-S p-value	0.048*** 0.001				0.036*** 0.008	-0.005 0.912						
	[M-S] p-value	[0.030***] 0.000				[0.026***] 0.006	[-0.016] 0.439						

Panel E. Post-Acquisition Capital Expenditures for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cap Exp t+1/Sales t	Multi	0.143	0.104	0.039	0.160	0.097	0.121	-0.024	0.175	0.046	0.108	-0.017	0.294
	Segment	[0.053]	[0.049]	[0.004]	0.124	[0.044]	[0.052]	[-0.008***]	0.002	[0.009***]	0.001	[-0.003]	0.226
	(M)	(n=286)	(n=257)			(n=431)	(n=398)						
	Single	0.241				0.178	0.362	-0.184	0.163	0.063*	0.033		
	Segment	[0.062]				[0.052]	[0.074]	[-0.022***]	0.006	[0.010***]	0.000		
	(S)	(n=1421)				(n=615)	(n=85)						
	M-S p-value	-0.098*** 0.002				-0.081** 0.012	-0.241* 0.063						
	[M-S] p-value	[-0.009*] 0.075				[-0.008**] 0.011	[-0.022**] 0.016						
Cap Exp t+2/Sales t+1	Multi	0.149	0.121	0.028	0.429	0.079	0.129	-0.050***	0.002	0.070**	0.018	-0.008	0.757
	Segment	[0.056]	[0.052]	[0.004]	0.459	[0.043]	[0.051]	[-0.008***]	0.003	[0.013***]	0.008	[0.001]	0.377
	(M)	(n=232)	(n=198)			(n=363)	(n=331)						
	Single	0.203				0.145	0.276	-0.131*	0.087	0.058*	0.068		
	Segment	[0.057]				[0.047]	[0.065]	[-0.018 ***]	0.002	[0.010***]	0.000		
	(S)	(n=1148)				(n=516)	(n=95)						
	M-S p-value	-0.054 0.101				-0.066** 0.017	-0.147** 0.044						
	[M-S] p-value	[-0.001] 0.401				[-0.004] 0.292	[-0.014*] 0.069						

Table 11

Core and Non-Core Capital Expenditures of Single- and Multi-Segment Bidders

The table presents the core and non-core capital expenditures of single- and multi-segment bidders included in our sample. The sample consists of 3180 U.S. firm-acquisitions made over the 1991-97 period. 2438 of the firm-year acquisitions are made by single-segment bidders while the remaining 742 are made by multi-segment bidders. The core business segment of the bidder is defined as the line of business that has the highest sales as percentage of the total sales of the firm at 2 digit SIC level. The non-core business segments of the bidder are defined as the entirety of all lines of businesses other than the core business at 2 digit SIC level. The core and non-core capital expenditures are defined as the capital expenditures of the core and non-core segments respectively scaled by the total sales of the bidders from the previous year. Core Cash Flows (CCF) and Non-Core Cash Flows (NCCF) are defined as the operating income plus depreciation of the core and non-core business segments respectively normalized by the segment sales from the previous year. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Industry adjusted valuation measures, INDADJQ, are obtained by the approach of Berger and Ofek (1995) using sales multipliers as the natural logarithm of the ratio of Tobin's Q of the bidder to its imputed value. We define acquisitions as "diversifying" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "focusing" when the 2 digit SIC code of the bidder's core business is the same of the target. 1668 of the single-segment firms in our sample made focusing acquisitions and the remaining 770 single-segment firms made diversifying acquisitions. 297 of the multi-segment firms in our sample made focusing acquisitions and the remaining 445 multi-segment firms made diversifying acquisitions. Year 0 is the year of acquisitions. t-values of coefficients are in parantheses. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A1: Core Capital Expenditures of Single-Segment Firms That Make Focusing Acquisitions

Independent Variables	CORECAPEXP (t=0)	CORECAPEXP (t=1)	CORECAPEXP (t=2)
Constant	0.240	-0.119	0.176
	(2.443)**	(-1.256)	(5.973)***
CCF t-1	0.789	0.270	0.120
	(4.462)***	(2.309)**	(3.599)***
Q t-1	0.003	0.271	0.012
	(0.058)	(5.009)***	(0.637)
INDADJQ t-1	-0.050	-0.154	0.027
	(-0.530)	(-1.774)*	(1.038)
F-Value	6.687	11.706	5.935
p-value	(0.000)***	(0.000)***	(0.001)***
R^2	0.012	0.021	0.011
Adj-R^2	0.010	0.019	0.009

Panel A2: Core Capital Expenditures of Single-Segment Firms That Make Diversifying Acquisitions

Independent Variables	CORECAPEXP (t=0)	CORECAPEXP (t=1)	CORECAPEXP (t=2)
Constant	0.168	0.127	-0.337
	(4.396)***	(1.897)*	(-0.838)
CCF t-1	-0.034	0.064	0.118
	(-0.358)	(0.783)	(0.284)
NCCF t-1		0.005	-0.031
		(0.131)	(-0.032)
Q t-1	0.008	0.013	0.511
	(0.363)	(0.477)	(2.852)***
INDADJQ t-1	0.035	0.038	-0.121
	(1.016)	(0.902)	(-0.400)
F-Value	1.115	1.040	3.281
p-value	(0.342)	(0.396)	(0.011)**
R^2	0.004	0.005	0.017
Adj-R^2	0.000	0.000	0.012

Panel B: Non-Core Capital Expenditures of Single-Segment Firms That Make Diversifying Acquisitions

Independent Variables	NON-CORE CAPEXP (t=0)	NON-CORE CAPEXP (t=1)	NON-CORE CAPEXP (t=2)
Constant	0.087	0.040	0.029
	(16.817)***	(4.636)***	(6.544)***
CCF t-1	-0.014	0.037	0.018
	(-1.116)	(3.486)***	(3.942)***
NCCF t-1		0.006	0.039
		(1.202)	(3.734)***
Q t-1	0.002	0.001	0.002
	(0.715)	(0.262)	(0.997)
INDADJQ t-1	0.001	-0.001	-0.003
	(0.242)	(-0.092)	(-0.780)
F-Value	0.926	3.378	7.043
p-value	(0.428)	(0.009)***	(0.000)***
R^2	0.004	0.017	0.036
Adj-R^2	0.000	0.012	0.030

Panel C1: Core Capital Expenditures of Multi-Segment Firms That Make Focusing Acquisitions

Independent Variables	CORE CAPEXP (t=0)	CORE CAPEXP (t=0)	CORE CAPEXP (t=1)	CORE CAPEXP (t=1)	CORE CAPEXP (t=2)	CORE CAPEXP (t=2)
Constant	-0.005	-0.320	0.056	0.005	-0.009	0.024
	(-0.081)	(-2.597)**	(1.589)	(0.068)	(-0.208)	(0.343)
CCF t-1	0.980	0.941	0.390	0.350	0.794	0.790
	(4.104)***	(4.074)***	(3.697)***	(3.268)***	(5.872)***	(5.650)***
NCCF t-1	-0.053	-0.169	-0.162	-0.182	-0.134	-0.137
	(-0.354)	(-1.159)	(-1.464)	(-1.643)	(-0.950)	(-0.966)
Q t-1		0.301		0.057		-0.021
		(3.790)***		(1.261)		(-0.489)
INDADJQ t-1		-0.002		0.013		0.036
		(-0.027)		(0.253)		(0.624)
F-Value	8.555	11.352	7.061	4.505	17.410	8.760
p-value	(0.000)***	(0.000)***	(0.000)***	(0.002)***	(0.000)***	(0.000)***
R^2	0.055	0.135	0.046	0.058	0.106	0.107
Adj-R^2	0.049	0.123	0.039	0.045	0.100	0.095

Panel C2: Core Capital Expenditures of Multi-Segment Firms That Make Diversifying Acquisitions

Independent Variables	CORE CAPEXP (t=0)	CORE CAPEXP (t=0)	CORE CAPEXP (t=1)	CORE CAPEXP (t=1)	CORE CAPEXP (t=2)	CORE CAPEXP (t=2)
Constant	0.029	0.007	-0.007	-0.001	0.007	0.024
	(4.168)***	(0.621)	(-0.394)	(-0.029)	(1.352)	(2.245)**
CCF t-1	0.132	0.125	0.436	0.426	0.291	0.288
	(4.343)***	(4.159)***	(6.514)***	(6.365)***	(14.357)***	(14.258)***
NCCF t-1	0.003	0.004	0.001	0.000	-0.005	-0.007
	(0.211)	(0.248)	(0.026)	(-0.008)	(-0.387)	(-0.514)
Q t-1		0.022		0.003		-0.011
		(3.009)***		(0.133)		(-1.516)
INDADJQ t-1		0.001		0.033		0.018
		(0.139)		(1.429)		(2.193)**
F-Value	9.565	9.285	21.222	11.756	103.185	53.122
p-value	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
R^2	0.041	0.078	0.088	0.097	0.318	0.326
Adj-R^2	0.037	0.069	0.083	0.088	0.315	0.320

Panel D1: Non-Core Capital Expenditures of Multi-Segment Firms That Make Focusing Acquisitions

Independent Variables	NON-CORE CAPEXP (t=0)	NON-CORE CAPEXP (t=0)	NON-CORE CAPEXP (t=1)	NON-CORE CAPEXP (t=1)	NON-CORE CAPEXP (t=2)	NON-CORE CAPEXP (t=2)
Constant	0.004	0.021	0.017	0.029	0.016	0.023
	(0.333)	(0.832)	(2.806)***	(2.540)**	(2.754)***	(2.399)**
CCF t-1	0.111	0.103	0.044	0.044	0.052	0.050
	(2.364)**	(2.180)**	(2.426)**	(2.385)**	(2.788)***	(2.590)***
NCCF t-1	0.083	0.082	0.031	-0.032	0.041	0.040
	(2.814)***	(2.745)***	(1.643)*	(1.662)*	(2.136)**	(2.074)**
Q t-1		-0.009		-0.009		-0.004
		(-0.534)		(-1.111)		(-0.680)
INDADJ t-1		0.023		0.012		0.009
		(1.251)		(1.331)		(1.124)
F-Value	8.515	4.695	5.419	3.172	8.252	4.432
p-value	(0.000)***	(0.001)***	(0.000)***	(0.014)**	(0.000)***	(0.002)***
R^2	0.055	0.060	0.036	0.042	0.053	0.057
Adj-R^2	0.048	0.048	0.029	0.029	(0.047)	0.044

Panel D2: Non-Core Capital Expenditures of Multi-Segment Firms That Make Diversifying Acquisitions

Independent Variables	NON-CORE CAPEXP (t=0)	NON-CORE CAPEXP (t=0)	NON-CORE CAPEXP (t=1)	NON-CORE CAPEXP (t=1)	NON-CORE CAPEXP (t=2)	NON-CORE CAPEXP (t=2)
Constant	0.020	0.020	0.015	0.017	0.022	0.030
	(3.370)***	(2.051)**	(3.023)***	(1.909)*	(5.515)***	(3.678)***
CCF t-1	0.040	0.037	0.089	0.088	0.038	0.036
	(1.690)*	(1.482)	(4.500)***	(4.419)***	(2.493)**	(2.382)**
NCCF t-1	0.066	0.066	0.052	0.052	0.062	0.061
	(4.944)***	(4.917)***	(4.369)***	(4.340)***	(6.002)***	(5.805)***
Q t-1		0.002		-0.001		-0.004
		(0.276)		(-0.115)		(-0.769)
INDADJQ t-1		0.008		0.005		0.010
		(1.000)		(0.762)		(1.645)
F-Value	14.146	7.733	19.863	10.129	22.113	11.826
p-value	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
R^2	0.060	0.066	0.082	0.084	0.091	0.097
Adj-R^2	0.050	0.057	0.078	0.076	0.087	0.089

Table 12

Cross Sectional Regressions Relating Post-Acquisition Valuation Measures to Internal Capital Market Variables

The dependent variables in the cross sectional regressions are the post-acquisition industry-adjusted valuation of the bidders based on Tobin's *Q*. Tobin's *Q* is computed as *market value of outstanding shares plus liquidation value of preferred* stock plus net current assets plus long term debt divided by total assets. The valuation premium/discount is computed using the methodology of Berger and Ofek (1995). The sample includes 3180 firm year acquisitions. 2438 of the firm-year acquisitions are made by single-segment bidders while the remaining 742 are made by multi-segment bidders. We define acquisitions as "diversifying" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "focusing" when the 2 digit SIC code of the bidder's core business is the same of the target. 1668 of the single-segment firms in our sample made focusing acquisitions and the remaining 770 single-segment firms made diversifying acquisitions. 297 of the multi-segment firms in our sample made focusing acquisitions and the remaining 445 multi-segment firms made diversifying acquisitions. DIVERD is an indicator variable taking the value of one if the bidder made a diversifying acquisition and zero otherwise. The size of the firm, LN(SALES), is the natural logarithm of annual sales DEBT is the percentage of total debt divided by invested capital. INSIDER and INSTITUTE are the percentage of shares held by insiders and institutions respectively. RDEXP and ADVEXP are the R&D and advertising expenditures of the bidder normalized by total sales of the bidder. CCF and NCCF are the cash flows (the operating income plus depreciation) of the core and non-core business segments of the bidders normalized by segment sales from one year before. The core business segment of the bidder is defined as the line of business that has the highest sales as percentage of the total sales of the firm at 2 digit SIC level. The non-core business segments of the bidder are defined as the entirety of all lines of businesses other than the core business at 2 digit SIC level. Year 0 is the year of acquisitions. t-values of coefficients are in parantheses. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A: Industry-Adjusted Tobin's Q Valuation of Single-Segment Firms

	All Single-Segment Bidders			Focusing Single-Segment Bidders			Diversifying Single-Segment Bidders		
Independent Variables	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)
Constant	0.046	-0.096	-0.101	-0.071	-0.152	-0.136	0.290	0.0378	-0.031
	(0.811)	(-1.576)	(-1.763)*	(-1.058)	(-2.116)**	(-1.991)**	(2.956)***	(0.345)	(-0.297)
DIVERD	0.065	0.058	0.018						
	(2.228)**	(1.938)*	(0.669)						
LN(SALES)	-0.051	-0.032	-0.025	-0.037	-0.027	-0.011	-0.077	-0.040	-0.048
	(-6.309)***	(-3.736)***	(-3.065)***	(-3.926)***	(-2.658)***	(-1.141)	(-4.831)***	(-2.384)**	(-3.036)***
DEBT	0.000	0.000	0.000	0.000	0.001	0.000	-0.001	-0.001	0.001
	(-0.392)	(0.343)	(0.154)	(0.264)	(1.487)	(-0.149)	(-0.803)	(-1.296)	(0.765)
INSIDER	0.003	0.002	0.001	0.002	0.002	0.001	0.003	0.003	0.002
	(3.467)***	(2.792)***	(1.679)*	(2.724)***	(1.973)**	(1.294)	(2.279)**	(2.176)**	(1.345)
INSTITUTE	0.001	0.000	0.000	0.002	0.001	0.001	0.000	-0.001	-0.001
	(2.019)**	(0.644)	(0.204)	(2.803)***	(1.249)	(0.782)	(-0.047)	(-0.509)	(-0.444)
RDEXP	0.008	0.008	0.002	0.008	0.010	0.002	0.048	0.007	0.027
	(2.055)**	(2.064)**	(2.056)**	(2.312)**	(1.122)	(2.353)**	(0.804)	(1.493)	(0.913)
ADVEXP	0.295	1.619	0.898	0.483	1.182	-0.463	-0.119	2.813	1.338
	(0.722)	(2.441)**	(1.694)*	(0.876)	(1.581)	(-0.599)	(-0.188)	(2.035)**	(1.267)
CCF	0.144	0.102	0.260	0.091	0.102	0.246	0.351	0.105	0.281
	(3.578)***	(2.799)***	(5.000)***	(2.105)**	(2.399)**	(4.325)***	(3.656)***	(1.509)	(2.389)**
NCCF x DIVERD			0.157						0.219
			(1.300)						(1.554)
F-Value	11.140	6.275	5.206	5.771	3.291	3.976	9.075	4.584	4.233
p-value	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.002)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
R^2	0.035	0.020	0.019	0.024	0.014	0.016	0.077	0.040	0.043
Adj-R^2	0.032	0.017	0.015	0.020	0.010	0.012	0.068	0.032	0.033

Panel B: Industry-Adjusted Tobin's Q Valuation of Multi-Segment Firms

	All Multi-Segment Bidders			*Focusing Multi-Segment Bidders*			*Diversifying Multi-Segment Bidders*		
Independent Variables	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)
Constant	0.222	0.186	-0.103	0.119	-0.004	0.012	0.303	0.128	-0.181
	(1.975)**	(1.684)*	(-0.932)	(0.705)	(-0.025)	(0.072)	(2.109)**	(0.889)	(-1.308)
DIVERD	0.012	-0.020	-0.011						
	(0.277)	(-0.455)	(-0.305)						
LN(SALES)	-0.072	-0.076	-0.047	-0.046	-0.035	-0.033	-0.089	-0.091	-0.057
	(-5.248)***	(-5.283)***	(-3.574)***	(-2.161)**	(-1.578)	(-1.642)	(-4.926)***	(-4.883)***	(-3.250)***
DEBT	-0.001	0.000	0.000	-0.001	-0.002	-0.001	0.000	0.001	0.001
	(-0.875)	(-0.456)	(0.006)	(-1.018)	(-1.560)	(-1.020)	(-0.142)	(1.297)	(0.797)
INSIDER	-0.004	-0.003	-0.003	-0.003	-0.002	-0.004	-0.005	-0.003	-0.002
	(-2.779)***	(-2.016)**	(-2.391)**	(-1.432)	(-0.894)	(-2.094)**	(-2.373)**	(-1.620)	(-1.074)
INSTITUTE	0.000	0.000	0.001	-0.002	-0.002	-0.001	0.001	0.002	0.002
	(0.197)	(0.299)	(0.613)	(-0.910)	(-0.971)	(-0.407)	(0.958)	(1.355)	(1.305)
RDEXP	0.993	-0.025	1.112	0.518	-0.003	-2.077	1.135	2.607	2.746
	(1.319)	(-0.333)	(1.322)	(0.379)	(-0.042)	(-1.537)	(1.230)	(3.729)***	(2.542)**
ADVEXP	-0.232	0.352	0.080	0.195	1.019	0.755	-0.749	-2.811	-0.755
	(-0.204)	(0.356)	(0.075)	(0.129)	(0.899)	(0.534)	(-0.437)	(-1.441)	(-0.485)
CCF	0.395	0.457	0.702	0.435	0.671	0.745	0.359	0.434	0.730
	(3.310)***	(3.891)***	(5.571)***	(2.688)***	(3.764)***	(4.147)***	(1.957)*	(2.724)***	(4.138)***
NCCF	0.142	0.328	0.284	0.205	0.283	0.097	0.119	0.331	0.350
	(1.561)	(3.563)***	(3.317)***	(1.234)	(1.557)	(0.634)	(1.059)	(3.101)***	(3.312)***
F-Value	6.247	7.005	7.352	2.640	3.682	3.614	4.770	7.712	6.167
p-value	(0.000)***	(0.000)***	(0.000)***	(0.008)***	(0.000)***	(0.001)***	(0.000)***	(0.000)***	(0.000)***
R^2	0.071	0.079	0.083	0.068	0.093	0.091	0.080	0.124	0.102
Adj-R^2	0.060	0.068	0.072	0.042	0.068	0.066	0.064	0.108	0.085

Table 13

Number and Frequency of Overseas Acquisitions by U.S. Bidders per Year

The table lists the number and frequency of 1599 overseas completed acquisition announcements reported in the *M&A Journal* and confirmed by the *Wall Street Journal* over the 1991-1997 period. The sample excludes acquisitions of bidder firms that make domestic acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). An acquisition is defined as "diversifying" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and as "focusing" when the 2 digit SIC code of the bidder's core business is the same of the target. Acquisitions that were reported in the M&A Journal but for which Compustat data was not available have been identified as "other". The geographic diversity of the target firm's country has been classified as "developed" or "emerging" in accordance with the emerging market definition of IFC's Emerging Markets Data Base. According to this definition " All stock markets in developing countries are considered to be 'emerging'. Developing countries are those classified by the World Bank as either low- or middle-income economies, regardless of their particular stage of development..".

Number and Frequency of Overseas Acquisitions per Year

Year	Focusing	Diversifying	Other	Total	Frequency (%)
1991 Developed Countries	34 59.65%	23 40.35%	30	87	
1991 Emerging Countries	4 50.00%	4 50.00%	1	9	
1991-Total	38 58.46%	27 41.54%	31	96	6.00%
1992 Developed Countries	44 64.71%	24 35.29%	31	99	
1992 Emerging Countries	6 50.00%	6 50.00%	5	17	
1992-Total	50 62.50%	30 37.50%	36	116	7.25%
1993 Developed Countries	62 55.86%	49 44.14%	83	194	
1993 Emerging Countries	22 59.46%	15 40.54%	18	55	
1993-Total	84 56.76%	64 43.24%	101	249	15.57%
1994 Developed Countries	79 54.86%	65 45.14%	67	211	
1994 Emerging Countries	25 73.53%	9 26.47%	18	52	
1994-Total	104 58.43%	74 41.57%	85	263	16.45%
1995 Developed Countries	71 59.17%	49 40.83%	95	215	
1995 Emerging Countries	41 69.49%	18 30.51%	18	77	
1995-Total	112 62.57%	67 37.43%	113	292	18.26%
1996 Developed Countries	74 53.62%	64 46.38%	70	208	
1996 Emerging Countries	46 74.19%	16 25.81%	15	77	
1996-Total	120 60.00%	80 40.00%	85	285	17.82%
1997 Developed Countries	88 55.35%	71 44.65%	53	212	
1997 Emerging Countries	48 76.19%	15 23.81%	23	86	
1997-Total	136 61.26%	86 38.74%	76	298	18.64%
1991-97 Developed Countries	452 56.71%	345 43.29%	429	1226	
1991-97 Emerging Countries	192 69.82%	83 30.18%	98	373	
1991-97-Total	644 60.07%	428 39.93%	527	1599	100%

Table 14

Sample Description of Overseas Acquisitions by Year

The table presents the final number of overseas acquisitions that are included in the sample. The initial sample consists of 1599 overseas acquisitions. The sample excludes acquisitions of bidder firms that make domestic acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). An acquisition is defined as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target.

Sample Description of Overseas Acquisitions by Year

	1991	1992	1993	1994	1995	1996	1997	1991-1997
Number of overseas acquisitions for which we found the merger announcement in the M&A Journal and confirmed with The Wall Street Journal.	96	114	249	263	292	285	298	1599
Number of overseas acquisitions for which bidder data was not available in COMPUSTAT.	31	36	101	85	120	89	79	541
Number of overseas acquisitions made by bidder firms whose core business is in non-manufacturing industries such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89).	3	3	6	13	8	10	12	55
Number of dual overseas acquisitions in core and non-core lines of business by bidders on the same calendar years.	6	8	11	30	20	33	34	142
Number of additional overseas acquisitions made by the bidder in core or non-core lines of business on the same calendar year.	2	3	22	18	20	25	25	117
Number of overseas firm-year acquisitions included in the final sample	54	64	109	117	124	128	148	744
Number and frequency of focusing acquisitions in the final sample.	33	43	62	75	82	80	96	471
	61.11%	67.19%	56.88%	64.10%	66.13%	62.50%	64.86%	63.31%
Number and frequency of diversifying acquisitions in the final sample.	21	21	47	42	42	48	52	273
	38.89%	32.81%	43.12%	35.90%	33.87%	37.50%	35.14%	36.69%

Table 15
Type of Overseas Acquisitions by Industry Classification of Bidder Firms based on 2 digit SIC Code

The table presents the type of overseas firm-year acquisitions by the industry classification of bidder firm's core business at the 2 digit SIC code in the year prior to the acquisition. The sample consists of 744 overseas firm-year acquisitions. The sample excludes acquisitions of bidder firms that make domestic acquisitions in the same calendar year and acquisitions which are less than, or assumed to be less than, $ 5 million value. Acquisitions in non-manufacturing industries have also been excluded from the sample such as: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target.

Type of Overseas Acquisitions by Industry Classification of Bidder Firms based on the 2 Digit SIC Code

2-Digit SIC	Title and Description of Industries	Number of Acquisitions			
		Focusing	Diversifying	Total	TOTAL
Division A: Agriculture, Forestry and Fishing					
01-09	Agriculture, Forestry and Fishing	2	3	5	
	Total	2	3	5	5
Division B: Mining					
10	Metal Mining	10	3	13	
13	Oil and Gas Extraction	21	5	26	
14	Mining and Quarrying Nonmetal Minerals, Except Fuels	1	1	2	
	Total	32	9	41	41
Division C: Construction					
17	Construction-Special Trade Contractors	1	2	3	
	Total	1	2	3	3
Division D: Manufacturing					
20	Food and Kindred Products	22	4	26	
21	Tobacco Products	1	-	1	
22	Textile Mill Products	9	6	15	
23	Apparel and Other Finished Products	4	2	6	
24	Lumber and Wood Products, Except Furniture	2	-	2	
25	Furniture and Fixtures	2	7	9	
26	Paper and Allied Products	15	10	25	
27	Printing, Publishing and Allied Industries	16	5	21	
28	Chemicals and Allied Products	68	37	105	
29	Petroleum Refining and Related Industries	5	7	12	
30	Rubber and Miscellaneous Plastic Products	7	15	22	
31	Leather and Leather Products	2	2	4	
32	Stone, Clay, Glass and Concrete Products	2	1	3	
33	Primary Metal Products	8	5	13	
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	11	10	21	

35	Industrial and Commercial Machinery and Computer Equipment	53	46	99	
36	Electronics and Other Electrical Equipment and Components, Except Computer Equipment	50	29	79	
37	Transportation Equipment	19	16	35	
38	Measuring, Analyzing and Controlling Instruments: Photo graphic; Medical and Optical Goods; Watches and Clocks	33	19	52	
39	Miscellaneous Manufacturing Industries	3	8	11	
	Total	332	229	561	561
Division E: Transportation, Communications, Electric, Gas, Sanitary Services					
40	Railroad Transportation	3	-	3	
42	Motor Freight Transportation and Warehousing	5	2	7	
44	Water Transportation	3	3	6	
45	Air Transportation	6	-	6	
47	Transportation Services	5	3	8	
48	Communications	14	1	15	
49	Electric, Gas and Sanitary Services	22	4	26	
	Total	58	13	71	71
Division F: Wholesale Trade					
50	Wholesale Trade- Durable Goods	23	6	29	
51	Wholesale Trade- Nondurable Goods	10	5	15	
52	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers	1	-	1	
53	General Merchandise Stores	2	1	3	
54	Food Stores	1	-	1	
56	Apparel and Accessory Stores	-	1	1	
58	Eating and Drinking Places	6	-	6	
59	Miscellaneous Retail	3	4	7	
	Total	46	17	63	63
TOTAL		471	273	744	744

Table 16
Summary Statistics of Bidder Firms and Overseas Acquisitions

The table presents the summary statistics for bidder firms that made overseas acquisitions over the 1991-1997 period. The sample consists of 744 firm-year acquisitions and includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not cover bidder and target firms in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We combine the value of acquisitions for bidder firms that made more than one acquisition in a calendar year and count it as one acquisition-year observation. Total Sales is defined as the gross sales of the bidder firm net of sales discounts in million $. Foreign/Total Sales is the percentage of foreign sales of the bidder firm divided by net sales. Market Value is defined as the number of shares multiplied by the average stock price of the bidder firm in million $. Total Assets is defined as current assets plus net property, plant, and equipment plus other non-current assets of the bidder firm in million $. Debt/Total Capital is percentage of total debt divided by invested capital. Number of Segments is the number of distinct lines of business the bidder firm is operating at the 2 digit SIC code level. Number of Acquisitions is the total number of acquisitions completed by the bidder firm in the year of the acquisition. Insider ownership and institutional ownership are the average number of shares held by insiders and held by institutions divided by the average number of shares outstanding for the bidder firm respectively. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets of the bidder firm. All values refer to the year prior to the acquisition unless otherwise noted above.

Summary Statistics and Sample Characteristics

	N	Mean	Median	Minimum	Maximum
Total Sales (million $)	690	3,969.31	739.33	11.31	152,172.00
Foreign/Total Sales (%)	608	21.53	16.38	0.00	94.56
Market Value (million $)	666	4,003.86	676.20	11.14	121,716.00
Total Assets (million $)	699	4,572.70	594.19	10.77	243,283.00
Debt/Total Capital (%)	710	38.76	37.40	0.00	94.64
Number of Segments	744	1.63	1.00	1.00	5.00
Number of Acquisitions/year	744	1.15	1.00	1.00	5.00
Size of Acquisition(s) (million $)	326	182.99	54.65	5.00	4,980.00
Insider Ownership (%)	685	14.83	7.31	0.00	87.07
Institutional Ownership (%)	670	47.23	51.14	0.00	87.26
Tobin's Q	643	1.362	1.036	0.12	8.29

Table 17

Pre-Acquisition Valuation Measures of Bidder Firms That Make Overseas Acquisitions

The table presents the raw and industry-adjusted (percentage valuation premium/discount) valuation measures of bidder firms that made only overseas acquisitions The sample consists of 744 overseas firm-acquisitions over the 1991-97 period. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not cover target firms in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. The numbers in cells are the means, the numbers in [ ] brackets are the medians, and the numbers in parentheses are the number of observations. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value (EMV) is defined as the market value of equity less book value of equity normalized by total sales. Industry-adjusted valuation measures are computed using the methodology of Berger and Ofek (1995); namely the natural logarithm of the ratio of raw valuation measure to their imputed value. Imputed performance measures are computed by multiplying the weights of different business segments with the median value of the performance measures for stand alone firms that are in the same 2 digit SIC code industry and that have size within 50% and 200% of the size of the bidding firm's business segment. Year 0 is the year of acquisition. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A: Pre-Acquisition Tobin's Q for Bidder Firms That Make Overseas Acquisitions

		Raw Tobin's Q					Industry Adjusted Tobin'sQ				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year -3	All Firms	1.232	1.227	1.241	-0.014	0.875	-14.74***	-18.01***	-8.91*	-9.10	0.150
		[0.910]	[0.908]	[0.959]	[-0.051]	0.707	[-13.08***]	[-16.82***]	[-7.66**]	[-9.16]*	0.092
		(n=559)	(n=357)	(n=202)			(n=551)	(n=353)	(n=198)		
	Multi Segment	1.029	1.048	1.011	0.037	0.716	-22.74***	-29.84***	-16.31***	-13.53*	0.059
	(M)	[0.843]	[0.873]	[0.803]	[0.070]	0.713	[-25.81***]	[-31.45***]	[-16.60***]	[-14.85]*	0.074
		(n=210)	(n=100)	(n=110)			(n=202)	(n=96)	(n=106)		
	Single Segment	1.354	1.296	1.517	-0.221	0.153	-10.11**	-13.60***	-0.38	-13.22	0.195
	(S)	[0.981]	[0.914]	[1.094]	[-0.180*]	0.068	[-7.75**]	[-10.14***]	[2.66]	[-12.80]	0.129
		(n=349)	(n=257)	(n=92)			(n=349)	(n=257)	(n=92)		
	Mmean-Smean p-value	-0.325*** 0.000	-0.248** 0.022	-0.506*** 0.001			-12.63** 0.028	-16.24** 0.026	-15.93 0.115		
	[Mmed-Smed] p-value	[-0.138***] 0.003	[-0.041] 0.145	[-0.291***] 0.001			[-18.06]** 0.038	[-21.31]* 0.060	[-19.26]* 0.070		
Year -2	All Firms	1.231	1.224	1.242	-0.018	0.822	-21.35***	-23.15***	-18.26***	-4.89	0.428
		[0.942]	[0.938]	[0.980]	[-0.042]	0.937	[-17.97***]	[-20.70***]	[-11.02***]	[-9.68]	0.302
		(n=602)	(n=380)	(n=222)			(n=594)	(n=376)	(n=218)		
	Multi Segment	1.077	1.077	1.076	0.001	0.996	-28.10***	-31.97***	-24.60***	-7.37	0.355
	(M)	[0.904]	[0.925]	[0.825]	[0.100]	0.613	[-28.14***]	[-31.05***]	[-20.17***]	[-10.88]	0.228
		(n=219)	(n=104)	(n=115)			(n=211)	(n=100)	(n=111)		
	Single Segment	1.319	1.280	1.421	-0.141	0.268	-17.64***	-19.95***	-11.67	-8.28	0.373
	(S)	[1.016]	[0.947]	[1.141]	[-0.194]	0.290	[-10.31***]	[-11.21***]	[-5.68]	[-5.53]	0.370
		(n=383)	(n=276)	(n=107)			(n=383)	(n=276)	(n=107)		
	Mmean-Smean p-value	-0.242*** 0.001	-0.203** 0.021	-0.345** 0.011			-10.46* 0.064	-12.02* 0.085	-12.93 0.199		
	[Mmed-Smed] p-value	[-0.112***] 0.007	[-0.022] 0.148	[-0.316***] 0.009			[-17.83] 0.119	[-19.84]* 0.083	[-14.49] 0.362		
Year -1	All Firms	1.362	1.376	1.338	0.038	0.649	-18.27***	-21.38***	-12.82***	-8.56	0.143
		[1.036]	[1.023]	[1.049]	[-0.026]	0.660	[-16.80***]	[-18.53***]	[-12.53***]	[-6.00]*	0.100
		(n=643)	(n=409)	(n=234)			(n=635)	(n=404)	(n=231)		
	Multi Segment	1.217	1.223	1.211	0.012	0.912	-23.02***	-26.68***	-19.63***	-7.05	0.375
	(M)	[0.958]	[0.971]	[0.947]	[0.024]	0.640	[-24.02***]	[-26.67***]	[-20.44***]	[-6.23]	0.320
		(n=224)	(n=109)	(n=115)			(n=216)	(n=104)	(n=112)		
	Single Segment	1.440	1.431	1.462	-0.031	0.787	-15.82***	-19.55***	-6.42	-13.13	0.114
	(S)	[1.119]	[1.064]	[1.292]	[-0.228]	0.171	[-12.40***]	[-15.57***]	[-2.71]	[-12.86]*	0.074
		(n=419)	(n=300)	(n=119)			(n=419)	(n=300)	(n=119)		
	Mmean-Smean p-value	-0.223*** 0.006	-0.208* 0.056	-0.251** 0.035			-7.20 0.190	-7.13 0.311	-13.21 0.146		
	[Mmed-Smed] p-value	[-0.161**] 0.049	[-0.093] 0.399	[-0.345**] 0.017			[-11.62] 0.139	[-11.10] 0.296	[-17.73]* 0.096		
Year 0	All Firms	1.370	1.335	1.428	-0.093	0.307	-20.87***	-22.32***	-18.42***	-3.90	0.490
		[1.037]	[1.036]	[1.038]	[-0.002]	0.813	[-20.82***]	[-20.72***]	[-22.80***]	[2.08]	0.651
		(n=681)	(n=428)	(n=253)			(n=672)	(n=423)	(n=249)		
	Multi Segment	1.268	1.260	1.275	-0.015	0.897	-23.19***	-24.14***	-22.32***	-1.82	0.818
	(M)	[0.969]	[1.006]	[0.937]	[0.069]	0.533	[-24.25***]	[-27.22***]	[-23.58***]	[-3.64]	0.827
		(n=232)	(n=111)	(n=121)			(n=223)	(n=106)	(n=117)		
	Single Segment	1.422	1.362	1.568	-0.206	0.134	-19.72***	-21.71***	-14.96**	-6.75	0.404
	(S)	[1.079]	[1.048]	[1.141]	[-0.093]	0.270	[-18.18***]	[-18.18***]	[-18.48**]	[0.30]	0.561
		(n=449)	(n=317)	(n=132)			(n=449)	(n=317)	(n=132)		
	Mmean-Smean p-value	-0.154* 0.051	-0.102 0.282	-0.293* 0.054			-3.47 0.508	-2.43 0.707	-7.36 0.426		
	[Mmed-Smed] p-value	[-0.110] 0.180	[-0.042] 0.748	[-0.204*] 0.064			[-6.07] 0.593	[-9.04] 0.736	[-5.10] 0.568		

Panel B: Pre-Acquisition Excess Market Value (EMV) for Bidder Firms That Make Overseas Acquisitions

		Raw EMV					Industry Adjusted EMV				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year -3	All Firms	73.40	76.50	68.16	8.34	0.377	-10.76*	-13.82*	-5.33	-8.49	0.496
		[39.00]	[41.10]	[34.75]	[6.35]	0.655	[-3.09*]	[-3.81*]	[-1.03]	[-2.78]	0.657
		(n=591)	(n=371)	(n=220)			(n=509)	(n=326)	(n=183)		
	Multi Segment	50.59	49.49	51.52	-2.03	0.824	-37.87***	-47.47***	-28.95**	-18.52	0.255
	(M)	[31.15]	[39.70]	[25.80]	[13.90]	0.113	[-39.71***]	[-42.69***]	[-24.89**]	[-17.80]	0.387
		(n=226)	(n=104)	(n=122)			(n=191)	(n=92)	(n=99)		
	Single Segment	87.52	87.02	88.87	-1.85	0.897	5.52	-0.58	22.52	-23.10	0.195
	(S)	[44.70]	[41.60]	[58.25]	[-16.65]	0.112	[10.13]	[2.63]	[13.89]	[-11.26]	0.372
		(n=365)	(n=267)	(n=98)			(n=318)	(n=234)	(n=84)		
	Mmean-Smean p-value	-36.93*** 0.000	-37.53*** 0.000	-37.35*** 0.007			-43.39*** 0.000	-46.89*** 0.002	-51.47*** 0.008		
	[Mmed-Smed] p-value	[-13.55***] 0.004	[-1.90] 0.401	[-32.45***] 0.001			[-49.84]*** 0.000	[-45.32]*** 0.002	[-38.78]** 0.011		
Year -2	All Firms	81.60	84.76	76.31	8.45	0.383	-24.17***	-24.25***	-24.02**	-0.23	0.985
		[43.70]	[42.50]	[44.80]	[-2.30]	0.918	[-14.75***]	[-17.49***]	[-6.14**]	[-11.35]	0.629
		(n=625)	(n=391	(n=234)			(n=564)	(n=355)	(n=209)		
	Multi Segment	60.97	59.04	62.64	-3.60	0.769	-42.50***	-55.58***	-30.66**	-24.92	0.143
	(M)	[39.10]	[42.50]	[34.05]	[8.45]	0.286	[-42.14***]	[-54.16***]	[-16.44*]	[-37.72]**	0.048
		(n=231)	(n=107)	(n=124)			(n=202)	(n=96)	(n=106)		
	Single Segment	93.69	94.45	91.72	2.73	0.838	-13.94	-12.64	-17.19	4.55	0.777
	(S)	[48.90]	[43.75]	[63.30]	[-19.55]	0.101	[0.00]	[0.55]	[-4.08]	[4.63]	0.756
		(n=394)	(n=284)	(n=110)			(n=362)	(n=259)	(n=103)		
	Mmean-Smean p-value	-32.72*** 0.000	-35.41*** 0.002	-29.08** 0.040			-28.56** 0.014	-42.94*** 0.001	-13.47 0.488		
	[Mmed-Smed] p-value	[-9.80***] 0.001	[-1.25] 0.186	[-29.25***] 0.000			[-42.14]*** 0.007	[-54.71]*** 0.001	[-12.36] 0.553		
Year -1	All Firms	92.70	97.36	84.81	12.55	0.201	-23.32***	-24.80***	-20.75**	-4.05	0.709
		[50.50]	[50.70]	[49.75]	[0.95]	0.932	[-13.76***]	[-19.35***]	[-9.92**]	[-9.43]	0.496
		(n=663)	(n=417)	(n=246)			(n=599)	(n=379)	(n=220)		
	Multi Segment	71.12	75.41	67.24	8.17	0.506	-43.01***	-49.28***	-37.03***	-12.25	0.449
	(M)	[39.10]	[43.60]	[35.10]	[8.50]	0.288	[-53.76***]	[-61.38***]	[-44.17***]	[-17.21]	0.304
		(n=238)	(n=113)	(n=125)			(n=209)	(n=102)	(n=107)		
	Single Segment	104.79	105.52	102.95	2.57	0.858	-12.76*	-15.79*	-5.34	-10.45	0.473
	(S)	[55.90]	[51.45]	[68.50]	[-17.05]	0.105	[-0.15]	[-0.97]	[0.00]	[-0.97]	0.445
		(n=425)	(n=304)	(n=121)			(n=390)	(n=277)	(n=113)		
	Mmean-Smean p-value	-33.67*** 0.000	-30.11** 0.022	-35.71*** 0.009			-30.25*** 0.005	-33.49** 0.018	-31.69* 0.057		
	[Mmed-Smed] p-value	[-16.80**] 0.017	[-7.85] 0.517	[-33.40***] 0.003			[-53.61]*** 0.000	[-60.41]*** 0.004	[-44.17]** 0.025		
Year 0	All Firms	96.78	98.31	94.20	4.11	0.687	-32.44***	-34.63***	-28.69***	-5.94	0.575
		[53.90]	[52.90]	[54.00]	[-1.10]	0.835	[-26.21***]	[-28.86***]	[-24.57***]	[-4.29]	0.626
		(n=692)	(n=433)	(n=259)			(n=634)	(n=400)	(n=234)		
	Multi Segment	76.55	77.15	76.02	1.13	0.925	-52.63***	-61.84***	-43.92***	-17.92	0.209
	(M)	[47.55]	[50.50]	[42.30]	[8.20]	0.230	[-44.17***]	[-55.54***]	[-34.38***]	[-21.16]	0.317
		(n=242)	(n=115)	(n=127)			(n=218)	(n=106)	(n=112)		
	Single Segment	107.65	105.97	111.70	-5.73	0.704	-21.85***	-24.82***	-14.71	-10.11	0.518
	(S)	[58.60]	[53.90]	[67.60]	[-13.70]	0.255	[-18.09***]	[-18.48***]	[-12.51]	[-5.97]	0.507
		(n=450)	(n=318)	(n=132)			(n=416)	(n=294)	(n=122)		
	Mmean-Smean p-value	-31.10*** 0.001	-28.82** 0.012	-35.68** 0.022			-30.78*** 0.002	-37.02*** 0.004	-29.21* 0.085		
	[Mmed-Smed] p-value	[-11.05**] 0.046	[-3.40] 0.636	[-25.30***] 0.009			[-26.08]*** 0.003	[-37.06]*** 0.009	[-21.87]* 0.061		

Panel C: Industry Adjusted Tobin's Q for Bidder Firms That Make Foreign Acquisitions

		Domestic	(DOM)	Bidders		Multinational	(MNE)	Bidders				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acq DOMmean-MNEmean [DOMmed-MNEmed]	Focusing Acq DOMmean-MNEmean [DOMmed-MNEmed]	Diversifying Acq DOMmean-MNEmean [DOMmed-MNEmed]
Year -3	All Firms	-0 71	-3 17	4 08	-7 25	-24 62***	-30 63***	-15 84***	-14 79*	23 91***	27.46***	19.92*
		[-3 39]	[-3.78]	[4 27]	[-8 05]	[-19 84***]	[-32 64***]	[-11 12***]	[-21.52]**	[16 45]***	[28 86]***	[15.39]
		(n=183)	(n=121)	(n=62)		(n=283)	(n=168)	(n=115)				
	Multi Segment	-18.55***	-27.46***	-9 92	-17 54	-26 02***	-32 71***	-20 95***	-11 76	7 47	5 25	11.03
	(M)	[-13.82**]	[-18 68***]	[-6 65]	[-12 03]	[-29 15***]	[-41 72***]	[-27 50***]	[-14 22]	[15 33]	[23 04]	[20 85]
		(n=61)	(n=30)	(n=31)		(n=123)	(n=53)	(n=70)				
	Single Segment	8 20	4 84	18 09	-13.25	-23 55***	-29 67***	-7 90	-21.77*	31 75***	34 51***	25.99
	(S)	[0 19]	[0 00]	[8 93]	[-8 93]	[-13 28***]	[-28 32***]	[3 79]	[-32 11]*	[13 47]***	[28 32]***	[5.14]
		(n=122)	(n=91)	(n=31)		(n=160)	(n=115)	(n=45)				
	Mmean-Smean p-value	-26 75*** 0 010	-32 30*** 0 010	-28 01 0 170		-2 47 0 747	-3 04 0 773	-13 05 0 295				
	[Mmed-Smed] p-value	[-14 01]** 0 028	[-18 68]** 0 029	[-15 58] 0 213		[-15 87] 0 409	[-13 40] 0 739	[-31 29]** 0 046				
Year -2	All Firms	-7.52	-9 90*	-3 03	-6 87	-29 94***	-33 91***	-24 32***	-9 59	22 42***	24 01***	21.29*
		[-6.34]	[-6 61*]	[-0 04]	[-6 57]	[-28 39***]	[-31 42***]	[-19 09***]	[-12 33]	[22 05]***	[24 81]***	[19 05]*
		(n=202)	(n=132)	(n=70)		(n=304)	(n=178)	(n=126)				
	Multi Segment	-25 44***	-24 00***	-26 88**	2 88	-31 19***	-36 17***	-27 51***	-8 66	5 75	12.17	0 63
	(M)	[-22.36***]	[-24 44***]	[-20 28**]	[-4 16]	[-31 18***]	[-37 20***]	[-20 66***]	[-16 54]	[8 82]	[12 76]	[0.38]
		(n=66)	(n=33)	(n=33)		(n=127)	(n=54)	(n=73)				
	Single Segment	1 18	-5 19	18 24	-23 43	-29 03***	-32 93***	-19 93*	-13 00	30 21***	27 74***	38.17**
	(S)	[0 00]	[-2 69]	[12 92]	[-15 61]	[-21 41***]	[-28 47***]	[-9 10*]	[-19 37]	[21 41]***	[25 78]***	[22.02]**
		(n=136)	(n=99)	(n=37)		(n=177)	(n=124)	(n=53)				
	Mmean-Smean p-value	-26 62*** 0 005	-18 81* 0 078	-45 12** 0 016		-2 16 0 780	-3 24 0 754	-7 58 0 566				
	[Mmed-Smed] p-value	[-22.36]** 0 011	[-21.75]* 0 059	[-33.20]** 0 035		[-9 77] 0 840	[-8 73] 0 679	[-11 56] 0 683				
Year -1	All Firms	-4.16	-6 44	-0.16	-6 28	-26 90***	-32 85***	-17 96***	-14 89*	22 74***	26 41***	17.80*
		[-0 92]	[-2.59]	[4 56]	[-7 15]	[-28 07***]	[-33 27***]	[-18 64***]	[-14 63]*	[27 15]***	[30 68]***	[23.20]**
		(n=223)	(n=142)	(n=81)		(n=318)	(n=191)	(n=127)				
	Multi Segment	-21 04***	-15 09*	-27.17**	12 08	-26 04***	-35 49***	-18 89**	-16 60	5 00	20 40	-8.28
	(M)	[-12.71***]	[-7.22*]	[-24.32**]	[17.10]	[-31 47***]	[-41 95***]	[-21 37***]	[-20 58]	[18 76]	[34 73]	[-2.95]
		(n=67)	(n=34)	(n=33)		(n=130)	(n=56)	(n=74)				
	Single Segment	3 09	-3 72	18 42*	-22 14*	-27 50***	-31 75***	-16 67	-15 08	30 59***	28 03***	35.09**
	(S)	[0 00]	[-0 84]	[6 57*]	[-7 41]*	[-22 76***]	[-28 92***]	[-12 53*]	[-16 39]	[22 76]***	[28 08]***	[19.10]**
		(n=156)	(n=108)	(n=48)		(n=188)	(n=135)	(n=53)				
	Mmean-Smean p-value	-24.13*** 0 008	-11.37 0 326	-45 59*** 0 001		1 46 0 845	-3 74 0 697	-2 22 0 865				
	[Mmed-Smed] p-value	[-12 71]** 0 027	[-6 38] 0 405	[-30 89]*** 0 008		[-8 71] 0 831	[-13 03] 0 552	[-8 84] 0 718				
Year 0	All Firms	-9.53**	-7 17	-13 54*	6 37	-27 82***	-33 93***	-18 76***	-15 17*	18 29***	26 76***	5 22
		[-8.77***]	[-6 92**]	[-14 58**]	[7 66]	[-29 38***]	[-36 13***]	[-26 06***]	[-10 07]*	[20 61]***	[29 21]***	[11.48]
		(n=238)	(n=150)	(n=88)		(n=330)	(n=197)	(n=133)				
	Multi Segment	-21.10***	-10 69*	-31 23**	20 54	-28 16***	-34 40***	-23 41***	-10 99	7 06	23 71**	-7.82
	(M)	[-15 73***]	[-6 02*]	[-23 20**]	[17 18]	[-34 13***]	[-48 34***]	[-27 32***]	[-21 02]	[18 40]	[42 32]**	[4 12]
		(n=71)	(n=35)	(n=36)		(n=132)	(n=57)	(n=75)				
	Single Segment	-4 61	-6 10	-1 30	-4 80	-27 59***	-33 74***	-12 74	-21 00	22 98***	27.64***	11.44
	(S)	[-7.39*]	[-7.39*]	[-8 40]	[1 01]	[-28 51***]	[-28 81***]	[-25 28*]	[-3 53]	[21 12]***	[21 42]***	[16 88]
		(n=167)	(n=115)	(n=52)		(n=198)	(n=140)	(n=58)				
	Mmean-Smean p-value	-16 49* 0 055	-4 59 0 597	-29 93* 0 057		-0 57 0 938	-0 66 0 946	-10 67 0 426				
	[Mmed-Smed] p-value	[-8 34] 0 216	[1 37] 0 927	[-14 80] 0 116		[-5 62] 0 917	[-19 53] 0 899	[-2 04] 0 488				

Panel D: Industry Adjusted Excess Market Value for Bidder Firms That Make Foreign Acquisitions

		Domestic (DOM) Bidders				Multinational (MNE) Bidders						
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acq DOMmean-MNEmean [DOMmed-MNEmed]	Focusing Acq DOMmean-MNEmean [DOMmed-MNEmed]	Diversifying Acq DOMmean-MNEmean [DOMmed-MNEmed]
Year -3	All Firms	8.28	5.10	14.13	-9.03	-23.46***	-27.63**	-17.33	-10.30	31.74**	32.73*	31.46
		[7.98]	[4.71]	[16.90]	[-12.19]	[-9.82***]	[-22.87***]	[-5.54]	[-17.33]	[17.80]**	[27.58]**	[22.44]
		(n=162)	(n=105)	(n=57)		(n=264)	(n=157)	(n=107)				
	Multi Segment (M)	-43.06**	-51.60**	-33.90	-17.70	-38.59***	-48.74***	-31.16**	-17.58	-4.47	-2.86	-2.74
		[-19.65**]	[-18.54**]	[-29.00]	[10.46]	[-46.20***]	[-49.34***]	[-29.86**]	[-19.48]	[26.55]	[30.80]	[0.86]
		(n=56)	(n=29)	(n=27)		(n=116)	(n=49)	(n=67)				
	Single Segment (S)	35.40**	26.73*	57.36*	-30.63	-11.60	-18.06	5.83	-23.89	47.00**	44.79**	51.53
		[23.91***]	[15.11**]	[26.93*]	[-11.82]	[1.47]	[-6.17]	[10.84]	[-17.01]	[22.44]**	[21.28]**	[16.09]
		(n=106)	(n=76)	(n=30)		(n=148)	(n=108)	(n=40)				
	Mmean-Smean p-value	-78.46*** 0.000	-78.33*** 0.005	-91.26** 0.020		-26.99* 0.092	-30.68 0.131	-36.99* 0.091				
	[Mmed-Smed] p-value	[-43.56]*** 0.000	[-33.65]*** 0.003	[-55.93]** 0.034		[-47.67]** 0.033	[-43.17] 0.138	[-40.70]** 0.043				
Year -2	All Firms	3.44	0.68	8.36	-7.68	-35.82***	-35.16***	-36.77***	1.61	39.26***	35.84**	45.13**
		[10.47]	[2.89]	[15.32]	[-12.43]	[-34.76***]	[-32.94***]	[-41.01***]	[8.07]	[45.23]***	[35.83]***	[56.33]**
		(n=187)	(n=120)	(n=67)		(n=293)	(n=173)	(n=120)				
	Multi Segment (M)	-25.88*	-40.50***	-10.77	-29.73	-51.19***	-59.65***	-44.99**	-14.66	25.31	19.15	34.22
		[-12.90*]	[-39.35***]	[-2.95]	[-36.40]	[-57.23***]	[-63.37***]	[-51.81**]	[-11.56]	[44.33]	[24.02]	[48.86]
		(n=61)	(n=31)	(n=30)		(n=123)	(n=52)	(n=71)				
	Single Segment (S)	17.63	15.03	23.88	-8.85	-24.70**	-24.63	-24.87	0.24	42.33**	39.66*	48.75*
		[26.45**]	[27.28*]	[25.63*]	[1.65]	[-16.32**]	[-17.34*]	[-15.31*]	[-2.03]	[42.77]***	[44.62]**	[40.94]**
		(n=126)	(n=89)	(n=37)		(n=170)	(n=121)	(n=49)				
	Mmean-Smean p-value	-43.51** 0.018	-55.53*** 0.003	-34.65 0.318		-26.49 0.116	-35.02* 0.085	-20.12 0.415				
	[Mmed-Smed] p-value	[-39.35]*** 0.004	[-66.63]*** 0.003	[-28.58] 0.190		[-40.91] 0.143	[-46.03] 0.102	[-36.50] 0.614				
Year -1	All Firms	1.28	-1.72	6.14	-7.86	-34.06***	-36.09***	-30.95***	-5.14	35.34***	34.37**	37.09**
		[2.42]	[0.00]	[15.16]	[-15.16]	[-32.65***]	[-34.25***]	[-31.01***]	[-3.24]	[35.07]***	[34.25]**	[46.17]**
		(n=202)	(n=125)	(n=77)		(n=307)	(n=186)	(n=121)				
	Multi Segment (M)	-47.08***	-42.83***	-51.34*	8.51	-45.44***	-59.49***	-34.36***	-25.13	-1.64	16.66	-16.98
		[-34.01***]	[-39.35***]	[-26.22*]	[-13.13]	[-60.45***]	[-64.60***]	[-53.76***]	[-10.84]	[26.44]	[25.25]	[27.54]
		(n=62)	(n=31)	(n=31)		(n=127)	(n=56)	(n=71)				
	Single Segment (S)	22.70*	11.84	44.88***	-33.04	-26.04***	-26.01**	-26.11	0.10	48.74***	37.85*	70.99***
		[15.45**]	[11.36]	[23.49**]	[-12.13]	[-9.33**]	[-8.33*]	[-10.64]	[2.31]	[24.78]***	[19.69]*	[34.13]***
		(n=140)	(n=94)	(n=46)		(n=180)	(n=130)	(n=50)				
	Mmean-Smean p-value	-69.78*** 0.000	-54.67** 0.011	-96.22*** 0.003		-19.40 0.156	-33.48* 0.071	-8.25 0.692				
	[Mmed-Smed] p-value	[-49.46]*** 0.000	[-50.71]*** 0.010	[-49.71]*** 0.009		[-51.12]** 0.028	[-56.27]** 0.036	[-43.12] 0.216				
Year 0	All Firms	-11.38	-9.86	-13.90	4.04	-44.61***	-50.87***	-35.17***	-15.70	33.23***	41.01***	21.27
		[-6.65]	[-6.65]	[-5.57]	[-1.08]	[-39.67***]	[-53.11***]	[-26.08***]	[-27.03]	[33.02]***	[46.46]***	[20.51]
		(n=213)	(n=133)	(n=80)		(n=326)	(n=196)	(n=130)				
	Multi Segment (M)	-39.36***	-34.91***	-44.10**	9.19	-62.32***	-78.88***	-49.46***	-29.42	22.96	43.97**	5.36
		[-29.87***]	[-28.67***]	[-34.91**]	[6.24]	[-53.24***]	[-75.12***]	[-39.43***]	[-35.69]	[23.37]	[46.45]*	[4.52]
		(n=64)	(n=33)	(n=31)		(n=135)	(n=59)	(n=76)				
	Single Segment (S)	0.64	-1.59	5.20	-6.79	-32.09***	-38.80***	-15.05	-23.75	32.73**	37.21**	20.25
		[0.00]	[0.00]	[2.34]	[-2.34]	[-27.52***]	[-39.43***]	[-15.83]	[-23.60]	[27.52]***	[39.43]**	[18.17]
		(n=149)	(n=100)	(n=49)		(n=191)	(n=137)	(n=54)				
	Mmean-Smean p-value	-40.00*** 0.009	-33.32** 0.035	-49.30* 0.095		-30.23** 0.031	-40.08** 0.045	-34.41 0.151				
	[Mmed-Smed] p-value	[-29.87]*** 0.007	[-28.67]** 0.047	[-37.25]* 0.059		[-25.72]* 0.055	[-35.69]* 0.082	[-23.60] 0.115				

Table 18

Cross Sectional Logistic Regressions Relating Firm Characteristics to Type of Overseas Acquisitions

The dependent variable in the logistic regression is the diversification dummy taking on value of one if the bidder makes a diversifying acquisition, and a value of zero if it makes a focusing acquisition. The sample includes 744 firm year overseas acquisitions. The size of the firm, LN(SALES), is the natural logarithm of annual sales. FSTS is the ratio of foreign sales to total sales. FSTSD is a dummy variable taking on a value of one if the bidder has foreign sales to total sales ratio of more than 10%, and zero if less than 10%. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets of the bidder firm. Excess Market Value (EMV) the market value of equity less book value of equity normalized by total sales. IMPUTEDQ and IMPUTEDEMV are the theoretical imputed values of Tobin's Q and EMV, respectively, for the bidder if it were decomposed into its business segments based on sales multiples of the business segments at 2 digit SIC level. INDADJQ and INDADJEMV are the industry adjusted Tobin's Q and EMV of the bidders respectively. DEBT is the percentage of total debt divided by invested capital. INSIDER and INSTITUTE are the percentage of shares held by insiders and institutions respectively. RDEXP and ADVEXP are the R&D and advertising expenditures of the bidder normalized by total sales of the bidder. CCF and NCCF are the cash flows of the core and non-core business segments of the bidders normalized by segment sales from one year before. CASHD and STOCKD are the dummy variables taking on value of one if the payment was made in cash or stock respectively, and zero otherwise. DIVESTD is a dummy variable taking on a value of one if the target was divested by its parent, and zero otherwise. All values are from one year before the acquisition. t-values are stated in parantheses. All regressions contain calendar year dummies. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

	Single-Segment Bidders						Multi-Segment Bidders					
	(1)	(2)	(3)		(4)		(5)	(6)	(7)		(8)	
Independent Variables			Domestic	Multinational* (x FSTSD)	Domestic	Multinational (x FSTSD)			Domestic	Multinational (x FSTSD)	Domestic	Multinational (x FSTSD)
Constant	0.647	0.645	0.665	-0.083	0.650	-0.062	0.581	0.577	0.255	0.289	0.165	0.333
	(5.055)***	(5.049)***	(3.987)***	(-0.419)	(3.902)***	(-0.315)	(2.527)**	(2.531)**	(0.744)	(0.710)	(0.479)	(0.816)
LN(SALES)	-0.055	-0.055	-0.068	0.036	-0.065	0.035	-0.004	-0.007	0.036	-0.050	0.028	-0.047
	(-4.016)***	(-3.998)***	(-3.773)***	(1.352)	(-3.603)***	(1.297)	(-0.170)	(-0.320)	(1.002)	(-1.068)	(0.773)	(-0.978)
FSTS	0.000						0.000					
	(-0.159)						(-0.012)					
FSTSD		-0.001						0.094				
		(-0.029)						(1.188)				
IMPUTEDQ	0.014	0.014	0.006	0.019			-0.132	-0.153	-0.274	0.217		
	(0.575)	(0.561)	(0.170)	(0.399)			(-2.071)**	(-2.369)**	(-2.562)**	(1.618)		
INDADJQ	0.043	0.043	0.015	0.056			-0.013	-0.021	-0.141	0.178		
	(1.306)	(1.304)	(0.343)	(0.834)			(-0.198)	(-0.315)	(-1.263)	(1.242)		
IMPUTEDEMV					-0.011	0.013					-0.205	0.142
					(-0.350)	(0.307)					(-2.392)**	(1.344)
INDADJEMV					0.005	-0.011					-0.055	0.046
					(0.210)	(-0.268)					(-1.101)	(0.633)
DEBT	0.000	0.000	0.000	-0.002	0.000	-0.002	0.000	0.000	-0.005	0.008	-0.005	0.008
	(0.052)	(0.040)	(0.415)	(-1.141)	(0.329)	(-1.196)	(-0.073)	(-0.117)	(-2.103)**	(2.592)***	(-2.115)**	(2.601)***
INSIDER	-0.001	-0.001	-0.001	0.000	-0.001	0.000	-0.002	-0.002	-0.001	0.000	-0.001	0.001
	(-0.628)	(-0.621)	(-0.407)	(-0.084)	(-0.399)	(-0.125)	(-0.797)	(-0.734)	(-0.225)	(0.068)	(-0.457)	(0.216)
INSTITUTE	0.001	0.001	0.002	-0.001	0.002	-0.002	-0.001	-0.001	0.001	-0.004	0.000	-0.003
	(1.040)	(1.036)	(1.228)	(-0.656)	(1.288)	(-0.794)	(-0.343)	(-0.363)	(0.407)	(-0.907)	(0.161)	(-0.740)
RDEXP	-0.179	-0.178	-1.270	1.216	-1.203	1.246	0.145	0.037	1.946	-2.313	2.344	-2.148
	(-0.733)	(-0.729)	(-2.238)**	(1.900)*	(-2.092)**	(1.929)*	(0.102)	(0.026)	(0.746)	(-0.737)	(0.901)	(-0.680)
ADVEXP	0.552	0.556	1.699	-1.964	1.804	-2.041	2.637	2.601	5.740	-3.410	6.357	-3.744
	(0.651)	(0.656)	(1.427)	(-1.342)	(1.509)	(-1.378)	(2.323)**	(2.322)**	(2.223)**	(-1.366)	(2.450)**	(-1.491)
CCF	-0.051	-0.050	0.134	-0.432	0.142	-0.387	0.052	0.069	0.276	-0.241	0.250	-0.146
	(-0.477)	(-0.470)	(1.019)	(-1.862)*	(1.095)	(-1.682)*	(0.259)	(0.345)	(0.998)	(-0.576)	(0.908)	(-0.340)
NCCF							0.153	0.166	0.197	-0.042	0.177	0.102
							(1.467)	(1.592)	(1.657)*	(-0.091)	(1.484)	(0.218)
CASHD	-0.069	-0.069	-0.042	-0.062	-0.044	-0.058	-0.068	-0.066	-0.230	0.237	-0.216	0.221
	(-1.649)*	(-1.638)	(-0.674)	(-0.669)	(-0.696)	(-0.622)	(-0.985)	(-0.952)	(-1.948)*	(1.542)	(-1.818)*	(1.431)
STOCKD	-0.008	-0.008	0.095	-0.254	0.096	-0.272	0.102	0.115	0.300	-0.432	0.309	-0.410
	(-0.127)	(-0.124)	(1.181)	(-1.848)*	(1.192)	(-1.977)**	(0.732)	(0.820)	(1.601)	(-1.436)	(1.669)*	(-1.373)
DIVESTD	0.032	0.032	0.013	0.037	0.014	0.033	0.003	0.000	0.198	-0.348	0.213	-0.352
	(0.617)	(0.612)	(0.177)	(0.364)	(0.193)	(0.319)	(0.034)	(-0.005)	(1.513)	(-2.077)**	(1.622)	(-2.084)**
EMERGE	-0.043	-0.044	-0.175	0.239	-0.174	0.239	-0.121	-0.115	-0.100	-0.078	-0.074	-0.099
	(-0.805)	(-0.836)	(-2.298)**	(2.194)**	(-2.277)**	(2.184)**	(-1.454)	(-1.381)	(-0.782)	(-0.466)	(-0.563)	(-0.585)
Likelihood ratio test statistic	1.477*	1.476*	1.550**		1.495**		1.169	1.235	1.274		1.254	
(d.f.)	(21)	(20)	(33)		(33)		(21)	(21)	(35)		(35)	

* A Multinational firm is defined as the one that has foreign sales to total sales ratio of 10% or higher.

Table 19

Post Acquisition Valuation Measures of Bidder Firms That Make Overseas Acquisitions

The table presents the raw and industry-adjusted (percentage valuation premium/discount) valuation measures of bidder firms that made only overseas acquisitions The sample consists of 744 overseas firm-acquisitions over the 1991-97 period. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not cover target firms in non-manufacturing industries: Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. The numbers in cells are the means, the numbers in [ ] brackets are the medians, and the numbers in parentheses are the number of observations. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value (EMV) is defined as the market value of equity less book value of equity normalized by total sales. Industry-adjusted valuation measures are computed using the methodology of Berger and Ofek (1995); namely the natural logarithm of the ratio of raw valuation measure to their imputed value. Imputed performance measures are computed by multiplying the weights of different business segments with the median value of the performance measures for stand alone firms that are in the same 2 digit SIC code industry and that have size within 50% and 200% of the size of the bidding firm's business segment. Year 0 is the year of acquisition. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A: Post-Acquisition Tobin's Q for Bidder Firms That Make Overseas Acquisitions

		Raw Tobin's Q					Industry Adjusted Tobin'sQ				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year 0	All Firms	1.370	1.335	1.428	-0.093	0.307	-20.87***	-22.32***	-18.42***	-3.90	0.490
		[1.037]	[1.036]	[1.038]	[-0.002]	0.813	[-20.82***]	[-20.72***]	[-22.80***]	[2.08]	0.651
		(n=681)	(n=428)	(n=253)			(n=672)	(n=423)	(n=249)		
	Multi Segment	1.268	1.260	1.275	-0.015	0.897	-23.19***	-24.14***	-22.32***	-1.82	0.818
	(M)	[0.969]	[1.006]	[0.937]	[0.069]	0.533	[-24.25***]	[-27.22***]	[-23.58***]	[-3.64]	0.827
		(n=232)	(n=111)	(n=121)			(n=223)	(n=106)	(n=117)		
	Single Segment	1.422	1.362	1.568	-0.206	0.134	-19.72***	-21.71***	-14.96**	-6.75	0.404
	(S)	[1.079]	[1.048]	[1.141]	[-0.093]	0.270	[-18.18***]	[-18.18***]	[-18.48**]	[0.30]	0.561
		(n=449)	(n=317)	(n=132)			(n=449)	(n=317)	(n=132)		
	Mmean-Smean p-value	-0.154* 0.051	-0.102 0.282	-0.293* 0.054			-3.47 0.508	-2.43 0.707	-7.36 0.426		
	[Mmed-Smed] p-value	[-0.110] 0.180	[-0.042] 0.748	[-0.204*] 0.064			[-6.07] 0.593	[-9.04] 0.736	[-5.10] 0.568		
Year 1	All Firms	1.337	1.344	1.326	0.018	0.831	-22.81***	-23.23***	-22.09***	-1.14	0.839
		[0.998]	[1.014]	[0.991]	[0.023]	0.508	[-21.31***]	[-20.72***]	[-23.82***]	[3.10]	0.851
		(n=690)	(n=434)	(n=256)			(n=681)	(n=429)	(n=252)		
	Multi Segment	1.266	1.261	1.270	-0.009	0.945	-23.60***	-26.40***	-21.05***	-5.35	0.479
	(M)	[0.971]	[1.044]	[0.900]	[0.144]	0.655	[-24.77***]	[-23.70***]	[-24.77***]	[1.07]	0.667
		(n=231)	(n=111)	(n=120)			(n=222)	(n=106)	(n=116)		
	Single Segment	1.373	1.372	1.374	-0.002	0.984	-22.43***	-22.19***	-22.98***	0.79	0.923
	(S)	[1.018]	[0.997]	[1.054]	[-0.057]	0.795	[-19.87***]	[-19.75***]	[-21.32***]	[1.57]	0.899
		(n=459)	(n=323)	(n=136)			(n=459)	(n=323)	(n=136)		
	Mmean-Smean p-value	-0.107 0.193	-0.111 0.304	-0.104 0.449			-1.17 0.819	-4.21 0.528	1.93 0.828		
	[Mmed-Smed] p-value	[-0.047] 0.365	[0.047] 0.601	[-0.154] 0.488			[-4.90] 0.568	[-3.95] 0.514	[-3.45] 0.891		
Year 2	All Firms	1.356	1.359	1.352	0.007	0.944	-23.01***	-25.12***	-19.40***	-5.72	0.373
		[1.064]	[1.075]	[1.029]	[0.046]	0.387	[-21.35***]	[-22.46***]	[-20.55***]	[-1.91]	0.320
		(n=550)	(n=347)	(n=203)			(n=542)	(n=342	(n=200)		
	Multi Segment	1.298	1.262	1.327	-0.065	0.661	-24.13***	-33.90***	-16.44**	-17.46**	0.043
	(M)	[1.038]	[1.038]	[1.042]	[-0.004]	0.780	[-21.75***]	[-29.90***]	[-19.50***]	[-10.40]*	0.072
		(n=185)	(n=83)	(n=102)			(n=177)	(n=78)	(n=99)		
	Single Segment	1.386	1.389	1.377	0.012	0.931	-22.46***	-22.52***	-22.31***	-0.21	0.982
	(S)	[1.075]	[1.092]	[1.029]	[0.063]	0.258	[-20.04***]	[-19.69***]	[-22.16**]	[2.47]	0.888
		(n=365)	(n=264)	(n=101)			(n=365)	(n=264)	(n=101)		
	Mmean-Smean p-value	-0.088 0.354	-0.127 0.321	-0.050*** 0.758			-1.67 0.777	-11.38 0.119	5.87 0.578		
	[Mmed-Smed] p-value	[-0.037] 0.589	[-0.054] 0.364	[0.013] 0.629			[-1.71] 0.693	[-10.21] 0.159	[2.66] 0.672		
Year 3	All Firms	1.347	1.370	1.307	0.063	0.578	-23.58***	-25.95***	-19.46***	-6.49	0.345
		[1.103]	[1.118]	[1.083]	[0.035]	0.948	[-19.42***]	[-23.18***]	[-12.72***]	[-10.46]	0.232
		(n=433)	(n=275)	(n=158)			(n=430)	(n=273)	(n=157)		
	Multi Segment	1.245	1.274	1.223	0.051	0.704	-26.36***	-33.59***	-20.87***	-12.72	0.209
	(M)	[1.084]	[1.098]	[1.073]	[0.025]	0.981	[-26.78***]	[-31.07***]	[-14.07***]	[-17.00]	0.114
		(n=149)	(n=65)	(n=84)			(n=146)	(n=63)	(n=83)		
	Single Segment	1.401	1.400	1.403	-0.003	0.989	-22.15***	-23.66***	-17.88**	-5.78	0.567
	(S)	[1.119]	[1.119]	[1.109]	[0.010]	0.866	[-16.87***]	[-18.71***]	[-12.53**]	[-6.18]	0.590
		(n=284)	(n=210)	(n=74)			(n=284)	(n=210)	(n=74)		
	Mmean-Smean p-value	-0.156 0.135	-0.126 0.367	-0.180 0.295			-4.21 0.524	-9.93 0.264	-2.99 0.789		
	[Mmed-Smed] p-value	[-0.035] 0.751	[-0.021] 0.901	[-0.036] 0.682			[-9.91] 0.625	[-12.36] 0.234	[-1.54] 0.955		

Panel B: Post-Acquisition Excess Market Value (EMV) for Bidder Firms That Make Overseas Acquisitions

		Raw EMV					Industry Adjusted EMV				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	p-value
Year 0	All Firms	96.78	98.31	94.20	4.11	0.687	-32.44***	-34.63***	-28.69***	-5.94	0.575
		[53.90]	[52.90]	[54.00]	[-1.10]	0.835	[-26.21***]	[-28.86***]	[-24.57***]	[-4.29]	0.626
		(n=692)	(n=433)	(n=259)			(n=634)	(n=400)	(n=234)		
	Multi Segment	76.55	77.15	76.02	1.13	0.925	-52.63***	-61.84***	-43.92***	-17.92	0.209
	(M)	[47.55]	[50.50]	[42.30]	[8.20]	0.230	[-44.17***]	[-55.54***]	[-34.38***]	[-21.16]	0.317
		(n=242)	(n=115)	(n=127)			(n=218)	(n=106)	(n=112)		
	Single Segment	107.65	105.97	111.70	-5.73	0.704	-21.85***	-24.82***	-14.71	-10.11	0.518
	(S)	[58.60]	[53.90]	[67.60]	[-13.70]	0.255	[-18.09***]	[-18.48***]	[-12.51]	[-5.97]	0.507
		(n=450)	(n=318)	(n=132)			(n=416)	(n=294)	(n=122)		
	Mmean-Smean p-value	-31.10*** 0.001	-28.82** 0.012	-35.68** 0.022			-30.78*** 0.002	-37.02*** 0.004	-29.21* 0.085		
	[Mmed-Smed] p-value	[-11.05**] 0.046	[-3.40] 0.636	[-25.30***] 0.009			[-26.08]*** 0.003	[-37.06]*** 0.009	[-21.87]* 0.061		
Year 1	All Firms	97.62	101.03	91.97	9.06	0.412	-34.55***	-34.07***	-35.39***	1.32	0.896
		[51.20]	[53.45]	[47.80]	[5.65]	0.352	[-35.03***]	[-31.31***]	[-40.11***]	[8.80]	0.956
		(n=705)	(n=440)	(n=265			(n=648)	(n=410)	(n=238)		
	Multi Segment	79.42	77.50	81.14	-3.64	0.783	-52.58***	-56.32***	-49.13***	-7.19	0.601
	(M)	[47.40]	[59.20]	[40.40]	[18.80]	0.281	[-47.46***]	[-57.03***]	[-43.80***]	[-13.23]	0.489
		(n=244)	(n=115)	(n=129)			(n=223)	(n=107)	(n=116)		
	Single Segment	107.25	109.35	102.24	7.11	0.663	-25.10***	-26.21***	-22.33*	-3.88	0.790
	(S)	[52.10]	[51.30]	[58.90]	[-7.60]	0.929	[-25.64***]	[-25.23***]	[-26.61*]	[1.38]	0.783
		(n=461)	(n=325)	(n=136)			(n=425)	(n=303)	(n=122)		
	Mmean-Smean p-value	-27.83*** 0.005	-31.85*** 0.007	-21.10 0.225			-27.48*** 0.004	-30.11** 0.011	-26.80* 0.098		
	[Mmed-Smed] p-value	[-4.70] 0.172	[7.90] 0.610	[-18.50] 0.154			[-21.82]*** 0.003	[-31.80]** 0.014	[-17.19]* 0.078		
Year 2	All Firms	93.75	97.17	88.15	9.02	0.420	-34.43***	-38.70***	-27.10***	11.60	0.317
		[54.50]	[56.35]	[51.80]	[4.55]	0.232	[-26.97***]	[-34.89***]	[-20.04***]	[-14.85]	0.185
		(n=561)	(n=348)	(n=213)			(n=511)	(n=323)	(n=188)		
	Multi Segment	85.16	79.57	89.56	-9.99	0.521	-38.43***	-59.59***	-21.67**	-37.92**	0.020
	(M)	[53.90]	[59.75]	[50.30]	[9.45]	0.911	[-44.27***]	[-54.53***]	[-16.06**]	[-38.47]**	0.018
		(n=195)	(n=86)	(n=109)			(n=181)	(n=80)	(n=101)		
	Single Segment	98.32	102.95	86.67	16.28	0.305	-32.24***	-31.82***	-33.41**	1.59	0.927
	(S)	[54.60]	[55.35]	[54.40]	[0.95]	0.161	[-20.45***]	[-18.07***]	[-22.21*]	[4.14]	0.792
		(n=366)	(n=262)	(n=104)			(n=330)	(n=243)	(n=87)		
	Mmean-Smean p-value	-13.16 0.216	-23.38* 0.074	2.89 0.872			-6.19 0.577	-27.77* 0.062	11.74 0.525		
	[Mmed-Smed] p-value	[-0.70] 0.875	[4.40] 0.628	[-4.10] 0.513			[-23.82] 0.309	[-36.46]** 0.036	[6.15] 0.862		
Year 3	All Firms	84.88	89.23	77.81	11.42	0.225	-32.95***	-38.10***	-24.45***	-13.65	0.219
		[53.25]	[54.50]	[52.25]	[2.25]	0.941	[-28.89***]	[-31.17***]	[-16.88***]	[-14.29]	0.257
		(n=436)	(n=270)	(n=166)			(n=395)	(n=246)	(n=149)		
	Multi Segment	79.25	83.15	76.33	6.82	0.616	-39.32***	-57.76***	-26.21**	-31.55*	0.071
	(M)	[51.50]	[59.45]	[46.70]	[12.75]	0.510	[-35.86***]	[-57.38***]	[-22.07**]	[-35.31]	0.136
		(n=154)	(n=66)	(n=88)			(n=142)	(n=59)	(n=83)		
	Single Segment	87.96	91.20	79.48	11.72	0.358	-29.37***	-31.89***	-22.25*	-9.64	0.519
	(S)	[54.20]	[50.55]	[60.65]	[-10.10]	0.731	[-18.13***]	[-19.16***]	[-16.27]	[-2.89]	0.474
		(n=282)	(n=204)	(n=78)			(n=253)	(n=187)	(n=66)		
	Mmean-Smean p-value	-8.71 0.353	-8.05 0.531	-3.15 0.815			-9.95 0.380	-25.87 0.115	-3.96 0.806		
	[Mmed-Smed] p-value	[-2.70] 0.958	[8.90] 0.615	[-13.95] 0.485			[-17.73] 0.281	[-38.22] 0.139	[-5.80] 0.590		

Panel C: Industry Adjusted Tobin's Q for Bidder Firms That Make Foreign Acquisitions

		Domestic (DOM) Bidders				Multinational (MNE) Bidders						
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acq DOMmean-MNEmean [DOMmed-MNEmed]	Focusing Acq DOMmean-MNEmean [DOMmed-MNEmed]	Diversifying Acq DOMmean-MNEmean [DOMmed-MNEmed]
Year 0	All Firms	-9.53**	-7.17	-13.54*	6.37	-27.82***	-33.93***	-18.76***	-15.17*	18.29***	26.76***	5.22
		[-8.77***]	[-6.92**]	[-14.58**]	[7.66]	[-29.38***]	[-36.13***]	[-26.06***]	[-10.07]*	[20.61]***	[29.21]***	[11.48]
		(n=238)	(n=150)	(n=88)		(n=330)	(n=197)	(n=133)				
	Multi Segment (M)	-21.10***	-10.69*	-31.23**	20.54	-28.16***	-34.40***	-23.41***	-10.99	7.06	23.71**	-7.82
		[-15.73***]	[-6.02*]	[-23.20**]	[17.18]	[-34.13***]	[-48.34***]	[-27.32***]	[-21.02]	[18.40]	[42.32]**	[4.12]
		(n=71)	(n=35)	(n=36)		(n=132)	(n=57)	(n=75)				
	Single Segment (S)	-4.61	-6.10	-1.30	-4.80	-27.59***	-33.74***	-12.74	-21.00	22.98***	27.64***	11.44
		[-7.39*]	[-7.39*]	[-8.40]	[1.01]	[-28.51***]	[-28.81***]	[-25.28*]	[-3.53]	[21.12]***	[21.42]***	[16.88]
		(n=167)	(n=115)	(n=52)		(n=198)	(n=140)	(n=58)				
	Mmean-Smean p-value	-16.49* 0.055	-4.59 0.597	-29.93* 0.057		-0.57 0.938	-0.66 0.946	-10.67 0.426				
	[Mmed-Smed] p-value	[-8.34] 0.216	[1.37] 0.927	[-14.80] 0.116		[-5.62] 0.917	[-19.53] 0.899	[-2.04] 0.488				
Year 1	All Firms	-11.14***	-7.81	-16.80**	8.99	-29.33***	-34.58***	-21.46***	-13.12*	18.19***	26.77***	4.66
		[-7.25***]	[-6.08*]	[-13.11**]	[7.03]	[-33.68***]	[-36.93***]	[-24.77***]	[-12.16]*	[26.43]***	[30.85]***	[11.66]
		(n=238)	(n=150)	(n=88)		(n=335)	(n=201)	(n=134)				
	Multi Segment (M)	-19.50***	-9.41	-29.59***	20.18	-28.78***	-37.79***	-21.94***	-15.85	9.28	28.38**	-7.65
		[-17.21***]	[-6.58]	[-32.55***]	[25.97]	[-34.26***]	[-45.90***]	[-24.05***]	[-21.85]*	[17.05]	[39.32]***	[-8.50]
		(n=70)	(n=35)	(n=35)		(n=132)	(n=57)	(n=75)				
	Single Segment (S)	-7.65	-7.32	-8.36	1.04	-29.69***	-33.31***	-20.85*	-12.46	22.04***	25.99***	12.49
		[-4.81*]	[-5.59*]	[-1.25]	[-4.34]	[-32.33***]	[-31.93***]	[-34.04*]	[2.11]	[27.52]***	[26.34]***	[32.79]
		(n=168)	(n=115)	(n=53)		(n=203)	(n=144)	(n=59)				
	Mmean-Smean p-value	-11.85 0.162	-2.09 0.834	-21.23 0.147		0.91 0.902	-4.48 0.656	-1.09 0.933				
	[Mmed-Smed] p-value	[-12.40] 0.228	[-0.99] 0.977	[-31.30] 0.116		[-1.93] 0.823	[-13.97] 0.459	[9.99] 0.835				
Year 2	All Firms	-15.41***	-11.06**	-22.89**	11.83	-26.53***	-35.14***	-14.01**	-21.13**	11.12*	24.08***	-8.88
		[-13.86***]	[-11.71**]	[-22.16**]	[10.45]	[-30.34***]	[-40.48***]	[-17.78**]	[-22.70]***	[16.48]*	[28.77]***	[-4.38]
		(n=182)	(n=115)	(n=67)		(n=270)	(n=160)	(n=110)				
	Multi Segment (M)	-29.39***	-33.22***	-26.08*	-7.14	-24.96***	-37.03***	-17.09**	-19.94*	-4.43	3.81	-8.99
		[-26.15***]	[-25.27***]	[-27.03*]	[1.76]	[-24.27***]	[-37.92***]	[-20.57**]	[-17.35]	[-1.88]	[12.65]	[-6.46]
		(n=54)	(n=25)	(n=29)		(n=109)	(n=43)	(n=66)				
	Single Segment (S)	-9.52*	-4.90	-20.46*	15.56	-27.60***	-34.45***	-9.37	-25.08*	18.08**	29.55***	-11.09
		[-8.82*]	[-5.43*]	[-21.10*]	[15.67]	[-35.09***]	[-42.32***]	[-8.16]	[-34.16]**	[26.27]**	[36.89]***	[-12.94]
		(n=128)	(n=90)	(n=38)		(n=161)	(n=117)	(n=44)				
	Mmean-Smean p-value	-19.87* 0.054	-28.32** 0.013	-5.62 0.772		2.64 0.744	-2.58 0.808	-7.72 0.587				
	[Mmed-Smed] p-value	[-17.33]* 0.065	[-19.84]** 0.023	[-5.93] 0.929		[10.82] 0.784	[4.40] 0.943	[-12.41] 0.360				
Year 3	All Firms	-20.86***	-20.58***	-21.35**	0.77	-22.79***	-27.95***	-14.81**	-13.14	1.93	7.37	-6.54
		[-14.07***]	[-15.47***]	[-12.34*]	[-3.13]	[-21.64***]	[-27.79***]	[-12.20**]	[-15.59]	[7.57]	[12.32]	[-0.14]
		(n=151)	(n=96)	(n=55)		(n=214)	(n=130)	(n=84)				
	Multi Segment (M)	-34.74***	-39.62***	-30.64*	-8.98	-24.96***	-33.09***	-20.08***	-13.01	-9.78	-6.53	-10.56
		[-28.83***]	[-39.28***]	[-25.09*]	[-14.19]	[-23.57***]	[-29.56***]	[-15.15***]	[-14.41]	[-5.26]	[-9.72]	[-9.94]
		(n=46)	(n=21)	(n=25)		(n=88)	(n=33)	(n=55)				
	Single Segment (S)	-14.78*	-15.25*	-13.61*	-1.64	-21.27***	-26.19***	-4.82	-21.37	6.49	10.94	-8.79
		[-5.83**]	[-5.25*]	[-6.04*]	[0.79]	[-20.54***]	[-24.27***]	[-3.77]	[-20.50]	[14.71]	[19.02]	[-2.27]
		(n=105)	(n=75)	(n=30)		(n=126)	(n=97)	(n=29)				
	Mmean-Smean p-value	-19.96 0.108	-24.37 0.116	-17.03 0.428		-3.69 0.684	-6.90 0.578	-15.26 0.356				
	[Mmed-Smed] p-value	[-23.00] 0.103	[-34.03]* 0.063	[-19.05] 0.521		[-3.03] 0.912	[-5.29] 0.754	[-11.38] 0.321				

Panel D: Industry Adjusted Excess Market Value for Bidder Firms That Make Foreign Acquisitions

		Domestic	(DOM)	Bidders		Multinational	(MNE)	Bidders				
		Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acquisitions	Focusing Acquisitions (F)	Diversifying Acquisitions (D)	Fmean-Dmean [Fmed-Dmed]	Total Acq DOMmean-MNEmean [DOMmed-MNEmed]	Focusing Acq DOMmean-MNEmean [DOMmed-MNEmed]	Diversifying Acq DOMmean-MNEmean [DOMmed-MNEmed]
Year 0	All Firms	-11.38	-9.86	-13.90	4.04	-44.61***	-50.87***	-35.17***	-15.70	33.23***	41.01***	21.27
		[-6.65]	[-6.65]	[-5.57]	[-1.08]	[-39.67***]	[-53.11***]	[-26.08***]	[-27.03]	[33.02]***	[46.46]***	[20.51]
		(n=213)	(n=133)	(n=80)		(n=326)	(n=196)	(n=130)				
	Multi Segment (M)	-39.36***	-34.91***	-44.10**	9.19	-62.32***	-78.88***	-49.46***	-29.42	22.96	43.97**	5.36
		[-29.87***]	[-28.67***]	[-34.91**]	[6.24]	[-53.24***]	[-75.12***]	[-39.43***]	[-35.69]	[23.37]	[46.45]*	[4.52]
		(n=64)	(n=33)	(n=31)		(n=135)	(n=59)	(n=76)				
	Single Segment (S)	0.64	-1.59	5.20	-6.79	-32.09***	-38.80***	-15.05	-23.75	32.73**	37.21**	20.25
		[0.00]	[0.00]	[2.34]	[-2.34]	[-27.52***]	[-39.43***]	[-15.83]	[-23.60]	[27.52]***	[39.43]**	[18.17]
		(n=149)	(n=100)	(n=49)		(n=191)	(n=137)	(n=54)				
	Mmean-Smean p-value	-40.00*** 0.009	-33.32** 0.035	-49.30* 0.095		-30.23** 0.031	-40.08** 0.045	-34.41 0.151				
	[Mmed-Smed] p-value	[-29.87]*** 0.007	[-28.67]** 0.047	[-37.25]* 0.059		[-25.72]* 0.055	[-35.69]* 0.082	[-23.60] 0.115				
Year 1	All Firms	-12.59	-10.62	-16.00	5.38	-48.41***	-52.27***	-42.62***	-9.65	35.82***	41.65***	26.62
		[-12.83*]	[-7.88]	[-22.04*]	[14.16]	[-50.20***]	[-57.18***]	[-41.26***]	[-15.92]	[37.37]***	[49.30]***	[19.22]*
		(n=218)	(n=138)	(n=80)		(n=328)	(n=197)	(n=131)				
	Multi Segment (M)	-54.39***	-44.17**	-65.60*	21.43	-53.83***	-60.89***	-48.56***	-12.33	-0.56	16.72	-17.04
		[-34.83***]	[-27.89**]	[-63.03***]	[35.14]	[-55.24***]	[-75.41***]	[-43.84***]	[-31.57]	[20.41]	[47.52]	[-19.19]
		(n=65)	(n=34)	(n=31)		(n=138)	(n=59)	(n=79)				
	Single Segment (S)	5.17	0.35	15.39	-15.04	-44.48***	-48.58***	-33.58*	-15.00	49.65***	48.93***	48.97*
		[-3.77]	[-4.07]	[7.43]	[-11.50]	[-46.68***]	[-51.88***]	[-23.92*]	[-27.96]	[42.91]***	[47.81]***	[31.35]*
		(n=153)	(n=104)	(n=49)		(n=190)	(n=138)	(n=52)				
	Mmean-Smean p-value	-59.56*** 0.001	-44.52** 0.034	-80.99*** 0.008		-9.35 0.464	-12.31 0.469	-14.98 0.487				
	[Mmed-Smed] p-value	[-31.06]*** 0.003	[-23.82]* 0.085	[-70.46]*** 0.007		[-8.56] 0.269	[-23.53] 0.269	[-19.92] 0.340				
Year 2	All Firms	-19.18*	-22.37*	-13.71	-8.66	-45.79***	-53.85***	-34.26***	-19.59	26.61**	31.48*	20.55
		[-8.36**]	[-12.00**]	[-3.65]	[-8.35]	[-52.42***]	[-64.95***]	[-27.32***]	[-37.63]	[44.06]**	[52.95]**	[23.67]
		(n=168)	(n=106)	(n=62)		(n=260)	(n=153)	(n=107)				
	Multi Segment (M)	-36.28**	-66.12***	-11.58	-54.54*	-39.54***	-49.59***	-32.90**	-16.69	3.26	-16.53	21.32
		[-37.71***]	[-47.56***]	[-15.26]	[-32.30]	[-50.74***]	[-59.85***]	[-23.97**]	[-35.88]	[13.03]	[12.29]	[8.71]
		(n=53)	(n=24)	(n=29)		(n=113)	(n=45)	(n=68)				
	Single Segment (S)	-11.29	-9.57	-15.58	6.01	-50.59***	-55.62***	-36.64*	-18.98	39.30**	46.05**	21.06
		[-3.81]	[-4.61]	[2.34]	[-6.95]	[-52.93***]	[-70.41***]	[-31.01*]	[-39.40]	[49.12]**	[65.80]**	[33.35]
		(n=115)	(n=82)	(n=33)		(n=147)	(n=108)	(n=39)				
	Mmean-Smean p-value	-24.99 0.224	-56.55** 0.036	4.00 0.902		11.05 0.448	6.03 0.767	3.74 0.882				
	[Mmed-Smed] p-value	[-33.90] 0.134	[-42.95]** 0.046	[-17.60] 0.783		[2.19] 0.708	[10.56] 0.965	[7.04] 0.826				
Year 3	All Firms	-15.41	-22.05*	-5.04	-17.01	-40.78***	-45.87***	-33.05***	-12.82	25.37**	23.82	28.01
		[-5.78*]	[-10.61*]	[1.28]	[-11.89]	[-45.87***]	[-65.94***]	[-31.87***]	[-34.07]	[40.16]**	[55.33]	[33.15]
		(n=128)	(n=78)	(n=50)		(n=204)	(n=123)	(n=81)				
	Multi Segment (M)	-39.42**	-68.22**	-18.69	-49.53	-38.25***	-44.42***	-34.66***	-9.76	-1.17	-23.80	15.97
		[-36.90**]	[-57.34**]	[-4.26]	[-53.08]	[-31.87***]	[-53.32**]	[-30.66**]	[-22.66]	[-5.03]	[-4.02]	[26.40]
		(n=43)	(n=18)	(n=25)		(n=87)	(n=32)	(n=55)				
	Single Segment (S)	-3.26	-8.20	8.61	-16.81	-42.67***	-46.39***	-29.66*	-16.73	39.41**	38.19*	38.27
		[0.00]	[-1.15]	[5.34]	[-6.49]	[-56.74***]	[-68.03***]	[-41.60*]	[-26.43]	[56.74]**	[66.88]*	[46.94]
		(n=85)	(n=60)	(n=25)		(n=117)	(n=91)	(n=26)				
	Mmean-Smean p-value	-36.16* 0.094	-60.02* 0.057	-27.30 0.328		4.42 0.770	1.97 0.924	-5.00 0.833				
	[Mmed-Smed] p-value	[-36.90]* 0.054	[-56.19]** 0.039	[-9.60] 0.248		[24.87] 0.834	[14.71] 0.945	[10.94] 0.824				

Table 20

Cross Sectional Regressions Relating Changes in Post-Acquisition Valuation Measures to Effects of Diversification

The dependent variables in the cross-sectional regressions are the change in post-acquisition valuation measures of the overseas bidder from the end of year -1 till the end of years 1,2 and 3. The sample includes 744 overseas firm-year observations. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Excess Market Value (EMV) is defined as the market value of equity less book value of equity normalized by total sales. Industry-adjustment is made by using the methodology of Berger and Ofek (1995). The raw dependent variables are normalized by the pre-acquisition average of valuation measures. The constant term in the cross-sectional regressions reported in Panels A1 and A2 captures the effect of the overseas acquisition on single-segment bidders that make diversifying acquisitions. SINGLEFOCUSD is a dummy variable taking on a value of one if the bidder is a single-segment firm that makes a focusing acquisition overseas, and zero otherwise. MULTIDIVERD is a dummy variable taking on a value of one if a multi-segment bidder makes a diversifying acquisition overseas and zero otherwise. MULTIFOCUSD is a dummy variable taking on a value of one if a multi-segment bidder makes a focusing acquisition and zero otherwise. The constant term in the cross-sectional regressions reported in panels B1 and B2 captures the effect of the overseas acquisition on single-segment multinational bidders that make diversifying acquisitions. ***, ** and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A1: Cross Sectional Regressions Relating Post-Acquisition Changes in Raw Tobin's Q and EMV to Effects of Diversification

Dependent Variable	Constant	SINGLE FOCUS DUMMY	MULTI DIVER DUMMY	MULTI FOCUS DUMMY	F-value p-value	R^2 Adj-R^2
Δ Q(-1to+1)/AVGQ$_{(-1)}$	0.297	0.049	0.025	0.016	9.499	0.104
	(4.327)***	(0.913)	(0.378)	(0.230)	(0.000)***	0.093
Δ Q(-1to+2)/AVGQ$_{(-1)}$	0.465	0.051	0.077	0.016	11.063	0.119
	(6.279)***	(0.883)	(1.068)	(0.210)	(0.000)***	0.109
Δ Q(-1to+3)/AVGQ$_{(-1)}$	0.534	-0.011	-0.003	-0.008	9.934	0.109
	(7.901)***	(-0.209)	(-0.047)	(-0.114)	(0.000)***	0.098
Δ EMV (-1to+1)/(1+AVGEMV)$_{(-1)}$)	0.107	0.099	0.089	0.075	4.967	0.057
	(2.033)**	(2.400)**	(1.735)*	(1.428)	(0.000)***	0.046
Δ EMV (-1to+2)/(1+AVGEMV)$_{(-1)}$)	0.169	0.068	0.102	0.057	5.599	0.064
	(3.203)***	(1.649)*	(1.988)**	(1.082)	(0.000)***	0.053
Δ EMV (-1to+3)/(1+AVGEMV)$_{(-1)}$)	0.240	0.060	0.069	0.080	3.667	0.043
	(3.644)***	(1.158)	(1.080)	(1.214)	(0.000)***	0.031

Panel A2: Cross Sectional Regressions Relating Post-Acquisition Changes in Industry-Adjusted Tobin's Q and EMV to Effects of Diversification

Dependent Variable	Constant	SINGLE FOCUS DUMMY	MULTI DIVER DUMMY	MULTI FOCUS DUMMY	F-value p-value	R^2 Adj-R^2
Δ INDADJQ (-1to+1)	-0.158	0.075	0.062	0.081	18.318	0.183
	(-2.552)**	(1.535)	(1.030)	(1.299)	(0.000)***	0.173
Δ INDADJQ (-1to+2)	-0.093	0.069	0.102	0.048	18.211	0.183
	(-1.486)	(1.410)	(1.676)*	(0.764)	(0.000)***	0.173
Δ INDADJQ (-1to+3)	-0.097	0.072	0.108	0.063	13.136	0.139
	(-1.678)*	(1.593)	(1.936)*	(1.087)	(0.000)***	0.128
Δ INDADJEMV (-1to+1)	-0.233	0.124	0.085	0.157	7.150	0.081
	(-2.315)**	(1.573)	(0.868)	(1.555)	(0.000)***	0.069
Δ INDADJEMV (-1to+2)	-0.273	0.111	0.269	0.139	6.723	0.076
	(-2.514)**	(1.308)	(2.559)**	(1.284)	(0.000)***	0.065
Δ INDADJEMV (-1to+3)	-0.185	0.087	0.162	0.077	5.619	0.064
	(-1.970)**	(1.173)	(1.780)*	(0.817)	(0.000)***	0.053

Panel B1: Cross Sectional Regressions Relating Post-Acquisition Changes in Raw Tobin's Q and EMV to Effects of Diversification

Dependent Variable	Constant	SINGLE DIVER MNE DUMMY	SINGLE FOCUS DOMESTIC DUMMY	SINGLE FOCUS MNE DUMMY	MULTI DIVER DOMESTIC DUMMY	MULTI DIVER MNE DUMMY	MULTI FOCUS DOMESTIC DUMMY	MULTI FOCUS MNE DUMMY	F-value p-value	R^2 Adj-R^2
Δ Q(-1to+1)/AVGQ$_{(-1to+1)}$	0.266	0.129	0.070	0.089	-0.017	0.089	0.066	0.036	6.722	0.107
	(2.999)***	(1.262)	(0.801)	(1.029)	(-0.148)	(0.926)	(0.562)	(0.355)	(0.000)***	0.091
Δ Q(-1to+2)/AVGQ$_{(-1to+1)}$	0.408	0.188	0.047	0.168	0.088	0.168	0.054	0.087	8.090	0.126
	(4.285)***	(1.705)*	(0.498)	(1.804)*	(0.717)	(1.624)	(0.426)	(0.794)	(0.000)***	0.110
Δ Q(-1to+3)/AVGQ$_{(-1to+1)}$	0.483	0.175	-0.044	0.132	0.094	0.038	-0.071	0.063	7.960	0.124
	(5.582)***	(1.745)*	(-0.506)	(1.569)	(0.851)	(0.410)	(-0.618)	(0.630)	(0.000)***	0.109
Δ EMV (-1to+1)/ (1+AVGEMV$_{(-1to+1)}$)	0.051	0.112	0.187	0.126	0.096	0.164	0.150	0.131	3.646	0.061
	(0.746)	(1.421)	(2.774)***	(1.904)*	(1.098)	(2.227)**	(1.668)*	(1.675)*	(0.000)***	0.044
Δ EMV (-1to+2)/ (1+AVGEMV$_{(-1to+1)}$)	0.101	0.152	0.137	0.140	0.124	0.190	0.125	0.134	4.088	0.068
	(1.487)	(1.938)*	(2.035)**	(2.116)**	(1.417)	(2.571)***	(1.385)	(1.703)*	(0.000)***	0.051
Δ EMV (-1to+3)/ (1+AVGEMV$_{(-1to+1)}$)	0.206	0.081	0.102	0.093	0.093	0.103	0.031	0.139	2.591	0.044
	(2.428)**	(0.823)	(1.212)	(1.119)	(0.855)	(1.121)	(0.278)	(1.422)	(0.002)***	0.027

Panel B2: Cross Sectional Regressions Relating Post-Acquisition Changes in Industry-Adjusted Tobin's Q and EMV to Effects of Diversification

Dependent Variable	Constant	SINGLE DIVER MNE DUMMY	SINGLE FOCUS DOMESTIC DUMMY	SINGLE FOCUS MNE DUMMY	MULTI DIVER DOMESTIC DUMMY	MULTI DIVER MNE DUMMY	MULTI FOCUS DOMESTIC DUMMY	MULTI FOCUS MNE DUMMY	F-value p-value	R^2 Adj-R^2
Δ INDADJQ (-1to+1)	-0.210	0.130	0.167	0.079	0.073	0.103	0.209	0.067	13.049	0.189
	(-2.633)***	(1.409)	(2.110)**	(1.010)	(0.714)	(1.194)	(1.978)**	(0.732)	(0.000)***	0.174
Δ INDADJQ (-1to+2)	-0.202	0.266	0.189	0.168	0.186	0.203	0.101	0.184	13.177	0.190
	(-2.511)**	(2.853)***	(2.366)**	(2.136)**	(1.799)*	(2.321)**	(0.951)	(1.975)**	(0.000)***	0.176
Δ INDADJQ (-1to+3)	-0.176	0.184	0.143	0.176	0.221	0.149	0.047	0.156	9.524	0.145
	(-2.382)**	(2.148)**	(1.942)*	(2.436)**	(2.331)**	(1.852)*	(0.482)	(1.821)*	(0.000)***	0.130
Δ INDADJEMV (-1to+1)	-0.331	0.190	0.282	0.136	0.161	0.194	0.302	0.231	5.192	0.085
	(-2.552)**	(1.269)	(2.185)**	(1.074)	(0.968)	(1.381)	(1.757)*	(1.541)	(0.000)***	0.068
Δ INDADJEMV (-1to+2)	-0.494	0.437	0.272	0.360	0.547	0.448	0.385	0.467	5.307	0.086
	(-3.547)***	(2.715)***	(1.964)**	(2.654)***	(3.060)***	(2.965)***	(2.091)**	(2.907)***	(0.000)***	0.070
Δ INDADJEMV (-1to+3)	-0.279	0.208	0.162	0.195	0.297	0.207	0.055	0.259	4.112	0.068
	(-2.303)**	(1.486)	(1.351)	(1.653)*	(1.914)*	(1.581)	(0.343)	(1.853)*	(0.000)***	0.052

Table 21

Pre-Acquisition Univariate Analysis of Bidders' Core and Non-Core Business Performance

The table presents the means [medians] of the core and non-core business performance measures at the segment level of bidder firms that made overseas acquisitions over the 1991-1997 period. Year t is the year of the acquisition. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not include bidder and target firms in non-manufacturing industries such as Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). The sample also does not cover bidder firms that made both "*diversifying*" and "*focusing*" acquisitions in the same calendar year. We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. We combine the value of acquisitions for bidder firms that made more than one acquisition in a calendar year and count it as one acquisition-year observation. Cash Flow is defined as operating income plus depreciation. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A. Pre-Acquisition Sales for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
ln(Sales)t-2	Multi Segment (M)	20.963 [21.263] (n=87)	20.368 [20.555] (n=81)	0.595* [0.708*]	0.075 0.096	20.579 [20.757] (n=98)	20.275 [20.447] (n=94)	0.304 [0.310]	0.256 0.418	0.384 [0.506*]	0.179 0.068	0.093 [0.108]	0.771 0.484
	Single Segment (S)	20.004 [20.136] (n=222)				19.150 [19.181] (n=101)				0.854*** [0.955***]	0.001 0.000		
	M-S p-value	0.959*** 0.000				1.429*** 0.000							
	[M-S] p-value	[1.127*** 0.000				[1.576*** 0.000							
Ln(Sales)t-1	Multi Segment (M)	20.967 [21.220] (n=99)	20.324 [20.561] (n=98)	0.643** [0.659**]	0.030 0.036	20.612 [20.591] (n=113)	20.263 [20.442] (n=110)	0.349 [0.149]	0.137 0.185	0.355 [0.629*]	0.156 0.056	0.061 [0.119]	0.826 0.575
	Single Segment (S)	19.953 [20.057] (n=274)				19.223 [19.202] (n=114)				0.730*** [0.855***]	0.001 0.001		
	M-S p-value	1.014*** 0.000				1.389*** 0.000							
	[M-S] p-value	[1.163***] 0.000				[1.389***] 0.000							
Ln(Sales)t	Multi Segment (M)	21.035 [21.190] (n=109)	20.375 [20.483] (n=108)	0.660** [0.707**]	0.015 0.018	20.660 [20.612] (n=125)	20.261 [20.521] (n=124)	0.399* [0.091]	0.083 0.154	0.375 [0.578*]	0.111 0.080	0.114 [-0.038]	0.667 0.745
	Single Segment (S)	20.043 [20.143] (n=310)				19.340 [19.214] (n=130)	19.149 [18.539] (n=7)	0.191 [0.675]	0.848 0.446	0.703*** [0.929***]	0.001 0.000		
	M-S p-value	0.992*** 0.000				1.320*** 0.000	1.112 0.354						
	[M-S] p-value	[1.047***] 0.000				[1.398***] 0.000	[1.982] 0.177						

Panel B. Pre-Acquisition Assets for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions			Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
ln(Assets)t-2	Multi Segment (M)	20.838 [21.177] (n=87)	20.242 [20.705] (n=81)	0.596* [0.472]	0.079 0.149	20.348 [20.596] (n=98)	20.276 [20.614] (n=94)	0.072 [-0.018]	0.795 0.964	0.490* [0.581**]	0.077 0.038	-0.034 [0.091]	0.919 0.829
	Single Segment (S)	20.056 [19.986] (n=222)				19.108 [19.976] (n=101)				0.948*** [0.010***]	0.000 0.000		
	M-S p-value	0.782*** 0.002				1.240*** 0.000							
	[M-S] p-value	[1.191***] 0.002				[0.620***] 0.000							
ln(Assets)t-1	Multi Segment (M)	20.796 [21.018] (n=99)	20.184 [20.427] (n=98)	0.612** [0.591*]	0.044 0.069	20.357 [20.520] (n=113)	20.214 [20.295] (n=110)	0.143 [0.225]	0.560 0.621	0.439* [0.498**]	0.078 0.041	-0.030 [0.132]	0.920 0.828
	Single Segment (S)	19.955 [19.875] (n=274)				19.178 [19.142] (n=114)				0.777*** [0.733***]	0.001 0.001		
	M-S p-value	0.841*** 0.000				1.179*** 0.000							
	[M-S] p-value	[1.143***] 0.000				[1.378***] 0.000							
Ln(Assets)t	Multi Segment (M)	20.878 [21.151] (n=109)	20.175 [20.346] (n=108)	0.703** [0.805**]	0.013 0.019	20.360 [20.336] (n=125)	20.237 [20.270] (n=124)	0.123 [0.066]	0.599 0.746	0.518** [0.815**]	0.026 0.017	-0.062 [0.076]	0.825 0.909
	Single Segment (S)	20.136 [20.048] (n=310)				19.346 [19.362] (n=130)	19.610 [19.076] (n=7)	-0.264 [0.286]	0.867 0.513	0.790*** [0.686***]	0.000 0.000		
	M-S p-value	0.742*** 0.000				1.014*** 0.000	0.627 0.692						
	[M-S] p-value	[1.103***] 0.000				[0.974***] 0.000	[1.194] 0.316						

Panel C. Pre-Acquisition Growth in Sales for the Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions			Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Sales t-1/Salest-2	Multi Segment (M)	1.148 [1.065] (n=85)	1.229 [1.075] (n=79)	-0.081 [-0.010]	0.372 0.924	1.186 [1.087] (n=98)	1.195 [1.070] (n=91)	-0.009 [0.017]	0.918 0.415	-0.038 [-0.022]	0.624 0.636	0.034 [0.005]	0.751 0.620
	Single Segment (S)	1.189 [1.109] (n=217)				1.297 [1.169] (n=101)				-0.108* [-0.060**]	0.051 0.033		
	M-S p-value	-0.041 0.375				-0.111 0.172							
	[M-S] p-value	[-0.044**] 0.021				[-0.082***] 0.001							
Sales t/Sales t-1	Multi Segment (M)	1.128 [1.075] (n=99)	1.210 [1.070] (n=97)	-0.082 [0.005]	0.242 0.467	1.137 [1.007] (n=112)	1.177 [1.100] (n=108)	-0.040 [-0.093]	0.470 0.513	-0.009 [0.068]	0.841 0.650	0.033 [-0.030]	0.681 0.346
	Single Segment (S)	1.266 [1.133] (n=269)				1.252 [1.170] (n=112)				0.014 [-0.037]	0.766 0.876		
	M-S p-value	-0.138*** 0.001				-0.115** 0.020							
	[M-S] p-value	[-0.058***] 0.000				[-0.163***] 0.001							

Panel D. Pre-Acquisition Cash Flows for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cash Flow t-1/Sales t-2	Multi Segment (M)	0.193 [0.178] (n=83)	0.183 [0.159] (n=77)	0.010 [0.019]	0.680 0.551	0.197 [0.158] (n=97)	0.269 [0.161] (n=91)	-0.072 [-0.003]	0.287 0.753	-0.004 [0.020]	0.906 0.712	-0.086 [-0.002]	0.178 0.659
	Single Segment (S)	0.173 [0.164] (n=215)				0.155 [0.168] (n=98)				0.018 [-0.004]	0.605 0.774		
	M-S p-value [M-S] p-value	0.020 0.441 [0.014] 0.842				0.042 0.297 [-0.010] 0.931							
Cash Flow t/Sales t-1	Multi Segment (M)	0.204 [0.193] (n=98)	0.167 [0.156] (n=95)	0.037* [0.037**]	0.065 0.045	0.151 [0.142] (n=13)	0.195 [0.151] (n=108)	-0.044 [-0.009]	0.072 0.384	0.053** [0.051**]	0.014 0.015	-0.028 [0.005]	0.225 0.822
	Single Segment (S)	0.170 [0.152] (n=265)				0.160 [0.149] (n=108)				0.010 [0.003]	0.743 0.293		
	M-S p-value [M-S] p-value	0.034 0.150 [0.041] 0.180				-0.009 0.755 [-0.007] 0.906							

Panel E. Pre-Acquisition Capital Expenditures for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cap Exp t-1/Sales t-2	Multi Segment (M)	0.112 [0.056] (n=83)	0.098 [0.051] (n=79)	0.014 [0.005]	0.604 0.506	0.089 [0.047] (n=96)	0.217 [0.054] (n=91)	-0.128 [-0.007**]	0.112 0.030	0.023 [0.009*]	0.335 0.073	-0.119 [-0.003]	0.144 0.267
	Single Segment (S)	0.164 [0.062] (n=217)				0.228 [0.059] (n=96)				-0.064 [0.003]	0.536 0.433		
	M-S p-value [M-S] p-value	-0.052 0.238 [-0.006] 0.584				-0.139 0.151 [-0.012] 0.121							
Cap Exp t /Sales t-1	Multi Segment (M)	0.154 [0.061] (n=98)	0.093 [0.051] (n=95)	0.061 [0.010**]	0.134 0.034	0.090 [0.053] (n=113)	0.155 [0.057] (n=108)	-0.065** [-0.004*]	0.040 0.080	0.064 [0.008**]	0.114 0.021	-0.062* [-0.006]	0.053 0.157
	Single Segment (S)	0.141 [0.065] (n=270)				0.146 [0.062] (n=108)				-0.005 [0.003]	0.897 0.443		
	M-S p-value [M-S] p-value	0.013 0.757 [-0.004] 0.868				-0.056* 0.093 [-0.009] 0.154							

Table 22

Post-Acquisition Univariate Analysis of Bidders' Core and Non-Core Business Performance

The table presents the means [medians] of the core and non-core business performance measures at the segment level of bidder firms that made domestic acquisitions over the 1991-1997 period. Year t is the year of the acquisition. The sample includes all acquisitions which are of, or assumed to be of, $ 5 million value or higher. The sample does not include bidder and target firms in non-manufacturing industries such as Finance, Insurance and Real Estate (2-digit SIC codes from 60 to 67), and Services (2-digit SIC codes from 70 to 89). The sample also does not cover bidder firms that made both "*diversifying*" and "*focusing*" acquisitions in the same calendar year. We define acquisitions as "*diversifying*" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and "*focusing*" when the 2 digit SIC code of the bidder's core business is the same of the target. We combine the value of acquisitions for bidder firms that made more than one acquisition in a calendar year and count it as one acquisition-year observation. Cash Flow is defined as operating income plus depreciation. The significance of means difference is computed by one-way ANOVA. Non-parametric Wilcoxon Rank-Sum test is used to test for the difference of medians. ***, **, and * denote statistical significance for difference of groups at 1%, 5% and 10% levels respectively.

Panel A. Post-Acquisition Sales for Core and Non-Core Business Segments

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Ln(Sales)t	Multi Segment (M)	21.035 [21.190] (n=109)	20.375 [20.483] (n=108)	0.660** [0.707**]	0.015 0.018	20.660 [20.612] (n=125)	20.261 [20.521] (n=124)	0.399* [0.091]	0.083 0.154	0.375 [0.578*]	0.111 0.080	0.114 [-0.038]	0.667 0.745
	Single Segment (S)	20.043 [20.143] (n=310)				19.340 [19.214] (n=130)	19.149 [18.539] (n=7)	0.191 [0.675]	0.848 0.446	0.703*** [0.929***]	0.001 0.000		
	M-S p-value	0.992*** 0.000				1.320*** 0.000	1.112 0.354						
	[M-S] p-value	[1.047***] 0.000				[1.398***] 0.000	[1.982] 0.177						
Ln(Sales)t+1	Multi Segment (M)	21.127 [21.333] (n=111)	20.372 [20.472] (n=105)	0.755*** [0.861***]	0.005 0.007	20.749 [20.646] (n=125)	20.344 [20.469] (n=124)	0.405* [0.177]	0.066 0.113	0.378 [0.687*]	0.101 0.079	0.028 [0.003]	0.911 0.976
	Single Segment (S)	20.187 [20.253] (n=319)				19.406 [19.397] (n=137)	18.732 [18.238] (n=13)	0.674 [1.159]	0.475 0.355	0.781*** [0.856***]	0.000 0.000		
	M-S p-value	0.940*** 0.000				1.343*** 0.000	1.612 0.102						
	[M-S] p-value	[1.080***] 0.000				[1.249***] 0.000	[2.231*] 0.070						
Ln(Sales)t+2	Multi Segment (M)	21.268 [21.529] (n=84)	20.513 [20.635] (n=78)	0.755** [0.894**]	0.012 0.017	20.832 [20.698] (n=105)	20.528 [20.658] (n=97)	0.304 [0.040]	0.212 0.272	0.436* [0.831*]	0.090 0.071	-0.015 [-0.023]	0.960 0.981
	Single Segment (S)	20.281 [20.372] (n=264)				19.525 [19.445] (n=104)	18.268 [18.152] (n=14)	1.257* [1.293**]	0.069 0.021	0.756*** [0.927***]	0.001 0.000		
	M-S p-value	0.987*** 0.000				1.307*** 0.000	2.260*** 0.003						
	[M-S] p-value	[1.157***] 0.000				[1.253***] 0.000	[2.506***] 0.000						

Panel B. Post-Acquisition Assets for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Ln(Assets)t	Multi Segment (M)	20.878 [21.151] (n=109)	20.175 [20.346] (n=108)	0.703** [0.805**]	0.013 0.019	20.360 [20.336] (n=125)	20.237 [20.270] (n=124)	0.123 [0.066]	0.599 0.746	0.518** [0.815**]	0.026 0.017	-0.062 [0.076]	0.825 0.909
	Single Segment (S)	20.136 [20.048] (n=310)				19.346 [19.362] (n=130)	19.610 [19.076] (n=7)	-0.264 [0.286]	0.867 0.513	0.790*** [0.686***]	0.000 0.000		
	M-S p-value	0.742*** 0.000				1.014*** 0.000	0.627 0.692						
	[M-S] p-value	[1.103***] 0.000				[0.974***] 0.000	[1.194] 0.316						
Ln(Assets)t+1	Multi Segment (M)	20.945 [21.143] (n=111)	20.195 [20.411] (n=105)	0.750*** [0.732**]	0.008 0.014	20.450 [20.418] (n=123)	20.414 [20.525] (n=121)	0.036 [-0.107]	0.874 0.960	0.495** [0.725**]	0.031 0.022	-0.219 [-0.114]	0.432 0.564
	Single Segment (S)	20.202 [20.122] (n=313)				19.443 [19.462] (n=135)	19.301 [17.790] (n=11)	0.142 [1.672]	0.907 0.326	0.759*** [0.660***]	0.000 0.000		
	M-S p-value	0.743*** 0.000				1.007*** 0.000	1.113 0.372						
	[M-S] p-value	[1.021***] 0.000				[0.956***] 0.000	[2.735*] 0.100						
ln(Assets)t+2	Multi Segment (M)	21.077 [21.318] (n=81)	20.309 [20.746] (n=75)	0.768** [0.572**]	0.020 0.022	20.518 [20.556] (n=103)	20.472 [20.555] (n=95)	0.046 [0.001]	0.852 0.843	0.559** [0.762**]	0.030 0.019	-0.163 [0.191]	0.609 0.769
	Single Segment (S)	20.339 [20.355] (n=260)				19.448 [19.387] (n=103)	18.446 [18.021] (n=13)	1.002 [1.366*]	0.224 0.051	0.891*** [0.968***]	0.000 0.000		
	M-S p-value	0.738*** 0.002				1.020*** 0.000	2.026** 0.023						
	[M-S] p-value	[0.963***] 0.001				[1.169***] 0.000	[2.534***] 0.001						

Panel C. Post Acquisition Growth in Sales for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Sales t+1/Sales t	Multi Segment (M)	1.184 [1.120] (n=108)	1.146 [1.096] (n=95)	0.038 [0.024**]	0.356 0.050	1.152 [1.077] (n=123)	1.210 [1.074] (n=117)	-0.058 [0.003]	0.393 0.967	0.032 [0.043**]	0.467 0.017	-0.064 [0.022]	0.333 0.830
	Single Segment (S)	1.275 [1.131] (n=302)				1.248 [1.140] (n=125)	1.139 [1.072] (n=6)	0.109 [0.068]	0.366 0.409	0.027 [-0.009]	0.605 0.389		
	M-S p-value	-0.091* 0.055				-0.096* 0.053	0.071 0.573						
	[M-S] p-value	[-0.011] 0.605				[-0.063***] 0.001	[0.002] 0.972						
Sales t+2/Sales t+1	Multi Segment (M)	1.122 [1.067] (n=84)	1.104 [1.075] (n=74)	0.018 [-0.008]	0.657 0.699	1.140 [1.093] (n=103)	1.160 [1.078] (n=96)	-0.020 [0.015]	0.709 0.381	-0.018 [-0.026]	0.614 0.359	-0.056 [-0.003]	0.305 0.765
	Single Segment (S)	1.179 [1.103] (n=254)				1.167 [1.082] (n=99)	1.440 [1.222] (n=5)	-0.273 [-0.140]	0.279 0.160	0.012 [0.021]	0.769 0.443		
	M-S p-value	-0.057 0.104				-0.027 0.527	-0.280 0.270						
	[M-S] p-value	[-0.036] 0.104				[0.011] 0.924	[-0.144] 0.154						

Panel D. Post-Acquisition Cash Flows for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cash Flow t+1/Salest	Multi Segment (M)	0.210 [0.198] (n=106)	0.170 [0.154] (n=100)	0.040** [0.044***]	0.033 0.004	0.147 [0.139] (n=124)	0.208 [0.147] (n=120)	-0.061 [-0.008]	0.137 0.517	0.063*** [0.059***]	0.006 0.001	-0.038 [0.007]	0.322 0.997
	Single Segment (S)	0.168 [0.156] (n=294)				0.170 [0.148] (n=120)	0.133 [0.113] (n=4)	0.037 [0.035]	0.685 0.462	-0.002 [0.008]	0.962 0.747		
	M-S p-value	0.042* 0.093				-0.023 0.345	0.075 0.441						
	[M-S] p-value	[0.042***] 0.008				[-0.009] 0.457	[0.034] 0.454						
Cash Flow t+2/Sales t+1	Multi Segment (M)	0.198 [0.175] (n=83)	0.176 [0.146] (n=76)	0.022 [0.029]	0.405 0.136	0.134 [0.139] (n=104)	0.166 [0.148] (n=94)	-0.032 [-0.009]	0.249 0.333	0.064** [0.036**]	0.014 0.014	0.010 [-0.002]	0.731 0.943
	Single Segment (S)	0.138 [0.157] (n=254)				0.127 [0.131] (n=100)	0.105 [0.042] (n=4)	0.022 [0.089]	0.864 0.577	0.011 [0.026*]	0.661 0.081		
	M-S p-value	0.060** 0.015				0.007 0.808	0.061 0.649						
	[M-S] p-value	[0.018*] 0.098				[0.008] 0.572	[0.106] 0.409						

Panel E. Post-Acquisition Capital Expenditures for Core and Non-Core Business Segment of the Bidder

		Focusing Acquisitions				Diversifying Acquisitions							
		Focusing Core (FC)	Focusing Non-Core (FNC)	Difference (FC-FNC)	p-value	Diversifying Core (DC)	Diversifying Non-Core (DNC)	Difference (DC-DNC)	p-value	Core Difference (FC-DC)	p-value	Non-Core Difference (FNC-DNC)	p-value
Cap Exp t+1/Sales t	Multi Segment (M)	0.100 [0.058] (n=106)	0.094 [0.051] (n=101)	0.006 [0.007*]	0.769 0.065	0.095 [0.047] (n=123)	0.152 [0.054] (n=122)	-0.057 [-0.007**]	0.131 0.026	0.005 [0.011**]	0.786 0.016	-0.058 [-0.003]	0.135 0.101
	Single Segment (S)	0.159 [0.061] (n=287)				0.105 [0.061] (n=122)	0.066 [0.044] (n=4)	0.039 [0.017]	0.349 0.550	0.054* [0.000]	0.079 0.728		
	M-S p-value	-0.059* 0.055				-0.010 0.642	0.086* 0.100						
	[M-S] p-value	[-0.003] 0.926				[-0.014*] 0.088	[0.010] 0.404						
Cap Exp t+2/Sales t+1	Multi Segment (M)	0.127 [0.062] (n=83)	0.085 [0.052] (n=75)	0.042 [0.010*]	0.160 0.094	0.086 [0.050] (n=103)	0.135 [0.053] (n=95)	-0.049* [-0.003]	0.067 0.121	0.041 [0.012**]	0.167 0.021	-0.050 [-0.001]	0.065 0.380
	Single Segment (S)	0.128 [0.060] (n=246)				0.076 [0.053] (n=97)	0.138 [0.012] (n=5)	-0.062 [0.041]	0.647 0.112	0.052** [0.007*]	0.017 0.072		
	M-S p-value	-0.001 0.975				0.010 0.555	-0.003 0.983						
	[M-S] p-value	[0.002] 0.535				[-0.003] 0.793	[0.041**] 0.047						

Table 23

Core and Non-Core Capital Expenditures of Single- and Multi-Segment Bidders That Make Overseas Acquisitions

The table presents the core and non-core capital expenditures of single- and multi-segment bidders included in our sample. The sample consists of 744 overseas firm-acquisitions made over the 1991-97 period. 500 of the firm-year acquisitions are made by single-segment bidders while the remaining 244 are made by multi-segment bidders. The core business segment of the bidder is defined as the line of business that has the highest sales as percentage of the total sales of the firm at 2 digit SIC level. The non-core business segments of the bidder are defined as the entirety of all lines of businesses other than the core business at 2 digit SIC level. The core and non-core capital expenditures are defined as the capital expenditures of the core and non-core segments respectively scaled by the total sales of the bidders from the previous year. Core Cash Flows (CCF) and Non-Core Cash Flows (NCCF) are defined as the operating income plus depreciation of the core and non-core business segments respectively normalized by the segment sales from the previous year. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. Industry-adjustment is made by the methodology of Berger and Ofek (1995) using sales multipliers. We define acquisitions as "diversifying" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "focusing" when the 2 digit SIC code of the bidder's core business is the same of the target. FSTSD is a dummy variable taking on a value of one if the bidder has a foreign sales to total sales ratio of 10% or higher in year t-1, and zero otherwise. DIVERD is a dummy variable taking on value of one if the bidder makes a diversifying acquisition in year 0, and value of zero if the bidder makes a focusing acquisition in year 0. 356 of the single-segment firms in our sample made focusing acquisitions overseas and the remaining 144 single-segment firms made diversifying acquisitions. 115 of the multi-segment firms in our sample made focusing acquisitions overseas and the remaining 129 multi-segment firms made diversifying acquisitions. Year 0 is the year of acquisitions. t-values of coefficients are in parantheses. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A1: Core Capital Expenditures of Single-Segment Firms That Make Focusing Acquisitions Overseas

	CORE CAPEXP	CORE CAPEXP	CORE CAPEXP	CORE CAPEXP (t=0)		CORE CAPEXP (t=1)		CORE CAPEXP (t=2)	
Independent Variables	(t=0)	(t=1)	(t=2)		(x FSTSD)		(x FSTSD)		(x FSTSD)
Constant	0.169	0.159	0.129	0.257	-0.186	0.201	-0.097	0.153	-0.071
	(2.273)**	(1.628)	(4.369)***	(2.617)***	(-1.404)	(1.626)	(-0.551)	(3.804)***	(-1.284)
CCF t-1	0.018	0.175	-0.027	-0.022	0.315	0.141	0.117	-0.041	0.082
	(0.104)	(0.989)	(-0.679)	(-0.119)	(0.770)	(0.643)	(0.312)	(-0.954)	(0.743)
Q t-1	0.004	0.009	0.002	0.001	0.003	0.017	-0.009	-0.002	0.017
	(0.121)	(0.170)	(0.142)	(0.018)	(0.041)	(0.312)	(-0.079)	(-0.069)	(0.524)
INDADJQ t-1	0.007	0.014	0.009	-0.007	0.018	-0.009	0.009	0.001	-0.008
	(0.115)	(0.173)	(0.384)	(-0.132)	(0.255)	(-0.128)	(0.097)	(0.022)	(-0.268)
F-Value	0.031	0.401	0.250	0.631		0.322		0.420	
p-value	(0.993)	(0.752)	(0.862)	(0.730)		(0.944)		(0.889)	
R^2	0.000	0.003	0.002	0.013		0.006		0.008	
Adj-R^2	-0.008	-0.005	-0.006	-0.007		-0.014		-0.012	

Panel A2: Core Capital Expenditures of Single-Segment Firms That Make Diversifying Acquisitions Overseas

	CORE CAPEXP	CORE CAPEXP	CORE CAPEXP	CORE CAPEXP (t=0)		CORE CAPEXP (t=1)		CORE CAPEXP (t=2)	
Independent Variables	(t=0)	(t=1)	(t=2)		(x FSTSD)		(x FSTSD)		(x FSTSD)
Constant	0.080	0.047	0.051	-0.020	0.047	-0.543	-0.053	0.026	0.016
	(1.399)	(0.124)	(1.183)	(-0.290)	(0.540)	(-1.141)	(-1.019)	(0.582)	(0.479)
CCF t-1	0.144	0.177	0.213	1.212	-1.430	0.479	-0.537	0.333	-0.272
	(1.469)	(3.450)***	(4.559)***	(7.119)***	(-7.362)***	(6.846)***	(-5.812)***	(6.059)***	(-3.062)***
NCCF t-1		0.163	-0.011			2.288	-0.308	-0.002	-
		(0.118)	(-0.036)			(1.306)	(-0.553)	(-0.006)	
Q t-1	0.030	-0.008	-0.007	-0.017	0.066	-0.021	0.048	0.003	0.004
	(0.891)	(-0.614)	(-0.877)	(-0.392)	(1.184)	(-1.027)	(1.704)*	(0.178)	(0.221)
INDADJQ t-1	0.017	0.019	0.010	-0.007	-0.016	0.016	-0.042	0.015	-0.030
	(0.403)	(0.828)	(0.844)	(-0.172)	(-0.341)	(0.949)	(-1.701)*	(1.107)	(-1.809)*
F-Value	1.786	3.362	5.821	9.353		6.705		5.748	
p-value	(0.153)	(0.012)**	(0.000)***	(0.000)***		(0.000)***		(0.000)***	
R^2	0.037	0.088	0.143	0.325		0.311		0.254	
Adj-R^2	0.016	0.062	0.119	0.290		0.264		0.210	

Panel B1: Core Capital Expenditures of Multi-Segment Firms That Make Focusing Acquisitions Overseas

Independent Variables	CORE CAPEXP (t=0)	CORE CAPEXP (t=1)	CORE CAPEXP (t=2)	CORE CAPEXP (t=0)	(x FSTSD)	CORE CAPEXP (t=1)	(x FSTSD)	CORE CAPEXP (t=2)	(x FSTSD)
Constant	0.033	0.004	0.040	0.032	-0.055	0.001	0.004	-0.051	0.119
	(0.353)	(0.208)	(1.171)	(0.283)	(-0.367)	(0.038)	(0.128)	(-1.108)	(1.732)*
CCF t-1	0.595	0.265	0.508	0.741	-0.332	0.348	-0.287	0.989	-0.838
	(3.319)***	(7.749)***	(5.081)***	(3.006)***	(-0.860)	(9.172)***	(-4.236)***	(6.735)***	(-4.124)***
NCCF t-1	0.167	0.175	-0.098	0.254	-0.164	0.183	-0.075	-0.538	0.473
	(0.615)	(2.874)***	(-0.873)	(0.572)	(-0.309)	(2.225)**	(-0.700)	(-3.400)***	(2.089)**
Q t-1	-0.043	-0.017	-0.029	-0.033	0.018	-0.015	0.020	0.037	-0.053
	(-0.985)	(-1.916)*	(-1.720)*	(-0.463)	(0.206)	(-1.187)	(1.207)	(1.219)	(-1.395)
INDADJQ t-1	0.086	0.025	0.043	0.019	0.005	0.004	-0.006	-0.003	0.013
	(1.222)	(1.762)*	(1.466)	(0.283)	(0.060)	(0.227)	(-0.312)	(-0.088)	(0.309)
F-Value	4.130	22.566	7.984	2.460		16.174		6.365	
p-value	(0.004)***	(0.000)***	(0.000)***	(0.014)**		(0.000)***		(0.000)***	
R^2	0.131	0.451	0.225	0.174		0.581		0.353	
Adj-R^2	0.099	0.431	0.197	0.103		0.545		0.298	

Panel B2: Core Capital Expenditures of Multi-Segment Firms That Make Diversifying Acquisitions Overseas

Independent Variables	CORE CAPEXP (t=0)	CORE CAPEXP (t=1)	CORE CAPEXP (t=2)	CORE CAPEXP (t=0)	(x FSTSD)	CORE CAPEXP (t=1)	(x FSTSD)	CORE CAPEXP (t=2)	(x FSTSD)
Constant	0.030	-0.010	0.046	0.034	0.029	-0.034	0.069	0.009	0.026
	(1.561)	(-0.506)	(3.415)***	(1.064)	(0.712)	(-1.167)	(1.846)*	(0.371)	(0.932)
CCF t-1	0.081	0.143	-0.016	0.076	0.026	0.303	-0.166	0.014	-0.062
	(2.024)**	(2.781)***	(-0.633)	(1.286)	(0.313)	(2.364)**	(-1.216)	(0.398)	(-1.071)
NCCF t-1	-0.027	-0.032	-0.008	-0.018	-0.161	0.005	-0.085	-0.003	-0.007
	(-1.493)	(-0.946)	(-0.622)	(-0.828)	(-1.702)*	(0.119)	(-1.087)	(-0.204)	(-0.270)
Q t-1	0.018	0.039	0.007	0.001	0.009	0.048	-0.040	0.041	-0.026
	(1.439)	(3.821)***	(0.951)	(0.022)	(0.238)	(2.193)**	(-1.569)	(2.255)**	(-1.254)
INDADJQ t-1	0.028	0.010	0.015	0.003	0.032	0.029	0.001	-0.034	0.042
	(1.621)	(0.613)	(1.131)	(0.103)	(0.868)	(1.427)	(0.031)	(-1.875)*	(2.048)**
F-Value	4.493	11.029	1.907	2.701		7.692		1.552	
p-value	(0.002)***	(0.000)***	(0.113)	(0.007)***		(0.000)***		(0.138)	
R^2	0.127	0.262	0.058	0.170		0.368		0.105	
Adj-R^2	0.098	0.239	0.028	0.107		0.320		0.037	

Panel C1: Non-Core Capital Expenditures of Multi-Segment Firms That Make Focusing Acquisitions Overseas

Independent Variables	NONCORE CAPEXP (t=0)	NONCORE CAPEXP (t=1)	NONCORE CAPEXP (t=2)	NONCORE CAPEXP (t=0)	(x FSTSD)	NONCORE CAPEXP (t=1)	(x FSTSD)	NONCORE CAPEXP (t=2)	(x FSTSD)
Constant	-0.016	-0.004	-0.010	-0.044	0.028	-0.035	0.060	-0.024	0.039
	(-0.851)	(-0.165)	(-1.042)	(-2.190)**	(1.030)	(-1.205)	(1.472)	(-1.766)*	(1.893)*
CCF t-1	0.046	0.031	0.122	-0.037	0.096	0.035	-0.067	0.181	-0.146
	(1.282)	(0.712)	(4.237)***	(-0.854)	(1.395)	(0.670)	(-0.727)	(4.166)***	(-2.422)**
NCCF t-1	0.280	0.195	0.161	0.629	-0.528	0.420	-0.404	0.168	-0.097
	(5.107)***	(2.539)**	(4.952)***	(7.955)***	(-5.615)***	(3.735)***	(-2.760)***	(3.574)***	(-1.441)
Q t-1	-0.008	0.000	-0.009	-0.012	0.014	-0.003	0.008	-0.011	0.008
	(-0.897)	(0.040)	(-1.842)*	(-0.973)	(0.909)	(-0.181)	(0.348)	(-1.190)	(0.680)
INDADJQ t-1	0.005	0.002	0.000	-0.005	0.000	-0.030	0.034	-0.011	0.012
	(0.371)	(0.123)	(0.051)	(-0.452)	(0.030)	(-1.345)	(1.331)	(-1.037)	(0.937)
F-Value	8.301	2.245	18.490	8.943		2.341		10.452	
p-value	(0.000)***	(0.069)*	(0.000)***	(0.000)***		(0.019)**		(0.000)***	
R^2	0.232	0.075	0.402	0.434		0.167		0.473	
Adj-R^2	0.204	0.042	0.380	0.385		0.096		0.427	

Panel C2: Non-Core Capital Expenditures of Multi-Segment Firms That Make Diversifying Acquisitions Overseas

Independent Variables	NONCORE CAPEXP (t=0)	NONCORE CAPEXP (t=1)	NONCORE APEXP (t=2)	NONCORE CAPEXP (t=0)	(x FSTSD)	NONCORE CAPEXP (t=1)	(x FSTSD)	NONCORE CAPEXP (t=2)	(x FSTSD)
Constant	0.078	0.023	0.051	0.026	0.019	-0.063	0.079	-0.022	0.067
	(3.093)***	(1.137)	(2.884)***	(0.618)	(0.361)	(-2.204)**	(2.175)**	(-0.760)	(1.952)*
CCF t-1	0.012	0.041	0.031	-0.001	0.005	0.758	-0.815	0.153	-0.280
	(0.236)	(0.764)	(0.931)	(-0.015)	(0.046)	(6.102)***	(-6.137)***	(3.662)***	(-3.934)***
NCCF t-1	0.028	0.092	0.038	0.008	0.160	0.143	-0.032	0.074	-0.089
	(1.153)	(2.574)**	(2.175)**	(0.290)	(1.292)	(3.668)***	(-0.428)	(3.594)***	(-2.761)***
Q t-1	-0.011	0.003	-0.005	0.080	-0.098	-0.015	0.022	0.057	-0.042
	(-0.645)	(0.324)	(-0.527)	(1.819)*	(-2.023)**	(-0.733)	(0.885)	(2.538)**	(-1.646)
INDADJQ t-1	0.056	0.019	0.026	0.034	0.003	0.018	-0.008	-0.042	0.049
	(2.428)**	(1.175)	(1.547)	(0.811)	(0.062)	(0.917)	(-0.331)	(-1.883)*	(1.967)*
F-Value	2.587	2.822	2.360	2.145		6.286		4.435	
p-value	(0.040)**	(0.028)**	(0.057)*	(0.031)**		(0.000)***		(0.000)***	
R^2	0.077	0.083	0.071	0.140		0.322		0.251	
Adj-R^2	0.047	0.054	0.041	0.074		0.271		0.195	

Table 24

Cross Sectional Regressions Relating Post-Acquisition Valuation Measures to Internal Capital Market Variables

The dependent variables in the cross sectional regressions are the post-acquisition industry-adjusted valuation of the bidders based on Tobin's Q. Tobin's Q is computed as market value of outstanding shares plus liquidation value of preferred stock plus net current assets plus long term debt divided by total assets. The valuation premium/discount is computed using the methodology of Berger and Ofek (1995). The sample includes 744 firm year acquisitions. 500 of the firm-year acquisitions are made by single-segment bidders while the remaining 244 are made by multi-segment bidders. We define acquisitions as "diversifying" when the 2 digit SIC code of the bidder's core business does not match with that of the target firm, and we define acquisitions as "focusing" when the 2 digit SIC code of the bidder's core business is the same of the target. 356 of the single-segment firms in our sample made focusing acquisitions and the remaining 144 single-segment firms made diversifying acquisitions. 115 of the multi-segment firms in our sample made focusing acquisitions and the remaining 129 multi-segment firms made diversifying acquisitions. DIVERD is an indicator variable taking the value of one if the bidder made a diversifying acquisition and zero otherwise. The size of the firm, LN(SALES), is the natural logarithm of annual sales FSTSD is a dummy variable taking on a value of one if the bidder has foreign sales to total sales ratio of more than 10%, and zero if less than 10%. DEBT is the percentage of total debt divided by invested capital. INSIDER and INSTITUTE are the percentage of shares held by insiders and institutions respectively. RDEXP and ADVEXP are the R&D and advertising expenditures of the bidder normalized by total sales of the bidder. CCF and NCCF are the cash flows (the operating income plus depreciation) of the core and non-core business segments of the bidders normalized by segment sales from one year before. The core business segment of the bidder is defined as the line of business that has the highest sales as percentage of the total sales of the firm at 2 digit SIC level. The non-core business segments of the bidder are defined as the entirety of all lines of businesses other than the core business at 2 digit SIC level. Year 0 is the year of acquisitions. t-values of coefficients are in parantheses. ***, **, and * denote statistical significance at 1%, 5% and 10% levels respectively.

Panel A: Industry-Adjusted Tobin's Q Valuation of Single-Segment Firms

	All Single-Segment Bidders			Focusing Single-Segment Bidders			Diversifying Single-Segment Bidders		
Independent Variables	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)
Constant	-0.094	-0.271	-0.187	-0.176	-0.218	-0.216	0.216	-0.388	-0.198
	(-0.629)	(-1.639)	(-1.213)	(-1.057)	(-1.137)	(-1.211)	(0.713)	(-1.284)	(-0.566)
DIVERD	0.024	-0.035	-0.013						
	(0.356)	(-0.489)	(-0.204)						
LN(SALES)	-0.044	-0.021	-0.018	-0.019	0.005	-0.011	-0.139	-0.094	-0.047
	(-2.423)**	(-1.119)	(-0.946)	(-0.990)	(0.243)	(-0.524)	(-3.009)***	(-2.487)**	(-1.009)
FSTSD	-0.160	-0.173	-0.301	-0.176	-0.188	-0.279	-0.071	-0.151	-0.385
	(-2.314)**	(-2.221)**	(-3.885)***	(-2.262)**	(-2.082)**	(-3.189)***	(-0.473)	(-1.007)	(-2.369)**
DEBT	0.000	0.001	0.000	-0.002	-0.001	0.000	0.004	0.004	0.000
	(-0.160)	(0.520)	(-0.176)	(-1.263)	(-0.586)	(-0.232)	(1.549)	(1.862)*	(0.158)
INSIDER	0.004	0.003	0.002	0.006	0.004	0.003	0.000	0.000	-0.002
	(2.082)**	(1.487)	(1.008)	(2.762)***	(1.733)*	(1.823)*	(0.031)	(0.122)	(-0.525)
INSTITUTE	0.001	0.000	0.001	0.000	-0.002	0.000	0.003	0.003	0.004
	(0.612)	(0.036)	(0.805)	(0.251)	(-0.883)	(-0.057)	(0.817)	(0.917)	(1.228)
RDEXP	0.159	0.508	0.503	0.143	0.380	0.773	0.075	0.585	0.387
	(1.365)	(3.168)***	(3.303)***	(1.147)	(1.880)*	(2.751)***	(0.265)	(2.183)**	(1.940)*
ADVEXP	1.647	2.594	3.411	1.483	1.075	1.971	2.210	4.590	7.487
	(1.136)	(1.675)*	(2.043)**	(0.884)	(0.557)	(1.063)	(0.779)	(1.746)*	(2.025)**
CCF	0.417	0.478	0.358	0.368	0.373	0.563	0.667	1.451	-0.027
	(3.066)***	(4.173)***	(2.153)**	(2.365)**	(3.192)***	(2.839)***	(2.401)**	(3.406)***	(-0.075)
NCCF x DIVERD			0.153						0.835
			(0.113)						(0.500)
F-Value	3.740	4.236	3.569	3.406	2.980	3.426	1.943	3.579	1.959
p-value	(0.000)***	(0.000)***	(0.000)***	(0.001)***	(0.003)***	(0.001)***	(0.058)*	(0.001)***	(0.049)**
R^2	0.064	0.072	0.068	0.073	0.064	0.073	0.103	0.175	0.116
Adj-R^2	0.047	0.055	0.049	0.051	0.043	0.052	0.050	0.126	0.057

Panel B: Industry-Adjusted Tobin's Q Valuation of Multi-Segment Firms

	All Multi-Segment Bidders			Focusing Multi-Segment Bidders			Diversifying Multi-Segment Bidders		
Independent Variables	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)	INDADJQ (t=0)	INDADJQ (t=1)	INDADJQ (t=2)
Constant	-0.226	-0.337	-0.655	-0.334	-0.610	-0.771	-0.229	-0.119	-0.108
	(-0.980)	(-1.546)	(-3.042)***	(-1.111)	(-1.914)*	(-2.941)***	(-0.656)	(-0.378)	(-0.304)
DIVERD	-0.009	0.036	0.148						
	(-0.128)	(0.525)	(2.377)**						
LN(SALES)	-0.045	-0.022	-0.012	-0.036	0.021	0.016	-0.041	-0.063	-0.054
	(-1.980)**	(-0.986)	(-0.544)	(-1.262)	(0.699)	(0.570)	(-1.137)	(-1.890)*	(-1.506)
FSTSD	-0.058	-0.067	0.004	-0.087	-0.172	-0.027	0.007	0.060	0.063
	(-0.690)	(-0.781)	(0.048)	(-0.780)	(-1.354)	(-0.247)	(0.060)	(0.505)	(0.514)
DEBT	0.002	0.002	0.001	0.001	0.001	0.001	0.003	0.002	0.002
	(1.435)	(1.122)	(1.100)	(0.469)	(0.459)	(0.718)	(1.534)	(1.162)	(0.910)
INSIDER	0.004	0.004	0.002	0.006	0.007	0.001	0.002	0.001	0.002
	(1.398)	(1.434)	(0.744)	(1.782)*	(2.009)**	(0.342)	(0.468)	(0.345)	(0.513)
INSTITUTE	-0.003	-0.003	-0.002	-0.003	-0.003	-0.003	-0.004	-0.003	-0.002
	(-1.535)	(-1.429)	(-1.169)	(-1.101)	(-1.051)	(-1.390)	(-1.178)	(-0.937)	(-0.697)
RDEXP	3.697	1.575	2.657	-1.110	-1.735	-2.346	5.949	1.750	4.411
	(2.931)***	(1.692)*	(3.026)***	(-0.531)	(-0.698)	(-1.159)	(3.393)***	(1.676)*	(3.736)***
ADVEXP	3.212	3.473	2.435	6.416	4.817	6.999	0.301	3.128	-2.610
	(2.020)**	(2.090)**	(1.444)	(2.900)***	(1.735)*	(3.264)***	(0.126)	(1.380)	(-0.969)
CCF	0.274	0.375	0.964	0.133	0.669	0.526	0.528	0.343	1.779
	(1.080)	(1.852)*	(4.241)***	(0.441)	(1.699)*	(1.958)*	(1.149)	(1.359)	(4.644)***
NCCF	0.385	0.180	0.360	1.150	0.270	0.461	0.227	0.178	0.548
	(1.654)*	(1.554)	(1.733)*	(2.208)**	(0.597)	(1.418)	(0.800)	(1.418)	(1.942)*
F-Value	3.309	2.125	3.537	2.818	1.896	2.827	2.470	1.586	3.037
p-value	(0.000)***	(0.023)**	(0.000)***	(0.005)***	(0.060)*	(0.005)***	(0.013)**	(0.127)	(0.003)***
R^2	0.124	0.084	0.132	0.195	0.140	0.195	0.157	0.107	0.187
Adj-R^2	0.087	0.044	0.095	0.125	0.066	0.126	0.094	0.040	0.125