

**SHAREHOLDER BENEFITS FROM CORPORATE  
INTERNATIONAL DIVERSIFICATION:  
EVIDENCE FROM U.S. INTERNATIONAL ACQUISITIONS**

**Constantinos C. Markides\***  
*London Business School*

**Christopher D. Ittner\*\***  
*The Wharton School, University of Pennsylvania*

**Abstract.** Do international acquisitions—in contrast to their domestic counterparts—create value for the acquiring firms' shareholders? This study examines the valuation consequences of 276 U.S. international acquisitions made in the period 1975-1988, and provides direct evidence on the effect of international acquisitions on the market value of U.S. bidding firms. It is shown that, on average, international acquisitions create value for the acquiring firms. The study also finds that the value created is a function of the nature of the acquisition (e.g., related or unrelated); the nature of the bidding firm's industry (e.g., its concentration level and advertising intensity); the nature of the acquiring firm (e.g., its prior international experience and its current profitability); and the nature of the macroeconomic environment (e.g., tax regulations and the relative strength of the U.S. dollar).

**INTRODUCTION**

American firms have been acquiring foreign—and especially European—companies at an increasing rate in the 1980s. For example, U.S. acquisitions of foreign firms increased in value from \$1.5 billion in 1979, to more than \$14 billion in 1989. These acquisitions have been rationalized as necessary strategic investments that allow American firms to position themselves in the global environment of the 1990s (e.g., Caves [1990]). Yet, they are

---

\*Constantinos Markides (DBA, Harvard Business School) is Assistant Professor of Strategic and International Management at the London Business School. His current research interests include the management of diversified firms and the market for corporate control in Europe and the United States.

\*\*Christopher D. Ittner (DBA, Harvard Business School) is the Joseph Wharton Term Assistant Professor of Accounting at the Wharton School of the University of Pennsylvania. His research interests include cost management techniques and international comparisons of control system characteristics.

We would like to thank Christopher Bartlett, Richard Caves, George Georgiou, Paul Geroski, Chris Higson, Jens Maier, Daniel Oyon, John Stopford, Jo Whitehead and three anonymous reviewers for many helpful suggestions on earlier drafts. Financial support for this project has been provided by the Division of Research, Harvard Business School.

Received: February 1991; Revised: March 1993; Accepted: September 1993.

occurring at a time when there is general agreement among academics that domestic acquisitions on average create no value for the acquiring firms (e.g., Jensen & Ruback [1983]). In fact, evidence has begun to accumulate which shows that domestic acquisitions *in the 1980s* may have actually destroyed shareholder value (e.g., Bradley, Desai & Kim [1988]; Jarrell & Poulsen [1989]; Morck, Schleifer & Vishny [1990]).

Do these international acquisitions, in contrast to their domestic counterparts, create value for the acquiring (American) firms? Surprisingly, this question has received little attention in the literature. There is an abundance of studies on domestic acquisitions and an equally impressive number of studies that examine the causes and effects of international diversification, but the effect of international diversification *through acquisition* has been left largely unexplored.

The purpose of this study is to fill this gap. We examine 276 U.S. international acquisitions made in the period 1975-1988 to determine their valuation consequences on the stock prices of acquiring firms. We also explore what determines the variation in the abnormal returns generated by these acquisitions.

### THEORETICAL CONSIDERATIONS

International acquisitions allow firms to diversify abroad and this has been theorized to provide three broad types of benefit: operational, strategic and financial benefits.

The *operational* benefits of international diversification have been rationalized in the context of the theory of industrial organization and transaction-cost economics (e.g., Caves [1971]; Hymer [1976]; Teece [1985]). Firms invest abroad in order to exploit intangible firm-specific assets, the markets for which are characterized by various imperfections, including immobilities, limited information, and monopoly. These assets include superior marketing skills, product differentiation, patent-protected technology, superior managerial skills, economies of scale, and special government regulations that create barriers to entry for other firms [Errunza & Senbet 1981]. The imperfections in product and intermediate markets (i.e., high transaction costs) prevent the firm from economically exploiting its special advantages abroad in any way other than by internalizing the market. When it does, it reaps the rewards which should be reflected in its market value. Hence, a positive relationship between profitability and international diversification has been postulated.

In a recent study, Caves [1990] proposed a *strategic* rationale to international acquisitions. His main thesis is that international acquisitions may be thought of as rivalry among oligopolistic firms to preempt emerging niches or opportunities. His argument goes as follows: As external conditions facing an industry change, new transaction opportunities or configurations emerge. Heterogeneous firms, possessing different bundles of specific assets and offering differentiated products, can only grasp a new opportunity by deploying the right set of assets. If an opportunity is seized by a competitor, its

profitability improves while profits are reduced for rival firms. By acquiring foreign competitors, a firm brings a more diverse stock of specific assets under its control and can therefore seize more opportunities. In this way it enhances its own position while preempting a competitor from improving its position. This means that international acquisitions will be “undertaken either to gain access to options of seizing new opportunities, or to avert or limit the diversion of profits when rivals seize such opportunities” [Caves 1990: 3]. This explanation is consistent with the eclectic theory of international entry mode proposed by Hill, Hwang and Kim [1990: 121] who argue that “when MNCs enter a foreign market, especially the home markets of their global rivals, they may have strategic objectives that go beyond the narrow calculus of choosing the most efficient entry mode for that particular market.”

Several other benefits to international diversification have been proposed in the literature. These include: (a) market power conferred by international scope (e.g., Grant [1987]); (b) reduced probability of bankruptcy (e.g., Shaked [1986]); (c) ability to arbitrage tax regimes (e.g., Lessard [1979]); and (d) increased debt capacity due to bigger size and lower risk (e.g., Logue & Merville [1972]).

The empirical evidence on the profitability of international diversification is rather mixed, with the bulk of the evidence supporting the positive impact hypothesis. An early study by Leftwich [1974] found the multinationals to be more profitable than domestic firms. Numerous other studies, using different performance measures, have also found the performance of multinationals to be superior to that of domestic firms (e.g., Dunning [1973]; Errunza & Senbet [1981]; Grant [1987]; Kim & Lyn [1986]; Rugman [1979]). On the other hand, studies by Brewer [1981] and Michel & Shaked [1986] have found that the risk-adjusted performance of multinationals is not superior to that of domestic firms.

A third major benefit to international diversification has been proposed in the finance literature. It is first noted that to the extent that economic activity in different countries is less than perfectly correlated, portfolio diversification across international boundaries should improve investors' risk-return opportunities. This has been supported by numerous studies, including Atherton and Yap [1979]; Errunza [1977]; Lessard [1973, 1976]; Levy and Sarnat [1970]; Logue [1982]; and Subrahmanyam [1975]. However, the mere presence of benefits to international *portfolio* diversification does not imply that international diversification at the *corporate* level is also beneficial. For this to make economic sense there must be barriers to international capital flows that prevent investors from diversifying their portfolios optimally. They can then diversify indirectly by purchasing the shares of multinationals (e.g., Agmon & Lessard [1977]).

That there exist barriers to international capital flows is evidenced by the fact that investors usually hold more domestic stocks than would be required if they held the world market portfolio (e.g., Lessard [1976]; Senback & Beedles [1980]). These barriers to international capital flows include different

tax structures across countries, different accounting standards and securities regulations, and different political and economic risks. The existence of markets that are not perfectly integrated implies that the multinational corporation is performing a valuable service to investors in that it allows them to diversify their portfolios *indirectly*. If investors recognize this service, then the benefit should be reflected in the stock price of the multinational (e.g., Severn [1974]). This prediction has been supported by several studies (e.g., Adler & Dumas [1983]; Errunza & Senbet [1981, 1984]; Kim & Lyn [1986]; Logue [1982]; Rugman [1979]; Severn [1974]).

Thus, *at least at a theoretical level*, it is possible that international acquisitions provide benefits to the firm. Whether they do so in practice is an open empirical question that our study aims to answer. It is apparent, however, that any value created will be affected by a variety of other variables—such as the degree of the acquiring firm's existing foreign exposure, the type of acquisition undertaken (i.e., related versus unrelated), the form the acquisition takes (i.e., partial versus whole acquisition), etc. (e.g., Doukas & Travlos [1988]). More specifically, the above theoretical considerations together with the existing literature on *domestic* acquisitions, suggest that the following variables will affect the value generated by an international acquisition:

*The Nature of the Bidding Firm's Industry.* The internalization theory outlined above suggests that the operational benefits of international diversification will be higher for firms possessing intangible firm-specific assets (such as R&D technology, brand names, managerial know-how, etc.) that they want to exploit in another national market. Recent studies by Harris and Ravenscraft [1991] and Morck and Yeung [1992] find that target as well as acquirer wealth gains are higher in R&D and advertising-intensive industries. Similarly, Grubaugh [1987] finds that advertising intensity and R&D expenditures increase a firm's probability of being multinational, while Morck and Yeung [1991] find that the positive relationship between multinationalism and a firm's market value is explained by the presence of intangible assets (e.g., R&D and advertising spending). In addition, Caves' [1990] strategic theory of international acquisitions suggests that the *strategic* benefits of international diversification will be especially important in oligopolistic industries where the number of available targets is lower.

*The Nature of the Acquisition.* Past studies have argued that the benefits and costs of an international acquisition will depend on the nature of the acquisition itself. Specifically, related acquisitions are expected to be associated with higher benefits and lower integration costs than unrelated acquisitions (e.g., Kitching [1974]; Rhoades [1973]), a prediction supported by the studies of Doukas and Travlos [1988], Fatemi and Furtado [1988] and Singh and Montgomery [1987]. This is also consistent with the finding that related product strategies are also associated with higher benefits (e.g., Beamish & daCosta [1984]). Similarly, equity-stake acquisitions may allow the U.S. firm a "getting to know you" period, and could potentially be associated

with lower integration costs than full acquisitions (e.g., Kitching [1974]; Szymanski and Thompson [1990]). Equity-stake acquisitions may also be a less expensive way for oligopolistic firms to prevent their competitors from acquiring the target (e.g., Caves [1990]).

Several other characteristics of the acquisition that may affect its valuation effects have been identified as important in the *domestic* acquisition literature: (a) the size of the target firm relative to the acquiring firm has been found to be positively correlated with the returns to acquirers (e.g., Asquith, Bruner & Mullins [1983]; Jarrell & Poulsen [1989]); (b) the form of payment—cash versus equity issue—has been found to have explanatory power (e.g., Franks & Harris [1989]; Travlos [1987]), with cash offers generally positively related with returns to acquirers; (c) competition for the target has also been found to have a strong (negative) correlation with returns to acquirers (e.g., Bradley, Desai & Kim [1988]; Comment & Jarrell [1987]; Jarrell & Poulsen [1989]; Slusky & Caves [1991]; You, Caves, Smith & Henry [1986]).

*The Macroeconomic Environment.* Tax benefits (e.g., Scholes & Wolfson [1990]), as well as exchange rate movements (e.g., Froot & Stein [1989]) have been theorized to affect the value created by international acquisitions. Scholes and Wolfson [1990] argue that the 1981 Economic Recovery Tax Act increased tax incentives (such as an accelerated depreciation schedule for acquired assets) for takeovers by U.S. firms, while the 1986 Tax Reform Act neutralized these incentives. They provide evidence consistent with their tax hypothesis. Similarly, Froot and Stein [1989] develop a model which argues that acquirers will have purchasing advantages when their currency is strong relative to the currency in the target's country. Harris and Ravenscraft [1991] provide support for this hypothesis. Other "environmental" variables that may affect the valuation of international acquisitions include the Plaza Agreement of 1985 and the stock market crash of 1987.

*The Nature of the Acquiring Firm.* As argued by Morck and Yeung [1992: 44]: "Foreign acquisitions, like other complex takeover events, have effects which are likely to depend on the detailed financial characteristics of both the target and bidder." For example, Lewellen, Loderer and Rosenfeld [1985] and You et al. [1986] report a positive relationship between wealth creation in acquisitions and the percent of equity held by top management. Similarly, Lang, Stulz and Walkling [1991] and Morck, Schleifer and Vishny [1990] find that the acquiring firm's performance has a positive effect on acquirer wealth creation. On the other hand, Jensen [1986] argues that because of agency problems, managers who have excess cash flow at their disposal will undertake "wasteful" acquisitions that serve their own utility function rather than shareholder wealth maximization.

The acquirer's prior international experience may also affect the value created by international acquisitions. Fatemi [1984] finds that positive abnormal returns are realized by those firms that invest abroad for the first time. In a later study, Fatemi and Furtado [1988] fail to confirm this result but find

that the acquisitions that create abnormal returns are those that allow a firm to enter a *particular* country for the first time. Doukas and Travlos [1988] also find that diversification into a new country is associated with positive abnormal returns but no abnormal returns are created for firms that expand internationally for the first time. A priori, we would expect that prior international experience may allow a firm to integrate and manage its acquisition more efficiently and may therefore be associated with net value creation.

*Nature of Target's Home Country.* As demonstrated by Fatemi & Furtado [1988] and Markides and Oyon [1991], for international acquisitions to create value, not only should the acquisition be associated with *net* benefits but also the market for corporate control in the target's home country must not be perfectly competitive. In other words, even if international acquisitions create real net benefits to acquiring firms, these benefits would *on average* be wiped out in a bidding "auction," if the market for corporate control in the target's home country is perfectly competitive (e.g., Bradley, Desai & Kim [1988]; Comment & Jarrell [1987]). Similarly, to the extent that international capital markets are integrated, individual investors can potentially acquire *most* of the benefits of international diversification through optimal international portfolio diversification, and the firm's diversification moves may be adding little incremental value. On the other hand, if capital markets are fragmented, negative or zero NPV international acquisitions may look attractive to investors for portfolio diversification reasons. Consequently, fragmented capital markets is a sufficient but not necessary condition for positive market response.

This implies that the nature of the target's home country will affect the value generated by an acquisition in three fundamental ways. First, the benefits of international diversification through acquisition will vary across countries depending on the competitiveness of each country's market for corporate control—which varies from country to country. For example, the British market is considered a much more active and competitive market than any of the continental European markets (e.g., *Economist* [1991: 72]; Smith & Walter [1990: 306]), but still less competitive than the U.S. market (e.g., Conn & Connell [1990]). Second, the degree of capital market integration differs across different countries. For example, in a multi-country comparison of capital markets, Adler and Dumas [1983] found that there is a much higher degree of integration between the U.S. market and the Canadian one, than between the U.S. market and the European one. Finally, the integration and coordination costs of an acquisition will vary across countries, depending on the socio-cultural distance between the USA and the target's home country (e.g., Anderson & Gatignon [1986]). For example, Hisey and Caves [1985: 57] argue that "costs of coordination should be lower for subsidiaries in English-speaking countries and those located closer to the United States." For these reasons, therefore, we would expect that (any) value created by international acquisitions will vary across countries.

Recent empirical studies have provided support for this prediction. Markides, Oyon and Ittner [1990] find that U.S. acquisitions in Canada and

the U.K. do not create value for acquiring firms while acquisitions in continental Europe do. Within Europe, Fatemi and Furtado [1988] find West German acquisitions to be value destroying. Doukas and Travlos [1988] find that multinationals benefit the most when they announce acquisitions in less developed countries. They also find that multinationals not already operating in the target's country benefit from their acquisitions.

Given the abundance of factors that may influence the value created by international acquisitions, our study not only estimates whether international acquisitions actually create value but also attempts to identify the major variables that determine how much value a particular acquisition creates.

## DATA AND METHODOLOGY

### *The Sample*

To test the valuation consequences of international acquisitions, a preliminary sample of U.S. acquisition announcements made in the period 1975-1988 was obtained from *Mergers and Acquisitions*, and *F&S Predicast's Index of Corporate Change*. To be included in the final sample, each acquisition announcement had to meet the following criteria:

- a. The date of the acquisition announcement could be identified in the *Wall Street Journal Index*.
- b. No major confounding announcements (i.e., earnings, dividends, share repurchases) were made within +/- 10 days of the announcement day.
- c. The acquiring firm's stock price returns were available on the CRSP tapes.

For each acquisition, the *WSJ Index* was screened to make sure that the announcement date was the first public announcement of the acquisition and no information had leaked in the previous year. In addition, each acquisition had to involve a *single* acquirer (and not a consortium of firms); the acquisition was not associated with other acquisitions made by the acquiring firm simultaneously; and the acquisition was not contested. This screening procedure produced a sample of 276 *clean* acquisition announcements. For each acquisition, additional data (such as the nationality of the acquired unit, the year of acquisition, etc.) was collected as described below.

### *Methodology*

Standard event-study methodology is used to assess the impact of acquisition announcements on shareholder wealth. The most crucial assumption of the methodology is that capital markets are efficient (in the semi-strong form), which implies that the price of any security incorporates all currently available public information and adjusts to the public release of new information instantaneously.

The most commonly used event-study methodology is based on a market model described by Fama [1976]. The model predicts a firm's "normal"

or expected return given the market return and the firm's historical relationship to the market. Thus, for each firm the following model is estimated:

$$R_{it} = a_i + b_i R_{mt} + e_{it},$$

where:

- $R_{it}$  = return on the security of firm  $i$  at time  $t$ ;
- $R_{mt}$  = return on the market portfolio at time  $t$ . In this study, we use the Equally-Weighted Market Return on New York Stock Exchange (NYSE) and American Stock Exchange (ASE) stocks from the CRSP tapes;
- $a_i$  and  $b_i$  = parameters of the relationship between the return on the individual security and that of the market; and
- $e_{it}$  = residual of the relationship at time  $t$ , assumed to be distributed normally with mean equal to zero, a constant variance over the control and prediction periods, and zero correlation between residuals over time ( $e_{it} \sim N(0, s^2)$ ).

The parameters *alpha* ( $a_i$ ) and *beta* ( $b_i$ ) are estimated for each security  $i$  over the period -270 to -90 trading days prior to the announcement of the acquisition. These parameters are then used to calculate the *expected* returns over the test period. The difference between the *actual* returns and the *expected* returns for each day and for each firm are called abnormal returns ( $AR_{it}$ ) and are computed as follows:

$$AR_{it} = R_{it} - (\hat{a}_i + \hat{b}_i R_{mt}),$$

where  $\hat{a}_i$  and  $\hat{b}_i$  are the *estimated* parameters  $a$  and  $b$  of firm  $i$ .

A two-day abnormal return is calculated for each acquisition announcement. A two-day return is necessary to capture the full impact of the acquisition announcement. Day  $t=0$  is the day the news of the acquisition is published in the *Wall Street Journal*. In many cases, however, the news is announced on the previous day,  $t=-1$ , and reported the next day. If an acquisition is announced before the market closes, then the market's response to the news actually predates the *Wall Street Journal* announcement day by one. If the news is announced after the market closes, the market will respond on the next day and the announcement day is indeed  $t=0$ . Thus, in reality, there is a two-day announcement "day,"  $t=0$  and  $t=-1$ . This two-day return is called the cumulative abnormal return ( $CAR$ ) and is calculated as:

$$CAR_{i(-1,0)} = \sum_{t=-1}^0 AR_{it}.$$



For a sample of  $N$  securities, the *average* cumulative abnormal return is calculated by:

$$\overline{CAR}_{(-1,0)} = (1/N) \sum_{i=1}^N CAR_{i(-1,0)}.$$

Finally, a  $t$ -statistic is computed for the average  $CAR$  as:

$$t = \overline{CAR}_{(-1,0)} / (S_{CAR(-1,0)} / \sqrt{N}),$$

where  $S_{CAR(-1,0)}$  = the standard deviation of the two-day abnormal returns; and  $N$  = the number of firms in the sample.

The  $CARs$  are used to determine whether the decision taken by the firm had a material effect on its stock value. Positive  $CARs$  indicate that the equity market expects the acquisition to create value for the shareholders involved. Negative  $CARs$ , on the other hand, imply that the acquisition will actually destroy value.

The logic behind an event-study is the following:

Assuming that the current price of a company's stock reflects the market's assessment of its prospective cash flows, and that the market reacts quickly and unbiasedly to news, immediate stock price reactions to [an acquisition] announcement can be seen as conveying the market's perception of the *long-run* cash flow consequences of the [acquisition]. That perception may not prove to be accurate, but it will be "unbiased"—that is, neither too high, nor too low on average. [Linn & Rozeff 1984: 432]

To identify what explains the variation in the abnormal returns generated by our sample acquisitions, we use simple regression analysis. Similar to other studies on the subject (e.g., Doukas & Travlos [1988]; Morck & Yeung [1992]) we use the  $CAR$  generated in the narrow time window  $(-1,0)$  as our dependent variable—but our results do not change significantly when a broader window is used.<sup>1</sup> The independent variables used in the analyses are discussed below.

### **Data**

For each acquiring firm, we measure three dimensions of its (two-digit SIC) industry: its R&D intensity, measured as R&D expenditures divided by sales ( $XRD$ ); its advertising intensity, measured as advertising outlays divided by sales ( $XAD$ ); and its four-firm concentration ratio ( $C_4$ ), measured with the Herfindahl index. The first two variables come from *Compustat*; the concentration index was calculated from the *Trinet* tapes. For some of our regressions below we also use the industry's profitability as an explanatory variable. This is measured as the average return on sales of all the firms assigned to a particular SIC by *Compustat*.

We capture the nature of the acquisition using the following variables: (a) *RELATED*, which takes the value of one if the acquisition is related, zero otherwise. Each acquisition was classified as related or unrelated to the American firm's core business, using Rumelt's [1974] methodology: i.e., the acquirer's largest two-digit SIC industry was first identified. If the acquisition belonged to this SIC industry, or if the acquisition shared similar production technology or marketing/distribution requirements as the acquirer's major business, the transaction was classified as related; otherwise it was classified as unrelated. The information comes from *Mergers & Acquisitions*, the *Trinet* tapes, and where necessary, annual reports; (b) *EQUITY*, which takes the value of one if the acquisition is an equity-stake, zero if it is a full (100%) acquisition; (c) *CASH*, which takes the value of one if the method of payment is cash, zero otherwise (or if the method of payment is undisclosed); (d) *SIZE*, which tries to capture the size of the target company relative to the acquirer company. It is measured as the sales of the target divided by the sales of the acquirer. The information for the last three variables comes from *Mergers & Acquisitions*.

The macroeconomic environment is captured using the following variables: First, given the importance of the 1981 and 1986 tax changes, we construct the dummy variables *TAX81* and *TAX86* to capture these effects (see Harris & Ravenscraft [1991]). *TAX81* takes the value of one for the years 1981-86 and is zero otherwise. *TAX86* takes the value of one in 1987-88, and is zero otherwise. Second, the strength of the U.S. dollar is measured with the dummy variable *STRONG*; this takes the value of one from 1981 until the Plaza Agreement in 1985 and is zero otherwise. Finally, the effect of the stock market crash in 1987 is measured with the variable *CRASH* which takes the value of one from October 1987 until 1988 and is zero otherwise.<sup>2</sup>

We also try to measure the characteristics of the acquiring firm. The variable *PRIOR* measures the acquirer's previous international experience. It takes the value of one if the acquirer has other international operations when it announces its acquisition, and is zero otherwise. The information for this classification comes from Stopford's [1992] *Directory of Multinationals*, Moody's *Industrial Manual*, and company annual reports. The variable *ACQUIRER INCOME* measures the dollar value of the acquirer's income in the year of the acquisition; while the variable *ACQUIRER PROFITABILITY* is calculated as the acquirer's income divided by its sales in the year of the acquisition. The information for both of these variables comes from *Mergers & Acquisitions*. We also try to control for the acquirer's size by using the variable *LOG SIZE* which is the natural log of total sales. In addition, industry dummies are introduced to control for the acquirer's industry base. Finally, the nature of the target's home country and its relationship with the U.S. market are measured using the following variables: (a) *ENGLISH* is a dummy variable that takes the value of one if the target's home country is English-speaking, zero otherwise; (b) *GDP* is the growth in the GDP of the

target's country minus the growth in the GDP of the USA. A positive number indicates that GDP in the target country is growing faster than in the USA. It is measured from the IMF's *Financial Statistics Yearbook 1991*; (c) *MKTS* is the correlation between stock market returns in the USA and the target country. It is measured over twelve quarters—four quarters from the acquisition year and eight quarters from the two previous years—and, as argued by Adler and Dumas [1983], measures the degree of market integration between the USA and the target country. The information comes from OECD *Main Economic Indicators*, various issues; (d) *PRICES* measures inflation in the target country minus U.S. inflation. It comes from the IMF's *Financial Statistics Yearbook 1991*; (e) *WAGES* is the difference between the U.S. hourly wages and those in the target country. The exchange rate for the year of the acquisition is used to convert the foreign wage rate into U.S. dollars. The information comes from the IMF's *Financial Statistics Yearbook 1991* and the U.N. *Statistical Yearbook*, various issues; (f) The cultural distance between the USA and the target country is measured using the four cultural measures from Hofstede [1980]: *PDI* is a Power distance index; *UAI* is uncertainty avoidance index; *IDV* is an individuality index; and *MAS* is a masculinity index. Because these variables are highly collinear they are introduced individually into the regressions; (g) Finally, country dummies are used to control for the target's home country (and possibly the competitiveness of its home market for corporate control).

## RESULTS AND DISCUSSION

Tables 1-3 present summary statistics for our sample. The majority of acquisitions appear to have taken place following the recession of the early 1980s and before the stock market crash of 1987; about one-fifth of our sample falls in the two-year period 1986-87. Most of these acquisitions come from the Manufacturing sector (74%) with Finance & Insurance a distant second at 11.6%. Within the manufacturing sector, the food, pharmaceutical and electronic industries predominate. Not surprisingly, a majority of acquisitions took place in Europe and in particular the U.K.; Canada was also a favorite destination for U.S. acquirers. As expected, most acquisitions (84%) were related in nature suggesting that U.S. acquirers used the acquisition to transfer some of their expertise abroad. Also expected was the fact that most acquisitions (at least 63%) were paid in cash—since most acquirers did not have securities traded in overseas markets, cash was the only viable option to pay for their acquisitions. Perhaps a bit surprising is the fact that a significant minority (48%) of U.S. acquirers had no prior international experience when they made their acquisition.

The daily and cumulative abnormal returns generated by the 276 acquisitions for the ten-day period (-10,+10) surrounding the announcement day are reported in Table 4. Table 5 reports cumulative abnormal returns for different time windows.

**TABLE 1**  
**Acquisition Frequency Distribution by Year**

Year	Number of Acquisitions	Percent of Total
1975	13	4.7
1976	22	7.9
1977	12	4.3
1978	14	5.1
1979	27	9.8
1980	16	5.8
1981	11	4.0
1982	16	5.8
1983	21	7.6
1984	20	7.2
1985	19	6.9
1986	28	10.1
1987	33	11.9
1988	24	8.7
	276	

The mean two-day abnormal return for our 276 U.S. international acquisitions between 1975 and 1988 is .32%, statistically significant at the 10% level. The dollar value of this abnormal return is \$21.1 million, which is also statistically significant at the 10% level. Thus, on average, foreign acquisitions create shareholder value for acquiring firms, a result that is consistent with the proposition that international acquisitions are associated with net benefits. This finding is in direct contrast to the results for domestic acquisitions which show zero or negative abnormal returns for acquiring firms (e.g., Jarrell, Brickley & Netter [1988]). It is, however, consistent with the results of Markides and Oyon [1991] and Morck and Yeung [1992] in both magnitude and significance: compared to our two-day *CAR* of .32%, Markides and Oyon [1991] reported a two-day *CAR* of .50%, while Morck and Yeung reported a two-day *CAR* of .29%; and compared to our *t*-statistic of 1.89, the above-mentioned studies reported *t*-statistics of 1.73 and 1.86, respectively. The stock market, therefore, is not overly enthusiastic about international acquisitions. It does view them, however, as good news—and certainly as much better news than domestic acquisitions.

The movement and levels of the average and cumulative abnormal returns before and after the announcement day (day 0) are consistent with those found in earlier studies on international acquisitions. The largest cumulative abnormal return (.54% equivalent to \$37.2 million) occurs in the relatively short time window (-1,3), a result consistent with the premise of an efficient capital market. For the ten days following the announcement day, the abnormal returns appear random and cancel each other out, so that no real value change occurs during this period. Again, this pattern is consistent with the assumption of an efficient capital market in that all new information is quickly incorporated in the stock prices of firms.

**TABLE 2**  
**Acquisition Frequency Distribution by Industry**

Industry	Number	Percent of Total
Mining (SIC 10-14)	7	2.7
Construction (SIC 15-17)	4	1.6
Manufacturing (SIC 20-39)	191	74.0
SIC 20	28	10.8
SIC 28	36	13.9
SIC 35	25	9.7
SIC 36	34	13.2
SIC 37	16	6.2
Transportation & Utilities (SIC 40-49)	3	1.1
Wholesale Trade (SIC 50-51)	11	4.2
Retail Trade (SIC 52-59)	1	.3
Finance & Insurance (SIC 60-67)	30	11.6
Services (SIC 70-89)	11	4.2

**TABLE 3**  
**Sample Characteristics**

<b>Panel A: Acquisitions by Geographic Region</b>		
Canada	47	(17.1%)
Continental Europe	131	(47.4%)
UK	81	(29.3%)
Pacific	17	(6.1%)
<b>Panel B: Type of Acquisitions</b>		
Related	232	(84%)
Unrelated	44	(16%)
Full acquisitions	177	(64%)
Equity-stake acquisitions	99	(36%)
Cash acquisitions	217	(63%)
Non-cash or undisclosed	128	(37%)
<b>Panel C: Other Characteristics</b>		
Acquirer has prior international experience	144	(52%)
No prior international experience	132	(48%)
Acquisitions in English-speaking countries	138	(50%)
Acquisitions in non-English-speaking countries	138	(50%)

As expected, Related acquisitions create much more value than Unrelated ones: the two-day abnormal return for related acquisitions is .55% with a *t*-statistic of 2.86. By contrast, the corresponding abnormal return for unrelated acquisitions is -.87% with a *t*-statistic of -3.08. Similarly, *CAR* (-1,3) for related acquisitions is .80% (*t*=2.69), while the corresponding abnormal

**TABLE 4**  
**Abnormal Returns Surrounding Acquisition Announcement**

Day	Abnormal Return (AR)	Cumulative Abnormal Return (CAR)
-10	-.00045	-.00045
-9	.00094	.00049
-8	-.00112	-.00062
-7	.00046	-.00016
-6	.00058	.00041
-5	-.00078	-.00036
-4	.00023	-.00013
-3	-.00067	-.00081
-2	-.00045	-.00126
-1	.00130	.00003
0	.00194	.00198
1	.00005	.00204
2	-.00001	.00202
3	.00208*	.00411
4	-.00163*	.00247
5	-.00071	.00176
6	-.00076	.00100
7	.00055	.00155
8	-.00025	.00130
9	.00163	.00294
10	.00001	.00295

\* $p < .10$

return for unrelated acquisitions is  $-.83\%$  ( $t = -2.17$ ). Hence, related acquisitions create value while unrelated ones actually destroy value.

#### *The Determinants of Value Creation*

We now attempt to explain the variation in the abnormal returns generated by our sample acquisitions. Table 6 presents descriptive statistics and correlations for the variables used. The low intercorrelations among these variables suggest no problems with multicollinearity. The low correlations imply that there is sufficient independent variation among the variables used in this study to allow discrete effects to be estimated.

Table 7 reports OLS regressions examining the two-day abnormal return generated by international acquisitions. The adjusted  $R^2$  and  $F$ -statistic for each regression run are also reported. Because of missing information for some of the variables used, the sample size drops from 276 firms to 246.

As shown in Table 7, all regressions are statistically significant at the 99% level. Compared with other studies, our regressions also display relatively high  $R^2$ s: we report an average adjusted  $R^2$  of 13% compared to 3% reported by Doukas and Travlos [1988] and 4% reported by Morck and Yeung [1992]. As we show later, when the relative size of the target is included as an explanatory variable, our adjusted  $R^2$  jumps to more than 40%.

**TABLE 5**  
**Cumulative Abnormal Returns for Different Time Windows**

Window	Cumulative Abnormal Return (CAR)	t-statistic
CAR (-1,0)	.32%	1.89*
CAR (-5,0)	.15%	.60
CAR (-10,0)	.19%	.58
CAR (0,5)	.49%	1.34
CAR (-1,3)	.54%	2.07**
CAR (0,10)	.29%	.86
CAR (-1,5)	.30%	1.04
CAR (-1,10)	.42%	1.17
CAR (-5,5)	.13%	.41
CAR (-10,10)	.29%	.66
CAR (-2,3)	.49%	1.84*

\* $p < .1$ ; \*\* $p < .05$

The first regression demonstrates that acquirer gains are significantly related to advertising intensity (a proxy for brand- and reputation-related intangible assets); however, contrary to expectations, it is not related to R&D intensity. This provides only partial support for the internalization theory, which argues that firms invest abroad in order to exploit their intangible firm-specific assets such as technology and brand names. On the other hand, the equation provides strong support for the strategic theory of international acquisitions [Caves 1990]; as expected, acquirer gains are bigger in oligopolistic industries (as measured by  $C_4$ ). In addition, as argued in our theoretical section, the strategic benefits of international acquisitions may be more efficiently captured through equity-stake acquisitions: when the interaction term  $C_4 * EQUITY$  is introduced in regression (2) and subsequent equations, it too comes out statistically significant with the predicted sign. When the size of the acquirer is controlled by introducing the variable  $LOG SIZE$  in regression (3) and subsequent equations, the magnitude and significance of the variables  $XAD$ ,  $C_4$  and the interaction term do not change, suggesting that they are not proxying for size.

Several variables proxying for the macroeconomic environment also come out statistically significant. By far the most consistent of these variables is the one measuring the relative strength of the U.S. dollar ( $STRONG$ ). Consistent with the theoretical model of Froot and Stein [1989] and the empirical results of Harris and Ravenscraft [1991], we find that acquirer wealth gains are positively related to the strength of the dollar: the stronger the dollar, the bigger the returns to U.S. acquirers. This result remains robust in all six regression equations attempted. On the other hand, the tax effects are more ambiguous. When  $TAX81$  is first introduced in equation (3), it comes out significant but with the “wrong” sign—a similar result to that reported by

**TABLE 6**  
**Means, Standard Deviations and Intercorrelations<sup>a</sup>**

Variable	Mean	Standard Deviation	1	2	3	4	5	6	7	8	9	10	11	12
1. CAR (-1,0)	.0035	.0286												
2. C <sub>4</sub>	.0127	.0174	.2175											
3. EQUITY	.3821	.4869	-.0113	.0299										
4. XAD	3.7899	3.2119	.0957	-.1810	-.0644									
5. XRD	24.960	34.282	.0487	.0219	-.0157	.4973								
6. ACQ/INC	259.98	644.11	.1063	.1598	.0037	-.0388	-.0269							
7. CASH	.4796	.5006	.0148	.0102	.1492	-.0015	-.0323	.0188						
8. PRIOR	.5325	.4999	.1748	.0043	.0661	.1791	.0849	.1474	.0678					
9. RELATED	.8292	.3770	.1965	.0854	.0677	.1295	.0914	.0448	-.0184	.0079				
10. STRONG	.3333	.4723	.1175	-.0993	.0295	-.0713	.0102	.0344	-.0057	-.0460	.000			
11. CRASH	.0894	.2859	.0629	-.0345	-.1291	.0676	-.0289	.0913	-.1013	.0937	.0286	-.2216		
12. REGION	1.7642	.9265	.0684	.0439	.0286	.0549	-.0452	-.0057	.1040	.0078	.1764	.0310	.0028	

<sup>a</sup>N=246; Correlation coefficients greater than .197 are significant at  $p < .05$ ; those greater than .257 are significant at  $p < .01$ ; and those greater than .326 are significant at  $p < .001$ .



**TABLE 7**  
**Regression Results for Full-Sample<sup>a</sup>**

Variable	1	2	3	4	5	6
Constant	-.0242 (-4.51)***	-.0204 (-3.93)***	-.0109 (-1.22)	-.0172 (-1.82)*	-.0219 (-1.98)**	-.0105 (-1.26)
ACQUIRER INCOME	$1.26 \times 10^{-6}$ (.46)	—	—	—	—	—
CRASH	.008 (1.28)	.0065 (1.03)	-.0051 (-.61)	.0056 (.83)	-.0029 (-.32)	—
C <sub>4</sub>	.396 (3.81)***	.4157 (4.09)***	.4115 (4.12)***	.4134 (4.05)***	.4223 (4.11)***	.4161 (4.19)***
RELATED	.0121 (2.61)***	.0109 (2.38)**	.0117 (2.54)***	.0109 (2.32)**	.0101 (2.19)**	.0121 (2.70)***
XAD	.0011 (1.66)*	.0014 (2.29)**	.0009 (1.64)*	.0013 (2.39)**	.0013 (2.29)**	.0009 (1.78)*
XRD	$-3.54 \times 10^{-5}$ (-.60)	$-3.41 \times 10^{-5}$ (-.58)	—	—	—	—
STRONG \$	.0105 (2.79)***	.0105 (2.80)***	.0117 (2.02)**	.0127 (2.19)**	.0129 (3.08)***	.0105 (2.94)***
PRIOR EXPERIENCE	.0086 (2.41)**	—	.0130 (3.01)***	—	—	.0127 (3.43)***
CASH	.0007 (.21)	.0008 (.23)	.0019 (.58)	—	—	—
ACQUIRER PROFITABILITY	—	-.0239 (-2.84)***	-.0242 (-2.90)***	-.0231 (-2.70)***	-.0240 (-2.81)***	-.0265 (-3.26)***
C <sub>4</sub> * EQUITY	—	.0075 (1.81)*	.0018 (.38)	.0081 (1.92)*	.0086 (2.05)**	—
ENGLISH- SPEAKING	—	—	.0004 (.11)	—	—	—
LOG SIZE	—	—	-.0054 (-2.10)**	-.0018 (-.76)	-.0022 (-.93)	-.0043 (-1.81)*
TAX81	—	—	-.0129 (-1.77)*	-.0007 (-.12)	—	—
REAGAN	—	—	.0137 (2.02)**	—	—	—
GDP	—	—	—	$4.3 \times 10^{-6}$ (.00)	—	—
MKTS	—	—	—	.0051 (.90)	.0031 (.54)	—
INDUSTRY PROFITABILITY	—	—	—	—	.0004 (1.06)	—
TAX 86	—	—	—	—	.0099 (1.31)	—
MAS	—	—	—	—	$8.28 \times 10^{-5}$ (.63)	—
	N=246 Adj R <sup>2</sup> =.115 F=4.56	N=246 Adj R <sup>2</sup> =.132 F=5.15	N=246 Adj R <sup>2</sup> =.163 F=4.69	N=246 Adj R <sup>2</sup> =.129 F=4.30	N=246 Adj R <sup>2</sup> =.138 F=4.26	N=246 Adj R <sup>2</sup> =.165 F=7.92

<sup>a</sup>dependent variable is CAR (-1,0); t-statistics in parentheses

\*p<.10; \*\*p<.05; \*\*\*p<.01

Harris and Ravenscraft [1991]. However, when different specifications of the regression equation are attempted (not reported), *TAX81* is consistently insignificant. The variable *TAX86* is also consistently insignificant. We take these results to imply that tax effects are not related to acquirer wealth creation. The same can be said for the variables *CRASH* and *REAGAN*: *CRASH* always comes out insignificant whatever the specification of the equation; *REAGAN* behaves in the same way as *TAX81*—when it was first introduced in regression (3) it came out positive and statistically significant as expected. However, in numerous subsequent specifications of the regression equation it consistently came out insignificant. This suggests that when it did come out significant, it was proxying for another effect.

The nature of the acquisition itself seems to affect the value created. As expected, related acquisitions are positively associated with wealth creation: the variable *RELATED* is significant with the expected sign no matter what the specification of the regression equation. Similarly, as we show below, the size of the target relative to the acquirer is strongly and positively related to wealth creation. On the other hand, contrary to the evidence from domestic acquisitions, the form of payment (*CASH*) is consistently insignificant. This is consistent with the study by Morck and Yeung [1992] who reported that stock financing was not significantly related to abnormal returns. We get the same result when we only consider as cash-acquisitions the ones that disclose the actual price paid (rather than a general statement that the acquisition will be paid by cash). Similarly, equity-stake acquisitions do not appear to be valued differently from full acquisitions. Even though in some regression specifications (not reported) equity-stake acquisitions undertaken by firms with no prior international experience, and equity-stake acquisitions in the EC, undertaken after the 1985 endorsement by European governments of the EC White Paper on completing the integration of the internal market, do come out significant and with the predicted (positive) sign, they do not do so consistently enough to inspire confidence. Finally, when country dummies are introduced to control for the competitiveness of the market for corporate control in different countries, the *F*-value is insignificant, providing no evidence of country effects.

Of the variables trying to capture the characteristics of the acquiring firm, *PRIOR* comes out consistently positive and significant. This implies that firms with prior international experience stand to gain more from their international acquisitions—perhaps because they may be able to use their international experience to integrate and manage their acquisition efficiently. This result is contrary to that reported by Fatemi [1984]. Similarly, while the variable *ACQUIRER INCOME*, which measures the acquirer's income in U.S. dollars, does not come out significant, the variable *ACQUIRER PROFITABILITY*, which measures the acquirer's income divided by its sales, does. In all regression equations, this variable emerges negative and highly significant. This finding is consistent with Jensen's [1986] free cash flow hypothesis: the higher the

firm's profitability, the more "wasteful" investments are undertaken by the firm's managers. It is also consistent with results reported by Morck and Yeung [1992] who found that acquirer returns were negatively related to managerial entrenchment.<sup>3</sup>

None of the variables capturing the nature of the target's home country came out significant: The four cultural variables *PDI*, *UAI*, *IDV* and *MAS* [Hofstede 1980] were introduced individually but none was significant; wealth creation was not significantly higher in English-speaking countries as proposed by Hisey and Caves [1985]; nor was capital market integration (*MKTS*) found to be significant. Contrary to Doukas & Travlos [1988] we did not find that differences in the growth of the GDP of the USA and the target company affected the value created. Similarly, differences in the inflation rate and the hourly wages between the USA and the target country were not statistically significant.

Overall, seven of our variables appear to *consistently* come out significant: two of them (*XAD* and  $C_4$ ) capture the nature of the acquirer's industry; three (*PRIOR*, *ACQUIRER PROFITABILITY* and *LOG SIZE*) capture the nature of the acquiring firm; one (*RELATED*) captures the nature of the acquisition itself; and one (*STRONG*) captures the nature of the macroeconomic environment. Only variables that try to capture the nature of the target's home country do not perform according to the theoretical arguments presented in this paper. When only these seven variables are used in equation (6) they, predictably, produce the highest adjusted  $R^2$  and  $F$ -statistic of all the regressions attempted.

For eighty-three of the target companies we were able to identify their sales in the year they were acquired. This allowed us to construct the variable *SIZE*, defined as the target's sales divided by the acquirer's sales in the year of the acquisition. For this subsample of firms we were therefore able to re-estimate all of our previous regressions with the variable *SIZE* included. Evidence from research on *domestic* acquisitions suggests that this variable should play a large role in explaining acquirer abnormal returns: if the target is small relative to the acquirer, then its acquisition should have little impact on the acquirer's stock price (e.g., Asquith et al. [1983]; Jarrell & Poulsen [1989]). Some of the regressions attempted are shown in Table 8.

As expected, *SIZE* comes out highly significant and positive: the larger the target company, the larger the return to the acquirer. In addition, with the possible exception of *XAD*, all of the variables that we previously identified as significant retain their significance. However, what is surprising is the big increase in the  $R^2$ s achieved as a result of introducing this one additional variable. On average,  $R^2$ s go from roughly 15% to more than 40%, suggesting that *SIZE* alone can explain about one-quarter of the value created by international acquisitions.

To account for the fact that our sample firms vary considerably in market capitalization, we also calculated the dollar equivalent of the above abnormal

**TABLE 8**  
**Regression Results for Subsample<sup>a</sup>**

Variable	1	2	3	4
Constant	-.0402 (-4.08)***	-.0229 (-1.11)	-.0307 (-2.69)**	-.0387 (-2.80)***
CRASH	.0098 (.70)	.0104 (.73)	.0075 (.54)	—
C <sub>4</sub>	.746 (2.78)***	.6764 (2.66)***	.7215 (2.72)***	.6144 (2.48)**
RELATED	.019 (2.42)**	.0174 (2.21)**	.0182 (2.31)**	.0163 (2.07)**
XAD	.002 (1.41)	.0017 (1.23)	.0022 (1.36)	.0014 (.97)
XRD	$-5.87 \times 10^{-5}$ (-.51)	—	$-7.38 \times 10^{-5}$ (-.65)	—
STRONG \$	.0138 (1.82)*	.0147 (1.95)*	.0143 (1.92)*	.0153 (2.03)**
PRIOR EXPERIENCE	.0116 (1.68)*	.0160 (2.02)**	.0138 (1.98)*	.0149 (2.23)**
CASH	-.0001 (-.02)	.0002 (.02)	—	—
ACQUIRER PROFITABILITY	-.0061 (-.55)	-.0088 (-.88)	-.0086 (-.79)	-.0103 (-.99)
SIZE	.0372 (4.88)***	.0338 (3.82)***	.0371 (4.92)***	.0368 (4.98)***
ENGLISH-SPEAKING	—	-.0119 (-1.81)*	-.0115 (-1.81)*	-.011 (-1.72)*
LOG SIZE	—	-.0032 (-.54)	—	—
EQUITY	—	—	-.016 (-.43)	—
TAX86	—	—	—	.0085 (.84)
INDUSTRY PROFITABILITY	—	—	—	.0006 (.62)
	N=83 Adj R <sup>2</sup> =.39 F=6.28	N=83 Adj R <sup>2</sup> =.408 F=6.148	N=83 Adj R <sup>2</sup> =.411 F=6.21	N=83 Adj R <sup>2</sup> =.423 F=7.03

<sup>a</sup>dependent variable is CAR (-1,0); t-statistics in parentheses  
\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

returns by taking into consideration the firms' market value of equity (calculated eleven days before the acquisition announcement). We also repeated all the regressions reported above, taking the *dollar* abnormal return in the window (-1,0) as our dependent variable.

The sample firms vary in market value from \$16.4 million (Data Documents Inc) to \$62.1 billion (AT&T). The two-day abnormal return ranges from negative \$412 million to positive \$2.17 billion. The average two-day abnormal

return is \$21.1 million, statistically significant at the 10% level. When this two-day abnormal return is used as the dependent variable, five explanatory variables come out consistently significant: *ACQUIRER PROFITABILITY*,  $C_4$ , *REAGAN*, *PRIOR* and *TAX81*. This is consistent with our previous results. The big surprise is that the variables *RELATED* and *XAD* no longer come out significant. On the other hand, using the dollar abnormal return as the dependent variable has improved the explanatory power of the equations: adjusted  $R^2$ s are now close to .25 and the  $F$ -statistics exceed 8 in most cases.

### SUMMARY AND CONCLUSIONS

This study has tried to answer two questions: (1) Do international acquisitions, in contrast to their domestic counterparts, create value for the shareholders of *acquiring* firms?, and (2) What can explain the variation in the abnormal returns generated by international acquisition announcements? An empirical investigation of 276 U.S. international acquisitions made in the period 1975-1988 found that, on average, international acquisitions create value for acquiring firms. This result is in direct contrast to the results for domestic acquisitions which show zero or negative abnormal returns for acquiring firms, and is consistent with the proposition that international acquisitions are associated with net benefits.

Drawing on existing theories of international diversification and the empirical evidence on *domestic* acquisitions, the paper also has tried to understand the reasons for the wealth-creation effect of international acquisitions by exploring the role of industry, bidder, target and acquisition characteristics, the macroeconomic environment, and the nature of the target's home country. Although the study has met with only partial success, compared to other studies of wealth effects, this success is substantially higher—we were able to explain a significant proportion in the variation of abnormal returns generated by international acquisitions.

Overall, the study finds that the wealth created by international acquisitions is a function of: (a) the nature of the acquisition (e.g., related or unrelated); (b) the nature of the bidding firm's industry (e.g., its concentration level and advertising intensity); (c) the nature of the acquiring firm (e.g., its prior international experience and its current profitability); and (d) the nature of the macroeconomic environment (e.g., tax regulations and the relative strength of the U.S. dollar).

Perhaps the biggest limitation of this study is the fact that it has looked at only the returns to *acquiring* firms while neglecting target firms. This was done out of necessity: the target companies in our sample came from sixteen different countries and it proved impossible to find share returns for companies in most of these countries. Even when we did identify possible data sources for countries such as the U.K., it quickly became apparent that it was prohibitively expensive and time-consuming for a single study to try to do

all this. We believe that future studies could examine the returns to targets from international acquisitions; but, to be efficient, each study should concentrate on a single target country.

In addition, we observed substantial variation in the distribution of abnormal returns to acquirers. In this study we were able to explain only part (about 40%) of this variation. A future research project could try to identify what other variables can explain why some firms gain from their acquisitions while others lose.

### NOTES

1. To account for the fact that the sample firms differ considerably in market capitalization, we also use the dollar abnormal return as the dependent variable. As discussed below, the results do not change significantly.
2. For certain of our regressions below we also introduce the variable *REAGAN* which aims to capture the optimistic business environment during the Reagan presidency. This takes the value of one for 1981-1988, and is zero otherwise.
3. We tried to measure how "wasteful" the acquisitions were for a firm by comparing the price paid for a target relative to that target's sales (Price paid/Target sales). This variable was not statistically significant.

### REFERENCES

- Adler, Michael & Bernard Dumas. 1983. International portfolio choice and corporation finance: A synthesis. *Journal of Finance*, 38(3): 925-84.
- Agmon, Tamir & Donald R. Lessard. 1977. Investor recognition of corporate international diversification. *Journal of Finance*, 32(September): 1049-56.
- Anderson, Erin & Hubert Gatignon. 1986. Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies*, 17(3): 1-26.
- Asquith, Paul, Robert Bruner & David Mullins. 1983. The gains to bidding firms from merger. *Journal of Financial Economics*, 11(March): 121-40.
- Atherton, Judith & David C.L. Yap. 1979. Risk reduction by international diversification. *Managerial Finance*, 5: 18-28.
- Beamish, Paul W. & Richard C. DaCosta. 1984. Factors affecting the comparative performance of multinational enterprises. *EIBA 1984 Conference*. Rotterdam: Erasmus University.
- Bradley, Michael, Anand Desai & E. Han Kim. 1988. Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics*, 21(May): 3-40.
- Caves, Richard E. 1971. International corporations: The industrial economics of foreign investment. *Economica*, 38(February): 1-28.
- \_\_\_\_\_. 1990. Corporate mergers in international economic integration. Paper prepared for CEPR/Instituto Mobiliare Italiano Conference on European Financial Integration, Rome, January 1990.
- Comment, Robert & Gregg Jarrell. 1987. Two-tier and negotiated tender offers: The imprisonment of the free-riding shareholder. *Journal of Financial Economics*, December: 283-310.
- Conn, Robert L. & F. Connell. 1990. International mergers: Returns to U.S. and British firms. *Journal of Business Finance & Accounting*, 17(5): 689-711.
- Doukas, John & Nicholas G. Travlos. 1988. The effect of corporate multinationalism on shareholders' wealth: Evidence from international acquisitions. *Journal of Finance*, 43(5): 1161-75.
- Dunning, John H. 1973. The determinants of international production. *Oxford Economic Papers*, 25(November): 289-336.
- The Economist*, January 26 1991, p. 72.
- Errunza, Vihang. 1977. Gains from portfolio diversification into less-developed countries' securities. *Journal of International Business Studies*, 8(2): 83-99.

- \_\_\_\_\_ & Lemma W. Senbet. 1981. The effects of international operations on the market value of the firm: Theory and evidence. *Journal of Finance*, 36(May): 401-18.
- \_\_\_\_\_. 1984. International corporate diversification, market valuation and size-adjusted evidence. *Journal of Finance*, 39(July): 727-45.
- Fama, Eugene F. 1976. *Foundations of finance*. New York: Basic Books.
- Fatemi, Ali M. 1984. Shareholder benefits from corporate international diversification. *Journal of Finance*, 34(5): 1325-44.
- \_\_\_\_\_ & E.P.H. Furtado. 1988. An empirical investigation of the wealth effects of foreign acquisitions. In Sarkis Khoury & A. Ghosh, editors, *Recent developments in international banking and finance*, Vol. 2. Lexington, Mass.: Lexington Books.
- Franks, Julian & Robert Harris. 1989. Shareholder wealth effects of corporate takeovers: The UK experience 1955-85. *Journal of Financial Economics*, 23: 225-49.
- Froot, Kenneth A. & Jeremy C. Stein. 1989. Exchange rates and foreign direct investment: An imperfect capital markets approach. *Quarterly Journal of Economics*, forthcoming.
- Grant, Robert M. 1987. Multinationality and performance among British manufacturing companies. *Journal of International Business Studies*, 18(3): 78-89.
- Grubaugh, Stephen G. 1987. Determinants of direct foreign investment. *Review of Economics and Statistics*, 69(February): 149-51.
- Harris, Robert S. & David Ravenscraft. 1991. The role of acquisitions in foreign direct investment: Evidence from the U.S. stock market. *Journal of Finance*, 46(3): 825-44.
- Hill, Charles W.L., Peter Hwang & W. Chan Kim. 1990. An eclectic theory of the choice of international entry mode. *Strategic Management Journal*, 11: 117-28.
- Hisey, Karen B. & Richard E. Caves. 1985. Diversification and choice of country. *Journal of International Business Studies*, 16(2): 51-65.
- Hofstede, Geert. 1980. *Culture's consequences: International differences in work-related values*. Beverly Hills: Sage.
- Hymer, Stephen. 1976. *The international operations of national firms: A study of direct foreign investment*. Cambridge, Mass: MIT Press.
- Jarrell, Gregg & Annette Poulsen. 1989. The returns to acquiring firms in tender offers: Evidence from three decades. *Financial Management*, Autumn: 12-19.
- Jarrell, Gregg, James Brickley & Jeffrey Netter. 1988. The market for corporate control: The empirical evidence since 1980. *Journal of Economic Perspectives*, 2(1): 49-68.
- Jensen, Michael C. 1986. Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review*, May: 323-29.
- \_\_\_\_\_ & Richard Ruback. 1983. The market for corporate control: The scientific evidence. *Journal of Financial Economics*, 11(April): 5-50.
- Kim, Wi Jaeng & Esmeralda D. Lyn. 1986. Excess market value, the multinational corporation and Tobin's q-ratio. *Journal of International Business Studies*, 17(1): 119-25.
- Kitching, John. 1974. Winning and losing with European acquisitions. *Harvard Business Review*, March-April: 124-36.
- Lang, Larry, René M. Stulz & Ralph A. Walkling. 1991. A test of the free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics*, 29(December): 315-35.
- Leftwich, Richard B. 1974. U.S. multinational companies: Profitability, financial leverage and effective income tax rates. *Survey of Current Business*, 54(May): 27-36.
- Lessard, Donald R. 1973. International portfolio diversification: A multivariate analysis for a group of Latin American countries. *Journal of Finance*, 28(June): 610-33.
- \_\_\_\_\_. 1976. World, country, and industry relationships in equity returns: Implications for risk reduction through international diversification. *Financial Analysts Journal*, 32(January-February): 32-38.
- \_\_\_\_\_. 1979. Evaluating foreign projects: An adjusted present value approach. In Donald R. Lessard, editor, *International financial management*, 577-92. Boston, Mass.: Warren Gorham & Lamont.
- Levy, Haim & Marshall Sarnat. 1970. International diversification of investment portfolios. *American Economic Review*, 60(September): 668-75.

- Lewellen, Wilbur, Claudio Loderer & Ahron Rosenfeld. 1985. Merger decisions and executive stock ownership in acquiring firms. *Journal of Accounting and Economics*, 7(April): 209-32.
- Linn, Scott C. & Michael S. Rozeff. 1984. The corporate sell-off. *Midland Corporate Finance Journal*, 2(2): 17-26.
- Logue, Dennis E. 1982. An experiment in international diversification. *Journal of Portfolio Management*, 9(Fall): 22-27.
- \_\_\_\_\_ & Larry J. Merville. 1972. Financial policy and market expectations. *Financial Management*, 1(Summer): 37-44.
- Markides, Constantinos C. & Daniel Oyon. 1991. Are the European markets for corporate control competitive?: An (indirect) empirical test. *Proceedings of the 17th Annual Conference*, 1057-82. European International Business Association, Copenhagen, December 1991.
- \_\_\_\_\_ & Christopher D. Ittner. 1990. The valuation consequences of international acquisitions. *Cyprus Journal of Economics*, 3(1): 1-18.
- Michel, Allen & Israel Shaked. 1986. Multinational corporations vs domestic corporations: Financial performance and characteristics. *Journal of International Business Studies*, 17(3): 89-100.
- Morck, Randall, Andrei Schleifer & Robert W. Vishny. 1990. Do managerial objectives drive bad acquisitions? *Journal of Finance*, 45: 31-48.
- Morck, Randall & Bernard Yeung. 1991. Why investors value multinationality. *Journal of Business*, April: 165-88.
- \_\_\_\_\_. 1992. Internalization: An event study test. *Journal of International Economics*, 33: 41-56.
- Rhoades, Stephen A. 1973. The effect of diversification on industry profit performance in 241 manufacturing industries: 1963. *Review of Economics and Statistics*, 55(2): 146-55.
- Rugman, Alan. 1979. *International diversification and the multinational enterprise*. Lexington, Mass.: Lexington Books, D.C. Heath & Co.
- Rumelt, Richard P. 1974. *Strategy, structure and economic performance*. Boston, Mass.: Harvard Business School, Division of Research.
- Scholes, Myron S. & Mark A. Wolfson. 1990. The effects of changes in tax laws on corporate reorganization activity. *Journal of Business*, 63: S141-S164.
- Senback, Andrew J. & William L. Beedles. 1980. Is indirect international diversification desirable? *Journal of Portfolio Management*, 6(Winter): 49-57.
- Severn, Alan K. 1974. Investor evaluation of foreign and domestic risk. *Journal of Finance*, 29(May): 545-50.
- Shaked, Israel. 1986. Are multinational corporations safer? *Journal of International Business Studies*, 17(1): 83-105.
- Singh, Harbir & Cynthia Montgomery. 1987. Corporate acquisition strategies and economic performance. *Strategic Management Journal*, 8: 377-86.
- Slusky, Alexander R. & Richard E. Caves. 1991. Synergy, agency, and the determinants of premia paid in mergers. *Journal of Industrial Economics*, 34(3): 277-96.
- Smith, Roy C. & Ingo Walter. 1990. Economic restructuring in Europe and the market for corporate control. *Journal of International Securities Markets*, 4(Winter): 291-313.
- Stopford, John M. 1992. *Directory of multinationals*. New York: Stockton Press.
- Subrahmanyam, Marti G. 1975. On the optimality of international capital market integration. *Journal of Financial Economics*, 2(March): 3-28.
- Szymanski, Stefan & David Thompson. 1990. Expansion in Europe: What is the best form of integration? In *Continental mergers are different: Strategy and policy for 1992*, 64-84. London: Center for Business Strategy, London Business School.
- Teece, David J. 1985. Transaction cost economics and the multinational enterprise: An assessment. *International Business Working Paper No. IB-3*, University of California, January.
- Travlos, Nicholas. 1987. Corporate takeover bids, methods of payment and bidding firms' stock returns. *Journal of Finance*, 42(4): 943-64.
- You, Victor, Richard E. Caves, Michael Smith & James Henry. 1986. Mergers and bidders' wealth: Managerial and strategic factors. In Lacy Glenn Thomas, III, editor, *The economics of strategic planning*, 201-21. Lexington, Mass.: Lexington Books.