MOTIVES FOR DOMESTIC AND CROSS-BORDER ACQUISITIONS: A COMPARATIVE ANALYSIS

Anju Seth
University of Illinois at Urbana-Champaign

Protiti Dastidar
George Washington University

Names are in reverse alphabetical order and both authors have contributed equally. Corresponding author: Anju Seth, Department of Business Administration, 83 Wohlers Hall, 1206 South Sixth Street, Champaign, IL 61820. We would like to thank Rajshree Agarwal for assistance with data collection and Lihong Qian and Paolien Chen for expert research assistance.

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ABSTRACT

Studies examining value creation in cross-border acquisitions are few, and there are none that compare value creation of domestic vs. cross-border acquisitions. Institutional differences (at both the firm and industry level) may, in addition to economic factors, cause systematic differences in the value created by cross border vs. domestic acquisitions, thus affecting a firm's international competitiveness. We seek to investigate the characteristic features that distinguish cross-border acquisitions from U.S. domestic acquisitions and how total gains are shared between the target and the acquirer. Our empirical results indicate that acquisitions are primarily driven by synergy motives though managerialism and hubris also coexist in the sample. Acquisitions by US acquirers of domestic as well as international targets are characterized by hubris rather than managerialism in our sample of negative total gains, while acquisitions by foreign acquirers of US targets are characterized by managerialism. We show that institutional characteristics matter and that target gains are lower for US acquirers of foreign targets in bank or group oriented countries, which is consistent with the evidence on lower valuations with lower protection of minority shareholder rights in these countries. For the foreign acquirer-US target sub-sample the institutional structure of the foreign acquirer's home country appears to have no impact on target gains.

Why do firms undertake acquisitions? Do acquisitions create economic value? These linked questions have engaged researchers in the fields of strategy, finance and economics for decades. More recently, with the burgeoning incidence of cross-border acquisitions[1], they have attracted the attention of international business research. Although a vast and rich literature exists to explain various aspects of acquisition activity, some interesting and important puzzles remain: Are there systematic differences between the extent of value creation in domestic versus cross-border acquisitions? Are there systematic differences between the motives for undertaking each of these types of transactions? Clearly, answers to these questions have the potential to make an important contribution not only to our understanding of acquisition activity and its value consequences, but also to explain idiosyncrasies associated with doing business internationally. The purpose of this paper is to empirically examine these questions.

The literature has long postulated that managers' motives for acquisition activity can be classified into three different categories. First, the synergy hypothesis (Penrose, 1995; Bradley, Desai and Kim, 1990; Seth, 1990) suggests that changes in the scale and scope of the firm via acquisition activity reflects entrepreneurial attempts by managers to create economic value. Second, the hubris hypothesis (Roll, 1986) postulates that acquisition activity arises from managerial overconfidence in their own abilities to extract economic value from such transactions. Third, the managerialism hypothesis (Marris, 1964) argues that since acquisition activity carries private benefits for managers, it merely reflects their attempts to enrich themselves at the cost of shareholders.

The three hypotheses described above employ critical assumptions about the level of discretion afforded to managers by the economic environment. So, the synergy hypothesis assumes a) frictions exist in asset and input markets that afford managers the opportunity to create economic value from acquisition activity and b) managers' discretion to enrich themselves at the expense of shareholders is limited by corporate governance constraints such as monitoring, bonding and incentive mechanisms. The hubris hypothesis, in contrast, assumes that a) asset and input markets are perfectly efficient so that there are no effective opportunities to create economic value from acquisition activity and b) managers do not confront binding constraints from the corporate governance environment to desist from the "mistakes" that acquisitions

[1] According to Mergerstat Review, the total number of deals including cross-border deals in the US increased from 2,074 acquisitions or 108 billion dollars in 1990 to 10,296 acquisitions or 823 billion dollars in 2004.

represent. The managerialism hypothesis makes no assumptions about frictions in asset and input markets, but critically relies on the absence of effective governance mechanisms to limit managerial discretion. Each of these hypotheses carries specific empirical implications for total value gains associated with the transaction and the division of total gains between acquirers and targets, so they represent testable hypotheses.

These three hypotheses could be considered as universal in that they could plausibly describe managers' (unobserved) utility functions in domestic or cross-border acquisitions, absent any other considerations. However, the observed motives of managers will critically depend on not only their utility functions but also the incentives and constraints that they encounter in their decision-making about acquisition activity. In other words, we need to consider the extent to which the assumptions underlying the three hypotheses are likely to characterize domestic versus cross-border acquisitions.

It is unlikely that the institutional environment that gives rise to frictions in asset and input markets and creates corporate governance constraints on managerial discretion is homogenous across countries. Accordingly, the assumptions described above may not equivalently characterize domestic and cross-border acquisitions. Thus, the relative prevalence of each of the motives in domestic versus cross-border acquisitions is theoretically an open question.

Prior empirical work does provide some indirect evidence on this issue. Recent studies have attempted to empirically discriminate among the hypotheses, for U.S. domestic acquisitions (Berkovitch and Narayanan, 1993) and for cross-border acquisitions (Seth, Song and Pettit, 2000). These studies find that the synergy hypothesis predominates for their samples, although there also evidence for the hubris and managerialism hypotheses. Although they represent an important foundation, these results are only suggestive for the research question explored here. Berkovitch and Narayanan's results are based on a sample of 330 tender offers from 1983-88, whereas SSP's (2000) results are based on an examination of 100 acquisitions of U.S. firm by foreign bidders from 1981-1990. While data availability limitations at the time constrained these authors, we have been able to combine two relatively new databases (SDC and DataStream/Worldscope) to be able to conduct a systematic comparative analysis. Our sample consists of 1,224 deals between 1990-2003 including 946 domestic transactions (US acquirer/

US target) and 278 cross-border transactions (101 transactions involving a US acquirer and foreign target and 177 transactions involving a foreign acquirer and US target).

Because many of the previous studies have relied on samples of tender offers, the focus has been on the motives that characterize the behavior of managers of bidding firms. In general, the tender offer mechanism wherein bidders appeal to shareholders of target firms to directly sell their shares is less likely to entail managerialism on the part of target firm managers. Our sample also includes merger transactions wherein managers of target firms can derive private benefits from a negotiated sale to a bidding firm, which may or may not entail gains to their shareholders. Accordingly, we are able to explore the hypotheses in a more generalized setting than if we were to merely focus on a particular type of acquisition transaction.

Our study makes numerous contributions. First, we go beyond the prior literature to provide a more fine-grained analysis of motives underlying acquisition activity. Specifically, we show that the synergy hypothesis encompasses two sub-categories that depend critically on the existence of frictions in the market for corporate control. In the case of bilateral monopoly in the market for corporate control, there exist specialized complementarities between them so that both acquirer and target gain from the acquisition. In contrast, synergistic gains in the presence of a competitive market for corporate control are appropriated by the target firm. Similarly, we identify two types of managerialism: that on the part of bidding firm managers and on the part of target firm managers. The latter has not received much attention in the literature, which has primarily focused on the private incentives of managers of acquiring firms. However, target firms managers can also receive side payments for the sale of the firms they control at the expense of their shareholders. We can discriminate empirically between the two types of synergy and the two types of managerialism.

Second, we show that there appear to be important differences in institutional contexts between cross-border and domestic acquisitions so there is differential evidence for the existence of the three motives in these types of acquisitions. Third, ours is the first comprehensive comparison of the total gains and the division of these gains in domestic compared to cross-border acquisitions.

We document that 57% of US domestic acquisitions in our sample show positive total gains, as do 60% of the cross border transactions (both US-foreign and foreign-US transactions). Berkovitch and Narayanan (1993), Bradley, Desai and Kim (1988) and SSP (2000) all report that

the proportion of acquisitions with positive total gains in their samples is around 75%. In our sample, average total gains are 2%, 3% and 4% of the pre-acquisition value of the combined entity for US domestic acquisitions, US-foreign transactions and foreign-US acquisitions respectively. These results are materially lower than estimates of total gains in prior work. BDK (1998), Seth (1990), Berkovitch and Narayanan (1993) and SSP (1993) all report much higher positive average total gains (7-10% of the pre-acquisition value of the combined entity) for their samples of US and cross-border acquisitions.

As regards the division of the gains, 41% of the acquirers in US-US transactions create value for their shareholders, compared with 55% for acquirers in US-foreign transactions. The average cumulative abnormal returns (CAR) of acquirers in US-US transactions is -2% (p=.01); whereas those of acquirers in US-foreign transactions is 1% (not statistically significant at conventional levels). These results suggest that US firms do better on average as bidders in their cross border transactions than in their domestic transactions from the point of view of creating value for their shareholders. While the targets of these transactions do create value on average for their shareholders, their average level of gains is lower than that of shareholders of US targets (17% versus 21%).

Similar to the results in SSP (2000), about half the acquirers in foreign-US transactions create value for their shareholders, realizing an average CAR of 1%. The results indicate that US firms also do better as targets of foreign transactions relative to domestic transactions, realizing returns of 27% versus 21%.

Our tests to empirically discriminate among the hypotheses indicate that the synergy hypothesis does indeed play an important in domestic and cross-border transactions, but to a materially lower extent than reported in prior work. At the same time, bilateral monopoly characterizes U.S. acquisitions of foreign firms to a considerably greater extent than domestic acquisitions or foreign acquisitions of U.S. firms. We also find evidence of managerialism on the part of acquirers for all US domestic acquisitions and foreign-US acquisitions. In contrast, acquisitions of foreign firms by U.S. firms cannot be characterized by managerialism on the part of bidding firm managers. Overall, the domestic acquisitions by U.S. firms and foreign acquisitions of US firms demonstrate the characteristics of synergy and bidder managerialism, whereas acquisitions by U.S. firms of foreign firms demonstrate the characteristics of synergy and managerialism. These results suggest that the U.S. market for corporate control is more

competitive than foreign markets, so that acquisitions of U.S. targets are more likely to result in the "winner's curse" than acquisitions of foreign firms.

Another important result is that we identify the presence of managerialism on the part of target firm managers in domestic and both cross-border samples. Although this pattern is evidenced in all three sub-samples, it appears to be most pronounced in the targets of U.S. bidding activity. Between 25-30% of the targets that are ultimately purchased by U.S. firms (whether domestic or cross-border) evidence negative returns to their shareholders consequent to acquisition.

The paper is organized as follows. We next outline the literature that informs our study. The following section develops our theoretical framework and outlines our hypotheses. We next describe our research design and methodology and present our results. The final section provides a discussion of our results.

LITERATURE REVIEW

A profusion of studies has examined the impact of takeovers for bidding and target firm shareholder value in the context of U.S. domestic acquisitions (e.g., Singh & Montgomery, 1987; see Andrade, Stafford, and Mitchell 2001 for a review of the literature). Recently, some studies have examined the value consequences of cross-border acquisitions (e.g. Harris and Ravenscraft 1991, Eun, Kolodny, and Scheraga 1996, Moeller and Schlingemann 2002, Dos Santos, Errunza, and Miller 2003, Seth, Song and Pettit, 2000, 2002). The general consensus from these studies is that mergers create value with most of the gains accruing to the target shareholders.2 There is also evidence for US acquisitions that the value of the combined firm is greater than the sum of its parts i.e. the target and the acquiring firm values.[3]

Given the burgeoning incidence of cross-border acquisitions in recent years, scholars are now also devoting attention to understanding and explaining how and why value may be created in cross-border acquisitions (e.g., Seth, Song and Pettit, 2000, 2002, hereafter SSPa and SSPb).

[2] According to Andrade, Stafford, and Mitchell (2001) targets returns have been remarkably stable at 16 to 24% over the last three decades for domestic acquisitions. For cross-border acquisitions, Harris and Ravenscraft (1991) report that foreign bidders pay 10% more than domestic bidders in the US. Moeller and Schlingemann (2002) report significantly lower bidder gains for cross-border acquisitions by US acquirers and Dos Santos et al (2003) report significant wealth gains to foreign target shareholders.

[3] Bradley, Desai and Kim (1988); Seth (1990 a, b); and Berkovitch and Narayanan (1993).

Extant literature has examined motives for takeovers for either domestic deals or cross-border deals separately, but none of these studies compare the underlying motives for cross-border versus domestic acquisitions.

Summary statistics of the extent of value creation in cross-border acquisitions versus U.S. acquisitions reveal some striking similarities (Berkovitch and Narayanan 1993; Bradley, Desai and Kim 1988; Seth, Song and Pettit 2000). However, this need not imply that exactly the same set of underlying motives of value creation or destruction underlies domestic and cross-border acquisitions. Although the ability to re-deploy valuable intangible assets such as proprietary technology constitutes an important potential source of value in both types of acquisitions, the existing empirical research also suggests that cross-border acquisitions possess some unique characteristics when compared with domestic acquisitions. For example, Shaked, Michel and McClain (1991) and Harris and Ravenscraft (1991) find that targets receive higher returns from foreign merger announcements than domestic merger announcements. They conjecture that their results could be driven either by foreign acquirers being more susceptible to overpayment for targets than domestic acquirers or by the advantages of expansion into the U.S. market. Cultural and institutional differences (at both the firm and industry level) may also cause systematic differences in the value created by cross border vs. domestic acquisitions, thus affecting a firm's international competitiveness.

THEORETICAL FRAMEWORK AND TESTABLE IMPLICATIONS

Theory suggests three main motives for takeovers: synergy, managerialism and hubris (Berkovitch and Narayanan, 1993; SSP , 2000) .

The Synergy Hypothesis: the shareholders of the combined firm following the takeover benefit from increased shareholder value (i.e., the value of the combined firm is greater than the sum of its parts) resulting from a variety of reasons including increased efficiency through economies of scale, internalization of market imperfections, attempts to create market power, market discipline by removing incompetent or entrenched target management and risk reduction. This gain can be explained by the theory of firm growth (Penrose, 1995) where the firm is described as a collection of assets and the long-run growth of the firm depends on the opportunity to use these assets (tangible and intangible) more efficiently. This motivates a quest for new products and

markets in which the firm can realize these efficiencies and avoid diminishing marginal returns in its core product or home markets. More recently, Levinthal and Wu (2006) highlight the tradeoffs managers make when they are capacity constrained. They show that firms with superior capabilities (e.g. management capabilities) in an existing market are more likely to choose to diversify to new product markets. Extending this rationale from product markets to international markets, firms with superior capabilities are more likely to diversify across borders.

The underlying assumption of these arguments is that the firm can transfer its superior capabilities developed at home to the international arena. The synergy hypothesis also assumes that these capabilities are unique and cannot be easily appropriated by rivals and that market frictions prevent the market transfer of such resources. Intangible assets are an important source of synergy. The sale or lease of such assets is hindered by the difficulty of accurately valuing them (Aliber, 1970) so the firm will likely internalize this market imperfection. The value of these intangible assets is enhanced in direct proportion to the scale of the firms markets (Coase, 1937; Caves, 1971; Dunning, 1973; Williamson, 1975; Hymer, 1960, 1976; Buckley and Casson, 1976; Rugman, 1981; Hennart, 1982, 2001; Morck and Yeung, 1991). Transactions cost theory suggests that transactions in international markets involve substantial costs and firms will internalize these costs. In fact, in order to overcome the liability of foreignness or the advantage of the local competitor in the host market, multinational firms must have some firm-specific advantage (Caves, 1971; Dunning, 1973; Hennart, 1982) or firm-specific capabilities (resource-based view) (Barney, 1991; Lippman and Rumelt, 1982).

International diversification can create value through reduced variability in the firms' cash flows resulting from less than perfect correlation between earnings in different markets (Lessard, 1973); added flexibility due to variations in tax regulations or exchange rates; and due to differences in corporate governance. Based on real options theory, international acquisitions can offer increased flexibility and options (Kogut, 1985, 1989; Tong and Reuer, 2007). Firms can benefit from differences in growth opportunities for domestic and foreign firms i.e. firms will invest abroad when growth at home is limited or in the presence of trade barriers which restrict exports.

The Managerialism Hypothesis: This hypothesis based in agency theory (Jensen and Meckling, 1976), which suggests that managerial motives may be geared towards private benefits at the

expense of value maximization. This view suggests that managers of the bidding firm are self-serving and maximize their own utility (empire building) at the expense of the shareholders of the firm. Managers build empires because managerial compensation and perquisite consumption increase in direct proportion to the size of the firm rather than its performance (Jensen and Murphy, 1990). Amihud and Lev (1981; 1999) suggest that managers can diversify personal risk or in other words increase their job security by diversifying across products or markets. Higher acquisition activity may be associated with greater use of financial vs. strategic controls (Hitt et al. 1996) resulting in less innovation because it reduces managerial incentives to invest in high risk but high return projects. These arguments suggest that managers will knowingly overpay for acquisitions or that these agency problems will result in value destruction.

The agency or managerialism hypothesis can apply equally to domestic as well as cross-border acquisitions. In integrated capital markets, firm level diversification to reduce risk is generally considered non-value maximizing as shareholders can achieve diversification benefits at a much lower costs. However, managers may seek to maximize their own utility and reduce personal risk by expanding the firm abroad and taking advantage of the low correlations between earnings in different markets. These agency problems can be reduced through effective governance (Hosskisson et al, 2002, Miller, 2004). However, monitoring a large firm operating in multiple markets with different accounting and financial regulations can be a difficult task for shareholders.

The Hubris Hypothesis: Roll (1986) suggests that bidding firm managers make mistakes in evaluating the target and thus over pay for the target. Consequently, the takeover premium merely reflects random error. If the valuation of the target is a random variable with the mean equaling the current market price, the errors could be due to over or undervaluation of the target but the distribution of the *observed* error is typically truncated by the current market price. The extreme version of the hubris hypothesis predicts a transfer of wealth from the acquirer to the target and no synergistic gain from the acquisition. This is also consistent with strong-form market efficiency (Roll, 1986). While the synergy hypothesis assumes rational behavior on the part of managers, the hubris hypothesis assumes irrational behavior since managers should realize that any payment over market price is an error. The hubris hypothesis could be consistent with managerial rationality if managers are motivated by synergistic concerns but information

asymmetries result in misevaluation and overpayment and a resulting loss in shareholder value. Berkovitch and Narayanan (1993) find some evidence of hubris in their sub-sample of takeovers with positive gains.

In a cross-border acquisition information asymmetries are like to be exacerbated due to variations in language, culture, tax codes, governance, institutional factors, and regulations. Valuation mistakes are at least as likely if not more likely to occur in a cross-border sample as in a domestic one.

The Empirical Evidence: The evidence comparing shareholder wealth effects between cross-border and domestic deals yields mixed results. Harris and Ravenscraft (1991) show that from the perspective of the US target, deals with foreign buyers have significantly higher wealth gains relative to deals with domestic buyers. Markides and Ittner (1994) show that from the perspective of the US acquirer, cross-border deals experience significantly higher returns relative to domestic deals while Moeller and Schlingemann (2002) show the opposite effect. Using an alternative methodology, Dos Santos et al (2003) find no evidence of value destruction of US acquirers in the two year period surrounding the acquisition. These papers do not examine wealth gains for the combined firm nor do they distinguish between the various motives driving the takeover. As Cakici, Hessel, and Tandon (1996) indicated, to understand the sources of value in cross-border acquisitions, it is necessary to examine the total wealth gains in these acquisitions i.e. the combined gains to matched pairs of targets and acquirers (Seth, Song and Pettit 2002).

Research on shareholder wealth creation for the combined firm suggests that there maybe some similarities in the underlying motives across the different types of acquisitions. For example, Seth, Song and Pettit (2000) report an average level of value creation for the combined firm of 7.5% for their sample of cross border acquisitions by non-US acquirers. This is equivalent to the estimate of 7.4% for domestic acquisitions in Bradley, Desai and Kim (1988) for a similar event period but lower than the estimate for domestic acquisitions of 10.7% reported in Seth (1990a) for a longer event period. The proportion of firms with positive total gains in the SSP (2000) sample (74%) is similar to those reported by Berkovitch and Narayanan (1993) (76%) and Bradley, Desai and Kim (1988) (75%). Empirical examinations of the motives underlying these acquisition types also reveal similarities. For example, the SSP (2000) findings that the synergy hypothesis explains gains in the majority of cross-border acquisitions and that

cross-border acquisitions characterized by value destruction appear to be driven by managerialism rather than by hubris are very similar to those reported by Berkovitch and Narayanan (1993) for domestic acquisitions. These papers examine purely domestic acquisitions (Bradley, Desai and Kim 1988, Seth 1990a, Berkovitch and Narayanan 1993) or cross-border acquisitions (Seth, Song and Pettit 2000). Prior research does not compare acquisition motives of cross-border transactions versus domestic deals.

Our first hypothesis documents whether there are systematic differences in the degree of value creation among domestic and cross-border acquisitions. Cebenoyan et al (1992) propose that cross-border acquisitions entail superior synergistic gains relative to domestic acquisitions. However, if the difference between domestic and cross-border acquisitions is essentially associated with their reliance on different sources of value, with some sources of value creation which are unavailable to domestic acquisitions available to cross-border acquisitions and vice versa, we cannot predict that the average total gain is higher in cross-border acquisitions than in domestic acquisitions. To plausibly make this argument, we would have to show that the sources of value creation which cross-border acquisitions rely on are inherently more "valuable", on average, than those which domestic acquisitions rely on. If there is no such difference in the inherent value associated with the sources, cross-border acquisitions should reflect total gains of a similar magnitude to those found in domestic acquisitions.

Furthermore, Cebenoyan et al's argument does not consider information asymmetries. We note that, if information asymmetries are greater across national borders than within a country (which suggests that valuation mistakes are more likely in the former), measured average total gains will be lower and the proportion of acquisitions with non-positive total gains will be higher in cross-border acquisitions than in domestic acquisitions. Accordingly, we propose:

H1: There is no systematic difference in the average value gain realized in domestic versus cross-border acquisitions

Our second set of hypotheses examines the relative importance of different acquisition motives in the two types. As developed in SSPa and SSPb, we rely on two kinds of tests: (1) we examine the mean level of the gains to acquirers and targets and the total gains to the pair of combining firms, and also the proportion of acquisitions in our sample with positive total gains

(e.g., Malatesta, 1983; Roll, 1986; Bradley, Desai & Kim, 1988) and (2) we examine the correlation between (a) the gains to the target and total gains to the combined firm and (b) between gains to the acquirer and the target (similar to the approach of Berkovitch & Narayanan, 1993). Our approach to hypothesis testing takes into account the possibility that all three explanations may be present simultaneously in our sample. Our testable hypotheses, and their empirical predictions are as follows:

First, the synergy hypothesis predicts that the acquisition creates value i.e. positive total gains on average and positive gains for targets. Target shareholders are able to extract some of the total gains either due to bargaining power or due to competition in the market for corporate control. This suggests a positive relationship between target gains and total gains. Gains to acquiring firm shareholders are dependent upon the level of competition in the market for corporate control. High levels of competition imply that acquirer gains will be close to zero and there will be zero correlation between acquirer gains and target gains. If target firms are only able to capture some of the total gains due to their bargaining power, acquiring firm shareholders will be able to appropriate some of the total gains and there will be a positive correlation between acquirer gains and target gains.

H2: Domestic and cross-border acquisitions are primarily motivated by synergy. Therefore,

a) there will be positive total gains on average in acquisitions,
b) there will be non-negative gains on average to acquirers,
c) there will be positive gains on average to targets,
d) the proportion of acquisitions with positive total gains will be higher than that expected by chance,
e) there will be a non-negative correlation between target gains and acquirer gains.
f) there will be a positive correlation between target gains and total gains.

Second, the hubris hypothesis suggests that acquiring firm managers overpay for the target so acquirer gains will decline, target gains will increase and total gains will be zero. These acquisitions result in a transfer of wealth from acquiring firm shareholders to target firm shareholders so there will be no correlation between target and total gains. Increased competition would increase the losses to the acquirer and the gains to the target but should not affect total gains.

H3: Domestic and cross-border acquisitions are primarily motivated by hubris. Therefore,

a) there will be zero total gains on average in acquisitions,
b) there will be negative gains on average to acquirers,
c) there will be positive gains on average to targets,
d) the proportion of acquisitions with positive total gains will be equal to that expected by chance,
e) there will be a negative relationship between target gains and acquirer gains.
f) there will be no relationship between target gains and total gains.

Third, the managerialism hypothesis suggests that acquiring firm managers pursue personal value maximization at the expense of shareholder wealth maximization. This suggests that total gains will be negative and that there will be a transfer of wealth from target firm shareholders to acquiring firm managers. If the target firm has some bargaining power it will be able to extract some of the total gains so there will be a negative correlation between target and total gains. Increased competition would increase the losses to the acquirer and the gains to the target but should not affect total gains.

H4: Domestic and cross-border acquisitions are primarily motivated by managerialism. Therefore,

a) there will be negative total gains on average in acquisitions
b) there will be negative gains on average to acquirers
c) there will be positive gains on average to targets
d)the proportion of acquisitions with negative total gains will be higher than that expected by chance,
e) there will be a negative relationship between target gains and acquirer gains.
f) there will be a negative relationship between target gains and total gains.

The predictions of our hypotheses are summarized in Table 1. All three motives can be present though the synergy motive is expected to dominate. In a bilateral monopoly where the target and the acquirer have strong bargaining positions, we expect total gains, acquirer gains and target gains to be positive. Further, both targets and acquirer should gain resulting in a positive relationship between acquirer and target gains. In a perfectly competitive market, we expect total gains and target gains to be positive but acquirers will not be able to capture gains from the acquisitions due to competition. For acquisitions primarily motivated by managerialism, total gains will be negative. Deals motivated by managerialism on the part of the acquiring firm managers will result in a transfer of wealth from the acquiring firm to the target firm and a

negative relationship between target and acquirer gains and a negative relationship between target and total gains. For deals motivated by managerialism on the part of the target firm managers, the target firm will experience negative gains. Further, the relationship between target and acquirer gains as well as the relationship between target and total gains will be negative. The hubris hypothesis predicts zero total gains on average with negative gains for the acquirer and positive gains for the target. For deals with positive total gains, the relationship between target and acquirer gains will be negative and the relationship between target and total gains will be zero on average. For deals with negative total gains, the relationship between target and acquirer gains will be negative and the relationship between target and total gains will be zero on average.

Next we focus on the role of international governance systems. The value created or destroyed by cross-border acquisitions can be associated with variations across countries in the effectiveness of corporate governance systems or the market for corporate control (Conn and Connell, 1990). One of the key motivations for acquirers is to create value by taking over firms with high levels of agency problems and resolving them. If agency costs vary systematically across countries (due to variations in effectiveness of the market for corporate control or alternative governance systems), another source of value creation in acquisitions is the variation in governance systems. For example, Gilson (1993) notes that monitoring by the company's main bank in Germany and Japan substitutes for monitoring by the market. Similarly, concentrated ownership can also substitute for monitoring by the market and help reduce agency problems since large shareholders are likely to be personally interested in profit maximization and have enough control over the assets of the firm to have their interests respected (Shleifer and Vishny, 1997). In contrast, others have argued that the market-oriented governance system prevalent in the US and the UK is superior because relatively low ownership concentration facilitates risk-taking and innovation (Easterbrook, 1997). It is unclear whether one national governance system is indeed superior to others in providing incentives for value creation. An alternative to the agency cost explanation could be the variation in protection of minority shareholder rights. La Porta et al. (1997, 1999, 2002) show that countries with poorer investor protection have smaller and narrower capital markets, are characterized by concentrated ownership where the power of controlling shareholders is typically in excess of their cash flow rights, and have lower valuations. Target gains in low investor protection countries could be lower due to lower protection of minority shareholder rights.

SSP (2002) suggest a three-way classification of national governance systems based on Bishop (1994): the first type, the *market-oriented system*, is characterized by high stock market liquidity and relatively high disclosure of financial information where capital markets and the market for corporate control are important governance mechanisms in controlling agency costs. The second type, the *bank-oriented system*, is characterized by high bank ownership where banks play a critical monitoring role. The third type, the *group-oriented system*, is characterized by high concentrated ownership by business or family groups with a high incidence of corporate cross-holdings but relatively low institutional share ownership (See OECD Economic Surveys, 1996-97; Fukao, 1995). We test the impact of national governance systems on value creation in cross-border acquisitions.

RESEARCH METHODOLOGY

Data

Data on domestic (US acquirers with US targets) and cross-border deals (US acquirers with non-US targets and non-US acquirers with US targets) is obtained from SDC for the 1990-2003 period. We discard asset sale transactions and deals where the acquiring firm held less than 51% of the target after the announcement, so that the data represents entire control acquisitions. In addition, data from Datastream was downloaded for all firms with market capitalization data, excluding those in the financial services and the utilities sector. Data on exchange rates, daily returns, and institutional variables were obtained from Datastream/Worldscope. In order to reduce noise in the data we exclude transactions where the pre-acquisition value of the target was less than 2% of the value of the acquirer. We exclude transactions with confounding events during the event window. The final sample contains 1,224 deals, with 946 domestic transactions (US acquirer and US target) and 278 cross-border transactions. We split the cross-border deals into two sub-samples: Cross-border 1 (US acquirer and foreign target) = 101 deals; and Cross-border 2 (Foreign acquirer and US target) = 177 deals.

Method

The techniques described in SSP (2000) and SSP (2002) are used to construct appropriate measures of the total gains to the combining firms as well as the gains that accrue to each of the combining firms in the acquisition. Thus, we measure value creation as well as how the value

creation is apportioned between the target and bidder firm. We use regression analysis to test our hypotheses and examine the contribution of governance characteristics for our sub-samples of cross-border and domestic acquisitions.

We use event study methodology to estimate acquirer and target abnormal returns using a market model. The parameters for the market model are estimated over a period from day -160 to day -40. Cumulative abnormal returns (CARs) are estimated for acquirers and targets for 3 day (-1,+1); 11 day (-5,+5); and 21 day (-10,+10) windows.

The total gain associated with the announcement of the acquisition is the difference between the value of the combined firm given the acquisition announcement and the sum of the values of the individual firms prior to the announcement (see Seth, 1990a). The percentage total gain is computed as follows:

$$\%TOTGAIN = \frac{AMV_{-40} * ACAR_{-5,+5} + k * TMV_{-40} * TCAR_{-5,+5}}{AMV_{-40} + k * TMV_{-40}}$$

where AMV and TMV are the acquirer and target market value in dollars 40 days prior to the event date; k is the proportion of target shares purchased by the acquirer; and ACAR and TCAR are the acquirer and target returns for the 11 day event window.

Acquirer and target gains are computed as follows:

$$ACQGAIN = AMV_{-40} * ACAR_{-5,+5}$$

$$TARGAIN = TMV_{-40} * TCAR_{-5,+5}$$

Relationships between Target-Acquirer and Target-Total Gains

The following discussion is based on SSP (2000). Cumulative abnormal returns and %TOTGAIN cannot be used to estimate the relationship between gains to targets and acquirers or gains to targets and gains to the combined firm because there may be large size differences between the target and the acquiring firm making interpretation of the regression coefficients problematic. Accordingly we use dollar gains to estimate these relationships in accordance with Berkovitch and Narayanan (1993) and SSP (2000).

To test for the role of institutional factors we construct three dummy variables for the acquirer and the target:

ABank=1 *for acquiring firms from countries with bank-oriented systems*

= 0 *for acquiring firms from other countries*

AGroup=1 *for acquiring firms from countries with group-oriented systems*

= 0 *for acquiring firms from other countries*

AMarket=1 *for acquiring firms from countries with market-oriented systems*

= 0 *for acquiring firms from other countries*

TBank=1 *for target firms from countries with bank-oriented systems*

= 0 *for acquiring firms from other countries*

TGroup=1 *for target firms from countries with group-oriented systems*

= 0 *for acquiring firms from other countries*

TMarket=1 *for target firms from countries with market-oriented systems*

= 0 *for acquiring firms from other countries*

Firms from emerging market countries like Brazil, Chile, China, the Czech Republic, India, Philippines, Poland, Russia, South Africa, Thailand and Venezuela are classified as bank-oriented systems. In addition, Germany, Japan, the Netherlands, and Switzerland are also classified as bank-oriented systems. Firms from Argentina, Australia, Austria, Belgium, Canada, Denmark, France, Hong Kong, Ireland, Israel, Italy, South Korea, Luxembourg, Mexico, New Zealand, Norway, Portugal, Singapore, Spain and Taiwan are classified as group-oriented systems. Finally, Finland, Sweden, the UK and the US are classified as market-oriented systems.

RESULTS

Mean Levels of Gains and Proportion of Acquisitions with Positive Gains

Table 2 presents descriptive statistics for total gains and CARs to acquirers and targets for the event window (-5,+5). Results for the alternative event windows are very similar and are not reported. According to the table, mean total gain for the full sample is $21.98 million. Acquiring firm shareholders lose one percent of total value on average while target firm shareholders gain 21% on average. The total gain as a percentage of pre-announcement value is two percent for the full sample. The full sample includes domestic acquisitions, cross-border acquisitions by US firms acquiring foreign targets and cross-border acquisitions by foreign firms acquiring US targets. Average results from the full sample are less meaningful if the sub-sample results are systematically different and opposite in sign so we examine the sub-sample results.

Of the 1,224 acquisitions in the full sample, 946 are domestic transactions, 101 are cross-border acquisitions by US firms acquiring foreign targets and 177 are cross-border acquisitions by foreign firms acquiring US targets. The average total loss for domestic acquisitions is $18.10 million. Acquiring firm CARs average -2% and target firm CARs average 21%. This is consistent with previous literature.

It is interesting to note that total gains for both cross-border samples are positive with most of the gains accruing to target firm shareholders. The differences in total gains between domestic and cross-border acquisitions suggest that they may be systematically different. We run a t-test for the differences in means between the domestic sample, the cross-border 1 sample (US firms acquiring foreign targets), and the cross-border 2 sample (foreign firms acquiring US targets). Mean total gains do not systematically differ between the three samples. However, mean acquirer gains for the domestic sample are significantly different from the mean for the cross-border 1 sample, but the difference is not significant for the cross-border 2 sample. Mean target gains for the cross-border 2 sample are significantly different from the domestic sample as well as significantly different from the mean target gains for the cross-border 1 sample.

Next we examine the proportion of positive to negative total gains. In the domestic sample, there are more winning deals than losing deals overall, i.e., acquiring firms have more negative gains than positive gains while targets gain rather than lose on average. However, these ratios are not consistent across the sub-samples. In the cross-border 1 sample, acquiring firms have more positive gains rather than negative gains on average. The proportion in the cross-border 2 sample is similar to that in the domestic sample. These preliminary results suggest that acquisitions are primarily motivated by synergy for all sub-samples. But the acquirer gains indicate that hubris or managerialism could also be present. A binomial test of the null hypothesis that the probability of observing a positive total gain is 0.5 is rejected for all samples. Significance of the binomial test is indicated in the last column of Table 2.

Table 3 contains the frequency distribution of the sample according to bidder gains and target gains. According to Panel A, 38% of all transactions involve positive gains to both the acquirer and the target and 47% involve negative gains to the acquirer and positive gains to the target. It is interesting to note that 15% of all transactions involve negative gains to the target. This is contrary to our expectations that targets generally gain in an acquisition while acquirers lose. This sub-sample is examined further in a regression framework in Table 4. When total

gains are positive i.e., the synergy sub-sample, targets and acquirers gain in 67% of all transactions. This percentage is consistent for the domestic and cross-border 2 sub-samples. For the cross=border 1 sub-sample, nearly 80% of the positive total gains sample involve positive gains to both bidder and the target. In a small fraction of the deals (5 to 11%) targets have negative gains while bidders have positive gains indicating a transfer of wealth from the target to the acquirer. Next we examine the negative total gains sample in columns 7 to 9. 73% of the deals involve losses to the acquirer and 24% where both targets and acquirers lose indicating the presence of managerialism for both targets and acquirers. These sub-samples are examined further in Table 4.

Panel A of Table 4 examines the relationships between target gains and acquirer gains and target gains and total gains for the 11 day event window. For the full sample acquirer gains and target gains are negatively correlated suggesting the hubris or managerialism hypothesis. However, we cannot confirm this until we examine all the sub-samples. For the positive gains sample we examine whether the synergy and the hubris hypothesis co-exist. We include a dummy variable which takes the value one if the acquirer gain is negative and zero if it is positive. β_1 measures the impact of acquirer gains on target gains for the positive acquirer gains group while $\beta_1 + \beta_2$ measures the impact of acquirer gains on target gains for the negative acquirer gains group. The results for the full sample indicate a significant positive relationship between target and acquirer gains for the positive acquirer gains group (188 transactions) and an overall negative relationship for the negative gains transactions (513 transactions). The difference in the slopes of the two groups is statistically significant (β_2). This suggests that the synergy and hubris motives co-exist in the positive total gains sample. For the negative total gains sample the relationship between target gains and acquirer gains is negative and significant supporting the hubris (H3e) and the managerialism hypothesis (H4e).

Panel B examines the relationship between target gains and total gains for the full sample and the positive and negative total gains sub-samples. The strong positive correlation between target and total gains provides support for the synergy hypothesis (H2f). The positive correlation between target gains and total gains for the positive total gains sub-sample is consistent with the synergy hypothesis (H2f) and the negative correlation between target gains and total gains for the negative total gains sub-sample is consistent with the managerialism hypothesis (H4f). The results are not consistent with the hubris hypothesis (H3f).

Next we examine these relationships for domestic and cross-border acquisitions. The signs and significance of the relationships observed in the full sample remain consistent in the domestic acquisitions sub-sample. The only result that becomes insignificant in the domestic sample is the relationship between target and total gains in the negative total gains sub-sample suggesting the presence of hubris rather than managerialism for domestic acquisitions. The results for the cross-border 1 sample are consistent with the domestic sample and the results for the cross-border 2 sample are consistent with the full sample.

185 deals in our sample are characterized by negative target gains. As a robustness check we exclude these firms from our analysis and the results do not change. As an additional check we include a dummy variable which takes the value one if the target gain is negative and zero if it is positive. β_1 measures the impact of target gains on total gains for the negative total gains group while $\beta_1 + \beta_2$ measures the impact of target gains on total gains for the negative target gains group. The results for the full sample indicate a significant positive relationship between target and total gains for the negative target gains group (185 transactions) and an overall negative relationship for the negative total gains transactions (523 transactions). This suggests a transfer of wealth from the target shareholders to the acquiring firm shareholders. A possible explanation for this wealth transfer is that the acquirers are underbidding for the target.

Table 5 examines the impact of institutional differences for the two cross-border samples. These coefficients in the first panel (U.S acquirer-foreign target regressions) indicate whether the dollar level of gains to targets in bank-oriented and group-oriented governance systems are systematically different than to targets in market-oriented systems. In all regressions, the coefficients on the institutional variables are negative and strongly significant, so that targets from market-oriented systems appear to gain considerably more than those from bank- or group-oriented systems. However, Panel 2 indicates there appears to be no systematic effect of the governance institutions that characterize the bidders on the level of gains to U.S. targets of cross-border acquisitions. This could imply that the institutional incentives for bidders to create shareholder value are equivalently efficient (or inefficient) across all three governance systems.[4]

DISCUSSION AND CONCLUSION

[4] As an additional robustness check, we examine the relationship between acquirer gains and the role of institutional characteristics. Sub-sample analysis for positive and negative total gains show that the institutional structure of the foreign acquirer's home country appears to have no impact on acquirer gains.

Comparatively little research has focused on cross-border acquisitions and there are virtually no studies that examine the impact of domestic as well as inward and outward cross-border acquisitions together. Prior research varies in terms of the types of acquisitions examined, the methodology and the sample period, making it difficult to draw any conclusions about the similarities or differences in target or acquirer gains in domestic vs. cross-border acquisitions. This study examines a fundamental question: Why do cross-border acquisitions occur and are they different from domestic acquisitions? Our empirical results indicate that acquisitions are primarily driven by synergy motives. Synergy and hubris motives co-exist in the positive total gains sample while managerialism is the primary motive in the negative gains sample.

A comparison of the results across the different sub-samples indicates that domestic acquisitions and the cross-border acquisitions by US acquirers are characterized by hubris rather than managerialism for the negative total gains sample. The results for cross-border acquisitions of US targets by foreign acquirers indicate that cross-border acquisitions characterized by value destruction appear to be driven by managerialism rather than by hubris. For value creating cross-border acquisitions, synergy and hubris motives co-exist. The cross-border acquisitions results are very similar to those reported by SSP (2000).

Our estimate of percentage total gains across the 3 sub-samples is around 2 percent. This differs from previous estimates in the literature: 7.6% for a sample of cross-border acquisitions of US targets by foreign acquirers (SSP, 2000) and 7.43% for domestic acquisitions (Bradley, Desai, and Kim, 1988). These differences may be attributed to differences in the sample period. These papers examine acquisitions in the 80s while our sample period is from 1990 to 2003.

The proportion of positive total gains in our full sample (57%) is similar to the proportion of positive total gains in our domestic sample (56%). The two cross-border samples have much higher proportions of positive total gains, however: 60% for the cross-border 1 sample and 61% for the cross-border 2 sample. Our numbers are slightly less than the numbers reported in the previous literature: 74% by SSP, (2000); 76% by Bradley, Desai, and Kim (1988); and 75% by Berkovitch and Narayanan (1993). These differences suggest that the proportion of domestic and cross-border transactions characterized by value creation has decreased from the 80s to the 90s.

Our results on the role of institutional characteristics indicate that target gains are lower for acquisitions by US acquirers of foreign targets in bank-oriented or group-oriented systems. This is consistent with the evidence on lower protection of minority shareholder rights in these

systems (La Porta et al. 2002). In contrast, institutional characteristics of the foreign acquirer do not impact US target gains or acquirer gains suggesting that synergy motives outweigh the role of institutional characteristics for foreign acquirers of US targets.

The literature presents several theories to explain why firms diversify internationally. Managerial motives may differ across acquisitions and this study examines the role of these motives in explaining the value created or destroyed by acquisitions within the domestic and the international context. By creating a finer classification of the sample of cross-border and domestic acquisitions we show that different managerial motives coexist and this may help explain some of the mixed results in the previous literature. One key finding is that managers of cross-border and domestic acquisitions seek to create economic value and that the synergy hypothesis is still relevant. However, there appears to be a temporal change in the role of synergy in explaining the value created in acquisitions. Our results suggest that it is important to take into account the different behavioral assumptions underlying management decision making when examining acquisitions. Further, results from domestic acquisitions cannot be directly translated to cross-border transactions.

This study could be extended in several ways. Further research is needed to explore the sources of value creation in domestic and cross-border acquisitions and their differences, if any. A more in depth analysis of the differences in institutional characteristics across countries, may also help to shed light on the similarities and differences between domestic and international acquisitions. Given the increasing incidence of cross-border investment by firms and shareholders, more research on international acquisition activity is needed.

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Table 1

Empirical Predictions of the Synergy, Managerialism and Hubris Hypotheses

EMPIRICAL IMPLICATIONS	SYNERGY HYPOTHESIS		MANAGERIALISM HYPOTHESIS		HUBRIS HYPOTHESIS
Panel A: Total Gains and Average Gains to Acquirers/ Targets	Bilateral monopoly	Perfectly competitive market	Acquirer Managers	Target Managers	
Average Total Gains	>0	>0	<0	<0	0
Average Gains to Acquirers	>0	0	<0		<0
Average Gains to Targets	>0	>0	>0	<0	>0
Panel B: Discriminating Between Synergy versus Hubris – Positive Total Gains					
Relationship Between Target Gain and Acquirer Gain	>0	0	-	-	<0
Relationship Between Gains to Target and Total Gains		>0	-	-	0
Panel C: Managerialism versus Hubris – Negative Total Gains					
Relationship Between Target Gain and Acquirer Gain	-	-	<0	>0	<0
Relationship Between Gains to Target and Total Gains	-	-	<0	>0	0

Table 2

Summary Statistics

	MEAN	MEDIAN	MIN	MAX	POS:NEG
Panel A: Full Sample (n=1224)					
TOTGAIN ($m.)	21.98	9.86	-13,683.81	9,747.07	701:523***
ACQGAIN ($m.)	-122.10***	-7.28	-12,253.49	9,173.62	524:700***
TARGAIN ($m.)	144.35***	26.70	-2,471.99	3,997.44	1039:185***
%TOTGAIN	0.02***	0.02	-0.50	1.68	701:523***
ACAR (%)	-0.01***	-0.01	-0.56	1.92	524:700***
TCAR (%)	0.21***	0.18	-0.92	1.50	1039:185***
Panel B: Domestic (US acquirer-US target) (N=946)					
TOTGAIN ($m.)	-18.10	6.47	-13,683.81	9,747.07	533:413***
ACQGAIN ($m.)	-147.53***	-9.21	-12,253.49	9,173.62	385:561***
TARGAIN ($m.)	129.65***	24.57	-2,471.99	3,997.44	799:147***
%TOTGAIN	0.02***	0.01	-0.50	0.84	533:413***
ACAR (%)	-0.02***	-0.02	-0.56	0.98	385:561***
TCAR (%)	0.21***	0.18	-0.92	1.50	799:147***
Panel C: Cross-border 1 (US acquirer-foreign target) (N=101)					
TOTGAIN ($m.)	147.69**	41.35	-1,710.40	4,418.62	61:40**
ACQGAIN ($m.)	57.34	9.66	-1,860.04	4,093.65	56:45
TARGAIN ($m.)	91.31***	20.74	-2,19.44	1,562.91	82:19***
%TOTGAIN	0.03***	0.03	-0.21	0.51	61:40**
ACAR (%)	0.01	0.01	-0.28	0.30	56:45
TCAR (%)	0.17***	0.11	-0.30	0.97	82:19***
Panel D: Cross-border 2 (Foreign acquirer-US target) (n=177)					
TOTGAIN ($m.)	164.45**	36.89	-3,699.62	7,245.09	107:70***
ACQGAIN ($m.)	-88.58	-8.62	-4,577.36	5,234.49	83:94
TARGAIN ($m.)	253.13***	66.37	-192.76	3,028.92	158:19***
%TOTGAIN	0.04***	0.02	-0.23	1.68	107:70***
ACAR (%)	0.01	-0.01	-0.32	1.92	83:94
TCAR (%)	0.27***	0.23	-0.43	1.24	158:19***

Table 3

Frequency Distribution of Transactions by Acquirer Gains, Target Gains and Total Gains

	ALL TRANSACTIONS			TOTGAIN +			TOTGAIN -		
	Acquirer +	Acquirer -	Total	Acquirer +	Acquirer -	Total	Acquirer +	Acquirer -	Total
Panel A: Full Sample									
TARGAIN +	467	572	1039	467	188	655	0	384	384
	38%	47%	85%	67%	27%	93%	0%	73%	73%
TARGAIN -	57	128	185	46	0	46	11	128	139
	5%	10%	15%	7%	0%	7%	2%	24%	27%
Total	524	700	1,224	513	188	701	11	512	523
	43%	57%	100%	73%	27%	100%	2%	98%	100%
Panel B: Domestic (US acquirer-US target)									
TARGAIN +	347	452	799	347	157	504	0	295	295
	37%	48%	84%	65%	29%	95%	0%	71%	71%
TARGAIN -	38	109	147	29	0	29	9	109	118
	4%	12%	16%	5%	0%	5%	2%	26%	29%
Total	385	561	946	376	157	533	9	404	413
	41%	59%	100%	71%	29%	100%	2%	98%	100%
Panel C: Cross-border 1 (US acquirer-foreign target)									
TARGAIN +	49	33	82	49	5	54	0	28	28
	49%	33%	81%	80%	8%	89%	0%	70%	70%
TARGAIN -	7	12	19	7	0	7	0	12	12
	7%	12%	19%	11%	0%	11%	0%	30%	30%
Total	56	45	101	56	5	61	0	40	40
	55%	45%	100%	92%	8%	100%	0%	100%	100%
Panel D: Cross-border 2 (Foreign acquirer-US target)									
TARGAIN +	71	87	158	71	26	97	0	61	61
	40%	49%	89%	66%	24%	91%	0%	87%	87%
TARGAIN -	12	7	19	10	0	10	2	7	9
	7%	4%	11%	9%	0%	9%	3%	10%	13%
Total	83	94	177	81	26	107	2	68	70
	47%	53%	100%	76%	24%	100%	3%	97%	100%

Table 4

Regression Estimates: Relationship between Target and Acquirer Gain and Target and Total Gains

Sample and Regression Model	N	α		β1		β2		F		R2
Panel A: Full Sample										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	1,224	137.50	***	-0.06	***			24.50	***	0.02
Target Gain = $\alpha + \beta_1$(Total Gain)	1,224	142.17	***	0.10	***			84.05	***	0.06
Positive Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	701	192.37	***	-0.01				0.25		0.00
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Acquirer Gain*Dummy[b])	701	103.56	***	0.14	***	-1.73	***	254.50	***	0.42
Target Gain = $\alpha + \beta_1$(Total Gain)	701	83.96	***	0.30	***			284.02	***	0.29
Negative Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	523	27.09	*	-0.11	***			88.93	***	0.15
Target Gain = $\alpha + \beta_1$(Total Gain)	523	69.13	***	-0.03	**			5.64	**	0.01
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Total Gain*Dummy[c])	523	75.72	***	-0.10	***	1.41	***	126.16	***	0.33
Panel B: Domestic (US acquirer-US target)										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	946	122.31	***	-0.05	***			17.29	***	0.02
Target Gain = $\alpha + \beta_1$(Total Gain)	946	131.19	***	0.08	***			53.88	***	0.05
Positive Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	533	178.92	***	-0.01				0.18		0.00
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Acquirer Gain*Dummy[b])	533	108.13	***	0.12	***	-1.54	***	140.89	***	0.35
Target Gain = $\alpha + \beta_1$(Total Gain)	533	83.04	***	0.30	***			217.44	***	0.29
Negative Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	413	21.81		-0.09	***			53.43	***	0.12
Target Gain = $\alpha + \beta_1$(Total Gain)	413	58.32	***	-0.02				2.56		0.01
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Total Gain*Dummy[c])	413	68.86	***	-0.09	***	1.36	***	125.85	***	0.38

[a] measured over the period from day -5 to day +5

[b] Dummy=0 if Acquirer Gain is positive, 1 if Acquirer Gain is negative

[c] Dummy=0 if Target Gain is positive, 1 if Target Gain is negative

*** significantly different from zero at the 0.01 level (two-tailed test)

** significantly different from zero at the 0.05 level (two-tailed test)

* significantly different from zero at the 0.10 level (two-tailed test)

Table 4 (contd.)

Regression Estimates: Relationship between Target and Acquirer Gain and Target and Total Gains

Panel C: Cross-border 1 (US acquirer-foreign target)										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	101	91.99	***	-0.01				0.12		0.00
Target Gain = $\alpha + \beta_1$(Total Gain)	101	77.40	***	0.09	***			9.12	***	0.08
Positive Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	61	109.33	***	0.00				0.00		0.00
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Acquirer Gain*Dummy[b])	61	48.80	***	0.06	*	-2.89	***	44.92	***	0.61
Target Gain = $\alpha + \beta_1$(Total Gain)	61	59.33	*	0.13	***			8.45	***	0.13
Negative Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	40	20.20		-0.16	***			9.32	***	0.20
Target Gain = $\alpha + \beta_1$(Total Gain)	40	56.16	**	-0.04				0.38		0.01
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Total Gain*Dummy[c])	40	63.45	***	-0.08		1.74	***	4.31	**	0.19
Panel D: Cross-border 2 (Foreign acquirer-US target)										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	177	243.86	***	-0.10	***			6.83	***	0.04
Target Gain = $\alpha + \beta_1$(Total Gain)	177	224.74	***	0.17	***			21.77	***	0.11
Positive Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	107	308.04	***	-0.02				0.13		0.00
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Acquirer Gain*Dummy[b])	107	110.89	***	0.20	***	-2.18	***	86.57	***	0.62
Target Gain = $\alpha + \beta_1$(Total Gain)	107	122.13	**	0.33	***			47.16	***	0.31
Negative Total Gains Only:										
Target Gain = $\alpha + \beta_1$(Acquirer Gain)	70	-3.35		-0.30	***			62.03	***	0.48
Target Gain = $\alpha + \beta_1$(Total Gain)	70	98.24	*	-0.19	***			8.37	***	0.11
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Total Gain*Dummy[c])	70	91.03	*	-0.29	***	5.98	***	9.76	***	0.23

[a] measured over the period from day -5 to day +5

[b] Dummy=0 if Acquirer Gain is positive, 1 if Acquirer Gain is negative

[c] Dummy=0 if Target Gain is positive, 1 if Target Gain is negative

*** significantly different from zero at the 0.01 level (two-tailed test)

** significantly different from zero at the 0.05 level (two-tailed test)

* significantly different from zero at the 0.10 level (two-tailed test)

Table 5

Cross-Border Acquisitions: Regression Estimates: Relationship between Target and Acquirer Gain and Target and Total Gains with Institutional Effects

Sample and Regression Model	N	α		β1		β2		β3		β4		F		R2
Cross-border 1 (US acquirer-foreign target)														
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Tbank) + β_3(Tgroup)	101	164.57	***	0.01		-149.61	***	-100.16	**			2.67	**	0.08
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Tbank) + β_3(Tgroup)	101	158.11	***	0.06	***	-162.67	***	-94.60	**			5.36	***	0.14
Positive Total Gains Only:														
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Acquirer Gain*Dummy[b]) + β_3(Tbank) + β_4(Tgroup)	61	99.48	***	0.09	***	-2.86	***	-126.58	**	-75.00	*	24.87	***	0.64
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Tbank) + β_3(Tgroup)	61	132.85	***	0.16	***	-216.91	**	-102.93	*			5.16	***	0.21
Negative Total Gains Only:														
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Tbank) + β_3(Tgroup)	40	146.50	***	-0.03		-156.16	***	-139.13	***			4.44	***	0.26
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Tbank) + β_3(Tgroup)	40	153.54	***	-0.01		-160.42	***	-134.00	***			3.79	**	0.23

Table 5 (contd.)

Cross-Border Acquisitions: Regression Estimates: Relationship between Target and Acquirer Gain and Target and Total Gains with Institutional Effects

Cross-border 2 (Foreign acquirer-US target)													
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Abank) + β_3(Agroup)	177	218.49	***	-0.11	***	226.77	**	-52.34		4.99	***	0.08
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Abank) + β_3(Agroup)	177	247.98	***	0.16	***	111.37		-96.28		8.91	***	0.13
Positive Total Gains Only:													
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Acquirer Gain*Dummy[b]) + β_3(Abank) + β_4(Agroup)	107	145.54	**	0.21	***	-2.16	***	-4.28	-69.19	43.02	***	0.63
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Tbank) + β_3(Tgroup)	107	159.08	*	0.31	***	182.10		-156.06		19.60	***	0.36
Negative Total Gains Only:													
Target Gain = $\alpha + \beta_1$(Acquirer Gain) + β_2(Abank) + β_3(Agroup)	70	16.33		-0.30	***	-17.72		-32.42		20.16	***	0.48
Target Gain = $\alpha + \beta_1$(Total Gain) + β_2(Abank) + β_3(Agroup)	70	139.79		-0.19	***	-82.59		-49.60		2.84	**	0.11

[a] measured over the period from day -5 to day +5
[b] Dummy=0 if Acquirer Gain is positive, 1 if Acquirer Gain is negative
[c] Dummy=0 if Target Gain is positive, 1 if Target Gain is negative

*** significantly different from zero at the 0.01 level (two-tailed test)
** significantly different from zero at the 0.05 level (two-tailed test)
* significantly different from zero at the 0.10 level (two-tailed test)