Control Premiums: Evidence Against Market Integration

If investors hold the optimal portfolio the invested resources are allocated to their most effective use. If not, then what are the explanations for these inefficiencies and what is the interpretation and implication of these explanations on the behavior of the global economy? There is much evidence that, despite the gains from cross-border diversification, investors hold too little of their wealth in foreign assets. This has been termed "home bias". Home biases exist in trade, in companies that pursue foreign direct investments, and even in domestic geographically proximate transactions.
However, we do not know the root cause of home bias, nor do we know if there are home bias differences across investors.

In this study, I provide evidence of home bias in the foreign direct investment decisions of acquiring firms in merger and acquisition activities (M&A). In doing so, I draw upon a large sample of developed and developing countries from a contemporary statistical database. My research examines home bias from the market integration perspective. The notion of home bias is related to the degree of financial integration; home bias should disappear when financial markets are perfectly integrated. A comparison of the relative *controlling acquisition premiums* paid for domestic acquisitions, acquisitions of foreign firms that have subsidiaries or operations in the acquirer's home market, and acquisitions of foreign firm's without a presence in the acquirer's home market provides evidence of home bias in merger and acquisition activities and, therefore, a lack of evidence of market integration.

Control Premiums: Evidence Against Market Integration

If investors hold the optimal portfolio and effectively hedge risks, the resources are allocated to their most effective use. If not, then what are the explanations for these inefficiencies and what is the interpretation and implication of these explanations on the behavior of the global economy? There is much evidence that, despite the gains from cross-border diversification, investors overweight domestic stocks in their common stock portfolios – this observation that investors hold too little of their wealth in foreign assets has been termed "home bias" - (cf. Chan et al., 2005, French and Poterba, 1991), which holds true also for corporate bonds (Portes et al., 2001). Home biases exist in trade and in aggregate investments (McCallum, 1995, Nitsch, 2000, Feldstein and Horioka, 1980, Obstfeld and Rogoff, 2000), in companies that pursue foreign direct investments – i.e., international mergers and acquisitions - (Shatz and Venables, 2000, Berger et al., 2004), and even in domestic geographically proximate transactions (Coval and Moskowitz, 1999). The existence of the home bias is the least controversial stylized fact in international finance (Dahlquist et al., 2003).

However, a home bias "puzzle" exists in the international finance literature. We do not know the root cause of home bias, nor do we know if there are home bias differences across investors. There have been many explanations for the home bias phenomenon and equally prevalent empirical evidence. Informational advantages have been identified as main drivers of the international home bias (Gehrig, 1993, Dvořák, 2005, Ahearne et al., 2004, Strong and Xu, 2003, Chan et al., 2005). Lower credibility of the financial information (Covrig et al., 2006) and differential corporate governance systems

(Dahlquist et al., 2003) are potential sources of this home bias. Geographical proximity also explains investing decisions of firms internationally (Pagano et al., 2002, Sarkissian and Schill, 2004). Earlier, Stulz (1981) developed the international capital flow barrier theory and Adler and Dumas (1983) and Uppal (1993) derived models from the standpoint of purchasing power parity to explain how investors prefer domestic securities to hedge against inflation. More recently, the research on market liquidity has been associated with the home bias literature (Kang, 2005). Other factors explaining the choice of foreign market are the country's stock market development and demographic characteristics such as cultural backgrounds and spoken languages (Dahlquist et al., 2003, Grinblatt and Keloharju, 2001).

In this study, I explore home bias in the foreign direct investment decisions of acquiring firms in merger and acquisition activities. The existing literature on cross-border takeovers in the home bias context has to date largely focused on proximate factors, e.g., companies that pursue foreign direct investments generally prefer host countries that are close to their headquarters (Berger et al., 2004, Shatz and Venables, 2000) or on differences in investor protection along with the rigor of legal enforcement standards (Lins, 2003, La Porta et al., 2002). I interpret these as evidence for the familiarity hypothesis brought forward by Huberman (2001). Missing in the extant research are studies of acquisition activity within other aforementioned hypotheses, i.e., Stultz's (1981) barriers to international capital flows, Merton's (1987) investor recognition hypothesis, or Serrat's (2001) nontradability of goods across international boundaries. My paper attempts to at least partially fill this gap in the literature. I am motivated to

study this phenomenon because important inferences pertaining to valuation issues and its relationship to the issue of capital market integration and segmentation can be drawn from the behavior of cross-border acquisitions.

My proposed research examines home bias from the market integration perspective (cf. Chen and Knez, 1995). The notion of home bias is related to the degree of financial integration; home bias should disappear when financial markets are perfectly integrated. By the same token, the presence of home bias reveals a lack of integration. As capital markets become more integrated companies are able to carry out acquisitions across national boundaries more easily so that cross-border acquisition activity intensifies relative to domestic acquisition activity. Similarly, financial markets are integrated when the law of one price holds. This states that assets generating identical cash flows command the same return, irrespective of the market (cf. Bekaert and Harvey, 1995, and references therein). A pre-requisite for measuring financial market integration is the identification of assets generating identical cash flows. Lacking this, one might consider slightly different assets, provided it is possible to control for the differences in the risk associated with their cash flows. If one fails to identify identical assets, or does not correct appropriately for their risk differences, one will conclude that financial markets are segmented even when they are in fact integrated. This highlights the crucial role of measurement issues for the problem at hand.

The first hypothesis test I propose is concerned with a differences of means comparison of the relative acquisition premiums paid for domestic acquisitions, acquisitions of

foreign firms that have subsidiaries or operations in the acquirer's home market, and acquisitions of foreign firm's without a presence in the acquirer's home market. The second hypothesis test I propose consists of a regression to examine the relative acquisition premiums and controls for factors that are identified in previous studies and have the theoretical support to be associated with acquisition premiums. Statistically significant differences among the relative acquisition premiums would be a negative indicator of financial market integration while providing additional evidence on the determinants or non-determinants of acquisition premiums.

Determining the existence of home bias in cross-border acquisitions is additionally important as the majority of aggregate FDI flows are created through cross-border merger and acquisition activity (Kang and Johansson, 2001). Inflows of foreign direct investment (FDI) were substantial in 2005. They rose by 29% – to reach $916 billion – having already increased by 27% in 2004; global FDI outflows amounted to $779 Billion (UNCTAD, 2006). Cross-border mergers and acquisitions, especially those involving companies in developed countries, have spurred the recent increases in FDI. The value of cross-border acquisitions rose by 88% over 2004, to $716 billion, and the number of deals rose by 20%, to 6,134 (UNCTAD, 2006). On average 72 percent of all FDI take place in the form of ,'brown-field' FDI, i.e. mergers and acquisitions. Between developed countries this figures reaches 84 percent and into developing countries 41 percent (UNCTAD, 2003). Given the increasing importance of multinational firms and international acquisitions, whether there is a tendency for multinational firms to favor

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investments within the country where it has its domicile over investments in other countries where it also has production facilities has potentially important consequences.

My research contributes to the existing literature in several significant ways. First, my research represents the first study to examine whether acquiring firms pay higher relative premiums for firms that have presence in their home country than those that do not – an overarching valuation question. Second, it contributes to the literature on market integration. My contribution utilizes a methodology that allows for a differing acquisition level across countries, which may depend on country-specific factors. My research question revolves around the point that there may (or may not) be home bias in foreign merger and acquisition based decisions. In doing so, it draws upon a large sample of developed and developing countries, as well as a new statistical database that, to my knowledge, has not yet been used in empirical studies of cross-border acquisitions.

Excellent data on acquisition premiums exists in the Mergerstat database which is a high content and potentially complete listing of international controlling acquisition data. This source classifies each acquisition by location - both the buyer and target country are noted. Different from other such data sources, this source provides information on the value of the acquisitions. Only mergers or new acquisitions assuring majority ownership are included; acquisitions that increment existing minority ownership percentages are excluded. Data from January 1998 through December 2006 covers over 5,000 completed acquisitions of public company takeovers. Approximately 58% of the transactions represent U.S. based companies, with the remainder being international companies.

The paper proceeds as follows. The next section provides a select overview of the relevant literature. This is followed by a description of the cross-border acquisition data utilized in this study. I then present the models to be estimated. The statistical results are presented and evaluated. The final section will offer a summary and conclusions.

Theoretical Background

Three streams of literature form the building blocks for this study. The review starts with the literature examining home bias in foreign direct investments. The discussion then turns to the research on motives for and wealth effects of mergers and acquisitions. Lastly, the literature suggesting that corporate control has a significant value helps explain an acquiring firm's willingness to pay a premium in international acquisition transactions.

Home bias in foreign direct investments

Home biases exist in companies that pursue foreign direct investments. John Dunning's (1971) OLI framework offers the paradigmatic theory of the multinational firm's investment decisions, where firms invest internationally for reasons of ownership, location, and internalization. Closely related to Dunning's work, other scholars have developed a number of theoretical models to explain firms' decisions to invest abroad. These models can be roughly classified as theories based on "vertical" firms, "horizontal" firms, and the "knowledge capital model" of multinational firms. Teece (1986) applies the Transaction Costs theory to MNEs and identifies horizontally integrated MNEs and vertically integrated MNEs. Vertical firms separate activities by the level of capital

intensity, producing different goods and services at different physical locations (Helpman 1984). Although an important contribution to the understanding of multinationals' investment decisions, theories based on vertical multinationals fail to account for the existence of firms replicating the production of the same goods and services in different physical locations. Markusen (1984) explains this pattern of replicating production by creating a model of "horizontal firms" with firm-level economies of scale that integrate horizontally across national borders. Markusen's (1997) knowledge-capital model weaves these horizontal models into the existing vertical models of multinational firms. In this framework, multinational firms can produce the same product or service in multiple locations (horizontal) or geographically separate their firm's headquarters from the production location (vertical). Horizontal FDI is usually seen as substituting for exports; the higher the transport costs, increasing with distance, the less economically viable the export and the more horizontal FDI could be expected. Thus, horizontal FDI should increase with distance. Problematic is the issue that most data on FDI does not classify it as horizontal or vertical and is usually a mix of horizontal and vertical FDI (IADB, 2006). Regardless, in empirical studies, the evidence shows that companies pursuing foreign direct investments, mostly international M&A, generally prefer host countries that are close to their headquarters (Shatz and Venables, 2000, Berger et al., 2004), thus, evidence of market segmentation.

There is mixed theoretical evidence for the propensity of firms to locate foreign direct investments (FDI) in proximate countries. The existing literature on cross-border M&As has to date largely focused on product and factor market imperfections (Errunza and

Senbet, 1981, Williamson, 1975), asymmetries in capital markets (Scholes and Wolfson, 1990, Froot and Stein, 1991), and/or deal-specific variables discussed in the single-countries, traditional merger literature (Jensen and Ruback, 1983, Pautler, 2003). Several researchers address the problem which exists in examining a home bias in M&A transactions because of the fact that most economic activity is far from evenly distributed in space but clustered in a few areas. A bias in equity holdings usually is measured by comparing an observed portfolio with the market portfolio and computing the respective distances. Looking at M&A transactions, there is no obvious portfolio but only one observed deal and there is no market portfolio – so how to analyze whether there is a tendency for firms to merge with other firms close by? Grote and Umber (2006) construct a hypothetical portfolio of potential targets for each subject transaction and compare the average distance to this portfolio with the distance to the subject transaction. They show that in domestic transactions there is a strong preference for local mergers and acquisitions, even when controlling for a variety of other characteristics. Moreover, they conclude that the observable home bias in M&A deals is relevant for judging the achieved degree of integration of capital markets.

Motivations and wealth effects of mergers and acquisitions

There are two broad streams in the literature on mergers and acquisitions. The first stream investigates the motives for undertaking acquisitions. The mergers and acquisitions literature suggests that there are three main motivations for acquisitions. The first motivation is the creation of synergies so that the value of a new combined entity exceeds the sum of its previously separate components. The second motivation arises due

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to agency conflicts between managers and shareholders. Jensen and Ruback (1983) suggest that managers may rationally pursue their own objectives at the expense of shareholders' interests and shareholders have both the incentives and the means to restrain the self-serving behavior of managers. Finally, the third motivation for takeovers is managerial hubris (Roll, 1986). Roll's hubris hypothesis suggests that managers of acquiring firms make valuation errors because they are too optimistic about the potential synergies in a proposed takeover. As a result, they overbid for target firms to the detriment of their stockholders.

The second stream investigates the wealth effects of acquisitions. If managers act to maximize shareholders' wealth, then an acquisition can be seen as adding value to both target and acquirer through the creation of synergies that are expected to produce economic gains and hence increase wealth. However, there is a consensus amongst empirical studies that acquisitions are value enhancing for stockholders in target firms but on average are at best value-neutral for stockholders in acquiring firms. In their survey of US evidence, Andrade, Mtichell et al. (2001a) find a positive abnormal return of 16% to targets that is remarkably consistent over time, and a negative, but insignificant abnormal return to acquirers. Walter and da Silva Rosa (2004) survey the Australian evidence and report similar conclusions.

Several explanations have been offered for this disappointing outcome for acquirers. If the market for potential targets is sufficiently competitive, then the benefit of a proposed acquisition should be neutralized, leading to a mean return of zero for acquirers (Holl and

Pickering, 1988). However, the negative return to stockholders in acquiring firms could be explained by agency costs: the managers of acquiring firms pursue personal objectives instead of maximizing shareholder wealth (Morck et al., 1990). For instance, managers often expand their firm beyond it optimal size and overpay for rapidly growing firms (Schleifer and Vishny, 1989). Such managerial behavior is rational but not in the interests of the stockholders. Alternatively, the negative return to acquiring stockholders may be explained by hubris or overconfidence on the part of the CEO of the acquiring firm (Roll, 1986). This explanation suggests that the CEO may sincerely believe that a merger is in the best interests of the stockholders but that this belief is not rationally based.

Thus, rational responses to agency costs and non-rational managerial hubris are the two main theories that have been suggested to explain the wealth effects in mergers and acquisitions. Additionally, finance theory states that the market value of a firm is an unbiased estimate of value - the share market prices and the capital market rates of return estimated from these will be unbiased estimates of the future benefits arising as a result of takeovers (Fox et al., 2003, Jensen, 1969). Yet, on average, firms acquire other firms at substantial premiums over market value (Saunders, 1998). Agency costs and/or managerial hubris may also be more likely in the case of diversifying acquisitions. Scharfstein and Stein (2000) suggest that there may be increased agency costs in diversified firms. Findings on the diversification discount have recently been the subject of a debate that has been well summarized in Martin and Sayrak (2003). Diversifying acquisitions have, therefore, been linked to the existence of agency costs as diversification may benefit managers (Morck et al. 1990). Morck et al. (1990) find that a

significant negative abnormal return accrues to bidding firms upon the announcement of a diversifying acquisition.

Concept of Control and the Acquisition Premium

The existing literature on this subject offers a variety of explanations for the premium a firm is willing to pay to acquire another firm. Existing explanations offer acquisition premiums as a function of the gains from acquisition, bargaining power of the target and the acquirer, agency costs, managerial hubris, and overvaluation (Walkling and Edmister, 1985a, Comment and Schwert, 1995, Travlos, 1987a, Roll, 1986, Varaiya and Ferris, 1987, Holl and Kyriazis, 1997).

Researchers have investigated the logic behind the nature and importance of control in the firm for several decades. Coase's seminal article, "The Nature of the Firm" (1937), provides a description of how firm authority is allocated and the interactions between owners and managers. Berle and Means, "The Modern Corporation and Private Property" (1968, reprinted from 1933) emphasized the separation of ownership and control may lead managers to pursue their own objectives at the owner' expense. Other classic articles addressing the central issue about the separation of ownership and control address: incomplete contracts and the risk for opportunism (Williamson, 1975, Klein et al., 1978); the integration decision between entities owned and managed by the same person, the property rights approach (Grossman and Oliver, 1986, Hart and Moore, 1990); the observation that internal capital markets provide greater monitoring incentives than an external capital market (Alchian and Demsetz, 1972, Mirrlees, 1976); and that ownership

and capital structures can mitigate these agency costs (Jensen and Ruback, 1983, Holmstrom, 1979). Much of the subsequent theoretical literature builds on Jensen and Meckling's insight by spelling out different kinds of agency costs and other mechanisms by which such agency costs can be mitigated (cf. Fama 1980; Fama and Jensen 1983).

In sum, this research shows how the separation of ownership and control lead to significant agency costs. Based on this paradigm, corporate control has significant value (Stultz et al., 1990, Nathan and O'Keefe, 1989) and this value has been empirically observed when a firm exhibiting a separation of ownership and control, e.g., a widely-held and therefore diffuse ownership undergoes a change-of-control transaction, e.g., an acquisition or leveraged buyout (Finnerty and Douglas, 2004, Walkling and Edmister, 1985a, Slusky and Caves, 1991). The most common valuation premiums and discounts relate to the degree of ownership control, or the lack of it (i.e., non-controlling ownership interest status), and in the valuation literature these premiums are generally referred to as control premiums.

The concept of control premium indicates that some shares are more equal than others. Saunders (1998) provides various reasons for the existence of a control premium: stockholders with a controlling interest in a company can determine the nature of the business. They can select management, enter into contracts buy, sell, and pledge assets, borrow money, issue and repurchase stock, register stock for public offerings, and liquidate, sell, or merge the company. The controlling party can also set management compensation and perquisites, declare (or not declare) dividends, make capital

distributions, and control contracts and payments to third parties. In privately held

companies the ability to set compensation is critical, for owner/managers frequently

distribute proceeds as compensation rather than dividends in order to avoid double

taxation. Minority stockholders often have minimal influence on these key activities

(Saunders, 1998). A stockholder would only be willing to pay a premium if he or she

believes in the potential of the acquisition to increase the value of the firm. The

percentage of the control premium thus depends on various factors. Saunders' (1998)

study of acquisitions during 1997 showed 487 cases in which purchases of major blocks

of stocks in publicly traded companies commanded a premium. The premiums ranged

from zero to 733% with a median of 27.5% and mean of 35.7%.

The rest of this paper is devoted to the results of an empirical study of acquisition

premiums. The aim is to identify nuances of M&A transactions, and investigate their

relation to home bias practices, in order to illustrate the level of market integration.

Data sources, description, and methodology

Methodology

The research model examines the premiums in acquisitions across multiple countries. In

this model the relative size of the premiums offered by acquiring firms for target firms

from various nations are measured against each other. In other words, among target firms

located in different countries, why are some control premiums higher than others? Can

home bias help explain this?

Home bias is an important predictor of behavior. Recently published articles have

set a research agenda covering the role of home bias in Foreign Direct Investment (Head

2005) and the impact of national differences on outsourcing (Gurung and Edmund, 2006). The importance of home bias sensitivity has also been studied in joint ventures (Luo, 2005) and in various industries, e.g., accounting (Parboteeah et al., 2005), and pharmaceuticals (Howell, 2004). The model presented in this paper hypothesizes that the location of acquiring and target firm affects the willingness to offer acquisition premiums. The first hypothesis test I propose is concerned with a differences of means comparison of the relative acquisition premiums paid for domestic acquisitions, acquisitions of foreign firms that have subsidiaries or operations in the acquirer's home market, and acquisitions of foreign firm's without a presence in the acquirer's home market. The second hypothesis test I propose consists of a regression to examine the relative acquisition premiums and controls for factors that are identified in previous studies and have the theoretical support to be associated with acquisition premiums. The model is consistent with prior merger and acquisitions research: corporate acquirer versus passive investor (Bradley and Korn, 1979); financial determinants of bid premiums (Walkling and Edmister, 1985b); wealth effects of corporate acquisitions (Datta et al., 1992); and corporate takeover bids and methods (Travlos, 1987b).

Data analysis

Control premium data from January 1998 through December 2006 comes from the Mergerstat/Control Premium database. A control premium is the premium that one pays to gain control of the company and this reflects the substantial influence the shareholder exerts over the company. This influence enhances the buyers' ability to alter management, change dividend policies, or streamline operations. Minority shareholders

usually have little authority over business decisions and this lack of control may allow for a discount to be applied when valuing their interests. The control premium in the Mergerstat/Control Premium database is computed by comparing the per share total consideration price for one share of the target company's common stock to the unaffected price. This pre-announcement price is selected by Mergerstat and based on volume and price fluctuations during the period prior to the acquisition announcement (Pratt, 2006).

The Mergerstat/Control Premium study covers 4,855 completed acquisitions of public company takeovers. The data are gathered from multiple countries' national stock exchange filings (e.g., NYSE, TSE, FTSE, SEHK). The criteria for inclusion are that the acquirer ends up with over 50 percent of the voting equity and the deal value is over $1 million. Approximately 58% of the transactions represent U.S. based acquiring companies, with the remainder being non-U.S. based companies. The study contains over 690 deals in business services, over 620 deals on depository institutions, and 165 deals in the communications industry. 52% of the deals in the database have net sales less than $100 million, with the remainder having net sales greater than $100 million. Prior to performing the analyses, I ensured that the basic assumptions of analysis of variance (ANOVA) and regression analysis were satisfied. Tables I-II contain descriptive statistics for my study.

[Table I about here]

[Table II about here]

I use two different model specifications to differentiate between the levels of acquisition premiums. I am particularly interested in the effects of the location of the target company operations, (i.e., domestic acquisitions, acquisitions of foreign firms that have subsidiaries or operations in the acquirer's home market, and acquisitions of foreign firm's without a presence in the acquirer's home market) on acquisition premiums. I use dummy variables to capture this unique aspect of the target company operations. To examine the mean differences in acquisition premiums between target company locations, analysis of variance (ANOVA) tests to determine the statistical significance of observed mean differences, were conducted.

I also examined the correlations between control premiums and target firm market value, target size, deal value, deal size, and earnings. These variables, along with the control variables of interest, were included in a round of hierarchical regressions. Having done that, I then conducted post hoc tests to examine whether statistically significant differences exist among industries.

Results

The one-way ANOVA for the acquisition premium data is shown in Table III. I have very strong evidence against the null hypothesis of no difference in average level of control premium across the location of target firm operations. The control premium clearly changes with the change in location. ANOVA assumes a level of equality of variance; I therefore include a test of the equality of variance assumption, which indicates this assumption is not violated. The standard deviation and standard error statistics confirm that location of target firm operations indicate differences in control premiums.

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The significant F-tests in the ANOVA tables (p<0.01) allow us to reject the hypotheses that the average control premiums are equal. Therefore the Mergerstat/Control Premium Study data provide support for my theoretical arguments that home bias may account for the relative differences of control premium offerings, confirming my first hypothesis in the research model.

Although the location dimension of the target firm remained significant, the results of my second hypothesis test did not support the expectations developed from existing literature. Controlling for factors identified in previous studies and having theoretical support to be associated with acquisition premiums did not provide a statistically significant result. The explanatory power of the total model - including target firm market value, target size, deal value, deal size, and earnings - was not strong (r^2=.17). I suggest one of a possible number of explanations for this result.

[Table III about here]

[Table IV about here]

Tax benefits have been analyzed as a potential explanation for acquisition activities. Accounting standards and tax laws are an important predictor of corporate behavior. Recently published articles have researched the impact of the adoption of accounting changes (cf. Colley et al., 2006) and the economic affects of compliance with accounting changes (cf. Hall and Gaetanos, 2006). The sample period examined in this paper includes the accounting change imposed by SFAS 141 which has been hypothesized to affect the willingness of firms to offer control premiums. However, the empirical evidence on the tax explanation of acquisitions is not compelling. A few

academic studies have analyzed the impact of tax incentives for mergers but find little

support for the hypothesis that tax changes have a significant effect on takeover activity.

Romano's (1992) review of the literature on tax incentives for mergers and a related

study by Breen (1987) found little evidence that tax policy affected the pattern of

acquisitions. Even the tax affect of the Tax Reform Act of 1986 was solely reflected in

the timing of acquisitions, but not in the long-run number of mergers. Furthermore, tax

advantages can be exploited without the necessity of undertaking an acquisition (Gilson

et al., 1988, Andrade et al., 2001b). Consequently, the tax explanation of acquisitions and

the effects of tax law and accounting changes (e.g., SFAS 141) may or may not be

significant. As U.S. based acquiring firms predominate in the sample, further analysis of

this exogenous event was conducted. I hypothesized that the control premium decreases

after SFAS 141 due to the restriction of accounting for the transaction with the purchase

method. This was not supported. Rather, my results confirmed previous research on the

immunity of M&A activity to exogenous events such as changes to the federal tax law.

Post Hoc Analysis: Tests for Industry Differences

My original research question focused on the impact of the location of target firm

operations on the relative level of acquisition control premiums. However, once the

results from the second hypothesis did not support the expectations drawn from existing

literature, I decided to explore whether the industry classification of the acquiring firm

impacts the relative levels of control premiums.

I used multiple regression analysis to test the effects of industry. Regressions

were run at the 2-digit and 3-digit hierarchical NAICS classification level. The results

show that for all industry classifications, except one, the levels of control premiums were

not significantly different. The banking and financial intermediary industry (i.e., NAICS 522 - Credit Intermediation and Related Activities) is the anomaly. The difference in control premiums is significant at $p < 0.05$ but in the opposite direction hypothesized. As stated above, my hypothesis implies that the relative level of acquisition premiums should increase with the existence of home bias. Therefore, I expect the coefficients of the domestic target industry variables to be positive. These results are presented in Table V.

[Table V about here]

Discussion and Conclusion

Contributions

First, I provide evidence of home bias in the foreign direct investment decisions of acquiring firms in merger and acquisition activities. Important inferences pertaining to the issue of capital market integration and segmentation can be drawn from the behavior of cross-border acquisitions documented in this study. As indicated in my results, target firm location impacts the control premiums offered in acquisition transactions. These conclusions are important as corporate control accounts for a significant portion of a firm's value and the value of corporate control is embodied in the control premium. This topic has been addressed in both the strategic management and the financial economics literature. The strategic management perspective emphasizes factors of management control, e.g., mode, method, and form, in determining the economic value created in a merger or acquisition. The financial economics perspective states that the total economic value and its partitioning between acquirer and target are determined by market characteristics. While the two have different frames of reference and emphasize different

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determinants, they do not address the question of market integration or the influence of location - national, cultural, or geographic.

Second, my results confirm and extend previous research on the immunity and resilience of the level of acquisition activity to exogenous events. SFAS 141 did not impact the control premiums offered in acquisition (change-of-control) transactions. Several efforts were made to discourage takeovers through the U.S. federal income tax laws in the late 1980s but these did not affect the long-run level of acquisition activity. In this study, the accounting changes contained in SFAS 141 showed no effect in the levels of control premiums offered in acquisitions for the period 1998 through 2006.

Finally, this study used control premium data from January 1998 through December 2006 from the Mergerstat/Control Premium database. The data covers 4,855 completed transactions of public company takeovers. The purpose of this database is to aid analysts in pricing and structuring merger and acquisition transactions: the idea behind using transaction databases like this is to relate the price paid in other transactions to the transaction under consideration. To the best of my knowledge, this database has not been analyzed by the method described in this study – a comparison of the relative acquisition premiums paid for domestic acquisitions, acquisitions of foreign firms that have subsidiaries or operations in the acquirer's home market, and acquisitions of foreign firm's without a presence in the acquirer's home market..

Practical and policy implications

Mergers and acquisitions form a complex market and the complexity is increasing. *Practitioners* need to consider the many factors that influence merger and acquisition transactions. Awareness of their own, and others', behaviors, may enable the

development of better acquisition strategies. Equally as important as this environment is to the practitioner, the observable home bias in M&A deals is relevant for judging the achieved degree of integration of capital markets. Knowing the determinants of acquisition behavior may help *policymakers* enhance the effectiveness of investment related trade measures and especially domestic anti-trust (e.g., merger) policies.

Limitations and future research

Although I did not find any significant correlation between control premiums and target market value, target size, deal value, deal size, and earnings, other moderating variables may exist. Variables to consider can include consideration (method of payment), attitude (friendly, neutral, or hostile), form of the acquisition (acquisition, tender offer, MBO, going private), and purpose (conglomerate, financial, vertical, or horizontal). For instance, my post hoc analysis of industry sector suggests that control premiums in the banking industry may be trending upward over the sample period. Over the last several decades, the deregulation movement in the U.S. has removed many of the competitive restraints in the banking industry (Streeter, 2006). In doing so, it has established conditions for a substantial intensification of competition. Future research may examine the relationship of control premiums, bank merger policy, the impact of merger policy on banking structure, and competitive issues that are raised as a result.

Future studies can extend this research in additional ways. Previous studies have been classified into three broad categories: segmented markets, integrated markets, and partially segmented markets (Bekaert and Harvey, 1995). The disadvantage of these studies is that the degree of segmentation is fixed through time. This runs counter to the intuition that some markets have become more integrated through time. Future research

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can utilize a methodology that allows one to examine whether the degree of market integration has changed through time.

While my research did not find a significant difference in control premiums between the two periods of pre- and post-SFAS141, many relevant refinements and extensions beckon. For example, evidence was found of a greater volatility in control premiums after SFAS 141 implementation. Perhaps different interpretations of the meaning of SFAS 141 and it contemporaneous standard SFAS 142 can generate hypotheses to explain this phenomenon.

Conclusions

I empirically investigated the impact of target firm location on the willingness of an acquiring firm to offer a premium for a controlling acquisition of a target firm. By doing so, I obtained evidence of home bias in merger and acquisition activities and, therefore, a lack of evidence of market integration. Therefore the Mergerstat/Control Premium Study data provide support for my theoretical arguments that home bias may account for the relative differences of control premium offerings, confirming my first hypothesis in the research model. Lack of support for my second hypothesis – that statistically significant differences among the relative acquisition premiums acquisition premiums, controlling for factors that are identified in previous studies and have the theoretical support to be associated with acquisition premiums, would be a negative indicator of financial market integration – and no evidence of a change in a firm's willingness to pay a control premium after SFAS 141 implementation, demonstrates the need to consider specific dimensions, like synergy gains, reduction in agency costs, and even value-maximizing expropriation, in explaining merger and acquisition strategies. A

variety of arguments concerning the causes of M&A transactions remain to be

investigated. These motivations may be particularly important for practitioners and

policymakers.

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Table I.
Mergerstat/Control Premium Study
Descriptive Statistics

Statistic	Count	Range	Mean	Std. Dev.
Effective Date	4855	1/5/1998 - 12/31/2006	N/A	N/A
Mergerstat Control Premium	4855	-0.98 - 7.31	0.339	0.536
Net Sales LTM (USD millions)	4855	$0 - $174,332	$765	3973.58
EBITDA CashFlow LTM (USD millions)	4838	($6,464) - $39,299	$157	995.42
Deal Value (USD millions)	4855	$0.0 - $116,705	$1,033	4662.33
Price/Sales	4498	0.000 - 10.051	1.983	1.878
Price/Income	2690	0.006 - 39.89	18.069	8.790
Price/Book Value	4109	0.001 - 9.957	2.508	1.929
Target Invested Capital/EBIT	2099	0.02 - 34.81	14.07	7.07
Target Invested Capital/EBITDA	2345	0.01 - 24.80	9.65	5.03

Table II.
Descriptive Statistics for the Country Location of Firms.

Location of Acquirer Firm	Frequency	Percent	Frequency of Foreign Target Firm	Percent
United States	2692	55.4%	1109	41.20%
England	426	8.8%	105	24.65%
Canada	417	8.6%	100	23.98%
Japan	180	3.7%	19	10.56%
France	114	2.3%	69	60.53%
Australia	113	2.3%	20	17.70%
Germany	100	2.1%	70	70.00%
Sweden	80	1.6%	37	46.25%
Netherlands	67	1.4%	52	77.61%
Italy	55	1.1%	27	49.09%
South Africa	50	1.0%	13	26.00%
United Kingdom	42	.9%	20	47.62%
Switzerland	42	.9%	35	83.33%
Spain	32	.7%	19	59.38%
Denmark	32	.7%	13	40.63%
Norway	32	.7%	11	34.38%
Singapore	29	.6%	14	48.28%
Hong Kong	28	.6%	5	17.86%
Belgium	27	.6%	18	66.67%
Greece	25	.5%	5	20.00%
Ireland	25	.5%	18	72.00%
Bermuda	24	.5%	23	95.83%
Finland	22	.5%	13	59.09%
Taiwan	20	.4%	4	20.00%
India	15	.3%	5	33.33%
Malaysia	13	.3%	2	15.38%
Scotland	13	.3%	12	92.31%
Israel	12	.2%	7	58.33%
China	11	.2%	4	36.36%
Mexico	9	.2%	6	66.67%
South Korea	9	.2%	0	0.00%
Austria	8	.2%	5	
Iceland	7	.1%	3	
Portugal	7	.1%	1	
British Virgin Islands	7	.1%	5	
Thailand	7	.1%	1	
Philippines	6	.1%	1	
New Zealand	5	.1%	2	
Poland	5	.1%	0	
Russia	4	.1%	4	
Bahrain	4	.1%	4	

Indonesia	3	.1%	2
Hungary	3	.1%	0
Chile	3	.1%	0
Other	30	.6%	13
Total	**4855**	**100.0%**	

Table III.
ANOVA and regression results on the differences in relative control premiums.

Target Firm Location Dimension	F-value	N	Mean	Std. Dev.	β	*t*
Domestic	8.81[a]	3366	.2941	.5031	.107	2.968[a]
Foreign	17.234[a]	1109	.2603	.4814	-.201	-4.151[a]
Foreign with Domestic Subsidiary	10.029[a]	380	.3201	.6553	.115	3.224[a]

[a] $p < 0.01$.

Table IV.
Regression Results for Variables (Dependent Variable = Control Premium)

	Beta	Sig. (t)
Domestic (D)	**.166**	**(9.041)[a]**
Foreign (F)	**.024**	**(1.139)**
Foreign w/ Domestic Subsidiary (FDS)	**.141**	**(13.680)[a]**
Net Sales LTM	**-.008**	**.703 (-.381)**
EBITDA LTM	**-.034**	**.094 (-1.675)**
BV Target Common Equity	**-.031**	**.127 (-1.528)**
Total Implied MVE	**-.002**	**.930 (-.088)**
Book Value per Share	**-.010**	**.614 (-.505)**
Common Shares Outstanding	**-.005**	**.799 (-.255)**
Net Profit Margin	**.018**	**.375 (.887)**
Adjusted R^2		**.17**
***F*-Statistic**		**24.632**

[a] **Denotes significance at the 1% level.**

Table V.
Regression Results by Industry

NAICS Code	NAICS Title	Coefficient (*t*-statistic)
11	Agriculture, Forestry, Fishing and Hunting	-.351 (-.729)
21	Mining	-.175 (-1.522)
22	Utilities	.120 (1.049)
23	Construction	-.046 (-.130)
31	Food Manufacturing	-.212 (-1.530)
32	Non Metallic Manufacturing	.079 (.930)
33	Primary Manufacturing	-.092 (-1.874)
42	Wholesale Trade	-.065 (-.341)
44-45	Retail Trade	-.079 (-.765)
48-49	Transportation and Warehousing	.176 (.651)
51	Information	.067 (.842)
52	Finance and Insurance	-.065 (-2.197)**
522	Credit Intermediation and Related Activities	-.077 (-2.373)**
5221	Depository Credit Intermediation	-.070 (-2.124)**
5222	Nondepository Credit Intermediation	-.459 (-2.538)**
5223	Activities Related to Credit Intermediation	-.220 (-1.386)
53	Real Estate and Rental and Leasing	.328 (1.723)
54	Professional, Scientific, and Technical Services	.170 (1.699)
56	Administrative and Support and Waste Management and Remediation Services	.902 (1.674)
61	Educational Services	-.050 (-.152)
62	Health Care and Social Assistance	-.105 (-.523)
71	Arts, Entertainment, and Recreation	.419 (.488)
72	Accommodation and Food Services	-.024 (-.107)

**. Denotes significance at the 5% level.