

# **The Geography of M&A: Contours and Causes**

**Cheol S. Eun**

College of Management  
Georgia Institute of Technology  
Atlanta, GA 30332-0520, USA  
Ph: 404-894-4906  
E-mail: [cheol.eun@mgt.gatech.edu](mailto:cheol.eun@mgt.gatech.edu)

**Swastika Mukherjee**

College of Management  
Georgia Institute of Technology  
Atlanta, GA 30332-0520, USA  
Ph: 404-931-2358  
E-mail: [swastika.mukherjee@mgt.gatech.edu](mailto:swastika.mukherjee@mgt.gatech.edu)

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# The Geography of M&A: Contours and Causes

CHEOL S. EUN and SWASTIKA MUKHERJEE\*

## DETAILED ABSTRACT

Given that portfolio investors exhibit a strong home bias, internationally as well as domestically, one may raise a parallel but distinct question: Do corporations also exhibit a home bias in their investment decisions? In this paper, we address this question by focusing on U.S. domestic M&A deals. Specifically, we (i) first document the spatial distribution of about 10,300 M&A deals, with a transaction value of \$10 million or higher, announced during the period 1990-2003, and (ii) investigate the factors that drive the observed spatial distribution. We use both the home states and geographical distance between acquirers and targets as observational units. The key findings are: First, about 34% of sample targets are located within a 100 kilometer radius of acquirers' location, with the frequency of deals declining precipitously with distance. Also, a disproportionate number of targets (23.2% on average) are from the home state of acquirers. Thus, corporations are found to exhibit a home bias that is strikingly similar to the behavior of portfolio investors but more compelling in magnitude. Our findings indicate a substantially segmented nature of the domestic market for corporate control. Second, the propensity to acquire in-state targets (i) increases with the size of acquirer's domicile state, reflecting opportunities at home, (ii) decreases with the severity of anti-takeover statutes adopted by acquirer's home state; anti-takeover statutes thus have an unexpected effect of mitigating the home-state bias, thereby helping integrate the market for corporate control, and (iii) decreases with acquirer size but increases with the proportion of debt in the acquirer's capital structure. Results are similar when we use multinomial logistic regression analyses based on geographical distance.

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*“Everything is related to everything else, but near things are more related than distant things.”*

-Waldo Tobler’s “First Law of Geography” (1970)

## **I. Introduction**

The idea that economic activity and geography are inseparable has experienced a renaissance of sorts in the last decade. An increasing number of studies explore the linkages between location of economic agents and its subsequent impact on their behavior. For example, home bias in portfolio holdings is a phenomenon that continues to intrigue financial economists. The existence of home bias has been proven to be independent of definitions of what classifies as “home” to portfolio investors. Initial studies documenting the lack of diversified international portfolios considered home to be within the confines of national boundaries (eg., French and Poterba (1991)). Earlier studies tend to attribute this home bias to the existence of barriers to international investment such as legal restrictions, withholding taxes, etc. What baffles most researchers, however, is the fact that the home bias persists even after formal barriers to international investment have largely been dismantled in recent years. As shown by Chan, Covrig, and Ng (2005), the home bias is not confined to U.S. investors, but is universally exhibited by portfolio investors around the world.

In a significant extension of the literature, more recent studies such as Coval and Moskowitz (1999, 2001) and Grinblatt and Keloharju (2001) document that investors exhibit a home bias even at home. These studies document that even when a much narrower definition of home is considered, i.e. localities and regions within the same country, home bias prevails in portfolio investors. Specifically, Coval and Moskowitz show that U.S. investment managers exhibit a strong preference for locally headquartered firms, particularly small and highly levered firms producing nontraded goods. The authors interpret their findings as suggesting that information advantage of local over non-local investors may be the main driver of the preference for investing in geographically proximate assets. Similarly, in their study of the behavior of Finnish investors, Grinblatt and Keloharju (2001) show that investors are more likely to hold and trade the stocks of Finnish firms that are located close to the investor, communicate in the investor’s

native language, and have chief executives of the same cultural background. The influence of distance, language, and culture, however, is found to be less prominent among more sophisticated institutional investors than among individual investors.

In summary, portfolio investors exhibit a strong home bias whether they invest domestically or internationally. The term “home bias” within the ambit of academic finance has come to broadly represent proximity preference, whether arising out of rational behavior based on information advantage or due to an irrational bias towards the familiar. We continue to use the term home bias in this agnostic sense without implying particular causes. Although a definite accounting is still elusive, the home bias in portfolio holdings is likely to be related to information asymmetry, a cognitive bias towards the familiar as argued by Huberman (2000), and, in the case of international investment, frictions arising from political and monetary segmentation.

In this paper, we raise a parallel but distinct question that reflects on corporate policy: Do firms also exhibit a home bias in their investment decisions? If so, what may be the determinants of home bias in domestic corporate investments, specifically M&A? We hypothesize in this paper that geography may play a role in determining the choice set of potential targets that an acquiring firm considers. Further, we aim to provide insights on some of the factors that drive the contours in M&A activity. Studying domestic M&A deals sidesteps some obvious frictions that are relevant for cross-border M&A, like legal/institutional barriers and political risk, and focuses attention on exploring location factors in investments by making the universe of assets relatively more homogeneous. In the period 1990-2003, domestic M&A activity of publicly traded U.S. firms accounted for more than \$5 trillion in corporate investments, considering deals that were at least \$10 million in value. The total value of transactions more than tripled from 1990 to 2003. Clearly, M&A are an important form of corporate investments and have major implications for the industry, shareholders as well as policy makers. Additionally, there are several other reasons why M&A deals lend themselves to the study of home bias in corporate investment decisions. Acquirers involved in acquisitive activities identify target firms and use their information about the firm in determining the attractiveness of the deal. This situation gives rise to the possibility that

acquirers may have differential information and awareness about potential targets, depending on geographical proximity to the acquirer. Empirical data on M&A deals in the U.S. is also more complete and readily available than data on other types of corporate investment.

We use a large sample of successfully completed domestic M&A deals in the U.S. in order to bear on the questions relating geography to M&A activity. By seeking answers to these questions, we hope to provide insights on the efficiency of corporate decision-making and investments. If acquiring firms limit the scope of search for potential targets to proximate firms, what are the reasons that drive this behavior? Understanding the factors that lead to the final choice of target firm also has an important bearing on the subsequent performance of M&A deals. We take a step back from studies that look at stock price reactions surrounding M&A announcements and long-term stock price performance, using them to conclude about synergistic gains from the deal. In peeling another layer off the evidence found in performance studies, we try to shed light on the issues that may influence deals in the decision-making stage and determine the choice set of target firms. Additionally, by exploring the geographical distribution of domestic M&A deals we draw attention to an important aspect of the market for corporate control, namely, the national versus segmented scope of the M&A market. *A priori*, it is difficult to predict the degree to which geography plays a role in M&A decisions.

To the extent that firms have greater resources and capacity for collecting and processing information than the majority of portfolio investors, firms may not exhibit a significant home bias in their investments if at all. Further, unlike portfolio investors who often need to collect information in a timely fashion to counter efficient markets, firms often face imperfect competition for the investment projects and thus may devote more time to information gathering and analysis before making their investment decisions. For this reason, the influence of information asymmetry can be much less pronounced in corporate investments than in portfolio investments. Also, being an impersonal organization with pecuniary mandates and collective decision-making processes, firms may be less prone to psychological biases than portfolio investors. In other words, geography may not be as important a factor in corporate investments as in portfolio investments.

However, the literature on economic geography, a study of spatial location of economic activity, suggests otherwise. A series of previous studies on the effect of geography on economic activity, such as von Thünen (1826), Marshall (1920), and Krugman (1991), suggest that economic activities may cluster naturally as a result of interactions of transportation costs, market potentials, and technical externalities. Marshall and Krugman similarly argue that there can be spatial boundaries to knowledge spillovers among the firms, as the cost of transmitting knowledge increases with geographical distance. In the same vein, Audretsch and Feldman (2001) document that R&D activities and innovation tend to cluster geographically due to the existence of knowledge externalities. In summary, the literature on economic geography broadly suggests that geographical proximity may play an important role in corporate investment decisions. Since there can be opposite forces influencing the spatial distribution of corporate investments, the question then can only be answered empirically. In this study, we purport to answer this question by focusing on corporate investments in M&A.

While takeovers remain a significant form of corporate investments in the economy, existing literature fails to find substantial gains for acquirers in general. Bruner (2002) surveys the literature on M&A and reviews the findings of 130 studies during the period 1971-2001. In summary, Bruner (2002) states that acquirers fail to benefit from synergies in the deal when short-term stock price reactions are considered, albeit with considerable cross-sectional variations. Numerous studies have sought to find the factors that explain these cross-sectional variations in performance. A majority of studies also find that target firm shareholders earn positive abnormal returns from the deal announcement. While we do not study stock price reactions, our study has potential implications for this literature since we explore various factors that can influence the outcomes of corporate decision-making processes, and ultimately bear on performance and efficiency.

In our study, we examine a sample of about 10,300 U.S. successfully completed domestic M&A deals announced by publicly traded firms during the period 1990-2003. We are mainly concerned with (i) the geographical distribution of the deals, and (ii) the factors driving the observed distribution. We study the distribution pattern of M&A based on two alternative observation units: the states where acquirers

and targets are headquartered and the geographical distance between targets and acquirers. There are several reasons supporting the use of states as primary geographical units in the domestic context. Some of the main reasons are (i) many policy decisions about businesses and law are made at the state level, (ii) M&A activities are regulated mostly by the state, and (iii) states are intuitive geographical categories for economic agents during decision-making. The key findings of our paper are summarized below.

Firstly, our results show that firms exhibit a strong proximity preference in M&A deals, with the frequency of the deals declining sharply as the geographical distance between targets and acquirers increases. Specifically, about 34% of sample targets are located within a 100 kilometer radius from the headquarters of acquiring firms. The convergence of findings from different studies similarly indicating that ‘home’ lies within a 100 kilometer radius seems to suggest that the limited human capacity for managing complex social interactions, information sharing and processing may be at the root of the so-called home bias puzzle. Acquirers invest in targets that are approximately 42% (or 864 km) nearer than the average target in the sample, about five times the 9% (approximately 160 km) bias shown by U.S. mutual fund managers in Coval and Moskowitz (1999). Therefore, firms are found to exhibit proximity preference that is strikingly similar to the well documented behavior of portfolio investors, and is considerably more compelling in magnitude. Some of it may be explained by the clustering of industries where firms from the same industry tend to be located the same region, a factor that does not have an obvious bearing on portfolio investments. However, our empirical tests show that the clustering of M&A is not substantially explained by agglomeration of industries.

Second, when the state is used as an observation unit instead of geographical distance, we again observe a strong home bias in corporate M&A activities – firms tend to acquire a disproportionate number of targets in their home states. On an average, while acquirers choose 23.2% targets in their home state, the benchmark or unbiased sample weight of target firms in a state is 2%. For example, consider acquiring firms headquartered in Wisconsin. While Wisconsin-domiciled targets account for 1.2% of the total number of sample targets during the period 1990-2003, the former accounts for 30.5% of the total acquisitions made by Wisconsin firms during the same period. In addition, Minnesota-

(Illinois-) based targets account for 13.3% (11.7%) of the total acquisitions by Wisconsin firms. Targets based in the three states, i.e., Wisconsin, Illinois, and Minnesota, together account for more than half (55.5%) of the total acquisitions made by Wisconsin-based firms. With Minnesota and Illinois being contiguous to Wisconsin, firms exhibit ‘near-home’ as well as home biases in their M&A decisions. Another striking example of home bias is exhibited by Hawaii-based firms that do 57.1% acquisitions in-state, 28.6% in California and the remaining 14.3% in Washington. Hawaii-based firms did not acquire any targets beyond the West coast during our entire sample period. While Hawaii is exceptional due to its non-continental U.S. state status and relative geographical isolation, it clearly shows that geographical distance matters in corporate investments. The examples of Wisconsin and Hawaii are representative of a wide-spread tendency of acquiring firms to show proximity preference in their M&A investments, and are not explained solely by industry concentration.

Thirdly, in addition to documenting the existence of significant home bias in M&A investments, our study also shows that there is considerable variation in the degree of home bias displayed by acquiring firms. We study some of the factors that may help explain the variations in the degree of home bias. Logistic regression analyses show that the propensity to acquire in-state targets is positively related to the size of the state where the acquiring firm is headquartered, reflecting the opportunities at home. It is noted that during our sample period, California- (North Dakota-) based firms acquired 50.7% (0%) of their targets in-state, reflecting ample (scarce) acquisition opportunities at home. On the other hand, the propensity to acquire in-state is negatively related to the severity of anti-takeover statutes in the home state of the acquirer. Especially, the statutes regarding control shares, number of freeze-out years and poison pill significantly discourage in-state acquisitions. Thus, state-level laws matter in determining where M&A takes place. Considering that home bias, regardless of its causes, tends to reflect segmented markets, anti-takeover statutes can be seen as having an unexpected effect of integrating the market for corporate control by countering the home bias in M&A. Some firm-level factors also help in explaining the degree of proximity preference shown by acquirer. The propensity to acquire in-state is negatively related to the acquirer firm size, and positively related to the leverage. *Ceteris paribus*, publicly-traded

targets are more likely to be acquired by home-state firms than private targets, possibly due to the political resistance to out-of-state takeover of public firms that tend to be more visible and vital to the state economy than private firms. Target firm characteristics are insignificant in explaining home bias in M&A when the acquirer characteristics are accounted for.

In summary, our findings have implications for the study of efficiency of corporate decisions and show the segmented nature of the domestic M&A market. A strong proximity preference in corporate M&A documented in this study implies that the market for corporate control is substantially segmented. To the extent that the home bias is attributable to information asymmetry and cognitive bias for the familiar, rather than industry agglomeration, the resultant segmentation of M&A activities may imply restrictions on the competition for corporate control. This can be perceived as inefficiency in the market for corporate control and is thus detrimental to the optimal deployment of corporate assets at the national level, possibly hurting corporate valuation. We leave more explicit explorations of these issues for future research. Additionally, policy makers interested in attracting capital flows can gain from an understanding of the drivers of firms' investment decisions.

The paper is organized as follows. Section II discusses the data and sample construction used in the study. Section III documents the geographical distribution of M&A deals in the United States and provides evidence on the existence of a strong home bias in acquiring firms. Section IV discusses the variables and hypotheses related to the factors that may affect home bias in acquiring firms. Empirical results are reported in section V. Section VI concludes.

## **II. Data and Sample Selection**

The primary source of our data is Securities Data Corporation (SDC) Platinum's Mergers and Acquisitions (M&A) database. We construct a sample of successfully completed domestic M&A deals in the U.S. that had announcement years during 1990-2003 and use various criteria to select our final dataset. There were 91,274 domestic acquisition announcements by U.S. acquirers during this period. From this sample, we choose M&A deals that have deal value of at least \$10 million, were completed

and where the acquirer owned 100% of the target's shares post-acquisition. This reduces the sample to 25,010 deals. Further, we choose acquiring firms that are publicly traded and targets which have either public or private status, and have 11,885 deals that satisfy these criteria. Finally, we exclude deals involving firms that are from U.S. territories and islands or for which the state in which the firm is headquartered is not known. We exclude U.S. territories and islands from our sample in order to prevent outliers from driving the results. Although we include Alaska and Hawaii in our analysis, the results are not affected by their exclusion. Our final sample consists of 10,379 M&A deals in the U.S. during 1990-2003. The SDC M&A database is our main source of data for deal and firm characteristics.

We supplement the firm-level data provided by SDC with data obtained from Center for Research on Security Prices (CRSP) and COMPUSTAT databases for U.S. publicly traded firms. Monthly stock price and shares outstanding data are obtained from CRSP to compute market value of acquirers in the month prior to the acquisition announcement where available. COMPUSTAT annually updated financial data was used to compute firm book-to-market equity values, leverage, research and development (R&D) expenses and undistributed free cash flows. Similar data for target firms was obtained for the subsample of targets that were publicly traded at the time of the acquisition announcement.

Following existing literature on mergers and acquisitions, we compute relatedness of acquiring and target firms based on matching of 2-digit SIC codes of the firms. If the first 2-digits of a target firm's SIC code exactly matches that of the acquirer, we assign a value of one to a relatedness dummy, and a value of zero otherwise.

Our study uses publicly available economic and geographical data on states provided by the U.S. government. A widely accepted measure of a state's economy is the gross state product (GSP) in current dollars which is obtained from the Bureau of Economic Analysis (BEA), U.S. Department of Commerce (<http://www.bea.doc.gov/>). GSP is defined as the value added in production by the labor and property located in a state. GSP for a state is computed as the aggregated gross state product originating in all industries in a state. BEA prepares GSP estimates for 63 industries and aggregates these industries' GSP

to compute the aggregated state-level Gross State Product. Appendix A summarizes some of the state-level variables used in our study.

Geographical location of firms is obtained by matching target and acquiring firms' city of headquarters with the latitude-longitude co-ordinates provided by the U.S. Geological Survey (USGS). We match the firm cities provided by SDC with their latitudes and longitudes in USGS in order to obtain geographic location of the firms. We then compute the distance between each target 'i' and acquirer 'j' pair by calculating the arc length ' $d_{ij}$ ' as:

$$d_{ij} = \text{arc cos}\{\cos(\text{lat}_i)\cos(\text{long}_i)\cos(\text{lat}_j)\cos(\text{long}_j) + \cos(\text{lat}_i)\sin(\text{long}_i)\cos(\text{lat}_j)\sin(\text{long}_j) + \sin(\text{lat}_i)\sin(\text{lat}_j)\} * 2\pi/360$$

where  $lat$  and  $long$  are the latitudinal and longitudinal coordinates of the target and acquirer headquarters' cities in degrees, and  $r$  is the radius of the earth ( $\approx 6378$  kilometers).

We use several measures of macroeconomic environment to control for the overall business conditions in which the firms were operating at the time of the deal. We choose returns on the S&P 500 composite index, monthly IPO (initial public offerings) activity and interest rate data as macroeconomic variables. CRSP is our source of stock index returns, while the IPO activity data is obtained from Professor Jay Ritter's website (<http://bear.cba.ufl.edu/ritter/ipodata.htm>). The Federal Reserve Board of Governors provides the data on annual average prime interest rate levels, from which we also compute annual change in prime interest rates. We do not consider monthly prime rate fluctuations since the deviations of monthly rates from the annual average in a given year are negligible.

Firms are categorized into industries primarily based on the Global Industry Classification Standard (GICS), a system developed by Morgan Stanley Capital International (MSCI) and Standard and Poor's (S&P). The GICS was created to form globally applicable standard industry classifications. We use dummies to represent the 24 industry groups in GICS<sup>1</sup>. Bhojraj, Lee and Oler (2003) compare the different industry classifications used by financial practitioners and academics. Among the main classifications they consider to be widely used are the (i) SIC, being replaced by the NAIC, (ii) GICS

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<sup>1</sup> More information on the GICS classification can be found at <http://www.msci.com/equity/gics.html>

developed by MSCI and S&P, and (iii) Fama-French (1997) classifications. They find that GICS industry classifications perform better in explaining stock return comovements, R&D expenditures, etc.

### III. Geographical Distribution of M&A

In this section we document geographical patterns in domestic M&A activity and provide evidence on the propensity of M&A to occur in spatial clusters within the United States. We show that a majority of domestic M&A deals thrive within limited geographical spaces, whether we consider raw geographical distance or geopolitically segmented entities like states.

Figure 1 shows a plot of the frequency distribution of M&A deals versus the geographical distance ranges between the target and acquiring firms. Approximately 34% of acquisitions involve targets which are in the local area of the acquiring firm, where local is defined as being within a 100 kilometer radius from the headquarter location of the acquiring firm. Figure 1 illustrates that the frequency of M&A deals with proximate acquirers and targets is much higher than those involving distant firms. The frequency of M&A deals falls precipitously with distance between acquirers and targets, closely resembling a decaying exponential function. The effect of distance on the propensity of M&A deals to occur becomes negligible after approximately 1800 km. Large states like California, New York and Texas are likely to have a high degree of business exchange, which would be reflected in higher geographical distances between acquirers and targets in these states. This fact gets reflected in Figure 1 in the distance ranges 3800-4400 km, where there is a slight increase in frequency of M&A. We also run additional checks with a sub-sample where we exclude acquirers and targets from these four states, but the frequency plot looks very similar to the results for the full sample and we do not report it.

As specific examples to illustrate the phenomenon of proximity preference in M&A, in Figure 2 we present surface maps of the distribution of target firms acquired by companies from two states, namely Wisconsin (Panel A) and Washington (Panel B). As we will demonstrate in the later part of this section, the behavior of Washington and Wisconsin acquirers is typical of firms from most states. Panel A presents a contour map of the geographical frequency distribution of takeovers by Wisconsin acquirers.

It clearly shows that there is a strong proximity preference shown by Wisconsin acquirers in the choice of where to make investments in M&A. The contour peaks are highest in the home state and contiguous states like Illinois and Minnesota, and fall away with distance. Also, representative of several other states in the sample, Wisconsin acquirers venture to acquire in industrially concentrated regions like California, Florida and the Northeast. Panel B presents an equivalent contour map for takeovers by Washington acquirers. We clearly see that Washington acquirers primarily acquire in their home state and nearby states on the West coast, like California and Oregon. The other regions where Washington acquirers show some activity are in Texas, Florida and the Northeast.

The spatial patterns in target firms' locations provide strong evidence that the home state and contiguous states are preferred by acquirers during acquisitive activity, showing a home as well as near-home bias. In order to understand whether the phenomenon of proximity preference universally holds across the spectrum of acquiring firms in the U.S., we study the distribution of M&A activity involving acquirers and targets from all U.S. states.

Table I provides descriptive statistics on the geographical distribution of M&A activity using states as units of observations. The percentage of acquirers and targets by state is an indication of the economic size of a state, reflecting the total number of businesses that operate in the state. Business activity is clearly not distributed uniformly between states and large inequalities are evident. California is by far the biggest state, accounting for approximately 18% of acquirers and 19% of target firms. The period we consider for our sample (1990-2003) includes the years in which California became a hotbed for high-tech start-ups and growth firms, primarily in Silicon Valley. Some of the other states that follow California in accounting for a significant portion of the acquirers and targets in the sample are Texas (8.5% of acquirers, 7.7% of targets), New York (7.8% of acquirers, 6.3% of targets) and Florida (4.1% of acquirers, 5.3% of targets), together having around 20% of the acquirers and 19% of target firms. These three states along with California account for around 40% of both the acquiring and target firms in our sample, indicating that a large fraction of M&A activity within the U.S. involves firms from economically larger states. Interestingly, a balance seems to be maintained for almost all states between

the sample weight of acquiring firms and target firms. There are no instances where a state has a largely disproportionate number of target firms, as compared to home state acquirers and vice versa.

Table I shows that the geographical distribution of M&A deals is not explained solely by the concentration of business activity in certain states like California, Texas, New York and Florida, among a few others. If the geographical distribution was a reflection of industrial and economic concentration, we would expect only the economically progressive states to show a high likelihood of in-state M&A transactions. However, for a vast majority of states, the in-state firms are predominant in acquiring targets located in their state. On average, only about 2% of sample targets are located in a given state but acquiring firms from the state choose in-state targets 23% of the time. For 35 states, the majority of acquisitive activity involving targets from the state was conducted by home state acquirers. The evidence does not support the idea that geographically concentrated M&A will mainly thrive in big states like California.

The geography of M&A documented in Table I also provides evidence that home bias is not restricted only to in-state business transactions. Home bias persists even when we consider “near-home” or neighboring states. The top acquirer and target states for most of the 50 states include either the economically dominant states like California, or proximate states. Several top acquiring states are contiguous with the target state. For example, Georgia and Tennessee acquirers account for approximately 22% of the acquisitions in Alabama. This phenomenon is not restricted to the states in any particular region. Target firms from Iowa in the Midwest have a majority of acquirers from Missouri, Nebraska and Wisconsin, together accounting for 31% of the acquisitions of Iowa firms. A majority (30%) of target firms in Vermont in the Northeast get acquired by out-of-state acquirers from Pennsylvania and Maine. Approximately 26% of Nevada targets in the West region of the U.S. get acquired by out-of-state acquirers from California and Utah, both of which are contiguous to Nevada. Another fact that is apparent from Table I is the importance of California as a center for business activity. California is the predominant exception to the pattern of proximity preference, and the state is a leading hub of M&A activity for a majority of states, irrespective of their geographical distance.

Tables II and III report statistical significance tests based on two alternative measures of home bias. Table II reports our first measure based on the degree to which acquirers overweight their home state targets in M&A, in comparison to the benchmark, or “unbiased”, weight of the state’s potential target firms. The geographical units of observation used in this measure are states. An ideal measure of benchmark weight of a state’s targets would reflect the universe of firms located in the state that are potential targets for an acquirer, relative to the universe of firms in the U.S. However, the benchmark weight of target firms in a state cannot be measured perfectly since the distribution of potential target firms is unknown. We construct two different distributions of benchmark weights that are likely to be good proxies of the distribution of unbiased benchmark weights across states.

The first method of computing benchmark weights uses the distribution across states of all target firms in our sample of consummated M&A deals. In using the full sample of target firms, this measure avoids assumptions about likelihood of inter- versus intra-industry deals, and allows for the possibility that acquirers are as likely to acquire unrelated targets as they are to acquire related targets<sup>2</sup>. The home bias measure is positive and significant for most states. All except seven states have a statistically significant home bias measure based on population weights of sample targets. Excluding Hawaii, the acquirers displaying the highest degree of home bias based on this measure are West Virginia, Montana, Louisiana, Indiana and Oklahoma. Perhaps surprisingly, these are not states which have a high level of business activity, showing that proximity preference is not related solely to acquisition opportunities in the home state. Hawaii is a non-continental state and therefore may have geographically unusual reasons for showing a home bias. On an average, acquiring firms make 23% acquisitions in the home state, as compared to the approximately 2% average sample weight of targets in the state. Therefore, the actual probability of a home state acquisition is more than 11 times higher than the ‘unbiased’ or benchmark probability. The only states which do not show significant home bias are Alaska, Delaware, Idaho, New Mexico, North Dakota, South Dakota and Wyoming. The lack of in-state business opportunities may be causing the absence of home bias in states like Alaska and Idaho. Delaware, on the other hand, is an

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<sup>2</sup> Relatedness of acquirer and target is measured at the 2-digit SIC code level. If the 2-digit SIC codes match between two firms, they are classified as being related, and are otherwise considered unrelated.

outlier in terms of the corporate law regime in the state and while it attracts a majority of incorporations, it does not have many domiciled firms.

The second measure of benchmark weights uses the universe of Compustat firms located in the U.S. While our sample includes domestic M&A involving public and private targets, the Compustat database only includes publicly traded companies. However, the geographical distribution of publicly traded firms within the U.S. is likely to be highly correlated with the overall distribution of companies across states. We compute the second measure of benchmark target weights for states using the distribution of Compustat firms. The results are very similar whether we use the sample of target firms or Compustat firms.

Table III reports the local bias measures based on geographical distance between acquirers and targets, following the methodology of Coval and Moskowitz (1999). For ease of reporting, we use states as units of observation by aggregating acquiring firm bias measures to the corresponding domicile state level. The mean distance of an acquiring firm from all target firms in the sample is computed, and considered the benchmark target distance for that acquirer. The local bias (LB) measures are significant at the 1% or 5% level for most states, except Alaska, Delaware, Idaho, New Mexico, North Dakota, Rhode Island and Wyoming. In terms of significant LB (%) measures, the states showing highest bias (excluding Hawaii) are Vermont, West Virginia, Louisiana and Indiana. Among the states showing least local bias are Massachusetts, Arizona, Minnesota and Colorado. On an average, acquiring firms show a local bias of 864 km while choosing targets, as compared to a bias of approximately 160 km documented for U.S. mutual fund managers in portfolio investments. In other words, actual targets acquired by firms are on an average 864 km ( $\approx$  537 miles) nearer than the benchmark target in the sample. The results using geographical distance to compute local bias are similar to the findings in Table II that use overweighting of home state targets.

We do not use the Compustat population of firms in computing the benchmark distance for the Coval-Moskowitz local bias measure due to the difficulty in acquiring city data on Compustat firms. While the state where the firm is located is reported in the database, the city data is unavailable.

However, from Table II we can conclude that results would be similar for local bias computation whether the sample targets or Compustat population is used for benchmark measures.

An obvious caveat about interpreting the degree of proximity preference as captured by the measures used in Tables II and III is that they do not account for industrial agglomeration. To the extent that acquirers are more likely to seek targets in the same industry, then in presence of industrial clustering, computing benchmark distances between acquirers and targets using the full universe of target firms leads to an overstatement of the benchmark target distance from an acquirer. Consequently, the degree of home bias may be overstated on an average. However, using an industry-adjusted home bias measure would implicitly impose the assumption that acquirers only seek to conduct related deals involving same-industry targets. We conduct robustness checks to uncover whether industrial clustering drives home bias in M&A by examining deals involving acquirers and targets from different industries.

If industrial agglomeration is the primary cause of what is perceived as home bias in M&A, then the subsample of related (i.e., same industry) deals should be driving the findings. In order to verify the robustness of our findings on acquirer home bias, we replicate the measures reported in Table II and III for the subsample of acquisitions that involve acquirers and targets which do not have two-digit matching SIC codes. These deals can be viewed as “conglomerate” acquisitions involving firms from different industries. This includes about 40% of the 10,342 deals in the full sample used in our study.

Appendices B1 and B2 reports the subsample results for unrelated deals where the acquirer and target belong to different industries. *A priori*, given a certain degree of industrial clustering of firms, we expect that the acquiring firms would show a lower degree of home bias in conglomerate acquisitions. The results presented in the appendix support the notion that home bias is lower in unrelated deals. However, both measures of home bias continue to be significantly positive. A sample means comparison between the related and unrelated deals shows a statistically significant higher degree of home bias in the former group. For the full sample, the home bias measured as the degree of overweighting of the home state targets was approximately 21%. The subsample of unrelated deals shows an overweighting of approximately 14%. The local bias measures are approximately 864 km (42%) for the full sample and

approximately 533 km (29%) for the subsample of unrelated M&A deals. In summary, the significantly positive home bias showed by acquiring firms during M&A activity is not driven solely by industrial agglomeration and pertains to intra- as well as inter-industry deals. Considering the negligible role of speed of information gathering in M&A and corporations' higher capacity to incur search costs as compared to most portfolio investors, these findings may indicate a stronger and more compelling proximity preference in corporate M&A investments.

In summary, the geographical distribution of domestic M&A activity strongly indicates home bias in acquiring firms leading to the existence of spatial clustering in acquisitive activities. The clustering is not limited to the industrially concentrated and urbanized states, and is not explained solely by the concentration of economic development within the U.S. Proximity preference of acquirers is reflected in acquisitions predominantly occurring in the home state and the neighboring states. Local bias measures analogous to those used in studies on portfolio investments confirm the strong home bias in acquiring firms. However, there also exist considerable variations in the degree of home bias across acquiring firms. In the following sections of the paper, we explore the factors that may give rise to the contours in the economic geography of M&A and influence the propensity of acquiring firms to display proximity preference in choosing targets.

#### **IV. Factors Affecting Home Bias in M&A**

Section III presented evidence that there is a significant home bias displayed by acquiring firms during corporate investments in domestic mergers and acquisitions. There is also considerable cross-sectional variation in the degree of home bias that acquiring firms show in their choice of target firms during takeovers. An understanding of the factors that drive these variations may shed light on the drivers of M&A in general, in addition to the dynamics of proximity preference in domestic M&A activity. By examining the drivers of geographical patterns in M&A activity, we aim to shed light on the decision-making processes leading up to the choosing of a target for a takeover. Exploring the factors that

influence the spatial patterns in M&A may also provide insights on what generates the unseen geographical hurdles that tend to confine these business transactions.

Research in financial economics exploring the drivers of home bias in domestic portfolio investments can be broadly categorized into notions based on behavioral factors and information asymmetry. In addition to analyzing factors that may be related to these potential drivers, we also aim to explore other sources of invisible hurdles in business transactions.

The variables that we study as being potentially related to home bias are divided into five categories: (i) state economy, (ii) state antitakeover laws, (iii) acquiring firm characteristics, (iv) target firm characteristics, and, (v) deal characteristics. While the first two categories of factors relate more to the general business environment in which a firm is operating, the remaining factors capture firm-specific situations. We do not treat the potential drivers of home bias as mutually exclusive, since the existence of one cause of home bias does not preclude other factors also influencing this phenomenon. In this section we discuss the hypotheses related to various factors that may have a relationship with the geographical distribution of M&A.

(i) *State Economy*

The degree of development and growth of a state economy can be among the primary factors affecting the propensity of localized business activity. The economy of a state is an indication of the size of the market of potential targets from the perspective of an acquirer. States with larger economies have a higher number of companies. Therefore, an acquirer located in a large state has a bigger choice set of attractive target firms which are geographically proximate. In effect, larger states can induce spatial clustering in M&A deals of firms located in the state.

We use state GSP (Gross State Product) as the measure of a state's economic size. The GSP is the sum of three components: compensation of employees, indirect business tax and non-tax liability (IBT), and property-type income. It provides the most aggregate measure of a state economy, and is computed as the sum of value added in production in each industry by the labor and property located in the state.

An industry's GSP is conceptually equivalent to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (consumption of goods and services purchased from other U.S. industries or imported). By definition, GSP is equivalent to the Gross Domestic Product (GDP) at the national level.

(ii) *State Antitakeover Laws*

While academic literature on the role played by law in finance has grown vastly in the recent years, it has mainly focused on the impact of corporate governance on shareholder wealth, growth of financial markets and cross-border business transactions. In this study, we explore the impact of one aspect of law, namely state antitakeover law, on domestic M&A activity. In general, antitakeover mechanisms are viewed as being detrimental to shareholders. Legal research shows a strong consensus about the heterogeneity of state antitakeover regimes. Between the years 1980 to 1987, there was effectively no antitakeover legislation at the state or federal levels. Most standard antitakeover statutes, also known as the “second generation” statutes, have been adopted by states after 1987 when the Supreme Court upheld the Indiana law<sup>3</sup>.

Table IV lists the standard antitakeover statutes adopted by the states and the years in which they became effective. There are five standard antitakeover statutes that can be adopted by states: control share, fair price, freezeout, poison-pill endorsement and constituency. A control share statute requires a potential acquirer to win approval from a majority of outstanding disinterested shares, before it is allowed to acquire control of the target firm. Fair price ensures that acquirers do not pay a premium for control of the target and then after acquiring control, buy remaining shares at lower prices. Freezeout statutes on business combinations prohibit acquirers, under certain conditions, from merging with the target for a certain number of years (typically 3-5 years). When a state endorses poison-pills as defensive tactics, it explicitly authorizes use of these tactics by the target firm. While it is rarely used in most states

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<sup>3</sup> Refer Romano (1992) for more information on the adoption of antitakeover statutes.

other than Delaware<sup>4</sup>, it signals to the acquirer that the target is legally authorized to use these defensive tactics and therefore, contributes to defining the legal regime. The constituency statute authorizes the target's management to use defensive tactics in the name of non-shareholder constituencies, such as employees etc.

Antitakeover statutes provide a certain degree of protection to the managers of potential target firms from takeovers whether or not there is an established case law in the state, and are generally not viewed as being shareholder-friendly. While some of the statutes may not be used frequently in the states where they are effective, the fact that they provide legal channels by which a target firm's management can resist takeovers if they choose to, contributes to defining the antitakeover environment in a state. For example, while California has maintained its pro-shareholder stance over the decades and not endorsed any antitakeover statutes, states like Ohio and Pennsylvania are viewed as having strong antitakeover legal environments with all five statutes in place since 1990.

Legal research provides ample evidence that antitakeover laws cannot be treated as uniform across states and can significantly impact outcomes of takeover bids. As a consequence, the heterogeneity in state antitakeover laws can cause segmentation of the legal regimes affecting domestic M&A activity. Acquirers that are prone to display home bias in the absence of other offsetting effects may be driven to out-of-state acquisitions if the home state's laws provide higher protection to target firm's management. The expected difficulties for the acquirer may be higher if the target is from a stronger antitakeover legal regime, as compared to when it belongs to a pro-shareholder legal environment. These expected and realized costs can be especially high when the deal is not friendly or solicited. Therefore, the segmentation in legal regimes can counter the geographical segmentation of business activities. So, quite intriguingly, segmentation in antitakeover laws can have the unexpected effect of offsetting geographical clustering of M&A.

In summary, we expect that higher legal protection of a target firm's management from takeovers in the acquirer's state, in the form of more potent antitakeover regimes, will decrease the propensity for in-

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<sup>4</sup> Bebchuk and Ferrell (2002) note that Delaware is the only state that has a well-developed case law on the use of poison-pill defensive tactics.

state M&A. Strong antitakeover laws in the acquiring firm's state, therefore, may mitigate home bias during takeover decisions.

### (iii) *Acquirer Characteristics*

An acquiring firm's characteristics can have an important impact on home bias in its corporate investments. Factors like business resources, growth prospects, leverage and financial slack can all affect the degree to which geographical constraints impact a firm's decisions and also the proclivity of acquirers to search for attractive targets irrespective of geography. To the extent that distant targets are associated with a higher perceived or real information asymmetry, risk attitudes of the acquirer may play a role in the choice of targets when higher information asymmetry is related to higher perceived risk. Some firm characteristics, in conjunction with macroeconomic conditions discussed previously, proxy for the overall risk attitude of an acquiring firm and arise out of the contemporaneous business conditions in the economy and the financial health of the firm. Firm characteristics are also related to the cost of capital for a firm, and its propensity to incur search costs and pursue investments perceived as more risky. In effect, firm characteristics may explain some of the cross-sectional variation in the degree of home bias. In our empirical analysis, we examine the impact of certain firm characteristics on the proximity preference of acquirers.

Firstly, the size of an acquirer is likely to have a significant effect on home bias. Large firms tend to be less localized in their product markets as well as their human capital. These firms are likely to have access to a wider social network and infrastructure through which they can obtain information generated from geographically distant sources. Additionally, larger firms may also be more willing to incur any search costs that are related to geographical distance in order to obtain business information. Therefore, we expect geography to pose fewer obstacles during the corporate decisions made by large firms as compared to smaller firms. We use the total market capitalization of the acquirer in the month prior to the acquisition announcement as a measure of the firm size, and expect a negative impact of firm size on home bias of the acquirer during takeovers.

Secondly, the nature of target firms can be significantly different for value versus growth firms. High-growth acquirers may be more likely to seek small high-growth targets as compared to value firms. Knowledge-intensive growth targets are also likely to be more difficult to value since their assets are less tangible and give rise to higher information asymmetries between firm insiders and outsiders, on an average. Geographical distance from the target can further exacerbate these information asymmetries. Therefore, proximity to the target firm is a mechanism by which acquirers can alleviate information asymmetries through social or business networks and interaction. Additionally, growth firms may also be more likely to acquire same-industry targets than value firms with limited growth opportunities, leading to a higher likelihood of proximate M&A in presence of industrial clustering. We expect that high book-to-market firms (i.e, value firms) show less home bias compared to low book-to-market firms (i.e, growth firms) in M&A decisions.

Finally, we examine the impact of an acquirer's leverage on the geography of M&A decisions made by the firm. Highly leveraged firms are more likely to exercise financial caution and be more risk-averse relative to firms with low debt in their capital structure. Firms that have existing high levels of debt are expected to be less inclined to finance corporate investments perceived as risky. The takeover of a distant target associated with more information asymmetry between the acquirer and target may be perceived as a risky investment by highly-leveraged acquiring firms. Therefore, these acquirers may decide to make an acquisition when they are more confident about their knowledge of a potential target firm. We hypothesize that leverage has a positive impact on the home bias of an acquirer, where leverage is measured as the ratio of total assets minus the book value of equity to the total assets.

#### (iv) *Target Characteristics*

Target characteristics may also be important factors that impact the likelihood of the firm being acquired by a proximate acquirer. However, data available for the target firms is limited since our sample comprises of public as well as private targets. Financial data on target firms is available only for the

subsample of publicly traded targets. Our analyses involving target characteristics have to be constrained to a subsample of public targets.

Among the public targets, we may expect the smaller firms to be less visible and associated with less information availability. Size can therefore counter existing geographical limitations in information generation. We hypothesize that, in the subsample of public targets, smaller firms are more likely to be acquired by proximate acquirers who have prior familiarity with these firms.

The second target characteristic we examine is the firm's book-to-market ratio. Previous studies have shown the considerable differences in performance and operations of value versus growth firms. Growth targets may be associated with more information asymmetry, exacerbated with geographical distance between the acquirer and target. However, acquiring firms looking for high-growth target firms may also be more inclined to incur search costs, thereby offsetting the impact of a priori information asymmetries.

Lastly, we examine the impact of a target firm's leverage on likelihood of proximate deals. Coval and Moskowitz (1999) find that fund managers exhibit strong proximity preference especially for highly levered firms. They argue that local knowledge may be especially valuable while investing in these firms. Analogously, in case of M&A, we conjecture that acquirers exploit local knowledge and familiarity more while acquiring highly-levered target firms. We expect that highly levered firms are more likely to be targets of takeovers by proximate acquirers.

#### (v) *Deal Characteristics*

Deal characteristics in M&A, like attitude and method of payment, among others, are likely to be influenced by the degree of information asymmetry and relationship between the acquiring firm and the target prior to the deal. However, geographical distance between the firms influences the degree of information asymmetry or prior familiarity between an acquirer and a target. Given that similar factors may help define the spatial distribution of M&A as well as the deal characteristics, we expect a significant relationship between geographical proximity of a target to the acquirer and the nature of the deal, without any assumptions about causality. For example, to the extent that firms cluster due to

‘industry-specific’ technical and knowledge spillovers, acquisitions in the same industry are more likely to take place proximately. Some of the deal characteristics we examine in our empirical investigation are the public vs. private nature of the target, relatedness of the firms (matched at 2-digit SIC codes), method of payment, hostile vs. friendly attitude and whether a tender offer was extended by the acquirer.

(vi) *Macroeconomic Control Variables*

Macroeconomic conditions can proxy for the component of firm management’s attitude towards risk that is influenced by the overall business environment. We may expect that stronger macroeconomic conditions increase risk-taking propensity of the acquiring firm’s management, and make them more tolerant of potential search costs and screening costs of identifying attractive targets. Additionally, macroeconomic conditions may impact cost of capital and consequently the nature of corporate investments. Therefore, we include macroeconomic control variables in our regressions.

Additionally, there can be time trends in the degree to which information asymmetry plays a role in driving home bias. Peterson and Rajan (2000) find that distance is playing a decreasing role in small business lending activity, primarily due to an increase in communication technologies and decrease in information asymmetry associated with distance. The revolution in communication technology has affected almost all business sectors, albeit perhaps to different extents. To examine whether there is a time trend in the role played by distance in M&A deals, we regress the mean distance between acquirers and targets involved in M&A deals each quarter during 1990-2004 with the macroeconomic conditions and a time variable.

The estimated OLS regression is (p-values are in parentheses):

$$\begin{aligned}
 (\text{Mean\_Distance})_t = & 743.1 + 6.80 * (\text{Time}) + 79.90 * (S \ \& \ P500 \ \text{Ret.} (12 - \text{month}))_t + 0.03 * (\text{Log}(\text{IPO Activity}))_t \\
 & (0.00) \quad (0.00) \quad (0.58) \quad (0.74) \\
 & + 30.74 * (\text{Interest Rate})_t + 0.51 * (\Delta(\text{Interest Rate}))_t \\
 & (0.05) \quad (0.71)
 \end{aligned}$$

Here, *Time* is the quarter time variable, taking values 1, 2,..., 56 for the years 1990-2003. The co-efficient of the time variable is positive and significant, indicating an increasing trend in mean distance over time.

The estimated regression shows that, *ceteris paribus*, the mean distance between acquirers and targets increases by 374 (=6.8x56) kilometers during the 14 years between 1990 and 2003. This evidence is consistent with decreasing information asymmetry over time due to improvements in communication technology and decreasing transportation costs. We use simple year dummy variables to control for time trends in information asymmetry due to communication and transportation costs.

## V. Empirical Results

We conduct empirical tests to identify some of the determinants of the proximity preference in corporate M&A that has been documented in earlier sections. Our empirical analyses use two alternative dependent variables measuring acquirer's propensity to show home bias. The first measure is a dichotomous variable indicating the in-state versus out-of-state nature of the target firm relative to the acquirer. The second measure is the raw geographical distance between the acquiring firm's city of headquarters and target's city of headquarters.

### A. Propensity for In-state M&A: Logistic Regressions

Table V presents the state economy, state-level antitakeover laws and macroeconomic conditions as determinants of home bias in acquirers. In these logistic regressions, we use the binary outcome of in-state versus out-of-state M&A as the dependent variable. The dependent variable assumes a value of one when the target is headquartered in the home state of the acquiring firm, and zero otherwise. We report the estimated coefficients of the explanatory variables and their marginal effects, with all other independent variable is held at median values.

The coefficient of state GSP is significantly positive at the 1% level, indicating that in-state M&A is more likely when the acquirer is located in a state with a large economy, as reflected in a larger GSP. A one standard deviation increase in GSP increases a home state acquirer's home bias by around 27%. Larger states have more companies headquartered in the state and therefore offer more opportunities and

choices for a potential acquirer. Acquirers in large states have a bigger pool of potential targets to choose from and are less likely to be involved in deals involving distant targets.

Antitakeover statutes have a negative and significant impact on the likelihood of in-state acquisitions. A one standard deviation change in number of antitakeover statute endorsed by a state decreases the likelihood of in-state M&A by 2.42%. The dummy variables for each of the standard antitakeover statutes are negative and significant in most specifications. The evidence supports the hypothesis that stronger antitakeover laws partially nullify home bias by making targets in the state less attractive to home state acquirers. Therefore, antitakeover laws have the unexpected effect of mitigating the tendency of acquiring firms to exhibit home bias.

To some extent, macroeconomic conditions also help in explaining the propensity of acquirers to display proximity preference. The level of IPO activity, stock market returns and an increase in interest rates have a negative impact on propensity for in-state acquisitions, possibly due to increasing risk-taking behavior of the acquiring firm and decrease in the firm's cost of capital. The coefficients for the S&P 500 returns and level of IPO activity in the 12 months prior to the acquisition announcement are negative, and the latter is significant at the 5% level. Both the level of interest rate and recent change in interest rate levels are significant in Model 9 in the regressions.

Table VI reports regressions examining the relationship between firm characteristics, deal characteristics and likelihood of in-state acquisitions. The coefficient of acquirer size is negative and significant at the 1% level for all specifications, when we control for GIC industry code dummies. Larger acquiring firms are more geographically diversified in their infrastructure, networks and markets. They are also more likely to be prepared to incur any search costs associated with obtaining information about distant and unfamiliar targets. The negative impact of size on proximity preference substantiates these notions. The coefficient of book-to-market ratio switches signs in different specifications, making the result inconclusive.

Acquiring firm's leverage, on the other hand, has a significantly positive impact on the propensity for in-state acquisitions, at 1% level of significance in almost all specifications of the regression model.

Highly levered firms have lower financial slack and may be more inclined to exercise financial caution in corporate investments. If distant targets are associated with higher information asymmetries and perceived risk, a cautious acquirer will be more averse towards distant deals. The estimated regression results support this notion since highly levered acquirers show more home bias. We also conduct robustness checks by excluding banks and utility firms which operate in relatively regulated industries with leverage structures that are different from most other industries. However, the results remain unchanged when banks and utility firms are dropped from the regression sample.

Some additional variables we examine but do not report are R&D intensity and undistributed free cash flow of acquirers. R&D intensity is measured as the ratio of R&D expenses to assets. Undistributed free cash flows of an acquirer are computed prior to the acquisition announcement following Lehn and Poulsen (1979). Neither R&D intensity nor free cash flows have a significant impact on in-state versus out-of-state acquisitions, and are not reported in the table.

Certain target firm characteristics were studied for the subsample of public targets for which CRSP/COMPUSTAT data was available in the month prior to the acquisition announcement. As expected, size of target has a negative impact on likelihood of an in-state deal. The size variable is significant at the 1% level in Model 3, where acquiring firm characteristics are not included. Larger targets are more visible, have lower information asymmetries and require less search costs incurred by an acquirer prior to a deal. The negative impact of target size on likelihood of proximate deals shows that geography decreases in importance for the acquisition of larger, more visible targets. Additionally, target leverage and book-to-market variables are significantly positive at the 1% level in Model 3. Highly levered and value target firms are more likely to be acquired by home state acquirers. However, in the alternative specification Model 5 where acquirer characteristics are also included as explanatory variables, target characteristics become insignificant. Interestingly, acquirer characteristics seem to be more instrumental in defining home bias in M&A than target firm characteristics. Extrapolating to the area of portfolio investments, this is analogous to the notion that investor characteristics matter more in defining home bias behavior than the characteristics of assets they invest in.

Finally, several deal characteristics show a significant relationship with the geographical proximity of the target firm to an acquirer. While a causal relationship is unlikely, deal characteristics may be related to some common factors that also drive the geographical distribution of M&A activity (e.g, information asymmetry and prior familiarity).

In Model 2, several deal characteristics are statistically significant. The variable representing public versus privately-owned status of the target firm is significantly positive at the 1% level. *Ceteris paribus*, a public target is 5.85% more likely to be acquired by a home state acquirer, as compared to privately-owned target firms. Public targets are more likely to be in-state acquisitions, possibly due to political resistance to takeovers of visible firms that are important to a state's economic output and visibility<sup>5</sup>. Related acquisitions are around 1.8% more likely to be in-state than out-of-state, potentially driven by industrial agglomeration within regions. Cash payments are around 2.4% more likely for out-of-state acquisitions, supporting the notion that cash is more likely to be used when the information asymmetry about firm valuations is higher. Hostile takeover are 9.8% more likely to be in-state, potentially due to the prior familiarity and information the acquirer has about a proximate target, making the co-operation of the target's management less critical in the post-merger integration phase. Tender offers are about 3% more likely for out-of-state M&A, *ceteris paribus*.

In Model 6, we include acquirer characteristics, deal characteristics, state economy, antitakeover law and macroeconomic control variables. Deal characteristics become less important when acquirer characteristics are included in the regression models, except for the public status of a target firm which remains significantly positive. From the various specifications of models reported in Table V, the most important determinants of home bias in M&A are acquirer characteristics, state economic environment, and state antitakeover laws.

### *B. Multinomial Logistic Regressions based on Distance*

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<sup>5</sup> A recent example is the resistance of the Massachusetts state government to the takeover of Boston-based Gillette by Cincinnati's Proctor & Gamble.

Table VII reports regression results where the dependent variable is based on geographical distance between the acquirer and target firms. We use multinomial logistic regressions to study factors that influence the propensity of acquirers investing in proximate versus distant targets. The dependent variable is a categorical variable with four levels, representing distance ranges between acquirers and targets: (1) 0-100km, (2) 100-500km, (3) 500-2000km and (4) >2000km. Regressions based on distance have results similar to those reported in Table V and VI, where states are used as units of observation.

On an average, state GSP has a negative and significant impact on the likelihood of non-local (or >100 km) M&A. Acquirers from larger states with higher business opportunities are less likely to invest in target that are further than 100 km away. State antitakeover statutes continue to have a significantly negative impact on home bias. Acquirers domiciled in states with stronger antitakeover regimes are more likely to invest in M&A involving target that are further than 100 km away from its headquarters. Macroeconomic conditions show a weaker impact on the geography of M&A deals in this specification of the dependent variable.

Acquirer size, as measured by the market capitalization in the month prior to the acquisition announcement, has a significantly positive impact on the propensity for non-local M&A. Larger acquirers are more likely to acquire targets that are in the 100-500 km, 500-2000 km and >2000 km distance ranges, as compared to local (0-100 km) transactions. The results for book-to-market ratio are mixed and difficult to interpret. The empirical regressions seem to point towards the fact that value acquirers may show less home bias. Additionally, the impact of acquirer leverage becomes increasingly negative with distance, indicating a higher degree of home bias exhibited by financially cautious high-debt firms. The target public dummy becomes increasingly negative with distance, indicating that public targets are more likely to be acquired by local acquiring firms. Supporting the results in Table V and VI, cash payments and tender offers are more likely for distant target takeovers while hostile bids are less likely.

Multinomial regression results reported in Table VII use an alternative measure of proximity based on geographical distance, but overall findings support the conclusions drawn from results based on states

as observation units. We conclude that the key results of our study are robust to the alternative definitions of proximity and the spatial definition of ‘home’. However, geographical distance-based dependent variables are less intuitive while interpreting the effects of geo-political and legal boundaries as compared to real categories like states.

## **VI. Summary and Concluding Remarks**

Using a sample of about 10,300 U.S. domestic M&A deals announced during the period 1990-2003 of over \$10 million in value, this study shows that firms exhibit a strong proximity preference in their investment behavior, a phenomenon that is very similar and perhaps even more compelling than the one documented for portfolio investors. Considering that a firm is an impersonal organization dedicated to pecuniary objectives and thus less likely to be prone to cognitive bias for the familiar, this finding is perhaps surprising. To the extent that the geographical location of economic activity is important, our findings here contribute towards the current renaissance of the study of economic geography and also to the vast literature on corporate mergers and acquisitions.

When the spatial distribution of M&A deals was examined based on geographical distance, we found that nearly 34% of our sample deals occur within a 100 kilometer radius of the headquarters of acquirers, with the frequency of deals declining sharply with distance between targets and acquirers. Previous studies on the behavior of portfolio investors (e.g., Grinblatt and Keloharju (2001)) also found that the share ownership of investors is heavily concentrated in firms located within a 100 kilometer radius from the investor’s domicile. Our findings converge with different studies similarly indicating that ‘home’ lies within a 100 kilometer radius, seemingly suggesting that the limited human capacity for managing complex social interactions, information sharing and processing may be at the root of the so-called home bias puzzle.

In addition to the geographical distance between acquirers and targets, we find that on average, home state targets account for about 23% of all the acquisitions made by firms from a given state, whereas target firms from the state account for only about 2% of our sample target firms. Thus, firms acquire in-

state targets about 11 times as frequently as one may expect in the absence of home bias. States with larger economic size encourage in-state M&A. State anti-takeover statutes counter the home bias to a certain extent and, as a result, have the effect of integrating the market for corporate control. State laws, therefore, significantly affect where M&A activity takes place.

We show that acquiring firm characteristics are among the chief determinants of home bias. Large, low debt acquirers show less home bias compared to small, and high debt firms. Target firms' characteristics pale in importance, once the acquirers' characteristics are accounted for. Public targets, as compared to privately owned targets, are more likely to be in-state acquisitions, alluding to potential political or managerial resistance to out-of-state takeovers of visible, publicly traded firms. Hostile and related takeovers are more likely to be in-state. In contrast, out-of-state takeovers are more likely to be cash-financed or for which the acquirer extends a tender offer to the target's shareholders.

Results of our regression analyses suggest that this corporate home bias cannot be fully explained by the 'localized' technical knowledge or pecuniary spillovers that necessitate agglomeration of economic activities. The corporate home bias documented in this study may be attributable, at least in part, to information asymmetries, cognitive bias and economic opportunities, the same factors that are likely to be responsible for the home bias of portfolio investors.

Our study has broadly raised the issue of the role played by geography in corporate policy. Further research on other types of investments made by corporations, like greenfield investments, will help to understand the extent to which geo-political considerations influence corporate decisions. The nature of the impact geography has on corporate investment decisions has implications for inequalities in regional economic development, agglomeration of industrial growth, capital flows between regions and the efficacy of the market for corporate control. Geo-political dynamics that influence corporate investment behavior clearly have implications for policy-making geared towards attracting or retaining corporate capital in states. Additionally, since the market for corporate control has been an important external corporate governance mechanism, segmentation in the takeovers market reflects weaknesses and potential inefficiencies in this method of corporate governance. An examination of these inefficiencies

may pave way for policies and systems that counter or compensate for these weaknesses in an important corporate governance mechanism. Corporate decision-makers also gain from a better understanding of factors that drive the choice of where to invest across a wide range of firms with different strategic considerations. In the absence of frictions like currency risk, political risk, significant transaction costs and communication barriers which may exist in international investments, the segmentation of economic activities into regional clusters within a nation remains intriguing.

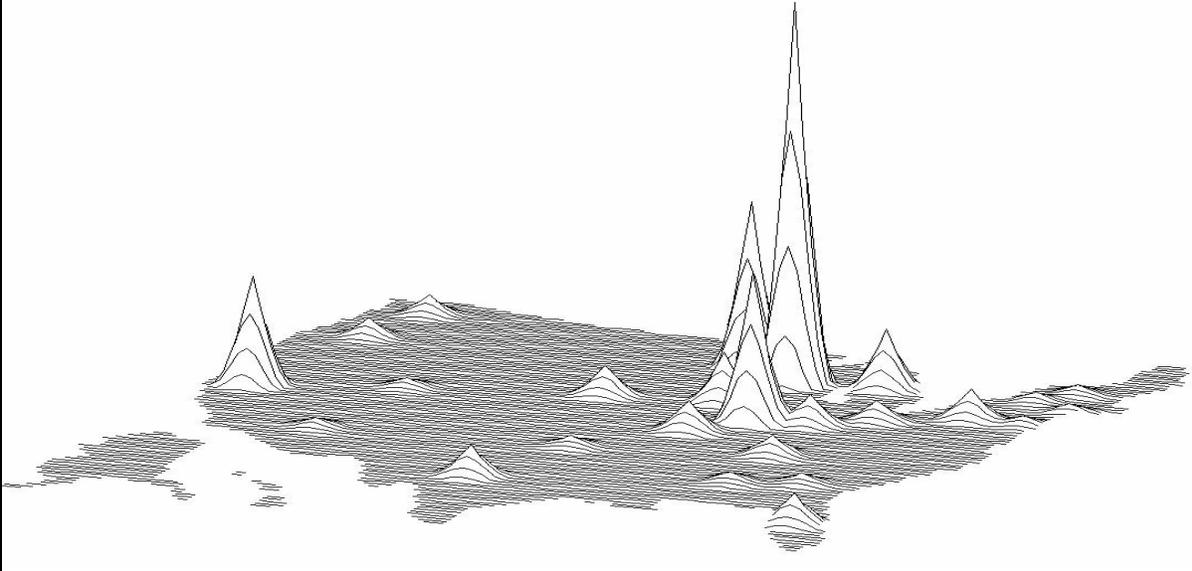
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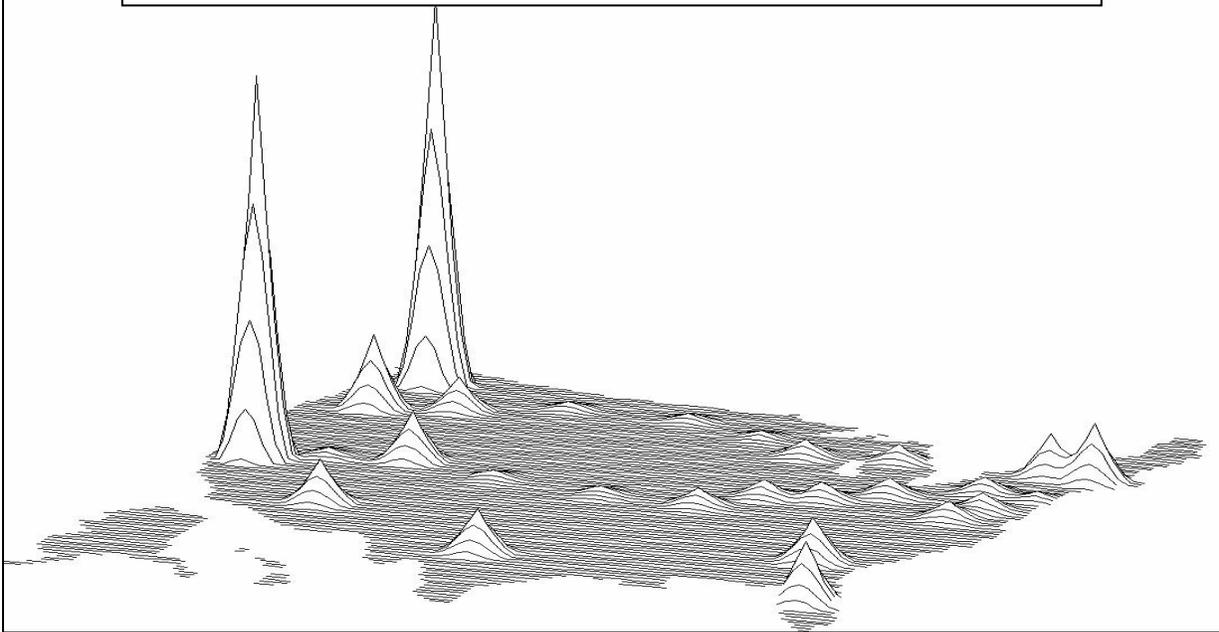
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**Panel A: Target Frequency Distribution of Wisconsin Acquirers**



**Panel B: Target Frequency Distribution of Washington Acquirers**



**Figure 2: Geographical Distribution of Target firms**

Panel A shows a contour map of the distribution of M&A activity by Wisconsin acquirers, based on frequency of targets in a state. Panel B shows a contour map of the distribution of M&A activity by Washington acquirers, based on frequency of targets in a state.

**Table I**  
**Summary Statistics of Domestic M&A Activity by State**

The table reports summary statistics for the 50 states and the District of Columbia. The % of targets in a state is the number of targets located in the state as a percentage of the total number of targets in the sample. The number of home acquisitions in % is the number of targets that were acquired by in-state acquirers, expressed as a percentage of total number of targets in the state. The top three acquirers for a state are the states which had the highest number of acquisitions in the target state. When more than one acquirer state has the same number of acquisitions, we rank according to the mean value of the deal. The % acquisitions by the top acquirers are expressed as the number of targets in the state that were acquired by the top acquiring state, expressed as the percentage of total number of targets in the state. The % acquisitions in the top target states are expressed as the number of acquisitions in the target state, expressed as the percentage of total number of acquisitions by the acquiring state.

State	State Code	Acquirer State			Target State						
		% of Acquirers	% of Targets	Home Acquirers (%)	Top three Out-of-State Acquirers (As % of Targets In Target State)	Home Targets (%)	Top three Out-of-State Targets (As % of Acquisitions By Acquirer State)				
Alabama	AL	1.87	0.86	24.72	GA: 12.36	TN: 10.11	CA: 8.99	11.40	FL: 25.39	GA: 14.51	TX: 11.40
Alaska	AK	0.02	0.09	0.00	CA: 44.44	AR: 11.11	MI: 11.11	0.00	WA: 50.00	CA: 50.00	-
Arizona	AZ	1.06	1.50	10.32	CA: 18.06	TX: 8.39	FL: 6.45	14.55	CA: 13.64	NY: 9.09	TX: 7.27
Arkansas	AR	0.58	0.49	31.37	TX: 15.69	MO: 11.76	TN: 9.80	26.67	TX: 15.00	IL: 8.33	CA: 8.33
California	CA	17.97	19.13	47.57	MA: 6.12	NY: 6.12	TX: 5.71	50.65	MA: 6.78	TX: 5.33	NY: 3.55
Colorado	CO	2.10	2.40	15.73	CA: 16.13	TX: 11.29	NY: 6.85	17.97	CA: 11.98	TX: 9.68	VA: 5.07
Connecticut	CT	2.09	2.05	22.64	NY: 12.26	CA: 11.32	NJ: 7.55	22.22	CA: 12.04	MA: 7.87	NY: 7.87
D. of Columbia	DC	0.54	0.35	11.11	NY: 16.67	CA: 8.33	VA: 5.56	7.14	NY: 10.71	VA: 8.93	GA: 8.93
Delaware	DE	0.17	0.30	0.00	CO: 12.90	MD: 9.68	PA: 9.68	0.00	PA: 27.78	IL: 16.67	CA: 16.67
Florida	FL	4.06	5.31	25.68	AL: 8.93	NC: 6.92	CA: 6.92	33.57	CA: 10.95	TX: 7.14	NY: 6.67
Georgia	GA	3.74	3.77	25.64	CA: 11.03	AL: 7.18	FL: 5.90	25.84	CA: 9.56	FL: 8.01	TX: 5.68
Hawaii	HI	0.07	0.15	26.67	CA: 26.67	TX: 20.00	TN: 6.67	57.14	CA: 28.57	WA: 14.29	-
Idaho	ID	0.17	0.18	0.00	WA: 21.05	OH: 15.79	UT: 10.53	0.00	CA: 16.67	FL: 11.11	MT: 5.56
Illinois	IL	4.21	4.37	21.24	CA: 8.63	MO: 6.64	NY: 5.53	22.07	CA: 11.49	TX: 6.44	NY: 6.21
Indiana	IN	1.49	1.65	34.50	OH: 11.70	MI: 6.43	TX: 5.26	38.31	IL: 13.64	OH: 5.84	KY: 4.55
Iowa	IA	0.42	0.65	20.90	MO: 13.43	NE: 10.45	WI: 7.46	32.56	MI: 9.30	TX: 6.98	SD: 4.65
Kansas	KS	0.41	0.49	7.84	MO: 25.49	CA: 11.76	TX: 9.80	9.52	OK: 19.05	FL: 9.52	CO: 7.14
Kentucky	KY	0.73	0.81	25.00	OH: 21.43	IN: 8.33	TN: 7.14	27.63	OH: 11.84	CA: 11.84	TN: 5.26
Louisiana	LA	0.85	1.35	28.57	TX: 27.14	MS: 7.14	AL: 6.43	45.45	TX: 17.05	TN: 3.41	NM: 2.27
Maine	ME	0.23	0.30	16.13	PA: 9.68	NY: 9.68	VT: 6.45	20.83	MA: 29.17	CT: 12.50	NH: 8.33
Maryland	MD	2.11	1.96	24.14	CA: 11.82	TX: 6.90	NJ: 6.40	22.48	CA: 12.84	VA: 10.55	MA: 6.42
Massachusetts	MA	5.04	5.14	28.76	CA: 23.68	NY: 6.02	TX: 4.32	29.37	CA: 23.22	IL: 4.41	TX: 4.41
Michigan	MI	1.64	2.01	25.48	OH: 8.65	IL: 7.69	NY: 7.69	31.18	IL: 12.35	CA: 10.59	IN: 6.47
Minnesota	MN	2.18	1.87	17.10	CA: 14.51	WI: 8.81	NY: 7.25	14.67	CA: 16.44	MA: 5.33	NJ: 4.89

State	State Code	Acquirer State			Target State					
		% of Acquirers	% of Targets	Home Acquirers (%)	Top three Out-of-State Acquirers (As % of Targets In Target State)	Home Targets (%)	Top three Out-of-State Targets (As % of Acquisitions By Acquirer State)			
Mississippi	MS	0.63	0.44	34.78	TN: 8.70	GA: 6.52	FL: 6.52	LA: 15.38	TN: 9.23	AR: 4.62
Missouri	MO	1.89	1.32	26.47	IL: 8.09	CA: 7.35	TX: 6.62	IL: 15.38	TX: 12.31	CA: 7.18
Montana	MT	0.08	0.13	30.77	NY: 15.38	ID: 7.69	WV: 7.69	ND: 12.50	ID: 12.50	WA: 12.50
Nebraska	NE	0.71	0.35	19.44	CA: 16.67	WI: 8.33	IL: 8.33	IA: 9.59	TX: 9.59	NJ: 6.85
Nevada	NV	0.50	0.63	23.08	CA: 18.46	TX: 9.23	UT: 7.69	CA: 15.38	OR: 5.77	NY: 5.77
New Hampshire	NH	0.38	0.55	19.30	CA: 19.30	MA: 14.04	CT: 7.02	MA: 25.64	CA: 7.69	IL: 5.13
New Jersey	NJ	3.76	3.42	24.29	NY: 14.69	CA: 11.02	PA: 9.60	CA: 16.20	NY: 12.60	PA: 6.68
New Mexico	NM	0.26	0.38	0.00	MA: 23.08	CA: 10.26	CT: 7.69	MA: 14.81	CA: 14.81	FL: 11.11
New York	NY	7.82	6.31	35.68	CA: 10.11	NJ: 7.50	TX: 5.82	CA: 14.96	NJ: 6.43	TX: 4.57
North Carolina	NC	2.95	2.25	35.19	TX: 7.73	CA: 7.30	GA: 6.44	FL: 12.46	VA: 7.54	CA: 6.89
North Dakota	ND	0.12	0.05	0.00	MT: 20.00	MI: 20.00	WA: 20.00	CA: 25.00	AZ: 16.67	NE: 8.33
Ohio	OH	3.60	3.27	30.77	NY: 8.28	CA: 6.51	TX: 5.03	CA: 8.06	IN: 5.38	PA: 5.38
Oklahoma	OK	0.58	0.89	22.83	TX: 19.57	KS: 8.70	NY: 7.61	TX: 25.00	CO: 6.67	KS: 3.33
Oregon	OR	0.77	1.02	12.26	CA: 30.19	WA: 8.49	NJ: 4.72	CA: 33.75	MA: 8.75	WA: 7.50
Pennsylvania	PA	4.48	3.97	37.47	CA: 7.30	NJ: 6.33	NY: 5.84	CA: 8.86	NY: 7.56	NJ: 7.34
Rhode Island	RI	0.21	0.22	13.04	TX: 26.09	IL: 17.39	MA: 8.70	CA: 18.18	OH: 13.64	NY: 13.64
South Carolina	SC	0.47	0.80	20.48	NC: 15.66	VA: 7.23	AL: 6.02	FL: 16.33	GA: 8.16	NC: 6.12
South Dakota	SD	0.04	0.08	0.00	IA: 25.00	NV: 12.50	DC: 12.50	CO: 50.00	IL: 50.00	-
Tennessee	TN	1.95	1.43	22.97	TX: 8.78	GA: 6.76	AL: 5.41	FL: 6.93	TX: 6.93	CA: 6.44
Texas	TX	8.55	7.74	36.13	CA: 12.38	NY: 4.63	FL: 3.75	CA: 12.78	LA: 4.30	NY: 4.30
Utah	UT	0.74	0.87	11.11	CA: 13.33	CO: 8.89	WA: 6.67	CA: 20.78	CO: 12.99	WA: 7.79
Vermont	VT	0.15	0.10	30.00	PA: 20.00	ME: 10.00	IA: 10.00	MA: 26.67	ME: 13.33	NH: 13.33
Virginia	VA	2.35	2.96	24.18	CA: 11.11	MD: 7.52	NC: 7.52	CA: 12.76	TX: 6.17	MD: 4.53
Washington	WA	1.66	1.99	23.30	CA: 21.36	NY: 7.77	MA: 4.85	CA: 26.74	OR: 5.23	MA: 4.07
West Virginia	WV	0.36	0.37	52.63	OH: 15.79	NC: 10.53	TN: 5.26	VA: 18.92	OH: 5.41	CA: 5.41
Wisconsin	WI	1.24	1.23	30.71	IL: 11.81	MN: 7.87	NY: 5.51	MN: 13.28	IL: 11.72	CA: 8.59
Wyoming	WY	0.02	0.05	0.00	TX: 40.00	OK: 20.00	CO: 20.00	UT: 50.00	CA: 50.00	-
Mean		1.96	1.96	21.73	16.61	9.57	7.61	18.47	11.56	6.37
(Median)		(0.77)	(0.89)	(23.30)	(15.38)	(8.39)	(6.85)	(15.38)	(8.93)	(6.21)

**Table II: Test of Home Bias in Domestic M&A Activity**

The table reports the degree of home bias in acquirers, using acquirer states as units of observation. The benchmark weight of home state targets is computed (i) as the weight of home state targets in sample, or (ii) the sample weight of Compustat firms located in the acquirer's home state. The actual weight of targets in the home state is the % of acquisitions by the acquirer state involving home state targets. Home bias is measured as the difference in actual weight and benchmark weight of home state targets and t-tests use the binomial probability test: The null hypothesis is that the probability of acquisition in the home state by an acquirer is equal to the sample weight of firms in the acquirer's home state. \*\*\*, \*\* denote significance at the 1%, 5% level respectively.

<i>Panel A: Test for Home Bias using Target Sample Weights</i>						
<i>Acquirer State</i>	<i>Code</i>	<i>Sample Targets Benchmark Weight (%)</i>	<i>Compustat Benchmark Weight (%)</i>	<i>Actual Weight (%)</i>	<i>Home Bias (%) (Sample Targets)</i>	<i>Home Bias (%) (Compustat)</i>
Alabama	AL	0.86	0.63	11.40	10.54***	10.77***
Alaska	AK	0.09	0.04	0.00	-0.09	-0.04
Arizona	AZ	1.50	1.14	14.55	13.05***	13.41***
Arkansas	AR	0.49	0.41	26.67	26.18***	26.26***
California	CA	19.13	13.84	50.65	31.52***	36.81***
Colorado	CO	2.40	2.23	17.97	15.57***	15.74***
Connecticut	CT	2.05	2.04	22.22	20.17***	20.18***
D. of Columbia	DC	0.35	0.28	7.14	6.79***	6.86***
Delaware	DE	0.30	0.38	0.00	-0.30	-0.38
Florida	FL	5.31	4.42	33.57	28.26***	29.15***
Georgia	GA	3.77	2.16	25.84	22.07***	23.68***
Hawaii	HI	0.15	0.21	57.14	56.99***	56.93***
Idaho	ID	0.18	0.22	0.00	-0.18	-0.22
Illinois	IL	4.37	3.60	22.07	17.70***	18.47***
Indiana	IN	1.65	1.27	38.31	36.66***	37.04***
Iowa	IA	0.65	0.50	32.56	31.91***	32.06***
Kansas	KS	0.49	0.48	9.52	9.03***	9.04***
Kentucky	KY	0.81	0.56	27.63	26.82***	27.07***
Louisiana	LA	1.35	0.66	45.45	44.10***	44.79***
Maine	ME	0.30	0.18	20.83	20.53***	20.65***
Maryland	MD	1.96	1.50	22.48	20.52***	20.98***
Massachusetts	MA	5.14	3.89	29.37	24.23***	25.48***
Michigan	MI	2.01	1.72	31.18	29.17***	29.46***
Minnesota	MN	1.87	2.77	14.67	12.80***	11.90***
Mississippi	MS	0.44	0.26	24.62	24.18***	24.36***
Missouri	MO	1.32	1.49	18.46	17.14***	16.97***
Montana	MT	0.13	0.09	50.00	49.87***	49.91***
Nebraska	NE	0.35	0.35	9.59	9.24***	9.24***
Nevada	NV	0.63	0.85	28.85	28.22***	28.00***
New Hampshire	NH	0.55	0.44	28.21	27.66***	27.77***
New Jersey	NJ	3.42	4.39	22.11	18.69***	17.72***
New Mexico	NM	0.38	0.15	0.00	-0.38	-0.15
New York	NY	6.31	8.34	28.80	22.49***	20.46***
North Carolina	NC	2.25	1.53	26.89	24.64***	25.36***
North Dakota	ND	0.05	0.07	0.00	-0.05	-0.07
Ohio	OH	3.27	3.26	27.96	24.69***	24.7***
Oklahoma	OK	0.89	0.73	35.00	34.11***	34.27***
Oregon	OR	1.02	0.83	16.25	15.23***	15.42***
Pennsylvania	PA	3.97	3.92	33.26	29.29***	29.34***
Rhode Island	RI	0.22	0.27	13.64	13.42***	13.37***
South Carolina	SC	0.80	0.65	34.69	33.89***	34.04***
South Dakota	SD	0.08	0.11	0.00	-0.08	-0.11
Tennessee	TN	1.43	1.05	16.83	15.40***	15.78***
Texas	TX	7.74	7.84	32.69	24.95***	24.85***
Utah	UT	0.87	0.82	12.99	12.12***	12.17***
Vermont	VT	0.10	0.18	20.00	19.90***	19.82***
Virginia	VA	2.96	2.07	30.45	27.49***	28.38***
Washington	WA	1.99	1.51	27.91	25.92***	26.4***
West Virginia	WV	0.37	0.17	54.05	53.68***	53.88***
Wisconsin	WI	1.23	1.18	30.47	29.24***	29.29***
Wyoming	WY	0.05	0.13	0.00	-0.05	-0.13
<b>Mean(Median)</b>		<b>1.96 (0.89)</b>	<b>1.72 (0.82)</b>	<b>23.23 (24.62)</b>	<b>21.27 (22.07)</b>	<b>21.51 (20.98)</b>

**Table III: Test of Home Bias using Coval-Moskowitz Local Bias Measure**

The table reports measures and significance of local bias (*LB*) following Coval-Moskowitz (1999) using acquirer states as units of observation. Benchmark distance for an acquirer is the mean distance of all sample targets from the acquirer. Actual distance is the distance in km between an acquirer and target. The reported values of the states are averages across all acquirers in the state. *LB* in km (%) is the local bias measured as difference between actual and benchmark distance (% of benchmark distance). \*\*\*, \*\* denote significance at the 1%, 5% level respectively.

<i>Panel B: Coval-Moskowitz Test for Local Bias</i>						
<i>Acquirer State</i>	<i>Code</i>	<i>Benchmark Distance (km)</i>	<i>Actual Distance (km)</i>	<i>LB (km)</i>	<i>LB (%)</i>	<i>t-stat</i>
Alabama	AL	1562.77	783.31	779.47	49.79	15.99***
Alaska	AK	4674.32	2275.27	2399.05	51.32	-
Arizona	AZ	2198.90	1846.54	352.36	16.03	2.90***
Arkansas	AR	1529.01	822.09	706.92	46.03	6.86***
California	CA	2583.79	1584.13	999.65	38.54	24.39***
Colorado	CO	1808.13	1459.31	348.82	19.25	5.36***
Connecticut	CT	1871.62	1270.60	601.01	31.99	5.53***
D. of Columbia	DC	1650.09	1125.27	524.83	31.81	3.19***
Delaware	DE	1713.40	1226.79	486.62	28.42	1.45
Florida	FL	2096.09	1412.17	683.92	32.58	10.43***
Georgia	GA	1572.03	962.42	609.61	38.60	11.19***
Hawaii	HI	6418.61	890.53	5528.08	86.13	6.21***
Idaho	ID	2378.84	1934.22	444.62	18.84	1.57
Illinois	IL	1459.74	1037.59	422.15	28.93	9.45***
Indiana	IN	1435.36	544.77	890.59	62.10	14.28***
Iowa	IA	1513.53	788.57	724.96	47.62	6.13***
Kansas	KS	1531.87	1122.38	409.49	26.37	3.16***
Kentucky	KY	1441.90	740.98	700.92	48.51	6.49***
Louisiana	LA	1717.33	665.99	1051.34	61.10	12.66***
Maine	ME	2112.19	776.04	1336.16	63.05	5.04***
Maryland	MD	1650.32	1034.53	615.79	37.40	6.34***
Massachusetts	MA	1994.91	1766.56	228.35	11.47	2.80***
Michigan	MI	1516.30	827.61	688.69	45.45	8.17***
Minnesota	MN	1626.41	1328.03	298.38	18.38	5.18***
Mississippi	MS	1597.71	659.37	938.34	58.92	10.48***
Missouri	MO	1564.26	984.51	579.75	37.47	11.98***
Montana	MT	2382.87	729.04	1653.83	69.35	4.55***
Nebraska	NE	1560.54	1097.33	463.21	29.69	5.61***
Nevada	NV	2307.19	1264.63	1042.57	44.80	5.46***
New Hampshire	NH	1998.08	1001.11	996.97	50.18	4.21***
New Jersey	NJ	1771.42	1129.90	641.52	36.18	7.62***
New Mexico	NM	1920.33	1839.54	80.79	4.22	0.44
New York	NY	1791.71	1285.78	505.93	28.28	9.01***
North Carolina	NC	1625.41	847.15	778.26	47.86	13.13***
North Dakota	ND	1799.07	1528.51	270.56	15.08	1.21
Ohio	OH	1484.59	812.68	671.91	45.01	12.42***
Oklahoma	OK	1581.04	616.39	964.65	61.05	11.55***
Oregon	OR	2757.16	1555.05	1202.11	43.71	7.54***
Pennsylvania	PA	1658.09	917.98	740.11	44.36	12.32***
Rhode Island	RI	1968.65	1817.35	151.31	7.78	0.40
South Carolina	SC	1630.36	759.06	871.30	53.50	5.57***
South Dakota	SD	1836.21	879.66	956.54	52.09	4.34***
Tennessee	TN	1480.55	900.58	579.97	39.07	8.96***
Texas	TX	1742.85	1221.61	521.24	29.58	14.90***
Utah	UT	2099.22	1019.35	1079.88	51.43	11.12***
Vermont	VT	1943.81	474.82	1468.99	75.67	5.39***
Virginia	VA	1644.65	1098.43	546.22	33.39	6.17***
Washington	WA	2761.16	1484.67	1276.49	46.49	11.56***
West Virginia	WV	1510.80	439.66	1071.15	70.77	6.91***
Wisconsin	WI	1519.24	681.11	838.13	55.04	10.33***
Wyoming	WY	2099.55	783.18	1316.37	62.70	0.92
<b>Mean</b>		<b>1962.63</b>	<b>1099.10</b>	<b>863.53</b>	<b>41.83</b>	
<b>(Median)</b>		<b>(1717.33)</b>	<b>(1019.35)</b>	<b>(700.92)</b>	<b>(44.36)</b>	

**Table IV: State Antitakeover Statutes**

The table reports state-level antitakeover law characteristics. The year of endorsement of the five standard antitakeover statutes are reported. *Constituency* statute requires a potential acquirer to win approval from a majority of outstanding disinterested shares, before it is allowed to acquire control of the target firm. *Control Share* Requires a potential acquirer to win approval from a majority of outstanding disinterested shares, before it is allowed to acquire control of the target firm. *No. Freezeouts* prohibits acquirers, under certain conditions, from merging with the target for a certain number of years (typically 3-5 years). *Fair Price* ensures that acquirers do not pay a premium for control of the target and then after acquiring control, buy remaining shares at lower prices. *Poison Pill* explicitly authorizes use of poison pills as a defensive tactic by the target firm. *Number of Statutes* is the total number of statutes endorsed by the state.

State	Effective Year of Statute					Freezeouts (# years)	Number of Statutes
	Constituency	Control Share	No. Freezeouts	Fair Price	Poison Pill		
Alabama						0	0
Alaska						0	0
Arizona	1987	1990	1987	1987		3	4
Arkansas						0	0
California						0	0
Colorado					1989	0	1
Connecticut	1997		1988	1985		5	3
D. of Columbia						0	0
Delaware			1987			3	1
Florida	1990	1987		1987	1990	0	4
Georgia	1989		1988	1985	1989	5	4
Hawaii	1989	1985			1988	0	3
Idaho	1988	1988	1988	1988	1988	3	5
Illinois	1985		1989	1985	1989	3	4
Indiana	1989	1986	1986	1986	1986	5	5
Iowa	1989		1997		1989	3	3
Kansas		1988	1989			3	2
Kentucky	1989		1988	1988	1984	5	4
Louisiana	1988	1987		1984		0	3
Maine	1986		1988			5	1
Maryland	1999	1989	1989	1983	1999	5	5
Massachusetts	1989	1987	1989		1989	3	4
Michigan		1988	1984	1984		5	3
Minnesota	1987	1987	1987	1991		4	4
Mississippi	1990	1991		1985		0	3
Missouri	1986	1987	1986	1986		5	4
Montana						0	0
Nebraska		1988	1988			5	2
Nevada	1991	1987	1991	1991	1989	3	5
New Hampshire						0	0
New Jersey	1989		1986	1986	1989	5	4
New Mexico	1987					0	1
New York	1987		1985	1985	1986	5	4
North Carolina		1987		1987	1990	0	3
North Dakota	1993					0	1
Ohio	1984	1982	1990	1990	1986	3	5
Oklahoma		1987	1991			3	2
Oregon	1989	1987	1991		1989	3	4
Pennsylvania	1990	1990	1988	1988	1989	5	5
Rhode Island	1990		1990	1990	1990	5	4
South Carolina		1988	1988	1988		2	3
South Dakota	1990	1990	1990	1990	1990	4	5
Tennessee	1988	1988	1988	1988	1989	5	5
Texas			1997			3	1
Utah		1987			1989	0	2
Vermont	1998					0	1
Virginia		1989	1988	1988	1990	3	4
Washington			1987	1987	1998	5	3
West Virginia						0	0
Wisconsin	1987	1986	1987	1987	1972	3	5
Wyoming	1990	1990	1989			3	3

Table V

**Multivariate Logistic Regressions: Effects of Macroeconomic Conditions and State Law**

The dependent variable in the logistic regressions is the dummy variable (*In-state*) which assumes a value of one if the target is headquartered in the same state as the acquirer, and value of zero otherwise. *Log (GSP)* is the natural logarithm of the acquirer state's Gross State Product in \$million in the year when the acquisition is announced. *Antitakeover Statutes* is the number of antitakeover statutes that have been endorsed by the acquirer state. There are five types of standard antitakeover statutes. *Control Shares Statute* is a dummy variable with value one when the state endorses a statute which requires a potential acquirer to win approval from a majority of outstanding disinterested shares, before it is allowed to acquire control of the target firm, and value of zero otherwise. *Fair Price Statute* is a dummy variable with value one when the state ensures that acquirers do not pay a premium for control of the target and then after acquiring control, buy remaining shares at lower prices, and assumes a value of zero otherwise. *No Freezeouts Statute* is a variable with values 0, 3 or 5, indicating the number of years for which the state prohibits acquirers, under certain conditions, from merging with the target. This variable has value zero when the state has not adopted a no-freezeouts statute, and otherwise indicates the number of years for which the prohibition holds in the statute. *Poison Pill Statute* is a dummy variable with value one when a state endorses poison-pills as defensive tactics, explicitly authorizing the use of these tactics by the target firm, and has value zero otherwise. *Constituencies Statute* is a dummy variable with value one when a state authorizes the target's management to use defensive tactics in the name of non-shareholder constituencies, such as employees etc., and has value zero otherwise. *S&P500 Ret. (12-month)* is the twelve-month compounded return on the S&P500 composite index prior to the month of acquisition. *Log(IPO Activity)* is the natural logarithm of the total number of initial public offerings in the 12-months prior to the acquisition announcement.  $\Delta(\text{Interest Rate})$  is the growth in interest rate in the year prior to the acquisition and is computed as the ratio of the annual average interest rates in year t-2 to year t-1, where t is year of announcement. *Interest Rate* is the annual average interest rate in year t-1. %Apr. is the marginal effect measured as percent change in the probability of occurrence of the dependent variable (at mean values for all variables excluding dummy variables which are discrete).

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]	Co-eff. [%Δp]
<i>Intercept</i>	-5.67 <sup>a</sup>	0.80	0.19	-0.89	0.39 <sup>c</sup>	-1.01	0.31	0.76	-0.99 <sup>a</sup>
<i>Log (GSP)</i>	1.10 <sup>b</sup> [27.05]								
<i>Antitakeover Statutes</i>		-0.15 <sup>a</sup> [-2.42]							
<i>Control Shares Statute</i>			-0.30 <sup>a</sup> [-7.50]					-0.12 <sup>a</sup> [-2.00]	
<i>Fair Price Statute</i>				-0.45 <sup>a</sup> [-8.42]				-0.10 [-1.78]	
<i>No. Freezeouts Statute</i>					-0.12 <sup>a</sup> [-3.00]			-0.08 <sup>a</sup> [-1.32]	
<i>Poison Pill Statute</i>						-0.40 <sup>a</sup> [-7.07]		-0.07 [-1.29]	
<i>Constituencies Statute</i>							-0.48 <sup>a</sup> [-11.89]	-0.11 <sup>c</sup> [-1.99]	
<i>S&amp;P500 Ret. (12-month)</i>									-0.05 [-0.03]
<i>Log(IPO Activity)</i>									-0.05 <sup>b</sup> [-1.91]
$\Delta(\text{Interest Rate})$									-0.51 <sup>a</sup> [-10.90]
<i>Interest Rate</i>									0.09 <sup>a</sup> [2.01]
<i>Ann. Year Dummy</i>	YES	YES	YES	YES	YES	YES	YES	YES	NO
<i>State Dummy</i>	NO	NO	NO	NO	NO	NO	NO	NO	YES
Pseudo-R <sup>2</sup> (%)	3.19	1.79	0.77	1.26	1.54	1.07	1.37	1.84	4.96
No. of Obs.	10,342	10,342	10,342	10,342	10,342	10,342	10,342	10,342	10,342

<sup>a, b, c</sup> indicates significance at the 1%, 5% and 10% level respectively.

**Table VI**  
**Multivariate Logistic Regressions: Firm and Deal Characteristics**

The dependent variable in the logistic regressions is the dummy variable (*In-state*) which assumes a value of one if the target is headquartered in the same state as the acquirer, and value of zero otherwise. *Acquirer Log (Market Cap.)* is a measure of the acquirer size and is the natural logarithm of the market value (in \$mill) of the acquiring firm in the month prior to the acquisition announcement. *Acquirer Log(BE/ME)* is the natural logarithm of the ratio of book-value of equity to market-value of equity of the acquirer in the month prior the acquisition announcement. *Acquirer Debt/Assets* is a ratio of debt to total assets of acquirer. *Target Public Dummy* is a dummy variable assuming a value of one if the target is publicly traded, and zero otherwise. *Related Dummy* is a dummy variable assuming a value of one if the acquirer and target have the same two-digit SIC code, and zero otherwise. *Cash Dummy* is a dummy variable assuming a value of one if the method of payment is 100% cash, and zero otherwise. *Hostile Dummy* assumes a value of one if the deal attitude is stated as hostile, and zero otherwise. *Tender Dummy* assumes a value of one if the acquirer made a tender offer, and zero otherwise. *Log(Deal Value)* is the natural logarithm of the value of the deal in \$million. *S&P500 Ret.(12-month)* is the twelve-month compounded return on the S&P500 composite index prior to the month of acquisition. *Target Log (Market Cap.)* is a measure of the target size and is the natural logarithm of the market value (in \$mill) of the target firm in the month prior to the acquisition announcement. *Target Log(BE/ME)* is the natural logarithm of the ratio of book-value of equity to market-value of equity of the target in the month prior the acquisition announcement. *Target Debt/Assets* is a ratio of debt to total assets of target. *Log(IPO Activity)* is the natural logarithm of the total number of initial public offerings in the 12-months prior to the acquisition announcement.  $\Delta(\text{Interest Rate})$  is the growth in interest rate in the year prior to the acquisition and is computed as the ratio of the annual average interest rates in year t-2 to year t-1, where t is year of announcement. *Interest Rate* is the annual average interest rate in year t-1. %Apr. is the marginal effect measured as percent change in the probability of occurrence of the dependent variable (at mean values for all variables excluding dummy variables which are discrete).

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Co-eff. [%Apr.]					
<i>Intercept</i>	-0.81	-0.95	0.54	-1.91 <sup>c</sup>	0.36	-7.74 <sup>a</sup>
<i>Acquirer Log(Market Cap.)</i>	-0.15 <sup>a</sup> [-1.72]			-0.19 <sup>a</sup> [-0.27]	-0.19 <sup>a</sup> [-3.37]	-0.21 <sup>a</sup> [-1.39]
<i>Acquirer Log(BE/ME)</i>	0.06 <sup>b</sup> [0.67]			-0.07 <sup>b</sup> [-0.10]	0.13 [2.25]	-0.08 <sup>b</sup> [-0.57]
<i>Acquirer Debt/Assets</i>	1.81 <sup>a</sup> [20.28]			0.07 [0.09]	2.08 <sup>a</sup> [0.36]	-0.05 [-0.31]
<i>Target Public Dummy</i>		0.34 <sup>a</sup> [5.85]		0.18 <sup>b</sup> [0.28]		0.17 <sup>b</sup> [1.24]
<i>Related Dummy</i>		0.12 <sup>b</sup> [1.83]		0.09 [0.13]	0.36 <sup>a</sup> [5.50]	0.09 [0.56]
<i>Cash Dummy</i>		-0.17 <sup>a</sup> [-2.44]		0.02 [0.03]	0.11 [1.86]	0.03 [0.17]
<i>Hostile Dummy</i>		0.55 <sup>b</sup> [9.84]		0.40 [0.69]	0.23 [4.11]	0.44 [3.62]
<i>Tender Dummy</i>		-0.21 <sup>c</sup> [-3.04]		-0.07 [-0.09]	-0.61 <sup>a</sup> [-8.75]	-0.05 [-0.34]
<i>Log(Deal Value)</i>		-0.16 <sup>a</sup> [-2.50]				
<i>Target Log (Market Cap.)<sup>†</sup></i>			-0.15 <sup>a</sup> [-1.97]		-0.05 [-0.94]	
<i>Target Log(BE/ME)<sup>†</sup></i>			0.19 <sup>a</sup> [2.40]		-0.03 [-0.53]	
<i>Target Debt/Assets<sup>†</sup></i>			1.58 <sup>a</sup> [20.33]		0.16 [2.71]	
<i>Log(GSP)</i>						1.42 <sup>a</sup> [9.57]
<i>Antitakeover Statutes</i>						-0.12 <sup>a</sup> [-0.83]
<i>Log(IPO Activity)</i>						-0.03 [-0.07]
$\Delta(\text{Interest Rate})$						-0.52 <sup>b</sup> [-3.51]
<i>Interest Rate</i>						0.08 <sup>a</sup> [0.53]
<i>Ann. Year Dummy</i>	YES	YES	YES	YES	YES	NO
<i>State Dummy</i>	YES	YES	YES	YES	YES	NO
<i>GIC Industry Dummy</i>	NO	YES	NO	YES	NO	YES
Pseudo-R <sup>2</sup> (%)	10.04	13.20	10.86	15.88	15.38	13.96
No. of Obs.	6,743	9,878	2,445	6,568	1,635	6,647

<sup>†</sup> Only available for the subsample of public targets.

<sup>a, b, c</sup> indicates significance at the 1%, 5% and 10% level respectively.

**Table VII**

**Multinomial Logistic Regressions**

The dependent variable in the multinomial logistic regressions is the ordered polychotomous variable *Dist\_Range* which assumes a value of 1, 2, 3 or 4 when the distance (in km) between the acquirer and target is in the ranges 0-100km, 100-500km, 500-2000km and >2000km, respectively.  $P_i$  is defined as the probability that the target firm lies in the distance range  $i$  from the acquirer, where  $i$  is 1, 2, 3 or 4 (four categories of distance). The multinomial regression model is defined as:  $P_i = \exp(x' \beta_j) / [1 + \sum_k \exp(x' \beta_k)]$ , where  $\beta_j$  is the vector of estimate co-efficient on the independent variables

$x'$  and  $k$  is the category 1, 2, 3 or 4. The base case in our regressions is the category 1, which is the smallest distance 0-100 km. The table reports the co-efficients of the independent variables, their significance levels and marginal effects (at mean values for all variables excluding dummy variables). *Log (GSP)* is the natural logarithm of the acquirer state's Gross State Product in \$million in the year when the acquisition is announced. *Antitakeover Statutes* is the number of antitakeover statutes that have been endorsed by the acquirer state. There are five types of standard antitakeover statutes. *Log(IPO Activity)* is the natural logarithm of the total number of initial public offerings in the 12-months prior to the acquisition announcement.  $\Delta(\text{Interest Rate})$  is the growth in interest rate in the year prior to the acquisition and is computed as the ratio of the annual average interest rates in year t-2 to year t-1, where t is year of announcement. *Interest Rate* is the annual average interest rate in year t-1. *Acq. Log (Market Cap.)* is a measure of the acquirer size and is the natural logarithm of the market value (in \$mill) of the acquiring firm in the month prior to the acquisition announcement. *Acq. Log(BE/ME)* is the natural logarithm of the ratio of book-value of equity to market-value of equity of the acquirer in the month prior to the acquisition announcement. *Acq. Debt/Assets* is a ratio of debt to total assets of acquirer. *Target Public Dummy* is a dummy variable assuming a value of one if the target is publicly traded, and zero otherwise. *Related Dummy* is a dummy variable assuming a value of one if the acquirer and target have the same two-digit SIC code, and zero otherwise. *Cash Dummy* is a dummy variable assuming a value of one if the method of payment is 100% cash, and zero otherwise. *Hostile Dummy* assumes a value of one if the deal attitude is stated as hostile, and zero otherwise. *Tender Dummy* assumes a value of one if the acquirer made a tender offer, and zero otherwise. *Log(Deal Value)* is the natural logarithm of the value of the deal in \$million. *Tgt. Log (Market Cap.)* is a measure of the target size and is the natural logarithm of the market value (in \$mill) of the target firm in the month prior to the acquisition announcement. *Tgt. Log(BE/ME)* is the natural logarithm of the ratio of book-value of equity to market-value of equity of the target in the month prior to the acquisition announcement. *Tgt. Debt/Assets* is a ratio of debt to total assets of target. %Apr. is the marginal effect measured as percent change in the probability of occurrence of the dependent variable (at mean values for all variables excluding dummy variables which are discrete).

Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Co-eff.	%Apr.	Co-eff.	%Apr.	Co-eff.	%Apr.	Co-eff.	%Apr.	Co-eff.	%Apr.
<i>Intercept</i>	(2)	4.31 <sup>a</sup>	0.06	26.70 <sup>a</sup>	6.40 <sup>a</sup>	-3.17 <sup>c</sup>	11.24 <sup>a</sup>	29.03 <sup>a</sup>	4.50 <sup>a</sup>	
	(3)	6.50 <sup>a</sup>	0.47	27.25 <sup>a</sup>	9.03 <sup>a</sup>	2.09	-18.93 <sup>a</sup>	4.68 <sup>a</sup>	7.54 <sup>a</sup>	
	(4)	2.17 <sup>a</sup>	0.99 <sup>c</sup>	1.67	4.79 <sup>a</sup>	26.17 <sup>a</sup>	-14.68 <sup>a</sup>	2.75	3.80 <sup>a</sup>	
<i>Log (GSP)</i>	(2)	-1.14 <sup>a</sup> [-3.78]			-1.09 <sup>a</sup> [-2.95]				-1.21 <sup>a</sup> [-8.87]	
	(3)	-1.30 <sup>a</sup> [-17.78]			-1.24 <sup>a</sup> [-17.37]				-1.34 <sup>a</sup> [-16.83]	
	(4)	-0.44 <sup>a</sup> [1.65]			-0.47 <sup>a</sup> [14.12]				-0.50 <sup>a</sup> [6.85]	
<i>Antitakeover Statutes</i>	(2)		0.14 <sup>a</sup> [2.23]		0.08 <sup>a</sup> [1.15]				0.11 <sup>a</sup> [1.67]	
	(3)		0.08 <sup>a</sup> [0.73]		-0.01 [0.12]				0.02 [-0.08]	
	(4)		-0.01 [-2.26]		-0.05 <sup>a</sup> [-1.36]				-0.01 [-1.01]	
<i>Log(IPO Activity)</i>	(2)		0.03 [-1.08]	0.03 [-1.08]	0.01 [-0.07]				0.04 [0.44]	
	(3)		0.07 [1.08]	0.07 [1.08]	0.05 [1.72]				0.06 [1.30]	
	(4)		-0.01 [-0.00]	-0.01 [-0.00]	-0.03 [-1.55]				-0.03 [-1.30]	
$\Delta(\text{Interest Rate})$	(2)		-0.00 [-7.30]	-0.00 [-7.30]	-0.01 [-2.50]				0.09 [-0.06]	
	(3)		0.31 [7.30]	0.31 [7.30]	0.26 [3.03]				0.55 <sup>c</sup> [4.29]	
	(4)		0.28 [0.00]	0.28 [0.00]	0.22 [0.89]				0.83 <sup>a</sup> [11.73]	
<i>Interest Rate</i>	(2)		-0.03 [0.96]	-0.03 [0.96]	-0.04 [0.15]				-0.07 [-0.07]	
	(3)		0.31 [-0.96]	0.31 [-0.96]	-0.09 <sup>a</sup> [-1.53]				-0.12 <sup>a</sup> [-1.56]	
	(4)		-0.03 [-0.00]	-0.03 [-0.00]	-0.03 [0.97]				-0.07 <sup>c</sup> [-0.03]	



## Appendix A. Description of Macroeconomic and Antitakeover Law Variables

<b>Name of Variable</b>	<b>Description</b>
<i>Log(GSP)</i>	Natural logarithm of the annual Gross State Product (GSP). GSP is defined as the value added in production by the labor and property located in a state, and comprises of three components: compensation of employees, indirect business tax and non-tax liability (IBT), property-type income. <i>Source:</i> Bureau of Economic Analysis, U.S. Department of Commerce
<i>Antitakeover Statutes</i>	Total number of standard antitakeover statutes endorsed by a state. The five standard antitakeover statutes are control share, fair price, no freezeout, poison-pill endorsement and constituency.
<i>Control Shares Statute</i>	Requires a potential acquirer to win approval from a majority of outstanding disinterested shares, before it is allowed to acquire control of the target firm.
<i>Fair Price Statute</i>	Ensures that acquirers do not pay a premium for control of the target and then after acquiring control, buy remaining shares at lower prices.
<i>No. Freezeouts Statute</i>	Prohibits acquirers, under certain conditions, from merging with the target for a certain number of years (typically 3-5 years).
<i>Poison Pill Statute</i>	Explicitly authorizes use of poison pills as a defensive tactic by the target firm.
<i>Constituencies Statute</i>	Authorizes the target's management to use defensive tactics in the name of non-shareholder constituencies, such as employees etc.
<i>S&amp;P500 Ret.(12-month)</i>	One-year return on the S&P500 composite index compounded monthly ending the month prior to the announcement of the acquisition by acquirer. <i>Source:</i> CRSP (Center for Research on Security Prices)
<i>Log(IPO Activity)</i>	Natural logarithm of the total number of initial public offerings of common equity in the 12 months preceding the announcement of the acquisition, ending in the month prior to the month of announcement. <i>Source:</i> Prof. Jay Ritter's website ( <a href="http://bear.cba.ufl.edu/ritter/">http://bear.cba.ufl.edu/ritter/</a> ).
$\Delta(\text{Interest Rate})$	Growth in interest rate in the year prior to the acquisition, computed as the ratio of the annual average interest rates in year t-2 to year t-1, where t is year of announcement of the acquisition. <i>Source:</i> Federal Reserve Board of Governors
<i>Interest Rate</i>	Annual average of monthly interest rates in year t-1, where t is the year of announcement of the acquisition. <i>Source:</i> Federal Reserve Board of Governors

### Appendix B1: Test of Home Bias in Domestic M&A Activity (Subsample of Unrelated Deals)

Panel A reports the degree of home bias in acquirers, using acquirer states as units of observation for a subsample of acquisitions where acquirer and target firms do not have matching 2-digit SIC industry codes. The benchmark weight of home state targets is the sample weight of Compustat firms located in the acquirer's home state. The actual weight of targets in the home state is the % of acquisitions by the acquirer state involving home state targets. Home bias is the % of overweighting of home state targets by acquirers, measured as the difference in actual weight and benchmark weight of home state targets and t-tests use the binomial probability test: The null hypothesis is that the probability of acquisition in the home state by an acquirer is equal to the sample weight of firms in the acquirer's home state. \*\*\*, \*\* denote significance at the 1%, 5% level respectively.

<i>Panel A: Test for Home Bias using Target State Weights</i>						
<i>Acquirer State</i>	<i>Code</i>	<i>Sample Targets Benchmark Weight (%)</i>	<i>Compustat Benchmark Weight (%)</i>	<i>Actual Weight (%)</i>	<i>Home Bias (%) (Sample Targets)</i>	<i>Home Bias (%) (Compustat)</i>
Alabama	AL	0.92	0.63	16.67	15.75***	16.04***
Alaska	AK	0.10	0.04	0.00	-0.10	-0.04
Arizona	AZ	2.11	1.14	15.38	13.27***	14.24***
Arkansas	AR	0.44	0.41	11.11	10.67**	10.7***
California	CA	19.75	13.84	47.44	27.69***	33.6***
Colorado	CO	2.45	2.23	15.00	12.55***	12.77***
Connecticut	CT	1.87	2.04	10.68	8.81***	8.64***
D. of Columbia	DC	0.49	0.28	7.14	6.65**	6.86**
Delaware	DE	0.34	0.38	0.00	-0.34	-0.38
Florida	FL	5.73	4.42	37.23	31.50***	32.81***
Georgia	GA	3.50	2.16	20.63	17.13***	18.47***
Hawaii	HI	0.07	0.21	0.00	-0.07	-0.21
Idaho	ID	0.22	0.22	0.00	-0.22	-0.22
Illinois	IL	3.94	3.60	19.70	15.76***	16.1***
Indiana	IN	1.26	1.27	26.47	25.21***	25.2***
Iowa	IA	0.49	0.50	30.00	29.51***	29.5***
Kansas	KS	0.27	0.48	6.67	6.40	6.19*
Kentucky	KY	0.32	0.56	8.70	8.38**	8.14***
Louisiana	LA	1.17	0.66	50.00	48.83***	49.34***
Maine	ME	0.27	0.18	50.00	49.73***	49.82***
Maryland	MD	1.82	1.50	20.00	18.18***	18.5***
Massachusetts	MA	4.98	3.89	23.79	18.81***	19.9***
Michigan	MI	2.43	1.72	29.85	27.42***	28.13***
Minnesota	MN	2.09	2.77	14.58	12.49***	11.81***
Mississippi	MS	0.24	0.26	4.55	4.31	4.29
Missouri	MO	1.21	1.49	10.00	8.79***	8.51***
Montana	MT	0.07	0.09	0.00	-0.07	-0.09
Nebraska	NE	0.22	0.35	7.14	6.92**	6.79***
Nevada	NV	0.75	0.85	34.48	33.73***	33.63***
New Hampshire	NH	0.44	0.44	12.50	12.06***	12.06***
New Jersey	NJ	3.57	4.39	15.38	11.81***	10.99***
New Mexico	NM	0.53	0.15	0.00	-0.53	-0.15
New York	NY	7.48	8.34	26.15	18.67***	17.81***
North Carolina	NC	2.19	1.53	18.81	16.62***	17.28***
North Dakota	ND	0.02	0.07	0.00	-0.02	-0.07
Ohio	OH	3.11	3.26	17.56	14.45***	14.3***
Oklahoma	OK	0.66	0.73	10.00	9.34*	9.27*
Oregon	OR	1.09	0.83	12.90	11.81***	12.07***
Pennsylvania	PA	3.40	3.92	22.29	18.89***	18.37***
Rhode Island	RI	0.22	0.27	11.11	10.89*	10.84**
South Carolina	SC	0.87	0.65	22.73	21.86***	22.08***
South Dakota	SD	0.07	0.11	0.00	-0.07	-0.11
Tennessee	TN	1.34	1.05	15.28	13.94***	14.23***
Texas	TX	7.97	7.84	29.87	21.9***	22.03***
Utah	UT	0.90	0.82	14.71	13.81***	13.89***
Vermont	VT	0.07	0.18	0.00	-0.07	-0.18
Virginia	VA	2.94	2.07	25.29	22.35***	23.22***
Washington	WA	2.16	1.51	28.57	26.41***	27.06***
West Virginia	WV	0.10	0.17	0.00	-0.10	-0.17
Wisconsin	WI	1.31	1.18	26.09	24.78***	24.91***
Wyoming	WY	0.02	0.13	0.00	-0.02	-0.13
<b>Mean(Median)</b>		<b>1.96 (0.92)</b>	<b>1.72 (0.82)</b>	<b>16.21 (15.00)</b>		

### Appendix B2: Test of Home Bias using Coval-Moskowitz Local Bias Measure (Subsample of Unrelated Deals)

The table reports measures and significance of local bias (*LB*) following Coval-Moskowitz (1999) using acquirer states as units of observation, for a subsample of acquisitions where acquirer and target firms do not have matching 2-digit SIC industry codes. Benchmark distance for an acquirer is the mean distance of all sample targets from the acquirer. Actual distance is the distance in km between an acquirer and target. The reported values of the states are averages across all acquirers in the state. *LB* in km (%) is the local bias measured as difference between actual and benchmark distance (% of benchmark distance). \*\*\*, \*\* denote significance at the 1%, 5% level respectively.

Panel B: Coval-Moskowitz Test for Local Bias

Acquirer State	Code	Benchmark Distance (km)	Actual Distance (km)	LB (km)	LB (%)	t-stat
Alabama	AL	1578.18	827.35	750.82	47.57	6.38***
Alaska	AK	-	-	-	-	-
Arizona	AZ	2167.81	1902.08	265.72	12.28	1.49
Arkansas	AR	1545.52	1077.58	467.94	30.26	2.22**
California	CA	2544.46	1645.97	898.49	35.30	13.91***
Colorado	CO	1800.17	1474.41	325.76	18.08	3.17***
Connecticut	CT	1861.68	1425.91	435.77	23.39	2.60***
D. of Columbia	DC	1686.54	1315.31	371.23	22.01	1.47
Delaware	DE	1747.08	2060.25	-313.17	-17.93	-0.53
Florida	FL	2132.47	1374.80	757.67	35.23	7.81***
Georgia	GA	1607.56	1162.42	445.14	27.53	4.38***
Hawaii	HI	-	-	-	-	-
Idaho	ID	2354.21	2115.52	238.69	10.05	0.77
Illinois	IL	1493.40	994.17	499.24	33.45	8.47***
Indiana	IN	1477.07	888.26	588.81	39.90	3.92***
Iowa	IA	1530.13	910.08	620.05	40.47	3.28***
Kansas	KS	1540.69	1195.84	344.86	22.75	1.53
Kentucky	KY	1478.38	861.08	617.30	41.79	3.89***
Louisiana	LA	1738.65	656.45	1082.21	62.16	6.30***
Maine	ME	2193.72	419.22	1774.50	80.44	6.52***
Maryland	MD	1686.57	821.29	865.27	51.43	7.46***
Massachusetts	MA	2027.94	1865.86	162.08	8.05	1.30
Michigan	MI	1553.10	900.97	652.13	41.97	4.74***
Minnesota	MN	1649.19	1313.56	335.63	20.40	3.88***
Mississippi	MS	1636.55	855.73	780.82	47.98	4.87***
Missouri	MO	1593.34	1216.35	376.98	23.98	4.04***
Montana	MT	2373.72	1774.24	599.47	26.09	0.44
Nebraska	NE	1579.05	1218.29	360.76	22.88	3.09***
Nevada	NV	2282.98	1055.68	1227.30	53.49	4.96***
New Hampshire	NH	2033.51	1214.20	819.31	40.44	2.47**
New Jersey	NJ	1804.59	1312.72	491.87	27.18	3.66***
New Mexico	NM	1896.90	1695.42	201.47	10.73	0.77
New York	NY	1823.29	1348.04	475.24	26.10	5.90***
North Carolina	NC	1668.69	1208.17	460.52	27.63	3.94***
North Dakota	ND	1887.04	1757.82	129.22	6.85	-
Ohio	OH	1527.74	1191.14	336.59	21.72	3.19***
Oklahoma	OK	1570.20	763.90	806.30	51.21	4.31***
Oregon	OR	2738.98	1854.43	884.55	32.33	3.33***
Pennsylvania	PA	1705.17	1232.18	472.99	27.30	4.20***
Rhode Island	RI	2001.09	1419.94	581.15	29.13	1.15
South Carolina	SC	1685.44	1094.46	590.97	34.80	1.98*
South Dakota	SD	1838.49	498.30	1340.20	72.90	-
Tennessee	TN	1518.20	831.07	687.13	45.28	8.10***
Texas	TX	1742.05	1281.31	460.74	26.23	8.67***
Utah	UT	2080.30	1098.04	982.27	47.23	5.70***
Vermont	VT	1987.75	3747.00	-1759.25	-88.50	-
Virginia	VA	1683.31	903.54	779.77	46.42	5.68***
Washington	WA	2728.05	1413.68	1314.37	48.47	6.71***
West Virginia	WV	1544.24	3277.00	-1732.76	-112.21	-
Wisconsin	WI	1540.40	1014.62	525.78	34.07	3.00***
Wyoming	WY	2086.80	332.21	1754.59	84.08	-
<b>Mean</b>		<b>1835.76</b>	<b>1302.41</b>	<b>533.36</b>	<b>28.58</b>	
<b>(Median)</b>		<b>(1738.65)</b>	<b>(1214.20)</b>	<b>(525.78)</b>	<b>(30.26)</b>	