TRADEOFFS IN STAYING CLOSE: CORPORATE DECISION-MAKING AND GEOGRAPHIC DISPERSION*

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FIRST VERSION: NOVEMBER 2005
THIS VERSION: MARCH 2006

Abstract: We document the role of geographic dispersion on corporate decision-making. First, we find that geographically dispersed firms are less employee-friendly. Second, using division-level data, employee dismissals are less common in divisions located close to corporate headquarters. Third, firms are reluctant to divest in-state divisions. To explain these findings we consider two mechanisms. First, we investigate whether headquarter proximity to divisions is related to internal information flows. We find that firms are geographically concentrated when information is more difficult to transfer over long distances (soft information industries). Additionally, the protection of proximate employees is stronger in such soft information industries. Second, we investigate how headquarter proximity to employees affects managerial alignment with shareholder objectives. We document that the protection of proximate employees only holds when headquarters is located in less-populated counties suggesting concern for such employees. Moreover, stock markets respond favorably to divestitures of close divisions, especially for these smaller-county firms. Our findings suggest that social factors work alongside informational considerations in making geographic dispersion an important factor in corporate decision-making.

* We would like to thank Itay Goldstein, Raghuram Rajan, Michael Roberts, Antoinette Schoar, Todd Sinai, Per Stromberg, David Thesmar and seminar participants at the Swedish Institute of Financial Research, New York University and the University of Texas, for helpful comments/discussions.
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I. INTRODUCTION

The locations of corporations have important consequences, from affecting the design of cities and local employment, to the trends of urbanization and inter-region trade. Consequently, one of the fundamental issues in economics relates to the location of production. Since, at least Marshall (1890), economists have noted that while some industries tend to cluster around a geographic region others remain separate. This has led to the uncovering of several factors governing the choice the location.[1]

However, a related aspect of economic geography – the geographic dispersion of a firm - has received little attention. Does a firm that is concentrated and localized in one region act differently from a firm that is widely dispersed? Does the geographic dispersion of firms or more specifically, the distance between divisions and headquarters, affect corporate decision-making? In this paper, we document three distinct findings that suggest this is indeed the case.

First, we find geographically dispersed firms are less employee friendly.[2] Second, using division-level data, closer divisions are less likely to face layoffs. Even more strikingly, there is a strong relation between the severity of layoffs and distance from headquarters. Together, this suggests that an employee in a division that is closer to the headquarters is less likely to be dismissed. Further, this bias towards protecting proximate employees only holds if the headquarters are located in a low-population county. Third, we find a pecking order in divestitures of divisions: divisions further from headquarters

[1] For excellent reviews see Fujita, Krugman and Venables (1999), Fujita and Thisse (2002) and Duranton and Puga (2003).

[2] Employee friendliness includes firm actions that determine the level of employee retirement benefits, employee healthcare benefits, profit sharing programs, union relations and employee involvement (discussed in more detail in Section II).

are divested before closer divisions. Additionally, it takes significantly poorer financial performance for firms to resort to divesting a proximate division, suggesting a managerial resistance to this type of restructuring.

While these results suggest a robust pattern of favoritism towards employees of proximate divisions, they say little about the underlying mechanisms at work. There are at least two reasons why geographic dispersion and corporate decision-making might be related. First, information quality may be compromised when the decision-maker is further from the business for which the decision is relevant. For example, how does a CEO located in Rochester, New York make a capital investment decision for a division located in Baton Rouge, Louisiana? Distance is often used as a proxy for information asymmetry (e.g., Coval and Moskowitz (1999), Garmaise and Moskowitz (1999), and Grinblatt and Keloharju (1999)) since it affects the means of information acquisition – impersonal means are more prevalent over longer distances - and consequently the nature of information acquired (see, e.g., Petersen and Rajan, 2002). Hence, dispersion may be related to information flows inside organizations.[3] Managers might react differently to economic shocks, depending on whether divisions are close or remote, because their information sets are different.

The second reason is that more frequent social interactions with proximate employees leads to a potential disconnect between managerial incentives and shareholder interests. Managers are more concerned about employees with whom they interact more

[3] Further support for this view is found in a recent case where Quiksilver Inc., the leading outdoor sports lifestyle company, acquired Rossignol, a French company, and announced a consolidation of the French firm's various departments into a single 15-acre campus in the French Alps, citing better internal communication as an important reason.

frequently.[4] Additionally, managers of geographically concentrated firms are more visible and more likely to weigh the implications of business decisions on their social standing: firing or cutting the pay of neighbors can be a source of embarrassment, especially in smaller communities. Managers internalize the impact of their decisions on local employees and local community welfare. As a result, social considerations can lead to a conflict with shareholder wealth maximization.[5]

To investigate the link between distance and information flows, we classify industries by the nature of information: hard versus soft. [6] Our measure of the prevalence of hard information is defined as the change in distance between banks and borrowing firms over time by industry. Petersen and Rajan (2002) document that this distance has increased over time primarily due to innovations in information technology and credit-scoring techniques that now favor the use of hard information. Banks far away from a borrowing firm rely more on impersonal means of information collection and, in turn, hard information. Conversely, industries where the distance between banks and firms has not increased are categorized as soft-information environments (more precisely, environments where information cannot be cheaply hardened). Using this measure, we

[4] Glaeser (1996, 2004) recognizes a relation between proximity and social interactions in studies of individual decisions such as residence in cities and aggregate outcomes such as crime.

[5] Several anecdotes suggest that senior executives are more reluctant to lay off local workers. One such instance is the relatively recent and widely publicized case of Boeing. Boeing moved its plant from Seattle to Chicago in May 2001 and the move triggered a negative reaction from unions: "It really makes it easier for them to make those difficult public statements, like when you move wing production to Japan or move workers from Renton to Everett. Those decisions are easier to make when you're sitting in an office in Chicago."

[6] Petersen (2004) describes soft information as information that cannot be easily codified into quantitative variables. The interpretation of soft information is context-specific and requires the background knowledge of the information collector. This implies that soft information is more costly to communicate to distant agents. This is because soft information (1) doesn't lend itself to being coded and further (2) requires the message sender to be credible. By contrast, hard information is cheaper to communicate to distant agents as it is quantifiable, can be interpreted independently of the information collector and cannot be easily distorted. Liberti (2005) shows in the context of bank lending loans that are approved at the branch level rely significantly more on soft information compared to loans approved at the headquarters level.

find that firms operating in hard information industries are more geographically dispersed.

An obvious question to then ask is: do differences in information explain the relation between dismissals and proximity? Since information quality about far and close divisions is no different when information is quantifiable, there should be no relation between dismissals and proximity in hard information environments. However, the opposite is true with soft information. During tough times, managers may have no choice but to dismiss distant employees because of limited information; in contrast, richer information that comes from monitoring employees located at headquarters or on the corporate campus may lead to less severe approaches.[7] Consistent with this explanation, we find a stronger dismissal-proximity relation in soft information environments. While this finding suggests information flows matter, it is not entirely inconsistent with the notion that personal interactions are important since they are more frequent and substantial when information is soft.

Although closer proximity to gather information goes hand in hand with more frequent social interactions, we shed some light on the relative importance of social interactions *per se* by investigating whether the dismissal-proximity relation is stronger when the manager is more visible in the community. We find that employee protection only holds when firm headquarters are located in less-populated counties. Thus, social factors also play a role in corporate decision-making and informational arguments do not completely explain our findings. Taken together, the evidence suggests that (1)

[7] For example, fixing a remote, underperforming plant might be more difficult, and making layoffs and divestitures a more likely form of restructuring. This, however is only one possibility. The other possibility is that owing to better information, employee dismissals are more volatile in closer divisions. We don't find any evidence of this.

informational constraints of geographically dispersed firms and (2) social interactions, whether they increase managerial concern for employees or status in the community, are both strong determinants of the relation between geographic dispersion and corporate decision-making.

We then investigate one last implication. If proximity to employees leads to misalignment of managerial incentives with shareholder objectives, such proximity should be detrimental to shareholder value. To check this, we investigate whether the stock market response to divestitures varies by proximity of the business unit to headquarters.[8] We show a positive market reaction to "in-state" divestitures, that is significantly higher than "out-of-state" divestitures and that is higher when the company does such a divestiture for the first time (in the data). This suggests that the willingness to divest within a state is a positive signal about a manager's objective (shareholder friendliness). Moreover, the effect is stronger when the divesting headquarters is located in a less-populated county. This finding is consistent with Lerner, Schoar and Wong (2005) who find, in the context of private equity, that limited partners who get higher returns invest less in proximate funds.

Our findings contribute to at least four different areas of research. First, these findings shed light on the use of different restructuring mechanisms available to a firm. Cost savings through employee layoffs are more likely in dispersed firms while other mechanisms are more likely in concentrated firms. Additionally, we also highlight the role of geographic dispersion and the use of divestitures to restructure.

[8] We realize that a naïve cross-section regression is unlikely to provide an answer to that question, since geographic dispersion is an endogenous decision that takes into account, as an example, information flows. However, stock market responses to divestitures allow us to explore the efficiency cost of managerial concern for employees.

Second, the paper contributes to the growing literature on corporate governance.[9] The findings highlight a limitation of external governance mechanisms and document the importance of a fundamental firm characteristic in how firms treat their employees. Additionally, the vast literature on the corporate governance that aligns managerial interests to that of shareholders has ignored the role of employees (See Pagano and Volpin, 2005 for an exception). This paper takes the view that the three parties interact and the manager plays a crucial role in determining the sharing rule between shareholders and employees.

Third, our results are a step towards a better understanding of managerial 'private benefits', a notion that has been widely employed in corporate finance theory. While the notion is broad, the importance and the source of non-pecuniary private benefits have not yet been highlighted. This paper provides a channel – social interaction - that gives rise to such non-pecuniary private benefits that can engender agency costs between shareholders and managers. Further, the paper highlights that such considerations can have important effects on firm decisions.

Fourth and finally, our findings contribute to the discussion in urban economics where corporate presence is often considered as an engine for local growth and employment. This is also evident from competition between states to attract corporate headquarters.[10] Our findings suggest that the relation between corporate presence and local economic outcomes depends on the distance of divisions to headquarters.[11]

We now proceed to discuss the data used in the paper (Section II). Section III

[9] Shleifer and Vishny (1997) and Bolton et. al. (2003) survey this literature.
[10] In the context of the aforementioned Boeing case, four states were competing to attract Boeing to their respective states.
[11] This can justify the high level of concern expressed by local politicians or national governments when a distant firm takes over a local company.

documents the link between geographic dispersion and three separate corporate decisions. Section IV investigates the importance of information and social factors. Section V focuses on performance implications through divestitures. The conclusion follows.

II. DATA

In addition to balance sheet information from COMPUSTAT, we use two main sources of data. Information on firm-level treatment of employees is collected from the SOCRATES database provided by KLD analytics, while divisional level data is collected from Hewitt Associates. We describe these datasets below.

A. FIRM-LEVEL EMPLOYEE TREATMENT

KLD Research & Analytics Inc. provides information on a firm's social actions – a subset of which deals with employee treatment - in their SOCRATES database. SOCRATES is a proprietary database program that provides access to KLD's ratings and other data pertaining to the social records of a subset of publicly traded U.S. companies between 1991 and 2003. The number of companies tracked by KLD expanded from approximately 500 to over 3000 by 2003. KLD uses this database to monitor a firm's social responsibility, and this forms the basis of the Domini 400 Social Index – the first and largest socially screened index in the world.[12]

The database consists of screens that are used to assign strengths and concerns with respect to different activities that have an immediate social impact. Each screen assigns a zero/one score for a particular social indicator and is part of an overall evaluation of corporate social performance. Of interest to us are screens related to employee treatment.

[12] The fund manages over $1.8 billion in socially responsible investment vehicles such as the Domini Social Equity Fund, the Domini Social Bond Fund and the Domini Money Market Account.

To proxy for a firm's treatment of employees, we compile what we refer to as the E-index based on the strengths in KLD (Also see Fisman, Nair and Heal, 2005). This index utilizes five employee based Corporate Social Responsibility (CSR) screens that the database tracks through the time period. Their description follows.

1. Strong Union Relations: The company has a history of notably strong union relations.
2. Cash Profit Sharing: The company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce.
3. Employee Involvement: The company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees, gain sharing, stock ownership, sharing of financial information, or participation in management decision-making.
4. Strong Retirement Benefits: The company has a notably strong retirement benefits program.
5. Family Benefits: The company has outstanding employee benefits or other programs addressing work/family concerns, e.g., childcare, elder care, or flextime.

Thus, the E-index utilizes five CSR screens that the database tracks through the time period.[13] As the description above illustrates, these screens track a firm's actions towards employees. Aggregating over these indicator variables, our E-index thus ranges between 0 and 5, with a higher value signifying better employee treatment. This provides us with a firm-level measure of employee treatment.

[13] The database also has other screens that, however, only exist for part of the sample period. We used screens that were available for the entire sample period of 1992 to 2004.

B. DATA ON FIRM DIVISIONS

Information at the divisional level is gathered from Hewitt Associates. The dataset includes a panel of more than 250 publicly traded U.S. firms over the years 1986-1999, spanning a number of industries. The data are collected from a confidential compensation survey conducted by Hewitt Associates, a leading human resources consulting firm specializing in executive compensation and benefits. The survey is the largest private compensation survey (as measured by the number of participating firms) and the survey participants are typically leaders in their sectors. More than 75% percent of the firms in the dataset are listed as Fortune 500 firms in at least one year and more than 85% are listed as Fortune 1000 firms. In general, Hewitt survey participants also participate in other compensation consulting firm surveys (e.g. Hay Associates, Mercer, Towers Perrin, to name a few) and do so primarily to receive information about pay practices to use as a competitive benchmark in evaluating their own compensation programs. It is important to note that the sample includes many more firms than Hewitt's consulting client base with at least 50% of the firms as survey participants with no other relationship to Hewitt. Based on several analyses described in Appendix A, we conclude that the survey sample is probably most representative of Fortune 500 firms.

An observation in the dataset is divisional information within a firm in a year. In the survey, a division is defined as "the lowest level of profit center responsibility for a business unit that engineers, manufactures and sells its own products." Also, see appendix B for a description of other organizational units. To ensure consistency in matching these positions across firms, the survey provides benchmark position descriptions and collects additional data for each position leading to a dataset rich in

position characteristics. As a result, in addition to data on all aspects of compensation for multiple divisional manager positions, the dataset includes division-specific characteristics such as: job title, the title of the position to whom the position reports (i.e. the position's boss), division sales, number of employees under the position's jurisdiction, industry of operation, and geographic state of location, among others.

We believe the survey data are accurate for several reasons. First, Hewitt personnel are knowledgeable about survey participants because they are assigned to specific participants for several years. Furthermore, while the participating firms initially match their positions to the benchmark positions in the survey, Hewitt personnel follow up to verify accuracy and spend an additional 8-10 hours on each questionnaire evaluating the consistency of responses with public data (e.g. proxy statements) and across years. Finally, participants have an incentive to match positions correctly and provide accurate data because they use the survey results to set pay levels and design management compensation programs.

In Table 1 (Panel A), we present descriptive statistics for the firms and divisions in the sample. While the dataset includes more than 250 firms, the exact number varies over the period, as firms enter and exit as survey participants. The firms in the sample are large, well established and profitable with average size of approximately 45,900 employees, sales of $8.2 billion, industry-adjusted return on assets of 2.53%, and sales growth of 6%. The average number of divisions reported in the survey for the sample firms is approximately five. Next, turning to divisional statistics, the mean size of

divisions is $688 million in sales and approximately 3000 employees.[14] Finally, the sample firms span many industrial sectors of the economy, with some concentration in the food, paper, chemical, machinery, electrical, transportation equipment, instrumentation, communications and utilities industries.

C. FIRM GEOGRAPHY

Using the information on divisional state of location from the dataset provided from Hewitt associates and the information on the headquarters' state of location from COMPUSTAT, we identify divisional proximity to headquarters. The dummy variable same_state takes the value 1 if the division is in the same state as the headquarters and 0 otherwise. Additionally, to construct a firm-level measure of distance, we compute the fraction of divisions in the same state as headquarters (psame_state). In Table 1 (Panel B), we compare the employment, sales and performance of geographically concentrated and geographically dispersed firms. As can be seen from this table, firms in these two categories are largely similar in terms of firm employees, sales and performance. Not surprisingly, concentrated firms have bigger and fewer divisions than dispersed firms. However, interestingly, both these categories of firms have a similar number of business segments.

III. GEOGRAPHIC DISPERSION AND CORPORATE DECISION-MAKING

We now investigate whether geographic dispersion of firms is related to three separate corporate actions.

A. EMPLOYEE FRIENDLINESS

[14]Although, the total number of division-year observations is around 11,000, our divisional regressions utilize a much lower number. This is because our tests rely on divisional changes in sales and employment and thus can only use those division-years for which the preceding year's information is available.

Using the E-index as a measure of how friendly firms are to their employees, we investigate if geographic dispersion and employee friendliness are related. As described earlier, the geographic concentration of a firm is captured by the fraction of divisions that are in the same state as that of the headquarters.

We first compute the average level of geographic concentration and the average level of employee friendliness in an industry, where all firms in the same 3-digit SIC code are considered to be in the same industry. As seen in Table 2 (Column I), industries that are geographically concentrated are friendlier to their employees. We also find that while industries with larger firms measured by assets are less employee-friendly, industries with larger sales are more employee-friendly. While the finding is consistent with the notion that employee treatment is related to distance, there are several other potential reasons that make industries geographically concentrated (Almazan, De Motto and Titman (2005) explain for instance why human capital industries might cluster) and also lead to better employee treatment.

Consequently, we investigate whether firm geography is related to employee treatment after controlling for the industry that a firm operates in. Table 2 (column II) documents that indeed firms that are more concentrated than their industry counterparts treat their employees better. Interestingly, in these regressions the other control variables are not significant. Thus employee friendliness within an industry does not appear to be related to firm size, sales or the degree of diversification as measured by the fraction of divisions in the same 3-digit SIC industry as that of the firm (psame_sic3).

To check whether the lack of shareholder control increases employee friendliness, we add (column III) some commonly used corporate governance variables in this

regression. The first measure, denoted by EXT, captures the external vulnerability of firms to takeovers and is a simple transformation (EXT=24-G) of the index compiled by Gompers, Ishii and Metrick (2003). The second measure proxies for the presence of a large external blockholder where a blockholder is defined to be a shareholder with greater than 5% of firm ownership. BLOCKC is equal to the holding of such an external blockholder. The documented positive relation between geographic concentration and employee treatment is robust to the inclusion of such governance variables. More interestingly, the coefficient on the blockholder variable is negative. That is, firms with stronger governance have lower employee friendliness. This finding is suggestive of the tension between shareholder and employee objectives, an issue we return to in Section V.

B. DIVISIONAL PROXIMITY AND LAYOFFS

In this section, we investigate how employee dismissals or layoffs respond to geographic distance. To check whether proximity affects managerial decisions to fire employees, we investigate both the likelihood of layoffs and the size of the layoffs. To characterize divisional layoffs, we use data on the number of employees from the Hewitt dataset. Since we don't have information on the actual action of layoffs, we have to infer layoffs from changes in employee numbers. Since employees can voluntarily leave firms, and since the change in employee numbers reflect only the change net of hiring and firing, layoffs are likely to occur only when there is a significant drop in the number of employees. To characterize what a significant drop is, there are two potential strategies. The first is to define layoffs as a drop in employees larger than a *number* X, and the second is to characterize layoffs as a drop greater than a *fraction* X% of the division size.

Although, the latter might initially seem attractive, it contains two important biases. First, the use of percentage changes is likely to characterize regular employee changes in smaller divisions incorrectly as layoffs. Indeed, the addition or subtraction of a few employees can constitute a large percentage variation of a small division size. Moreover, since smaller divisions are perhaps likely to be further away (the correlation between same_state and division size is slightly positive), this bias is likely to generate a spurious link between proximity and layoffs. Second, this measure would also miss capturing layoffs in large divisions, since the required threshold might be too high. Using an absolute number as a threshold avoids this latter bias, but favors towards finding layoffs in larger divisions. Again, since smaller divisions are further away, to the extent that this bias is important, it only makes it less likely that we find any effects. In any case, and as will be shown later, most of our results are robust to either characterization. In what follows we characterize layoffs as a decrease in the number of employees of greater than 75 (2.5% of an average division size).[15]

We then use a logit specification to estimate the likelihood of observing such layoffs where the observations are clustered at the division-level.[16] Table 3 reports results of division-level logit estimations where the dependent variable dfire is a dummy variable that takes the value one if layoffs are observed and zero otherwise. The independent variables, in addition to whether the division is in the same state as the headquarters (same_state), also include the log of the number of division employees (ldemp), divisional sales growth (dsgrowth), firm characteristics such as size, employment, and sales, and also the change in industry level employment numbers for the entire Compustat

[15] The results are robust to using other numbers such as 150 (5% of an average division size), and 300 (10% of an average division size) and are not reported here.

[16] To be sure, we also cluster at the firm level. The t-stats reported within parentheses denote this.

sample where the relevant industry is matched based on the division's industry using 2-digit SIC codes (dindlgrowth2).

As seen in column I, large divisions, poorly performing divisions, and divisions in industries that see a general trend of labor decreases are more likely to witness layoffs. Divisions in larger firms are also more likely to face layoffs. However, most relevant to the importance of geography is the finding that divisions in the same state as that of headquarters are less likely to face layoffs. Proximity is associated with a 3.5% lowered probability of facing layoffs, as defined earlier.

In column II, we check if the result is due to any differences in the educational level of the workers that are closer to headquarters. One such possibility might be that high-skill workers are both closer to the headquarters and less likely to face layoffs, simply due to the type of assignment they have. Although, the evidence we document later, in section VI, indirectly rules out such an explanation, we attempt to address this issue more directly here. Using data from the U.S. Current Population Survey, for each 3-digit SIC code by year, we calculate the proportion of workers that are 25 years or older with greater than high school education. We match industry-year education levels to divisional 3-digit SIC codes within each sample firm (dabovehs). Using this measure of education at the divisional level, we indeed find that closer divisions are more likely to have more educated employees (the correlation between same_state and dabovehs is 0.04). However, as seen in column II, our earlier finding is robust to the inclusion of this division level education variable.

The result is also robust to the inclusion of a variable that captures whether the division's industry is the same as that of the firm headquarters (column III). Since

divisions with the same industry classification as that of the firm are likely to be central to the firm's business and hence more important, this finding rules out yet another alternative interpretation: that important divisions are close by and witness less layoffs. Although important divisions are indeed close by (the correlation between same_state and same_sic3 is 0.05), the likelihood of facing layoffs are independent of such divisional importance.

Finally, column IV shows that the finding is also robust to controlling for firm level diversification as proxied by the proportion of divisions in the same 3-digit SIC code as that of the firm (psame_sic3). This makes one alternative interpretation less likely: it is easier to redeploy employees closer to the headquarters during downturns. Since redeployment opportunities are likely to be higher in diversified firms than in focused firms, one would then expect to observe lower layoffs in diversified firms. There is however no such effect.

As discussed in the introduction, it is often thought that headquarters tend to treat distant divisions differently, and particularly so during tough economic times. We shed more light on this view by classifying tough times in two different ways. The first utilizes the divisional performance; we introduce an interaction term between same_state and dsgrowth (divisional sales growth). The second utilizes industry conditions where we introduce an interaction term between same_state and dindlgrowth2 (aggregate labor growth in the division's industry). The results using divisional sales growth suggest that indeed the favorable treatment of closer divisions is strongest when the division is performing poorly (Table IV). In other words, layoffs are more performance sensitive

when divisions are further away. Using labor growth at the division's industry level, however does not lead to such a result.

B.1. SIZE OF LAYOFFS

A concern with our layoff results might be that the results are only due to the likelihood of layoffs. However, it might be the case that conditional on a layoff, divisions in the same state as headquarters lose many more employees than out-of-state divisions. It would then not be clear if closer proximity is indeed more beneficial for employees.

To address this concern, we now investigate if, conditional on layoffs, more employees are laid off when divisions are further away. Table V reports these results. To further illustrate the robustness of these results to the notion of what a layoff is, we report results using three different definitions of what layoffs are. The first, as before, defines a layoff to occur when the drop in employees is greater than 75. The other two definitions use a higher threshold number of 150 and 300 respectively.[17] As seen, more employees are laid off in divisions further away than in closer divisions. This is even more surprising given that larger divisions tend to be in the same state as that of the headquarters. The effect is economically large with at least 600 fewer employee dismissals in closer divisions (using the cutoff of 150 to classify layoffs).

Since the above specifications include firm fixed effects, the results also address an econometric concern with our earlier logit estimations. In Table III, when we used firm fixed effects, our coefficients were not statistically significant. Certainly, one obvious explanation is that the regression omits some underlying firm characteristic that generates the relation between layoffs and distance. Another equally plausible

[17] We also used definitions based on percentage change in employees and found similar results that are available on request.

explanation is that a high correlation among divisional layoffs within a firm is leading to weak statistical power in the firm fixed effects specification of a simple 0/1 firing dummy with only 230 sample firms.[18] However, even if an omitted variable is driving the relation between the likelihood of a layoff and proximity to headquarters, the severity of these layoffs might still differ based on distance. Since we observe differences in the severity of layoffs between close and far divisions in firm fixed effects specifications, we conclude that an employee in a closer division is less likely to be dismissed.

Consequently, these results address earlier concerns associated with the logits. That the results are driven through some firm factor is further mitigated by findings in section IV, which show that the logit results exist exactly where the expected mechanisms of social factors and information are likely to be stronger. To sum, we find evidence that employees in divisions in the same state as that of firm headquarters are less likely to face layoffs.

B.2. REGIONAL PROXIMITY

What if the appropriate notion of proximity is not within the state, but instead within the corporate campus? Plus, being located in the same state might mean different levels of proximity in different states. To address this concern, we collect zip codes (ZIP) for both division and headquarters. However, the sample of division years for which we were able to collect ZIP information is less than half of the sample used in earlier tests and represents only around 100 firms. Nevertheless, within this sample, we classify a

[18] To check the importance of some omitted variable, we also used a dependent variable that was defined as $[\Delta N_i - (N_i/N)\,\Delta N]$, where N_i is the number of divisional employees, N is the total number of employees in all the reported divisions, ΔN_i is the change in divisional employment and ΔN is the change in the total employment. Since this construction directly adjusts for the firm that divisions share, the variable captures divisional favoritism and addresses concerns of a firm factor driving our results. Results using this measure were broadly consistent with the results reported earlier.

division as being close to headquarters when the division shares the first three digits of their ZIP (same_zip3). We now redo our tests and use same_zip3 instead of same_state. The regressions on the size of layoffs (conditional on a layoff) document much stronger results: the coefficients on same_zip3 are statistically significant and the economic impact is almost twice that using same_state (unreported).

C. DIVESTITURES

We now focus on the decision to divest a division to check if our findings linking proximity and corporate decision-making hold true in yet another context. It is known that firms do not only react to poor performance by laying-off employees but also by divesting divisions (e.g. Ofek (1993) or Schleifer-Vishny (1992)). If headquarters are reluctant to let close-by employees go (for example, because managers know that employees of divested entities will get less favorable treatment post-divestiture), divestitures of divisions within the headquarters' state should occur after other types of restructuring options have been exhausted. In particular, divestitures of divisions outside headquarters' state should occur *prior* to divestitures of nearby plants. Using SDC platinum, we collect divestiture deals completed between 1990 and 2004. SDC allows us to identify the divesting entity through its Cusip ("target ultimate parent's cusip").[19] After merging with Compustat, we have a total of 8338 divestitures, corresponding to 5937 different parent companies. 41% of these divested entities are in the state of their initial parent's headquarters.

To show evidence of a pecking-order of divestiture preferences, we perform the following exercise: analyzing companies for which multiple divestitures are observed, we

[19] The divestitures in SDC broadly represent divestitures of business entities including divisions, subsidiaries and plants.

look at whether in-state divestitures tend to occur after out-of-state divestitures. Indeed, while 47% of our in-state divestitures occur after an out-of state divestiture, only 24% of out-of-state divestitures occur after an in-state divestiture. This asymmetry is suggestive of a pecking order whereby firms react to the need of a restructuring by divesting remote entities first, and only as a last resort, closer-by entities.

We can perform a more rigorous test of this conclusion. For each company, we compute the mean date of in-state divestitures and the mean date of out-of-state divestitures and compute the difference, delta. If both events were happening independently according to a Poisson process, whatever their relative hazard rate, delta should not be significantly different from zero. However, we find that the mean in-state date is larger than the mean out-of-state date by an amount of 99.5 days (with standard error 9.05).

A second type of test of the reluctance to divest closer entities is to check whether in-state divestitures occur when the company is in "worse shape": a stronger pressure to restructure is needed to overcome the reluctance to fire employees in proximate entities. In other words, we test whether it takes more restructuring "urgency" for managers to resolve abandoning nearby employees. We find that both in-state and out-of-state divestitures occur for companies that have returns on assets lower than their industry median. To check whether companies that under-perform more are indeed more prone to in-state divestitures, we look at the sample of realized divestitures. Conditional on a divestiture occurring, we then estimate a logit specification, with standard errors clustered at the firm-level, of the likelihood of an in-state divestiture. We control for adjusted return on assets, size, investment, and industry (we use the 48 Fama-French

categories). All these variables are constructed from annual Compustat data in the year prior to the deal's announcement. The logit regression shows that worse performers are also those that divest in-state, compatible with the view that firms tend to use these divestitures as a last resort (Table VI).

We use a second measure of restructuring pressure based on changes in market-to-book value: we construct a dummy variable equal to one if the firm's market-to-book experiences a drop larger than 20% during the two years preceding the deal (i.e. year -2 to year -1 where 0 is the deal's year). Slightly more than 14% of our 8338 divestitures correspond to firms experiencing such a large negative shock to their market-to-book value. Our logit regressions show that such firms are relatively more likely to divest in-state entities.

IV. PROXIMITY AND FACTORS AFFECTING DECISION-MAKING

A. MANAGERIAL ABILITY TO COLLECT INFORMATION

Geographic dispersion of a firm is potentially important to internal information flow. Especially when information cannot be transferred through technological means and when information is not easily verifiable, distance is likely to inhibit the flow of information. Such information is often termed soft information (see, e.g., Petersen, 2004). Such considerations, if important, would suggest that firms operating in soft information environments should exhibit lower geographic dispersion as distance comes at a higher cost. However, to test this implication, we have to first characterize firms as operating in soft or hard information environments. Although a precise classification along these lines is difficult since it is not easy to characterize all such types of soft information, we

create an economically motivated classification of industries based on bank lending behavior in different industries.

Our starting point in constructing such a classification is the finding of Petersen and Rajan (2002) that the distance between banks and their borrowers has been increasing, and the means of information collection are getting more impersonal with time. To document this, Petersen and Rajan use data from the National Survey of Small Business Finance (1987 and 1993). This is a stratified random sample of small firms that was collected by the Board of Governors of the Federal Reserve System and the Small Business Administration. In addition to financial information about the firm (balance sheet and income statement information), the data contain a thorough documentation of the firm's relationship with financial institutions. To be in the sample, the firm must be a for-profit firm with fewer than 500 employees. Consequently the firms in this sample are small. In 1992, the mean sales revenue of the sample is $3.6M (median $400,000), while the mean book value of assets is $1.7M (median $153,000).

We append 1987 survey data with the more recent 1998 survey to investigate how the distance between firms and banks has changed in different industries. For each survey year (1987 and 1998) and at the 2-digit level, we compute the mean distance of firms to their primary lending institution (we use the sample weights provided with the data and the variables "r6481" and "idist1" for 1987 and 1998 respectively[20]). In hard information intensive industries, we would expect lenders to take advantage of technological developments and deregulation. This would then lead to a greater distance between the bank lending office and the borrowing firm. Indeed we find that between these two dates,

[20] These variables measure the distance in miles from the main office of the firm to the office or branch of the bank's main lending institution.

the distance between banks and borrowing firms has increased - more dramatically in some industries than in others. We use this fact to characterize industries as primarily relying on hard versus soft information. Hard information industries are those in which the percentage increase in bank distance is above the median level of such increases (represented by a dummy variable, deltadist, equal to one). Soft information industries are those below the median (deltadist equal to zero).[21]

Using this industry-level proxy of hard versus soft information, we evaluate whether there is any relation between a firm's geographic dispersion and the type of information in the industry. Table VII presents regression results showing that geographic concentration of a firm (psame_state) is related to several characteristics including whether the firm operates in a hard information environment. As expected, we do find that firms in hard information environments are more dispersed. Thus, informational flows might indeed be affected by proximity. We then ask if the difference in information flows is entirely responsible for the link between layoffs and proximity. After all, it might be that during tough times, managers have no choice but to dismiss far away employees because of limited information; however, with closer employees, better information might lead to the discovery of other potential solutions and hence less severe outcomes. Such a mechanism would produce a strong link between proximity and layoffs in soft information environments.

In our earlier logit regressions of layoffs, we now introduce an interaction term

[21] Consistent with Petersen and Rajan (2002) and Berger et. al. (2005), we find that an increase in the distance to the bank also reduces the amount of personal interaction between the borrower and the bank. This confirms that indeed far away banks rely more on impersonal means to collect information, lending more support to the informational interpretation of our proxy (deltadist). However, a caveat is that changes in bank distance might not be driven solely by informational factors. In this case, our variable might capture other industry characteristics as well and can be conservatively viewed as valid controls in our tests independent of the informational interpretation.

between same_state and the nature of information in the division's industry (ddeltadist). Table VIII, column I presents these results. We do find that the link between layoffs and proximity is strongest for divisions operating in soft information environments. In these divisions, proximity is associated with a 5% lower probability of facing a layoff.

While these results highlight the importance of information flows in decision-making, they don't completely rule out the importance of social factors. This is because, the information gathering process is likely to make personal interactions between managers and employees more frequent and substantial in firms or industries where information is soft. To the extent that such personal interactions increase managerial concern for employees, managers would be less likely to layoff closer workers. In the next section, we disentangle these two effects.

B. MANGERIAL ALIGNMENT WITH SHAREHOLDERS

To investigate the importance of social factors, and hence of managerial concern for employees vis-à-vis shareholders, we investigate whether the impact of proximity on layoff policy is stronger when the manager is more visible in the community. Although closer proximity to gather information goes hand in hand with greater interactions and hence the social view, it is possible to shed some light on the relative importance of social factors by investigating if the link between proximity and layoffs is stronger when the manager is more visible in the community. If the finding is indeed solely due to informational flows, one should not expect to find a stronger result with variations in community visibility.

To capture the notion of managerial visibility, we use the population of the county in which the headquarters is located. Population figures are those reported by the U.S.

Census Bureau in the years 1990 and 2000 (interleaving years are extrapolated using the annual growth rate between these years). Since managers are more likely to be visible in smaller towns, we redo the earlier test for two samples based on headquarters population being above and below the sample median (800,000). Table VIII (columns II and III) report these results. As can be seen, the link between layoffs and proximity exists only when headquarters are located in small towns. This is strong evidence that social factors play a role in employee protection from layoffs. In small towns, the result is strongest for soft-information divisions, thus supporting the notion that informational needs go hand in hand with social factors and both are important in corporate decision-making. Employees in a division operating in a soft-information environment and in a firm headquartered in a small town, face approximately an 8% lower probability of a layoff if they are in the same state as headquarters.

One potential concern with this conclusion might be that the classification into small and large towns is in fact another classification based on where soft-information losses associated with distance are high. After all, it might be difficult to travel from smaller towns and hence distance from a division is costlier for small town firms than for large town firms. If this were true, however we should still find significant results in the high population sample. Additionally, Rajan and Wulf (2005) have documented that firms organize their own transport to make up for deficiencies in or inconveniences due the existing transport system. Thus, our results suggest that both information and managerial objective is altered by proximity, which is then borne out in corporate decisions.

V. STOCK MARKET REACTIONS: LEARNING ABOUT THE FIRM'S OBJECTIVE?

If proximity to employees leads to misalignment of managerial incentives with shareholder objectives, such proximity should be detrimental to shareholder value. Since we have already shown that the proximity plays a role in divestitures, we can now analyze stock market reactions to such events in order to investigate if there are any performance implications. If one takes the view that geographical distance prevents financially optimal restructuring by the management in place, in-state divestitures might be good news for shareholders, as (1) the value that the company gets for the entity might be bigger than the entity's value within the company and (2) the in-state divestiture is a positive signal about the level of shareholder friendliness of the management.

We restrict analysis to relatively large divestitures (value bigger than $20 million) and use CRSP data to get the daily returns of the parent's company on the divestiture's announcement day. We benchmark these daily returns by the weighted average portfolio return given by CRSP. As Rosenfeld (1984) and Klein (1986), we find that divestitures have a strongly significant positive price-impact at the announcement date. This impact is almost twice as big for in-state divestitures. As an attempt to check whether the market reaction to in-state deals is indeed due to an update of market beliefs on the management's objective function, we look at whether the reaction is stronger for deals that correspond to a "first-time" in-state divestiture (Table IX). For those deals, the market should update more than in the case of "second-time" in-state deals. In the data, 670 out of 1083 in-state deals are first-time in-state divestitures. We construct a first-in-state dummy variable to identify these deals and find that the positive price reaction is actually exclusively coming from these first-time deals.

Similarly, a first-out-of–state dummy variable captures an information effect about the firm's willingness to restructure, but its magnitude is half that of the first in-state dummy variable. In other words, observing a first-time restructuring is always good news about the firm's objective function (it's willingness to restructure), but an in-state restructuring is a stronger signal about the manager's shareholder friendliness.

We perform several robustness checks to make sure the in-state variable is not behaving as a proxy of deal characteristics unrelated to our distance effects, such as the size of the deal, the size of the divesting company, or whether the divested entity is in the core business of the parent company. Our results are unchanged in magnitude and significance when we control for whether the divested entity operates in the same 2-digit SIC code as the firm, as well as for the deal's value and the size of the firm. Moreover, as we know that in-state deals tend to be done by poorer-performing firms, we control for accounting performance (return on assets in the year preceding the deal, adjusted at the industry level), and again our results are unaffected. Interestingly, the in-state positive effect is stronger for good performers, suggesting the relevance of our information interpretation: the market learns less about the management's objective function (e.g. its private benefits from being loved by employees) if the divestiture is decided under strong economic pressure (such that the manager has little choice).

To investigate if this announcement effect is reversed, as well as to investigate the long-run performance implications, we compute the divesting firm's cumulative abnormal returns using the asset pricing model proposed by Fama and French (1992).

We calibrate for each firm a market model using return information preceding the divestiture announcement and compute cumulative abnormal returns based on the

observed residuals of the fitted model in months following the deal. The pricing model is estimated at the firm level using the 48 monthly returns preceding the divestiture. We report, in Table X, separately for in-state and out-of-state divestitures the cumulative abnormal returns starting 1 month before the deal, up to 3 months after the deal. Column III of the table reports the difference in cumulative returns between the two groups of divestitures, and tests for the equality using a standard t-test.

We observe significant positive cumulative abnormal returns of the in-state divesting group compared to the out-of-state divesting group. This evidence suggests a relative initial under-reaction of the market to the information conveyed by an in-state divestiture. This corporate decision is a stronger positive signal about a firm's objective function than the market initially interprets.

We then investigate whether the in-state effect has a different strength in low population areas. We expect the market reaction to be stronger in low population areas as the manager's visibility and therefore his concern for the impact of his decisions on the local community is stronger. It is in these settings that the potential for shareholder conflict is higher. We partition our divestiture sample into below and above median groups based on our soft-information variable and our measure of population at the headquarters county level. We find that the in-state effect is higher and more significant for the low population partition (results are reported in Table XI). For the high population group, the in-state dummy is not significant. However, the differences between the two groups are not significant. We interpret these results as suggestive evidence that due to higher managerial concern for the community in low population areas, proximity can be

detrimental to shareholder value, particularly in times where "painful" adjustments are needed.[22]

A. DO CONCENTRATED FIRMS HAVE WEAK GOVERNANCE?

Perhaps firms that are geographically concentrated have poor governance. If this is the case, these firms might be less shareholder-friendly. In fact, one might also expect stronger governance in concentrated firms since there is a greater potential for the manager to deviate from shareholder objectives. Since we control for governance, this is not an issue concerning the interpretation of our firm level regressions of employee friendliness. Furthermore, in the regressions using size of layoffs, the use of firm fixed effects precludes the concern of an omitted governance variable. Yet, we check how governance is related to geographic dispersion.

Using a measure of shareholder rights and takeover defenses compiled by Gompers, Ishii and Metrick (2003), we test whether geographic concentration and governance are related. To interpret a higher value of the index as better governance, we use a linear transformation of the index proposed by Gompers, Ishii and Metrick (2003) and denote it by EXT (=24-G), the external vulnerability that managers face from shareholders. As seen in Table VIII, stronger governance is associated with concentrated firms. Further, this relation is robust to the inclusion of financial policy variables such as cash (free cash flow (fcf)) and leverage. We also use the existence of an external blockholder as an alternative variable and find no relation between governance and

[22] It is important to note that there could be benefits in the form of better employee morale or better information due to proximity even though there might be a loss of objectivity (See, e.g., Boot, et. al. 2005). In equilibrium then, it might be the case there are no performance differences between firms with different geographic distributions in cross-sectional regressions of valuation or performance on geographic dispersion. We thus use this strategy to investigate performance effects and highlight that such costs might exist during tough economic times.

geographic concentration. Thus, there appears to be no evidence that our results are associated with differences in governance.

VIII. CONCLUSIONS

In this paper, we highlight the importance of a firm's geographic dispersion. Proximity of divisions to headquarters can affect not only the information available to headquarters to make decisions, but also managerial concern for employees. We document evidence that the internal flow of information and the managerial alignment with shareholders is associated with the extent of a firm's geographic dispersion. This sheds light on three documented findings.

First, using a firm-level index of employee friendliness, we find geographically dispersed firms to be significantly less employee friendly. Second, using division-level data, we find that divisions located in the corporate headquarters' state are less likely to experience layoffs. Even when closer divisions experience layoffs, they are significantly less severe. Finally, we investigate the link between divestitures and firm geography. We find that firms are reluctant to divest in-state divisions.

We then attempt to distinguish between information versus social factors. We find that the link between layoffs and distance is weaker when information is conducive to being transferred over long distances (hard information), suggesting that information issues indeed play an important role. Furthermore, firms tend to be more dispersed in hard information environments when it is less costly to transmit information to remote divisions.

However, a relation between layoffs and proximity is absent when headquarters is located in more populated counties. This suggests that the layoff-proximity link is not

explained by variation in information alone, but is also related to the higher private cost to managers of firing "neighbor-employees" either due to higher visibility in the community or concern for employees. Thus we show that both headquarters' information and objectives can change with variations in proximity of divisions. We also find that stock markets respond more favorably to in-state than to out-of-state divestitures, suggesting in-state divestitures convey positive information about shareholder friendliness of a manager.

This paper highlights the importance of firm geography on firm decisions. The aspect of geography we focus on has hitherto been unexplored. In showing that this aspect can have important consequences, we hope to promote further research into economic geography and corporate productivity. Several interesting questions remain unanswered. While several explanations for a firm's location choice exist, there is little by way of optimal dispersion within a firm: what determines the dispersion of a firm's divisions relative to headquarters? Since geographic dispersion of a firm's divisions is after all endogenously determined, our results should be interpreted as a first step in contributing to an extremely limited empirical literature on the relation between information, geographic dispersion, and corporate decision-making. Another issue that appears promising is whether the geographic limitations of a country, e.g. the availability of business-worthy towns, affect how fervently businesses adopt the shareholder paradigm.

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APPENDIX

Appendix A: Sample Representativeness

We evaluate the representativeness of the sample by comparing key financial measures of the survey participants to a matched sample from Compustat. We begin by matching each firm in the Hewitt dataset to the Compustat firm that is closest in sales within its two-digit SIC industry in the year the firm joins the sample. We then perform Wilcoxon signed rank tests to compare the Hewitt firms with the matched firms. While the firms in the Hewitt dataset are, on average, slightly larger in sales than the matched sample, we found no statistically significant difference in employment and profitability (return on sales).[23] We also found no statistically significant difference in sales growth, employment growth, or annual changes in profitability for all sample years. In sum, while the Hewitt firms are larger (measured by sales) on average than the matched sample, there is little additional evidence that these firms are not representative of the population of industrial firms that are leaders in their sectors.

We also calculate financial measures for the sample of Compustat firms with 10,000 employees or greater over the period from 1986 to 1999 (excluding firms operating in financial services). We find that, on average, survey participants are more profitable, but growing at a slower rate relative to the sample of large Compustat firms. Specifically, the sample average return on sales for survey participants is 17.8% versus 15.7% for the sample of large Compustat firms and the average sales growth is 5.7% vs. 7.4%. This is consistent with the observation that the firms in the sample are likely to be

[23] The Hewitt firms are larger in sales than the matched sample of firms because in a number of the cases, the Hewitt firm is the largest firm in the industry thus forcing us to select a matched firm smaller in size.

industry leaders (hence slightly more profitable) and also large (hence the slightly slower growth). To sum, the survey sample is probably most representative of Fortune 500 firms.

Appendix B: Description of Organizational Units

- A **Corporate** unit is the highest management organization level of the parent company, responsible for its overall direction.

- A **Group** is the highest level of multiple profit center linking the Corporate Chief Executive Officer or Chief Operating Officer directly to two or more single profit center units (divisions).

- A **Division** is the lowest level of profit center responsibility for a business unit that engineers, manufactures, and sells its own products.

- A **Plant** is a budget or cost center whose general manager supervises manufacturing, as well as service functions, such as accounting, personnel, purchasing, and product engineering, but usually no R&D engineering. More important, the manager of a plant never has sales responsibility.

TABLE I

DESCRIPTIVE STATISTICS

The table provides descriptive statistics of the sample used for divisional level tests. The sample is obtained from Hewitt Associates and is representative of the Fortune 500 firms (see Appendix A). Industry-Adjusted Return on Assets is defined as return on assets less the median return on assets for the Fama-French industry. Dispersed firms are defined as firms below the sample median for the proportion of divisions in the same state as headquarters (psame_state), while concentrated firms are firms above the median.

Panel A: Firm and Division Statistics

Variable	Obs.	Mean	Std. Dev.
Firm			
Sales ($ millions)	2416	8162.43	14710.43
Employees (000s)	2402	45.90	78.02
Assets ($ millions)	2417	9334.32	20769.46
Return on Assets (%) (Industry-Adjusted)	2396	2.53	10.15
Average Number of Divisions per Firm	2482	4.85	4.34
Proportion of Divisions in Same State as Headquarters	2399	0.48	0.39
Division			
Sales ($ millions)	11048	688.23	1422.96
Employees (000s)	10953	2.96	9.78

Panel B: Dispersed vs. Concentrated Firms (Means)

Geographic Dispersion	Firm Sales ($m)	Firm Empl. (000s)	ROA (%)	Age (Yrs.)	No. of Divisions	No. of Segments	Division Sales ($m) (med)	Division Empl. (000s)	Obs.
Dispersed Firms	6992	43.67	2.19	92.8	5.60	2.97	250.6	2.93	1056
Concentrated Firms	8260	43.84	2.91	98.8	4.39	2.96	360.0	3.62	1343

TABLE II
EMPLOYEE TREATMENT AND GEOGRAPHIC DISPERSION

The tables presents results of regressing an index of employee friendliness (EMP_STR_INDEX) which includes union relations, healthcare benefits, retirement benefits, employee involvement and cash profit sharing programs (See text for detailed description) on a firm's geographic concentration (psame_state). The first regression uses industry level observations (3-digit SIC codes) while the other two regressions use firm-year observations. Geographic concentration is measured as the fraction of divisions in the same state as that of the headquarters. We control for a firm's asset size (lnassets), sales (fsales), employment (emp), and governance standards (EXT and BLOCKC, see text for a description.)

	I	II	III
	EMP_STR_INDEX	EMP_STR_INDEX	EMP_STR_INDEX
psame_state	**0.521**	**0.397**	**0.363**
	2.82***	**3.17*****	**3.00*****
lnassets	-0.237	-0.088	-0.083
	2.05**	1.15	0.73
fsales	0.498	0.137	0.045
	4.10***	0.72	0.23
emp		0.188	0.208
		1.32	1.45
psame_sic3		0.104	0.049
		0.73	0.32
Ext			0.041
			1.58
blockc			**-0.028**
			2.98***
Observations	117	962	538
R-squared	0.16	0.31	0.36
Industry FE	No	Yes	Yes
Year FE	No	Yes	Yes
Clustering	N.A	Firm	Firm

*significant at 10%; ** significant at 5%; *** significant at 1%

TABLE III
DIVISIONAL PROXIMITY AND LAYOFFS

Using a logit estimation and divisional data, we evaluate the likelihood of detecting a significant decrease in employment at the division level (> 75, 2.5% of the average division size). Whether the division is in the same state as the headquarters is indicated by the same_state dummy. We also control for division employment (ldemp), division sales growth (dsgrowth), firm employment (lemp), firm sales (lfsales), firm assets (lnassets) and aggregated change in employment in the industry that the division belongs to (dindlgrowth2). Column II includes a control related to the proportion of workers with greater than high school education for the division's 3-digit SIC industry (dabovehs). Columns III and IV include controls related to divisional importance (same_sic3) – whether the division is in same 3-digit SIC industry as the firm – and a level of diversification (psame_sic3) that measures the fraction of divisions in the same 3-digit SIC industry as that of the firm.

	I	II	III	IV
	DFIRE	**DFIRE**	**DFIRE**	**DFIRE**
same_state	**-0.187**	**-0.194**	**-0.176**	**-0.172**
	2.43**	**2.23****	**2.28****	**2.21****
	(2.09)**	**(1.93*)**	**(1.99**)**	**(1.94*)**
ldemp	0.33	0.307	0.334	0.332
	7.26***	6.21***	7.32***	7.34***
dsgrowth	-1.043	-1.261	-1.042	-1.041
	4.54***	5.77***	4.54***	4.54***
lemp	0.202	0.162	0.21	0.219
	1.81*	1.32	1.92*	2.03**
lfsales	-0.022	-0.02	-0.044	-0.056
	0.14	0.1	0.28	0.35
lnassets	-0.026	0.065	-0.012	-0.006
	0.21	0.42	0.1	0.05
dindlgrowth2	-2.715	-2.233	-2.716	-2.6
	2.90***	1.65*	2.87***	2.76***
dabovehs		0.628		
		1.58		
same_sic3			-0.127	
			1.24	
psame_sic3				-0.217
				1.43
Observations	6143	4092	6143	6143

All tests used year and state fixed effects, with standard errors clustered at the division level. The t-statistics if the standard errors are clustered at the firm level are reported in parentheses for the variable of interest, same_state.
*significant at 10%; ** significant at 5%; *** significant at 1%

TABLE IV
DIVISIONAL PROXIMITY, REACTIVITY AND LAYOFFS

Using a logit estimation and divisional data, we evaluate the likelihood of detecting a significant decrease in employment at the division level (> 75, 2.5% of the average division size) and investigate how geography affects the sensitivity of such changes to performance. Whether the division is in the same state as the headquarters is indicated by same_state. We also control for division employment (ldemp), division sales growth (dsgrowth), firm employment (lemp), firm sales (lfsales), firm assets (lnassets) and aggregated change in employment in the industry that the division belongs to (dindlgrowth2).

	I	**II**
	DFIRE	**DFIRE**
same_state	**-0.2**	**-0.184**
	2.58* **	**2.07** **
	(2.12)**	**(1.69*)**
Ldemp	0.33	0.33
	10.34***	10.28***
Dsgrowth	-1.366	-1.043
	5.29***	5.66***
Lemp	0.189	0.203
	2.65***	2.87***
Lfsales	-0.007	-0.024
	0.05	0.19
Lnassets	-0.031	-0.025
	0.33	0.27
dindlgrowth2	-2.728	-2.642
	2.82***	2.35**
lgrowth2	0.025	-0.01
	0.02	0.01
same_state x dsgrowth	**0.599**	
	1.71*	
same_state x dindlgrowth2		-0.104
		0.08
Observations	6143	6143

All tests used year and state fixed effects, with standard errors clustered at the division level. The t-statistics if the standard errors are clustered at the firm level are reported in parentheses for the variable of interest, same_state.
*significant at 10%; ** significant at 5%; *** significant at 1%

TABLE V
DIVISIONAL PROXIMITY AND SIZE OF LAYOFFS
(WITH FIRM FIXED EFFECTS)

Using data on divisional employee changes, we regress the change in division number of employees conditional on the division experiencing a layoff (defined in the 3 reported columns based on different threshold levels of change in the number of divisional employees) on divisional geography. The distribution of employment changes is winsorized at its 1% threshold. Whether the division is in the same state as the headquarters is indicated by same_state. We also control for division employment (ldemp), division sales growth (dsgrowth), firm employment (lemp), firm sales (lfsales), firm assets (lnassets) and aggregated change in employment in the industry that the division belongs to (dindlgrowth2). All regressions include firm fixed-effects.

	I	**II**	**III**
	Δ*Emp* if Δ*Emp*< -300	**Δ*Emp* if Δ*Emp*<-150**	**Δ*Emp* if Δ*Emp*<-75**
same_state	**-935.686**	**-597.107**	**-420.386**
	-2.30**	**-2.47****	**2.42****
Ldemp	24.776	68.447	101.582
	0.15	0.66	1.34
Dsgrowth	-1,512.28	-1,426.25	-1,319.433
	-6.45***	-8.78***	10.33***
Lemp	1,258.51	1,351.35	1,308.052
	0.82	1.46	1.98**
Lfsales	520.268	116.662	-115.948
	0.3	0.11	0.15
Lnassets	-1,568.92	-1,241.79	-879.808
	-1.25	-1.65*	1.64
Observations	822	1219	1580
R-squared	0.44	0.44	0.43

Note: When we classify a division as being close to headquarters if the division shares the first three digits of their zip code (same_zip3), we find much stronger results. The coefficients on same_zip3 are statistically significant and the economic impact is almost twice that using same_state (unreported).

TABLE VI
GEOGRAPHY AND THE RELUCTANCE TO DIVEST

This table shows that companies tend to do in-state divestitures under stronger economic constraints. In-state is a dummy equal to 1 if the divested entity lies in the headquarters' state. This table's regressions are conditional on a divestiture: For our sample of divestitures, we do a logit regression of in-state divestiture clustered at the firm level. Adj_ROA is the divesting firm's ROA the year preceding the deal adjusted for it's industry median (48 Fama-French sectors). The negative M/B shock dummy is equal to one if the divesting firm experiences a drop in market-to-book greater to 20% between year -2 and -1 where 0 is the divestiture's year.

	I	II
	In-state=1	**In-state=1**
adj_ROA	-0.71	
	2.11**	
Negative M/B shock		0.17
		2.34**
log(assets)	-0.135	-0.139
	8.36***	9.06***
capx/assets	1.45	0.962
	2.16**	-1.46
industry controls	YES	YES
Constant	-0.291	-0.257
	-0.58	-0.55
Observations	7391	7677

Robust z statistics reported below coefficients.
significant at 5%; * significant at 1%

TABLE VII
GEOGRAPHIC DISPERSION AND INFORMATION

The table regresses a firm's geographic concentration (psame_state) on several firm and industry characteristics such as the level of diversification (psame_sic3) that measures the fraction of divisions in the same 3-digit SIC industry as that of the firm, employment (lemp), sales (lfsales), assets (lnassets), nature of informational environment – soft or hard (division-level dummy ddeltadist, see text for a description), as well as the logarithm of the population of the county of headquarters location (lpop).

	I	**II**	**III**
	psame_state	**psame_state**	**psame_state**
psame_sic3	0.108	0.119	0.11
	2.00**	2.19**	2.00**
Lemp	-0.103	-0.107	-0.099
	2.12**	2.42**	2.03**
Lfsales	0.167	0.091	0.161
	2.41**	1.36	2.27**
Lnassets	-0.081	-0.01	-0.079
	1.75*	0.23	1.64
Deltadist	**-0.112**		**-0.111**
	2.37**		**2.29****
Lpop		-0.006	-0.019
		0.31	0.95
Observations	2149	2248	2105
R-squared	0.07	0.05	0.07

All tests used year and state fixed effects, with standard errors clustered at the firm level.
*significant at 10%; ** significant at 5%; *** significant at 1%

TABLE VIII
THE IMPORTANCE OF SOCIAL INTERACTIONS AND LAYOFFS

Using a logit estimation and divisional data, we evaluate the likelihood of detecting a significant decrease in employment at the division level (> 75, 2.5% of the average division size) and investigate how the nature of information (dummy ddeltadist) and the population of the headquarter county (dummy lpop) affects the importance of division geography. Whether the division is in the same state as the headquarters is indicated by same_state. We also control for division employment (ldemp), division sales growth (dsgrowth), firm employment (lemp), firm sales (lfsales), firm assets (lnassets) and aggregated change in employment in the industry that the division belongs to (dindlgrowth2). ddeltadist and lpop are dummy variables that take the value 1 if the firm is in a hard information environment and if firm headquarters is located in a county with a population above sample median level, respectively.

	I	II	III
	Full Sample	**Low Population**	**High Population**
same_state	**-0.266**	**-0.412**	-0.061
	2.33**	**2.39****	0.36
Ldemp	0.336	0.362	0.274
	6.89***	5.55***	4.24***
Dsgrowth	-1.068	-1.037	-1.209
	4.47***	4.18***	3.04***
Lemp	0.202	0.326	0.245
	1.53	1.92*	1.75*
Lfsales	0.069	-0.245	-0.033
	0.36	0.96	0.14
Lnassets	-0.115	0.059	-0.017
	0.81	0.3	0.09
dindlgrowth2	-2.117	-1.043	-2.501
	2.00**	0.62	1.98**
ddeltadist	-0.022	-0.07	0.073
	0.2	0.52	0.45
same_state x ddeltadist	**0.319**	**0.689**	-0.083
	2.05**	**3.10*****	0.36
Observations	6003	2956	2824

All tests used year and state fixed effects, with standard errors clustered at the firm level. *significant at 10%; ** significant at 5%; *** significant at 1%

TABLE IX
GEOGRAPHY AND STOCK MARKET ANNOUNCEMENT EFFECT OF DIVESTITURES

This table shows a positive market effect of same-state divestitures relative to out-of-state divestitures. We regress the divesting company's stock-return during the day of a divestiture announcement minus the day's weighted average market return. The sample is composed of SDC transactions characterized as "divestitures" between 1990 and 2004, with a deal value superior to $20M. In-state is a dummy variable equal to one if the divested entity lies in the state of the divesting company's headquarters. First-in-state (respectively first-out-of-state) is equal to one if in our sample the divestiture is the first in-state (respectively first out-of-state) divestiture by the divesting company. The t-statistics are based on a Huber/White/sandwich estimator of variance.

Return-Market on Announcement Day *(in %)*			
	I	**II**	**III**
in-state	0.7	0.0	0.3
	2.59***	0.01	0.7
first-in-state		1.2	1.2
		2.49**	2.48**
first-out-of-state			0.6
			2.12**
Constant	0.9	0.9	0.7
	6.96***	6.96***	4.22***
Observations	2649	2649	2649
R-squared	0.01	0.01	0.01

Robust t statistics reported below coefficients.
** significant at 5%; *** significant at 1%

TABLE X
GEOGRAPHY AND CUMULATIVE ABNORMAL RETURNS FOLLOWING DIVESTITURES

Abnormal returns are computed after estimating for each divesting firm a Fama-French 3 factors model on the 48 months preceding the divestiture's announcement. Cumulative abnormal returns, starting 1 month before the deal are then computed for each firm. Column I reports the average CAR of firms divesting entities in the same state as headquarters. Column II does the same for firms divesting entities outside of the state as headquarters. Column III reports the difference and column 4 the result of a t-test on that difference. *significant at 10%;, **significant at 5%; *** significant at 1%

Cumulative Abnormal Returns				
	I	**II**	**III**	
Month	**In-State Divestitures**	**Out-of-state Divestitures**	**Difference**	***t***
-1	0.41	-0.01	0.42	*0.51*
0	1.9	0.43	1.5	*1.48*
1	3.44	-0.41	3.9***	*2.78*
2	2.92	-0.53	3.45**	*2.11*
3	2.01	-0.94	3.0*	*1.71*

TABLE XI
GEOGRAPHY AND STOCK MARKET ANNOUNCEMENT EFFECT OF DIVESTITURES: INFORMATION AND POPULATION

We regress the divesting company's stock-return during the day of a divestiture announcement minus the day's weighted average market return. The sample is composed of SDC transactions characterized as divestitures between 1990 and 2004, with a deal value superior to $20M. Low (High) Pop is the half sample of divesting firms which are headquartered in the most (less) populated counties. Soft (hard) Info is the half sample of divesting firms in the most (less) soft information 2-digit SIC industries, based on our classification. In-state is a dummy equal to one if the divested entity is located in the state of the divesting company's headquarters. The t-statistics are based on a Huber/White/sandwich estimator of variance.

Return-Market on Announcement Day *(in %)*		
	I	**II**
	Low Pop.	**High Pop.**
In-state	0.969	0.618
	2.33**	1.77
Constant	0.842	1.064
	4.95***	4.96***
Observations	1267	1255
R-squared	0.01	0.01

Robust t statistics reported below coefficients.
significant at 5%; * significant at 1%

TABLE XII
GOVERNANCE AND GEOGRAPHIC DISPERSION

The table investigates if firms that are geographically concentrated (psame_state) have better governance. Geographic concentration is measured as the fraction of divisions in the same state as that of the headquarters (psame_state). Governance is based on the measure (G) compiled by Gompers, Ishii and Metrick (2003) and is defined as 24-G, with higher values denoting better governance. In addition to the previous controls, we also use the level of free cash flow in the firm (fcf) and firm leverage (leverage). Standard errors are clustered at the firm level.

	I	II	III
	Governance	**Governance**	**Governance**
Psame_state	**0.78**	**0.74**	**0.732**
	1.84*	**1.82***	**1.81***
Lemp	0.331	0.397	0.394
	0.85	1.04	1.02
Lfsales	0.589	0.321	0.205
	0.98	0.54	0.33
psame_sic3	-0.197	-0.246	-0.215
	0.45	0.58	0.5
Lnassets	-0.347	-0.08	0.054
	0.8	0.18	0.12
Fcf		6.357	5.073
		2.60**	1.89*
leverage			-1.154
			1.22
Observations	897	896	896
R-squared	0.08	0.11	0.12