MERGERS THAT CREATE VALUE

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Abstract

This study uses the governance and operating characteristics of acquirer and target firms to investigate which mergers are profitable, and I find that mergers between well-governed acquirers and poorly governed targets are profitable. In comparison with poorly governed acquirers, well-governed firms acquire targets with lower capital intensity and higher employee intensity. The employee productivity of well-governed acquirers increases after mergers as a result of an increase in the number of employees, combined with an even larger increase in sales. Surprisingly, mergers between poorly governed acquirers and well-governed targets result in the largest increases in operating performance.

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Evidence suggests that a majority of mergers destroy value. Moeller, Schlingemann, and Stulz (2005) find that acquirers lost on average 12 cents per dollar for acquisitions between 1998 through 2001.[1] One explanation is that the objective of the managers of the acquiring firms is not to increase shareholder wealth, but rather to indulge in such wasteful agency behavior as empire building. In principle, these agency costs can be reduced through better governance. Thus, acquisitions by better-governed firms should create value and not destroy it.

This paper explores whether well-governed acquirers create value by generating superior post-merger operating performance, and, if so, how they achieve this superior performance. I use the classical production function to investigate the relationship between the acquirers' governance and increases in operating performance. In the classical production function, operating efficiencies can be generated by either increasing capital productivity or by increasing employee productivity. This study finds that increases in employee productivity tend to drive improvements in post-merger operating performance for well-governed firms.

In contrast, the post-merger capital productivity of poorly governed acquirers increase, but this did not lead to increased operating performance. This suggests that acquirers which have different quality of governance use different post-merger operating mechanisms. The different post-merger operating mechanisms they use are reflected in their choice of targets. Well-governed acquirers merge with targets that are more human-capital intensive and have lower capital intensity than do poorly governed firms.

As Manne (1965) and Mandelker (1974) predict, in disciplinary mergers well-governed firms acquire poorly governed firms and create value by reducing inefficiencies. This study finds empirical results that are consistent with this theory. Interestingly, however, the best operating-performance result comes from mergers between poorly governed acquirers and well-governed targets. Better monitoring by directors of well-governed targets who join the board of directors of the merged firms may be an explanation for the superior performance of these mergers. This implies that there might be a flow in terms of governance between targets and acquirers through the targets' directors who join the boards of the merged firms.

In contrast to disciplinary mergers, mergers between firms which both have a poor quality of governance should lead to value destruction. I find that more mergers take place between firms having a poor quality of governance than those between better governed acquirers and poorly governed targets. The mergers between poorly governed firms may explain, on average, some of the post-merger value destruction documented in the empirical literature.

A proxy for the quality of governance is the corporate governance (G) index developed by Gompers, Ishii, and Metrick (2003). The G index is

[1] Agrawal, Jaffe, and Mandelker (1992) find that acquirers underperform by 10% over a five-year period. Loughran and Vijh (1997) find a negative excess return of 25% over five years for stock-based mergers. Jensen (1986, 2003) argues that firms with excess cash flows have higher agency costs, which results in poorer acquisitions.

an aggregate of the corporate governance provisions of firms, with firms having more shareholder-friendly provisions being considered to be better governed. An advantage of using the G index is that 19 of the 24 provisions are anti-takeover provisions. Masulis, Wang and Xie (forthcoming) hypothesize that managers protected by more anti-takeover provisions have higher agency costs, as they are more likely to indulge in value-destroying mergers. A disadvantage of using the G index is that aggregating the components might result in a loss of information. To test for the robustness of the index, this study disaggregates the index and obtains similar results from its individual components.

To test the hypotheses, I compute the pre-merger combined firm as the weighted average of the acquirer and the target. I calculate the pre-merger to post-merger differences in various operating ratios of the combined firm. Then, I estimate the change in the combined firm's operating performance in relation to the acquirer's and target's G Index. Thereafter, I examine the operating characteristics of the acquirer and the target firms.

I find that in profitable mergers the acquirers' employee productivity increases as a result of an increase in the number of employees, along with an even larger increase in sales. On the other hand, unprofitable acquisitions result in a decline in the number of employees, along with a larger decline in the combined firms' sales. This paper therefore concludes that the mechanism used to generate superior post-merger operating performance is increasing employee productivity. This is the first paper that I am aware of, to document the operating mechanisms that generate post-merger efficiencies.[2]

The remainder of the paper is organized as follows. Section I describes the data. Section II examines whether the corporate governance of acquirers affects post-merger performance. Section III investigates why well-governed firms outperform poorly governed firms. Section IV examines who acquires whom. Section V investigates the impact of the corporate governance of targets on the post-merger performance of combined firms. Section VI concludes.

I. Data

This study uses the Securities Data Corporation (SDC) domestic mergers and acquisitions database to examine mergers completed between 1990 and 2003. The sample excludes repurchases, purchases of minority stakes, self-tenders, and recapitalizations, and focuses instead on mergers that are material to the acquirers (Morck, Shleifer, and Vishny (1990)). I further limit the sample to mergers between publicly traded acquiring and target firms. In addition, I exclude mergers for which information about the deals is missing. For firms which engaged in more than one merger or acquisition, I also exclude all subsequent events falling in the long-run estimation window (one year before the mergers to three years after the mergers) of the preceding event.

To proxy for agency costs, this study uses the governance index developed by Gompers, Ishii, and Metrick (2003) (GIM). The governance index employs 24 unique provisions as reported by Investor Responsibility Research Center (IRRC).[3] Nineteen of the 24 governance provisions are directly related to mergers and acquisitions. This index is therefore well suited to study mergers and acquisitions.

To each governance provision IRRC assigns a dummy variable which takes a value of one if the provision decreases shareholder rights or zero if it increases them. The GIM index sums these dummy variables and calls it the governance (G) index. The higher the G index, the more likely it is that the managers and the shareholders have divergent objectives. GIM report that firms with stronger shareholder rights have better share performance, profits, sales growth, and make fewer acquisitions.

Bebchuk, Cohen, and Ferrell (2004) and Cremers and Nair (2005) identify different sets of provisions driving the G index. These provisions focus on managerial entrenchment while ignoring the other components of agency cost. Mergers, however, entail numerous diverse interactions of different agency cost components. The advantage of using the G index is that its governance provisions proxy for a host of agency problems. Using the G index captures most of the components of agency costs.

The limitation of using the G index is that it is not reported every year. The index's data do not exist for 1991, 1992, 1994, 1996, 1997, 1999, 2001, and 2003. In order to circumvent this limitation this study assigns the index's data for 1990 to 1991, 1993 to 1992, 1993 to 1994, 1995 to 1996, 1998 to 1997, 1998 to 1999, 2000 to 2001, and 2002 to 2003.[4]

The firm with the worst corporate governance in the sample has a G index value of 16; the firm with the best corporate governance has a G index value of 2. The mean for the G index for the sample is 9.15. As IRRC only tracks 1,500 companies, the intersection of the datasets from SDC and IRRC results in 1077 observations.

The required accounting data for the years 1988 to 2005 is from COMPUSTAT. This includes current assets, current liabilities, property, plant, and

[2] Other papers have studied post-merger operating performance but did not study the mechanisms that generate superior operating performance. These papers include Healey, Palepu, and Ruback (1992), Heron and Lie (2002), Ghosh (2001), and Linn and Switzer (2001).

[3] These provisions include those from charter, bylaws, other firm level rules, and coverage under state takeover laws.

[4] I compute the difference in the IRRC index between two consecutive reporting periods of the original data. The median change is 0, the modal change is 0, and the mean change is 0.32 index points. This is consistent with GIM's finding that the G index is stable over time.

equipment (PPE), operating income before depreciation, income taxes, total assets, number of employees, capital expenditure, change in working capital, interest expenses, tax, cash flow from operations, cash flow from investing, net income, and sales.

Some studies on post-merger performance use accounting cashflows as a measure of operating performance (Healey, Palepu, and Ruback (1992), Ghosh (2001), Henron and Lie (2002)).[5] However this measure of cashflows suffers from two major weaknesses. First, it does not account for changes in working capital and is not a 'pure' cashflows measure (Martynova, Oosting, and Renneboog (2006)). Second, it does not reflect the cashflows available to the owners. The objective of this research is to study mergers that create value to the owners. If mergers truly create value for the shareholders, then the gains should appear in the firm's free cash flows. Hence, some of the measures of performance used in this research are based on free cash flows. Calculating the change in performance ratios by taking the differences between free cash flow/total assets (FCF/TA), free cash flow/sales (FCF/Sales), and Tobin's Q reduces the data to 884 observations.[6, 7] In addition, this study adjusts the dependent variables at the three-digit standard industrial classification (SIC) code level (Healey, Palepu, and Ruback, 1992). For some firms COMPUSTAT provides insufficient data to calculate the free cash flows, so I hand-collect the missing financial data from company websites and individual 10K filings to the Securities and Exchange Commission (SEC). Table I summarizes the distribution of the G index values for the acquirers.

[Insert Table I about here]

The total number-of-employee observations from COMPUSTAT are inadequate. The difference in the employee/sales ratios for the acquirers one year prior to the mergers to three years after the mergers result in only 413 observations. To increase the number of employee observations, I use employee data from the Compact Disclosure database and ignored the employee data from COMPUSTAT. Compact Disclosure includes information from SEC filings and corporate annual reports for more than 12,000 publicly traded companies. Compact Disclosure also provides data for other measures of internal governance used in this research, such as size of the boards, independence of the boards, CEO total compensation, names of directors, insider ownership of the firms, and institutional ownership of the firms.

Table II, panel A summarizes the data for one year prior to the mergers for the acquirer firms and target firms. The measures of operating performance are free cash flow/total assets and free-cash-flow/sales. The summary statistics indicate that the acquirers' performance is better than that of the targets. The measures of operating efficiencies indicate that the acquirers' PPE/sales ratios are higher than that of the targets', while the converse is the case for employees/sales ratios.

[Insert Table II about here]

Table II, panel B shows that the performance from one year prior to mergers to three years after the mergers is different for the various types of mergers. Friendly mergers seem to perform better than neutral or hostile mergers. Neutral mergers perform the worst.

Based on the median value of the G index, this study separates the acquirers into two groups, designating all acquirers with a G-index level of nine or lower as low-G firms and all acquirers with G index level greater than or equal to 10 as high G firms. Table III summarizes the changes in FCF/Sales, FCF/TA, and Tobin's Q from one year prior to the mergers to three years after the mergers. The pre-merger ratios are weighted averages of the acquirer and target firms. The results show that relative to high G firms, low G firms increase operating performance by increasing FCF/Sales, FCF/TA, and Tobin's Q.

[Insert Table III about here]

An important mechanism for controlling agency problems is reducing the level of protection from job loss and other work related liabilities that managers and the directors obtain from their firms' governance provisions. As reported by IRRC, the G index has six provisions listed under the protection subgroup. These are compensation plans, indemnification contracts, golden parachutes, severance, director indemnification, and director liability.[8] Table IV

[5] Typically cashflows is defined as sales less cost of goods sold, less selling and administrative expenses, plus depreciation and goodwill amortization expenses.

[6] Free cash flow is the cash flow from operations, minus capital expenditures, minus change in working capital, minus dividends, minus interest, minus tax. Tobin's Q is log of the numerator equaling to total assets plus market value of equity minus book equity, minus deferred tax the denominator being total assets. FCF/TA is FCF divided by lagged total assets. The Q has been adjusted for the purchase and pooling methods of accounting in the pre 2002 observations.

[7] This sample of 884 observations has data in SDC Platinum, COMPUSTAT, and IRRC files. The drop in the number of observations is primarily due to IRRC having data on large companies (S&P 500 firms and firms in the annual lists of the largest companies in *Forbes*, *Fortune*, and *Businessweek*), while the SDC data is for small, medium, and large companies. To check that this is the only reason why this sample lost observations, I again downloaded data from SDC, but added the constraint that the deal value be larger than $1 billion, this results in 872 observations.

[8] The other subgroups are delay, voting, and other.

reports the estimates of the effects of these governance provisions' on long-term firm performance. The statistically significant provision is compensation plans. IRRC assigns one for the presence of each of the six provisions listed under the protection subgroup and zero for the absence of these provisions. This study designates the total of these as the protection index. The higher the protection index, the more protected the managers and the directors are, the more likely they are to be entrenched, and the higher the agency costs. A high protection-index value may therefore suggest the existence of the abuse of power and the wasting of assets.

[Insert Table IV about here]

II. Post-Merger Performance of Acquirers

A. Acquirers' Corporate Governance and Post-Merger Performance

One way to create value is by increasing operating performance. The shareholders benefit as improvements in operating performance increase the free cash flows available to them. Firms with better corporate governance should be more focused on maximizing shareholder value than poorly governed firms. Thus, well-governed firms should have better post-merger operating performance than firms with poorer corporate governance.

An alternate explanation is relative stock market valuations (Shleifer and Vishny (2003)). Post-merger profit depends on the ability of the acquirers' managers to exploit market inefficiencies. The returns so generated are likely to be independent of the presence of corporate governance provisions. The following hypothesis considers these explanations:

H_1: Acquirers with superior pre-merger corporate governance experience better post-merger performance of the combined firms than do poorly governed acquirer firms.

To test the above hypothesis, the literature suggests two methods. The first method is to industry adjust the performance measures (Healey, Palepu, and Ruback (1992)). The second method is to match the firms involved in mergers and acquisitions with those that do not participate in a merger or acquisition (Barber and Lyon (1996)). For the second method, in addition to the standard dimensions of the match which include industry, year, size, and performance, this research would also require the non-event peer firm to have similar G Index value. The dimensionality of the match reduces the sample size substantially. Thus, I employ the first method and industry adjust the performance measures at the three digits SIC code level.

I first calculate the change in performance, defining performance as FCF/sales ratios.[9] To test for robustness, the study includes three additional measures for performance. These are change in FCF/total assets, change in Tobin's Q, and the alpha of the regression of the three Fama French (1992) factors and momentum.[10] The change is the difference between the three years' post-merger performances from that one year prior to the mergers.

$$\Delta Perf_{t+3} \equiv Performance_{t+3} - Performance_{t-1} \quad (1)$$

The equation to be tested is as follows:

$$\Delta Perf_{t+3} = \alpha + \beta\, AcqG_{t-1} + \gamma Controls_{t-1} + \varepsilon_{t-1} \quad (2)$$

AcqG refers to the G-index value of the acquirers. I control for the size of the acquirers by including the log of their sales, for the relative size of the merger by taking the log of the ratio of the total assets of the targets and the acquirers, and for bidding characteristics (tender offer). As suggested by Linn and Switzer (2001) and Carline, Linn, and Yadav (2002), this study also controls for the acquisitions being hostile, neutral, or friendly. I control for the method of payment by using a dummy variable which takes the value of one if the medium of payment is stock, and zero otherwise (Linn and Switzer (2001), Ghosh (2001)). To control for the change in focus of the firm because of the merger, I include a dummy variable which takes the value of one if the acquirer and the target belong to the same four digit SIC code (Linn and Switzer (2001), Megginson, Morgan and Nail (2004)). I also control for the alternate internal governance mechanisms through size of the boards of directors, the independence of the boards, the CEOs' total compensation/sales,[11] and for the leverage of the firms (long term debt/total assets). Year dummies have been included for the year in which the merger took effect – the regression uses dummies for the years 1990 to 2003 – thus controlling for year effects, if any. The standard errors are clustered for the same year and industry.

Table V reports the regression results. As the G index for the acquirers increase by one point, the industry-adjusted FCF/sales ratio decline by 2.01%. In the case of FCF/TA, the decline is 1.42%. Similarly, the Tobin's Q decline by 1.53% if the acquirers' G increases by one integer. The estimates of the coefficients of the acquirers' G are significant at one percent confidence level. The data suggest that as corporate governance increases, the post-merger performance of the firms also increases. Thus, better-governed acquirers have superior post-merger operating performance than poorly governed acquirers.

[9] Of the two measures for operating performance (FCF/TA and FCF/sales), this study used FCF/sales because it is not affected by the way total assets are accounted after a merger.

[10] Daily prices have been used to calculate the alpha.

[11] The results are robust for institutional ownership and insider ownership as additional controls. The coefficient of institutional ownership and insider ownership are not significant in these estimations.

Such alternate internal governance mechanisms as the size of the boards, the independence of the boards, and the CEOs' total compensation have no significant effect on performance. This suggests that internal governance, largely through the governance provisions, affects performance. Leverage is another source of mitigation for agency problems, the results suggest that increases in leverage decrease FCF/sales and FCF/TA. However, leverage has no significant affect on Tobin's Q and alpha.

[Insert Table V about here]

Agency problems can be controlled by effective corporate governance mechanisms. Hence, the absence of certain corporate governance provisions might be driving the underperformance of poorly governed firms. An important mechanism for controlling agency problems is the ability of the owners to replace the management and the board. The fear of losing employment or the threat of exposing oneself to punishment through litigation may reduce agency costs. However, this action may entail costs to the shareholders through severance packets, golden parachutes, and compensation plans. The lower the costs, the more likely it becomes that the managers and directors will be replaced.

Another way that owners can penalize management and directors is by taking them to court. If the managers and directors are protected by indemnification and liability contracts, then their exposure to this punishment decreases, and they may take decisions that might not be in the best interest of the owners. This leads to the following hypothesis:

H_2: Firms with more protective governance provisions for managers and directors undertake mergers that result in poorer post-merger performance of the merged firms than those mergers undertaken by firms with less-protected managers and directors.

Table VI reports the results. The null hypothesis can be rejected at the 1% confidence level. The sign on the coefficient is negative, indicating that as the protection index increases, performance decreases. This implies that the more protected the board and the managers are, the poorer the performance of the merged firms is likely to be. As the protection index of acquirers increase, the governance index increase as well. This supports the study's results, reported earlier, that as governance decreases, the post-merger performance of the acquirers also decreases. These results suggest that the main driver behind the superior performance of better-governed firms is the lack of protection provisions.[12]

[12] As suggested by Bebchuk and Cohen (2005), this study tests for the impact of staggered boards on post-merger performance and finds that staggered boards have a weakly significant impact on the post-merger performance of acquirers.

[Insert Table VI about here]

B. Robustness

The results suggest that an increase in the G-index value leads to a decline in operating performance. Also, the results suggest that an increase in the protection index also leads to a decrease in operating performance. The concern about both the indices is that aggregating the components might lead to a loss of information, which may result in the indices becoming meaningless. To test for the robustness of the index, this study disaggregates the index and repeats the regression with its individual components. We should expect the sign of the coefficients to be negative, as the presence of these provisions is not in the shareholders' interest. If this is true for all the components, we can conclude that the index reflects the information contained in its components.

I estimate the operating performance using the individual components of the G index, reporting only those results that are statistically significant at the 10% level. Table VII reports the results of the constituents of the G index which are not in the protection index; those in the protection index have been reported in Table IV. The statistically significant results have negative coefficients, indicating that the presence of these provisions leads to a decline in operating performance. This is consistent with my results with the G index and the protection index.

[Insert Table VII about here]

The results suggest that well-governed acquirers perform better in the long run. This superior performance is driven by the level of protection the managers and the boards have. However, the question remains as to how well-governed firms generate operating efficiencies. The next section addresses this issue.

III. Post-Merger Efficiencies and Governance

In order to study the cause of the changes in the post-merger operating performance, I investigate the production process. The production process is represented by the classical production function

$Y=F(K,L)$,

where Y is the output, K is the capital, and L is labor. This study does not assume any functional form for F. Firms allocate capital and labor to produce output. Hence, the sources of synergy can be increases in employee productivity, or increases in capital productivity.

Over the sample period the largest increase in efficiency has been through increased employee productivity. Better governed acquirers are more likely to exploit this increased efficiency than poorly governed acquirers. Hence, the next hypothesis is:

H_3: Firms with better corporate governance decrease their employees-to-sales ratios more than do firms with poorer corporate governance.

The equation tested is:

$$\Delta Employee_{t+3} = \alpha + \beta AcqG_{t-1} + \gamma Controls_{t-1} + \varepsilon_t \quad (3)$$

In the above equation Employee refers to the total number of employees, divided by sales. In addition to the set of controls used in (2), this equation also controls for investment opportunities by including the market-to-book ratio. This additional control variable is necessary, as increases or decreases in the number of employees might be determined by the potential investment opportunities available to the firms involved. It uses the same set of controls as in (2).

The regression results reported in Table VIII show that the null hypothesis can be rejected at 1% confidence interval. As G increases, the change in employees-to-sales ratios also increases. This indicates that well-governed firms decrease their employees-to-sales ratios more than do poorly governed firms. The estimates of such alternate internal governance mechanisms as the size of the boards, the boards' independence, and the CEOs' compensation are not statistically significant.

Unreported results suggest that well-governed acquirers have increases in both the numbers of employees and sales, but that the employees-to-sales ratio declines for them. This suggests that well-governed acquirers increase sales more than the number of employees. This increase in employee productivity leads to increases in operating returns, as reported in Table V. We can conclude that post-merger increases in operating efficiencies for profitable mergers occur because of increases in employee productivity.

[Insert Table VIII about here]

To test for robustness, I repeat the above regression using the employees-to-total-assets ratios as the dependent variable. Table VIII reports the results. The sign and the significance of the coefficient suggest that the results are robust.

The classical production function has a trade-off between labor and capital. Increases in labor productivity should result in decreases in capital productivity, and, conversely, increases in capital productivity should result in decreases in labor productivity. The trade-off in capital and labor should therefore lead to decreases in capital productivity for well-governed acquirers as their labor productivity increases.

H_4: After mergers, firms with better corporate governance increase their capital in relation to their sales more than firms with poorer corporate governance.

To test this hypothesis I uses the same methodology as before. The equation tested is:

$$\Delta Capital_{t+3} = \alpha + \beta AcqG_{t-1} + \gamma Controls_{t-1} + \varepsilon_{t-1} \quad (4)$$

In the above equation Capital refers to property, plant, and equipment (PPE) divided by sales. Table VIII reports the regression results. The sign of the coefficient for governance is negative, indicating that as the G-index value increases, the capital-to-sales ratio declines. Thus, well-governed firms increase their capital-to-sales ratio while this ratio decreases for poorly governed firms. Unreported results show that poorly governed acquirers tend to experience a decrease in sales. Poorly governed acquirers' PPE therefore tends to decline more than their sales. This suggests that poorly governed acquirers tend to become less capital intensive than better-governed acquirers. This relative decrease in capital intensity for poorly governed acquirers does not translate into increased operating returns (see Section II).

IV. Acquirers, Targets, and Governance

The classical production function predicts that the capital and labor intensities of firms will determine who acquires whom. This study finds in the previous section that better-governed acquirers tend to decrease employee intensity and increase capital intensity relative to poorly governed acquirers. If value is created by increasing employee productivity, then better-governed firms should acquire employee-intensive targets and generate efficiencies by increasing employee productivity. The consequent employee-productivity increases should lead to a decline in employee intensity. The production function suggests that as employee intensity decreases it should be substituted with increased capital intensity. This suggests these two hypotheses:

H_5: Relative to poorly governed acquirers, well-governed acquirers merge with targets with lower capital intensity.

H_6: Better-governed acquirers merge with targets with higher employee intensity than do poorly governed acquirers.

This study tests the fifth hypothesis using the following equation:

$$TargetCapital_t = \alpha + \beta\ AcqG_t + \gamma Controls_t + \varepsilon_t \quad (5)$$

Capital refers to PPE divided by sales. The controls are the same as in (3). Table IX, column 1 reports the results. The estimated coefficient for acquirers' G is positive and significant at the 1% confidence level. Well-governed acquirers tend to merge with targets with lower capital-to-sales ratios. This suggests that poorly governed firms, in comparison to well-governed firms, acquire more capital-intensive targets. Column 2 reports the results of the regression of the capital-to-total-assets ratios. The results are robust to this change in the denominator of the dependent variable.

[Insert Table IX about here]

I test the sixth hypothesis using the following equation:

$$TargetEmployees_t = \alpha + \beta\ AcqG_t + \gamma Controls_t + \varepsilon_t \quad (6)$$

Employees refer to the total number of employees divided by sales. To test for robustness I also divide labor by total assets. Table IX column 3 shows that the estimated coefficient of the acquirers' G is significant at the 1% confidence level. The sign of the coefficient suggests that as G increases the employees-to-sales ratio also increases. In comparison to poorly governed firms, well-governed firms tend to acquire targets with higher labor intensity and then reduce it successfully. Thus, well-governed acquirers generate post-merger efficiencies by increasing employee productivity. The results imply that firms with different G-index values acquire targets with different operating characteristics. Column 4 reports the results of the regression of employees-to-total-assets ratios. The results are robust to this change in the dependent variable's denominator.

V. The Corporate Governance of the Target

A. Targets' and Acquirers' Governance

A mechanism which can be used by better-governed firms to create value is the acquisition of a poorly governed target and the disciplining of its management. Manne (1965) and Mandelker (1974) suggest that inefficiently managed targets do not take actions which maximize shareholder value. More importantly, the targets' owners fail to discipline their management, making the targets good candidates for takeovers. The acquirers then use their more successful corporate governance practices to operate the acquired firms more efficiently. Therefore, profitable mergers should be between acquirers with better governance and targets with poorer governance. Wang and Xie (2007) present evidence that the larger the difference between the acquirer and target's shareholder rights the larger is the synergy from the merger.

However, if a majority of mergers are not motivated by the disciplinary actions of the market for corporate control, we should see mergers between better-governed acquirers and better-governed targets, and poorly governed acquirers and poorly governed targets. Mergers between firms with a similar quality of governance should suggest that the motivation for a majority of the mergers is not to discipline the target.[13]

H_7: Acquirers merge with targets having similar governance.

Table IX, column 5 reports that the coefficient of acquirer G is positive and significant. This supports the hypothesis that as acquirer G increases, the targets' G also increases. The sign of the coefficient suggests that firms tend to merge with other firms having similar quality of governance. The results imply that a majority of mergers are not between better-governed acquirers and poorly governed targets. The motivation behind a majority of mergers is hence not to discipline the targets' management.

B. Impact on Performance

In this subsection, I analyze the relationship between the acquirers' governance and that of the targets' for the majority of mergers and test if these acquisitions create value. To investigate the above issue, I sort the firms into four categories by pairing high and low G acquirers with high and low G targets: (low [acquirer] G, low [target] G), (low [acquirer] G, high [target] G), (high [acquirer] G, low [target] G), (high [acquirer] G, high [target] G)]. Table X reports the results for these pairings.

[Insert Table X about here]

Table X reports that the post-merger performance of (low G, high G) merger pairs is superior to the performance of (low G, low G) merger pairs. The (low G, high G) quadrant can proxy for mergers motivated by disciplinary objectives. The number of mergers in the (low G, low G) quadrant is smaller than the number in the (low G, high G) quadrant. This suggests that well-governed acquirers merge more often with poorly governed targets. In addition, summary statistics suggest that (low G, high G) mergers are profitable. This is consistent with disciplinary mergers theory.

In principle, we would expect that the acquisition of a poorly governed firm by another poorly governed firm should result in a value-destroying merger. Table X shows that the outcomes are the poorest when high-G acquirers merge with high-G targets. This quadrant also has the highest number of mergers. This suggests that a reason for the wealth destruction documented in the empirical literature is the merger between poorly governed acquirers and targets.

Interestingly, the results reported in Table X show that the largest increase in operating profit is when poorly governed acquirers merge with well-governed targets. These results are surprising, as we would expect that mergers by poorly governed acquirers should result in value destruction.

In comparison to poorly governed targets, better-governed targets should be more advantageously positioned in merger negotiations. This suggests that when poorly governed acquirers target better-governed firms, the better-governed targets should obtain a rent for agreeing to the merger. Stock

[13] The results are mixed for tests on disciplinary mergers. Franks and Mayers (1996), Kini, Kracaw and Mian (1995), Agrawal and Walking (1994), and Agrawal and Jaffe (2003) rejected the inefficient management hypothesis. Smiley (1976) and Asquith (1983) find evidence in support of the inefficient management hypothesis.

premiums and directorships of the combined firms are two forms of rent that the targets may obtain.[14]

Table X reports that 62 of the 89 (high G, low G) mergers resulted in the combined firm having at least one director from the target firm. Other merger groups have a lower percentage of combined firms with at least one director from target firms. One explanation of this result can be that the targets in (high G, low G) mergers choose power through directorships (Wulf (2004)). An alternative explanation may be that the poorly governed firms choose to merge with better-governed targets in order to acquire the skills of the directors.

Directors from poorly governed acquirers might be passive spectators in the progress of their firms. In contrast, directors in better-governed firms might be stronger monitors of firm performance. Therefore, when directors from better-governed targets become the directors of the combined firms they may continue to monitor management and firm performance closely. This should result in the combined firms' improved performance.

I formally test whether mergers between poorly governed acquirers and better-governed targets led to better long-term performance, and if having directors from the targets on the boards of the combined firms is responsible for the superior performance. The regression equation is of the form:

$$\Delta Perf_{t+3} = \alpha + \beta_1 DisG_t + \beta_2 DisG_t * TDir_t + \beta_3 TDir_t + \gamma\ Controls_t + \varepsilon_t \quad (7)$$

DisG takes the value of one if the merger is between a poorly governed acquirer and a better-governed target, and zero otherwise. TDir is a dummy variable which takes the value of one if any target director also becomes a director of the combined firm, and zero otherwise. The above equation includes the G index of the acquirers as an additional control in order to remove any effects that can be attributed to the acquirers' governance. The primary variable of interest is the performance measure given by the change in FCF/Sales.

[Insert Table XI about here]

Table XI reports that the interaction term between dissimilar governance and TDir is positive and significant at one percent confidence interval. The interaction term of DisG and TDir has the largest increase in the FCF/Sales ratio. This suggests that the superior performance of the (high G, low G) mergers is because of TDir. This implies that if poorly governed acquirers merge with better-governed targets, and if the combined firms have directors from the targets' boards, post-merger performance increases. It appears that there might be a flow in terms of governance from the targets to the acquirers, and this should be through the directors.

Table XI shows that mergers between better-governed targets and poorly governed acquirers lead to an average increase of the FCF/Sales ratio of 1.47%. To test for robustness, this study also uses the change in FCF/TA and share performance provided by the Fama French (1992) three-factor alpha with momentum. The results reported in Table XI lead to the conclusion that mergers between poorly governed acquirers and better-governed targets tend to create value. This conclusion supports the findings of the evolving cross-border acquisitions literature, which documents that bidder returns are positively related to the target country's shareholder-rights protections (Moeller and Schlingemann, 2005).

VI. Conclusion

This study analyzed 884 acquisitions from 1990 to 2003 and finds that well-governed firms have superior post-merger operating performance. Well-governed firms acquire targets with higher employee intensity. The employee intensity of the better-governed acquirers tends to decrease after mergers as a result of increases in the number of employees, along with even larger increases in sales. Thus, well-governed acquirers generate post-merger operating efficiencies by increasing employee productivity.

Well-governed acquirers tend to merge with poorly governed targets. Thus, well-governed acquirers undertake disciplinary mergers on poorly governed targets, and these mergers are profitable. The largest increases in operating returns take place when poorly governed acquirers merge with well-governed targets. The improved performance might be a result of the superior monitoring by the directors of the well-governed targets who join the boards of directors of the merged firms.

This study contributes to our understanding of the relationship between post-merger performance and the governance of acquirer and target firms. In particular, empirical literature documents post-merger underperformance. This research shows that underperformance can partially be explained by the corporate governance of the acquirer and the target firms and the level of protection for the managers and directors of the merging firms. In general, this paper demonstrates the benefits of better corporate governance in the context of mergers. These results have implications for the broader public policy debate about the future of corporate governance reforms.

References

1. Agrawal, A., and J. Jaffe, 2003, "Do Takeover Targets Tnderperform? Evidence From Operating and Share Returns," *Journal of Financial and Quantitative Analysis*. 38, 721-746.
2. Agrawal, A., Jaffe J, and G. Mandelker, 1992, "The Postmerger Performance of Acquiring Firms: A

[14] This study did not find that stock premiums paid for (high G, low G) mergers are statistically different from the stock premiums paid to other merger groups

Reexamination of an Anomaly," *Journal of Finance*. 47, 1605-1621.
3. Agrawal, A., and R. Walking, 1994, "Executive Careers and Compensation Surrounding Takeover Bids," *Journal of Finance*. 49.
4. Asquith, P., 1983, "Merger, Bids, Uncertainty and Shareholder Returns," *Journal of Financial Economics*. 11.
5. Barber, B., and J. Lyon, 1996, "Detecting Abnormal Operating Performance; The Empirical Power and Specification of Test Statistics", *Journal of Financial Economics*, 41, 359-399.
6. Bebchuk, L., and A. Cohen, 2005, "The Costs of Entrenched Boards," *Journal of Financial Economics.* 78, 409-433.
7. Carline, N., Linn, S., and P. Yadav, 2002, "The Influence of Managerial Ownership on The Real Gains In Corporate Mergers and Market Revaluation of Merger Partners: Empirical Evidence," *SSRN Working Paper Series*. http://ssrn.com/abstract=302606
8. Cremers, M., and V. Nair, 2005, "Governance Mechanisms and Equity Prices," *Journal of Finance.* 60, 28-59.
9. Fama, E., and K. French, 1992, "The Crosssection of Expected Stock Returns," *The Journal of Finance.* 47, 427-465
10. Franks, J., and C. Mayers, 1996, "Hostile Takeovers in The UK and Correction of Management Failure," *Journal of Financial Economics*. 40, 163-181.
11. Ghosh, A., 2001, "Does operating Performance Really Improve Following Corporate Acquisitions?" *Journal of Corporate Finance.* 7, 151-178.
12. Gompers, P., Ishii, J., and A. Metrick, 2003, "Corporate Governance and Equity Prices," *Quarterly Journal of Economics*. 107-155.
13. Healey, P., Palepu, K., and R. Ruback, 1992, "Do Mergers Improve Corporate Performance?" *Journal of Financial Economics.* 31, 135-175.
14. Henron, R., and E. Lie, 2002, "Operating Performance and the Method of payment in Takeovers", *Journal of Financial and Quantitative Analysis*. 37, 137-156.
15. Jensen, M., 2003, "The Agency Costs of Overvalued Equity," *Harvard Business School Working Paper*.
16. Jensen, M., 1986, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," *The American Economic Review.* 76, 323-329.
17. Kini, O., Kracaw, W., and S. Mian, 1995, "Corporate Takeover, Firm Performance and Board Composition," *Journal of Corporate Finance*. 1, 383.
18. Linn, S., and J. Switzer, 2001, "Are Cash Acquisitions Associated with Better Postcombination Operating Performance Than Stock Acquisitions?" *Journal of Banking and Finance*. 6, 1113-1138.
19. Loughran, T., and A. Vijh, 1997, "Do Longterm Shareholders Benefit From Corporate Acquisitions?" *The Journal of Finance.* 52.
20. Mandelker, G., 1974, "Risk and Return: The Case of Merging Firms," *Journal of Financial Economics*. 1, 303-335.
21. Manne, H., 1965, "Mergers and The Market For Corporate Control," *Journal of Political Economy*. 73, 110-120.
22. Martynova, M., Oosting, S., and L. Renneboog, 2006, "The Long-term Operating Performance of European Mergers and Acquisitions," *SSRN Working Paper Series*, http://ssrn.com/abstract_id=944407
23. Masulis, R., Wang, C, and F. Xie, Forthcoming, "Corporate Governance and Acquirer Returns," *Journal of Finance*.
24. Megginson, W., Morgan, A, and L. Nail, 2004, "The Determinants of Positive Longterm Performance in Strategic Mergers: Corporate Focus and Cash," *Journal of Banking and Finance*. 28, 523-552.
25. Moeller, S., Schlingemann, F., and R. Stulz, 2005, "Wealth Destruction On a Massive Scale? A Study of Acquiring Firm Returns in The Recent Merger Wave," *Journal of Finance.* LX.
26. Moeller S., and F. Schlingemann, 2005, "Global Diversification and Bidder Gains: A Comparison Between Crossborder and Domestic Acquisitions," *Journal of Banking & Finance.* 29, 533-564.
27. Morck, R., Shleifer, A., and R. Vishny, 1990, "Do Managerial Objectives Drive Bad Acquisitions," *Journal of Finance*.
28. Shleifer, A., and R. Vishny, 2003, "Stock market driven acquisitions," *Journal of Financial Economics*, 70 (3), 295-311.
29. Smiley, R., 1976, Tender Offers, Transaction Costs and Theory of the Firm," *Review of Economics and Statistics*, 58.
30. Wang, C., and F. Xie, 2007, "Corporate Governance Transfer and Synergistic Gains from Mergers and Acquisitions," *SSRN Working Paper*, http:// ssrn.com/abstract=987113
31. Wulf, J., 2004, "Do CEOs in Mergers Trade Power for Premium? Evidence From 'Mergers of Equals.'," *Journal of Law, Economics and Organization*, 20.

Appendices

Table I. Corporate Governance Distribution of Acquirer

The sample consists of 884 acquiring and target firms which have M&A data in SDC, governance data in IRRC, and firm data in Compustat. In the table below *Acquirer G* refers to the corporate governance index of the acquiring firms. This corporate governance index is developed by Gomphers, Ishii, and Metrick (2003). The index is discrete and takes only integer values. *Frequency* indicates the number of firms at each index value. *Percentage* denotes the percentage of firms at each integer value in the index. *Cumulative percentage* is the cumulative frequency of the number of firms.

Acquirer G	Frequency	Percentage	Cumulative Percentage
2	2	0.23	0.23
3	15	1.69	1.92
4	30	3.39	5.31
5	37	4.19	9.50
6	71	8.03	17.53

7	89	10.07	27.60
8	102	11.54	39.14
9	96	10.86	50.01
10	113	12.78	62.78
11	126	14.25	77.03
12	86	9.73	86.76
13	63	7.13	93.89
14	35	3.96	97.85
15	16	1.81	99.66
16	3	0.34	100.00
Total	884	100	

Table II. Performance and Operating Ratios

Free cash flow is the cash flow from operations minus capital expenditures minus dividends minus interest minus tax. Free cash flows, PPE, and employees are divided by either lagged total assets or lagged sales. Tobin's Q is (total assets + market value of equity – book equity)/total assets. Sales are reported in millions of dollars. Panel A presents the performance and operating ratios of the acquirers and the targets one year prior to the merger. In Panel B, change refers to the difference in the ratios one year prior to the mergers to ratios three years after the mergers. The one year prior to the mergers ratios are those of the combined firms. The combined firms are the weighted average of the acquirer and the target firms. The reported variables are in percentages.

Panel A. Pre-Merger Ratios	**Mean**	**Median**
Acquirer		
Free Cash Flow/ Total Assets	7.89	9.12
Free Cash Flow/ Sales	12.47	13.78
Property, Plant, and Equipment/ Sales	8.69	8.39
Employee/ Sales	0.69	0.03
Target		
Free Cash Flow/ Total Assets	1.27	0.79
Free Cash Flow/ Sales	1.83	1.27
Property, Plant, and Equipment/ Sales	4.76	5.37
Employee/ Sales	1.89	2.05
Panel B. Post-Merger Ratios	**Mean**	**Median**
Change in FCF/Sales	3.38	2.57
Change in FCF/Total Assets	0.73	0.38
Change in Tobin's Q	-0.54	-0.03
Hostile Merger		
Change in FCF/Sales	0.46	0.52
Change in FCF/Total Assets	0.01	-0.47
Change in Tobin's Q	-1.34	-1.25
Neutral Merger		
Change in FCF/Sales	-1.76	-1.24
Change in FCF/Total Assets	-1.38	-2.98
Change in Tobin's Q	-1.66	-0.48
Friendly Merger		
Change in FCF/Sales	4.28	1.79
Change in FCF/Total Assets	0.89	0.14
Change in Tobin's Q	0.23	0.05
Conglomerate Merger		
Change in FCF/Sales	1.82	1.28
Change in FCF/Total Assets	0.94	-0.11
Change in Tobin's Q	0.43	0.21

Table III. Operating Performance of Low G and High G Acquirers

The row with low G represents results in which the acquirer's G is equal to or lower than nine of the governance index developed by Gompers, Ishii, and Metrick (2003). If the G-index value is larger than nine this table designates it high G. The reported results are for the median changes in these ratios of the combined firms. The reported change is from one year prior to the mergers to three years after the mergers. Free cash flow is the cash flow from operations minus capital expenditures minus dividends minus interest minus tax. Free cash flows are divided by lagged total assets or lagged sales. Tobin's Q is log

of [(total assets + market value of equity – book equity –deferred tax)/total assets]. Industry-adjusted variables are reported in the table. The reported variables are in percentages.

	Change in FCF/Sales	Change in FCF/Total Assets	Change in Tobin's Q
Low G	4.78	2.14	6.32
High G	-0.78	-0.89	1.14

Table IV. Protection Provisions and Performance

The governance provisions reported in the table are classified in IRRC under the protection provisions sub-category of Gompers, Ishii, and Metrick's (2003) corporate governance index. All the regressions control for tender, hostile, neutral, stock, focus, size, ratio of size of target and acquirer, size of board, independence of board, CEO total compensation, insider ownership, book to market, long term debt/total liability, and year effects. The standard errors are clustered at the same industry and year. In the table below *FCF* is free cash flows. The change is the difference in these ratios of the combined firms from one year prior to the mergers to three years after the mergers. Free cash flow is as defined in the previous table. The dependent variables are industry adjusted at the three-digit SIC code level. The reported variables are in percentages. The *t-statistic* is reported in parenthesis below each estimate. * and ** indicate significance at 5% and 1%, respectively.

	Compensation Plan	Indemnification Contract	Golden Parachute	Severance	Director Indemnification	Director Liability
Change in	-5.40**	-5.95**	-6.13**	1.13	-3.43*	-4.76
FCF/Sales	(-3.56)	(-6.34)	(-8.09)	(0.04)	(-2.17)	(-1.38)
Change in FCF/	-4.89**	-7.78	-0.94	-1.10	-4.28	-4.87**
Total Assets	(-3.23)	(-1.91)	(-0.59)	(-0.17)	(-0.34)	(-6.57)
Change in	-0.67**	-0.67*	-3.12	0.54	0.49	0.23
Tobin's Q	(-3.04)	(-2.45)	(-1.01)	(0.86)	(0.89)	(0.24)

Table V. Governance and post-merger performance

The table has four measures of performance: Free Cash Flow *(FCF)/Sales*, *FCF/Total Assets* (TA), *Tobin's Q*, and the *alpha* of the three-factors Fama French (1992) regression with momentum. The difference in industry-adjusted operating performance ratios from one year prior to the mergers to three years after the mergers is the dependent variable. Free cash flow and Tobin's Q are as defined in Table III. All measures of performance are divided by either lagged total assets or lagged sales. Size refers to the log of sales of the acquirers. Leverage is the ratio of long-term debt divided by total assets. Stock is a dummy variable which takes the value of one for an all stock offer. Focus takes the value of one if the acquirer and the target belong to the same four digit SIC code. Year dummies control for year effects in all of these regressions, and the standard errors are clustered for the same industry and year. The reported estimates are in percentages. *P- values* of the estimates are reported in parenthesis. * and ** indicate significance at 5% and 1%, respectively.

Variable	FCF/ Sales	FCF/ TA	Tobin's Q	Alpha
	(1)	(2)	(3)	(4)
Acquirer G	-2.01**	-1.42**	-1.53**	-0.001**
	(0.00)	(0.00)	(0.00)	(0.00)
Size	2.76**	2.34**	-0.46**	0.018**
	(0.00)	(0.00)	(0.01)	(0.00)
Ratio of Target to Acquirer	-0.43**	-0.62**	-0.02	0.000**
	(0.00)	(0.01)	(0.50)	(0.00)
Tender	-5.13	-5.86	0.29	0.005**
	(0.13)	(0.19)	(0.86)	(0.00)
Hostile	-0.92	0.48	0.49	0.064**
	(0.92)	(0.95)	(0.57)	(0.01)
Neutral	-1.65	-4.38	0.39	-0.035**
	(0.52)	(0.21)	(0.72)	(0.00)
Stock	-1.01*	-0.45*	-1.57	-0.83
	(0.04)	(0.03)	(0.21)	(0.58)
Focus	-0.04	-0.12	-0.46	-0.02
	(0.21)	(0.08)	(0.28)	(0.46)
Size of Board	-0.02	-0.32*	-0.54	-0.16
	(0.07)	(0.02)	(0.14)	(0.17)
Independence of Board	-3.58	-4.79	-8.73	-0.067
	(0.64)	(0.21)	(0.67)	(0.56)
Total CEO compensation	0.01	0.03	0.12	0.000
	(0.83)	(0.29)	(0.19)	(0.25)
Leverage	-2.35**	-7.95**	-2.72	0.012
	(0.00)	(0.00)	(0.45)	(0.34)
Intercept	1.98	7.18	8.68**	-0.174**

	(0.16)	(0.11)	(0.00)	(0.00)
Number of Obs.	884	884	884	884
R2	0.12	0.22	0.09	0.02

Table VI. Protection index and post-merger performance of acquirers

The protection index is the aggregate of the six provisions that constitute the protection provisions in IRRC and are constituents of the G index. These provisions are compensation plans, indemnification contracts, golden parachutes, severance, director indemnification, and director liability. The table displays four measures of performance: free cash flow (FCF)/Sales, FCF/Total Assets (TA), Tobin's Q, and the alpha of the three-factors Fama French (1992) regression with momentum. The industry-adjusted difference in operating ratios from one year prior to the mergers to three years after the mergers is the dependent variable. Stock is a dummy variable which takes the value of one for an all stock offer. Focus takes the value of one if the acquirer and the target belong to the same four digit SIC code. Size refers to the log of sales of the acquirers. Year dummies control for year effects in all of these regressions; the standard errors are clustered for the same industry and year. The reported estimates are in percentages. *P- values* of the estimates are reported in parenthesis. * and ** indicate significance at 5% and 1%, respectively.

Variable	FCF/ Sales	FCF/ TA	Tobin's Q	Alpha
	1	2	3	4
Protection Index	-5.67**	-5.93**	-0.56*	-0.03**
	(0.00)	(0.00)	(0.00)	(0.00)
Size	3.87	2.45*	-0.18	0.02**
	(0.43)	(0.04)	(0.09)	(0.01)
Ratio of Target to Acquirer	-0.57**	-0.89**	-0.08	0.01**
	(0.00)	(0.00)	(0.21)	(0.01)
Tender	-7.31	-9.64	-0.18	0.06**
	(0.56)	(0.07)	(0.78)	(0.01)
Hostile	14.13	16.17	0.72	0.01**
	(0.32)	(0.17)	(0.23)	(0.00)
Neutral	4.23	1.92	0.64	-0.04**
	(0.65)	(0.72)	(0.19)	(0.01)
Stock	-1.02**	-1.29*	-0.04	-0.28
	(0.00)	(0.03)	(0.37)	(0.47)
Focus	-0.10	-0.34	-0.38	-0.02
	(0.57)	(0.39)	(0.29)	(0.83)
Size of Board	-0.23*	-0.19*	-0.42	-0.01
	(0.04)	(0.04)	(0.14)	(0.15)
Independence of Board	-2.83	-1.73	-3.36	-0.04
	(0.57)	(0.26)	(0.49)	(0.34)
Total CEO compensation	0.01	0.00	0.01	0.000
	(0.92)	(0.52)	(0.78)	(0.83)
Leverage	-1.35*	-6.56	-1.98	0.01
	(0.05)	(0.14)	(0.45)	(0.82)
Intercept	17.37	14.71	2.60**	0.03**
	(0.22)	(0.15)	(0.01)	(0.00)
Number of Observations	884	884	884	884
R2	0.12	0.15	0.07	0.01

Table VII. Robustness checks on the governance and protection indices

Those provisions that were significant at the 10% level and not part of the protection index, but are in G index, are reported. In these regressions, FCF is free cash flows. The change is the difference in these industry-adjusted ratios from one year prior to the mergers to three years after the mergers. The change in free cash flows is divided by lagged sales and total assets. The estimations control for tender, hostile, neutral, stock, focus, size, ratio of size of target to acquirer, size of board, independence of board, CEO total compensation, insider ownership, book to market, long term debt/total liability, and year effects. The reported estimates are in percentages. The standard errors are clustered at the same industry and year. *t - statistics* of the estimates are reported in parenthesis. * and ** indicate significance at 5% and 1%, respectively.

		Silver Parachute	Business Combination Law	Recapture of Profits Law
Change in FCF/Sales	Coefficient	-8.21%**	-7.63%**	-6.53%*
		(-2.87)	(-2.94)	(-2.47)
Change in FCF/TA	Coefficient	-5.49%*	-4.24%	-5.87%**
		(-2.49)	(-1.91)	(-3.57)

Table VIII. Production function and governance

The components of the production function, labor and capital, are separately regressed on the governance of the acquirers. Two measures of labor are used: *Employees/Sales* and *Employees/Total Assets*. *Capital* is the ratio of PPE divided by sales. *TA* is the total assets. *Ratio of target to acquirer* is the ratio of the size of the acquirers to their targets. *Size* is the log of the sales of the acquirers. *The Change* is the difference in the industry-adjusted ratios from one year prior to the mergers to three years after the mergers. Stock is a dummy variable which takes the value of one for an all stock offer. Focus takes the value of one if the acquirer and the target belong to the same four digit SIC code.Year dummies control for year effects in all of these regressions. Standard errors are clustered for the same industry and year. *P- values* of the estimates are reported in parenthesis. * and ** indicate significance at 5% and 1%, respectively.

	Change in Employees/Sales	Change in Employees/TA	Change in Capital/Sales
	1	2	3
Acquirer G	0.01**	2.53**	-1.34 **
	(0.00)	(0.00)	(0.00)
Size	-0.07**	2.12	6.12**
	(0.00)	(0.06)	(0.00)
Ratio of Target to Acquirer	-0.01**	-0.76	1.32
	(0.00)	(0.19)	(0.09)
Tender	-0.30**	-7.01**	4.48
	(0.00)	(0.00)	(0.33)
Hostile	0.08**	5.60**	-3.44
	(0.00)	(0.00)	(0.27)
Neutral	0.08**	-3.86*	1.84
	(0.00)	(0.03)	(0.45)
Stock	-0.10	-0.95	-0.84
	(0.49)	(0.38)	(0.93)
Focus	-0.02	-0.10	-0.28
	(0.39)	(0.48)	(0.83)
Size of Board	0.05	2.98	-3.31*
	(0.09)	(0.15)	(0.04)
Independence of Board	2.41	5.46	-0.98
	(0.23)	(0.15)	(0.52)
Total CEO compensation	0.03	0.01	0.00
	(0.45)	(0.56)	(0.88)
Leverage	-2.56	-4.53	0.31
	(0.39)	(0.73)	(0.10)
Market Value/ Book Value	0.46*	3.52*	2.17
	(0.04)	(0.05)	(0.45)
Intercept	0.89**	-5.98**	-9.09**
	(0.00)	(0.00)	(0.00)
Number of Observations	821	821	821
R2	0.13	0.07	0.02

Table IX. Target characteristics and governance of acquirers

Capital refers to PPE divided by sales. *Emp* refers to the total number of employees divided by sales. To test for robustness this table also divides capital and emp by total assets. *Target G* is the G-index value of the targets. These ratios are for one year prior to the mergers. *Ratio of target to acquirer* is the ratio of the size of the acquirers to their targets. Stock is a dummy variable which takes the value of one for an all stock offer. Focus takes the value of one if the acquirer and the target belong to the same four digit SIC code. *Size* is the log of the sales of the acquirers. Year dummies control for year effects in all of these regressions. All the dependent variables are industry-adjusted and the standard errors are clustered for year and same industry. *P- values* of the estimates are reported in parenthesis. * and ** indicate significance at 5% and 1%, respectively.

	PPE/Sales	PPE/TA	Emp/Sales	Emp/TA	G
	1	2	3	4	5
Acquirer G	1.43**	0.79**	-2.31**	-3.82**	7.34*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)
Size	-1.39	1.89**	-7.66**	5.32*	9.54
	(0.12)	(0.00)	(0.00)	(0.02)	(0.06)
Ratio of Target to Acquirer	-0.13	1.36**	-1.74**	1.64	4.71**
	(0.61)	(0.00)	(0.00)	(0.42)	(0.00)
Tender	-2.54	0.96	-5.41	-2.86	6.05
	(0.32)	(0.58)	(0.09)	(0.87)	(0.42)
Hostile	0.03**	4.69**	5.60**	5.43	-3.44
	(0.00)	(0.00)	(0.00)	(0.00)	(0.27)

Neutral	0.08**	0.05*	-3.86*	-2.47	1.84
	(0.00)	(0.03)	(0.03)	(0.12)	(0.45)
Stock	-0.09	0.02	-1.64**	-0.65	0.17
	(0.21)	(0.75)	(0.00)	(0.19)	(0.64)
Focus	1.52	7.43	1.35**	2.87	-5.43
	(0.17)	(0.09)	(0.00)	(0.67)	(0.22)
Size of Board	1.32**	0.98*	-1.94*	-2.34*	3.51*
	(0.00)	(0.04)	(0.05)	(0.03)	(0.04)
Independence of Board	0.64*	0.45	-1.94**	-0.85	1.34
	(0.04)	(0.24)	(0.00)	(0.15)	(0.09)
Total CEO compensation	0.25	1.45	-2.67	-1.79	3.84
	(0.78)	(0.47)	(0.47)	(0.29)	(0.75)
Leverage	-0.76	-0.36	-0.92	-0.57	-0.28
	(0.84)	(0.49)	(0.68)	(0.73)	(0.84)
Market Value/ Book Value	0.65	0.83	4.85	3.56	2.58
	(0.75)	(0.73)	(0.63)	(0.45)	(0.72)
Intercept	0.54*	-0.02	-0.98**	1.56**	3.24**
	(0.03)	(0.94)	(0.00)	(0.00)	(0.00)
Number of Observations	884	884	884	884	884
R2	0.07	0.23	0.15	0.11	0.16

Table X. Summary of acquirers-targets sub-groups and performance

Based on the median value of the G index, this table sorts the firms into four categories by pairing well-governed and poorly governed acquirers with well-governed and poorly governed targets. The groups are separated into the four sub-groups in the table's matrix. All acquirers with a G-index level of nine or lower are called well-governed firms, and all acquirers with G-index level greater than or equal to 10 are called poorly governed firms. The change in free cash flows is divided by lagged sales and total assets. Industry-adjusted variables are reported. *Alpha* is the alpha of the three-factor regression following Fama French (1992) (style-adjusted abnormal returns) with momentum. Daily data are used. The median values of these variables are reported . *T Director Firms* is the total number of combined firms which have at least one director from the target firms.

Acquirer Governance	Target Governance	Number of Observations	Change in FCF/ Sales	Change in FCF/ Total assets	Alpha	T Dir Firms
Well-governed (Low G)	Well-governed (Low G)	198	-1.75	-0.98	0.02	95
	Poorly governed (High G)	257	2.45	2.14	0.05	57
Poorly governed (High G)	Well-governed (Low G)	89	7.87	3.67	0.08	62
	Poorly governed (High G)	340	-2.07	-4.48	0.01	69

Table XI. Mergers between poorly governed acquirers and well-governed targets

DisG takes the value of one for mergers between poorly governed acquirers and well-governed targets, or zero otherwise. *TDir* is a dummy variable which takes the value of one if any target directors also become directors of the combined firms, and zero otherwise. *Acquirer G* is the corporate governance index value of the acquirers. The table has three measures of performance: Free Cash Flow (FCF)/Sales, FCF/Total Assets (TA), and the alpha of the three-factors Fama French (1992) regression with momentum. The industry-adjusted difference in these ratios from one year prior to the mergers to three years after the mergers is the dependent variable. Stock is a dummy variable which takes the value of one for an all stock offer. Focus takes the value of one if the acquirer and the target belong to the same four digit SIC code. Year dummies control for year effects in all of these regressions. Standard errors are clustered for the same industry and year. *P- values* of the estimates are reported in parenthesis. * and ** indicate significance at 5% and 1%, respectively.

	Change in FCF/Sales	Change in FCF/ TA	Alpha
	1	2	3
Dissimilar G	1.47**	2.46**	0.01**
	(0.00)	(0.00)	(0.00)
Dissimilar G * Target Director	5.68**	4.29**	0.04**
	(0.00)	(0.00)	(0.00)
Target Director	1.57	0.69	0.00
	(0.09)	(0.11)	(0.25)
Acquirer G	-0.47**	-2.48**	-0.00**

	(0.00)	(0.00)	(0.00)
Log (Size)	0.39	1.58**	0.01*
	(0.28)	(0.00)	(0.03)
Ratio of Target to Acquirer	0.57**	0.29	0.00**
	(0.00)	(0.20)	(0.00)
Tender	-4.66**	-3.67*	0.00
	(0.00)	(0.04)	(0.56)
Hostile	1.06	3.76	0.01
	(0.48)	(0.19)	(0.49)
Neutral	-0.57	2.58*	-0.02**
	(0.48)	(0.05)	(0.00)
Stock	-1.84*	-0.93	-0.05
	(0.04)	(0.29)	(0.83)
Focus	-0.93	-0.48	-0.82
	(0.57)	(0.48)	(0.73)
Size of Board	-2.56*	-1.85	-0.01*
	(0.03)	(0.12)	(0.04)
Independence of Board	-3.68	-0.46	-0.00
	(0.56)	(0.39)	(0.68)
Total CEO compensation	0.02	0.00	0.00
	(0.58)	(0.67)	(0.47)
Leverage	-0.67**	-0.48*	-0.00
	(0.00)	(0.02)	(0.23)
Intercept	2.17**	1.78**	0.00
	(0.00)	(0.00)	(0.78)
Number of Observations	884	884	884
R2	0.15	0.10	0.01