

The Value of Control in Emerging Markets

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Keywords: intangible assets, institutions, FDI flows, emerging markets, mergers and acquisitions, acquirer returns.

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Abstract

This paper examines shareholder value gains from developed-market acquisitions of emerging-market targets. Between 1986-2006, developed-market firms that acquired control of emerging-market targets experienced average abnormal announcement returns of 1.16%. Positive returns are not observed when the same set of acquiring firms announced controlling acquisitions in developed markets. We offer two possible explanations for these findings—improved governance (via control rights) and the transfer of patent technology from acquirers to targets appear to drive the revaluation in acquirer stock prices and the resulting returns in emerging market transactions.

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1. Introduction

Foreign acquisitions extend the boundaries of the firm across national borders. In the context of emerging markets, these boundaries are extended across countries with vast asymmetries in institutions and property rights protections. Foreign acquisitions in emerging markets therefore present a natural laboratory to study value creation in settings where problems of incomplete contracting and non-verifiable monitoring are likely to be especially severe. In the late 1980s and early 1990s, many emerging markets enacted reforms to liberalize international capital flows including foreign direct investment (FDI) allowing foreign corporate control. Following these reforms, there was a rapid expansion of FDI flows to emerging markets with an increasing fraction taking the form of foreign acquisitions of existing plant and equipment rather than green-field FDI. In this paper, we examine the returns to shareholders of developed-market firms that undertook acquisitions in emerging markets.

We find that when developed-market acquirers gain control of emerging-market targets, they experience positive and significant abnormal returns of 1.16%, on average, over a three-day event window. In the context of the well-documented underperformance of acquiring firms in US M&A transactions (Andrade, Mitchell, and Stafford, 2001; Moeller, Schlingeman and Stulz, 2005), this return is somewhat anomalous. It is also fairly substantial when viewed in relation to the size of acquiring firms in these transactions. This acquirer stock price reaction suggests a median (mean) dollar value gain of \$4.07 (30.15) million for the acquirer. In comparison, the median (mean) transaction value in an emerging-market acquisition where control is acquired is \$42.41 (\$308.57) million. In contrast, acquisitions of minority stakes do not deliver significant acquirer returns.

We also find that the positive acquirer returns and dollar value gains appear unique to the transfer of control in emerging-market M&A. These findings are not replicated when we consider acquisitions of developed-market targets by the same set of developed-market acquirers. Further, while emerging-market acquirers also realize positive returns in transactions involving control of

emerging-market targets, the magnitude of the gain realized by developed-market acquirers is significantly higher. These findings prompt the following question. Why is the acquisition of control of an emerging-market target associated with higher acquirer returns?

Evidence suggests that emerging-markets have weak contracting infrastructure (Rajan and Zingales, 1998; Dyck and Zingales, 2004; La Porta, Lopez de Silanes, Shleifer, and, Vishny 1998) making it difficult for firms to write enforceable contracts. Moreover, the importance of contract enforceability is likely to matter more in contract-intensive activities such as R&D or other intangible asset production (Morck and Yeung, 1992). We hypothesize that acquiring control can help overcome problems of incomplete contracting (Coase, 1937; Alchian, Crawford, and Klein, 1978; Grossman and Hart, 1986; Williamson, 1979) by allowing developed-market acquirers to create value by extending the boundaries of the firm across borders. For instance, with control, acquirers can improve target value by sharing better institutional and corporate governance practices such as legal and accounting standards.

Moreover, countries with good contract enforcement specialize in the production of goods for which relationship-specific or contract intensive investments are important (Nunn, 2007). It follows, that the sharing of these intangible assets or proprietary technologies with emerging-market targets could create value, if acquiring control is sufficient to overcome the weak institutional environment of the emerging-market target firm.

Our findings are the following. First, acquirer returns are significantly higher when acquirers gain control of targets in countries where the distance between the institutional quality (such as expropriation risk, contract repudiation risk, and rule of law) of the acquirer and target is the greatest. It appears that the ability of developed-market acquirers to bring better institutions and corporate governance via control rights to emerging-market targets drives value gains for shareholders of acquiring firms.

Second, abnormal announcement returns are higher when control is transferred from an emerging-market target to a developed-market acquirer in settings where intangible assets are

likely to be important drivers of firm productivity and valuation, proxied by industries with high patent intensity. Our data suggest that the ability of acquirers to share proprietary (patent) technologies with emerging-market targets impact acquirer returns.

An alternative explanation for our findings of positive acquirer returns is that foreign acquirers are simply identifying undervalued assets in emerging markets rather than generating surplus value (Aguar and Gopinath, 2005). However, if emerging-market assets are just “undervalued”, investors with no interest in corporate control, such as corporations interested in minority stakes, also should realize positive returns (Coval and Stafford, 2007). Yet, our results suggest that the acquisition of majority control is a key feature of transactions that deliver positive acquirer returns.

Our paper is related to the literature on cross-border activities of multinational firms in the context of costly financial contracting and weak investor protection. The findings in this paper complement those in Antras, Desai, and Foley (2007) who demonstrate that when multinational firms want to exploit technologies abroad, where monitoring is non-verifiable and financial frictions exist, they deploy technology through ownership (FDI) as opposed to arm’s length licensing. Note that in contrast to portfolio equity investments, the mechanism by which FDI generates returns for foreign investors is by conferring control rights on them (Buiters, 2006). We find that, conditional on the acquisition taking place, returns to acquirers are a function of control in the face of weak institutions and incomplete monitoring, and the effect is more pronounced in industries with high asset intangibility. The finding is consistent with Morck and Yeung (1992) who argue that internalizing multinational firm operations may be more important in R&D-intensive industries where the transfer of proprietary assets is an issue.

The question addressed in this paper is distinct from the literature about the private benefits of control in international settings. Notably, Nenova (2003) and Dyck and Zingales (2004) examine the ‘private benefits’ that controlling shareholders can extract from the

companies they run.¹ While it is possible that such private benefits may enhance total firm value, in most cases, these private benefits of control represent the potential for large shareholders to appropriate minority shareholders.²

As with Nenova (2003) and Dyck and Zingales (2004), we observe a positive premium paid to existing shareholders when either a majority (or minority in our case) stake is acquired. However, we also observe a positive acquirer announcement effect suggesting that combined firm value increases when control of an emerging-market target is acquired.³ Taken together, these results indicate that we are not simply observing a wealth transfer from old (domestic) to new (foreign) shareholders. The stock market anticipates that the value of the acquiring and target firms will increase under foreign ownership.⁴

It is not surprising that we observe these firm value gains in the same settings where Nenova (2003) and Dyck and Zingales (2004) observe high private benefits of control. Nenova (2003) and Dyck and Zingales (2004) find that acquiring firms pay a premium over the target's prevailing exchange-traded market price to acquire control and this premium is higher in countries with weak legal protections⁵ (Nenova, 2003) or if the acquiring party comes from a country which protects investors less (Dyck and Zingales, 2004). If weak institutional environments, which facilitate the extraction of private benefits, also constrain firm value, it follows that an improvement in the institutional environment should enhance firm value. We test

¹ Such private benefits include but are not limited to influencing who is elected to Board of Directors, perquisites, empire building and the transfer of assets on non-market terms to related parties (Nenova, 2003).

² Barclay and Holderness (1989) use privately negotiated transfers of controlling blocks of publicly traded companies to examine the difference between the price per share paid by the acquiring party and the price prevailing on the market the day after the acquisition announcement as a measure of private benefits of control accruing to the controlling shareholder. If large-block shareholders anticipate using their voting power to secure (positive) benefits that do not accrue to smaller shareholders, then blocks should trade at a premium relative to the exchange price. The salient finding in Barclay and Holderness (1989) is that trades of large blocks of stock are typically priced at substantial premiums to the post-announcement exchange price. They interpret these premia as the net private benefits of large-block ownership.

³ Similar to Dyck and Zingales (2004) we interpret positive acquirer CARs (in our case significant) as evidence against the overpayment hypothesis.

⁴ We find that both acquirer and target CARs are positive and significant when control is acquired.

⁵ Control-block votes are significantly less valuable in stricter legal environments (Nenova, 2003).

whether bonding the target to foreign institutional environments through a foreign majority owner leads to an increase in firm value.

We also investigate the relative effects of institutional bonding through foreign ownership across different types of industries. We find that the value of foreign control in emerging markets matters the most in industries where legal protection for unrelated parties is likely to be most relevant, i.e., industries with high asset intangibility. To our knowledge this is the first paper to provide evidence of the link between the value of control, asset intangibility and institutions.⁶

Related international M&A studies principally focus on the gains to target firms when they are acquired by firms operating in an environment with better investor protection. Notably, Rossi and Volpin (2004) show that firms in countries with poor investor protection are more likely to be targets in cross-border acquisitions. Starks and Wei (2004) suggest that takeover premiums for U.S. targets are decreasing in the foreign acquirer's home country governance for deals financed with the acquirer's stock as the method of payment. Bris and Cabolis (2006) find that target abnormal returns increase with better shareholder protection and accounting standards in the acquirer's country of origin when the target is wholly acquired for a pooled sample of developed and emerging market transactions. Our paper shows that acquirers from countries with better investor protection experience significant gains when majority control of a target located in a country with weak investor protection is announced.

Our findings also contribute to the current debate about the proper valuation of holdings of foreign assets (see, for example, Hausmann and Sturzenegger, 2006). Lipsey (2007) argues that, increasingly, the poor match between the stock and flow measures of foreign direct investment is attributable to the fact that more and more of production is the output from

⁶ Note that we examine cumulative abnormal returns for acquirers which are estimates of shareholder value creation over and above the bid price paid to gain control of the target firm. We interpret the positive and significant cumulative abnormal returns as evidence of the value-enhancing aspect of cross-border takeovers when control is acquired in industries with high asset intangibility in countries with weak institutions.

intangible and financial assets. A substantial missing component of transaction value estimates of foreign assets acquired is the value of intangibles such as technology, know-how, and brand name that firms from developed countries bring to emerging market firms (Hausmann and Sturzenegger, 2006). Shareholder value gains from cross-border M&As can be interpreted as a market-based measure of the returns from investments in foreign assets.

We conduct a number of tests to ensure the robustness of our results. First, we verify that our results are not driven by survivorship bias at the level of the target country. Survivorship bias could arise if developed country acquirers only make acquisitions in markets where previous transactions have proved to be profitable. Second, we also establish that 50% is the critical threshold that drives the positive acquirer returns. Third, we conduct additional tests which exclude alternative explanations of our results based on asymmetric information and control for deal characteristics such as whether or not the acquisition was diversifying and method of payment effects.

The paper is organized as follows. Section 2 describes the data. Section 3 establishes the positive acquirer gains and the link to control and explores alternative sources of acquirer gains. Section 4 provides robustness checks. Section 5 concludes.

2. The Data

Mergers and acquisitions as a mode of entry into emerging markets are a relatively new phenomenon. Foreign participation in emerging markets was fairly restricted until the 1990s when many emerging market countries deregulated their capital markets to foreign entry. For example, Latin American countries began actively seeking foreign investment in their newly privatized industries in the early 1990s. In a number of East Asian countries, however, prohibitions on foreign investors gaining a controlling share of local firms continued until the mid-1990s. The IMF bail-out packages to Thailand, Korea, and Indonesia following the East Asian crisis imposed additional conditions to allow foreign competition in the market for

corporate control. Developed market M&A transactions in East Asia and Latin America surged following the implementation of these policies. From 1991 through 2003 developed-market M&A transactions accounted for 61% of foreign direct investment in Latin America and 48% in East Asia, up from 10% and 4% in the 1980s. The cross-border merger wave in emerging markets therefore offers an international parallel to the deregulation-led domestic merger wave of the 1990s in the U.S.⁷

The data come from SDC Thompson's International Mergers and Acquisitions database which covers public and private M&A transactions involving at least a 5% ownership of the target company before 1992. After 1992, transactions of any size are included in the SDC database. SDC collects information from more than 200 English and foreign language news sources, SEC filings and the filings from its international counterparts, trade publications, newswire reports, and proprietary surveys of investment banks, law firms, and other advisory firms.

For each transaction, the SDC database provides information about the date on which the transaction was announced and the date on which the transaction became effective.⁸ The database also provides target and acquiring firm characteristics, such as name, nation, industry and primary SIC classification. The database provides transaction-specific information for a large subset of the data, such as the percent of shares sought, acquired, and owned after the transaction was complete.

We consider three data samples. The DM-EM sample (sample #1) includes observations where the acquirer is from a developed market and the target is from an emerging market. The DM-DM sample (sample #2) includes observations where both the acquirer and target are from developed markets. To examine whether the patterns we observe in the data are particular to the emerging-developed distinction or to acquirer characteristics, this sample restricts developed-

⁷ Andrade, Mitchell, and Stafford (2001) argue that in explaining the causes of mergers and acquisitions in the domestic context, the 1990s were the "decade of deregulation."

⁸ We verified these dates using Factiva newspaper searches.

market acquirers to those that also appear in the DM-EM sample (sample #1). The EM-EM sample (sample #3) includes observations where both the acquirer and target are from emerging markets. The DM-DM (sample #2) and EM-EM (sample #3) samples include both domestic as well as cross-border M&A transactions.

To be included in any of our samples the following criteria must be met. We focus on deals announced between 1986 and 2006 by publicly listed acquirers. Furthermore we require a minimum of 280 days of trading data for the acquirer prior to the acquisition to estimate market correlations.⁹ Information on the percent stake acquired and whether control was transferred has to be present. The target firm can be either public or private. Finally, to capture meaningful transactions, we limit the sample to acquisitions with transactions values of \$10M or greater.

The developed market nations include Canada, France, Germany, Italy, Japan, Netherlands, Spain, the United Kingdom, and the United States. The sample of emerging market target nations included Angola, Antigua, Argentina, Barbados, Bolivia, Brazil, Cameroon, Chile, China, Colombia, Costa Rica, Ecuador, Egypt, Gabon, Guatemala, Honduras, India, Indonesia, Iran, Jamaica, Jordan, Kenya, Malaysia, Mauritania, Mauritius, Mexico, Morocco, Namibia, Nicaragua, Nigeria, Panama, Peru, Philippines, Republic of Congo, Saudi Arabia, South Africa, South Korea, Taiwan, Thailand, Uruguay, the United Arab Emirates, Venezuela, and Vietnam. Note that stock price return data was not available for all of the emerging market nations included in the emerging-market target sample, thus limiting the sample of countries also included as emerging-market acquirers in the EM-EM sample (sample #3).

To illustrate the effects of the above data screens on our sample, consider DM-EM transactions. We identify 4,593 observations in SDC with a public acquirer from our set of developed markets and a public or private target from an emerging market. Of these observations the sample dwindles to 2,019 transactions with transaction values. After dropping observations

⁹ The market model is run using a 250 day estimation window which ends 30 days before the acquisition is announced.

with transaction values below \$10M the sample declines further to 1,111. Of these observations, acquirer stock price data was available for 280 trading days prior to the announcement for 773 observations. Of these transactions, 64 acquirers had control of the target prior to the announcement and in 115 cases it could not be determined whether control had been transferred based on the information in SDC. We drop these cases and are left with 594 observations in the DM-EM sample.

Table 1 describes the samples and the represented target and acquirer nations after applying the aforementioned screens. The developed-market acquirers in the sample made 594 acquisitions in emerging markets and 1,624 acquisitions in developed markets. The emerging-market acquirers in the sample made 900 acquisitions in emerging markets.

Stock prices are from Datastream, for non-US firms, and from CRSP, for the US sample. All returns are denominated in US\$. Returns are estimated using a symmetric 3-day window around the announcement date. CARs sum the abnormal returns over the event-window, with abnormal returns estimated using a market model with Scholes-Williams betas. The market model is run using 250 days, with the estimation window ending 30 days before the event. The market returns used in the estimations are the broadest equity market index available for each country.

Table 2 includes summary statistics for firm and transactions characteristics for the acquisitions included in our samples. The data show that the transaction size in developed-market acquisitions of developed-market targets is about 2.5 times higher than developed-market acquisitions of emerging-market targets and 3.5 times higher than emerging-market acquisitions of emerging-market targets. While the median developed-market acquirer market capitalizations are comparable in transactions with developed- and emerging-market targets, they are 20 times greater than the market capitalization of emerging-market acquirers.

Control is likely in nearly 60% of the DM-EM sample and may reflect restrictions on acquiring control by foreign firms during the sample period. In comparison, the data suggest that

control is likely to be acquired in approximately 75% of the transactions involving developed-market targets or in purely emerging-market transactions. Also, emerging market targets are more likely to be private, compared to developed market targets. Diversifying acquisitions are more likely in the EM-EM sample and least likely in the DM-EM sample, where a diversifying acquisition is defined as a transaction where the target and acquirer are in different industries, as measured by 3-digit SIC codes.

The three-day returns data show a positive median CAR when the acquisition of an emerging market target is announced and a CAR of -0.20% when a developed-market acquisition is announced. Further, the median CAR in the DM-EM sample (0.26%) is higher than the median CAR in the EM-EM sample (0.12%), however, this difference is not statistically significant. In contrast, when control is acquired, the median CAR returns in DM-EM transactions (0.72%) is higher than median CARs in DM-DM transactions (-0.28%) and EM-EM transactions (0.13%), but, now these differences are statistically significant.

Target returns are available for less than one-tenth of the DM-EM sample. The limited sample is not unexpected. For one, 45% of the DM-EM target sample is private. Furthermore, Datastream does not provide universal coverage of all public firms. Given the significant sample selection bias present in these returns, we err against overly emphasizing these results. However, we find it interesting to note that target and joint returns for the DM-EM sample also follow the same pattern as acquirer returns.¹⁰ Target and joint returns are higher when control is transferred from an emerging market target to a developed market acquirer. However, these increases are not statistically significant.

Table 2 also presents the distribution of transactions by industrial sector. As the table shows there is substantial cross-sectional variation across industries and the data do not display a clear-cut concentration of transactions in any one sector.

¹⁰ Joint returns are the market-capitalization-weighted average of individual acquirer and target returns consistent with Bradley, Desai, and Kim (1988).

Table 3 shows the change in the extent of corporate control resulting from the M&A transactions included in this paper. The columns of the table show the extent of ownership of the target prior to the acquisition, while the rows indicate post-acquisition ownership shares. Column 2 breaks down the post-acquisition stakes in transactions where the acquirer did not have an ownership stake in the target prior to the announcement. Column 3 shows the post-acquisition ownership pattern in transactions where the acquirer had a prior minority stake in the target. Columns 4-6 present a detailed breakdown of the pattern of ownership for the transactions in column 3.

The data in Panel A show that in 460 out of 594 transactions, the developed-market acquirer had no ownership stake in the emerging-market target prior to the announcement (Panel A). In 348 transactions, or about 59% of the sample, the acquisition leads to a majority or near complete transfer of control to the developed-market acquirer. A transfer of majority control also occurred in 69 transactions where the acquirer had a minority stake in the target prior to the announcement.

Panel B shows that in DM-DM transactions (sample #2), in 1,368 out of 1,624 transactions, acquirers did not own a stake in the target before the announcement. Seventy-eight percent of these transactions result in a transfer of majority control to the acquirer. 121 out of 256 cases (47%) where the acquirer had a minority stake in the target prior to the announcement also result in a transfer of majority control to the acquirer.

Panel C shows the pattern of control acquisition in EM-EM transactions (sample #3). 556 out of 691 transactions (80%) result in a transfer of control to the emerging-market acquirer in cases when there was no prior relationship between the acquirer and the target and 99 out of 209 transactions (47%) result in a transfer of control to the acquirer when the acquirer had a prior minority stake in the target.

3. Results

In the following section we explore acquirer returns in more detail. We document the different effects of acquiring control across samples and investigate the factors that drive control.

3.1 Acquirer Returns for the Developed Market Acquirer, Emerging Market Target Sample

Table 4 investigates acquirer returns when developed-market acquirers announce acquisitions in emerging markets. US\$-denominated returns are measured as cumulative abnormal returns (CARs) estimated over a 3-day event window. We include target nation fixed effects in all regressions. Coefficients are reported with robust standard errors in parentheses. Standard errors are also corrected for clustering at the acquiring firm.

Column 1 shows that the coefficient on control is 1.25% and is significant at the 1% level. To test whether the importance of control varies over time, in column 2, we repeat the regression in column 1 but add a continuous time-trend variable reflecting the year the deal was announced relative to the sample timeline, centered at the year 1996. Acquirer returns do not change significantly over time.

When acquirers from developed-markets take over targets in emerging-markets they also may be purchasing relatively illiquid assets that cannot be bought or sold easily. Positive acquirer returns may therefore reflect an illiquidity discount in the valuation of emerging-market assets. Given that approximately 45% of our emerging market targets are private, we include a dummy variable to test whether private targets drive the positive acquirer returns. The results appear consistent with the pattern of acquirer returns in private firm acquisitions in the U.S. (Fuller, Netter and Stegemoller, 2002). We find that private targets are associated with higher announcement returns for acquirers, however, the coefficient on control continues to be significant with the inclusion of the private target dummy (column 3).

Furthermore, the result in column 4 suggests that diversifying acquisitions do not appear to have a statistically significant impact on acquirer returns. These results are in contrast to the

findings reported in Morck, Shleifer and Vishny (1990) and may reflect differences between cross-border and domestic M&A.

Our definition of “majority control” requires a final ownership of 50% or more of target shares. It is possible that de facto control of a company is related to ownership concentration. For example, in diffusely held companies, effective control of the target may be achieved with a relatively small stake. Furthermore, the share price impact of an acquisition may depend upon the relative stake of the target that is purchased. The acquisition of a 5% stake may have a lower share price impact than a 90% stake. To ensure that our measure of majority control is robust, we run the estimations with alternative ownership measures and additional controls.

First, we examine the relation between acquirer returns and the size of the target stake acquired using a continuous measure of ownership. The coefficient, as reported in column 5, is positive and significant. Furthermore, when the majority control dummy is included in the regression specification, the coefficient on post-acquisition ownership remains insignificant, while the coefficient on control is significant, as reported in column 6. These results are consistent with the hypothesis that the transfer of control is not simply a proxy for the size of the acquired stake.

Given the acquisition of control, the mean and median percent of shares acquired are 76% and 90%, respectively. To ensure that the positive acquirer returns associated with control are not driven by complete or nearly complete acquisitions, we create a dummy variable to capture whether the acquirer purchased at least 95% of the target firm. In column 7, we find that the coefficient on control is positive and significant but given control, acquiring 95% or greater of the target firm is not associated with a further increase in returns.

Finally, we consider whether control is simply a proxy for transaction size. In column 8, we find that control does not proxy for transaction size. We find a positive and significant coefficient on control and a negative, and insignificant, coefficient on transaction size. In sum, the results are consistent with the hypothesis that the transfer of control drives acquirer returns in

developed-market acquisitions of emerging-market targets and that control is not simply a proxy for the size of the acquired stake or the size of the transaction.¹¹

In order to examine whether our data on control is skewed towards certain time periods, regions or industries, Table 5 summarizes the median gain from control for our DM-EM sample across time, geographic region, and industry. The median gain from control is estimated as the median CAR for the sample when control is attained minus the median CAR for the sample when control is not attained. In parentheses, we note first the count of observations with control and, second, the count of observations without control.

The table suggests that while the value of control varies across time and by region, our finding of higher CARs when control is acquired is remarkably robust. Considering rows 2, 3 and 4, which break the sample by geographic region, we find that in 9 of the 11 region-year combinations, acquisitions with control are associated with higher acquirer returns relative to acquisitions without control. Similarly, in 67% of the acquirer industry-year combinations and 69% of the target industry-year combinations acquisitions for control are associated with higher acquirer CARs. One other pattern which emerges from the data is that the value of control increases over time in Latin America but declines over time for East Asia.

3.2 Dollar Value Gains for Shareholders of Developed-Market Acquirers and Emerging-Market Targets

To get a sense of the magnitude of the shareholder wealth creation from a typical acquisition in our DM-EM sample, Table 6 shows the distribution of cumulative abnormal returns and dollar value gains for developed-market acquirers. Panel A shows a median CAR of 0.72% in transactions where control is acquired. In contrast, the median CAR for acquirers in transactions where control is not acquired is 0.02% (Table 6, Panel B). A Wilcoxon-signed-rank test of medians shows that acquirer returns are significantly higher in transactions where the acquirer gains

¹¹ All estimations were replicated using local currency returns. The results remain robust.

majority control of the target as compared to transactions where control is not acquired ($p=0.004$).

These calculations suggest that the shareholders of developed-market acquirer firms reap substantial dollar value gains from emerging-market acquisitions when control is acquired. The announcement returns translate to an aggregate dollar value gain of \$10.5 billion for the shareholders of developed-market acquiring firms considering all emerging market targets where control is transferred to the acquirer in our sample.¹²

At first pass, relative to the evidence from US data¹³, these numbers look anomalous. The median value of the acquirer's stock price reaction suggests a dollar value gain of \$4.07 million per transaction.¹⁴ The median transaction value in an emerging-market acquisition is \$42.81 million in transactions where control is acquired (Table 6, Panel A). The median net "synergy" return (acquirer's dollar value gain/transaction value) on a transaction by transaction basis is 0.11. In other words, the stock market anticipates that developed market acquirers will realize a net present value of 11 cents for every dollar they spend on emerging market acquisitions involving control. If we use averages instead of medians, then the average acquirer gain of \$30.2 million also compares favorably to the average transaction value of \$308.6 million.

By contrast, the median net synergy return in transactions where minority stakes are acquired is 0.02 (Table 6, Panel B), suggesting that the transfer of control rights is a key mechanism for generating positive returns for foreign investors in emerging markets. Why do we observe the large dollar value gains for shareholders of foreign acquirers?

In part, the large dollar value gain can be explained by simple mechanics. Acquiring firms are, on average, over an order of magnitude larger than the target firms. The median

¹² The aggregate dollar value gain is calculated by multiplying the average dollar value gain per transaction (\$30.15 million) in Panel A of Table 6 by the number of transactions for control with available data ($N=348$).

¹³ See for instance, Moeller, Schlingemann and Stulz (2005) who show huge dollar value losses for acquiring firms in domestic M&A transactions.

¹⁴ This is the median value of the acquirer dollar value gain calculated by transaction rather than the median CAR times the median market capitalization value for the acquirers in the sample.

acquirer market capitalization is \$3.2 billion in transactions where control is acquired (Table 6, Panel A). A small, positive, cumulative abnormal return translates to a large dollar value gain.

However, the question of why the dollar value gains, elusive in domestic M&As, are positive and large in emerging-market transactions remains. We argue that the market value of an asset can differ across countries given differences in the know-how, brand value and other intangible firm characteristics as well as the institutional setting that protects property rights. Since a direct benefit of better institutions and property rights enforcement in developed-markets is the legal protection of intangibles such as R&D, we expect any value that is transferred through better institutions from developed- to emerging-market firms to be more pronounced in industries associated with high asset intangibility, i.e., in industries where governance is likely to be most important.

We begin by first documenting the fact that these gains associated with control are unique to the pairing of a developed-market acquirer and an emerging market target. Next, we examine institutional differences between countries as drivers of acquirer returns. We then turn to the ability of developed-market acquirers to transfer intangibles such as patents to emerging-market targets in greater detail.

3.3 Are the Gains Associated with Control Unique to Developed-Market Acquirers and Emerging Market Targets?

Thus far, the results suggest that the transfer of control from emerging-to developed-market firms is associated with positive acquirer returns. In Table 7, we explore in detail whether the result is unique to the DM-EM context or whether there are alternative explanations for the finding.

An alternative explanation for the finding assumes that the acquirers in our developed-market acquirer sample are unique and would enjoy high returns in all transactions involving control regardless of whether or not the target was located in an emerging market. If the

hypothesis is valid, then the developed-market acquirers in our sample would experience similar returns when they acquire control of targets in developing markets. To test the hypothesis we combine subsamples 1 and 2 (DM-EM and DM-DM). Given that the set of developed-market acquirers is restricted to firms that made acquisitions in emerging markets, in combining these two samples we are adding a sample of developed-market targets acquired by the same set of developed-market acquirers as in our EM target sample.

Using this combined sample, we find a negative and significant coefficient on control (-0.88%) and a positive and significant coefficient on the interaction term between control and emerging market target (1.49%) in column 1. The result suggests that positive and significant acquirer returns associated with control are unique to developed acquirer-emerging target pairs. These results are consistent with our findings in Table 2 of a negative median CAR for the DM-DM group when control is acquired.¹⁵ Similar results are found in column 2 after including target nation fixed effects, and in column 3, after including acquirer firm fixed effects.

In Table 7, we also include controls for whether the target firm is public or private and also for diversifying acquisitions. Consistent with the US M&A literature, we find a positive coefficient on private targets and a negative coefficient on diversifying acquisitions. However, the coefficient on diversifying acquisitions is not statistically significant.

An alternative explanation for the finding that control is a key driver of positive acquirer returns in Table 7 is that M&A activity in the emerging market context is fundamentally different from M&A activity in the US or other developed markets. If this hypothesis holds in the data, then any acquirer (from a developed or emerging market) stands to reap substantial returns in an M&A transaction involving an emerging-market target.

To test this hypothesis, in columns 4-5, we combine all acquirers (from developed and emerging markets) of emerging-market targets (samples 1 and 3). We find a positive and

¹⁵ Note that Table 2 uses medians, and Table 7 refers to means. Also, we now have target nation fixed effects in Table 7 while Table 2 presents raw medians.

significant impact of control on acquirer returns for both emerging- and developed-market acquirers. The result suggests that the acquisition of control is a key driver of acquirer returns in the emerging-market context and indicates that the institutional environment in emerging markets may be such that value gains for acquirers are inextricably linked to control.

However, it is important to note that developed-market acquirers experience an additional boost in returns as evidenced by the positive and significant coefficient on control interacted with a dummy variable for developed-market acquirers (column 4). The positive coefficient suggests that the value gains that accrue to developed-market acquirers through control are greater in magnitude than those that accrue to their emerging-market counterparts. Furthermore, we caution against extrapolating from our set of emerging-market acquirers as being representative of emerging-market firms in general. It is likely that these firms represent a unique subsample of emerging-market firms (as it is possible that only the most successful firms are publicly traded) and that not all EM firms would be able to replicate these returns patterns if they attempted a similar acquisition.

Recall from Table 2 that developed-market acquirers are, on average, over 200 times larger than emerging-market acquirers. The median developed-market acquirer has a market capitalization of US\$ 7,492M as compared to a median of US\$ 319M for the emerging market acquirer group. Moeller, Schlingeman, and Stulz (2004) provide evidence for the acquirer size effect in the US market for mergers and acquisitions—large companies earn significantly lower announcement returns. Accordingly, the specification in Column 4 includes controls for the size of the acquirer (log market capitalization) along with an interaction term between size and control. As in Moeller, Schlingeman, and Stulz (2004) we find a negative relation between

acquirer size and returns.¹⁶ Similar results for the importance of control and developed-market acquirers hold in column 5 with the inclusion of target nation fixed effects.

In summary, we find that developed-market acquirer returns appear unique to the emerging-market context. The developed-market acquirers in our sample do not realize significant returns when they acquire control of developed-market targets. While both developed- and emerging-market acquirers realize positive returns when they acquire the control of an emerging-market target, the magnitude of the returns is higher for the developed-market acquirers in our sample. We now focus on factors that may drive these positive returns. We begin with the importance of country-level institutions.

3.4. Sources of Acquirer Value Gains

3.4.1 Improved Governance

Legal and institutional features can have an important impact on the property rights setting and the incomplete contracting problem in emerging markets. The ability of developed-market acquirers to bring better institutional practices to emerging-market targets may drive up expected future cash flows if the target is acquired and becomes bonded to better institutions (Coffee, 1999). We use the legal and institutional measures as proposed by La Porta, Lopez de Silanes, Shliefer, and Vishny (1998) for the countries in our sample as proxies for institutional differences between countries.

Using data from all three samples (DM-EM, DM-DM, and EM-EM), Panel A of Table 8 shows correlation coefficients between various legal and institutional measures as proposed by La Porta, Lopez de Silanes, Shliefer, and Vishny (1998) for the target countries in our sample. The correlations between log GDP per capita and the rule of law, the efficiency of the judicial system, contract repudiation risk, and the risk of expropriation, are 0.89, 0.66, 0.85, and 0.85,

¹⁶Note that without controlling for the size of the acquirer's market capitalization, we obtain a positive but insignificant coefficient on control and an insignificant coefficient on the interaction between control and a developed-market acquirer dummy.

respectively, indicating that nations with higher GDP per capita are associated with better institutional characteristics. The pattern of correlations suggests that the degree of economic development (measured by GDP per capita) is highly correlated with institutional development. Developed-market acquisitions of emerging-market firms therefore offer a unique setting to examine value creation across countries with vast asymmetries in institutional settings and economic development.

Table 8 (Panel B) examines the influence of these institutional variables on acquirer returns. The estimations were conducted using a distance measure of institutional quality, calculated as the difference between the acquirer and target country scores. For example, Switzerland scores 9.98 for the risk of contract repudiation while the Philippines scores 5.22 along the same institutional quality dimension. The distance between a Swiss acquirer and a Philippine target would therefore be 4.76.¹⁷ To maximize the cross-sectional variance, we combine all three samples (DM-EM, DM-DM, and EM-EM) in the specifications.

The distance in the rule of law between acquirer and target pairs is significantly correlated with acquirer returns (column 1). The higher the “rule of law” score for the acquirer, relative to the target, the greater the magnitude of acquirer announcement returns. Furthermore, in column 2, we observe that this positive relation between rule of law distance and acquirer returns is specific to acquisitions where control is attained. A similar pattern is observed when we consider the distance in contract repudiation risk (columns 5 and 6) and expropriation risk (column 7 and 8). However, we find no significant correlation between the interaction of differences in the efficacy of the judiciary and control (column 4).

¹⁷ Summary statistics for the average distance between the institutional environment of the acquirers and the targets show that, on average, the distance between the institutional environment of developed-market acquirers and developed-market targets is not statistically significant. There is, however, a striking difference between the institutional environment of developed-market acquirers and emerging-market targets. On average, the distance between the institutional environment of developed-market acquirers and emerging-market targets is positive and statistically significant for the rule of law, the efficiency of the judicial system, contract repudiation risk, and the risk of expropriation. To save space, we do not report these statistics, but they are available upon request.

In summary, these results indicate that the greater the distance between the institutional quality of the acquirer and target nations, the greater the acquirer returns. However, these gains only occur when the acquirer attains control of the target. The results are consistent with our hypothesis that, with control, acquirers are able to bond target firms to the institutions in their home countries, leading to the creation of shareholder value.

Next, we examine industry-level factors that may drive the importance of control. We hypothesize that control will matter more in industries where it is hard to implement and enforce contracts. Furthermore, the importance of control in such industries will be compounded in countries with weak contractual institutions.

3.4.2 Intangible Assets

Evidence suggests that intangible assets have substantial productivity benefits and in particular, R&D assets bring benefits in the form of positive marginal product and market valuation (Hall, 1993; Griliches, 1981; and Lev and Sougiannis, 1996). Brynjolofson and Hitt (2003) find that each dollar of capital invested in computer capital results in \$17 of market value in contrast to investments in traditional PP&E which result in a return of \$0.7 for every dollar invested. Furthermore, Hausmann and Sturzenegger (2006) argue that a substantial missing component of value from book value estimates of foreign assets acquired (and recorded by the Bureau of Economic Analysis) is precisely the value from intangibles assets that firms from developed countries can bring to emerging-market firms.

Consistent with the above arguments, we hypothesize that the sharing of intangible assets through an acquisition is likely to be most important in the context of a developed market acquirer and an emerging market target. For instance, the better governance and institutions typically ascribed to the developed markets will promote greater investment in intangibles such as proprietary technologies. In contrast, firms in emerging markets may be reluctant to invest in R&D in poor property rights environments. Any value gain associated with the transfer of

intangible assets may be further compounded if the acquisition results in the transfer of the laws and institutions which govern the developed market firms to the emerging market targets, as in the event of a majority control acquisition.

To test the hypothesis that announcement returns increase in settings with high asset intangibility we construct a measure of R&D intensity using industry-level patent data. Patent data is seen as an improvement over other measures of asset-intangibility, such as R&D expenditures, as patents measure successful research (Trajtenberg, 1990 and Griliches, 1990). Furthermore, patent data are well-suited to our research question as we are interested in the ability of an acquirer to increase the target's value by sharing valuable intangible assets. The fact that a firm seeks a costly patent on a certain technology is indicative of its outside value.

The patent data are from an NBER patent dataset created by Hall, Jaffe, and Trajtenberg (2001). We use a database of matched patent data to Compustat firms as in Seru (2007).¹⁸ We measure patent intensity as the mean patent count per firm in a 4-digit SIC code. We use industry-level measures to apply the US data to our full sample of developed-market and emerging-market firms. For these tests, the sample time period is truncated to 1985 to 1999 reflecting the availability of the patent data.

Table 9 presents the results. In Panel A we look at the patent intensity in the acquirer industry. In column 1, we focus exclusively on developed-market acquirers and emerging-market targets (sample 1). We find that patent intensity interacted with control has a significant effect on acquirer returns. The benefit to acquiring control for a developed market acquirer of an emerging market target is increasing in the patent-intensity of the acquirer's industry. In column 2, we repeat the same regression but with the developed market acquirers and developed market targets (sample 2). Patent intensity and patent intensity interacted with control do not appear to drive acquirer returns in developed markets.

¹⁸ We are grateful to Amit Seru for providing us with the matched patent data by industry. For more details about the specific matching procedure used, see Amit (2007).

In column 3, we consider a specification with developed-market acquirers and their acquisitions in both emerging- and developed-markets. Similar to the results in column 1, we find the coefficient on patent intensity interacted with control and limited to the set of emerging-market targets is positive and significant. We also find an insignificant coefficient for the interaction term between patent intensity and control. Taken together, these results suggest that the positive relationship between asset intangibility and acquirer returns is significantly different when acquiring control of an emerging- rather than a developed- market target.

The findings in columns 1-3 suggest that the importance of acquiring control in industries with high patent intensity appears to matter exclusively in emerging markets and suggest that acquiring firms may be less likely to share valuable intangible assets unless they gain control of the target in an emerging-market environment. Also, the finding that control does not appear to drive acquirer returns in industries with high patent intensity in developed-market transactions highlights the contrast between the institutional environment in developed- and emerging-markets. The results in columns 1-3 underscore the importance of acquiring control in weaker institutional environments such as in emerging markets especially in industries with high asset intangibility. Here, strong institutions are likely to be critical for implementing and enforcing contracts.

The results are also consistent with the hypothesis that the sharing of intangible assets, such as patents, as a source of value gains in M&A transactions is likely to be most valuable in transactions where the target is located in an emerging-market. If targets in emerging markets have made fewer investments in R&D, these firms are likely to benefit the most from the sharing of intangible assets.¹⁹

In Column 4, we examine whether the result that control matters more in industries with high patent intensity in emerging markets hold up in the EM-EM sample. The coefficients on

¹⁹ The evidence is consistent with the findings in Nunn (2007) who shows that countries with good contract enforcement specialize in the production of goods for which relationship-specific investments are most important.

control, the patent intensity and patent intensity interacted with control are not statistically significant. We also observe a negative and significant coefficient on control. This is in contrast to our earlier findings in the EM-EM sample and reflects, in part, the limited time series used in the tests for asset intangibility (1985-1999). It appears that the finding of positive correlation between acquiring control and acquirer returns in the EM-EM sample is driven by the later part of the sample. The specification in column 5 pools samples 1 and 3 (DM-EM and EM-EM). The results show that control delivers higher returns for developed-market acquirers, relative to emerging-market acquirers. While we also find a positive coefficient on the interaction of control, developed-market acquirer and patent intensity, this coefficient is not significant.

In Panel B, we repeat the regressions in Panel A, but looking at target-industry patent intensity. The results are qualitatively similar, albeit, with less statistical significance. The weaker findings may indicate that only acquirer industry is important or reflect greater noise in the industry classification of our emerging-market targets. The findings in column 5 of Panel B however suggest that the result that control leads to the creation of shareholder value industries with high R&D intensity is specific to developed-market acquirers who, on average, come from countries with effective contractual institutions. Once again, it appears that the importance of acquiring control in industries with high patent intensity matters exclusively in the DM-EM sample suggesting that acquisitions by developed-market firms are more likely to create value by sharing intangible assets such as proprietary technologies when they gain control of firms in emerging markets.

In summary, the findings in this section suggest that abnormal announcement returns are the largest in settings with the largest intangibles, i.e., in industries with high patent intensity and when control is transferred from an emerging market target to a developed market acquirer.

4. Additional Tests and Robustness Checks

4.1 Are Acquirer Returns Driven by Survivorship Bias?

Yet another concern is that survivorship bias at the emerging-market target country level drives the positive developed-market acquirer returns that we document in this paper. Survivorship bias could arise if developed country acquirers only make acquisitions in markets where previous transactions have proved to be profitable. To explore this possibility, we conduct a series of tests in Table 10. First, we include target-country fixed effects in the regression specifications throughout. If target nations are always associated with either positive or negative acquirer returns, then target nation fixed effects would be sufficient controls. We find acquirer returns continue to be positive and significant with the inclusion of target-country fixed effects.

Second, to consider the possibility of time-varying target-country effects, we construct a proxy for the fraction of previous transactions that delivered positive acquirer returns in a particular target country. This past deal success rate captures the last ten transactions in that country and, if less than ten transactions have occurred, then the rate is estimated using all existing deals.²⁰ The coefficient on past deal success is not significant (Table 10, column (1)). If survivorship bias was driving the results, control would deliver further positive returns in countries where control had delivered positive returns in the past. We find the opposite. In column 2, past deal success interacted with control leads to negative and significant returns.

Next, we consider the acquirer's historical M&A experience. We create two new dummy variables which take the value of 1 if the acquirer had completed either prior emerging market acquisitions or prior acquisitions in a particular target country. In columns 3 and 5 we find that both dummy variables are associated with negative and significant returns. Furthermore, the coefficients on these dummy variables are rendered insignificant with the inclusion of interaction terms with control (column 4 and 6). Columns 7 and 8 include a dummy variable for whether the

²⁰ Data limitations restrict these past transactions to occur within our sample period.

acquirer had prior equity stake in the target. The coefficients on both the prior relationship and its interaction with control are insignificant.

Finally, we construct a variable to measure the fraction of developed-market acquisitions that involved control in the year prior to the transaction. If the value of control diminishes over time as more developed-market acquisitions for control take place in emerging markets, we expect the coefficient on the interaction of prior deals for control with control to be negative and significant. The interaction term is not significant. On balance, the results suggest that survivorship bias does not appear to drive the results.

4.2 Additional Tests

Table 11 provides a series of additional robustness tests. The domestic M&A literature has documented significant differences between diversifying and non-diversifying acquisitions. We thus investigate whether we find different results in these two samples. In column 1, we restrict the sample to the DM-EM group. As with earlier regressions, we include the two control variables, private and diversify, and include an interaction term between diversify and control. The correlation between acquirer announcement returns and control is similar in the diversifying and non-diversifying samples. Thus, acquirers realize similar returns when acquiring control of an EM target in either their own industry or when they diversify across industries.

Next, it is possible that the large acquirer gains we observe when a developed-market acquirer announces a controlling acquisition of an emerging-market target reflect news about the firm in general, rather than the expected value gains from the acquisition. In particular, perhaps only firms with strong future growth opportunities would consider expanding to an emerging market and acquiring control. In this case, our announcement returns could be picking up this news about future growth opportunities or other information about the acquiring firm. To distinguish between these alternative interpretations, column 2 restricts the sample to those acquirers which were part of the S&P 500 at the time the deal was announced. Firms in the S&P

500 should represent the firms about which there is a great deal of public information available. If our results are just picking up asymmetric information about the news conveyed by the acquisition announcement, we should observe little to no effect in this sample.

Column 2 includes targets from both emerging- and developed-markets but restricts the acquirer sample to S&P 500 firms. The specification is comparable to the one in Table 7 (column 1). The results are consistent with our earlier findings. The coefficient on the interaction term between the emerging-market target dummy and control is positive and significant even with 1/10th of the sample used in Table 7. The result suggests that the announcement returns capture the anticipated returns from the acquisition rather than other information about the acquiring firm.

Columns 3-6 include additional controls which have been used in the US literature on M&As. Column 3 includes controls for firm characteristics such as firm size, leverage and Tobin's Q that have been found to be correlated with acquirer returns. The results suggest that with the inclusion of these additional controls, acquiring control of an emerging-market target continues to be correlated with higher abnormal returns.

Previous studies have also documented a correlation between the method of payment or consideration used and acquirer CARs. We add these variables and our main results continue to hold. In column 5, we add the acquirer's market capitalization and the interaction of this with control. In column 6, we add target nation fixed effects. In all specifications our main finding holds—developed-market acquirers realize significant returns when they acquire control of an emerging-market target.

The estimations also were run including various deal and target characteristics reported in the previous literature as determinants of developed-market acquirer returns (not reported). The additional variables tested include whether the target was bankrupt, there was a competing bidder, or an unsolicited bid, the target was a division, the deal was a new joint venture, the target was being privatized, the deal was privately negotiated, and whether the deal was a tender offer. None of these additional variables explain acquirer returns in developed-market acquisitions in

emerging markets. However, these results should be interpreted with caution since SDC coverage of deal characteristics for transactions involving emerging-market targets is sparse.

4.3 Long Run Accounting Returns

While the results in this paper focus on the anticipated wealth gains from developed-market acquisitions of emerging-market targets using stock prices, the question of how the wealth gains come about or are even realized remains. In this section we investigate the long run accounting returns in developed-market acquisitions of emerging-market targets. Overall, these results are consistent with the spirit of our announcement return analysis however limited data availability hampers our ability to find reliable statistical significance.

The most direct test of the post-acquisition performance of developed-market acquisitions is to examine the return on assets (ROA) of the emerging-market targets following the acquisition. We define ROA as $EBIT / Total\ Assets$. To allow for adequate time for the M&A to be reflected in ROA, we investigate a change in ROA in the second year following the acquisition.

We begin with 594 observations in the DM-EM sample, however, accounting data is available for only 33 observations where 26 of these deals are for minority stakes and 7 of these deals involve majority control. To put this sample into context, consider that, of the original 594 DM-EM observations, 292 involved a private target. Of the remaining 302 public targets, 18 deals were never completed and, thus, are dropped from this analysis. Of the remaining 284 observations, we are able to match 47 target names from SDC to Datastream, where 13 of these deals involve a majority stake. We then observe accounting data reported in the 2 years following the acquisition for 7 of these deals, or just over 50%.

In columns 1 and 2 of Table 12, we report the mean ROA change for targets in the DM-EM sample. Column 1 shows that the mean ROA change for acquisitions for control is positive,

but not statistically significant. Column 2 shows that the mean ROA change for acquisitions where control is not transferred is negative, but not statistically significant.

Column 3 includes controls for whether or not the deal was paid for with stock as stock-financed acquisitions are associated with lower accounting returns. We also control for the historic rate of change in ROA at the firm. This lag change variable will capture any firm-specific growth in ROA. We find a positive coefficient on control; however, it is insignificant.

Given our findings with the patent data that acquirer announcement returns are highest when the acquirer comes from an industry with high patent intensity, Column 4 controls for acquirer R&D. We do not use the patent intensity variable we used in the earlier tests as this variable is not available for all observations and will further restrict our limited sample in these tests. Instead we create a dummy variable, RDpos, which takes the value of 1 if the acquirer reported positive R&D expenditures in the year the M&A deal was announced. The coefficient of the interaction between the RDpos measure and control is positive, similar to the coefficient on the interaction between acquirer patent intensity and control, as reported in Table 9a for the DM-EM sample. Unfortunately, the coefficient is statistically insignificant.

We also observe a positive coefficient on control. This coefficient has a p-value of 0.18. This is insignificant by conventional standards; however, given the limited sample size and the significant noise present in long-run accounting data – we cautiously interpret this finding as consistent with our announcement return results.

Standard accounting rules stipulate that firms must include the profits or losses of any majority-owned subsidiaries in their consolidated accounting statements. Thus, target performance will be included in acquirer accounting performance in cases where control is obtained. However, in making inferences about target performance from acquirer performance, we run the risk of adding significant noise to our tests. To minimize this noise and ensure that target performance is observable, we limit the sample to those observations where the transaction value is at least 15% of the acquirer's market capitalization. When we combine subsamples 1 and

2, given that developed-market targets are larger, on average, it is not surprising to note that the majority of this sample is comprised of developed-market targets. Of the 183 observations used in these tests, only 28 observations are from an emerging-market and only 19 of these observations involve the transfer of control.

In Columns 5-7, the dependant variable is developed-market acquirer ROA change. We include a dummy variable for a private target. The coefficient on private target displays a similar pattern. The sign on the coefficient is the same as the sign on the coefficient in our announcement return studies; however, standard errors are larger and the coefficient is insignificant.

Column 5 shows that relative to developed-market targets, the acquisition of control of an emerging-market target is associated with higher accounting returns. Furthermore, this result holds after including RDpos and the interaction of RDpos and control, as reported in column 6. In column 7, we look at the interaction of RDpos and control at emerging-market targets only. We find a positive coefficient which is consistent with our results interacting acquirer patent intensity, control, and the emerging-market target dummy. However, the coefficient is insignificant.

Overall, relative to the announcement return results, we find the long-run accounting results display weak statistical significance. This is not unexpected given the limitations of very small sample sizes (e.g. 33 emerging-market targets) and the greater difficulty in observing patterns in 2 years of accounting data relative to the short 3 day window used in our announcement return studies. While these accounting results should not be over-interpreted, we are reassured to observe the expected signs on coefficients of interest, even if we do not observe statistical significance.

5. Conclusion

In the FDI and trade literature, capital flows from developed to developing nations are the subject of many studies that focus on productivity spillovers associated with multinational firm activity (Caves, 1996). The international M&A literature has mainly focused on developed-market M&A activity in large part because FDI liberalizations allowing foreign acquisitions into emerging markets did not take place till the late 1980s and early to mid 1990s.

This paper uses abnormal announcement returns associated with M&A transactions to estimate the market-capitalized returns to FDI in emerging markets. To do so, we examine M&A transactions that involve publicly-listed developed-market acquirer and emerging-market targets between January 1, 1986, and December 31, 2006. Puzzlingly, in contrast to the previous literature that uses U.S. data, the evidence suggests that, on average, acquirer returns show a statistically significant increase of 1.16% when they acquire control of emerging-market targets. Distinct from domestic M&A transactions, the distribution of gains shifts in favor of acquiring firms.

We offer two possible explanations for our anomalous acquirer returns. The greater the asymmetry between developed and emerging market institutions the higher are the acquirer returns, and this effect is strongest when control is acquired in industries with high asset intangibility.

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Table 1. Observation Count by Nation and Sample

The table summarizes the sample of transactions involving publicly listed acquirers that made acquisitions, with transaction values greater than \$10 M, of public or private targets announced between 1986 and 2006. Sample 1 (DM-EM) is our main sample and includes only observations with a developed market acquirer and an emerging market target. Sample 2 (DM-DM) includes only observations with a developed market acquirer and target. This sample is further restricted to only include acquirers which also appear in sample 1. Sample 3 (EM-EM) only includes observations with an emerging market acquirer and target.

	Sample #1 (DM-EM)	Sample #2 (DM-DM)	Sample #3 (EM-EM)
Sample Description	Developed Market Acquirers and Emerging Market Targets	Developed Market Acquirers and Developed Market Targets	Emerging Market Acquirers and Emerging Market Targets
Acquirer Nation	Canada (43) France (34) Germany (15) Italy (14) Japan (64) Netherlands (9) Spain (73) United Kingdom (109) United States (233) Total (594)	Canada (63) France (83) Germany (66) Italy (26) Japan (63) Netherlands (50) Spain (104) United Kingdom (294) United States (875) Total (1,624)	Argentina (15) Brazil (36) Chile (28) China (48) Egypt (3) India (80) Indonesia (28) Malaysia (269) Morocco (2) Peru (3) Philippines (26) South Africa (132) South Korea (163) Thailand (67) Total (900)
Target Nation	Antigua (4) Argentina (47) Barbados (2) Bolivia (5) Brazil (82) Cameroon (1) Chile (42) China (49) Colombia (13) Costa Rica (4) Ecuador (1) Egypt (12) Gabon (1) Guatemala (2) Honduras (1) India (33) Indonesia (15) Iran (2) Jamaica (3) Jordan (3) Kenya (1) Malaysia (12) Mauritania (1) Mauritius (1) Mexico (60) Morocco (1) Namibia (1) Nicaragua (1) Nigeria (2) Panama (2) Peru (13) Philippines (15) Rep of Congo (2) Saudi Arabia (1) South Africa (33) South Korea (48) Taiwan (38) Thailand (21) Uruguay (2) Utd Arab Em (2) Venezuela (13) Vietnam (2) Total (594)	Canada (88) France (89) Germany (50) Italy (44) Japan (66) Netherlands (25) Spain (93) United Kingdom (208) United States (961) Total (1,624)	Argentina (23) Brazil (33) Chile (25) China (61) Ecuador (1) Egypt (4) India (72) Indonesia (38) Malaysia (262) Morocco (2) Peru (4) Philippines (27) South Africa (131) South Korea (148) Thailand (69) Total (900)

Table 2. Summary Statistics by Sample

The table summarizes the sample of transactions involving publicly listed acquirers that made acquisitions, with transaction values greater than \$10 M, of public or private targets announced between 1986 and 2006. CARs are estimated using a 3 day event window and using US\$-denominated returns. Joint returns are estimated as market-value weighted target and acquire returns. Agriculture & Consumer Products are firms with 2-digit SIC codes 00-19; Basic Manufacturing 20-29; Machinery & Electronics 30-39; Utilities and Transportation 40-49; Wholesale and Retail Trade 50-59; FIRE 60-69; Tourism and Miscellaneous services 70-99.

	Sample #1 (DM-EM)	Sample #2 (DM-DM)	Sample #3 (EM-EM)
Sample Description	Developed Market Acquirers and Emerging Market Targets	Developed Market Acquirers and Developed Market Targets	Emerging Market Acquirers and Emerging Market Targets
<i>Firm and Deal Characteristics</i>			
Median Transaction Size (\$M)	53.25	125.09	36.66
Median Acquirer Market Capitalization (\$M)	6,773.98	7,052.10	297.80
Control Acquired (%)	58.59%	77.59%	73.00%
Private Target (%)	49.16%	43.35%	55.22%
Diversifying Acq (%)	31.99%	49.57%	60.00%
Median Acquirer CAR (%)	0.26%	-0.20%	0.12%
Median Acquirer CAR with Control Acquired (%)	0.72%	-0.28%	0.13%
<i>Acquirer Industry (%)</i>			
Agr. & Cons. Products	9.09%	3.69%	12.78%
Basic Manufacturing	16.33%	10.47%	17.67%
Machinery & Electronics	22.56%	26.11%	17.78%
Utilities & Transportation	12.12%	15.70%	9.44%
Wholesale & Retail Trade	4.38%	2.71%	5.11%
Financial Services	24.24%	21.92%	29.56%
Tourism & Misc. Services	11.28%	19.40%	7.67%
<i>Target Industry (%)</i>			
Agr. & Cons. Products	11.45%	5.23%	9.67%
Basic Manufacturing	13.47%	12.19%	16.67%
Machinery & Electronics	20.71%	19.46%	16.33%
Utilities & Transportation	12.79%	12.01%	13.56%
Wholesale & Retail Trade	5.22%	7.45%	6.00%
Financial Services	23.91%	17.30%	28.44%
Tourism & Misc. Services	12.46%	26.35%	9.33%

Table 3. Pre- and Post-Acquisition Ownership by Sample

Notes: The table summarizes mergers and acquisitions by sample and by pre- and post-acquisition ownership. The table covers all M&A transactions announced between 1986 and 2006 and for which ownership data is available and sample criteria is met. M&A transactions are identified and control information is collected from SDC data items "Percent Shares Acquired" and "Percent Shares Owned after Transaction."

Panel A: Sample 1 (DM-EM)

Number of M&A transactions	Acquirer had minority interest before acquisition		Pre-Acquisition Ownership		
	No	Yes	< 20%	20-40%	40-50%
Post-acquisition Ownership					
0-50%	181	65	49	16	0
50-95%	90	50	10	24	16
95-100%	189	19	5	8	6
Total	460	134	64	48	22

Panel B: Sample 2 (DM-DM)

Number of M&A transactions	Acquirer had minority interest before acquisition		Pre-Acquisition Ownership		
	No	Yes	< 20%	20-40%	40-50%
Post-acquisition Ownership					
0-50%	229	135	116	15	4
50-95%	56	47	17	13	17
95-100%	1,083	74	39	20	15
Total	1,368	256	172	48	36

Panel C: Sample 3 (EM-EM)

Number of M&A transactions	Acquirer had minority interest before acquisition		Pre-Acquisition Ownership		
	No	Yes	< 20%	20-40%	40-50%
Post-acquisition Ownership					
0-50%	135	110	88	20	2
50-95%	90	67	21	29	17
95-100%	466	32	12	12	8
Total	691	209	121	61	27

Table 4: Majority Control Is a Key Feature of Transactions with Positive Acquirer Returns for Developed Market Acquirers of Emerging Market Targets

This table summarizes the results of regressions where the dependent variable is abnormal returns for acquirer firms during a 3-day event window around the announcement date on characteristics of the involved firms. All M&A transactions in the sample were announced between 1986 and 2006 and involve a public acquirer from a developed market and a public target from an emerging market (Sample #1). Emerging and developed markets are detailed in Table 1. Returns (in %) are \$-denominated and calculated using a market model. The acquisition of control is a dummy variable identified if the acquirer holds 50% or more of the target firm's equity following the acquisition and did not previously have control. Timetrend is a continuous variable reflecting the year the deal was announced relative to the sample timeline. The timetrend is centered so that 1996 is year 0. Post-acquisition ownership (x %) and transaction value are log-transformed. Mean coefficient estimates are reported with robust standard errors in parentheses. Standard errors are corrected for clustering in acquirer. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

	1	2	3	4	5	6	7	8	9
Control	1.255 (0.429) ***	1.312 (0.433) ***	1.950 (0.505) ***	0.916 (0.440) **	1.252 (0.427) ***		1.173 (0.638) *	1.090 (0.511) **	1.212 (0.424) ***
Timetrend		-0.031 (0.051)	0.071 (0.055)						
Timetrend * Control			-0.185 (0.083) **						
Private target				0.865 (0.523) *					
Diversify					0.110 (0.460)				
Post- Acquisition Ownership (x %)						0.347 (0.207) *	-0.125 (0.318)		
Post- Acquisition Ownership (x > 95%)								0.380 (0.710)	
Transaction Value									-0.289 (0.172) *
T Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.094	0.094	0.097	0.099	0.094	0.083	0.089	0.094	0.099
N	594	594	594	594	594	594	594	594	594

Table 5. Gains from Control by Year and Deal Characteristics. The table summarizes the median gain from control for our DM-EM sample across time and by control, geographic region, and industry. All transactions involve a publicly listed acquirer from a developed market that made an acquisition of a public or private emerging market firm, with a transaction values greater than \$10 M, announced between 1986 and 2006. The median gain from control is estimated as the median CAR for the sample when control is attained minus the median CAR for the sample when control is not attained. In parentheses, we note first the number of observations with control folowed by the number of observations without control. CARs are estimated using a 3 day event window and are US-\$ denominated. Agriculture & Consumer Products are firms with 2-digit SIC codes 00-19; Basic manufacturing 20-29; Machinery & Electronics 30-39; Utilities and Transportation 40-49; Wholesale and Retail Trade 50-59; FIRE 60-69; Tourism and Miscellaneous services 70-99. Cells are marked as NA if we do not have control and non-control acquisitions for that cell.

Year Group	1986-1991	1992-1996	1997-2001	2002-2006
All observations	1.74 (8, 17)	0.91 (41, 50)	0.86 (161, 125)	0.14 (138, 54)
Latin America target	0.49 (6, 8)	0.85 (32, 36)	0.72 (80, 70)	1.08 (48, 8)
Asian target	2.85 (2, 8)	0.78 (6, 11)	0.35 (57, 47)	-0.64 (65, 37)
Other Region target	NA	-0.78 (3, 3)	1.45 (24, 8)	0.96 (25, 9)
Private target	1.97 (6, 4)	-0.67 (28, 13)	0.28 (96, 29)	0.31 (99, 17)
Public target	-1.03 (2, 13)	1.68 (13, 37)	0.84 (65, 96)	-0.41 (39, 37)
Diversifying	1.45 (3, 6)	0.55 (12, 10)	0.26 (53, 41)	-0.08 (46, 19)
Same Industry	3.65 (5, 11)	1.01 (29, 40)	1.14 (108, 84)	0.16 (92, 35)
Acquirer Agr. & Cons. Products	4.75 (2, 4)	-3.79 (10, 1)	0.54 (8, 7)	1.45 (17, 5)
Acquirer Basic Manufacturing	NA	-0.26 (12, 12)	1.03 (29, 18)	1.24 (16, 9)
Acquirer Machinery & Electronics	2.48 (3, 2)	1.38 (7, 12)	1.65 (49, 18)	-0.16 (36, 7)
Acquirer Utilities & Transportation	NA	3.67 (4, 7)	0.60 (18, 25)	1.81 (10, 6)
Acquirer Wholesale & Retail Trade	-0.40 (1, 1)	4.78 (2, 2)	-0.27 (7, 5)	-2.76 (4, 4)
Acquirer Financial Services	-2.23 (1, 8)	1.00 (6, 15)	1.25 (33, 43)	-0.09 (20, 18)
Acquirer Tourism & Misc. Services	NA	NA	1.13 (17, 9)	0.00 (35, 5)
Target Agr. & Cons. Products	4.75 (2, 4)	-0.21 (10, 2)	0.89 (11, 13)	1.56 (20, 6)
Target Basic Manufacturing	2.19 (1, 2)	-0.98 (10, 8)	1.03 (27, 10)	1.39 (13, 9)
Target Machinery & Electronics	2.48 (3, 2)	1.41 (7, 11)	1.84 (39, 23)	-0.90 (31, 7)
Target Utilities & Transportation	NA	4.38 (4, 8)	0.80 (21, 23)	0.72 (12, 5)
Target Wholesale & Retail Trade	-0.40 (1, 1)	4.02 (2, 2)	-0.73 (9, 4)	1.23 (9, 3)
Target Financial Services	-2.23 (1,4)	0.54 (7, 17)	1.17 (35, 41)	-0.19 (17, 20)
Target Tourism & Misc. Services	NA	5.58 (1, 2)	0.23 (19, 11)	-0.31 (36, 4)

Table 6: Summary Statistics for Developed-Market Acquirer Firm Value Gains

Notes: This table presents summary statistics for the shareholder value gains from the announcement of M&A transactions involving developed-market acquirers and emerging market targets (DM-EM sample). Panels A and B show summary statistics for developed-market acquirer returns and acquirer, target and deal characteristics for different subsamples of transactions. CAR is the \$-denominated abnormal return for acquirer firms during a 3-day event window around the transaction announcement date. Dollar value gains are calculated on a transaction by transaction basis by multiplying the acquirer CARs by their respective market capitalization. Dollar value gains are winsorized at the 5% due to minimize the presence of extreme outliers. Net synergy returns also are calculated on a transaction by transaction basis by dividing the dollar value gain by the transaction value.

Panel A. Developed-Market Acquirer Gains Majority Control

	CAR	Acquirer Market Capitalization (\$ Billion)	Dollar Value Gain per Transaction (\$ million)	Transaction Value (\$ million)	Target Market Capitalization (\$ million)	Net Synergy Return per Transaction
Mean	1.16%	14.768	30.15	308.57	1,098.92	2.05
Median	0.72%	3.189	4.07	42.81	279.01	0.11
Top Quartile	2.62%	13.908	67.19	147.50	727.35	1.34
Bottom Quartile	-1.53%	0.473	-25.28	19.91	94.14	-0.40
Std Dev N=348	5.84%	31.377	318.86	1,215.96	2,464.77	23.73

Panel B. Developed-Market Acquirer Does Not Gain Control

	CAR	Acquirer Market Capitalization (\$ Billion)	Dollar Value Gain per Transaction (\$ million)	Transaction Value (\$ million)	Target Market Capitalization (\$ million)	Net Return per Transaction
Mean	-0.02%	51.528	-13.80	196.40	1,613.45	-3.73
Median	0.02%	12.010	0.66	66.83	609.70	0.02
Top Quartile	1.43%	32.815	119.30	176.96	1,135.25	1.31
Bottom Quartile	-1.57%	4.179	-193.63	30.00	248.73	-2.30
Std Dev N=246	3.79%	256.922	412.53	387.59	2,972.07	46.63

Table 7: Gains From Majority Control Is Unique to Developed Market Acquirers of Emerging Market Targets

Notes: This table summarizes the results of regressions where the dependent variable is abnormal returns (in %) for acquirer firms during a 3-day event window around the announcement date on characteristics of the involved firms. The sample used in each regression is detailed in the header row. The acquisition of control is a dummy variable identified if the acquirer holds 50% or more of the target firm's equity following the acquisition and did not previously have control. Acquirer market capitalization is measured three months prior to the acquisition announcement and is log-transformed. Mean coefficient estimates are reported with robust standard errors in parentheses. Standard errors are corrected for clustering in acquirer. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Sample Description	1 DM acquirer All targets	2 DM acquirer All targets	3 DM acquirer All targets	4 All acquirers EM target	5 All acquirers EM target
Control	-0.882 (0.304) ***	-0.851 (0.349) **	-0.846 (0.426) **	2.981 (1.545) **	3.916 (1.582) ***
EM target	-0.317 (0.332)	-0.929 (3.244) ***	-0.538 (0.456)		
Control * EM target	1.490 (0.493) ***	1.554 (0.535) ***	1.116 (0.618)*		
DM acquirer				-0.617 (0.752)	-1.227 (0.764)
Control * DM acquirer				1.661 (0.920) *	1.753 (0.922) *
Private	1.424 (0.263) ***	1.421 (0.272) ***	1.418 (0.359) ***	0.110 (0.388)	-0.019 (0.415)
Diversify	-0.314 (0.237)	-0.211 (0.241)	-0.410 (0.281)	-0.417 (0.392)	-0.187 (0.400)
Acquirer market capitalization				-0.012 (0.164)	0.012 (0.161)
Acquirer market capitalization * Control				-0.452 (0.223) **	-0.557 (0.222) ***
Target nation fixed effects	No	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No
N	2218	2218	2218	1494	1493
R-squared	0.025	0.045	0.325	0.015	0.042

Table 8 (Panel A): Correlation Coefficient Matrix Between Corporate Governance Measures and Target Characteristics

Notes: This table shows correlation coefficients between target characteristics and various legal and institutional measures as proposed by LLSV (1998) for the countries in our sample. This table includes observations from all 3 samples (DM-EM, DM-DM & EM-EM). The first column presents correlations between target GDP per capita and target insitutional variables. The second column presents correlations between emerging-market targets and target insitutional variables. ***, **, and * represent 1, 5, and 10% levels of significance.

Correlation Coefficients for Target Nation	Target GDP	Emerging-Market Target
Rule of Law	0.889***	-0.889***
Efficacy of Judiciary	0.658***	-0.726***
Contract Repudiation Risk	0.850***	-0.803***
Expropriation Risk	0.849***	-0.905***

Table 8 (Panel B): Sources of Acquirer Value Gains-Improved Governance

Notes: This table summarizes the results of regressions where the dependent variable is abnormal returns for acquirer firms during a 3-day event window around the announcement date on characteristics of the involved firms This table includes observations from all 3 samples (DM-EM, DM-DM & EM-EM). The institutional quality measure is a continuous variable that measures the distance between the acquirer country score and the target country score along a particular dimension of institutional quality. The institutional quality rankings are from LLSV (1998). Control is a dummy which takes on a value of one if majority control is acquired in a transaction. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	1	2	3	4	5	6	7	8
Rule of Law	0.140 (0.060) **	-0.055 (0.074)						
Control		-0.445 (0.275)		-0.353 (0.265)		-0.499 (0.274) *		-0.515 (0.278) *
Rule of Law*Control		0.291 (0.112) ***						
Efficacy of Judiciary			0.074 (0.062)	-0.020 (0.073)				
Efficacy of Judiciary*Control				0.137 (0.115)				
Contract Repudiation Risk					0.122 (0.087)	-0.164 (0.115)		
Contract Repudiation Risk*Control						0.439 (0.166) ***		
Expropriation Risk							0.185 (0.099) *	-0.158 (0.132)
Expropriation Risk*Control								0.524 (0.188) ***
Private	1.105 (0.250) ***	1.170 (0.264) ***	1.091 (0.250) ***	1.165 (0.266) ***	1.100 (0.250) ***	1.182 (0.266) ***	1.104 (0.250) ***	1.172 (0.265) ***
Diversify	-0.153 (0.248)	-0.185 (0.248)	-0.190 (0.248)	-0.217 (0.248)	-0.182 (0.247)	-0.219 (0.248)	-0.158 (0.248)	-0.192 (0.248)
R-squared	0.009	0.010	0.008	0.008	0.008	0.010	0.008	0.010
N	2967	2967	2967	2967	2967	2967	2967	2967

Table 8: Sources of Acquirer Value Gains: Patents

Notes: The dependent variable is 3-day CARs. In Panel A, patents is the median number of patents per firm in the target's industry. In Panel B, patents is the median number of patents per firm in the acquirer's industry. This variable is then transformed as $\log(1+x)$. Due to limitations of the ER patent database, this sample is restricted to 1985 – 1999. Control is a dummy variable which takes the value of 1 if the acquirer holds 50% or more of the target firm's equity following the acquisition and did not previously have control. Private target and Diversify are dummy variables to denote the listing status of the target and whether it is in the same 3-digit SIC industry as the acquirer. Mean coefficient estimates are reported with robust standard errors in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Panel A: Acquirer Industry

	1	2	3	4	5
Sample	DM acq EM tar	DM acq DM tar	DM acq All tar	EM acq EM tar	All acq EM tar
Control	0.492 (0.857)	-0.452 (0.536)	-0.393 (0.523)	-2.545 (1.287) *	-2.729 (1.115) ***
Patents	-0.203 (0.110) *	-0.126 (0.089)	-0.123 (0.088)	-0.366 (0.250)	-0.371 (0.246)
Patents * control	0.358 (0.225) *	-0.065 (0.137)	-0.071 (0.135)	-0.005 (0.299)	0.001 (0.296)
EM target			-0.173 (0.521)		
Control * EM target			0.657 (0.880)		
Patents * EM target			-0.089 (0.140)		
Patents * control * EM target			0.440 (0.244) *		
DM acquirer					-2.521 (1.078) **
Control * DM acq					3.443 (1.252) ***
Patents * DM acq					0.178 (0.265)
Patents * control * DM acq					0.331 (0.364)
Private	0.864 (0.805)	1.522 (0.507) ***	1.384 (0.453) ***	0.220 (1.279)	0.514 (0.771)
Diversify	-0.984 (0.683)	-0.796 (0.448) *	-0.830 (0.398) **	-0.803 (1.152)	-0.871 (0.712)
N	185	642	827	217	401
R-squared	0.061	0.033	0.041	0.034	0.042

Panel B: Target Industry

	1	2	3	4	5
Sample	DM acq EM tar	DM acq DM tar	DM acq All tar	EM acq EM tar	All acq EM tar
Control	1.530 (0.796) *	-0.437 (0.527)	-0.343 (0.512)	-1.810 (1.418)	-2.003 (1.250)
Patents	-0.130 (0.115)	-0.080 (0.088)	-0.078 (0.087)	-0.328 (0.283)	-0.333 (0.294)
Patents * control	0.309 (0.267)	-0.149 (0.155)	-0.152 (0.155)	-0.512 (0.356)	-0.489 (0.352)
EM target			-0.595 (0.494)		
Control * EM target			1.539 (0.810)*		
Patents * EM target			-0.046 (0.145)		
Patents * control * EM target			0.473 (0.305)		
DM acquirer					-1.401 (1.148)
Control * DM acq					3.703 (1.342) ***
Patents * DM acq					-0.463 (0.317)
Patents * control * DM acq					0.777 (0.439) *
Private	0.169 (0.799)	1.242 (0.514) **	1.004 (0.461) **	-0.511 (1.332)	-0.159 (0.784)
Diversify	-0.287 (0.635)	-0.647 (0.438)	-0.582 (0.371)	-1.258 (1.111)	-0.815 (0.683)
N	188	641	829	224	411
R-squared	0.069	0.029	0.041	0.039	0.054

Table 10. Survivorship bias

This table summarizes the results of regressions where the dependent variable is abnormal returns for acquirer firms during a 3-day event window around the announcement date on characteristics of the involved firms. All M&A transactions in the sample were announced between 1986 and 2006 and involve a public acquirer from a developed market and a public target from an emerging market (Sample #1). Emerging and developed markets are detailed in Table 1. Returns (in %) are \$-denominated and calculated using a market model. Target nation past deal success is the % of prior DM-EM M&As in the target nation which had positive acquirer CARs. This success rate captures the last 10 deals in that nation. If less than 10 deals have occurred, then the rate is estimated using all existing deals. Prior EM (TN) acquisition is a dummy variable equal to 1 if the acquirer had previously acquired a target in an emerging market nation (the target's nation). Previous relation is a dummy variable which equals 1 if the acquired had an equity stake in the target prior to the acquisition. Deal distribution is the % of acquisitions in the prior year for control in the DM-EM sample. Private target, diversify and target country fixed effects are included but coefficients are not reported to conserve space. Mean coefficient estimates are reported with robust standard errors in parentheses. Standard errors are corrected for clustering in acquirer. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

	1	2	3	4	5	6	7	8	9	10
Control	0.825 (0.460) *	2.727 (1.136) **	0.874 (0.435) **	1.579 (0.850) *	0.917 (0.443) **	0.867 (0.525) *	0.934 (0.447) **	1.092 (0.519) **	0.979 (0.454) **	8.122 (4.545) *
Target Nation Past Deal Success	-0.777 (1.115)	1.047 (1.134)								
Target Nation Past Deal Success * Control		-3.616 (1.833) **								
Prior EM Acquisition			-1.151 (0.542) **	-0.492 (0.596)						
Prior EM Acquisition * Control				-1.063 (0.938)						
Prior TN Acquisition					-0.765 (0.423) *	-0.848 (0.562)				
Prior TN Acquisition * Control						0.151 (0.800)				
Previous Relation							-0.429 (0.470)	-0.118 (0.609)		
Previous Relation * Control								-0.604 (0.837)		
Deal Distribution									-5.480 (3.325) *	-0.252 (3.957)
Deal Distribution * Control										-9.920 (6.337)
R-squared	0.064	0.069	0.109	0.111	0.103	0.103	0.100	0.101	0.102	0.104
N	594	594	594	594	594	594	594	594	592	592

Table 11 Robustness Tests

Notes: This table summarizes the results of regressions where the dependent variable is abnormal returns (in %) for acquirer firms during a 3-day event window around the announcement date on characteristics of the involved firms. Returns are calculated using a market model. The acquisition of control is a dummy variable identified if the acquirer holds 50% or more of the target firm's equity following the acquisition and did not previously have control. The S&P sample only includes those acquirers which were included in the S&P 500 at the time of the deal announcement. Accounting variables are measured using data from the year prior to the acquisition announcement. Cash (stock) are indicator variables which take the value of 1 if the transaction was paid for with 100% cash (stock). Assets and market capitalizations are log-transformed. Mean coefficient estimates are reported with robust standard errors in parentheses. Standard errors are corrected for clustering in acquirer. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Sample Description	1 DM acquirer EM target	2 S&P DM acquirer all targets	3 DM acq All targets	4 DM acq All targets	5 DM acq All targets	6 DM acq All targets
Control	1.150 (0.508) **	-2.168 (0.804)***	-1.419 (0.537) ***	-1.249 (0.540) **	-2.202 (2.276)	-1.631 (2.286)
EM target		0.004 (0.785)	-0.646 (0.498)	-0.578 (0.488)	-0.827 (0.489) *	-0.080 (1.715)
EM target * control		2.406 (1.233) *	1.730 (0.644) ***	1.575 (0.630) ***	1.697 (0.615) ***	1.532 (0.643) **
Private	0.915 (0.457) **	1.458 (0.860)*	1.066 (0.369) ***	1.084 (0.382) ***	1.103 (0.378) ***	1.124 (0.400) ***
Diversify	0.306 (0.464)	0.916 (0.731)	-0.069 (0.328)	-0.106 (0.326)	-0.094 (0.378)	0.165 (0.340)
Diversify * control	-1.067 (0.814)					
Log assets			-0.209 (0.109) *	-0.230 (0.105) **	0.021 (0.192)	-0.003 (0.204)
Acquirer Leverage			-0.003 (0.001) ***	-0.003 (0.001) ***	-0.002 (0.001) ***	-0.002 (0.001)***
Acquirer Q			-0.055 (0.033) *	-0.047 (0.032)	-0.003 (0.035)	0.002 (0.036)
Cash				0.502 (0.364)	0.545 (0.356)	0.634 (0.378)*
Stock				-0.664 (0.827)	-0.598 (0.811)	-0.554 (0.817)
Acquirer market capitalization					-0.434 (0.231) *	-0.377 (0.230) *
Acquirer market capitalization *					0.092 (0.225)	0.044 (0.225)
Control Target Nation	No	No	No	No	No	Yes
fixed effects						
R-squared	0.022	0.071	0.033	0.037	0.041	0.076
N	594	208	1149	1149	1149	1149

Table 12 Long Run Accounting Returns

Table 12 details long run accounting performance for targets and acquirers following the completion of the acquisition. ROA change is estimated as the change in EBIT/assets measured two years after the acquisition is completed as compared to the year in which the deal is completed. Columns 1-3 examine target ROA change. Columns 4-6 examine acquirer ROA change. Lag change is the historic change in ROA prior to the acquisition. RDpos is an indicator variable which takes the value of 1 if the acquirer reported positive R&D expenditures. Stock is an indicator variable which takes the value of 1 if the acquisition was paid for with 100% equity. Private is an indicator variable which takes the value of 1 if the target was private.

	1	2	3	4	5	6	7
Acquirer and target nations	DM Acquirers, EM Targets				DM Acquirers, All targets		
Sample restrictions	Control Acquisitions	Non-Control Acquisitions	Full Sample		Observations where transaction value > 15% of acquirer market cap		
Dependant variable	Target ROA Change				Acquirer ROA Change		
Intercept	0.678 (1.488)	-0.529 (0.416)	-0.514 (0.446)	-0.500 (0.659)	2.279 (1.817)	0.462 (1.509)	-0.068 (0.847)
Control			1.588 (2.081)	0.906 (0.662)	-2.174 (1.834)	-0.316 (1.666)	0.192 (0.966)
EM target					-6.279 (3.236) *	-5.541 (2.516) **	-4.733 (4.069)
EM target * control					7.451 (3.860) *	6.656 (3.206) **	6.053 (4.909)
RDpos				-0.033 (0.899)		3.123 (2.479)	4.060 (2.123) *
RDpos * control				1.148 (3.598)		-3.317 (2.640)	-4.196 (2.304) *
RDpos * EM target							-1.751 (4.704)
RDpos * EM target * control							1.237 (5.753)
Lag change			0.003 (0.003)	0.003 (0.004)	-0.002 (0.019)	-0.003 (0.020)	-0.002 (0.020)
Stock			-1.378 (2.037)	-1.824 (3.487)	-0.267 (0.457)	-0.239 (0.439)	-0.226 (0.458)
Private					1.177 (1.138)	1.291 (1.123)	1.270 (1.122)
R-squared			0.053	0.060	0.063	0.071	0.072
N	7	25	32	32	183	183	183