Does ownership concentration improve M&A outcomes in emerging markets? Evidence from India

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Abstract:

Using firm level data from India, we examine the impact of ownership concentration on post-M&A performance of firms. Our analysis has implications for both the M&A literature, which emphasises the role of agency conflict between managers and owners of widely held companies as a key reason for M&A failures, and the corporate governance literature, especially in the context of emerging market economies. A cautious interpretation of our results suggest that while ownership concentration may reduce the manager-owner agency conflict, it may nevertheless precipitate other forms of agency conflict such that ownership concentration may not necessarily improve post-M&A performance. In particular, our results have implications for the literature on the agency conflict between large (or majority) shareholders and small (or minority) shareholders of a company, especially in contexts such as emerging market economies where corporate governance quality is weak.

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1. Introduction

In this paper, we extend the literature on (and hence add to our understanding of) two different, yet related, phenomena. Our main contribution is to the literature on mergers and acquisitions (M&As). In the early literature on M&As, a large proportion of the empirical studies concluded that M&As fail to add value or contribute to the financial well being of the acquiring firm.[1] A dominant explanation of the inability of the average M&A to add to the performance of the acquiring firm is the well-known agency conflict – i.e., divergence of interests – between managers and owners, whereby managers of the firm take decisions that are not necessarily in the best interests of the shareholders (Shleifer and Vishny, 1988).[2]

The premise that M&As do not create value for the acquiring firm, on average, has since been brought into question. Netter et al. (2011), for example, have argued that this observation about the outcome of M&As could be an artefact of the samples that were used in the earlier literature, which focused on M&As involving larger publicly traded companies.[3] We extend this literature by examining another aspect of the stylised discussion, namely, the aforementioned agency conflict between managers and owners. We examine the impact of concentration or ownership in the hands of insiders such as business promoters and directors on M&A outcomes in India, where such concentration of ownership is commonplace, generally by way of family businesses and business groups. We hypothesise that concentration of ownership in the hands of insiders will ameliorate agency conflict between managers and owners, and therefore have a positive impact on post-M&A firm performance, either because the insiders will then have a greater incentive to monitor the managers or, as is more likely in the context of India, these insiders themselves will then be involved in making strategic and managerial decisions for the firms. Our analysis extends that of Yen and

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[1] This conclusion was drawn by the majority of studies that used event study analysis (Asquith, 1983; Agrawal et al., 1992), and also the majority of those that undertook comparison of pre- and post-M&A financial performance (Ravenscraft and Scherer, 1989; Ghosh, 2001).

[2] Alternative explanations include managerial hubris (Roll, 1986), organisational differences between target and acquiring firms (Datta, 1991), and pre-commitment to the M&A irrespective of likely outcomes to the merger (Haunschild et al., 1994).

[3] Netter et al. (2011) demonstrate that the typical empirical study on M&As in the US used a sample of 3000-4000 M&A events. The full set of SDC M&As for the 2002-09 period, by comparison, included over 310,000 M&A deals, of which about 128,000 involved US acquirers.

Andre (2007), and complements the growing literature on the relationship between management ownership and firm value in emerging market economies, which indicates that a firm's value may be positively affected by concentration of ownership in the hands of insider-managers (Ryu and Yoo, 2011).

Our analysis also has implications for the wider literature on corporate governance. It has long been argued that in contexts (largely ignored in Yen and Andre's analysis)[4] where ownership concentration coexists with weak corporate governance mechanisms, the agency conflict between managers and owners is merely replaced by another type of agency conflict, whereby (the generally concentrated) ownership structures persist to facilitate expropriation of small or minority shareholders by the large or majority shareholders such as promoters and families (Villalonga and Amit, 2006; Young et al., 2008).[5] In the words of Villalonga and Amit (2006), in such firms, *Agency Problem I* (between managers and owners) is mitigated, but it is replaced by *Agency Problem II* (between large or majority shareholders and small or minority shareholders). Fan, Wei and Xu (2011), however, have argued that it is conceptually difficult to attribute the persistence of certain ownership structures solely to expropriation, and that there could be other reasons for such persistence such as potential financing benefits (Almeida and Wolfenzon, 2006; Almeida et al., 2011). In an argument similar to that of Netter et al. (2011), it has also been suggested that the popular wisdom about expropriation in family businesses and business group affiliated firms that have concentrated ownership is an artefact of sample selection. Hamelin (2011), for example, does not find any evidence of expropriation in small business groups.

If the popular wisdom about the aforementioned *Agency Problem II* in firms with concentrated ownership is accurate, strategic decisions such as M&As that divert a firm's resources away from disbursal among shareholders would be expected to lead to (sometimes unobservable)

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[4] Of the 287 acquiring firms in the sample of Yen and Andre (2007), 244 were from three developed countries: Australia (25), Canada (77) and the United Kingdom (142). India accounts for 6 firms in their sample, and developing countries account for a total of 22 acquiring firms.
[5] For a detailed review of the literature, see Bhaumik and Gregoriou (2010).

benefits to the majority shareholders,[6] without adding to firm performance that can benefit all shareholders in the long run. Therefore, should we observe that concentration of ownership in the hands of insiders such as promoters and directors improves post-M&A firm performance (as hypothesised), it would be a refutation of any presumption of a causal link between ownership concentration in the hands of insider-majority shareholders and presence of agency conflict between large (or majority) shareholders and small (or minority) shareholders. In other words, if the null hypothesis about the positive impact of ownership concentration on M&A outcomes cannot be rejected, it would be reasonable to conclude that while ownership concentration reduces *Agency Problem I* (between managers and owners) that may be responsible for adverse M&A outcomes in a large number of cases, it does not necessarily trigger *Agency Problem II* (between large or majority and small or minority shareholders) that often co-exists with non-pecuniary benefits for large or majority shareholders and is to the detriment of the small or minority shareholders.

By juxtaposing the two types of agency problems, and drawing on evidence from India, an emerging market economy where ownership concentration by way of family ownership and business group affiliation is ubiquitous and where corporate governance quality is weak, we also enhance our understanding of the basic structural and behavioural differences between firms in emerging markets and developed economies. As argued by Fan et al. (2011), this is one the key directions in which future research should be extended.

Our results suggest that during the 1995-2000 period, post-M&A profitability of the average firm in India was positively correlated with high degrees of ownership concentration (i.e., greater than 50 percent of the shares) in the hands of its directors. We also find that in the 2001-2004 period, while ownership concentration in the hands of foreign promoters enhanced post-M&A profitability – in contrast to the findings of Zhou et al. (2011), ownership concentration in the hands of Indian promoters did not have any impact on post-M&A firm performance. A cautious interpretation of the more reliable regression results for the 2001-2004 period is that while ownership concentration may

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[6] Indeed, while this does not amount to direct expropriation of minority shareholders, by way of tunnelling, for example, since the M&A leads to diversion of current or future resources that could have been returned to (among others) minority shareholders, it would de facto be expropriation.

reduce *Agency Problem I* (between managers and owners), it may increase *Agency Problem II* (between large or majority and small or minority shareholders), such that ownership concentration in the hands of insiders may not necessarily improve M&A outcomes. This interpretation, which is reasonable for a context with low quality of corporate governance, is inconsistent with the limited evidence (almost entirely from developed countries) about the impact of ownership concentration on M&A outcomes (Yen and Andre, 2007), and with the evidence about the relationship between ownership concentration and firm value (Ryu and Yoo, 2011). However, it is consistent with the view of Fan et al. (2011) that emerging market firms may be fundamentally different from developed country firms, such that firm characteristics such as ownership concentration may have quite different implications for these two types of firms.

The rest of the paper is structured as follows: In Section 2, we discuss the data, emphasising the relevant aspects of ownership structures in India. In Section 3, we present the empirical strategy. The results are reported and discussed in Section 4. Finally, Section 5 concludes.

2. Data

The measurement of ownership concentration lies at the heart of our empirical analysis, and, as we shall see later in this paper, the nature of the data affects our empirical strategy. Hence, we first discuss the data available for the analysis, which has been are collected from various sources. The data on M&A events itself are collected from three different sources, namely, the M&A database of the Centre for Monitoring the Indian Economy (CMIE), the Securities and Exchange Board of India (SEBI), and the Bombay Stock Exchange (BSE). We use the following filters to create the sample:[7]

- The sample period is restricted to 1995-2004. It was easy to decide on the former of these two bounds; there were relatively few M&A events prior to 1995. In deciding the latter bound we restricted the data for the post-M&A period to 2007,[8] thereby avoiding the 2008-10 period during which global economic crisis and financial crunch may have influenced firm outcomes

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[7] We are mindful of the pitfalls associated with such filters, highlighted in the Netter et al. (2011) paper. However, as we shall see, in our context, the use of these filters is meaningful.

[8] In keeping with the stylised M&A literature, our analysis requires at least three years of data on post-M&A performance, resulting in the 2004 bound for M&A events.

and induced defensive strategic decisions that make this period unsuitable for pooling with other years in the time horizon.[9]

- We also ensure that the M&A events involve two distinct firms as opposed to, for example, mergers between financing arms of manufacturing firms and their parent companies that comprised a very large proportion of M&A events.

- However, we do not exclude mergers between related firms,[10] and, as we discuss later, we use a dummy variable to control for unobserved factors that might affect outcomes of M&A between such related firms.

Our final sample includes M&A events involving 228 acquiring firms.[11] Through a careful scrutiny of the financial media over the sample period, we were able to identify announcement dates for 123 of these M&A events.[12]

The industry distribution of the M&A events is reported in Figure 1. It can be seen that the events are distributed across a number of 3-digit industries. Hence, it is fairly safe to conclude that our results will not be driven by industry-specific factors. About 72 percent of the M&A events involve acquirer and target firms within the same 2-digit industry, and this pattern does not change over time. About three-quarters of M&As also involve two firms that are related to the same business group. The share of M&As involving firms from the same business group rose from 73 percent in the 1995-2000 period to 82 percent in the 2001-2004 period.

INSERT Figure 1 about here.

CAPTION: Distribution of M&A events across industries

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[9] The restriction of firm/bank-level analysis on India to the pre-2008 period is not unusual. See Bhaumik et al. (2012).

[10] We thank an anonymous referee for suggesting the inclusion of M&A between related firms in the sample.

[11] By comparison, in other research on M&A in India, Pawaskar used a sample of 36 firms from the 1992-95 period, Beena (2004) used a sample of 115 firms for the 1995-2000 period, Agrawal and Sensarma (2007) used a sample of 109 firms from the 2002-04 period, Mantravadi and Reddy (2008) used a sample of 118 M&A events for the 1991-2003 period, and Chakrabarti (2008) used s 2000-07 sample of 388 firms to study announcement effects and that of 24 firms to study long term effects of M&A.

[12] As we explain later in this paper, our empirical strategy includes the use of event study analysis that requires data on stock prices of the predator (or acquiring) firms for a number of days prior to and a few days subsequent to the *announcement dates* of the M&As.

As we discuss later in more detail, our empirical strategy involves use of both event study analysis of the M&A events for which we could identify the announcement date, and formal regression analysis. The stock prices for the event study analyses involving 123 firms were obtained from Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The data for the regression analysis involves the use of financial information taken from the balance sheets and profit and loss statements of the firms involved in all the 228 M&A events, and these were obtained from the *Prowess* database provided by CMIE.[13]

Prowess is also our source of information about the ownership structures of the predator companies that took the strategic decisions about the M&As. However, there was an important change in the nature of ownership data available for the pre- and post-2000 periods. For years up to 2000, *Prowess* provides information on proportion of shares owned by company directors, corporate bodies, large blockholders like financial institutions, and foreign investors. While share ownership by company directors could be used as a proxy for ownership concentration, it is easy to see that it is a fairly imperfect proxy. Further, it is well known that controlling owners in emerging markets do not always own shares directly, in their own names, but rather control companies using a web of cross-holdings of shares (see Claessens, Djankov and Lang, 2000). Yet, using the data on proportion of shares owned by corporate bodies without information on their ownership would also lead to serious measurement errors. As such, therefore, the pre-2001 ownership data was somewhat imperfect.

By contrast, for all years starting 2001, *Prowess* provides information about two sets of shareholders that suit our purpose ideally. It provides information on the shareholding by promoters who are either individuals or corporate bodies that are controlling shareholders. In addition, it provides data on proportion of shares owned by persons acting in concert (PAC) with the promoter. PAC includes friends and relatives of the promoter as also corporations that are controlled by the promoter. In other words, from 2001 onwards, we can clearly identify the shareholders who control a

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[13] Prowess is widely used for firm-level research on India. See, for example, Bertrand et al. (2002), Gopalan et al. (2007) and Bhaumik et al. (2012).

company either directly through their own shareholding or indirectly through proxy votes or crossholdings.[14]

INSERT Table 1 about here.

While the data for 2001 and the subsequent year allow us to accurately measure the concentration of shares in the hands of the controlling owner, the disadvantage is that the pre- and post-2000 ownership data available in *Prowess* are not comparable. The extent of the difference in the proportions of shares owned by directors and promoters (together with PAC) is evident from Table 1. For the 1995-2000 M&A sample, only 11 percent of the predator firms report company directors as the largest shareholding group, and in only 4 percent of these firms do directors own more than 50 percent of shares that is required for absolute control. By contrast, for the 2001-2004 M&A sample, 66 percent of firms report promoters and PAC as the largest shareholding group, and in nearly half of these firms they own more than 50 percent of the shares. The latter numbers are clearly much more consistent with the empirical and anecdotal evidence about the extent of family ownership in the Indian corporate landscape (Piramal, 1996). As we shall see later, this has implications for our empirical strategy, and makes our regression estimations more reliable for the post-2001 sample than for its pre-2001 counterpart.

3. Empirical Strategy

The literature uses two alternative methodologies to examine successes and failure of M&As. The event study methodology is adopted by a large part of the literature (Rhoades, 1994). Daily returns to

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[14] This improvement in the quality of available ownership data is an outcome of a series of attempts since 1996 to improve corporate governance quality in India. In 1996, the Confederation of Indian Industry set up a committee chaired by Rahul Bajaj and in 1998 the Bajaj Committee submitted the CII Code for Desirable Corporate Governance. Later, in 1999, SEBI set up a committee of its own chaired by Kumar Mangalam Birla, and the recommendations of this committee were implemented from March 31, 2001. One of the key recommendations of the Birla Committee report was greater disclosure. In keeping with this trend, under Clause 35 of the Listing Agreement, from 2001, all listed companies were required to make quarterly disclosures about the shareholdings of all promoters and PAC. For details about the recommendations of the Birla Committee, much of which is enshrined in the much discussed Clause 49 of the Listing Agreement, see Chakrabarti et al. (2008).

the equity of an acquiring (and, on occasions, the corresponding target) firm is regressed on the returns to a "market portfolio", for some pre-announcement period, and the regression estimates are then used to generate out-of-sample predictions for a period around the announcement day. The difference between the predicted and actual returns for each day t of the forecast period constitutes the abnormal return of (usually) each acquiring firm i (AR_{it}) which, under the assumption of efficient markets, reflect the expectation of the investors about the likelihood of success of the M&A undertaken by the firm. The sum of daily abnormal returns over the entire forecast period – from j days prior to the announcement day τ to j days after the event – is cumulative abnormal returns (

$$CAR_i = \sum_{t=\tau-j}^{\tau+j} AR_{it}$$) which forms the basis for the analysis.

We adopt the event study methodology to take a first look at the hypothesis that firms that experience less of divergence between the interests of the managers and the owners should be associated with more successful M&As than their counterparts for whom Type 1 agency conflict is likely to be a stronger force. Recall that we have data on exact announcement dates for only 123 of the M&A events in our sample, a third of which are for the pre-2000 period. Hence, in order to be able to use the entire sample of 123 announcement dates, we adopt a cruder proxy for convergence of interests of managers and owners, namely, affiliation with business groups, that is entirely consistent with the agency-ownership literature on emerging market firms (for details, see Bhaumik and Gregoriou, 2010). We compare the cumulative abnormal returns (CARs) of business group affiliated and stand alone (Indian) acquiring firms),[15] for both a small ($j = 1$) and a larger ($j = 10$) window around the announcement date, using a test for the equality of the medians of the two distributions, and the Kruskal-Wallis and Wilcoxon-Mann-Whitney tests that examine the hypothesis that the two samples are drawn from the same population.[16] Under the reasonable assumption that group-affiliated

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[15] We leave out foreign-majority firms from this part of the analysis. We have data on the announcement dates for a small number of such firms which makes reliable testing difficult. Further, our analysis focuses on, *ceteris paribus*, the impact of ownership concentration on the likelihood of successful M&A, such that a comparison of two different types of domestic firms, those with and without concentrated ownership, is perhaps more meaningful.

[16] In small samples, it is statistically incorrect to compare the usual z- and t-statistics for comparison of means, because the underlying distributional assumptions are not met. In such situations, it is stylized to use the

firms have greater concentration of ownership than stand alone firms, we should expect the two distributions to be significantly different and the median CAR for the former to be higher than the median CAR for the latter.

The second strand of the empirical literature uses information from the balance sheets and profit and loss statements of firms to compare pre- and post-M&A performance (see, e.g., Ravenscraft and Scherer, 1988). The usual measure of performance is profit. However, three adjustments are generally made to this measure. First, in order to ensure that the performance measure is not influenced by accounting practices, it is conventional to use either PBIDT (profit before interest, depreciation and taxes) or PBIT (profit before interest and taxes), instead of PAT (profit after taxes).[17] Second, in keeping with the wider literature on aspects of firm performance, the amount of profit is normalised by some measure of the firms' size, usually total assets. Third, since profitability of firms can vary significantly across industries, the measure controls for industry effects by deducting from the normalised profit for each firm in the sample the normalised profit for the median firm of the corresponding industry.[18] The adjusted measure of performance thus obtained is then used as a dependent variable in a regression framework.

The financial statement based analysis forms the basis for the key part of our analysis, in which we examine the impact of ownership concentration on post-M&A firm performance. To begin with, we undertake an univariate analysis of the performance. We compare the changes in the industry-adjusted profitability of the median firms of three distinct categories, namely, firms over which promoters and PAC (or company directors) have absolute control (i.e., own more than 50 percent of shares), firms over which foreign investors have absolute control, and firms over which neither of them have absolute control. For reasons discussed earlier in the paper, we undertake this exercise separately for the 1995-2000 and 2001-2004 M&A samples. In keeping with the literature,

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Kruskal-Wallis and Wilcoxon-Mann-Whitney (non-parametric) tests that do not make such assumptions. These tests are non-parametric alternatives to ANOVA and t-test respectively for large samples where normality assumption is usually made about the distribution of the data.

[17] PAT is affected by factors such as depreciation that are influenced by accounting rules, interest payments that are dependent on exogenously determined (variable) interest rates, and on measurement on intangible factors like goodwill (see, e.g., Meeks, 1977). Hence, it does not provide an accurate picture of a firm's true performance.

[18] This industry control is used for each year of data for the sample period.

the aforementioned "change" in industry-adjusted profitability is between years *T-1* and *T+3* when *T* is the year of the M&A event.

Next, we adapt the methodology of Dickerson et al. (1997) and undertake a panel data analysis using the following regression specification:

$$PROFIT_{it} = \alpha + \beta MERGER_{it} + \sum_p \gamma_p \left(MERGER_{it} \times OWNER_{it} \right)$$

$$+ \sum_q \delta_q \left(MERGER_{it} \times MERGERCHAR_i \right) + \sum_k \lambda_k \left(FIRMCHAR_{i,t-1} \right) + \varepsilon_{it} \qquad [1]$$

where *PROFIT* is the industry-adjusted and measure of profitability discussed above – we use both PBIDT and PBIT as our proxy for profit, *MERGER* is a dummy variable that takes the value 1 for the year after the M&A and for all years after that, and *OWNER* are a set of *p* ownership variables that have implications for our central hypothesis.[19] We control for three different factors that might affect profitability. First, we control for *MERGERCHAR* that are a set of *q* characteristics of the merger itself. Next, we control for *FIRMCHAR* that are a set of *k* time-variant firm characteristics that are control variables and those that are stylized in the literature. Finally, we estimate the regression model using fixed effects techniques that control for unobserved time invariant firm-specific effects. The composition of the *OWNER*, *MERGERCHAR* and *FIRMCHAR* variables are discussed below.

We take into account three different aspects of a firm's ownership.

- First, we include in the specification an indicator of the extent of ownership that is concentrated in the hands of domestic insiders. Given that regulations in India enable shareholders with ownership of 26 percent of equity to block resolutions at the Board level and thereby have disproportionate influence strategic decisions of companies, and given that in the literature absolute control is usually associated with greater than 50 percent of the shares, we include two different dummy variables, one each for ownership of 26-50 percent shares and ownership of more than 50 percent shares. In the Indian context, there is evidence to suggest that these thresholds matter such that it is important to use such dummy variables

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[19] We also estimated a model that included the ownership variables both on their own and in interaction with the *MERGER* dummy variable. However, the stand alone ownership variables were not significant, and hence they were dropped from the specification.

rather than continuous measures of ownership (for details, see Bhaumik et al., 2010). The use of dummies is also consistent with the wider literature (Yen and Andre, 2007). If ownership concentration and the consequent reduction in Type 1 agency conflict improves likelihood of success of M&As, the coefficients of the interactions between the *MERGER* dummy and these ownership variables (especially the one corresponding to greater than 50 percent ownership) should be positive.

- Second, given the evidence about the impact of share ownership by foreign investors on the performance of Indian firms (see Sarkar and Sarkar, 2000; Douma et al., 2006), we include two dummy variables capturing ownership of shares by foreign investors. As in the case of domestic promoters and persons acting in concert, one of these dummy variables reflects ownership of 26-50 percent of shares while the other reflects ownership of more than 50 percent of shares. Given the evidence about the positive impact of significant foreign ownership on firm performance in India, the coefficients of the interactions between the *MERGER* dummy and the foreign ownership dummies should also be positive.

- Third, we take into consideration the literature on the impact of divergence between cash flow rights and control rights of domestic investors in (especially) emerging market firms, which suggests that divergence between these two rights aggravates agency conflicts within firms and might result in sub-optimal strategic decisions and poor performance (Bebchuk et al., 2000; Claessens et al., 2002). Our measure of this divergence is 50 less the percentage of shares owned by domestic promoters and persons acting in concert in firms where these entities are the largest shareholders and yet own less than 50 percent of shares that is required for absolute control, and is zero otherwise. The literature suggests that the coefficient of the interaction between the *MERGER* dummy and this measure of divergence between cash flow rights and control rights should be negative.[20]

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[20] We have estimated the regression model with and without this variable, and the other sign and significance of other estimated coefficients are robust to its inclusion (or exclusion) in the specification. At the same time, as we shall see later, the coefficient estimate for this variable itself is significant for one of the sample periods. Hence, we retain this variable in the final specification.

Next, we control for the following merger characteristics: In keeping with the literature, which argues that outcomes of M&A might differ if the acquiring and target firms are in different industries and if an acquisition results in a tender offer (Dodd and Ruback, 1977; Agrawal et al., 1992), we control for differences in 2-digit industries of the acquiring and target firms, and a dummy for tender offer. In addition, since our sample includes M&A events whereby a firm merged with another firm within the same business group, an act that may not be driven by considerations of synergy that ostensibly drive M&A activities, we also include a dummy variable that takes the value 1 if a M&A event involves acquiring and target firms that do not belong to same business group.

Finally, we include the following firm characteristics as controls: firm age, firm size (the proxy for which is assets), leverage of the firm (the proxy for which is debt-equity ratio) and market power (the proxy for which is the share of a firm's sales in the overall turnover of the relevant 3-digit industry). The control for the age and size of the firm is consistent with Dickerson et al. (1997). Leverage is of interest to us because it takes into cognizance both greater monitoring of highly indebted firms by debtors and lower post-interest payment free cash flow that might result in sub-optimal managerial decisions (Diamond, 1984; Jensen, 1986). The sign of the regression coefficient for this variable captures the net effect. And we control for market power because it can affect a firm's performance through its bargaining power vis-a-vis owners of factors of production, retailers, distributors and consumers (Kim and Singhal, 1993). Since these variables can be endogenous with respect to firm performance, we lag them by one period.

The difference in the ownership data for the pre- and post-2000 periods requires us to estimate two different regression models, one for the firms that were involved in M&As during the 1995-2000 period and one for firms that were involved in M&A for the 2001-2004 period. The period of estimation for the 1995-2000 M&A sample is 1993-2000, and that for the 2001-2004 M&A sample is 2001-2007. This ensures that for predator firms in each sample we have ownership data for the entire estimation period. However, this also means that we do not have much post-M&A data for M&A events that took place during 1998, 1999 and 2000. Together with the measurement error associated with the use of the proportion of shares owned by company directors as a proxy for share

ownership of the controlling owner, this reduces the reliability of the regression estimates for the 1995-2000 M&A sample. However, to reiterate, the change in the nature of ownership data that creates this problem also results in a significant improvement in the accuracy of the ownership concentration in the hands of the promoter (and PAC) for the post-2000 period, making the estimates for the 2001-2004 M&A sample very reliable.

4. Results and Discussion

The results for the event studies are reported in Table 2. It can be seen that for both the narrow [-1, +1] and wide(r) [-10, +10] event windows, the median cumulative abnormal returns of the group affiliated Indian firms, those that are very likely to have concentrated ownership structures, is higher than the median for the corresponding returns for the stand alone firms whose shares are likely to be more widely held. Indeed, both CAR[-1, +1] and CAR[-10, +10] are positive for the group affiliated firms and negative for the stand alone firms. The medians are significantly different at the 5 percent level of significance. This is consistent with the results of the Kruskal-Wallis and Wilcoxon-Mann-Whitney tests that show that the distributions of CARs for the two groups of firms have significantly different distributions. Under the assumption of efficient market hypothesis, therefore, we have *prima facie* evidence that firms with concentrated ownership are likely to have better outcomes for their M&As in terms of post-M&A performance.

INSERT Table 2 about here.

Next, we turn to the univariate analysis, whose results are reported in Table 3. For the 1995-2000 M&A sample, firms in which directors have absolute control experience a larger change in industry-adjusted profitability, on average, than the other two categories of firms. However, this difference is not statistically significant. For the 2001-2004 M&A sample, for which our measure of ownership is much more accurate, the change in the industry-adjusted profitability of the firms in which foreign promoters have absolute control is marginally higher, on average, than the

corresponding changes of the other categories of firms. However, for this sample too, the differences across firm categories are not statistically significant.

INSERT Table 3 about here.

Finally, we turn to the regression results that are reported in Table 4. Consistent with our univariate analysis, we use two different measures of performance – industry-adjusted ratios of PBIDT and PBIT to total assets – and separately estimate the fixed effects panel data models for the two M&A samples. In columns (1) and (2), we report the coefficient estimates for the 1995-2000 M&A sample, the estimation period for which is 1993-2000, and in columns (3) and (4), we report the coefficient estimates for the 2001-2004 M&A sample, the estimation period for which is 2001-2007. The F-statistics and the R-square values indicate that individually the regression specification fits the data reasonably well.

INSERT Table 4 here.

The coefficient estimates for the 1995-2000 M&A sample, reported in columns (1) and (2), suggest that concentration of ownership in the hands of a firm's directors beyond the 50 percent threshold results in an increase in the industry adjusted post-M&A performance of firms. An improvement in post-M&A performance is also brought about by significant ownership of shares (26-50 percent) by foreign investors. However, the statistical significance of these results is weak. These results are consistent with both our expectations and the univariate results. However, for reasons discussed above, we should be careful not to overemphasise these results. We, therefore, move on to the 2001-2004 M&A sample.

The coefficient estimates for the 2001-2004 M&A sample, reported in columns (3) and (4), for which we have an accurate measure of ownership and for which we are also able to account for industry adjusted firm performance for at least three years post-M&A, indicate the following: (a)

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M&A itself was performance enhancing, (b) concentration of ownership in the hands of domestic promoters and persons acting in concert does not have any statistically significant impact on post-M&A performance, (c) any foreign ownership beyond the 26 percent threshold have positive impact on post-M&A performance, and (d) divergence in cash flow rights and control rights has a negative impact on post-M&A performance, but the magnitude of this (negative) impact is small relative to the (positive) impact of the M&A itself. Results (c) and (d) are consistent with our expectations, in light of the relevant literature, and (a) indicates either either Indian firms had become more adept at selecting M&A targets and managing post-M&A restructuring by 2001 (Kumar and Bansal, 2008), or that the introduction of the regulations governing M&A that came into effect towards the end of the nineties were starting to have a positive impact on M&A outcomes, or both. Importantly, in the context our analysis, ownership concentration in the hands of domestic promoters did not make any difference to post-M&A firm performance.

The statistically insignificant impact of ownership concentration in the hands of promoters and PAC can be viewed in two different ways. Taken together with the positive impact of ownership concentration in the hands of company directors, it can be viewed as weak support for the hypothesis that ownership concentration in the hands of insiders reduces *Agency Problem I* (between managers and owners), without increasing *Agency Problem II* (between large or majority shareholders and small or minority shareholders) to the extent that can negatively affect post-M&A performance. A more cautious (or pessimistic) interpretation of the results is that while ownership concentration may eliminate *Agency Problem I* within a firm, the resultant *Agency Problem II* offsets possible gains from the reduction in manager-owner agency problem, such that ownership concentration in the acquiring firm may not be a panacea for M&A outcomes.

This cautious interpretation is not consistent with Yen and Andre's (2007) result of the positive impact of ownership concentration on the long term benefits of acquiring firms. However, it should be noted that the nature of the relationship between ownership concentration and M&A outcomes, or firm performance in general, may be conditioned by the environment in which the firms operate. But, for all practical purposes, it is a study involving firms from developed countries that

have well developed legal systems and governance institutions that provide minority shareholders and other stakeholders like creditors the ability to discipline even entrenched owner-managers. In India, by contrast, legal processes are long drawn and expensive, and large blockholders like financial institutions play little role in disciplining a firm's management (see Sarkar and Sarkar, 2000). To reiterate Fan et al.'s (2011) view, emerging market firms may therefore be fundamentally different from developed country firms.

The control variables indicate that, somewhat surprisingly, post-M&A performance is adversely affected by acquisition within the same 2-digit industry. By contrast, an increase in market power results in a significant improvement in firm performance. Both firm age and firm size have a negative impact on firm performance, suggesting that larger firms are difficult to manage and that older firms possibly have certain built-in inflexibility about managerial practices that affect their performance adversely. Leverage does not affect performance significantly. As with the results involving ownership, these results are robust to the choice of PBIDT and PBIT as the measure of performance.

5. Conclusion

The literature on M&A suggests that most M&As fail to improve the performance of the acquiring firm because of agency conflicts between managers and owners, the so-called *Agency Problem I*. If a M&A is undertaken by a firm with concentrated ownership, therefore, post-M&A performance of the acquiring firm should improve, unless ownership concentration results merely in substitution of *Agency Problem I* with agency conflict between large (or majority) shareholders and small (or minority) shareholders (or *Agency Problem II*). Yet, the literature on the impact of ownership concentration on M&A outcomes is very limited, and therein lies the contribution of this paper. The paper also highlights sheds light on structural and behavioural aspects of emerging market firms, which is arguably the key directions in which future research should be extended

Specifically, we examine the relationship between ownership concentration and M&A outcomes using firm-level data from India, a country where family ownership and business group

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affiliation of firms, both of which results in ownership concentration, is ubiquitous. Our results suggest that significant ownership concentration in the hands of company directors may improve post-M&A performance – a result that should be treated with some caution, but that ownership concentration in the hands of domestic promoters and persons acting in concert do not have any impact on the M&A outcome. By contrast, at least for the 2001-2004 period, ownership concentration in the hands of foreign promoters improves post-M&A performance. A cautious (or pessimistic) interpretation of the insignificant impact of ownership concentration in the hands of domestic promoters and PAC in the more reliable analysis of 2001-2004 M&A events is that, at least in contexts where corporate governance quality is weak, ownership concentration may merely result in replacement *Agency Problem I* with *Agency Problem II*, such that ownership concentration in the hands of insiders may not necessarily improve M&A outcomes.

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Figure 1

Rubber, plastic, petroleum and coal products 7%

Transport equipment and parts 7%

Paper and paper products and printing, publishing and allied industries 2%

Non Metallic Mineral Products 6%

Metal Products and Parts 2%

Machinery and Equipment 20%

Food Products 8%

Textile and Textile Products 6%

Basic chemicals and chemical products 30%

Basic metal, alloy and products 8%

Beverages, tobacco and related products 4%

Table 1
Types of M&A events

Proportion of M&A events	M&A event 1995-2000	M&A event 2001-2004
Board members largest shareholder	11.17	
Of which: Board members own >50% of shares	4.40	
Domestic promoters + PAC largest shareholder		66.29
Of which: Domestic promoters + PAC own >50% of shares		31.03
Foreign investors largest shareholder	4.26	
Of which: Foreign investors own >50% of shares	6.59	
Foreign promoters + PAC largest shareholder		19.10
Of which: Foreign promoters + PAC own >50% of shares		14.94

Table 2
Investor reaction to M&A by group affiliated and non-group affiliated firms

	Indian Group Affiliated	Indian Stand Alone	Kruskal-Wallis	Wilcoxon-Mann-Whitney	Median
CAR[-1,+1]	0.008	-0.024	5.796***	-2.408***	4.031**
CAR[-10,+10]	0.021	-0.124	9.890***	-3.145***	4.031**

Note: ***, ** and * indicate significance levels at 1 percent, 5 percent and 10 percent respectively.

Table 3
Comparison of median industry adjusted performance across groups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	M&A events 1995-2000						
	Overall	**Board members > 50%**	**Foreign investors > 50%**	**No large investor**	**z stat (2 = 3)**	**z stat (2 = 4)**	**z stat (3 = 4)**
PBIDT	- 0.003	0.043	- 0.013	- 0.003	- 0.794	- 0.859	0.242
PBIT	- 0.013	0.041	- 0.017	- 0.013	- 0.794	- 1.176	0.115
	M&A events 2001-2004						
	Overall	**Domestic promoter & PAC > 50%**	**Foreign Promoter > 50%**	**No large investor**	**z stat (2 = 3)**	**z stat (2 = 4)**	**z stat (3 = 4)**
PBIDT	- 0.025	- 0.026	- 0.037	- 0.020	0.413	0.621	0.022
PBIT	- 0.025	- 0.029	- 0.036	- 0.023	0.768	0.894	- 0.200

Note: "No large investor" implies no shareholder with ownership of >50 percent of shares.

Table 4
Impact of ownership and other firm and M&A characteristics on industry adjusted firm performance

	M&A year 1995-2000		M&A year 2001-2004	
	PBIDT	PBIT	PBIDT	PBIT
M&A dummy	- 0.03	- 0.05 *	0.09 ***	0.09 ***
	(0.02)	(0.02)	(0.03)	(0.03)
M&A dummy x Domestic promoter	0.01	0.01	- 0.03	- 0.02
(or Directors) 26-50	(0.01)	(0.01)	(0.02)	(0.02)
M&A dummy x Domestic promoter	0.06 *	0.06 **	- 0.02	- 0.02
(or Directors) >50	(0.03)	(0.03)	(0.02)	(0.03)
M&A dummy x Foreign promoter	0.02 *	0.01	0.06 **	0.05 *
(or foreign investors) 26-50	(0.01)	(0.01)	(0.03)	(0.03)
M&A dummy x Foreign promoter	0.01	0.01	0.06 *	0.05 *
(or foreign investors) >50	(0.01)	(0.01)	(0.03)	(0.03)
M&A dummy x Cash flow – control	0.0005	0.0007	- 0.002 ***	- 0.002 **
rights difference	(0.0005)	(0.005)	(0.001)	(0.001)
Control variables: Nature of M&A				
M&A dummy x Related industry	0.008	0.008	- 0.05 **	- 0.04 **
	(0.01)	(0.009)	(0.02)	(0.02)
M&A dummy x Group unrelated	- 0.001	0.003	- 0.03	- 0.03
	(0.008)	(0.007)	(0.02)	(0.02)
M&A dummy x Tender offer	0.01	0.02 *	0.004	0.005
	(0.01)	(0.01)	(0.02)	(0.02)
Other control variables				
Firm age	0.002	0.001	- 0.004 **	- 0.004 *
	(0.001)	(0.001)	(0.002)	(0.002)
Log assets	0.001	0.0002	- 0.03 **	- 0.02 **
	(0.005)	(0.005)	(0.01)	(0.01)
Leverage	- 0.03	- 0.04 *	- 0.03	- 0.05
	(0.02)	(0.02)	(0.04)	(0.04)
Market power	0.09 *	0.09 *	0.42 **	0.49 ***
	(0.05)	(0.05)	(0.18)	(0.03)
Constant	- 0.03	- 0.02	0.37 ***	0.29 ***
	(0.04)	(0.03)	(0.08)	(0.09)
F-statistics	2.01 **	2.02 **	3.54 ***	3.15 ***
Adjusted R-square	0.57	0.56	0.53	0.52
Number of observations	782	782	470	470
Number of firms	167	167	61	61

Note: These are fixed effects regressions that control for unobserved and time-invariant firm characteristics. The values within parentheses are robust standard errors. ***, ** and * indicate significance at the 1 percent, 5 percent and 10 percent levels.