Chapter Title: III. ECONOMIC EFFECTS OF CONCENTRATED CORPORATE OWNERSHIP: 9. Emerging Market Business Groups, Foreign Intermediaries, and Corporate Governance

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Emerging Market Business Groups, Foreign Intermediaries, and Corporate Governance

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Much has been written about the tendency toward insider control in transitional economies (Aoki and Kim 1995). Indeed, this phenomenon poses a serious challenge for the governance of enterprises in which the usual institutions for external monitoring are missing or underdeveloped.

We investigate the monitoring of enterprises subject to a form of insider control, business groups, in which a family typically has control over multiple enterprises. Our research setting is India, an economy in the process of significant deregulation beginning in 1991. We investigate the interaction between three different kinds of concentrated ownership in India: the insider ownership held by the families that manage the firms that constitute the business groups; the ownership held by domestic financial institutions, typically acting in concert; and the ownership held by foreign financial institutions, recent arrivals on the Indian economic landscape.

A review of the literature suggests that the external monitoring of group affiliates poses more challenges than that of unaffiliated firms. Groups are reputed to be less transparent than nongroups and to have more opportunities, given their more complicated structures, to engage in questionable practices to the detriment of minority shareholders. Their generally better links to the political apparatus in the country also insulate them from external interference and monitoring. Domestic financial institutions, the

primary source of institutional investment in India until economic liberalization in 1991, are generally insufficiently oriented, if at all, toward the task of monitoring managers and are thus unlikely to exercise effective governance. Foreign institutional investors, who were allowed to participate in Indian stock markets in recent years, bring with them from advanced capital markets not only fresh capital but also monitoring skills.

Our evidence suggests that domestic financial institutions in India are ineffective monitors, whereas foreign institutional investment is associated with significant monitoring benefits: firm performance is positively correlated with the presence of foreign institutional ownership and negatively correlated with the presence of domestic institutional ownership. Surprisingly, however, we find that there is no evidence of a difference in this relationship between group affiliates and unaffiliated firms, suggesting that monitoring is no less effective for group affiliates than it is for unaffiliated firms. At first glance, the lack of transparency of groups does not appear to pose a differential impediment to monitoring by foreign institutional investors.

We probe this further by investigating factors correlated with the presence of greater foreign institutional ownership (and compare those factors to factors correlated with the presence of greater domestic institutional ownership). After controlling for industry fixed effects, firm size, and the past performance of firms, we find that foreign owners are indeed less likely to invest in group affiliates than in unaffiliated firms, perhaps because of the problems associated with monitoring groups. However, when they do invest in groups, they appear to seek out those groups where the transparency problem, as proxied by the greater incidence of intragroup financial transactions, is lowest.

We interpret this collective evidence as suggesting that foreign institutional investors are a source of not only financing but also scarce monitoring skills in emerging markets like India. Given the rapidly accumulating evidence of the failure of domestic intermediaries in a number of emerging markets and the recent opening up to foreign investment of dozens of countries (Sachs and Warner 1995), these results regarding the nature of investments sought by foreign institutional investors and the effects of such investments are worthy of note. Our evidence is also consistent with the idea that groups are difficult for external agencies to monitor.

The rest of the paper is organized as follows. Section 9.1 provides a literature review and some background on the state of monitoring intermediaries in the Indian context. Section 9.2 describes our data, section 9.3 our results. Section 9.4 concludes.

9.1   Institutional Background

9.1.1   Monitoring in Emerging Markets

Shleifer and Vishny (1986) point out that, by partially internalizing the externality inherent in providing monitoring services, large shareholders can reduce the incidence of agency problems that arise from the divergence of interests between managers and shareholders. According to Aoki (1995), however, this is a "necessary" rather than a "sufficient" condition for the provision of monitoring services. Indeed, in emerging markets, there are several reasons why existing monitoring is inadequate.

Perhaps the most important of these has to do with the absence of specialized intermediaries that perform monitoring services[1] or with the lack of skills in or incentives offered to such intermediaries as do exist. As Holderness and Sheehan (1991, 326) point out, while it is true that larger shareholders have a greater incentive to monitor, "firm value will not increase if the blockholder lacks the pertinent managerial skills." Examples from emerging markets regarding the paucity of such skills abound. Qian (1995) discusses the creation of a monitoring vacuum in China following the cessation of state monitoring of its enterprises. Frydman et al. (1993) point out that, in Russia, commercial banks have no experience with market accounting and governance and are therefore in no position to hold management's feet to the fire. Rapaczynski (1996, 99), describing the situation in Eastern Europe, reports that the "various supervisory bodies are generally rudderless, incapable of genuine monitoring."

Litwack (1995) adds that it is unclear whether such financial institutions as do exist have the incentives to invest in monitoring skills. Financial institutions may have conflicts of interest that discourage them from developing such skills. Such conflicts of interest appear to exist in Israel (Blass, Yafeh, and Yosha 1997).[2] Indeed, the emergence of concentrated blocks of shareholders does not appear to be synonymous with the provision of monitoring services.[3] Berglof (1995) points out that, despite investment privatization funds holding concentrated blocks of equity, there are few

1. This begs the question of why competent intermediaries have not emerged. There is ongoing theoretical discussion about the circumstances under which intermediaries will find it profitable to collect and disseminate information about firms. Under an assumption of fixed costs of gathering information, there are good reasons to expect intermediaries to emerge (Diamond 1984), but perhaps markets are not large enough (Grossman and Stiglitz 1980) or liquid enough (Kyle 1984; Holmström and Tirole 1993) to foster this process.

2. For example, a fund manager might buy shares so as to boost the value of shares held by a bank with which the fund manager is affiliated. In advanced economies, such potential conflicts of interest are often mitigated through "fire-wall" structures (see Kroszner and Rajan 1997).

3. The theoretical literature on financial market intermediation (Diamond 1984; Krasa and Villamil 1992) posits that diversification of the financial institution's investments ensures that the investors in the financial institution are likely to receive a return on their investment

signs in the Czech Republic of such "control blocks" translating into active corporate governance. It goes without saying that further specialization in the monitoring process, depending on the type of monitoring, is completely absent.[4]

A second reason for the lack of monitoring has to do with the poor availability of information. There are usually no strict disclosure norms, and enforcement of existing disclosure rules is lax. Akamatsu (1995) points out that, of five thousand enterprises privatized in Russia, only one hundred publish financial statements; among these, balance sheets typically consist of three lines on the assets side and two lines on the liabilities side, with no explanatory notes. Intermediaries that specialize in the gathering of information (such as analysts) are generally absent or not as skilled as those in advanced economies. In Chile, managers report that, even after two decades of financial market reform, domestic analysts are not nearly as skilled as foreign analysts (Khanna and Wu 1998).

Finally, even if monitors with the appropriate skill levels exist and have the appropriate incentives to perform their function, there are impediments to their doing so. First, numerous firms in most emerging markets have a large insider shareholding that makes it difficult for intermediaries to monitor and impose discipline.[5] The high level of insider shareholding may imply that insufficient shares trade (as in China [Xu and Wang 1997]), making a disciplinary takeover difficult. The absence of minority-shareholder rights further complicates this situation (La Porta et al. 1998). Second, numerous firms have political connections that make the imposition of discipline impractical.[6]

9.1.2 The Indian Institutional Context

All these barriers to monitoring activity exist in India.[7] In fact, in December 1991, a landmark committee set up to review the state of the financial sector, the Narasimhan Committee, admitted that loans had not

and so need not exert undue effort in monitoring the monitor. As an empirical matter, we do not know the extent to which failure of financial institutions in emerging markets to provide monitoring services is due to a failure to monitor the financial institutions themselves.

4. For example, Roe (1990, 36) refers to "specialized monitoring that financial institutions can do well" and distinguishes between different types of monitoring. Aoki (1995) distinguishes between ex ante, interim, and ex post monitoring; different kinds of monitoring are performed by different kinds of financial intermediaries in advanced economies.

5. Stulz (1990) argues that the probability of takeover is inversely related to the level of insider shareholding.

6. Fisman (1998) provides evidence of the effect of such connections in Indonesia. Kroszner (1998) suggests that foreign banks will be less subject to such local political pressure and that monitoring by financial intermediaries is therefore likely to be better in economies where foreign banks are allowed to enter freely.

7. Since our data span the period 1990–94, we confine ourselves to commenting on the Indian institutional context during this period. This part of the discussion draws from multiple sources, prominent among which are SEBI (1994), Goswami and Mohan (1996), and Joshi and Little (1997).

been monitored for decades. The first reason for the poor monitoring of Indian firms is that monitoring is not the primary objective of the dominant financial institutions (almost exclusively state-run banks). Indeed, until 1991, the objective of government policy was to maximize loans to the industrial sector in the belief that this would lead to industrial development. The major financial institutions were often instructed not to disturb management and to side with management in the event of any dispute; they virtually never divested their ownership stake in any firm.

Second, financial institutions were never provided with any incentives to monitor. Pouring more money after a bad loan in the hope that the distressed firm would find its way out of trouble was consistent with the objective of maximizing loans. Further, this was often a preferable course of action given the difficulty of shutting down failing firms under the Sick Industrial Firms Act. Of course, this implicit soft budget constraint led to moral hazard problems on the part of firms.

Third, competition among financial intermediaries was nonexistent for several reasons: (*a*) Government restrictions on lending terms, interest rates, and conditions governing equity ownership eliminated the primary bases on which competition might have occurred. (*b*) There was a great deal of consortium lending. (*c*) All public banks were members of the Indian Banks Association (IBA), which functioned as a de facto cartel and played a major role in fixing wages, prices, and service conditions. (*d*) Finally, under the pre-1991 "license raj," once an entrepreneur received a permit from the government to engage in some form of economic activity, support from the state-run financial institutions was more or less guaranteed. This had the indirect implication that lobbying and political interference in the real sector translated into similar rent-seeking behavior in the financial sector. Indeed, there were accusations of "financial preemption" directed against certain entrepreneurs who sought to restrict finances from becoming available to others by exercising their political muscle. "Industrial embassies" were maintained in the capital by prominent businesses toward this end (Encarnation 1989).

Finally, intermediaries were never monitored themselves. As late as 1992, banks illegally lent stockbrokers money that the latter used to engage in speculation, leading ultimately to a drastic market crash and the exposure of much fraudulent behavior.

In addition to the absence of potential monitoring by banks, there were also constraints on monitoring by external capital markets. The Companies Act placed restrictions on the acquisition and transfer of shares and so prevented the development of a market for corporate control. With half to two-thirds of the equity in any firm being illiquid (since the entrepreneurs and the financial institutions never sold their shares), takeovers were difficult to implement.

Several positive developments have occurred on the corporate-gov-

ernance front, however, since India's 1991 balance-of-payments crisis: (*a*) The Securities and Exchange Board of India (SEBI) Act of 1992 created a regulatory body with the explicit mandate to improve the functioning of Indian financial markets. (*b*) The incentives given state-run financial institutions to monitor were improved. They began to be weaned off their historically privileged access to funds. The resulting need to access public capital markets made them more conscious of the bad loans on their balance sheets. The deregulation of interest rates and the gradual elimination of consortium requirements increased competition among the financial institutions. Private-sector mutual funds were allowed to compete with the state monopoly. (*c*) A takeover code was introduced in late 1994, after a public outcry over legally sanctioned price rigging.[8] (*d*) Restrictions on the entry of foreign investors were eliminated, and regulations on their investments were substantially clarified. Salient features included no limitations on minimum and maximum investments, no lock-in period for such investments, reduction in long- and short-term capital gains taxes, free repatriation of capital subject to payment of taxes, and a ceiling under which the maximum investment by a foreign institutional investor in a single firm could be up to 5 percent of voting rights (with an aggregate investment limit of 24 percent for all foreign institutional investors in a single firm).

However, as of 1994, Indian corporate governance was still deficient for many reasons, including the following: (*a*) SEBI had found that it had insufficient power to police violations of regulations.[9] It continued to adapt and modify regulations as it learned more about how to regulate financial markets. (*b*) Takeovers continued to be difficult given the paucity of timely information and high transactions costs in both the primary and the secondary equity markets.[10] (*c*) There was still little competition among financial intermediaries. The state-run intermediaries were still saddled with bad loans, which affected their ability to act as monitors. (*d*) Disclosure problems continued to abound. Financial results were published only at half-yearly intervals, and the absence of consolidated accounts reduced the transparency of business-group performance.

8. In 1993–94, many firms issued preferential equity allotments to the controlling shareholders at steeply discounted prices.

9. In a celebrated 1995 case, the stock price of the firm MS Shoes was driven up sharply prior to a new issue by misinformation in its prospectus combined with price rigging. This triggered a series of events that closed down the country's primary stock exchange, the Bombay Stock Exchange, for three days and exposed inadequacies in the regulation of merchant bankers and underwriters, too many poor-quality stock issues, information-disclosure problems, etc.

10. A detailed account can be found in SEBI (1994). The need to transact physically imposes limits on trading volumes and on the speed at which orders can be handled. With the open outcry system (as opposed to screen-based trading), it is difficult to establish audit trails. There were no depositories, making settlement difficult (and no legislative means to establish depositories). Trades were often consummated outside the exchange. This left much room for manipulation, with cases of fraud becoming legion.

9.1.3 Relative Monitoring Costs for Groups and Nongroups

Failure to monitor in India, as in several other emerging economies, leads to severe costs. But policy prescriptions require a better understanding of the factors that exacerbate, and those that mitigate, such costs. This, in turn, is likely to be based on a richer understanding of the form that insider control takes and of the nature of the interaction between the insiders and the outside monitors. Very few studies, however, have paid attention to the form that insider control takes. In particular, many large corporations in most emerging markets are members of business groups, often family controlled.[11] While these groups may serve some useful functions,[12] they have a handful of features that make them likely to be less well monitored than nongroup affiliates in the country in question. All these features are commonly believed to be true about many Indian groups.

First, groups are generally alleged to suffer from a greater lack of transparency than stand-alone unaffiliated firms and thereby to be less susceptible to pressure from external monitors. This lack of transparency generally has to do with the ability of the controlling shareholders to move funds across firms within the group, often without adequate disclosure. Such lending to related parties, and the associated lack of accountability, has been viewed as the source of some celebrated financial market failures in recent times in emerging markets.[13] The lack of transparency also arises, especially in many economies in Asia and Latin America, because groups are controlled by extended families that strive to protect their privacy by revealing very little of the group's internal activities.

Second, a common characteristic of groups in many countries is the presence of equity interlocks among the member firms.[14] These exacerbate the transparency problem, particularly when the interlocks involve firms that are not publicly traded. The financial interlocks are also commonly

11. For broad discussions of the phenomenon of business groups in different countries, see Leff (1976, 1978), Amsden and Hikino (1994), Granovetter (1994), and Khanna and Palepu (1997). For Central America, see Strachan (1976). For Belgium, see Daems (1977). For France, see Encaoua and Jacquemin (1982). For Indonesia, see Robison (1986) and Schwartz (1992). For India, see Ghemawat and Khanna (1998), Herdeck and Piramal (1985), Piramal (1996), and Ghemawat and Khanna (1998). For Japan, see Caves and Uekusa (1976), Goto (1982), Aoki (1990), Hoshi, Kashyap, and Scharfstein (1991), and Berglof and Perotti (1994). For Korea, see Chang and Choi (1988) and Amsden (1989). For Mexico, see Camp (1989). For Pakistan, see White (1974).

12. Khanna and Palepu (1997, 1999, 2000, in press), and Fisman and Khanna (1998) have documented some of the useful roles that groups play in India and Chile.

13. A prominent and much-studied example is that of Chile's financial collapse in the early 1980s (see, e.g., the overview in Bosworth, Dornbusch, and Laban [1994]). Unaccounted-for lending and inadequate supervision among business groups are also among the cited causes of the governance problems in the recent financial crisis in Asia.

14. See, e.g., Daems (1977) on interlocks in Belgium, Nyberg (1995) on Sweden and Japan, and Berglof (1995) on the nontransparent web of cross-holdings in Hungary that protects insiders.

believed to be an antitakeover defense mechanism, again insulating firms from control by outsiders.

Third, groups are generally able to reap economies of scale by lobbying the political apparatus and securing favors from bureaucrats and politicians. This is the root of much of the asserted rent-seeking behavior in which groups are often believed to indulge. One form of such rent seeking is to use political connections to prevent outside intervention and to erect barriers to competition in those areas in which groups are disproportionately active.

9.2 Data

9.2.1 Data Sources and Sample Selection

The data for our research are obtained primarily from a publicly available database maintained by the Centre for Monitoring the Indian Economy (CMIE). CMIE is a privately run, twenty-year-old, Bombay-based firm that maintains databases on private- and public-sector economic activity in India. The database from which we draw our information is analogous to an abridged version of the Compustat database in the United States.[15] The database has computerized information drawn from the annual reports, other regulatory filings, and press releases of several thousand firms operating in India as well as daily stock prices for firms on the Bombay Stock Exchange (BSE). Of all the firms in the database, approximately half are traded on the BSE, with the remainder traded on the several other stock exchanges in the country. In the version of the database to which we have access, the most information is available for 1993. Coverage for subsequent years is sparser owing to delayed release of information by the firms and delays in updating the database.

The data set that we use in our analysis consists of all non-group- and group-affiliated Indian private-sector firms listed on the BSE with the required data. We confine our analysis in this paper to the BSE firms because these are the only firms for which ownership data are available and because we use stock-price data in our tests. For those estimations for which a year of data suffices, we choose 1993 because it is the year for which the coverage of BSE firms is complete. For those estimations for which we need data at two points in time, we identify a subset of BSE firms for which we have data for both 1990 and 1994 and examine the changes between these two time periods.

15. CMIE sells this database under the name *CIMM* (Computerized Information on Magnetic Medium). CIMM has become a standard database used by researchers and management professionals to analyze Indian corporations. As a recent example, Ahuja and Majumdar (1995) use these data to examine the performance of Indian state-owned enterprises.

9.2.2   Identifying Business-Group Affiliation

The identification of a firm's business-group affiliation is of particular importance for our empirical tests. For this purpose, we adopt the database's classification of firms into groups.[16] The identification of group membership is more reliable in India than in several other countries for at least two reasons. First, unlike in a variety of countries (Strachan 1976; Goto 1982), firms in India are members of only one group. Further, there is virtually no movement of firms across groups because of little merger activity in India.[17]

As a check on the quality of group construction, we verify data from the CMIE database against detailed case studies that identify firms of three prominent groups, Tata (Khanna, Palepu, and Wu 1998), Thapar (Ghemawat 1996), and RPG Enterprises (Khanna 1996). We also perform similar tests for a random sample of smaller groups largely to our satisfaction. Finally, we also verify that the names of groups that appear within the top one hundred (by sales or assets) appear on lists published by prominent business magazines[18] and that large groups mentioned in historical accounts (Herdeck and Piramal 1985) are present in our database if the groups survive to this day.[19]

The largest groups are very diversified, employ hundreds of thousands

16. While a group is not a legal construct, CMIE uses a variety of sources to classify firms into groups. Prior to the repeal of the Monopolies and Restrictive Trade Practices Act in 1991, a comprehensive list of firms belonging to "large industrial houses" was published by the government. This forms a starting point for the CMIE classification for a number of the groups. Beyond this, those promoting a firm when it was first started are identified and whether the original owners remained affiliated with the firm traced; the interest that a group has in a particular firm as revealed by its presence on the board of directors is identified; also consulted are announcements by individual firms of the groups with which they are affiliated and lists of affiliated firms that are made public by the groups (such information appears periodically in annual reports and advertisements and, at the time of public offerings, in news releases about the groups' and the firms' plans for the future). CMIE also regularly monitors changes in group structure. Shifts in group affiliation are extremely rare, but, when they do occur, they are reflected in the database. Note that the database does not contain a historical record of each firm's affiliation with different groups; rather, the group-membership variable reflects the most current affiliation. There is no ambiguity between CMIE's classification of firms into groups and classifications attempted by other sources against which we cross-checked the data.

17. In the case of family-controlled groups, succession from one generation to another often results in the group being split into multiple parts. We identified several prominent groups that had gone through such periods of succession in the past twenty years and checked to see that CMIE had indeed classified each subgroup separately. Thus, the Birla group is classified in several different parts, as is the group originally run by the Goenkas.

18. The *Economic Times,* a daily financial newspaper analogous to the *Wall Street Journal; Business India* and *Business World,* analogous to *Fortune* or *Forbes.*

19. Note that there are a small number of groups for which information on only one firm is available for a particular year. Such firms are nonetheless classified as group affiliated. The classification as group or nongroup is not inferred solely from the number of entries appearing in the database.

of people, and are very complex to manage.[20] Firms in Indian groups are tied by a common ownership of a significant block of shares in group firms, often by a family. This family ownership cements formal and informal relationships among group firms. The large groups also appear to have the best relationships with the bureaucracy, a fact that confers ongoing advantages in an economy enmeshed in a "kafkaesque maze of controls" (Bhagwati 1993).

Our analysis primarily focuses on the performance of individual firms rather than on group performance. We think that it is sensible to run our estimations using firm-level performance measures rather than group-level measures for several reasons. First, each firm is a publicly traded entity responsible to its own shareholders. Indeed, the group itself, the clarity of its identification notwithstanding, is not a legal construct. The separate legal standing of each firm implies that there are ownership-structure differences across firms in a group. Second, a great deal of variation in performance would be lost if we aggregated firm performance measures into group measures. Indeed, industry-adjusted performance varies substantially across the members of a group. Third, groups differ in the extent to which firms are bound together by social and economic ties. Using group-level performance measures implicitly assumes that the extent of interlock is similar across groups. Instead, we use an estimation approach in order explicitly to recognize that there are group-level unobservables that cause the error term in our specifications to be correlated across members of a particular group.

Because Indian business groups are a collection of public firms, the group's ability to use "internal capital markets" to fund the ongoing activities of one group firm from the cash flows of the other group firms is limited. Therefore, the most important role of the group's internal capital market is to launch new ventures, in which both the family and the other group affiliates might acquire ownership stakes. In this respect, Indian business groups are closer to the leveraged-buyout (LBO) associations than to the diversified public corporations in the United States.

A comparison to Japanese *keiretsu* is also instructive. The main bank in the *keiretsu* has been likened to a central office in a large firm, "providing capital and managerial support, in exchange for . . . an ownership stake in the firm and some say in how it is run" (Hoshi, Kashyap, and Scharfstein 1991, 40), although the *keiretsu* firms have weaker links than do divisions of a U.S. firm. Like the *keiretsu* firms, firms in an Indian group are legally separate entities, have their own shareholders, and publish their own statements. By regulatory fiat, however, there is no group-specific

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20. For an analysis that shows that the performance effects of affiliation with a diversified business group are quite different in a country such as India than they are in an advanced economy such as the United States, see Khanna and Palepu (1997).

bank in India. Nonetheless, there is some coordination of actions among group members, partially orchestrated through common board members and through the involvement of the family in each group.

9.2.3   Definitions of Dependent and Independent Variables

We use as our primary dependent variable a proxy for Tobin's q, which we define as (market value of equity + book value of preferred stock + book value of debt)/(book value of assets), where the market value of equity is calculated using closing stock prices on the last trading day of the year.[21] Data limitations preclude us from computing as close an approximation to Tobin's q as some prior studies have done.[22] However, the data we use is superior in an important way. Prior U.S. studies do not have line-of-business Tobin's q's as the data needed to compute these are not available; they have accordingly had to compare the Tobin's q's of diversified firms to comparable portfolios of Tobin's q's of single-line-of-business firms. Since firms in Indian groups are separately traded, we can compute the equivalent of line-of-business Tobin's q's and can therefore perform a more direct comparison than has been feasible using U.S. data.

The analysis rests on various categories of ownership measures. Foreign institutional ownership aggregates ownership of foreign corporations as well as that of foreign financial intermediaries. Domestic institutional ownership aggregates ownership in the hands of all state-run financial intermediaries, including banks supervised by both the central and the state governments, state-run insurance firms, and state-run mutual funds. Insider ownership includes the stakes held by the group family members and by other group firms, and, for nongroup firms, it measures the stakes held by insiders. This measure is a little difficult to interpret since it stands for somewhat different things for group affiliates and for nongroup firms. Directors' ownership captures the ownership of nonfamily directors. Finally, top fifty ownership captures the largest shareholders not captured in the categories listed above.

Finally, we need to define certain terms used in our analyses of the determinants of the levels of foreign and domestic institutional ownership. In particular, for the group affiliates, we use three measures of intragroup financial transactions: *investments in group firms* is the firm's total investment in shares and debentures of other group affiliates; *receivables from group firms* includes short-term deposits and loans (those with a maturity

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21. None of the results are sensitive to the use of prices at different times, or an average market price over the year, for the construction of our approximation to Tobin's q.

22. Other studies that have computed q in some detail include Lindenberg and Ross (1981), Montgomery and Wernerfelt (1988), Wernerfelt and Montgomery (1988), and Lang and Stulz (1994). Lang and Stulz (1994), e.g., use several years of data to compute the replacement value of assets under some assumptions, a step that we are unable to replicate as we have only one year of good data.

of less than one year) given by the firm to others in the group; *loans from group firms* is the loans received by the firm from others in the group. Past performance is defined as the simple average of as many annual measures of Tobin's *q* (computed as above) as are available for the firm in question. Variability in past performance is defined as the variance of daily stock returns over the prior year.

9.3   Results

9.3.1   Summary Statistics

Table 9.1 reports some summary statistics for our sample of firms, using 1993 data. The sample consists of 567 group affiliates and 437 unaffiliated firms, all publicly traded on the BSE. The group affiliates are members of 252 different groups, with 95 percent of the groups having five or fewer

Table 9.1   **Summary Statistics**

	Group Firms		Nongroup Firms	
Variable	Mean	Median	Mean	Median
Sales (million rupees)	1,411	666	366	217
Age (years)	28.3	22	19.8	14
Tobin's *q*	1.39	1.14	1.37	1.06
Change in Tobin's *q*	0.62	0.31	0.48	0.24
Ownership by foreign institutional investors (%)	10.1	2.3	7.4	0.9
Ownership by Indian institutional investors (%)	15.6	13.3	11.3	6.5
Ownership by insiders (%)	31.9	31.3	20.8	17.1
Directors' ownership (%)	5.7	1.1	14.2	10.7
Top fifty owners excluding the above categories (%)	4.9	3.2	7.6	5
Number of firms	567	567	437	437

Source: Data obtained from CMIE for 567 affiliates of 252 different groups and for 437 unaffiliated firms traded on the BSE.

Note: The summary statistics in this table are based on 1993 values. Tobin's *q* is defined as (market value of equity + book value of preferred stock + book value of debt)/(book value of assets). Sales are measured in millions of rupees, with an approximate exchange rate at this time of U.S.$1.00 = Rs 30.00. Age measures number of years since incorporation. Foreign institutional ownership aggregates ownership of foreign corporations as well as that of foreign financial intermediaries. Domestic institutional ownership aggregates ownership in the hands of all state-run financial intermediaries. Insider ownership includes the stakes held by group family members and by other group firms and measures stakes held by insiders for nongroup firms. Directors' ownership captures the ownership of nonfamily directors. Top fifty ownership captures the largest shareholders not included in aforementioned categories. Group membership is based on definitions of groups from CMIE and is described in the text. The mean and median values for all the variables except for the mean value of Tobin's *q* and change in Tobin's *q* are significantly different between the group and nongroup firms at the 5 percent significance level.

affiliates traded on the BSE and the largest group having twenty one affiliates traded on the BSE. The mean (median) sales of the firms in the sample are Rs 962 million (Rs 384 million), the mean (median) age is twenty five years (seventeen years), and the mean (median) q is 1.39 (1.10). The table shows that, relative to unaffiliated firms, group affiliates are statistically significantly larger and older (using either means or medians as the basis for comparison). Mean Tobin's q is no different across group affiliates and unaffiliated firms, although the median Tobin's q of group affiliates is statistically significantly greater (at the 5 percent level) than that of unaffiliated firms.

The mean (median) ownership structure of the firms in our sample is as follows: foreign institutional ownership, 8.9 percent (1.6 percent); domestic institutional ownership, 13.9 percent (10.2 percent); insider ownership, 27.1 percent (26.5 percent); directors' ownership, 9.4 percent (3.4 percent); top fifty owners, 6.1 percent (4.0 percent). The remainder are held by dispersed shareholders. As shown in table 9.1, relative to unaffiliated firms, group affiliates have higher percentages of foreign and domestic institutional ownership, higher percentages of insider ownership, and lower percentages of directors' ownership and top fifty ownership. All these differences in categories of ownership are statistically significant at conventional levels (using either means or medians as the basis for comparison).

Table 9.1 also reports changes in Tobin's q between 1990 and 1994 (for the subsample of firms for which we have data for both 1990 and 1994). The mean change in Tobin's q across the entire sample is 0.58, statistically significantly different from zero at the 1 percent level. The median change in Tobin's q is 0.28, with 374 firms reporting positive changes in Tobin's q and 114 reporting negative changes in Tobin's q (the probability of this relative pattern of positive and negative changes in Tobin's q being generated by a binomial [$n = 488$, $p = 0.5$] process is close to zero). The mean (median) change in Tobin's q for group affiliates is 0.62 (0.31), with the mean being significantly different from zero, with 264 of 332 group affiliates reporting positive changes in Tobin's q. The mean (median) change in Tobin's q for unaffiliated firms is 0.48 (0.24), with the mean being significantly different from zero, with 110 of 156 unaffiliated firms reporting positive changes in Tobin's q. The mean change in Tobin's q for group affiliates is not statistically significantly different from that for unaffiliated firms. However, the median change in Tobin's q for group affiliates is statistically significantly greater, at the 5 percent level, than that for unaffiliated firms.

9.3.2 Univariate Analysis

Panel A of table 9.2 displays mean and median Tobin's q values for group affiliates and unaffiliated firms, broken down by "high"- and "low"-foreign-ownership categories. The sample median value of foreign ownership, 1.61 percent, is used to divide the sample into high- and low-foreign-

Table 9.2   **Univariate Tests of Relation between Foreign and Domestic Institutional Ownership and Tobin's _q_**

	Number of Firms	Mean Tobin's _q_	Median Tobin's _q_
	A. Relation between Tobin's _q_ and Foreign Institutional Ownership		
Firms with high foreign institutional ownership:			
Group firms	306	1.58	1.26
Nongroup firms	196	1.54	1.22
Firms with low foreign institutional ownership:			
Group firms	261	1.18***	1.01***
Nongroup firms	241	1.23	0.98
	B. Relation between Tobin's _q_ and Domestic Institutional Ownership		
Firms with high domestic institutional ownership:			
Group firms	326	1.35	1.12
Nongroup firms	176	1.43	1.09
Firms with low domestic institutional ownership:			
Group firms	241	1.45	1.18
Nongroup firms	261	1.33	1.04

Source: Data obtained from CMIE for 1,004 firms (group affiliated and unaffiliated) traded on the BSE.

Note: Tobin's _q_ is defined as (market value of equity + book value of preferred stock + book value of debt)/(book value of assets). Foreign institutional ownership aggregates ownership of foreign corporations as well as that of foreign financial intermediaries. Domestic institutional ownership aggregates ownership in the hands of all state-run financial intermediaries. Group membership is based on definitions of groups from CMIE and is described in the text.

In panel A, firms with high (low) foreign institutional ownership are defined as those for which foreign institutional ownership exceeds (is less than) the sample median value for foreign institutional ownership, 1.61 percent. In panel B, firms with high (low) domestic institutional ownership are defined as those for which domestic institutional ownership exceeds (is less than) the sample median value for domestic institutional ownership, 10.16 percent. Significance levels refer to difference of means or median tests between the high- and low-ownership categories. Mean differences are tested using a _t_-test with unequal variances; median differences are tested using the Wilcoxon signed-rank test.

In panel B, the mean (median) value for the high-domestic-ownership firms is not statistically significantly different from the mean (median) value for low-domestic-ownership firms. Group and nongroup firms' mean (median) values of Tobin's _q_ are not significantly different for the high-domestic-ownership subsample; for the low-domestic-ownership subsample, the means are not different between group and nongroup firms, but the medians are different at the 5 percent level.

***Significantly different from the mean (median) value for the high-foreign-ownership firms at the 1 percent level. Group and nongroup firms' mean (median) values of Tobin's _q_ are not significantly different for either the high- or the low-foreign-ownership subsample.

ownership categories. Mean Tobin's q is higher for the high-foreign-ownership category, for each of the group and nongroup samples, with the difference in means being significant at the 1 percent level. This is supportive of the notion that foreign institutional ownership is correlated with higher performance, both for group firms and for nongroup firms. The univariate tests do not support the notion that any beneficial effects of foreign institutional ownership are less likely to be felt in groups than in nongroups. For each of the high- and low-foreign-ownership categories, there is no statistically significant difference in mean Tobin's q between group and nongroup firms.

The median results in the same panel yield identical results. Median Tobin's q is higher for the high-foreign-ownership category than it is for the low-foreign-ownership category, for both groups and nongroups. The difference of medians is significant at the 1 percent level (Wilcoxon signed-rank test) in both instances. However, within each of the high- and low-foreign-ownership categories, there is no statistically significant difference in medians across groups and nongroups, although median Tobin's q is higher for group firms than for nongroup firms.

Similar univariate tests are performed for "high" and "low" categories of domestic institutional ownership and reported in panel B of table 9.2. The sample median value of domestic institutional ownership, 10.16 percent, is used to divide the sample into high- and low-domestic-ownership categories. There is no significant difference in the mean (and median) Tobin's q between high- and low-domestic-ownership firms for either the group-firm subsample or the nongroup-firm subsample. These univariate statistics do not suggest a positive relation between domestic institutional ownership and firm performance. There is also no evidence of a significant difference between the mean and the median Tobin's q between group and nongroup firms, in the subsample with high domestic institutional ownership; in the low-domestic-ownership subsample, the mean q is not significantly different, but the median q is significantly higher for the group firms than for the nongroup firms.

We also perform similar univariate tests of the relation between changes in Tobin's q and foreign and domestic institutional ownership, reported in table 9.3. Here high and low foreign and domestic institutional ownership are defined on the basis of the medians of the sample on which the changes in Tobin's q analyses are carried out (the medians are 3.1 percent for foreign ownership and 14.3 percent for domestic ownership). As reported in panel A of table 9.3, we find that the mean and median changes in Tobin's q for group affiliates are significantly higher for the high-foreign-ownership sample than for the low-foreign-ownership sample. In contrast, the changes in Tobin's q are not statistically significantly different across high- and low-foreign-ownership samples for unaffiliated firms.

As reported in panel B of table 9.3, we also find that mean change in

Table 9.3   **Univariate Tests of Relation between Foreign and Domestic Institutional Ownership and Change in Tobin's _q_ between 1990 and 1994**

	Number of Firms	Mean Change in Tobin's _q_
	A. Relation between Change in Tobin's _q_ and Foreign Institutional Ownership	
Firms with high foreign institutional ownership:		
Group firms	176	.81
Nongroup firms	68	.62
Firms with low foreign institutional ownership:		
Group firms	156	.42***
Nongroup firms	88	.38
	B. Relation between Change in Tobin's _q_ and Domestic Institutional Ownership	
Firms with high domestic institutional ownership:		
Group firms	185	.50
Nongroup firms	59	.44
Firms with low domestic institutional ownership:		
Group firms	147	.78**
Nongroup firms	97	.50

Source: Data obtained from CMIE, for 488 firms (group affiliated and unaffiliated) traded on the BSE for which data exist for both 1990 and 1994.

Note: Tobin's _q_ is defined as (market value of equity + book value of preferred stock + book value of debt)/(book value of assets). Foreign institutional ownership aggregates ownership of foreign corporations as well as that of foreign financial intermediaries. Domestic institutional ownership aggregates ownership in the hands of all state-run financial intermediaries. Group membership is based on definitions of groups from CMIE and is described in the text.

In panel A, firms with high (low) foreign institutional ownership are defined as those for which foreign institutional ownership exceeds (is less than) the sample median value for foreign institutional ownership, 3.07 percent. In panel B, firms with high (low) domestic institutional ownership are defined as those for which domestic institutional ownership exceeds (is less than) the sample median value for domestic institutional ownership, 14.30 percent. Significance levels refer to difference of means or median tests between the high- and low-ownership categories. Mean differences are tested using a *t*-test with unequal variances; median differences are tested using the Wilcoxon signed-rank test.

**Significantly different from the relevant value for the high-domestic-ownership firms at the 5 percent level. The mean value for the high-domestic-ownership firms is not statistically significantly different from the mean (median) value for low-domestic-ownership firms. Group and nongroup firms' mean (median) values of Tobin's _q_ are not significantly different for the high-domestic-ownership subsample; for the low-domestic-ownership subsample, the means and medians are different between group and nongroup firms at the 10 percent level.

***Significantly different from the relevant value for the high-foreign-ownership firms at the 1 percent level. The mean value is not different between high- and low-foreign-ownership samples for the nongroup firms.

Tobin's q is statistically significantly lower for group affiliates with higher domestic institutional ownership than for those with lower domestic institutional ownership, although the difference in the median change in Tobin's q is not statistically significant. Neither the mean nor the median changes in Tobin's q are statistically significantly different across the high- and low-domestic-ownership categories for the unaffiliated firms.

These univariate results suggest that changes in Tobin's q are generally positively correlated with the presence of foreign institutional ownership and negatively correlated with the presence of domestic institutional ownership, with the effects being stronger for group affiliates than for unaffiliated firms.

9.3.3   The Effect of Ownership Structure on Performance

Regression results reported in table 9.4 examine the effects of different categories of owners on performance. Using OLS for these estimations implicitly assumes that the error term is uncorrelated across the firms in a group. However, this assumption may be unwarranted, especially across firms affiliated with a group. Following Moulton (1990), we note that observations sharing an observable characteristic like group membership may also share unobservable characteristics that may cause the error terms to be correlated. This would cause the standard errors obtained using OLS to be understated, leading to potentially spurious claims of statistical significance, with the problem being more acute the greater the extent of within-group unobservable correlations (Moulton 1986). Accordingly, we use an estimation approach that assumes that observations are independent across groups but relaxes the independence assumption within groups. Additionally, the standard errors reported are also heteroskedastic-consistent White standard errors. All estimations control for industry fixed effects.

Model 1 regresses Tobin's q on the levels of different categories of ownership for the 983 firms for which the required data exist in 1993. The specification includes variables to control for size (log of sales) and age. The results show that the presence of foreign institutional investors is correlated with higher values of Tobin's q (significant at the 1 percent level). The presence of domestic institutional investors has no discernible effect. The only other ownership category with a statistically significant effect is that of insider ownership, which is positively correlated with Tobin's q (significant at the 1 percent level). We note that the effects of foreign institutional ownership and insider ownership are roughly equal in magnitude (the mean foreign institutional ownership is one-third the mean insider ownership, but the point estimate of the former is roughly three times larger than that of the latter).

Model 2 repeats the previous specification but allows for different effects of foreign and domestic institutional ownership across group affiliates

Table 9.4   **Multivariate Regression Analysis of the Relation between Tobin's q and Ownership Structure**

Dependent Variable	Model 1, 1993 Tobin's q	Model 2, 1993 Tobin's q	Model 3, Panel Data 1990–94, Tobin's q	Model 4, Change in Tobin's q, 1990–94
Constant	0.582**	0.608**	1.746***	−0.666*
	(2.286)	(2.325)	(3.686)	(−1.903)
Log sales	0.030	0.028	0.202***	0.158***
	(1.176)	(1.097)	(7.624)	(2.893)
Age	−0.005***	−0.005***	−0.004**	−0.003
	(−2.821)	(−3.004)	(−2.384)	(−0.701)
Foreign institutional ownership	0.019***	0.020***	0.013***	0.014***
	(6.064)	(3.727)	(4.544)	(2.871)
Domestic institutional ownership	0.001	−0.002	−0.007**	−0.008*
	(0.258)	(−0.756)	(−2.324)	(−1.925)
Insider ownership	0.008***	0.008***	0.006**	0.005
	(3.324)	(3.385)	(2.058)	(1.259)
Directors' ownership	0.003	0.003	0.001	0.003
	(0.993)	(1.035)	(0.193)	(0.516)
Other top fifty owners	0.006	0.006	−0.001	0.011
	(1.476)	(1.447)	(−0.217)	(1.148)
Group dummy	−0.053	−0.114	−0.076	−0.036
	(−0.734)	(−0.976)	(−0.924)	(−0.317)
Foreign institutional ownership × group dummy	Not included	−0.001 (−0.104)	Not included	Not included
Domestic institutional ownership × group dummy	Not included	0.005 (1.235)	Not included	Not included
Industry fixed effects	Estimates suppressed	Estimates suppressed	Estimates suppressed	Estimates suppressed
Number of observations	983	983	2,435	487
R^2	0.094	0.096	0.094	0.116
	$F = 5.17$***	$F = 4.86$***	$\chi^2 = 143.42$***	$F = 2.45$***

Source: Data obtained from CMIE for group-affiliated and unaffiliated firms traded on the BSE.

Note: Tobin's q is defined as (market value of equity + book value of preferred stock + book value of debt)/(book value of assets). Sales are measured in millions of rupees, with an approximate exchange rate at this time of U.S.$1.00 = Rs 30.00. Age measures number of years since incorporation. Foreign institutional ownership aggregates ownership of foreign corporations as well as that of foreign financial intermediaries. Domestic institutional ownership aggregates ownership in the hands of all state-run financial intermediaries. Insider ownership includes the stakes held by group family members and by other group firms and measures stakes held by insiders for nongroup firms. Directors' ownership captures the ownership of nonfamily directors. Top 50 ownership captures the largest shareholders not included in aforementioned categories. Group membership is based on definitions of groups from CMIE and is described in the text. OLS estimation is used for models 1, 2, and 4, but we relax the assumption of independence of the error term within groups, following Moulton (1986, 1990). Model 3 reports results of a random-effects generalized-least-squares panel estimation. The t-statistics reported in parentheses are based on standard errors that correct for heteroskedasticity.

*Significant at the 10 percent level.
**Significant at the 5 percent level.
***Significant at the 1 percent level.

and unaffiliated firms. The results show no support for the hypothesis that there is a significant difference in the relation between performance and institutional ownership (either foreign or domestic) between group and nongroup firms.[23] This is inconsistent with the notion that institutional investors find it more difficult to monitor business groups relative to nongroup firms.

It is important to exercise caution in interpreting the observed positive relation between performance and the level of foreign institutional ownership. Our analysis cannot distinguish between the possibility that foreign institutional investors are buying better-managed firms, on the one hand, and the possibility that foreign institutional investors are bringing to bear improved governance on firms, on the other. However, if we knew that foreign ownership existed prior to 1993, then a correlation of foreign institutional ownership with the Tobin's q in 1993 would be less likely to support the former hypothesis.[24] Accordingly, we reestimate both regression 1 and regression 2 for the sample of firms for which our ownership data is pre-1993 and find no difference in the results.[25] We interpret this as suggestive of a governance role played by foreign institutional investors.

We also have access to some data for other years surrounding 1993. We estimate similar year-by-year specifications for each of these years; again, in all cases, foreign institutional shareholding is positively significantly correlated with Tobin's q, while domestic institutional shareholding is sometimes significantly negatively correlated with Tobin's q.

We also report the results of a random-effects generalized-least-squares panel estimation (model 3) for the 488 firms for which we had data for the five-year period 1990–94.[26] This sample is half the size of the sample used for the earlier specifications, although the proportion of group affiliates is higher in this sample: 68 percent versus 57 percent for the earlier, 1993 sample. The mean Tobin's q for the panel of firms is not different from that for the earlier 1993 sample.

The panel estimation confirms the earlier results, but we also find that domestic institutional ownership is negatively correlated with Tobin's q.

23. We also include an interaction term between insider ownership and group membership. The point estimate on this term is positive, with a p-value of 0.14; the magnitude and significance of the other point estimates do not change appreciably.

24. This reasoning would be suspect the greater is the positive correlation between the 1993 Tobin's q and the Tobin's q of years immediately prior to 1993.

25. We know only when the ownership data were reported. It is possible, e.g., that ownership data reported in 1994 were accurate descriptors of the ownership structure in prior years as well.

26. The equation estimated is of the form $q_{it} = a + x_{it}\beta + v_i + \varepsilon_{it}$. The estimator is a weighted average of the estimates produced by the "between" estimator (which exploits the variation between the means of the firms and is based on the equation $q_i = a + \bar{x}_i\beta + v_i + \bar{\varepsilon}_i$) and the "within" estimator (or the fixed-effects estimator, which exploits the variation across the various observations within each firm and is based on an estimation of $[q_{it} - \bar{q}_i] = [x_{it} - \bar{x}_i]\beta + [\varepsilon_{it} - \bar{\varepsilon}_i]$).

We note that the magnitude of the effect of foreign institutional ownership (evaluated at the sample mean) is roughly the same as the magnitude of the effect of domestic institutional ownership. It is important to note the sources of variation underlying the panel estimation. Ownership values do not vary from year to year; however, firm sales, Tobin's q, and age do vary from year to year.[27] A χ^2-test reveals the joint significance, at the 1 percent level, of all coefficients.[28]

In model 4, we look at the effects of ownership on changes in Tobin's q, using data from the firms in the 1990–94 balanced panel. The dependent variable is the change in Tobin's q between 1990 and 1994. OLS, with correlated errors permitted for firms belonging to a particular group, is employed again, with heteroskedastic-consistent standard errors reported. We find that foreign institutional ownership is positively correlated with changes in Tobin's q while domestic institutional ownership is negatively correlated with changes in Tobin's q; the other kinds of ownership do not display any correlation with the dependent variable. There is also no evidence of any differential effect across group affiliates and unaffiliated firms.[29]

A caveat about causality is in order with these estimations as well. We cannot reliably distinguish between the following two possibilities: (a) foreign institutional owners have improved corporate governance in the firms in which they invest and have thus caused increases in Tobin's q, and (b) foreign institutional investors have invested in those firms that ex ante showed the greatest likelihood of improving performance in the deregulating post-1991 environment.

To summarize thus far, there are significant differences in the relation between ownership and performance for domestic and foreign institutional investors in the early 1990s in India. The role of the foreign institutional investors is consistent with their provision of superior monitoring services. We are left, however, with a puzzle. In India, as in other countries, the rhetoric associated with the lack of transparency and opacity of business groups seems difficult to reconcile with there being no difference in the relation between performance and foreign ownership for group and nongroup firms. We investigate this issue further in the next section.

27. Given this, it is not surprising that the R^2 "between" is much higher than the R^2 "within." Note that these R^2's do not have the property of OLS R^2's, in the sense that they are not tantamount to the fraction of the variance explained. However, they are squared correlations of the prediction implied in the corresponding equation.

28. Since small-sample properties of the random-effects generalized least squares panel estimator are unknown, we do not report an F-statistic.

29. The reported estimations use 1993 values for log (sales) and age, although the results are not sensitive to using averages of these values over the period 1990–94. We also investigate an interaction term between insider ownership and group membership; the point estimate is not significant at conventional levels.

9.3.4   Determinants of Institutional Ownership

Table 9.5 reports the results of some estimations of the determinants of institutional ownership in India. In model 1, we estimate the extent of foreign ownership in a firm as a function of a set of firm and group characteristics. The estimation method is a tobit that allows for correlated errors across all firms in a particular group (i.e., the estimation assumes independence of the error term across all pairs of observations that are not members of the same group and allows for correlation in the error terms for all pairs of observations that are within a group). Firm characteristics include a measure of firm size (logarithm of sales), its past performance (measured as a simple average of the Tobin's q values of past years), and its past variability in performance. One of the group characteristics of interest is the extent to which institutional investors invest in a group as opposed to in individual firms within the same group.[30] This would manifest itself as ownership stakes in multiple group firms. To address this, we compute the mean level of foreign ownership for all other firms in the same group as the firm in question and use this as one of our regressors. Since our interest is in understanding why the alleged opacity of groups does not appear to have any effect on monitoring, we also focus on the extent to which internal capital markets operate within groups. Discussions of lack of transparency of groups typically suggest that the major concern is the relatively fluid mobility of funds across group firms. To capture this construct empirically, for each firm we use as regressors measures of the extent to which it invests money in, lends money to, or is the recipient of receivables from other group affiliates (all these variables are set to zero for unaffiliated firms).

Model 1 demonstrates that foreign ownership is an increasing function of firm size and of past performance and a negative function of past variability in performance. Results also suggest that foreign institutional investors are less likely to invest in group firms relative to nongroup firms (the point estimate on the group dummy is negative and significant). However, if they do invest in group firms, foreign institutional owners appear to do so in those groups with minimal internal capital market transactions. All three of the measures that proxy for the use of internal capital markets have negative point estimates, with one being significant at the conven-

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30. Why might institutional investors be swayed by group-level considerations rather than only by firm-level considerations? Amsden and Hikino (1994) have argued that the group served as an efficient organizational intermediary in the market for cross-border technology investments. Similarly, one might expect that the group could also serve as an efficient financial intermediary in the market for cross-border allocation of capital. To the extent that domestic institutional investment was at least partly a result of a noneconomic calculus, the group-level "industrial embassies" in the capital city designed to foster relations with the government (Encarnation 1989) should translate into the importance of group attributes in the determination of ownership stakes of domestic institutional investors.

Table 9.5   **Tobit Analysis of Relation between Foreign and Domestic Institutional Ownership and Firm and Group Characteristics**

	Coefficient Estimate	
Variable	Model 1 (dependent variable is foreign institutional ownership)	Model 2 (dependent variable is domestic institutional ownership)
Constant	5.310**	−4.190*
	(1.635)	(−1.625)
Group dummy	−3.750***	−1.940
	(−2.930)	(−1.492)
Log sales	2.217***	4.190***
	(4.280)	(8.560)
Past average Tobin's q	3.680***	−0.959
	(3.880)	(−1.540)
Past return variability	−0.003**	0.000
	(−2.166)	(0.173)
Average foreign (domestic)	0.416***	0.117**
institutional investment in the	(5.276)	(2.020)
other firms in the same group		
Investment in other group firms	−0.025	0.321***
(set to zero for nongroup	(−0.255)	(2.836)
firms)		
Receivables from other group	−0.009	0.114*
firms (set to zero for nongroup	(−0.075)	(1.615)
firms)		
Loans to other group firms (set	−2.810*	2.211
to zero for nongroup firms)	(−1.731)	(1.166)
Number of observations	800	800
Model χ^2	195.4***	207.4***

Source: Data obtained from CMIE for group-affiliated and unaffiliated firms traded on the BSE.

Note: Tobin's q is defined as (market value of equity + book value of preferred stock + book value of debt)/(book value of assets). Past performance is defined as the simple average of as many annual measures of Tobin's q (computed as above) as available for the firm in question. Variability in past performance is defined as the variance of daily stock returns over the prior year. Sales are measured in millions of rupees, with an approximate exchange rate at this time of U.S.$1.00 = Rs 30.00. Group membership is based on definitions of groups from CMIE and is described in the text. Investment in other group firms is the firm's total investment in shares and debentures of other group affiliates and is set to zero for unaffiliated firms. Receivables from group firms includes short-term deposits and loans (maturity of less than one year) given by the firm to others in the group and is set to zero for unaffiliated firms. Loans from group firms is the loans received by the firm from others in the group and is set to zero for unaffiliated firms. The estimation method used is a tobit that allows for correlated errors across all firms in a group and assumes that errors arc independent otherwise. Z-statistics are reported in parentheses.

*Significant at the 10 percent level.
**Significant at the 5 percent level.
***Significant at the 1 percent level.

tional level. We interpret this as evidence that foreign institutional investors seek out those groups where the lack of transparency is least likely to be a problem or invest in those groups where they are able to curtail the operation of internal capital markets and the loss of transparency that might result. The results also provide support for the idea that foreign institutional investors invest in groups rather than in individual firms. The variable that measures the average level of foreign ownership in other group affiliates has a positive coefficient (significant at the 1 percent level). We repeated these estimations for the subsample of group affiliates only, with qualitatively similar results.

As a point of comparison, model 2 estimates the relation between the level of domestic institutional ownership and firm characteristics. We find that the ownership stake is a positive function of size. However, in contrast to foreign ownership, there is no significant correlation between past performance and domestic institutional ownership. In fact, there is weak evidence that the correlation is negative. This result is consistent with Indian institutional investors having insufficient incentives to monitor performance and also with their perverse incentives to bail out troubled firms by investing in them further. Results also show that there is no significant difference in domestic institutional ownership between group affiliates and unaffiliated firms. However, as with foreign institutional investors, there appears to be some evidence that domestic institutional investors invest in groups as a whole rather than in individual firms in a group. The point estimate on the variable measuring investments in affiliates of the same group is positive and significant at the 5 percent level. Finally, in sharp contrast to the case of foreign institutional investors, domestic institutional investors appear to invest in groups where there is a high level of internal capital market activity. Each of the three indicators of internal capital market activity displays a positive sign, and two of them are significant at conventional levels.

In summary, we find that foreign institutional investors have substantially different effects on firm performance, as measured by Tobin's q, than do domestic institutional investors. The positive effects of the former, and the negative effects of the latter, however, are no different for group affiliates than they are for unaffiliated firms. This is inconsistent with the general perception that group affiliates are less transparent than are unaffiliated firms. A partial resolution of this puzzle appears to be that foreign institutional investors seek out those groups where transparency is less of a problem, in marked contrast to domestic institutional investors.

9.4 Summary

We investigate the relation between performance and ownership in India, an economy in the process of significant deregulation beginning in

1991. We investigate the interaction between three different kinds of concentrated owners in India: the insider ownership held by the families that manage the firms that constitute business groups; the ownership held by domestic financial institutions, typically acting in concert; and the ownership held by foreign financial institutions, recent arrivals on the Indian economic landscape.

Our study is motivated by several observations. A review of the literature suggests that the external monitoring of group affiliates poses more challenges than that of unaffiliated firms. Groups are reputed to be less transparent than nongroups and to have more opportunities, given their more complicated structures, to engage in questionable practices to the detriment of minority shareholders. Their generally better links to the political apparatus in the country also insulate them from external interference and monitoring. Domestic financial institutions in India are generally insufficiently oriented, if at all, toward the task of monitoring managers and are thus unlikely to exercise effective governance. Foreign institutional investors, only recently allowed to own shares in Indian companies, are a potential source not only of capital but also of monitoring technology from advanced capital markets.

Our evidence suggests that domestic financial institutions in India are ineffective monitors, whereas foreign institutional investment is associated with significant monitoring benefits: firm performance is positively correlated with the presence of foreign institutional ownership and negatively correlated with the presence of domestic institutional ownership. Surprisingly, however, we find that there is no evidence of a difference in this relation between group affiliates and unaffiliated firms, suggesting that monitoring is no less effective for group affiliates than it is for unaffiliated firms. At first glance, the lack of transparency of groups does not appear to pose a differential impediment to monitoring by foreign institutional investors.

We probe this further by investigating factors correlated with the presence of greater foreign institutional ownership (and compare those factors to factors correlated with the presence of greater domestic institutional ownership). After controlling for industry fixed effects, firm size, and the past performance of firms, we find that foreign owners are indeed less likely to invest in group affiliates than in unaffiliated firms, perhaps because of the problems associated with monitoring groups. However, when they do invest in groups, they appear to seek out those groups where the transparency problem, as proxied by the greater incidence of intragroup financial transactions, is lowest.

We interpret this collective evidence as suggesting that foreign institutional investors are a source not only of financing but also of scarce monitoring skills in emerging markets such as India. Given the rapidly accumulating evidence of the failure of domestic intermediaries in a number of emerging markets and the recent opening up to foreign investment of doz-

ens of countries (Sachs and Warner 1995), these results regarding the nature of investments sought by foreign institutional investors and the effects of such investments on the governance of business groups that are traditionally viewed as difficult to monitor are worthy of note.

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Comment   Bernard Yeung

This is a timely paper reporting important results, one that deserves a round of applause. The paper shows that foreign investors provide important monitoring functions in an emerging economy as it integrates with the rest of the world. This is an important contribution that will receive the attention of policy makers and students of emerging economies and financial economics.

The authors describe well a suboptimal situation in some emerging economies such as India. First, "firm groups" are common, and they are hard to monitor. Second, the incentives to monitor may be absent. Government muddling may leave financial intermediaries no incentive to monitor. Monitoring may not even be profitable. Insiders' control and cross-holdings allow entrenched corporate control (see, e.g., Morck, Stangeland, and Yeung, chap. 11 in this volume). The lack of protection for outsiders' rights and the presence of corrupted government may make the holding of mispriced firms unprofitable because share prices often do not reflect firm-specific information (see, e.g., Morck, Yeung, and Yu 2000). It follows that emerging economies may have a severe lack of local monitoring skills. These features induce managerial agency costs, allow bad management to escape from being disciplined, and ultimately impede the reallocation of asset controls from non-value-creating firms to value-creating firms. Moreover, the situation is difficult to change because the entrenched have the resources and the political connections to preserve the status quo.

Foreign influence can break the logjam,[1] and I believe that that is the

1. See also sec. 11.8.5 of Morck, Stangeland, and Yeung (chap. 11 in this volume).

most important contribution of the paper. As the authors point out, several positive developments in corporate governance occurred in India since its balance-of-payments crisis in 1991. An important change is that restrictions on the entry of foreign investors were eliminated and regulations on their investments substantially clarified. Essentially, foreign institutional players can now become active investors. Similar changes have been experienced in many other emerging markets.[2] Do foreign institutional investors play a positive role? Experiencing economic problems, many politicians in emerging markets, particularly those in Asia, consider foreign institutional investors to be speculative devils causing market turmoil. Khanna and Palepu show that foreign institutional investors provide a highly valuable monitoring function.

Their work relies on the statistical relation between Tobin's q and foreign institutional investors' share ownership using data between 1990 and 1994 from the Bombay Stock Exchange. They find that foreign investors' ownership is positively correlated with a firm's market value and is also related to the firm's postreform improvement in market value between 1990 and 1994. Their results clearly suggest that foreign institutional investors invest in good firms and that their monitoring may contribute directly to improved firm performance.

Furthermore, they find that domestic institutional ownership is sometimes negatively correlated with q and change in q between 1990 and 1994. Domestic institutional investors tend to invest in groups where there is a high level of internal capital market activity; presumably, firms in these groups are not more difficult to monitor. The result confirms that domestic institutional investors in India do not carry out their monitoring function.

The relations outlined above hold among both unaffiliated firms and group firms. This suggests, perhaps, that stand-alone firms and group firms are not different. The authors further find that foreign institutional investors tend to avoid group firms that are more difficult to monitor. As a consequence, foreign institutional investors' monitoring contribution is similar between independent firms and group firms. In my opinion, the message is very positive: although group firms are difficult to monitor, foreign investors manage to find some that they can monitor. The implication is that there is pressure on group firms with only murky information to improve their transparency.

To some, the results may raise the question, Does foreign institutional investors' ownership raise firm value because of their monitoring or because they are able to pick up better firms that make good postreform improvements? The authors attempt to shed light on the question by relating 1993 q and pre-1993 foreign institutional ownership data. If foreign ownership is merely a positive signal, then a positive relation between 1993

2. For a comprehensive listing, see the appendix to Kim and Singal (2000).

q and pre-1993 foreign ownership is unlikely. However, if foreign ownership contributes via active monitoring, a positive relation will exist. The authors find a positive relationship.

While the additional result helps, it does not totally eliminate a "tracking" story, which the authors raise at the end of section 9.3.3. Suppose that foreign institutional investors track firms that have a high probability of improving their corporate behavior. When a tracked firm indeed implements improvements, its market value rises because the improvements have been realized. Thus, even if the foreign investors' contribution is merely tracking better firms, 1993 q and pre-1993 foreign ownership are positively correlated.

The differentiation of the tracking story and the monitoring story may not be as important as it appears. The undeniable result is that foreign institutional investors are linked with better local companies, no matter whether they do so by cherry picking or by active monitoring. Foreign investors, at the very least, improve the information content of the emerging economy's stock market. Khanna and Palepu provide the empirical evidence to support the belief that foreign investors help capital markets in emerging markets better carry out their capital allocation function. The results also indicate that we cannot assume that foreign investors have an information disadvantage.

This thinking begs the question of how foreign investors change the equilibrium allocation of capital. Clearly, companies self-select to post only murky information, or companies not able to improve as much as other firms are now more readily identifiable. They should have reduced access to capital, and they must either change or shrink. The results presented in the paper hint that, following the entrance of foreign investors, a transition from one equilibrium to another has to take place, just as those presented in Morck, Stangeland, and Yeung (chap. 11 in this volume) do.

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