Diversified Business Groups in Emerging Economies

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I. Introduction

Business groups feature prominently in the industrial organization of many countries. They are of particular importance in developing countries. In countries such as Mexico, Chile, Brazil, Malaysia and India, large diversified conglomerates dominate economic activity. In Mexico for example, just the ten largest groups account for 54% of total sales expenditure and 48% of formal employment. In addition, business groups have assumed a prominent role in the economic organization of emerging economies that are in the process of making a transition from state-controlled economy activity to a greater reliance on markets. This has stimulated a lot of research interest in the industrial organization of economic development in general (see Mookherjee (1999) for a survey) and in business groups in particular. In this paper we survey some of the main themes of recent theoretical and empirical research on this topic. It is by no means a comprehensive survey of research on the topic, because a lot of issues remain unresolved, and also, because our selection of themes is driven by our own research interests on the topic. Ghemawat and Khanna (1998) and Khanna (2000) provide excellent surveys on the topic that are complementary to ours.

There is considerable heterogeneity in the organizational structure of business groups, both within and especially across countries. Common underlying features are diversification across a wide range of businesses[1], financial interlinkages, trade ties, personnel exchanges, interlocking directorates and, in many cases, familial control. The companies that are members of a group are usually not completely and formally integrated as part of a conglomerate in the economic sense of the word, nor are they independent subsidiaries. Their composition appears to defy modern management mantras about core competence and focus. In large part because they defy neat categorization, this intermediate pattern of industrial organization has, until very recently, been ignored by academics (see Granovetter, 1994).

[1] For example, the House of Tata in India has interests in steel, watches, trucks, tea, automobiles, and computer software. Grupo Luksic of Chile has interests in banks, hotels, mining, beer and pasta, while Grupo Carso of Mexico has firms in telecoms, internet services, retail and finance.

Recent research on business groups by economists has focused a lot on the role of financial interlinkages within business groups in alleviating various problems of imperfect information, transactions costs and missing markets. These take the form of equity interlocks as well as mutual debt guarantees. Various explanations of these interlinkages have focussed on the role played by cross-shareholding in either providing risk sharing (see for example Goto, 1982; Brioschi, Buzzacchi and Colombo, 1989; Nakatani, 1984 and Kali, 1999), softening intensity of competition between firms in imperfect product markets (see Clayton and Jorgensen, 2000), in mitigating moral hazard problems within the group (see Aoki, 1982, and Berglof and Perotti, 1994) and in solving adverse selection problems in financial markets by inducing firms to self-select into business groups (Ghatak and Kali, 2000). Sociologists in contrast have emphasized the relations of interpersonal trust based on similar personal, ethnic or commercial backgrounds that link together the group affiliates. However, these views are complementary, since these network of informal relationships based on mutual trust are precisely the glue that binds the groups together in the absence of efficienct formal contract enforcement institutions.

Are these diversified groups good or bad for these countries? How can we explain their emergence and persistence? Why are they so visible and dominant in developing countries but not in developed ones? How should regulatory authorities view them? These are some of the questions that new and original research is seeking to answer. Complete answers will take several years of careful study, but we can report here on some preliminary answers and hypotheses.

In western industrialized economies such as the United States, conglomerates are generally considered inefficient organizational structures. This view is reflected in the "conglomerate discount" that stockmarkets impose on them, implying that the value of the constituent parts is greater than the whole, often forcing firms to break themselves up (see Sarin, Denis and Denis, 1997).

The case against conglomerates can be summed up in two words: size and complexity. Size is said to slow down decision-making; complexity to create confusion. And investors who want to spread their risk by diversifying – once thought a good reason to invest in a conglomerate – can now do so by buying shares in many different companies.

Consequently we are left with the following question. Given the costs of diversification, what explains the ubiquity of diversified business groups in developing countries?

The two commonly forwarded explanations are: a) group structures are privately economical responses to policy distortions and to gain political influence (like lobbies). b) Groups are economically efficient second-best responses to failings in basic institutional infrastructure and market imperfections. Their scale and scope allow them to replicate the functions provided by stand-alone institutions in advanced economies (See Ghemawat and Khanna, 1998).

We concentrate here on the second set of explanations. This is because of the following empirical conundrum. Many developing countries have been in the process of transition toward more transparent market-driven environments, implying reduced policy distortions and scope for political patronage. According to the first set of reasons, this ought to be accompanied by a decrease in the dominance of groups. But on the contrary, in countries for which studies have been done, business groups appear to have emerged from the policy changes with greater vigor. Specifically, in a recent study that looks at India and Chile before and after liberalization, Tarun Khanna and Krishna Palepu (1999) find an increase in group scope, an increase in the strength of social and economic ties that bind together group firms, an increase in self-reported market intermediation attempts by the groups and evidence of improvement in profitability and market value of group affiliates.

II. Endogenous Business Groups

A common thread in the industrial organization of developing countries is the absence of uniformity. The institutional infrastructure - legal, financial and physical, that underpins the efficient functioning of developed economies is either absent or inadequate in developing countries. The precise composition of these deficiencies varies from country to country. One way to interpret the considerable cross-country diversity in industrial organization is in terms of country-specific responses to the pattern of institutional inadequacy. Our objective here is to outline the theoretical arguments of business groups as being endogenous responses to inadequacies in the formal institutional infrastructure.

Business groups rise, and flourish, when they are better able to cope with such inadequacies than smaller firms. Their scale and scope enables them to perform the functions that stand-alone institutions usually perform in advanced economies. Trade ties and sharing or exchanges of personnel indicates that the business groups potentially compensate for poorly developed external labor and product markets. Consider the underdevelopment of financial markets. Because of poor accounting, inadequate disclosure rules and inexperienced analysts and managers, investors may be unwilling to lend to any other than large firms with recognized names. Consequently, these groups often function as internal capital markets, channeling funds between firms in different sectors. They may also act as venture capitalists, funding risky but promising projects that banks and other more traditional financial institutions are unwilling to touch. In addition, when the stock market is small, groups are able to achieve diversification through the product market. Over time, this diversification of risks could enable capital accumulation. This capital can be reinvested leading to greater specialization and enhanced productivity (see Kali, 1999). Eventually this virtuous cycle of savings-investment-productivity may be translated into faster economic growth for the economy as a whole.

Failings in the legal system also favor the formation of these groups. If contracts are not honored, firms in rich countries seek redress in court. But in many developing

countries the legal system may be corrupt and unreliable, besides being slow. This facilitates the enforcement of networks of firms that buy and sell inputs and outputs within themselves. In fact, the less reliable formal legal institutions, the larger these networks are likely to be.

The commercial legal system that is associated with advanced market economies can be viewed as a substitute to these business networks: the presence of one reduces the need for the other. Well-developed contract enforcement institutions give traders assurance that deals will be honored. In fact, formal contract law originated in 18th century Europe because relationships were weak and legal sanctions were viewed as necessary to ensure obligations were met. In a couple of recent papers that deal with Vietnam's emerging private sector, John McMillan and Christoper Woodruff (1998, 1999) seek to understand how firms cope with undeveloped legal and market institutions. Using descriptive data and regression results they show that reputational mechanisms and business networks that allow for collective sanctioning of dishonest trading partners work well.

The scale and scope of these diversified groups is also to their advantage from a labor market standpoint. In Argentina and India, for example, it is hard to fire anybody. Though all firms suffer, big groups can at least shuffle people around their divisions if they need to close a factory. Another important labor market issue is the acute shortage of skilled managers that these countries face. Because there are not enough high-quality business schools to produce enough managers to go around, some of these big conglomerates provide their own management education. The pattern is often to recruit bright graduates and train them to be effective managers at the group's facilities. The fixed costs associated with this are such that only the groups are able to do this.

A number of these emerging economies suffer from inadequate and poor communications infrastructure. Small, independent firms are forced to rely on, and therefore suffer the uncertainties associated with distributing and supplying their products through existing channels. Large business groups have the resources to enable them to set up dedicated and efficient channels that bypass these infrastructure failings. And their scale and scope makes these investments worthwhile.

Groups also perform an important quality certification role. Developing a brand name requires not only large expenditures on advertising and promotion but also an ability to deliver consistent quality. Groups such as the Korean Samsung and Daewoo, Turkey's Koc and the Tata group of India have successfully created brand names that increase the market value of affiliated companies.

III. The Evidence

Studies covering various countries find that firms associated with business groups show better financial performance and productivity as well as better risk sharing than unaffiliated firms (see Khanna (2000)).

In order to study the relative performance of firms affiliated to business groups, in a recent paper Khanna and Rivkin (1999) have gathered data from local sources on group affiliation and performance for firms in thirteen emerging economies.[2] Using methodology that has been used extensively to examine firm performance in the U.S. in a series of within-country estimations they estimate if there is a fixed effect associated with business group membership after controlling for firm and industry-specific fixed effects. In nine out of the thirteen countries in their sample, the contribution of group membership to profitability is significant at the 1% level. In Argentina, this contribution is significant at the 5% level, whereas it is insignificant at conventional levels in Mexico, Peru and Turkey.

These results can be interpreted as confirming that group membership explains a large and significant portion of the variation in firm performance. But they say nothing about whether group membership enhances or diminishes the level of typical firm performance. On this question, Khanna and Rivkin find that of the seven countries where the greatest number of groups are observed, the mean group coefficient is positive and statistically significantly different from zero in India, Indonesia and Taiwan, and statistically indistinguishable from zero in the others (Brazil, Chile, South Korea, Thailand). When they include the countries in which a small number of groups (12 or less) are observed, they find that the mean group coefficient is positive in seven of the thirteen countries. Across all the countries in the exercise, there is only one, Argentina, in which the mean group effect is statistically significantly negative.

A similar picture emerges from other empirical studies. Keister (1998) shows that the formation of groups in China modeled along the lines of Japanese *keiretsu* and the Korean *chaebol*, improved financial productivity in the later 1980s. Perotti and Gelfer (1999) find that group firms in Russia have higher values of Tobin's *q* than comparable unaffiliated firms.

The evidence from various empirical studies covering a number of countries therefore suggests that the effect of business group performance on firm performance is mixed. However, even when business group membership has a negative effect on firm profitability, one should be careful about drawing conclusions about their efficiency. It is quite possible that better risk sharing and pooling of capital to overcome financial market failures comes at the cost of lower returns. Indeed, some studies (e.g., Nakatani (1984)) show that the Japanese *keiretsus*, one of the most famous examples of business groups, achieve better risk sharing among member firms at the cost of somewhat lower mean returns.

Still, we cannot stretch the above argument to make the case that an institution must always be efficient subject to transactions costs from the point of view of the relevant decision makers once the econometrician is able to measure the whole vector of relevant performance indices (e.g., mean returns as well as risk sharing) because otherwise they were free to choose another institutional form. These institutions could be

[2] These countries are: Argentina, Brazil, Chile, India, Indonesia, Israel, Mexico, Peru, the Philippines, South Korea, Taiwan, Thailand and Turkey.

responses to policy distortions and hence may appear inefficient when compared to sectors that are not subject to the same policy distortions. Alternatively, they could have various negative general equilibrium effects. For example, as in Kali (1999), more efficient financial markets need a certain minimum degree of participation before they become efficient and the presence of business groups may prevent that. More generally, there could be various collective action or political economy problems (e.g., when individual groups lobby for specific policy advantages) that prevent various decision makers to agree to collectively switch to a more efficient set of (interrelated) institutions (e.g., liberalization). The implication of this discussion is that a careful analysis of the role played by business groups on a case by case basis is needed to guide us to the correct policy measures.

IV. "Soft" versus "Hard" Infrastructure

In section II we argued that business groups may be understood as efficiency enhancing organizations in a second best world that lacks the well functioning stand-alone "soft" infrastructure--legal, financial, physical and educational, that underpin the efficient functioning of the market mechanism. Such is the current situation in many emerging and transition economies. But this perspective points the way for governments and regulators attempting to chart the trajectory to a healthy market-based economy. Investment in "soft" infrastructure is every bit as important as investment in "hard" infrastructure such as roads, bridges and power generation, since these are prerequisites for markets to work well. Without the soft infrastucture, the hard infrastructure will not reach it's potential, thus limiting an economy to function well below it's production possibility frontier. In the case of India, maybe foreign investment in soft infrastructure – investment banks, financial analysts, venture capital, business schools, (such as the proposed Indian Business School in Hyderabad) and power generation could make up for the shortfall in domestic resources in establishing these prerequisites for the market mechanism.

This point is of relevance to the problem of economic development in general. Hernando De Soto (2000) has recently argued that one of the most severe constraints on economic development is not lack of capital, physical or human, or physical infrastructure. Rather it is the absence of a system of property rights, contracts, and promises that works to make all property liquid. In his analysis he shows that in many developing countries more than half of the economy is "extralegal," meaning that it exists outside of the legal system of private property. In the extralegal economy, the poor accumulate huge assets in their shanty homes and small businesses, but because they have no legal protections, they cannot access credit nor can they safely invest. Their assets are thus "dead capital" as opposed to "live capital" in the west. If the owner tries to obtain title he will spend years doing it. Worse, he will risk having the property condemned and torn down. As a result, the financial value of property in most of the Third World is impaired. The ability to finance it or sell it is reduced or non-existent. Much the same happens with business assets. Wealth is created - but without legal

standing it lacks the magical animation of the living capital that is taken for granted in the West.

Unfortunately, policy makers in many emerging economies do not sufficiently appreciate the crucial importance of soft infrastructure. Many of these countries have invested heavily in physical infrastructure but have made very little progress in terms of the institutional infrastructure. Consider, for example the case of capital market development in China. Although the Shanghai stock exchange in housed in a gleaming new building, the absence of accepted and enforced financial reporting systems prevent it from functioning as an effective market.

Even when the political will exists to build an effective soft infrastructure, the process is far from easy. Take Chile as a case in point. Chile was one of the first emerging markets to serious pursue economic liberalization and attendant development of soft institutions. Currently it has among the most efficient capital markets in any country. But the process of reform has taken 25 years. The country's first round of financial deregulation in 1974 sparked a banking crisis later that decade that is uncannily similar to recent events in Asia. It was not until 1990 that the benefits of Chile's reforms really started to be felt.

V. The Potential Costs of Business Groups

We have focused so far on a benign view of these business groups and networks, suggesting that in countries with serious inadequacies in institutional infrastructure, business groups may play an efficiency-enhancing role. However, once we shift toward a more macro perspective it becomes clear that in order to judge the impact of these networks on the economy as a whole, we also need to consider their possible adverse effects.

There are two classes of potential adverse effects that we ought to be wary about. First, these networks may have negative effects on non-members. While these entities undoubtedly benefit their members, who then have a vested interest in their preservation, their existence may worsen the opportunities for the pool of agents left outside, through a "cream-skimming" effect whereby better quality firms close themselves off from the rest of the agents by joining business groups (See Ghatak and Kali (2000) and Kali (2000) for models along these lines). The overall efficiency implications of business networks would then depend on how the positive and negative effects balance out.

A related point is that while these groups may be second-best responses to market imperfections, they may contribute or even reinforce these imperfections because of the monopolistic power they are likely to enjoy. In the presence of the well known distortions associated with monopoly, the welfare implications of business groups must be evaluated carefully.

Another potential source of concern is the effect of these networks on the economy in the form of rigidities in adjustments to changes in the economic environment.

Given the unreliable legal infrastructure in many emerging economies, one kind of "glue" that binds together group firms is the accumulation of trust or social capital. Consequently, firms are often hesitant to experiment with firms outside the network even when outside firms have more favorable offers. A recent study by Johnson, McMillan and Woodruff (1999) that attempts to understand contract enforcement in the transition countries of Russia, Ukraine, Poland, Slovakia and Romania finds that relational contracting is the basis of most of the transactions in their data and that such contracting is often supported by a network. Relational contracting lies behind trade credit when the supplier has obtained information about the customer from other firms in the industry or through a social network. They also find evidence that relational contracting of this kind works as a substitute for courts. It takes time for trust between a manufacturer and customer to develop. The terms of trade credit improve between partners after the passage of time. The likelihood of giving credit also increases with the duration of the relationship. Courts are important when there is no trust, such as at the beginning of a relationship.

However, they also find that while network relationships aid contracting, they can bring rigidities. When firms were asked whether they would abandon a current supplier to purchase instead from a new, previously unknown supplier offering a 10% lower price, many said they would reject the lower offer. Persisting with a high-priced supplier, because of the trust that was developed, can generate inefficiencies as new entrants have difficulty in competing.

These kinds of rigidities may have serious macroeconomic implications in amplifying business cycle fluctuations (See Caballero and Hammour (1998)) and may play a role in explaining the problems of recovery from recent crises in several emerging economies (See Johnson, Boone, Breach and Friedman (2000)).

IV. Conclusion

We find ourselves in the shadow of the recent turmoil in emerging markets, particularly in Asia. Part of the blame for the downturn lies squarely on the oligopolistic industrial structure of these countries. As a result, governments in many developing countries may feel the pressure from international bodies such as the IMF to break up conglomerates. And indeed, so should it be, if the primary "synergy" that holds such a diversified structure together is proximity to the seat of power and privileged access to regulators. But there is reason for pause before using an axe. Developed countries take their formal institutions for granted. Developing countries cannot. Breaking up business groups may leave many countries without organizations able to provide the "soft" infrastructure that western economies take for granted. Until this soft infrastructure – legal, financial, physical and educational -- develops there may be sound economic reasons to allow diversified business groups to flourish.

Table 1: The Ubiquity of Diversified Business Groups

This table lists some of the many sources on business groups in a range of economies, while intending no representation that this is a comprehensive list. In addition, sources which discuss the general phenomenon of diversified business groups include: Leff (1976), Amsden and Hikino (1994) and Granovetter(1994). For a discussion particular to the numerous groups controlled by the Overseas Chinese in Asia, see EAAU (1995); for general discussions of groups in Asia, see Kunio (1988: especially Appendix 2), and McVey (1992). Table excerpted from Ghemawat and Khanna (1998).

Belgium	Daems (1977)
Chile	Zeitlin et al (1974), Majluf et al (1996)
Costa Rica	Strachan (1976)
Hong Kong	Knoop and Yoshino (1995)
France	Jacquemin & Ghellinck (1980), Encaoua & Jacquemin (1982)
India	Herdeck & Piramal (1985), Khanna & Palepu (1997), Piramal (1996)
Indonesia	Robison (1986), Schwartz (1992)
Japan	Caves & Uekusa (1977), Goto (1982), Hoshi et al (1991), Weinstein & Yafeh (1995)
Malaysia	Ling (1992), Khanna et al (1996)
Mexico	Strachan (1976), Camp (1989)
Nicaragua	Strachan (1976)
Pakistan	White (1977)
Philippines	Hawes (1992)
Russia	Blasi et al (1997)
South Korea	Chang & Choi (1998), Amsden (1989, 1996)
Taiwan	Wang (1992)
Thailand	Suehiro (1992)

References

Amsden, A. (1989), Asia's Next Giant: South Korea and Late Industrialization, Oxford University Press: New York.

Amsden, A. (1996), "The Dynamics of Business-Government Relations, " in Alfred Chandler, Franco Amatori and Takashi Hikino eds. Big Business and the Wealth of Nations, Cambridge University Press.

Aoki, M. (1982), "Business Groups in a Market Economy", *European Economic Review*, 19: pp. 3-70.

Berglof, E. and Perotti, E. (1994), "The governance structure of the Japanese financial keiretsu," *Journal of Financial Economics*, 36, pp. 259-284

Blasi, M. J. K. and Douglas, K. (1997) , Kremlin Capitalism: Privatizing the Russian Economy, ILR Press: Ithaca and London.

Brioschi, F., Buzzacchi, L. and Colombo, M. (1989), "Risk Capital Financing and the Separation of Ownership and Control In Business Groups", *Journal of Banking and Finance*, 13, pp. 747-772.

Caballero, R. J. and Hammour, M. L. (1998), "The Macroeconomics of Specificity", *Journal of Political Economy* v106, n4: 724-67

Camp, R. A. (1989), Entrepreneurs and Politics in Twentieth Century Mexico, Oxford University Press: New York.

Caves, R. and Uekesa, M. (1976), "International Differences in Industrial Organization," in R. Schmalensee and R. Willig (eds.) Handbook of Industrial Organization, Vol. 2. North Holland: Amsterdam.

Chang, S. J. and Choi, U. (1988), "Strategy, Structure and Performance of Korean Business Groups: A Transactions Cost Approach," *Journal of Industrial Economics*, December.

Clayton, M. J. and Jorgensen, B. N. (2000), ``Cross Holding and Imperfect Product Markets," Mimeo, Harvard Business School.

Daems, H. (1977), The Holding Company and Corporate Control, Nijenrode Studies in Economics, Vol. 3, The Netherlands.

De Soto, Hernando (2000), "The Mystery of Capital. Why Capitalism Succeeds in the West and Fails Everywhere Else" (Basic Books).

Encaoua, D. and Jacquemin, A. (1982), "Organizational Efficiency and Monopoly Power: The Case of French Industrial Groups," *European Economic Review*, 19, pp. 25-51.

Ghatak, M. and Kali, R. (2000), "Financially Interlinked Business Groups," Mimeo. University of Arkansas.

Ghemawat, P. and Khanna, T. (1998), "The Nature of Diversified Business Groups: A Research Design and Two Case Studies," *Journal of Industrial Economics*, Volume 66, No. 1. pp. 35-61.

Goto, A. (1982), "Business Groups In A Market Economy," *European Economic Review*, 19, pp. 53-70.

Granovetter, M. (1994), "Business Groups," in The Handbook of Economic Sociology edited by Smelser, N.J. and Swedberg, R. Princeton University Press.

Hawes, G. (1992), "Marcos, His Cronies, and the Philippines' Failure to Develop," in Ruth Mcvey ed. Southeast Asian Capitalists, Southeast Asia Program, Cornell University, NY.

Herdeck, M. and Piramal, G. (1985), India's Industrialists, Vol 1. Three Continents Press, Washington, D.C.

Hoshi, T. Kashyap, A. and Scharfstein, D. (1990), "Corporate Structure, Liquidity, and Investment: Evidence From Japanese Industrial Groups," *Quarterly Journal of Economics*, Vol. 106, No. 1, pp. 33-60.

Jacquemin, A., and de Ghellinck, E. (1980), "Familal Control, Size and Performance in the largest French Firms," *European Economic Review*, 13, pp. 81-91.

Johnson, S., J. McMillan, and C. Woodruff (2000), "Courts and Relational Contracts," Mimeo, MIT and UCSD.

Johnson, S., Boone, P., Breach, A. and Friedman, E. (1999), "Corporate Governance in the Asian Financial Crisis," Forthcoming in *Journal of Financial Economics*.

Kali, R. (1999), "Endogenous Business Networks," *Journal of Law, Economics and Organization*, October 1999. pp. 615-636.

Kali, R. (2000), "Business Groups, the Financial Market and Modernization," Mimeo. University of Aransas.

Keister, L. (1998), "Engineering Growth: Business Group Structure and Firm Performance in China's Transition Economy", *American Journal of Sociology*, Vol. 104, 404-440.

Khanna, T., and Palepu, K., (1999) "Is Group Affiliation Profitable in Emerging Markets: An Analysis of Diversified Indian Business Groups," forthcoming in *Journal of Finance*.

Khanna, T. and Rivkin, J. "Estimating the Performance Effects of Networks in Emerging Markets," *Academy of Management Best Paper Proceedings*, 1999.

Knoop, C. and Yoshino, M., (1995), "First Pacific Company Limited: From Letters of Credit to Personal Communication Networks," Harvard Business School Case 9-396-139.

La Porta, R., Lopez-De-Silanes, F. and Shleifer, A. (1999), "Corporate Ownership Around the World," *Journal of Finance*, Vol. 54, No. 2, pp. 471-517.

Ling, S. L. M. (1992), "The Transformation of Malaysian Business Groups," in Ruth Mcvey ed. Southeast Asian Capitalists, Southeast Asia Program, Cornell University, NY.

McMillan, J., Woodruff, C. (1999), "Interfirm Relationships and Informal Credit in Vietnam," *Quarterly Journal of Economics*, 114: 1285-1320.

McMillan, J., Woodruff, C. (1999), "Dispute Prevention Without Courts in Vietnam," *Journal of Law, Economics and Organization*, Vol. 15, No. 4: 637-658

Majluf, N., Abarca, N., Rodriguez, D., and Fuentes, L., (1996), "The Ownership Structure of Economic Groups in Chile," Pontificia Universidad Catolica de Chile, mimeo.

Mookherjee, D. (1999), "Contractual Constraints on Firm Performance in Developing Countries" Mimeo, Boston University.

Nakatani, I. (1984), " The Role of Financial Corporate Grouping", in M. Aoki (ed.) *Economic Analysis of the Japanese Firm*, North-Holland, New York.

Ghemawat, P. and Khanna, T. (1998), "The Nature of Diversified Business Groups: \ A Research Design and Two Case Studies," *Journal of Industrial Economics*, Volume 66, No. 1. pp. 35-61.

Perotti, E. and S. Gelfer (1999), "Red Barons or Robber Barons? Governance and Financing in Russian Financial-Industrial Groups'', Mimeo, University of Amsterdam.

Piramal, G. (1996), Business Maharajahs, Viking Press: Bombay.

Robison, R. (1986), Indonesia: The Rise of Capital, Allen and Unwin: Sydney.

Sarin, A. Denis, D.J. and Denis, D.K. (1997), "Agency Problems, Equity Ownership and Corporate Diversification," *Journal of Finance*, March 1997" 135-60.

Schwartz, A. (1992), A Nation in Waiting: Indonesia in the 1990's, Allen and Unwin: Australia.

Strachan, H., (1976), Family and other Business Groups in Economic Development: The Case of Nicaragua, New York: Praeger.

Weinstein, D. and Yafeh, Y., (1995), "Japan's Corporate Groups: Collusive or Competitive? An Empirical Investigation of Keiretsu Behavior," *Journal of Industrial Economics*, Volume XLII, No. 4. December, pp. 359-376.

White, L. J. (1974), Industrial Concentration and Economic Power in Mexico, Princeton University Press.

Zeitlin, M. E., Ewen, L. A. and Ratcliff, R. E. (1974), "New Princes for Old? The Large Corporation and the Capitalist Class in Chile," *American Journal of Sociology*, 80, 1, July, pp. 87-123.