

Business Groups in Emerging Markets: Paragons or Parasites?

Finance Working Paper N° 92/2005

August 2005

Tarun Khanna

Harvard Business School

Yishay Yafeh

Hebrew University, CEPR and ECGI

© Tarun Khanna and Yishay Yafeh 2005. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

This paper can be downloaded without charge from:
<http://ssrn.com/abstract=787625>

www.ecgi.org/wp

ECGI Working Paper Series in Finance

Business Groups in Emerging Markets: Paragons or Parasites?

Working Paper N°92/2005

August 2005

Tarun Khanna
Yishay Yafeh

We are grateful to Kee-Hong Bae, Chi-Nien Chung, Stijn Claessens, Arturo Condo, Mariassunta Giannetti, Gustavo Herrero, Umit Izmen, Jun-Koo Kang, Bahattin Karademir, Luc Laeven, Dani Maman, Ishtiaq Mahmood, Gerry McDermott, Noel Maurer, Randall Morck, Aldo Musacchio, Ramana Nanda, Giovanna Nicodano, Kris Samphantharak, Andrei Shleifer, Jordan Siegel, Bernard Yeung and seminar participants at the CEPR Summer Symposium in Gerzensee for helpful comments and suggestions. Khanna is particularly grateful to his co-authors, Geoffrey Jones, Yasheng Huang, Jan Rivkin, and, especially, Krishna Palepu for many stimulating conversations. We also thank Shai Harel and Liora Johnpoor for excellent research assistance. Financial support from the Division of Research at Harvard Business School (Khanna) and the Krueger Center at the Hebrew University (Yafeh) is gratefully acknowledged.

© Tarun Khanna and Yishay Yafeh 2005. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Abstract

Diversified business (or corporate) groups, consisting of legally independent firms operating in multiple markets, are ubiquitous in emerging markets and even in some developed economies. The study of groups, a hybrid organizational form between firm and market, is of relevance to industrial organization, corporate finance, development, economic growth and other domains of economic inquiry. This survey begins with stylized facts on groups around the world, and proceeds to a critical review the existing literature, which has focused almost entirely on groups as diversified entities and on conflicts between controlling and minority shareholders. Other schools of thought on the political economy of corporate groups, on groups and monopoly power, and on groups as networks are discussed next. We then proceed to promising, yet virtually unexplored, alternative lenses for viewing groups, for example, as quasi venture-capitalists or as family-based structures. The analysis points out important biases in the literature including the avoidance of a serious discussion of the origins of business groups, and the unfounded assumption that rentseeking is the only feasible political economy equilibrium in an interaction between groups and the government. We note that the empirical tendency to use recent data implies that the vast majority of studies exploit cross-sectional variation; the absence of (long) time-series data ensures that some conceptually important issues, such as how groups shape the environment in which they operate, receive relatively little attention. Lastly, we outline an agenda for future research.

Keywords: business groups, emerging markets, corporate finance, shareholders

JEL Classifications: G15, G32

Tarun Khanna

Associate Professor

Harvard University - Competition & Strategy Unit

Harvard Business School

Boston, MA 02163

United States

Phone: 617-495-6038, fax: 617-495-0355

email: tkhanna@hbs.edu

Yishay Yafeh

Hebrew University of Jerusalem -

Jerusalem School of Business Administration

Mount Scopus

Jerusalem 91905,

Israel

Phone: 972 2 5883081, fax: 972 2 5881341

email: msyafeh@mscc.huji.ac.il

HOME PAGE: <http://economics.huji.ac.il/faculty/yafeh/yafeh.html>

I. Introduction

Diversified business (or corporate) groups are ubiquitous in emerging markets (e.g. India and Pakistan, Brazil and Chile, Indonesia and Thailand, Korea, and many more), and even in some developed economies (e.g. Italy, Sweden). These groups typically consist of legally independent firms, operating in multiple markets, which are bound together by persistent formal and informal ties. Groups around the world vary considerably in form. In some, equity ties play a central role: among these, there are vertically-controlled groups (“pyramids”), and there are horizontally-linked groups, where cross shareholdings are important. In other business groups, in addition to formal (for example, equity) ties, informal ties are important: group firms can be related to each other through family and social ties, a common sense of identity, trade relations, and other dimensions. In certain countries, business groups are a politically important force; in others less so. And some groups are deeply involved in banking and financial services, whereas others are not. Nevertheless, operation across a large number of (often unrelated) industries (diversification), and family ownership combined with varying degrees of participation by outside investors are common characteristics of many business groups around the world.

The study of business groups is fascinating for many reasons. Conceptually, this hybrid organizational form between firm and market can shed new light on the theory of the firm and its boundaries. Empirically, the ubiquity of business groups outside the US and the UK makes them relevant to a variety of fields within economics, including industrial organization, corporate finance, development and growth, and even open-economy macro, to the extent that it deals with financial crises. In most emerging markets there is hardly any economic investigation that can (or should) be carried out without reference to business groups and their impact.

Finally, the comparative study of business groups in emerging markets may shed new light on some economic phenomena in developed economies. For example, although many business groups are highly diversified, unlike American conglomerates each group firm is an independent entity, and the equity stake of outside investors can vary across group firms. Why are diversified entities in the US organized as conglomerates rather than business groups? Is the answer related to economic and financial development? Or is it perhaps due to differences in the rule of law, social structure, or political economy? The answers to these questions are yet unclear, but the questions are both important and exciting.

The existing literature in economics and finance on business groups (and surveys of this literature such as Khanna, 2000, and Yafeh, 2003) has focused mostly on the implications of two characteristics of business groups. The first line of research views groups as diversified entities, and studies the relations between this feature and various questions in industrial organization and corporate finance. The second, more recent, line of research on business groups followed Shleifer and Vishny's (1997) survey on corporate governance and subsequent work by La Porta et al. (1997; 1998). Studies in this line of research regard business groups, especially their pyramidal forms, as a favorite setting for the study of conflicts of interests between controlling and minority shareholders; the latter's expropriation is often referred to as "tunneling."¹

Other economic studies of groups emphasize rent seeking and the sometimes close relations between business groups and the governments of the countries in

¹ The first reference to pyramids as a mechanism enabling control by a minority of shareholders dates back to Berle and Means (1932), Book I, Chapter V. The term "tunneling" has become popular following Johnson, La Porta, Lopez de Silanes and Shleifer (2000) who trace its origins to the expropriation of minority shareholders in the Czech Republic.

which they operate. A smaller number of studies attempt to relate groups to monopoly power and imperfect competition.

The literature on groups is not limited to economics and finance. Groups have attracted a lot of academic interest in sociology, where they are viewed as networks of social, not only economic, significance (e.g. Gerlach, 1992; Granovetter, 2005; Hamilton, 1997; Keister, 2004; Orrù et al., 1997). Studies of business groups are also common in business history, where the unit of analysis is typically the history of one group (e.g. Roberts, 1973, on the house of Mitsui; Steers, 1999, on the Hyundai group, and many more) or on groups in a single country (e.g. Amsden's, 1989, study of Korea and its *chaebol* groups, or Piramal's, 1998, study of Indian business houses).

Going beyond the main schools of thought in the existing literature, we argue that there are several lenses, other than those of diversification and tunneling, through which groups can be usefully viewed and analyzed. For example, groups share structural features that are sometimes more in common with private equity investment firms than with conglomerates. Groups are also typically family firms; perhaps their behavior can be better understood from this perspective. These, hitherto virtually ignored, analogies might suggest valuable directions for future research.

In general, we view the existing literature on groups as suggesting a menu of possibilities by which economic agents form business groups in response to the economic and institutional environment within which they operate. This view is in the spirit of work by Aoki (2001) or Greif (2005), who emphasize that institutions should be analyzed within a particular economic context. We also find that business groups are not unambiguously welfare reducing, in contrast with the impression one might get from much of the (recent) literature; they may sometimes play a positive role by making up for under-developed economic institutions. There is no clear verdict on the

extent to which groups are “paragons” or “parasites,” and the answer is likely to vary across countries and across groups.

The rest of the paper is organized as follows. In the next section we present some stylized facts on groups around the world. Section III contains a critical review of the literature on business groups: diversification and sources of performance differences between group-affiliated and other firms are discussed first, and an evaluation of the literature on tunneling follows. We then move on to discuss the political economy of business groups, the surprisingly small literature on groups and monopoly power, and the economic sociology literature on groups as networks. In Section IV we turn to new perspectives through which groups might be usefully viewed, in particular, business groups as quasi-venture capitalists, and business groups as family firms, an approach which we regard as particularly promising. Section V adopts a more dynamic (and historical) view. Such a view can shed light on some of the puzzles which emerge out of contemporary, cross-sectional research. Second, while in a static analysis groups should be viewed as a response to their environment, in a dynamic context (which has so far been under-studied in the literature) groups can sometimes shape and influence the environment in which they operate. Section VI examines the extent to which the large literature on corporate groups in Japan is helpful in understanding business groups elsewhere. Finally, in Section VII we consider what we believe to be some of the most fruitful directions for future research on business groups.

II. Basic Stylized Facts: Business Groups around the World

This section provides basic, preliminary, stylized facts on the groups around the world, their prevalence, performance, and structure. This section does not report

any rigorous econometric tests, nor is it designed to prove or refute hypotheses about groups and the determinants of their performance; instead, the section illustrates the nature of firm-level data on business groups in emerging markets.

Table I, which is reproduced from Khanna and Yafeh (2005), describes business groups in twelve emerging markets, as well as pre- and post-war Japan. The fraction of firms classified as group affiliated ranges from about a fifth in Chile to about two-thirds in Indonesia. By comparison, in Japan, members of Presidents' Clubs (the largest core members of the six bank-centered groups) account for less than 10 percent of the firms; other group definitions (e.g. the one provided by Dodwell Marketing Consultants) are much more expansive and suggest that between one third and one half of all listed firms are group-affiliated (Weinstein and Yafeh, 1995; Yafeh, 2003). With one exception (Turkey), in all countries group affiliated firms are larger than unaffiliated firms.

In three of the twelve countries, Brazil, Israel and the Philippines, groups exhibit what seems to be superior (unconditional) performance: high profitability and low risk relative to unaffiliated firms. In Chile, India and Mexico, the profitability of group-affiliated firms exceeds that of other companies, and so does their profit volatility. In the remaining six countries, a low standard deviation of operating profitability is accompanied by low profitability. Many of these differences, however, are not statistically significant, and more elaborate tests (discussed below), are needed to evaluate the determinants of success of group-affiliated firms. Nevertheless, casual observation of the figures in Table I suggests that, in many emerging markets group affiliated firms out-perform other companies. This is in contrast with the literature on post-war Japan, where members of bank-centered Japanese groups have under-

performed otherwise comparable unaffiliated firms for many years (Caves and Uekusa, 1976; Weinstein and Yafeh, 1998; Yafeh, 2003).

Casual observation suggests also that the relative performance of group-affiliated firms (the risk and return characteristics of business groups) cannot be easily related to the often-cited differences in legal origins across countries (La Porta et al., 1997; 1998); in part, this may be due to the fact that groups evolve over time and legal origin does not. Other country-specific institutional characteristics, provided by the World Bank (*Doing Business* data set, see <http://rru.worldbank.org/DoingBusiness>) include, for example, information on the duration and cost of bankruptcy procedures as well as on the efficiency of contract enforcement. Yet it is hard to find common institutional features among the countries where group firms seem to do relatively well. For example, contract enforcement is relatively efficient in Israel and poor in the Philippines (Brazil is in between). Similarly, among the countries where group firms are characterized by low risk and low return, Korea ranks relatively high in contract enforcement and Argentina relatively low.

As a second way to describe the risk and return profiles of group-affiliated firms around the world, Table II (which is also reproduced from Khanna and Yafeh, 2005) reports the results of two simple regression specifications. Again, these should not be regarded as formal tests of specific hypotheses, but rather as data description exercises. In Column 1 the relation between group affiliation and the volatility of operating profitability is estimated for each country on the basis of Equation (1):

(1) $vprof_i = \text{constant} + \beta_0(\text{assets}_i) + \beta_1(\text{prof}_i) + \beta_2(\text{group dummy}) + \text{industry dummies}$,
where $vprof_i$ is the standard deviation of each firm's operating profitability calculated over all years for which data are available (see Khanna and Yafeh, 2005, for details), assets_i is the firm's average size (measured by assets), and prof_i is the firm's average

operating profitability. The group dummy variable equals one for firms affiliated with business groups. There is a negative and significant effect of groups on the standard deviation of operating profitability in four out of twelve emerging markets in the sample. With the exception of India, the group coefficients in the remaining seven countries are negative but insignificantly different from zero. There is evidence of low profit volatility in prewar Japan as well as among core members of the large bank-centered corporate groups in postwar Japan. In the emerging markets where group affiliated firms do exhibit significantly lower profit volatility the magnitude of the difference is rather large. Group firms enjoy a standard deviation of operating volatility that is lower than the sample average (Column 2) by over 20 percent in Thailand, Korea, and Taiwan, and by about 30 percent in Brazil.

Column 3 of Table II presents the results of regressions similar in spirit to those based on Equation (1), but with profitability (ROA) as the dependent variable, drawn from Khanna and Rivkin (2001).² Only a few of the differences are statistically significant; and, again, it is difficult to identify a clear relation between a country's characteristics (financial or legal system, level of development etc.) and the relative performance (risk and return) of corporate groups. Nevertheless, both Table I and Table II suggest that, under some circumstances, certain business groups can be very successful.

In addition to risk and return characteristics of business groups, it would have been interesting to observe structural differences among groups around the world. How many of them are vertically-controlled pyramids? The prevalence of pyramidal structures in groups around the world is important for the discussion of tunneling and

² The coefficients are country-specific effects of affiliation with a business group, drawn from a linear regression with controls for industry, time and other effects. See Khanna and Rivkin (2001) for further details. This is shown for illustration only; Khanna and Palepu (2000) propose a more elaborate non-linear specification to gauge the impact of group affiliation in India on profitability.

expropriation of minority shareholders (Section III.2), yet we do not really know what fraction of all groups is organized in this fashion. Khanna and Thomas (2004) suggest that in Chile pyramids are not a major group characteristic, whereas in Korea this structure is apparently much more important (e.g. Chang, 2003a). Beyond organizational structure, how does the extent of diversification or vertical integration vary in business groups across countries? How extensive is family control and how common is group involvement in financial services? Even though answers to some of these questions are crucial for understanding the economic roles of business groups, we are not aware of any established conventional wisdom on these issues. Table III displays partial data on the extent of group diversification, vertical integration and involvement in financial services in ten of the twelve countries described in the previous tables.³ There seem to be considerable differences in these characteristics across countries, and yet the relation between these attributes of business groups and geographic origins, institutions, or group performance is not straightforward.⁴

Overall, the diversity of business groups around the world suggests that generalizations about their main economic roles, performance and impact are going to be hard to make. Nevertheless, the existing literature on business groups has focused on several features of groups and their relation to economic outcome. We now turn to a discussion of the existing literature in more detail.

³ Group diversification is measured by the number of 2-digit industries in which the group operates. Vertical integration is measured as follows: Group firms are classified into two-digit ISIC industries, and for each pair of firms (x , y) we observe the fraction of inputs from x 's industry to y 's and vice versa. We then record the higher value for each pair and average over all pairs in the group to obtain the group's vertical integration index. Involvement in financial services is measured as the fraction of all group assets in group financial firms; See Khanna and Yafeh (2005) for further details on these measures.

⁴ The differences observed in Table III are reflected also in country-specific studies of business groups. For example, Lee and Woo (2002) compare the structure of the nascent Chinese groups with that of their more established Korean counterparts and find that group size and diversification is much more limited in China (see also Keister, 2004).

III. Dominant Research Perspectives on Business Groups

In this section we analyze the literature on business groups as diversified structures, as equity pyramids, as rent-seeking mechanisms, and as instruments of market power. Existing scholarship has tended to oscillate between the view of groups as social-welfare reducing, and the interpretation of the group phenomenon as a potentially welfare enhancing response to imperfect markets (Khanna and Palepu, 2000a and 2000b).

III.1 Groups, Diversification and Performance

Prevailing managerial theories advocate the importance of corporate focus - companies should specialize in their competitive advantage – and warn of the disadvantages of unrelated diversification (see surveys by Montgomery, 1994; Martin and Sayrak, 2003). This “conventional wisdom” is not based on unambiguous theoretical predictions. Theoretically, corporate diversification could be beneficial to shareholders if a firm has some resources that can be profitably deployed outside the industry in which it operates, such as entrepreneurial skills, technology etc. There are also theoretical foundations for the view that diversification can be harmful if it is driven by managerial objectives such as “empire building” or risk aversion, or if it leads to agency problems among division managers (e.g. Rajan, Servaes and Zingales, 2000; Scharfstein and Stein, 2000). Thus, the common view that diversification “destroys shareholder value” is not based on an unambiguous theoretical prediction; rather, it is based on empirical regularities observed primarily in the US. Modern evidence suggests that for US corporations, diversification is typically “bad,” that is, associated with a loss of firm value – a phenomenon called the “diversification discount.” In many studies, this discount is interpreted as evidence of a *causal* link,

whereby corporate diversification, especially into unrelated industries, is the reason for the destruction of shareholder wealth, possibly serving the interests of risk-averse managers and perhaps also creditors.⁵ Although several recent studies have cast some doubt on the causal interpretation of the diversification discount,⁶ corporate focus is still viewed as a desirable corporate strategy, far more so than less-focused alternatives.

The ubiquity of diversified (and often fairly successful) business groups in many countries outside the US is therefore in sharp contrast with the prevailing conventional wisdom. Leaving aside (for now) the question why the typical institutional mechanism for diversification is conglomerates in the US and business groups in emerging markets, is corporate focus not a good strategy outside the developed US economy? Or are business groups in developing countries inefficient, so that their dissolution might contribute to the economic development of the countries in which they operate?

The discussion of business groups as diversified entities is closely related to studies of the costs and benefits of diversified conglomerates and internal capital markets (ICM) in the US. A natural starting point in the application of the US-based literature on diversification to the context of business groups is to ask whether the empirical association of diversification with lower shareholder value also exists in less-developed economies. The general answer to this question seems to be that the diversification discount tends to be lower in environments where markets, including, but not limited to, financial markets, are less developed. In some cases, diversified entities are even traded at a premium rather than a discount. Following the literature

⁵ For example, Amihud and Lev (1981), Morck, Shleifer and Vishny (1990), Lang and Stulz (1994), Berger and Ofek (1995), Comment and Jarrel (1995).

⁶ The arguments focus on the endogeneity of the decision to diversify and on measurement problems (both of performance and of diversification). See, for example, Campa and Kedia (2002), Chevalier (2004), and Whited (2001).

on the US which often relies on stock market data to measure the value of diversification, Fauver et al. (2003) find that the diversification discount is a feature of high income countries, with developed (financial) markets and institutions. By contrast, in low-income countries, there is no market discount - and sometimes there is even a premium - for corporate diversification. Qualitatively similar results are reported by Claessens et al. (2003a), who use both stock market and accounting variables to measure the value of diversification. They find a diversification premium in the relatively poor countries in East Asia (Indonesia, the Philippines, or Thailand), and a diversification discount in the richer countries in the region (e.g. Hong Kong or Taiwan). Both Fauver et al. (2003) and Claessens et al. (2003a) refer to multi-segment firms, not specifically to corporate groups, but there is some indication that these findings might apply to groups as well. In this context, the excess value of groups and its relation to market development is often measured before and after significant market supporting reforms: for example, Khanna and Palepu (2000b) document the declining (stock market and accounting profitability-based) group premium over a decade associated with economic reform in Chile. Lee, Peng, and Lee (2001) observe that the companies affiliated with the Korean business groups, the *chaebol*, used to be traded at a premium until the early 1990's - but the premium turned into a discount starting around 1994.⁷ Ferris et al. (2003) also find that *chaebol*-affiliated firms currently trade at a discount, and suggest that this may be due to low profits, over-investment or inefficient cross-subsidization within the groups (see more discussion in the next sub-section).

⁷ Jung, Kim, and Kim (2005) use a different methodology for calculating the premium/discount of Korean group-affiliated firms. They argue that *chaebol* firms traded at a premium in the period 1998-2001, a period not covered by Lee, Peng, and Lee (2001). One possible explanation is restructuring and improved corporate governance in Korean groups after the East Asian crisis. Another possibility raised by Jung et al. (2005) is that the source of the premium is access to internal capital markets by financially constrained group firms.

These observations raise several conceptual and measurement issues. First, even under the assumption that a causal interpretation can be assigned to this correlation, the particular reasons why diversification is good or bad in certain countries or institutional environments cannot be inferred. Second, studies that rely primarily on stock market data do not seriously address the selection issue associated with the decision to list some group companies but not others. The direction of the bias this induces in estimates of the diversification discount (or premium) is unclear and might be country-specific. Third, diversification at the level of the individual line of business should be distinguished from diversification at the group level. In India of the 1980's, for instance, many manufacturing companies invested in unrelated businesses as a way of sheltering income from an oppressive tax regime, with the result that a diversified group might have several different lines of business each with, say, a cement plant.⁸ In contrast with these difficulties, it is important to note that because group firms are independent legal entities, data on "line of business" activity within business groups are potentially better than that obtained from within a conglomerate in the US (Khanna and Palepu, 2000a).

One clue for the identification of the reasons why diversification may be valuable in under-developed economies is found in historical observations on the US: the "diversification discount" appears to have been smaller in the US in earlier periods. De Long (1991), for example, argues that firms that were part of the J.P. Morgan group (had Morgan men on their boards) were traded at a premium in the early decades of the twentieth century (although causality is hard to infer from this). Moving to the 1960's, Matsusaka (1993) and Hubbard and Palia (1999) report that acquisitions of companies in industries unrelated to the bidder's core industry were

⁸ This may be related to Lins and Servaes (2002) who find that, diversification is associated with a discount for firms affiliated with diversified groups in emerging markets when their groups are already diversified and there is little justification for diversification at the firm level.

not penalized by US financial markets at that time. Furthermore, Hubbard and Palia (1999) emphasize that the returns to bidders tended to be especially high when the acquired target firms were financially constrained. The interpretation of these findings is that raising capital internally might have been more efficient than communicating with any external potential providers of capital.

But are internal capital markets the *raison d'être* of diversified business groups in under-developed countries? And if so, are information problems really the crucial factor? In order to provide preliminary answers to these questions, we now turn to attempts to gauge the sources of value generated by affiliation with a corporate group more directly. Although these studies deal with diversified groups, some of the arguments are not directly linked to diversification *per se*. Studies in this category typically use accounting data on profitability, investment, or growth rates, thus circumventing the unavailability of reliable stock market data in many emerging markets.

Diversification and Performance: Group-affiliated vs. Unaffiliated Firms

Studies using accounting measures to gauge the relative performance of group-affiliated firms date back to Caves and Uekusa's (1976) study of industrial organization and business groups in Japan. Outside Japan, one of the earliest studies of this type is Chang and Choi (1988), who find that firms affiliated with a diversified group in Korea were more profitable at the time. They attribute the advantage of group firms to organizational form – diversified groups are somewhat like a multi-divisional firm, they argue, and their relative efficiency stems from effective management and lower transaction costs. This study could not, of course, distinguish between this reason and other possible explanations that made the biggest and most

diversified Korean groups relatively profitable in the 1980's, such as monopoly power, preferential treatment by the government, internal training of labor and more. In contrast with Chang and Choi's (1988) earlier study, a variety of more recent studies on the Korean *chaebol* report relatively poor performance of group-affiliated companies in the 1990's. This may reflect real changes in the economic environment: the Korean economy became more mature and liberalized in the 1990's, reducing the advantage of business groups in accessing capital or foreign currency, somewhat in line with the view that the diversified group structure becomes less valuable as markets develop. But there are other possible reasons for the decline in performance of group-affiliated firms. Korea faced a severe crisis in 1997-1998, for which some observers blamed business groups. In the aftermath of the crisis, the government's approach toward the big business groups underwent deep changes (see Section III.3), which may have also affected the ability of group-affiliated firms to generate profits. Finally, the fact that the founding generation of owners-managers had to turn over the keys to the second generation, typically within the family, may have had adverse effects as well (see Section IV.2). It is very difficult to disentangle the impact of these different forces; the focus on one economic force or another in the existing literature seems to be somewhat arbitrary. Thus, among the studies documenting the poor performance of members of Korea's business groups in the 1990's, Campbell and Keys (2003) report lower profits (but higher sales growth) for group-affiliated firms, and relate this finding to inadequate corporate governance: executive turnover, they argue, is not closely related to performance. Shin and Park (2003) claim that, despite limited growth opportunities, group-affiliated Korean firms tend to over-invest (relative to the profit maximizing level). Similar arguments on over-investment, typically financed by (often state-subsidized) debt, are made by Lee and Lee (2002)

and by Choi and Cowing (1999). Other studies such as Lee, Ryu and Yoon (2000) attribute the poor performance of *chaebol* firms to low productive efficiency, presumably also due to over-expansion. The empirical analysis employed in some of these studies is not always of the highest standard; nevertheless, it is probably safe to conclude that, at least in Korea, the advantage that diversified groups may have enjoyed in the past was eroded during the 1990's, although the reasons (both for the past advantage and for its dissipation) are still far from clear.⁹

Moving from Korea to India, Khanna and Palepu (2000a) find that the relation between diversification and profitability among Indian business groups is non-linear; beyond a certain level diversification is associated with higher profits. Khanna and Palepu (2000b) report that, in Chile too high levels of group diversification are associated with better performance. Their interpretation of this finding is that, groups in emerging markets make up for missing institutions. These need not necessarily be under-developed financial markets; imperfections in labor markets, limited enforcement of contracts, inadequate rule of law and other institutional deficiencies may give rise to business groups that generate these public goods for the benefit of group members. In line with this argument, Hyundai, for example, established a training center for technical personnel to be used by the entire group, as well as an applied research institute (see also Khanna and Palepu, 1997 on the Tata group in India, and Chang, 2003a, on human resource management in other Korean groups). In some sense, the view that groups make up for under-developed institutions is a generalized formulation of the transaction cost argument advanced initially by Leff (1976, 1978) and Strachan (1976). Nevertheless, the exact mechanism that relates

⁹ In addition to the factors listed here, "sentiment" might have also played a role to the extent that group performance is driven by (domestic and foreign) investor preferences. Descriptions of Korean groups reflect also "sentiment" among researchers, especially the changed view of Korea following the financial crisis of 1997 from being a "tiger" where everything is done right, to an economy plagued with corporate governance problems and inefficient allocation of capital by the large corporate groups.

group diversification and economic performance (in different environments) is not tested directly in any of these studies.

Somewhat indirectly related to the studies discussed in this section are several studies that estimate investment-cash flow sensitivities for group and non-group firms, in the spirit of Fazzari, Hubbard and Petersen (1987) and Hoshi, Kashyap, and Scharfstein (1991). Shin and Stulz (1998) find that within US conglomerates, individual lines of business are not very sensitive to their own cash flows when making investment decisions; they are, however, sensitive to the cash flows of the rest of the conglomerate, suggesting the existence of an internal capital market which transfers resources across firms. Shin and Park (1999) apply this methodology to Korean business groups, and Perotti and Gelfer (2003) to Russian financial-industrial groups (FIG's).¹⁰ Both studies report findings that are in line with Shin and Stulz (1998). Shin and Park (1999) argue that internal capital markets within the Korean *chaebol* are inefficient (supporting too much investment by group firms with weak investment opportunities) whereas Perotti and Gelfer (2003) do not take a stand on the efficiency of such transfers in Russia. Although these studies do not deal with diversification per se or with performance-related outcomes, the notion of internal capital markets is closely related to the notion of diversification.

In sum, the studies discussed so far suffer from two major drawbacks. First, to the extent that differences in performance between group-members and other firms are documented, it is not straightforward to relate such differences to particular group attributes. This problem is especially acute because certain group characteristics tend to coincide nearly perfectly. For example, in many emerging markets, large diversified groups enjoy close ties with their governments. To the extent that their

¹⁰ See also Lensink et al. (2003) and van der Molen (2005) on investment-cash flow sensitivities in Indian groups.

performance is superior, is it due to the advantages of diversification or due to preferential government treatment? If diversified groups perform well, is it due to internal capital markets or to internal labor markets? Similarly, poor performance of group firms is hard to attribute to a particular factor: large diversified groups are typically family-controlled. To the extent that their performance is relatively poor, is it due to ineffective management by insiders, or is it due to over-expansion and diversification into industries beyond the core capabilities of the group? Perhaps close ties with the government lead to deviation from profit maximization? As noted above, these complex issues become even more difficult to address because of severe data limitations on groups and their activities. For example, information on unlisted member firms and their performance is almost never available to researchers. This appears to be especially important in Southeast Asia, where most of the assets owned by groups are typically not publicly traded. In other words, there is a selection problem regarding which group firms are listed, a feature which is likely to affect at least some empirical results.¹¹

Another deficiency of the existing literature on performance and diversification is the exogeneity assumption that is made throughout in relation to comparisons between group-affiliated and other firms. Although the treatment of group affiliation as a historically determined, exogenous firm characteristic is sometimes reasonable, to the extent that certain (observable or other) firm attributes affect the probability of group affiliation, this assumption may not be warranted.¹² We return to this issue in Section VII.

¹¹ We are aware of no systematic attempts to analyze the decision which firms to list out of all group firms. In India, it is common to think that the best group firms are listed, whereas some would argue that the opposite is true in Hong Kong.

¹² Another econometric weakness in much of this literature is that group-affiliation is typically measured in a dichotomous way, without allowing for varying degrees of tightness of control, both across groups and across firms within the same group. The measured impact of group affiliation is thus

Several studies have attempted to circumvent some of the conceptual and data-related difficulties discussed above. Khanna and Palepu (1999a), for example, use survey data to in order to try and identify sources of benefits from group affiliation. Their analysis is based on intra-group confidential information, thus overcoming some of the data limitations common in the literature. Surprisingly, they find that in both Chile and India group activity (which is not restricted to capital markets, see below) increased during periods that follow extensive liberalization and pro-market reforms, and in a way which apparently enhanced profitability. Intra-group survey evidence described in this study suggests that this was more likely to be due to group advantages in product and labor markets than due to within-group internal capital markets. In this context, it is interesting to note that, even though some early studies (e.g. Leff, 1976 and 1978) emphasized the role of business groups in the context of imperfections in labor (rather than capital) markets, the literature on these issues is virtually non-existent, mostly because capital market data are easier to find. New evidence on these issues could be extremely helpful.

Fisman and Khanna (2004), attempt to identify benefits from affiliation with a diversified group by examining location decisions of group firms in India. They find that group-affiliated firms are more likely to locate in poor, under-developed parts of India than unaffiliated firms and state-owned firms, and interpret this as evidence that groups may provide certain infrastructural benefits to their affiliates, which are especially valuable in severely under-developed regions. Other interpretations - for example, that groups tend to locate in the most corrupt states - might also be possible.

Khanna and Yafeh (2005) use a different approach, and provide a series of statistical tests designed to investigate the explanatory power of *one* specific reason

an average across firms and groups. Claessens at al. (2004) is somewhat unusual in this respect – they attempt to measure the differential impact of group affiliation on group firms with different characteristics (e.g. age and growth opportunities).

for performance differences between group firms and unaffiliated companies in a cross-section of countries: mutual insurance or risk sharing among group members around the world. The statistical tests reported in Khanna and Yafeh (2005) suggest that risk sharing is a characteristic of business groups only in a small number of emerging markets, most notably Korea, and to a lesser extent Thailand and Taiwan. They do not find a clear relation between the extent of group diversification and the prevalence of within-group risk sharing, and neither do they find any evidence that risk sharing is more common where external financial markets are under-developed. This study casts doubt on the importance of internal capital markets within diversified business groups as a source of group value, at least with respect to the provision of insurance in environments where the availability of state-contingent claims is very limited. Some of the tests in this study are designed so as to circumvent the concern about the endogeneity of group affiliation; the results, however, are not materially affected.¹³

There are several other studies emphasizing a particular facet of diversified groups, without necessarily ruling out other aspects of group affiliation, or claiming that the facets studied are of particular importance. Belderbos and Sleuwaegen (1996), who study the Japanese *keiretsu* groups, and Guillen (2002), who studies entry of group-affiliated Korean firms into China, try to identify a link between group membership and patterns of foreign direct investment (FDI), finding limited evidence for the existence of such a channel. Even if affiliation with a diversified group has an effect on the activities of its members in foreign countries, it is probably not the *raison d'être* of business groups. Other recent papers (e.g. Mahmood and Mitchell, 2004;

¹³ A recent working paper by Gopalan, Nanda and Seru (2005) tests a related hypothesis – that Indian groups provide assistance to member firms in financial distress. They find empirical evidence supporting this conjecture. See also Bae, Cheon, and Kang (2004) which is discussed in the next section. In passing, note that if groups were really a mechanism of mutual insurance, it would be natural to expect them to consist of mostly small firms, in contrast with the figures in Table I.

Mahmood and Rufin, 2004) focus on the relationship between group affiliation in Taiwan and innovation (with patenting as the patenting); the findings are mixed and, again, this is unlikely to constitute a primary explanation for group structure and performance (see also Montalvo and Yafeh, 1994, for an early study of this issue using Japanese data).

In sum, the literature on business groups, diversification and performance discussed in this section is far from conclusive, and leaves many unanswered questions on the motives for group diversification and its consequences. Diversification may be a means to achieve superior performance as some of the studies reviewed here suggest, or it may be more closely related to other features of business groups discussed below, such as conflicts between controlling and minority shareholders or the genealogical evolution of the controlling family. In addition, diversification of business groups may not be a means to achieve any particular goal. Instead, it could simply be the outcome of other activities such as rent-seeking ties with the authorities or market power. Furthermore, it is quite likely that diversified groups combine more than one of the effects discussed in this section, making clear-cut identification of one primary reason for diversification difficult. In addition, both the motives for diversification and the resulting outcomes (the performance of diversified groups and their welfare implications) are likely to vary across different institutional and economic environments.

One possible solution to these issues may be found in the judicious selection of countries where particular reasons are likely to feature more prominently than others: for example, diversification in relatively uncorrupt Chile is unlikely to be merely the outcome of rent seeking, whereas another mix of reasons may better

account for the diversification and performance of business groups in Suharto's Indonesia.

Another related possibility is to try and disentangle various reasons for the existence of groups by looking at changes in their activities and scope in response to shocks (Ghemawat and Khanna, 1998). For example, a rent-seeking business group may vanish in response to a shock to its rent-seeking opportunities, whereas a group whose primary function is to make up for under-developed financial markets would not. Accordingly, Ghemawat and Khanna (1998) regard periods of profitable expansion by groups in India and Chile in the face of adverse regulatory changes as evidence that these groups are not purely a mechanism for rent-seeking.

Yet another possibility is to exploit key events involving particular groups – for example, controlling-family transitions, socially or politically motivated dismantling or amalgamation of groups, etc. The literature has barely explored such alternative analytical approaches.

Despite the ambiguity of the results in this section, our impression is that there is some tentative evidence suggesting that, at least under some circumstances, groups can make up for under-developed institutions, thereby reducing transaction costs. Although it is difficult to draw firm conclusions from this, one possible implication might be that the profit maximizing level of diversification (and perhaps also the level of diversification which maximizes social welfare) may be higher for companies (or groups) operating in emerging markets than it is in for American firms. It is not clear, however, why the business group form (rather than a fully-owned conglomerate, for instance) is the most popular way to attain this level of diversification in many less developed economies. The answer may be related to conflicts between controlling and minority shareholders (which are discussed in the next section), to inheritance and

family considerations (which are discussed in Section IV.2), or to legal considerations (which are not explicitly discussed in this survey), especially in relation to corporate liability.¹⁴

III.2. Groups, Pyramids and Tunneling

The second most popular view of business groups is as equity pyramids. In these structures there is typically a large divergence between the controlling shareholder's "control rights" (which are often very high) and "cash flow rights" which are typically much smaller. This, together with the inadequacy of some of the regulatory institutions in many emerging markets, generates an environment in which "tunneling" (the expropriation of minority shareholders) can become a common feature of the economy. A large literature focusing on investor protection has attempted to model and measure the extent of tunneling within business groups, which are viewed in this context as "parasites," expropriating small unprotected shareholders. The discussion of business groups in this context is therefore closely linked to discussion of property rights and rule of law.¹⁵

Before discussing this literature, it is important to note that the premise that groups and vertically-controlled equity pyramids are equivalent is suspect. As noted in Section II, it is not at all clear what fraction of all groups is organized as pyramids and more empirical evidence on this issue may be helpful. Even when pyramidal structures do exist, it is not always clear that all members of a single pyramid are part

¹⁴ See, for example, Blumberg (1989), Antunes (1994) and Dine (2000) for discussions of corporate law and the liability of related but legally independent firms in several developed economies. Nicodano (2003) argues that limited liability considerations are actually the primary reason for the existence of business groups, an organizational form which she regards as superior to conglomerates: unlike conglomerates, groups are not legally obliged to bail out ailing units (group firms) and, because group firms are legally separate, there is always an option to liquidate some of them.

¹⁵ In line with recent trends in the literature, we focus in this section on conflicts between controlling and minority shareholders only, and ignore the classic agency conflict between shareholders and managers as well "entrenchment" issues which are discussed in Morck et al. (2004).

of what the market considers a group: in the case of Chile, for example, there is no clear mapping between pyramids and groups. In addition, stock price co-movement among group firms cannot be explained well by equity pyramids, but rather by other, broader, definitions of groups (Khanna and Thomas, 2004). Despite these caveats, the rest of this section will use the working assumption that a sufficient number of business groups are pyramidal in structure (or that other group features, such as horizontal cross shareholding, facilitate tunneling), and that a discussion of potential conflicts between control shareholders and other investors is therefore warranted.

The starting point of this literature is Berle and Means' (1932) concern about pyramids in the United States. More recently, La Porta et al. (1999) find that widely-held firms are rare outside the US and the UK. By contrast, concentrated family ownership, often exercised through pyramids and other mechanisms that enable control in excess of cash flow rights are quite common around the world. Therefore, outside the US, conflicts between controlling and minority shareholders are likely to be more common than conflicts between dispersed owners and independent management. This view is supported by Barca and Becht's (2001) description of ownership and control of European firms (see also Faccio and Lang, 2002), and by the evidence in Claesens et al. (2000 and 2002) on the ownership and control of Asian firms. In view of this, Morck et al. (2004) regard family-controlled pyramidal business groups in countries where minority shareholders are not well protected as environments where expropriation of small shareholders by controlling wealthy families is likely to take place, a phenomenon which may adversely affect the ability of firms to raise external finance.

The evidence on the prevalence and severity of this phenomenon, however, is less than clear-cut. Johnson, La Porta, Lopez de Silanes and Shleifer (2000) describe

several cases of tunneling in Europe, including some involving intra-business group transactions. More systematic evidence on tunneling within business groups is provided by Bertrand et al. (2002) who study Indian groups, and find that firms located lower within pyramidal groups are less sensitive to industry-specific shocks to their profitability than are firms located in upper levels. They interpret this result as evidence that positive shocks to firms in lower levels of the pyramid are siphoned off to firms in upper levels of the group pyramid, an activity that serves the interests of controlling shareholders, but not of minority shareholders holding equity of the tunneled firm only. While this interpretation is plausible for positive shocks, it is less self-evident why tunneling would make these group firms less sensitive to negative shocks as well.

Joh (2003) suggests the existence of tunneling within Korean groups. She finds low profits in group-affiliated companies where there is substantial divergence between the cash flow and control rights of the controlling family. Claessens et al. (2002), in a paper that does not specifically address business groups, report for a sample of Asian companies that firm value tends to increase with the cash flow rights of owners, but value falls when there is divergence between cash flow and control rights. Presumably, this happens in many Asian countries in the context of business groups. Lins (2003) reports that insider-controlled firms in emerging markets are often parts of pyramids within which profits fall with the divergence of cash flow and control rights.

Bae, Kang, and Kim (2002) use another approach to identify tunneling and examine acquisitions of often ailing companies by other group firms within the Korean *chaebol* groups. They find that within-group takeovers rarely raise the value of the bidder, but do raise the value of other group members. They also provide some

examples (from the LG group, for instance) showing how such takeovers benefited controlling shareholders at the expense of minority shareholders.¹⁶ Very closely related methodologically is a study by Baek, Kang, and Lee (2005) whose focus is on private securities offerings within Korean groups, rather than takeovers. They find that some of these securities are offered to other group members at prices that are very far off from their true values, and document negative stock price responses to such deals. Despite the tunneling interpretation favored in these studies, some intra-group takeovers and securities placements may also constitute efficient mutual insurance or risk sharing, as Khanna and Yafeh (2005) document for Korea.¹⁷

Other evidence on tunneling include Morck and Nakamura (2005), who suggest that the growth patterns of some of the Japanese prewar *zaibatsu* reflected, among other things, the importance attributed to private benefits of control by some large shareholders. The importance of this consideration relative to other factors, is however, open to some debate. Friedman et al. (2003) show theoretically that tunneling-related considerations may, under certain circumstances, account for the well documented phenomenon that many groups are highly leveraged. Nevertheless, the relation between tunneling and group debt is far from straightforward and other considerations (e.g. related to family structure and control) are also likely to affect the debt ratios of corporate groups.

There are other studies which are indirectly related to the tunneling phenomenon, though not directly to business groups. For example, Nenova (2003) and Dyck and Zingales (2004) document high control premia in countries where

¹⁶ By contrast, Buysschaert et al. (2004) document a positive price response to within-group equity sales in a small sample of pyramidal Belgian groups, a result which is not consistent with the tunneling hypothesis of Bae et al. (2002).

¹⁷ Within-group risk sharing is supported also by Bae, Cheon and Kang (2004). They find that earnings announcements of group firms affect the stock prices of other group firms (in the same direction), a result which is consistent with risk sharing, or with what they call “propping” of weak group firms. On earnings announcements within Korean groups and their possible relation to tunneling see also Kim and Yi (2005).

minority shareholder protection is poor and capital markets are under-developed. The relation between control premia, minority shareholder rights and business groups, however, appears to be rather complex. Korea, for example, is found to have a high control premium in both studies, yet in certain other countries where business groups are dominant (e.g. Indonesia) control premia are low. Furthermore, in some European countries (e.g. Austria or the Czech Republic) the value of controlling blocks is much higher than in the *chaebol*-dominated Korean economy. Johnson, Boone, Breach and Friedman (2000) suggest that tunneling is common in countries where investor protection is low, and that it is especially severe in crisis periods. Countries that were hit hardest by the Asian financial crisis are, according to this view, countries associated with poor corporate governance and pervasive tunneling – for example, Korea or Indonesia, where corporate groups are especially powerful.¹⁸

Overall, it is easy to get the impression from the literature that the problem of tunneling in general, and within business groups in particular, is both common and severe. We are not sure. Groups are not always pyramids, nor are all pyramids groups. Furthermore, even where groups are pyramidal in structure, reputation and other safeguards might preclude minority shareholder exploitation. Holmen and Hogfeld (2005), for example, dispute the equation of pyramids and tunneling in present-day Sweden, where there is adequate investor protection. Historically, tunneling did not seem to be a major concern for British investors in the early twentieth century, who were eager to invest money in multinational trading groups with pyramidal characteristics; affiliation with pyramidal, family controlled, British merchant houses was apparently viewed as a stamp of certification, rather than a reason for fear of

¹⁸ In line with this view, Mitton (2002) finds that insider-controlled, diversified firms fared worse than other companies during the Asian financial crisis. Lemmon and Lins (2003) report qualitatively similar findings for firms with extreme divergence between cash flow and control rights.

expropriation (Jones, 2000, Chapter 6; see also Section V).¹⁹ A modern analogy might be Jardine Matheson's significant investment in the mid 1990's in Tata Industries, an Indian business group with outstanding reputation for quality and honesty. Tata had considerable discretion regarding the use of the invested money, which was designed to provide Jardines with exposure to the Indian economy (Khanna, Palepu, and Wu, 1995).

In addition to the tendency to equate groups with pyramids and to associate pyramids with tunneling, much of the literature pays only little scant attention to the participation constraints of investors in these pyramidal schemes.²⁰ Why, on a routine basis, do investors continue to invest in situations where their investment is likely to be abused? It is, perhaps, possible to argue that naïve investors in emerging markets invest in business groups prone to tunneling because of inexperience or inadequate human capital; we find this implausible. Another possibility is that the feasible alternatives available to investors are extremely limited, although this claim probably did not apply historically to British investors in pyramidal merchant houses. An explanation that we find more plausible is that group reputation is sufficient to account for investor interest. One example of this could be that group reputation for risk sharing (or the “propping” of poorly performing companies) reduces the default risk of group-affiliated companies, a feature which investors may find attractive even if they know that they are exposed to a certain risk of expropriation by controlling shareholders. Faccio et al. (2001) suggest that some groups, especially in Europe, pay higher dividends and thus compensate investors for the risk of expropriation. Finally, a “fair” amount of tunneling is likely to be reflected in equity prices (Morck, Strangeland, and Yeung, 2000). One anecdote in support of this is the alleged

¹⁹ It is interesting to note that these pyramidal business groups did not operate within the UK, only overseas. This may support the view that business groups make up for under-developed institutions.

²⁰ Shleifer and Wolfenzon (2002) is a notable exception.

discount on the shares of Samsung Electronics in comparison with Nokia. To the extent that this is the case, and if business groups are indeed more prone to tunnel than other firms, one would expect a negative impact of business groups on the development of financial markets. This, together with other considerations (e.g. entrenchment, see Morck et al., 2004) are discussed in Section V, where we examine the dynamic impact of groups on their environment. It is important to note here, however, that if tunneling is primarily a transfer from small to large shareholders, it need not always reduce social welfare. If the transfer is fully transparent, the assumption that it is welfare-detracting is even more suspect.²¹

Another unorthodox possible explanation for the willingness of small investors to buy shares of certain pyramidal business groups is that the extent of tunneling is over-emphasized in the recent academic literature in economics and finance, perhaps because of the greater media coverage of scandals, relative to the more humdrum business of generating healthy but pedestrian returns. Stated differently, at least some part of the alleged tunneling may in fact represent returns to some core asset, with the investing public's participation constraints being satisfied, in an environment with scarce investment opportunities. This asset could be both a socially productive one, such as some core entrepreneurial ability, or a socially detrimental lobbying capability (e.g. Faccio, 2004). At present, the literature provides very few answers to these questions.

²¹ A fascinating recent study by Cheung et al. (2004) finds evidence of tunneling in Hong Kong, which is often manifest in "connected transactions" between related parties. This study reaches the surprising conclusion that tunneling is not anticipated and reflected in equity prices, and that investors are "surprised" when a connected transaction takes places. In passing, note that Cheung et al. (2004) do not find that tunneling is particularly common in pyramidal groups.

III.3. Groups and Politics: The Complex Relations between Groups and Governments

Business groups have enjoyed close ties to their governments in many countries, and it is therefore not surprising that the political economy literature on groups has often viewed government-supported business groups as “parasites.” Influential papers such as Bhagwati (1982) or Krueger (1974), while not directly studying groups, have been used in support of arguments on rent-seeking through the power exercised by incumbent businesses, typically family-based business groups. Indeed, the interaction between groups and the state has received much attention over the past few decades. In this section we review the political economy literature on business groups and argue that, while there is ample evidence for rent seeking by some groups in some environments, the conventional wisdom on these issues is one-sided and the relationships between groups and the state are far more complex.

There is no doubt that in many countries the very appearance of the business group phenomenon was strongly influenced by government policies: The Japanese prewar *zaibatsu* groups emerged as a result of a government privatization program in the early 1880’s, and expanded and diversified their activities in response to government contracts awarded under preferential terms. The close ties between the *zaibatsu* and the Japanese government are described by many scholars - a classic reference is Hadley (1970). The Korean business groups, the *chaebol*, enjoyed close ties to the government of General Park; the Korean government controlled the allocation of credit and foreign currency, and the *chaebol* enjoyed preferential access to these and other resources (e.g. Clifford, 1994; Kim, 1997, Chang, 2003a). The privatization policies of Prime Minister Mahathir’s government in Malaysia enriched certain ethnic Malay-owned business groups dramatically (Gomez and Jomo, 1999). Keister (1998 and 2004) describes how the government actively encouraged the

formation of business groups in China and protected them from foreign competition. In Israel family-owned groups emerged as an outcome of certain government economic policies (Maman, 2002), and the rise of the “oligarchs” in Russia is yet another interesting recent example of the emergence of groups under the auspices of the government (Guriev and Rachinsky, 2005). Table IV (which is discussed in more detail below), presents a comparative perspective on the origins of business groups around the world; government support seems to be an important factor in the formation of business groups in many environments, although even within countries where groups generally enjoyed government support (see Panel B on prewar Japan and Panel C on Korea), some groups emerged with little or no government favors (e.g. Samsung).

Moving from the formation of groups to their close relations with governments more generally, Fisman (2001) provides convincing econometric estimates of the value of political connections enjoyed by business groups in Indonesia during the Suharto regime (see also Leuz and Oberholzer-Gee, 2004). Johnson and Mitton (2003) evaluate political connections in Malaysia, although they do not emphasize business groups. In India, some business groups were able to receive favorable treatment from the “License Raj” in certain periods (Khanna and Palepu, 2005). There is also some anecdotal evidence on groups exercising their political influence to resist (positive) institutional changes: for example, in recent years, the Federation of Korean Industries, where groups are dominant, attempted to use its influence to oppose certain reforms in corporate governance legislation (Chang, 2003a). The Bombay Club (of Indian industrialists) is another example of group attempts to lobby for restricted entry of multinationals (Tripathi, 2004). There are yet more extreme examples of symbiosis between business groups and the government: each of the two

major Japanese *zaibatsu*, Mitsui and Mitsubishi, virtually controlled one of the major parties in the Japanese parliament in the 1910's. More recently, some owners of Korean *chaebol* seemed to entertain political aspirations (e.g. Chairman Chung of Hyundai ran for president in 1993), a Turkish business group has launched a political party, allegedly so that their representation in government can confer political immunity on them (Mango, 2005), and business groups centered on political parties can be found in Malaysia (e.g. the Malay political party UMNO, or the Chinese political party MCA; see Gomez and Jomo, 1999 and some discussion in Commonwealth of Australia, 1995).

But governments and business groups do not always operate symbiotically. First, there are a number of historical examples when governments harmed, rather than assisted, business groups. This has happened both in times of wrenching societal transformation - e.g. when the Chinese Communist Party took power in 1949 - and in an ongoing sense when groups struggled in the face of an inimical state - e.g. India's socialist government in the few decades following Indian independence; indeed Khanna and Palepu (2005) point out that the turnover in leading Indian groups across the past 60 years is far too high to be consistent with entrenchment and close group-government ties.²² In Pinochet's Chile, after the fall of Allende's Socialist government in 1973, pro-free-market and anti-ownership concentration policies were adopted. These were sometimes closer to anti- than to pro-business group policies. In the US, Morck (2004) and Morck and Yeung (2004) describe how President Roosevelt took policy measures against business groups (see Table IV for other examples). In other cases, the relationship between governments and business groups changed over time,

²² For one to nonetheless subscribe to a pure entrenchment and collusion (between groups and government) story in this context, one would have to attribute this turnover to systematic incompetence on the part of the groups.

as groups became stronger and more independent. This seems to have been the case in Japan in the 1930's (Franks, Mayer and Miyajima, in progress) and in Korea starting in the 1980's (Amsden, 1989; Clifford, 1994; Kim, 1997; Chang, 2003a; Lee, Lee, and Lee, 2000). In fact, in post-1997 Korea the government has actively tried to weaken the *chaebol* with limited success (Khanna and Palepu, 1999b) although Borensztein and Lee (2002) provide evidence that group firms lost their preferential access to capital following the crisis.

The literature's general bias to assuming that governments operate in tandem with business groups is thus flawed. Beyond this, the prevailing assumption that government support of groups is socially harmful should be examined more closely. Despite the negative implications of government favors of the type described above, business groups may have helped governments orchestrate a "big push" in several sectors simultaneously (arguably in prewar Japan, see for example Ohkawa and Rosovsky, 1973). In other cases, governmental favoritism towards business groups controlled by an ethnic minority may have helped preserve social equilibrium, as in Malaysia. The assumption that governmental support of Malay business groups is socially costly is based on an analysis of costs and benefits of group affiliation at a point in (contemporary) time. But there are no attempts of which we are aware to analytically evaluate the societal costs and benefits of Prime Minister Mahathir's New Economic Policy's forced transfer of assets (from economically dominant Chinese to numerically dominant, and poorer, Malays) over three decades that created business groups around favored Malay entrepreneurs. The transfer surely was costly to the Chinese, but arguably beneficial at least to some Malays, and should be benchmarked against a counterfactual of an increasingly intransigent social fabric in the tense

situation following the 1969 race riots.²³ Such government-directed transfers are currently being attempted in South Africa, under the label of Black Economic Empowerment, with groups forming around emergent successful black entrepreneurs in the post-Apartheid regime – again, the overall economic value of such a policy is not easy to gauge.²⁴

Finally social welfare might be enhanced by group-government liaisons if, for instance, the relation between groups and governments has to do with tax collection and fiscal policy. Do governments favor groups because it is easy to collect taxes from them? If so, this would be reminiscent of medieval monarchs who partitioned their territories into fiefdoms controlled by quasi-independent lords who could rule them as they saw fit as long as they paid their taxes to the government. This issue has rarely been addressed in the literature: Morikawa (1992) notes that taxes collected from the Japanese *zaibatsu* during World War II were substantial. By contrast, Morck (2004) describes how the US tax authorities felt that collecting taxes from business groups was especially difficult because of tunneling, and so supported (perhaps even initiated) President Roosevelt's attack on business groups. Gramlich et al. (2004) argue that members of Japanese corporate groups shift income between themselves in order to lower their tax liability. Clearly, more systematic evidence on this issue from various countries would be of interest.

Analytically, it might not always be sensible to study just the interaction between the private sector and the government, without considering additional constituencies. For example, Musacchio (2004) argues that the rise of business groups (and concentrated ownership) in Brazil coincided with the rising power of organized

²³ An analysis taking into account all these factors would, of course, be complex. It would have to account for Chinese capital flight, as well as, for example, for the endogenous setting up of a Southeast Asian empire by Robert Kuok, originally a Malaysian Chinese; see Commonwealth of Australia (1995).

²⁴ The relevant legislation is the Broad-Based Black Economic Empowerment Bill, No. 53 of 2003.

labor, with the government playing only a background role. Huang (2004) discusses the general suppression of the indigenous private sector in China. This analysis, along with Keister's (2004) study of the forced formation of business groups in China, suggest that the government favors business groups formed by the state, but discriminates against business groups formed by private entities, a stance which may emanate from a general suspicion of the Communist Party of the indigenous private sector .

In some countries, the government might itself be in transition, and the study of the formation and evolution of business groups and their relations to the government might be informed by knowledge of the flux in the latter itself. In Czechoslovakia, for example, newly formed groups reflected new networks of companies, as power shifted from the Communist government to the regime that replaced it (McDermott, 2002, summarized in Table IV; see also Stark, 1996, on post-Communist corporate networks in Hungary). Somewhat related is a historical anecdote from early twentieth century British India, when the Birla group supported and financed indigenous Indian businesses and entrepreneurs as an alternative to the British-dominated business scene, hardly an act reflecting close government-business ties (Piramal, 1998; Tripathi, 2004).

Two conclusions emerge from this discussion. First, political economy explanations for the formation and effectiveness of groups, beyond the traditional focus on government favors, should receive more attention than they have so far. Second, it might be more fruitful to view the relations between groups and the state as the equilibrium outcome of a game, in the spirit of work by Aoki (2001) and Greif (2005). These games are typically complex, and their application to a particular context is not always straightforward. Nevertheless, conceptually, the result of such a

government-business group game might well be rent seeking and cohabitation, but it might also be an uneasy coexistence, quite distinct from the outcome of groups currying favor with the state.²⁵

III.4 Groups, Industrial Organization and Monopoly Power

There are good theoretical reasons to suspect that business groups may wield considerable market power. They may, under some circumstances, drive their rivals out of markets, or prevent entry, due to their “deep pockets,” “first mover advantage,” and ties to the government. “Multi-market contact” (Bernheim and Whinston, 1990) between diversified business groups competing with each other repeatedly in many sectors may facilitate collusion. These theoretical conjectures echo earlier concerns about the social costs associated with restricted competition due to business groups - indeed, the view that business groups harm competition dates back to the Great Depression in the US. Morck (2004) argues that President Roosevelt sought to dissolve America’s groups (by taxing inter-corporate dividends) partly on these grounds. One of the primary objectives of the postwar American occupation reforms in Japan was the dissolution of the prewar *zaibatsu*, which was driven by strong views on their anti-competitive effects and the resulting social tension that may have contributed to the rise of militarism in Japan (Hadley, 1970; Yafeh, 1995).

Strangely enough, despite its intuitive appeal, the literature on the industrial organization effects of business groups has not developed much. The theoretical relation between group affiliation and entry deterrence is explored formally in an interesting recent study by Cestone and Fumagalli (2005); they show that internal capital markets are not always advantageous to group affiliated firms when they try to

²⁵ As an example, it would be interesting to model the relation between ties with the government and the business group structure, in contrast with politically connected firms that operate only in one industry and are not connected to other group firms.

deter entry; under certain conditions they may actually be “softer” than stand-alone firms.²⁶ Also related to the theoretical industrial organization literature is Feenstra et al.’s (2003) model of the relation between business group structure, monopoly power and patterns of competition in international markets. There seems to be scope for many more theoretical analyses of groups and industrial organization.

Modern empirical evidence on the (plausible) hypothesis that business groups restrict competition is surprisingly scarce. Encoua and Jacquemin (1982) investigate French industrial groups and find little evidence of their having any market power (although the econometric techniques used in empirical industrial organization have evolved significantly since then). Instead, they favor a Chandlerian view of business groups as an efficient form of a multi-divisional firm. Weinstein and Yafeh (1995) argue that Japan’s bank-centered groups compete aggressively against each other rather than collude. There are occasionally (unsubstantiated?) claims on intense rivalry between the Korean *chaebol* (even if true, this need not preclude anti-competitive deterrence of entry by non-group firms), or about collusion among ethnic Chinese business groups in East Asia (Commonwealth of Australia, 1995). Overall, it is surprising that no attempts have been made to use modern NEIO (New Empirical Industrial Organization) techniques to assess the market power of business groups around the world, and this may be a promising line for future research. Our view on this issue is that, just like other potential effects of groups on economic activity, the context (or the economic environment) must matter for the impact of groups on competition and market structure. Market power is more plausible in South Korea or in South Africa, where four or five leading groups account for the vast majority of

²⁶ See also Faure-Grimaud and Inderst (2004) who discuss related issues in the context of conglomerates with internal capital markets.

market capitalization, than in India or Brazil, where the top groups account for less than 10 percent. But as of now, this is merely a conjecture.

III.5 Groups as Networks: Insights from the Related Sociology Literature

The vast literature in economic sociology views business groups as networks and often relates their prevalence to notions of “trust.” This concept is somewhat related to economic arguments regarding the less than perfect rule of law in many emerging markets as reflected both in the description of groups as a possible substitute for missing institutions of contract enforcement and in the literature on tunneling discussed above. Sociologists often emphasize that kinship and other social ties, for example, facilitate economic transactions. But the sociological literature goes beyond that, and regards some network structures as serving primarily social and cultural purposes, rather than seeking to achieve economic objectives. This approach shifts the focus from group diversification or pyramidal structure to other forms and functions that groups may take.

Granovetter (2005) is an excellent survey of the literature on business groups in economic sociology. His starting point is that the mixed evidence on the performance of group members (discussed in Section II) suggests that considerations other than economic efficiency may be at play. This is reinforced, he argues, by the enormous variation in the structure of business groups around the world, which is likely to reflect societal, cultural, institutional and other norms going beyond standard economics. Factors ranging from corporate law (in the US) and state leadership (in Korea), to inheritance customs (e.g. primogeniture or other), kinship structure, national ideology and even pride, may all play a role in shaping corporate groups in different environments. Cultural edicts on how economic exchange should be

arranged, rather than a rational response to missing markets or economic institutions, may account for differences in the structure of groups between, for example, Korea and Taiwan (Hamilton and Feenstra, 1997; Hamilton, 1997). Indeed, according to Hamilton (1997), Taiwanese groups and supplier relations should be understood as culture-specific networks of relatives and friends (*guanxi* in Chinese).

Another theme emphasized in this school of thought is the multi-dimensional (social and economic) ties that connect group members: equity and debt relations are just one mechanism of holding the group together, and in some cases this may not even be the most important one. Thus, Khanna and Rivkin's (2000) econometric analysis of Chilean business groups questions the equation of business groups with equity-linked organizations, and Siegel (2004) points to the importance of regional and school ties relative to equity and debt in Korea. Somewhat related is the issue of group identity, which is sometimes linked to ethnic and social background (e.g. in India or in Malaysia). In this respect, some of the economic sociology literature views groups as a vehicle to achieve goals related to this sense of identity or to social status, rather than as a means to maximize profits or diversify investments (Granovetter, 2005).

One implication of this literature is that it is not surprising that groups tend to persist, even when the economic considerations no longer justify it (see Section VII). Another is that treating business groups as networks might lead to a variety of potentially useful and virtually unexplored analogies between business groups and other network-based institutions. These could range from networks of shipyard workers and their families in Glasgow (Ingram and Lifschitz, 2003), to the networks of Chinese business in Asia (Commonwealth of Australia, 1995), the Chinese

Diaspora more generally (Pan, 1999), and even some of the commercial networks of medieval Europe.

IV. Novel Approaches to the Analysis of Business Groups

IV.I Groups as a Nexus of Unfamiliar Contracts

Many of the common perspectives of business groups can be considered within an umbrella view of groups as a nexus of contracts (using the terminology of Jensen and Meckling, 1976). For example, conglomerates represent a form of non-market-based contracting among business units, pyramidal equity structures are built around chains of equity contracts, and it is also possible to view groups as symptoms of familial contracts (see below). Our objective in this section is to introduce contracting views of business groups that may be potentially helpful in understanding this institution, but that researchers have left relatively unexamined. Another, implicit, objective of this section, is to portray several under-explored dimensions of business groups in emerging markets; these may shed some light on the question why, unlike conglomerates, this diversified organizational form is so common outside the US.

One unexplored view of business groups would focus on within-group debt contracts in order to draw parallels between groups in emerging markets and LBO organizations in the US.²⁷ Baker and Montgomery, for example, in an unpublished manuscript from 1994, compare (American) conglomerates and LBO organizations. Business groups appear to share contractual features both with conglomerates and LBO organizations: as in LBO's, each business group affiliate is organized as a separate legal entity, with its own fiduciary responsibilities, its own board, and its own disclosure regime. Just like LBO associations that finance individual purchases

²⁷ We thank Krishna Palepu for suggesting this analogy.

with heavy leverage, business groups often launch new ventures with financial support from financial intermediaries. In India, for example, a typical new venture of the past few decades was launched with very little equity capital from the entrepreneur (just as in an LBO) and a lot of (equity and) debt from domestic institutional investors. There is also extensive evidence that the Korean *chaebol* were extremely heavily leveraged (Clifford, 1994; Chang, 2003a), a feature that made them especially vulnerable during the Asian crisis of 1997-1998. (As we show in the next sub-section, one reason for the high leverage ratios of business groups may be the desire to maintain family control, which could be at risk if external equity is used above a certain level).

But the parallel between business groups in emerging markets and American LBO organizations should not be taken too far. Debt from Indian institutional investors or from government-controlled financial institutions in Korea would hardly have the disciplining character of debt from American capital markets in the heyday of LBO's. Another striking difference is that LBO organizations in the US were forced to liquidate their investments within a defined time period. This led to an independent measure of the value of each business (in order to sell it), and to a powerful incentive structure, quite different from that prevailing in the case of a business group in an emerging market.

Another nexus of contracts-type perspective through which groups can be viewed is related to the process of entrepreneurship. New ventures initiated by business groups rely not just on capital infusion from the group, but often also on the group brand name and implicitly on its reputation, providing a guarantee that is scarce in emerging markets. There is also an internal (within-group) market for talent. In the absence of such mechanisms for internal growth, and given the lack of well

functioning markets for risk capital, these ventures would simply not exist. In this sense business groups are perhaps closer to private equity firms than to conglomerates. Jones (2000) makes this point in relation to British trading houses in the early twentieth century: one the primary functions of these early groups (which, like many venture capital funds today, were often organized as partnerships) was “identifying opportunities and placing potential British investors in touch with them” (pp. 50-51). It may be possible to argue that in India today Tata Industries comes close to this view of a business group as a quasi-venture capitalist, albeit with longer investment horizons than typical American private equity funds (Khanna and Palepu, 2005). Another Indian group, Birla, helped found and finance new firms, which were later spun-off, using the entrepreneurial talent of its employees. The process of “spawning” new companies by established firms or business groups may potentially be important in emerging markets where it is probably difficult to start *de novo*.²⁸ Nevertheless, the business group-VC analogy has not been systematically explored.

Finally, there is a natural, yet virtually unexplored, analogy between business groups and multinational firms. In a sense, a multinational company is a cross-border contract between headquarters and local subsidiaries. (Usually, in modern parlance, the contract is an intra-firm one, but occasionally the headquarters might contract with local entrepreneur to form a joint venture). There are plausible analogies between internalizing cross-border transactions because of cross-border market imperfections (e.g. Caves, 1996, and more recently, Foley, 2002), and internalizing within-country transactions because of local market imperfections. There may also be some similarities between within-group transfers (risk sharing or tunneling) and transfer pricing within multinational firms. More generally, the relative economic importance

²⁸ See Gompers et al. (2005) for a discussion of entrepreneurial spawning in the US.

of geographic diversification, export orientation, and industrial diversification is virtually unexplored. Jones' (2000) study of historical British trading houses is a good starting point because, in contrast with most modern groups, these were global enterprises (see also Jones and Wale, 1998). This characteristic of historical groups may become more important in the future as groups in developing countries (Korea for some years now, and India and China more recently) expand around the world aggressively.²⁹

IV.II Groups as Familial Constructs

Although conceptually family ties can be viewed as another type of contract, this evolving literature raises enough interesting issues to warrant a separate subsection. As noted before, some of the literature on groups within sociology regards business groups as a family organization, whose objective is tied to the social milieu (Orrù et al., 1997). Diversification, for example, may be interpreted as a way to manage family assets – firms are merely asset holders for lineage interests (Hamilton, 1997), although it is not clear from these studies why family assets cannot be divided into independent companies without the group structure. In contrast with the literature in sociology, the economic and financial literature on family firms is in its infancy, and mostly recent. Nevertheless, it contains several interesting implications for the analysis of business groups. Conversely, the study of business groups in emerging markets as family-controlled entities, can inform the literature on family firms in developed economies.

Entry points into this literature are Morck et al. (2000) and Morck et al. (2004), who emphasize a correlation between the dominance of a few families and

²⁹ See also Fauver et al. (2004) for an investigation of the possible analogy between the discount at which diversified firms are traded, and the valuation of multinational firms.

slow economic growth. The causal link between family ownership and poor performance is, however, controversial and seems to depend critically on ownership, management (internal or external) and succession issues that seem extremely relevant to the analysis of business groups. Chronologically the earliest in the micro-economic literature we discuss in this section is Smith and Amoako-Adu (1999) who measure stock market responses to management succession in Canadian family firms. They find that a negative stock price response to the appointment of family members as managers, which is mostly due to their relative young age and inexperience (see also Perez-Gonzalez, 2001). Anderson and Reeb (2003a) show that a surprisingly high fraction of the S&P 500 firms in the US are family controlled (although their definition of family firms is controversial), and that these firms perform relatively well, especially when a family member serves as CEO. Amit and Villalonga (2004) qualify these findings and suggest that family firms add value *only* when the founder serves as CEO or as chairman with a hired CEO. They also measure the relative agency costs of conflicts between ownership and management and between controlling family shareholders and minority outsiders, finding that the latter conflict is not as severe as the former in founder-CEO firms. In a related paper, Anderson and Reeb (2003b) do not find evidence of high diversification and of minority shareholder expropriation in family-controlled American firms. Anderson et al. (2003) show that family firms can raise debt finance relatively cheaply, because of a congruence of interests between equity and debt holders – owners of family firms are relatively risk averse because of considerations related to succession or to their limited diversification. The latest in the rapidly growing empirical literature on family firms is Bennedsen et al. (2005), who use an unusual data set from Denmark to examine the determinants of family succession and its influence on firm performance. Moving

from empirics to theory, some of these issues are modeled in Burkart, Panuzi, and Shleifer (2003) and in a number of other recent studies.³⁰ This entire literature discusses family firms, not business groups directly, and these results may or may not be applicable to different social and economic environments. Nevertheless, the issues raised, such as succession, differences between founder-controlled firms and successor-controlled ones, the importance of family control vs. family management, the tendency to use debt finance and the link between all these and performance seem highly relevant for the analysis of business groups.

A recent working paper by Bertrand, Johnson, Samphantarak and Schoar (2004) is the first to examine these issues systematically in the context of Thai business groups dominated by Chinese families. Using elaborate data on 70 groups, they show that the group structure is related to family history and evolution, for example, to the number of male sons of the founder or to the number of brothers he had. Bertrand et al. (2004) also attempt to relate diversification and growth to family considerations, and to link group performance to intra-family feuds.³¹ The relation between family considerations and business group structure is apparently not specific to Thailand: Piramal (1998, p. 337), for example, provides anecdotes describing how inter-generational considerations influence the structure of business groups in India.³² There is also anecdotal evidence of the importance of family considerations, such as

³⁰ See, for example, Bhattacharya and Ravikumar (2001), Caselli and Gennaioli (2002).

³¹ See also Polsiri and Wiwattanakantang (2005) for information on families and business groups in Thailand.

³² The decision of Williamson Magor Group to acquire Union Carbide India in 1994 was apparently prompted by the Khaitan family's worry about its offspring's habits. "Worried that their son ... was spending too much time in their stable of three hundred horses, Shanti (Khaitan) persuaded her husband to make an offer Deepak (Khatian) needed to settle down, and she was convinced that a big company like Union Carbide would be just the right ticket." Similarly, Kasturbhai Lalbhai, a cotton textile magnate, made four large investments the period 1929-1935, of which three were designed to sustain his nephews' careers, and the fourth was to avoid disgracing the family name by bailing out an errant family member.

succession issues, to the conduct and performance of the Korean *chaebol* (see Amsden, 1989, for an early discussion of this point, and Kim, 1997).³³

As noted in previous sections, there is a tendency of many groups to use debt rather than equity finance. This feature may be related to family ownership, reflecting a desire not to dilute control (Chang, 2003a, discusses this in the context of the Korean *chaebol*). It is not clear, however, if this tendency is more pronounced in family-controlled groups than in stand alone family firms.³⁴

We find the family-firms line of research highly promising, although future applications of this approach to business groups are not straightforward. First, while all of the studies discussed in this section focus on the link between families and firm performance, performance might also affect the stability of the familial contract and thereby the structure of families. Bertrand et al. (2004) make the first step in addressing this issue when they treat the number of male off-springs as an endogenous outcome. Second, in many cultures, it is not at all clear that “what one sees is what one gets” with regard to the family assets. In other words, the best assets of the family might not be the publicly listed parts (Bertrand et al., 2004, and Khanna and Palepu, 1999a, attempt to address this issue). Furthermore, the equity contracts that are visible to the public observer and the social scientist might not be the most meaningful contracts in systems where relationship contracting predominates. Thus, future studies on business groups as family firms will face formidable data constraints. One way to progress might be to contrast business groups that are single-family controlled (presumably the vast majority) with those that are either not family controlled (e.g.

³³ Keister (2004) also discusses family and business group structure in Korea and China; Commonwealth of Australia (1995) emphasizes family-related issues as determinants of group structure in Indonesia, and describes family ties and inheritance customs in ethnic Chinese business groups in several other East Asian countries. Claessens et al. (2000) discuss family firms as an important feature of Asian companies more generally, and Jones (2000) regards historical British trading houses as well-functioning family-controlled groups.

³⁴ On various other aspects of debt finance in business groups, see Bianco and Nicodano (2002) or Manos et al. (2004).

business groups orchestrated by the government in China as described by Keister, 2004, or some Chilean business groups described by Majluf et al. 1995), or are controlled by multiple families (e.g. LG in South Korea for at least part of its history, or some joint ventures between the Koc and Sabanci groups in Turkey). Finally, viewing the family as the unit of analysis, rather than the firm, might provide some insights. In a classic and related analysis of Chile in the 1960's, Zeitlin and Ratcliff (1988) find little coincidence of land ownership and business control at the level of the individual, but a high degree of overlap at the family level.

V. Historical and Dynamic Analyses of Business Groups

Historical and dynamic (over a long period of time) perspectives of business groups can enrich our understanding of this institution in several ways. First, it would be interesting to compare the validity of cross-sectional explanations for the ubiquity and performance of business groups with time-series based perspectives (Jones and Khanna, 2005). For example, is the evolution of a particular group or of groups in a given country, consistent with one of the explanations proposed by the modern literature? Do groups evolve in a fashion that is consistent with missing institutions, risk sharing, tunneling, use of a scarce resource, etc.? Unfortunately, most of the long-term views of business groups, often in the business history tradition, are not written with clear hypotheses and tests in mind. For example, the Japanese prewar *zaibatsu* come to mind as an obvious example for an opportunity to carry out a long-run study of business groups, because of the wealth of information about their activities and development, providing over five decades of data. Morikawa (1992) is the most detailed English-language study of these groups with a plethora of information on their origins, evolving relations with the government, growth and diversification

patterns, controlling families, human resource management, and more. Although he tends to interpret the *zaibatsu* growth and diversification history in a Chandlerian tradition of efficient management and use of internal resources, the evidence is not set up in a way that enables testing competing hypotheses about the reasons for the existence and growth of these groups. Several recent attempts have been made to overcome the a-theoretical nature of much of the business history literature: As noted above, Morck and Nakamura (2005), for example, re-interpret much of the evolution of the *zaibatsu* as evidence of tunneling. Franks, Mayer and Miyajima (in progress) disagree and do not find much evidence of tunneling in the major *zaibatsu* groups; instead, they argue that small shareholders were happy to invest in their shares in the stock market dominated financial system of prewar Japan (see also Hoshi and Kashyap, 2001). Moving beyond Japan, there are a number of historical studies of the Korean *chaebol*, spanning a shorter time horizon than their Japanese equivalents; again, much of this literature is descriptive in nature. Chang (2003a), one of the most comprehensive historical studies of the Korean *chaebol* comes close to presenting explicit hypotheses about their growth and evolution: The Korean *chaebol*, he argues, much like the Japanese *zaibatsu* in the late nineteenth century, developed under the auspices of a development-oriented government, but gradually became independent and pursued a growth strategy that reflected their resources and competitive advantages. Other examples of theory-driven historical studies are Maurer and Sharma's (2001) study of the evolution of nineteenth century Mexican business groups (which, in their view, was a response to limited contract enforcement), Khanna and Palepu's (2005) study of the evolution of business groups in India (which, they argue, fits the view of groups as a substitute for under-developed institutions; see also Jones, 2000 on historical British groups), and Aganin and Volpin's (2005) study of

the evolution of Italian groups (which focuses on investor protection and political issues).

Many more historical studies with explicit hypotheses in mind, especially with competing hypotheses whose testable implications can be contrasted in time-series data, could be highly informative in order to shed further light on the evolution of groups, on path dependence (ways in which “history matters”), and on the *raison d’être* of group formation and development.

A second important advantage of historical studies is that they can address questions that cannot be addressed in cross-sectional studies. One example can be the use of a time series-based perspective to draw evidence on what groups do in order to shape the environment in which they operate, rather than merely react to it (in ways that could be socially beneficial or in ways involving social costs). Historically, groups have often invested in market-supporting infrastructure and launched new industries (the Japanese *zaibatsu* are a good example). Kim (1997) argues that the Korean groups lobbied for liberalization in the 1980’s. By contrast, groups may resist certain political reforms, improvements in minority shareholder protection or antitrust legislation (this seems to be the case in Korea in recent years). Entrenchment (Morck et al., 2004), or extensive tunneling could impede the development of financial markets. We are not aware of any systematic historical studies which are motivated by this perspective.

Another important question that can hardly be addressed in cross-sectional studies is the question of the origin of groups, a subject on which there is virtually no systematic comparative work. Table IV presents a preliminary overview on this question drawn from country-specific and group-specific historical studies: the general importance of group-government ties comes across very strongly in the table,

although there are certainly some important exceptions (e.g. Taiwan among the countries in Panel A; Samsung among the groups described in Panel C). Transfer of colonial assets, family considerations, and some ethnic-related issues also appear in several countries. Despite some repeated patterns, there is quite a bit of variance in the origins of different groups even in similar institutional environments – the origins of eight prewar Japanese *zaibatsu* and five Korean *chaebol*, described in Panels B and C of Table IV, suggest a variety of backgrounds and origins for groups that are usually regarded as similar. The table does not answer the question why business groups evolved in these countries rather than diversified conglomerates or other structures.

To a certain degree, history can also illuminate the issue of longevity of business groups (e.g. Yafeh, 1995, on the *zaibatsu* dissolution in Japan) – at present it is unclear whether groups tend to survive for longer periods than stand alone firms and whether or not they ever dissolve voluntarily; we return to this issue in the concluding section.

Finally, the application of games describing institutions in the spirit of Aoki (2001) and Greif (2005) is often difficult without a time dimension which facilitates the incorporation of features such as reputation, changing attitudes and more. This is yet another reason to investigate business groups from a historical perspective.

Before proceeding to the discussion of the literature on Japan's corporate groups (in the next section) and to our preferred agenda for future research (in the concluding section), it may be useful to pause and summarize the trends in the existing literature on business groups discussed in this survey by focusing on articles dealing with groups in one country, Korea. Table V summarizes many of the English language journal articles on the Korean *chaebol*: the literature exhibits a pronounced

shift in recent years from a positive (or at least mixed) view of groups as diversified entities to a clear impression that groups are undesirable. Table V also illustrates some strong trends in the economics-finance profession, as reflected in the recent focus on tunneling and conflicts between controlling and minority shareholders. Features of corporate groups which were praised in some of the early studies when Korea was doing well (e.g. centralized control) have been reinterpreted more recently as potential weaknesses, which are detrimental to small shareholders.³⁵ Finally, Table V exhibits many of the methodological shortcomings discussed in this survey, in particular the tendency to focus on listed or quasi-listed (audited) firms (because of data constraints), the limited use of information on group structure and on familial and other possible intra-group contracts, and the absence of a dynamic perspective. Extending the literature to remedy these shortcomings is promising.

VI. Is the Literature on Japan's Corporate Groups Relevant for Understanding Groups in Emerging Markets?

A discussion of business groups in emerging markets cannot be complete without some reference to the theories and evidence on the Japanese *keiretsu*, and their precursors, the *zaibatsu* – the subject of a large body of research spanning nearly three decades. The popularity of Japan as a testing ground for theory and evidence on business groups stems partly from data availability and partly from the desire of scholars to decipher the secret the “Japanese miracle.”

³⁵ There is an interesting analogy between the literature on corporate groups in Korea and the literature on the Japanese financial system. When Japan was considered a “miracle,” the small number of bankruptcies in that country (due to close ties between banks and their clients) was interpreted as evidence of the efficiency of the Japanese financial system, where unnecessary bankruptcies are avoided (Hoshi, Kashyap, and Scharfstein, 1990). Later, the same statistical correlations were reinterpreted as evidence of inefficiency, where banks artificially keep alive virtually bankrupt “zombies” (Peek and Rosengren, 2003).

Much of the vast literature on Japan's corporate groups (surveyed in Yafeh, 2003) has focused on "horizontal" or bank-centered groups. An important feature of these studies is the emphasis on bank-firm relationships within Japanese groups ("main bank" ties), as opposed to the anonymous relations in Anglo-Saxon stock market-based financial systems (e.g. Weinstein and Yafeh, 1998; see a survey of the literature in Hoshi and Kashyap, 2001), which have implications for capital allocation decisions, corporate governance or assistance to member firms in financial distress.

The institutional underpinnings and economic environment in postwar Japan are different enough from those of contemporary emerging markets that we advocate caution in generalizing results and conclusions from the Japan-keiretsu literature. Financial institutions within Japanese corporate groups, the focus of this literature, are often non-existent in other countries, and few of them wield as much power as the major Japanese city banks did in much of the postwar period. In addition, present-day Japanese bank-centered groups have no controlling families and no organized mechanism of joint decision making – characteristics that feature prominently in many less developed economic environments. For example, Khanna and Yafeh (2005) examine whether the conventional wisdom on Japanese group members as low profitability and low risk firms with mutual risk sharing arrangements applies to a sample of emerging markets. As noted in Section III, they find that, as far as risk and return profiles are concerned, the behavior of groups in most emerging markets, with the notable exception of Korea, is often very different from the behavior of Japanese group members.

A second type of group in Japan is the so-called vertical group, or manufacturer-centered group organized around a large manufacturer and its suppliers, within a given industry (e.g. the Toyota group). The efficiency of these groups has

been studied extensively (see a brief discussion and references in Yafeh, 2003): the main thrust of the argument is that such groups combine insurance and incentives in a way that is designed to reduce hold-up problems through long-term relations without full vertical integration which suppresses market incentives. To some degree, this literature may be of relevance to the study of groups elsewhere to the extent that they involve significant within-group trade and vertical integration (e.g. see Chang, 2003a, on vertical integration in Korean groups). On the other hand, the “Toyota system” is unique in many ways (within Japan too) and it is not clear that the manufacturer-supplier (vertical *keiretsu*) relationship is the most crucial element in it.

Perhaps the most promising comparison between Japan and present-day emerging markets can be done using historical data on the prewar Japanese *zaibatsu* which operated in an institutional environment which is much closer to the one present in many developing countries. In contrast with the literature on corporate groups in postwar Japan, studies of the prewar *zaibatsu* using the modern tools of economics and finance are surprisingly scarce, and many more insights can potentially be drawn from systematic comparisons of the evolution and performance of the Japanese *zaibatsu* between the 1870’s and World War II and business groups in other countries (a comparison with the Korean *chaebol* is the most immediate example that comes to mind because of their structural similarities to the *zaibatsu* of the past – indeed, the words *zaibatsu* and *chaebol* are different ways to pronounce the same combination of Chinese characters).

VII. An Agenda for Future Research

The concluding paragraphs of many of the preceding sections contained some ideas for immediate extensions of existing studies using different approaches,

techniques and data. The purpose of this final section is to outline more general directions for future research, in view of what we believe we know, and what we would like to know, about business groups in emerging markets. Taking a broader (and longer) perspective on the literature, our impression is that there is yet no verdict on the economic roles played by business groups around the world (“the jury is still out”). The evidence on the roles played by business groups is mixed, involving some benefits and some costs. There is no general answer to the question whether business groups are “paragons” or “parasites,” partly because of the vast differences across countries and groups, and partly also because groups are likely to have multiple effects, some of which are desirable, others less so.

Moving to general methodological observations, much of the literature is subject to doubts about extent to which comparisons between groups and non-groups are valid. First, the formation of business groups remains unexplained in much of the literature. No study to date has managed to portray empirically the endogenous formation of business groups (by using compelling instrumental variables or some other method). The theoretical work on this issue is also in its infancy. Second, selection effects may also hide important information – it is difficult to compare groups and non-groups since they might be suited to activities in different kinds of industries. And finally, the literature is unclear regarding the appropriate counterfactual: against what benchmark should groups be evaluated? The ideal is a well functioning market economy, but in reality the world consists of distant second-bests. These observations dictate our preferred future research agenda.

How are Groups Formed?

Theory and evidence on the endogenous formation and dynamic evolution of corporate groups are largely missing, and more evidence on these issues could shed light on the reasons for group existence and development. On the theory side, there are only a handful of relevant models – Kali (1999) studies the endogenous formation of business networks in response to limited contract enforcement by the legal system; he has also modeled imperfect information in capital markets as another possible motive (Ghatak and Kali, 2001; Kali, 2003). Almeida and Wolfenzon (2004) propose a theory to explain the formation of pyramidal groups – here again the focus is on financial market imperfections and on the ability to use the internal funds of the entire group. This theory departs from the conventional, albeit typically informal, view that pyramidal groups are formed to generate a wedge between control and cash flow rights – an approach that can perhaps explain to some extent the prevalence of business groups rather than conglomerates (e.g. Bebchuk et al., 2000; Bianco et al., 2001). A particularly intriguing theoretical direction (also related to under-developed financial markets) would relate the formation of groups with risk attitudes: are groups a mutual insurance arrangement that attracts risk averse, weak, economic agents? Kim (2004) offers a model along these lines; empirical evidence by Munshi and Rosenzweig (2004) on informal mutual insurance institutions in India, and by Abramitzky (2005) on the Israeli Kibbutz may offer some useful insights.

Another, empirical rather than theoretical, direction for research on these subjects is historical – can the evolution and patterns of growth of business groups offer any insights on the original reasons for their formation? For example, the business groups in evidence in India today have vastly different types of origins. Some, like the Tata's and Birla's were created by indigenous entrepreneurs during the

time of the British Empire. A second wave, like the Goenkas and the Khaitans, were the product of the post-independence (1947) transfer of assets from the British to Indians. A third set originated during India's "License Raj" of the 1960's and 1970's.

Existing empirical studies of these issues are often based on small data sets and employ empirical techniques that are not fully convincing. For example, Chung (2001 and 2004) examines the origins and evolution of groups in Taiwan, distinguishing between reasons related to market forces, culture, and societal institutions, but the relative empirical importance of these factors is hard to disentangle. Tsui-Auch (2005a) documents a tendency among ethnic Chinese entrepreneurs in Singapore to form diversified business organizations (in comparison with ethnic Indian entrepreneurs), and attributes this interesting observation to the cultural heterogeneity of the Chinese community. The empirical support for this claim, however, is suspect because of other systematic differences in the background of Chinese and Indian entrepreneurs in Singapore. More sophisticated empirical analyses of the differential origins of business groups are likely to be valuable.

Somewhat related conceptually is the idea to use within-country variation in the structure and development of business groups to draw some conclusions on the forces that lead to their formation. For example, it appears that the Chinese government pursued liberalization primarily in regions where it was weak (the south), and not in the northeast (e.g. Beijing) where the Party had its pre-1949 stronghold. Is it the case that state-sponsored groups created by fiat are developing primarily in the northeast?³⁶ Variation in group presence across Indian provinces might shed light on the relation between the formation of business groups and issues related to ethnic

³⁶ Fan, Wong, and Zhang (2005) is the first attempt to exploit empirically the variation in the formation of pyramidal business groups in China, although not exactly along the dimensions we propose here. They relate the formation of state-controlled pyramids to provincial fiscal conditions, and the formation of privately owned pyramids to the depth of the founding entrepreneur's pockets.

identity and perhaps also “trust.” For example, is it possible to map the presence of certain ethnic groups in certain regions (e.g. Marwaris in Rajasthan and, by migration, in Bengal; Chettiars in the south) to the formation and development of groups along similar ethnic lines? This entire agenda is related also to recent attempts to identify factors affecting the variation in ownership structure of (Korean) group-affiliated firms – for example, the relation between firm characteristics or performance and the equity stakes of insiders or family members (see Chang, 2003b; Kim, Lim and Sung, 2004; and Lim and Kim, 2005).

The Longevity of Groups /Are Groups Ever Dissolved?

In most countries, very long-lived groups can be found. In some cases, groups have survived over a long period, starting in an era when the country was poor, all the way to prosperity (e.g. Sweden). But there is no systematic evidence on the question whether or not the longevity of group affiliates exceeds that of otherwise comparable, unaffiliated firms. More generally, when looking around the world, one gets the impression that, if groups ever dissolve, this typically follows a dramatic change in government policy: President Roosevelt deliberately attempted to dismantle American big businesses during the Great Depression (Morck, 2004; Morck and Yeung, 2004), which may explain why he could muster the necessary political will. The American occupation authorities forcefully dissolved the Japanese *zaibatsu* after World War II (Yafeh, 1995). The Korean government attempted to curb the power of the major *chaebol* following the Asian financial crisis of 1997-1998 (Khanna and Palepu, 1999b; Chang, 2003a) with limited success - a recent collective volume (Chang, 2005) suggests that the business group phenomenon in Korea and elsewhere in Asia did not disappear following the 1997 crisis, although some groups did collapse and

others were forced to restructure.³⁷ Moving from East Asia to post-Apartheid South Africa, the dramatic change in the political scene has brought about the unbundling of some white-controlled groups (and the emergence of some new “Black-Empowerment” groups and conglomerates).

Can groups ever die peacefully? We are not sure. One of the few examples of such a process is provided by Jones (2000), who describes the demise (or re-focus) of British trading houses during recent decades in response to a changing environment (rise of diversified institutional investors in London, decolonization abroad, decline in trade in raw materials etc.). Morck et al. (2005) show that Canadian pyramids died peacefully in the mid twentieth century due to market crashes, inheritance taxes, and other factors, but new groups arose to replace them in the later decades of the century. There is also some recent evidence on the on-going, gradual decline of cross shareholding in Japanese corporate groups (Okabe, 2003; Yafeh, 2003; Miyajima and Fumiaki 2004).

We believe this line of research offers some very interesting questions. Can corporate structure in emerging markets self-evolve into a more focused structure as the country develops? What is the role of government in this process? Is it advisable, or even possible, for the state to forcibly dismantle groups, as has been attempted in Korea? Even if groups have run their course, is it clear that the desired policy is to try and dissolve them (Khanna and Palepu, 1999b)? Is a policy of benign neglect more feasible (as in India)? Or is it preferable to adopt a policy of supporting market-

³⁷ Chung and Mahmood (2005) show that Taiwanese groups became more diversified both across industries and across countries following the crisis (a result reminiscent of Khanna and Palepu, 1999a); they also became more pyramidal in structure. Tsui-Auch (2005b) examines both government-owned and privately-owned groups controlled by ethnic Chinese in Singapore, finding certain gradual changes (increased focus) but much continuity. Gomez (2005) documents significant weakening of Malaysian groups with the demise of their patrons, Daim, Anwar, and eventually Prime Minister Mahathir. Polsiri and Wiwattanakantang (2005) describe the restructuring of Thai business groups and Hanani (2005) of Indonesian groups. None of these studies suggests that the dissolution of business groups in any of these countries is imminent.

institutions actively (as in Chile) that in turn may impose discipline on errant and wayward groups? Is it clear that when the social costs of corporate groups exceed their social benefits, private costs to group owners will also exceed private benefits? Can groups involving substantial inefficiencies persist for a long time? If so, is it because of a weak corporate control environment? Because of social reasons (e.g. families who diversify to accommodate disparate interests of next generation)? These are complex theoretical issues; at present, we are aware of only one study that tries to address them theoretically: Almeida and Wolfenzon (2005, discussed again in the next sub-section) argue that because of negative externalities (on the ability of non-group firms to raise finance) business groups do not realize the full cost of their presence (and presumably will not dissolve on their own).

What is the Appropriate “Counterfactual” to Corporate Groups?

When evaluating the role of corporate groups and their impact on social welfare, we do not know what the appropriate counterfactual is – what would have the economy looked like without groups? This “fallacy of the idealized counterfactual” makes the evaluation of groups difficult: In the absence of groups, would there be other forms of networks? Would market-supporting institutions emerge spontaneously? What can we learn from recent policy interventions (e.g. in Korea or China) about the right counterfactual? This agenda might involve substantial theoretical work, not only empirical evidence. Again, Almeida and Wolfenzon (2005), who evaluate the welfare implications of business group as a function of measures of efficiency of external financial markets, is an interesting starting point.

What Do We Know about Group Involvement in the Financial Sector?

A different, interesting direction for future research could attempt to relate group involvement in banking, insurance and other aspects of the financial system to the costs and benefits of business groups. Some of the Japanese main bank literature (where the financial aspects of business group activities are emphasized) could be of help. Other studies, for example by La Porta, Lopez de Silanes and Zamarippa (2003) on the negative sides of “related lending” could also inspire more systematic work on these aspects.³⁸ In the early 1980’s, Chilean groups were implicated in a financial crisis and the associated failure of the first wave of privatization in that country, allegedly because of related lending. Beyond this, is there any indication that group involvement in financial markets is in any way related to the on-going debate on universal banking? Is there systematic evidence that group lobbying and involvement in finance hinder the development of financial markets? These issues are close in spirit to the recent political economy of finance literature, where investor protection and related financial system institutions are modeled as endogenous outcomes of political processes (e.g. Pagano and Volpin, 2001; Rajan and Zingales, 2003).

Groups and Macroeconomic Crises

Finally, it has recently become trendy to relate corporate groups, especially the poor corporate governance within them, to the financial crisis in East Asia (e.g. Corsetti et al., 1999; Johnson, Boone, Breach and Friedman, 2000; Mitton, 2002, Kim and Lee, 2003; Baek et al., 2004).³⁹ Somewhat related is the argument that crony capitalism enabled groups to borrow particularly easily, and moral hazard problems associated with this may have precipitated the crisis (Charumilind et al., 2002). The

³⁸ See also Chang (2003a), Chapter 5.

³⁹ Claessens et al. (2003b) is also related: they argue that within-group internal capital markets do not function well in crisis period.

popular press, especially in Korea, echoes these concerns. But are countries whose economies are dominated by business groups more crisis prone than countries characterized by stand alone companies? Is it the case that if a few families control a large fraction of an economy through business groups, microeconomic governance or management difficulties may turn into macroeconomic problems? On theoretical grounds, this is uncertain – links between group firms may propagate adverse shocks, but mutual insurance within groups can sometimes dampen them (Khanna and Yafeh, 2005). Empirically, the ubiquity of business groups may render such an exercise difficult, but this line of research has potentially important welfare and policy implications.

To us, business groups remain a fascinating topic for research, with potential implications for a variety of important questions in economics and finance. Despite the growing academic interest in recent years, we believe that the scope for future research on this institution is very promising.

References

Abramitzky, R. (2005), "The Limits of Equality: An Economic Analysis of the Israeli Kibbutz," unpublished manuscript, Northwestern University.

Aganin, A. and P. Volpin (2005), "The History of Corporate Ownership in Italy," in R. Morck (ed.) *The History of Corporate Governance around the World: Family Business Groups to Professional Managers* (Chicago, University of Chicago Press).

Almeida, H. and D. Wolfenzon (2004), "A Theory of Pyramidal Ownership and Family Business Groups," unpublished manuscript, NYU.

Almeida, H. and D. Wolfenzon (2005), "Should Business Groups be Dismantled? The Equilibrium Costs of Efficient Internal Capital Markets," forthcoming, *Journal of Financial Economics*.

America Economica (1997), *Los Principales Conglomerados* (Madrid, Dow Jones).

Amihud, Y. and B. Lev (1981), "Risk Reduction as a Managerial Motive for Conglomerate Mergers," *Bell Journal of Economics*, Vol. 12, pp. 605-617.

Amit, R. and B. Villalonga (2004), "How Do Family Ownership, Control and Management Affect Firm Value?" forthcoming, *Journal of Financial Economics*.

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

Anderson, R., S. Mansi, and D. Reeb (2003), "Founding Family Ownership and the Agency Cost of Debt," *Journal of Financial Economics*, Vol. 68, pp. 263-285.

Anderson, R. and D. Reeb (2003a), "Founding-Family Ownership and Firm Performance: Evidence from the S&P 500," *Journal of Finance*, Vol. 58, pp. 1301-1328.

Anderson, R. and D. Reeb (2003b), "Founding-Family Ownership, Corporate Diversification, and Firm Leverage," *Journal of Law and Economics*, Vol. 46, pp. 653-684.

Antunes, J. (1994), *Liability of Corporate Groups: Autonomy and Control in Parent-Subsidiary Relationships in US, German and EU Law* (Boston, Kluwer Law and Taxation Publishers).

Aoki, M. (1990), "Toward an Economic Model of the Japanese Firm," *Journal of Economic Literature*, Vol. 28, pp. 1-27.

Aoki, M. (2001), *Toward a Comparative Institutional Analysis* (Cambridge, MIT Press).

Bae, K., J. Kang and J. Kim (2002), "Tunneling or Value Added: Evidence from Mergers by Korean Business Groups," *Journal of Finance*, Vol. 62, pp. 2695-2740.

Bae, G., Y. Cheon, and J. Kang (2004), "Intra-Group Propping: Evidence from Earnings Announcements by Korean Business Groups," unpublished manuscript, Michigan State University.

Baek, S., J. Jang, and K. Park (2004), "Corporate Governance and Firm Value: Evidence from Korean Financial Crisis," *Journal of Financial Economics*, Vol. 71, pp. 265-313.

Baek, S., J. Kang, and I. Lee (2005), "Business Groups and Tunneling: Evidence from Private Securities Offerings by Korean Chaebols," unpublished manuscript, Michigan State University.

Baker, G. and C. Montgomery (1994), "Conglomerates and LBO Associations: A Comparison of Organizational Forms," unpublished manuscript, Harvard Business School.

Barca, F. and M. Becht (eds.) (2001), *The Control of Corporate Europe* (Oxford, Oxford University Press).

Bebchuk, L., R. Kraakman, and G. Triantis (2000), "Stock Pyramids, Cross Ownership, and Dual Class Equity: The Mechanisms and Agency Costs of Separating Control from Cash Flow Rights," in R. Morck (ed.), *Concentrated Corporate Ownership* (Chicago, University of Chicago Press).

Belderbos, R. and Sleuwaegen (1996), "Japanese Firms and the Decision to Invest Abroad: Business Groups and Regional Core Networks," *Review of Economics and Statistics*, Vol. 78, pp. 214-220.

Bennedsen, M., K. Nielsen, F. Perez-Gonzalez, and D. Wolfenzon (2005), "Inside the Family Firm: The Role of Families in Succession Decisions and Performance," unpublished manuscript, Columbia University.

Berger, P. and E. Ofek (1995) "Diversification's Effect on Firm Value," *Journal of Financial Economics*, Vol. 37, pp. 39-65.

Berle, A. and G. Means (1932), *The Modern Corporation and Private Property* (New York, MacMillan Company).

Bernheim, D. and M. Whinston (1990), "Multimarket Contact and Collusive Behavior," *RAND Journal of Economics*, Vol. 21, pp. 1-26.

Bertrand, M., P. Mehta and S. Mullainathan (2002) "Ferretting Out Tunneling: An Application to Indian Business Groups," *Quarterly Journal of Economics*, Vol. 117, pp. 121-148.

Bertrand, M., S. Johnson, K. Samphantarak, and A. Schoar (2004), "Mixing Family with Business: A Study of Thai Business Groups and the Families behind Them," unpublished manuscript, MIT.

- Bhagwati, J. (1982), "Directly Unproductive, Profit-seeking (DUP) Activities," *Journal of Political Economy*, Vol. 90, pp. 988-1002.
- Bhattacharya, U. and B. Ravikumar (2001), "Capital Markets and the Evolution of Family Firms," *Journal of Business*, Vol. 74, pp. 187-219.
- Bianco, M., M. Bianchi, and L. Enriques (2001), "Pyramidal Groups and the Separation between Ownership and Control in Italy," in F. Barca, F. and M. Becht (eds.), *The Control of Corporate Europe* (Oxford, Oxford University Press).
- Bianco, M. and G. Nicodano (2002), "Business Groups and Debt," forthcoming, *European Economic Review*.
- Blumberg, P. (1989), *The Law of Corporate Groups: Problems of Parent and Subsidiary Corporations under Statutory Law of General Application* (Boston, Little, Brown and Company).
- Borensztein, E. and J. Lee (2002), "Financial Crisis and Credit Crunch in Korea: Evidence from Firm-level Data," *Journal of Monetary Economics*, Vol. 49, pp. 853-875.
- Burkart, M., F. Panuzi, and A. Shleifer (2003), "Family Firms," *Journal of Finance*, Vol. 58, pp. 2173-2207.
- Buyschaert, A., M. Deloof, and M. Jegers (2004), "Equity Sales in Belgian Corporate Groups: Expropriation of Minority Shareholders? A Clinical Study," *Journal of Corporate Finance*, Vol. 10, pp. 81-103.
- Campa, J. and S. Kedia (2002), "Explaining the Diversification Discount," *Journal of Finance*, Vol. 57, pp. 1731-1762.
- Campbell, T. and P. Keys (2003), "Corporate Governance in South Korea: The Chaebol Experience," *Journal of Corporate Finance*, Vol. 8, pp. 373-391.
- Caselli, F. and N. Gennaioli (2002), "Dynastic Management," unpublished manuscript, Harvard University.
- Caves, R. (1996), *Multinational Enterprise and Economic Analysis* (2nd Edition, Cambridge, Cambridge University Press).
- Caves, R. and M. Uekusa (1976), *Industrial Organization in Japan* (Washington DC, The Brookings Institution).
- Cestone, G. and C. Fumagalli (2005), "The Strategic Impact of Resource Flexibility in Business Groups," *RAND Journal of Economics*, Vol. 36, pp. 193-214.
- Chang, S. (2003a), *Financial Crisis and Transformation of Korean Business Groups* (Cambridge, Cambridge University Press).

Chang, S. (2003b), "Ownership Structure, Expropriation and Performance of Group-affiliated Companies in Korea," *Academy of Management Journal*, Vol. 46, pp. 238-254.

Chang, S., ed. (2005), *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth* (Oxford, Oxford University Press).

Chang, S. and U. Choi (1988), "Structure, Strategy and Performance of Korean Business Groups: A Transactions Cost Approach," *Journal of Industrial Economics*, Vol. 37, pp. 141-158.

Chang, S. and J. Hong (2000), "Economic Performance of Group-Affiliated Companies in Korea: Intra-Group Resource Sharing and Internal Business Transactions," *Academy of Management Journal*, Vol. 43, pp. 429-448.

Chang, S. and J. Hong (2002), "How Much Does the Business Group Matter in Korea?" *Strategic Management Journal*, Vol. 23, pp. 265-274.

Charumilind, C., R. Kali, and Y. Wiwattanakantang (2002), "Crony Lending: Thailand before the Financial Crisis," forthcoming, *Journal of Business*.

Cheung, Y., P. Rao, and A. Stouraitis (2004), "Tunneling, Propping and Expropriation: Evidence from Connected Party Transactions in Hong Kong," forthcoming, *Journal of Financial Economics*.

Chevalier, J. (2004), "What Do We Know about Cross-Subsidization? Evidence from Merging Firms," *Advances in Economic Analysis and Policy*, Vol. 4 (on the web).

Choi, J. and T. Cowing (1999), "Firm Behavior and Group Affiliation: The Strategic Role of Corporate Grouping for Korean Firms," *Journal of Asian Economics*, Vol. 10, pp. 195-209.

Chung, C. (2001), "Markets, Culture and Institutions: The Emergence of Large Business Groups in Taiwan, 1950-1970," *Journal of Management Studies*, Vol. 38, pp. 719-745.

Chung, C. (2004), "Beyond Guanxi: Network Contingencies in Taiwanese Business Groups," forthcoming, *Organization Studies*.

Chung, C. and I. Mahmood (2005), "Taiwanese Business Groups: Steady Growth in Institutional Transition," in S. Chang (ed.), *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth* (Oxford, Oxford University Press).

Claessens, S., S. Djankov, and L. Lang (2000), "The Separation of Ownership and Control in East Asian Corporations," *Journal of Financial Economics*, Vol. 58, pp. 81-112.

Claessens, S., S. Djankov, J. Fan, and L. Lang (2002), "Disentangling the Incentive Entrenchment Effects of Large Shareholdings," *Journal of Finance*, Vol. 57, pp. 2741-2771.

Claessens, S., S. Djankov, J. Fan, and L. Lang (2003a), "Why Does Corporate Diversification Matter to Productivity and Performance? Evidence from East Asia," *Pacific Basin Finance Journal*, Vol. 11, pp. 365-392.

Claessens, S., S. Djankov, J. Fan, and L. Lang (2003b), "The Benefits and Costs of Internal Markets: Evidence from Asia's Financial Crisis," unpublished manuscript, the World Bank.

Claessens, S., S. Djankov, J. Fan, and L. Lang (2004), "The Benefits and Costs of Group Affiliation: Evidence from Asia," unpublished manuscript, the World Bank.

Clifford, M. (1994), *Troubled Tiger: Bureaucrats, Businesses, and Generals in South Korea* (New York, Sharp),

Comment, R. and Jarrel, G. (1995), "Corporate Focus and Stock Returns," *Journal of Financial Economics*, Vol. 37, pp. 67-87.

Commonwealth of Australia (1995), *Overseas Chinese Business Networks in Asia* (Parkes, Department of Foreign Affairs and Trade, East Asia Analytical Unit).

Corsetti, G., P. Pesenti, and N. Roubini (1999) "What Caused the Asian Currency and Financial Crisis?" *Japan and the World Economy*, Vol. 11, pp. 305-73.

De Long, B. (1991), "Did J.P. Morgan Men Add Value? A Historical Perspective on Financial Capitalism," in P. Temin (ed.), *Inside the Business Enterprise: Historical Perspectives on the Use of Information* (Chicago, University of Chicago Press).

Dine, J., (2000), *The Governance of Corporate Groups* (Cambridge, Cambridge University Press).

Dyck, A. and L. Zingales (2004), "Private Benefits of Control: An International Comparison," *Journal of Finance*, Vol. 59, pp. 533-596.

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

Faccio, M. (2004), "Politically Connected Firms," unpublished manuscript, Vanderbilt University.

Faccio, M. and L. Lang (2002), "The Ultimate Ownership of Western European Corporations," *Journal of Financial Economics*, Vol. 65, pp. 365-395.

Faccio, M., L. Lang, and L. Young (2001), "Dividends and Expropriation," *American Economic Review*, Vol. 91, pp. 54-78.

Fan, J., T.J. Wong, and T. Zhang (2005), "The Emergence of Corporate Pyramids in China," unpublished manuscript, Chinese University of Hong Kong.

Faure-Graimaud, A. and R. Inderst (2004), "Conglomerate Entrenchment under Optimal Financial Contracting," forthcoming, *American Economic Review*.

Fauver, L., J. Houston, and A. Naranjo (2003), "Capital Market Development, International Integration, Legal Systems, and the Value of Corporate Diversification: A Cross-Country Analysis," *Journal of Financial and Quantitative Analysis*, Vol. 38, pp. 135-157.

Fauver, L., J. Houston, and A. Naranjo (2004), "Cross-Country Evidence on the Value of Industrial and International Diversification," *Journal of Corporate Finance*, Vol. 10, pp. 729-752.

Fazzari, S., G. Hubbard and B. Petersen (1987), "Financing Constraints and Corporate Investment," *Brookings Papers on Economic Activity*, Vol. 1, pp. 141-195.

Feenstra, R., D. Huang, and G. Hamilton (2003), "A Market-Power based Model of Business Groups," *Journal of Economic Behavior and Organization*, Vol. 51, pp. 459-485.

Ferris, S., K. Kim, and P. Kitsabunnarat (2003), "The Costs (and Benefits?) of Diversified Business Groups: The Case of Korean Chaebols," *Journal of Banking and Finance*, Vol. 27, pp. 251-273.

Fisman, R. (2001), "Estimating the Value of Political Connections," *American Economic Review*, Vol. 91, pp. 1095-1102.

Fisman, R. and T. Khanna (2004), "Facilitating Development: The Role of Business Groups," *World Development*, Vol. 32, pp. 609-628

Foley, F. (2002), "The Effects of Having an American Parent: An Analysis of the Growth of U.S. Multinational Affiliates," unpublished manuscript, Harvard Business School.

Franks, J., C. Mayer, and H. Miyajima (in progress).

Friedman, E., S. Johnson, and T. Mitton (2003), "Propping and Tunneling," *Journal of Comparative Economics*, Vol. 31, pp. 732-750.

Gerlach, M. (1992), *Alliance Capitalism: The Social Organization of Japanese Business* (Berkeley University of California Press).

Ghatak, M. and R. Kali (2001), "Financially Interlinked Business Groups," *Journal of Economics and Management Strategy*, Vol. 10, pp. 591-619.

Ghemawat, P. and T. Khanna (1998), "The Nature of Diversified Business Groups: A Research Design and Two Case Studies," *Journal of Industrial Economics*, Vol. 46, pp. 35-61.

Gomez, E. and K. Jomo (1999), *Malaysia's Political Economy: Politics, Patronage and Profits* (Cambridge, Cambridge University Press).

- Gomez, E. (2005), "Malaysian Business Groups: The State and Capital Development in the Post-Currency Crisis Period," in S. Chang (ed.), *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth* (Oxford, Oxford University Press).
- Gomez-Galvarriato, A. (2005) "The Political Economy of Protectionism: The Mexican Textile Industry, 1900-1950," in S. Edwards (ed.), *Growth, Institutions and Crises: Latin America from a Historic Perspective* (Chicago, University of Chicago Press, forthcoming).
- Gompers, P., J. Lerner, and D. Scharfstein (2005), "Entrepreneurial Spawning: Public Corporations and the Genesis of New Ventures, 1986-1999," forthcoming, *Journal of Finance*.
- Gopalan, R., V. Nanda, and A. Seru (2005), "Reputation and Spillovers: Evidence from Indian Business Groups," unpublished manuscript, University of Michigan.
- Gramlich, J., P. Limpaphayom, and G. Rhee (2004), "Taxes, Keiretsu Affiliation and Income Shifting," *Journal of Accounting and Economics*, Vol. 37, pp. 203-228.
- Granovetter, M. (2005), "Business Groups and Social Organization," in N. Smelser and R. Swedberg (eds.), *The Handbook of Economic Sociology* (2nd Edition, Princeton, Princeton University Press).
- Greif, A. (2005), *Institutions and Trade during the Late Medieval Commercial Revolution: A Game Theoretical Approach* (forthcoming, Cambridge, Cambridge University Press).
- Guillen, M. (2002), "Structural Inertia, Imitation and Foreign Expansion: South Korean Firms and Business Groups in China, 1987-1995," *Academy of Management Journal*, Vol. 45, pp. 509-525.
- Guriev, S. and A. Rachinsky (2005), "The Role of Oligarchs in Russian Capitalism," *Journal of Economic Perspectives*, Vol. 19, pp. 131-150.
- Hadley, E. (1970), *Antitrust in Japan* (Princeton, Princeton University Press).
- Hamilton, G. (1997), "Organization and Market Processes in Taiwan's Capitalist Economy," in M. Orrù, N. Woolsey Biggart, and G. Hamilton (eds.), *The Economic Organization of East Asian Capitalism* (London, Sage Publications).
- Hamilton, G. and R. Feenstra (1997), "Varieties of Hierarchies and Markets: An Introduction," in M. Orrù, N. Woolsey Biggart, and G. Hamilton (eds.), *The Economic Organization of East Asian Capitalism* (London, Sage Publications).
- Hanani, A. (2005), "Indonesian Business Groups: The Crisis in Progress," in S. Chang (ed.), *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth* (Oxford, Oxford University Press).

Holmen, M. and P. Hogfeld (2005), "Pyramidal Discounts: Tunneling or Agency Costs?" unpublished manuscript, Stockholm School of Economics.

Hoshi, T. and A. Kashyap (2001), *Corporate Financing and Governance in Japan* (Cambridge, MA, MIT Press).

Hoshi, T., A. Kashyap, and D. Scharfstein (1990), "The Role of Banks in Reducing the Costs of Financial Distress in Japan," *Journal of Financial Economics*, Vol. 27, pp. 67-88.

Hoshi, T., A. Kashyap, and D. Scharfstein (1991), "Corporate Structure, Liquidity and Investment: Evidence from Japanese Industrial Groups," *Quarterly Journal of Economics*, Vol. 106, pp. 33-60.

Huang, Y. (2004), *Selling China* (Cambridge, Cambridge University Press).

Hubbard, G. and D. Palia (1999), "A Re-examination of the Conglomerate Merger Wave of the 1960s: An Internal Capital Markets View," *Journal of Finance*, Vol. 54, pp. 1131-1152

Ingram, P., and E. Lifschitz (2003), "Community in Industry: Inter-builder Ties and Organizational Failure in Clyde River Shipbuilding," unpublished manuscript, Columbia University.

Jensen, M. and W. Meckling (1976) "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, Vol. 3, pp. 305-362.

Joh, S. (2003), "Corporate Governance and Firm Profitability: Evidence from Korea before the Economic Crisis," *Journal of Financial Economics*, Vol. 68, pp. 287-322.

Johnson, J. (1997), "Russia's Emerging Financial Industrial Groups," *Post-Soviet Affairs*, Vol. 13, pp. 333-365.

Johnson, S. and T. Mitton (2003), "Cronysm and Capital Controls: Evidence from Malaysia," *Journal of Financial Economics*, Vol. 67, pp. 351-382.

Johnson, S., P. Boone, A. Breach, and E. Friedman, (2000), "Corporate Governance in the Asian Financial Crisis," *Journal of Financial Economics*, Vol. 58, pp. 141-186.

Johnson, S., R. La Porta, F. Lopez de Silanes, and A. Shleifer (2000), "Tunneling," *American Economic Review*, Vol. 90, pp. 22-27.

Jones, G. (2000), *Merchants to Multinationals: British Trading Companies in the Nineteenth and Twentieth Centuries* (Oxford, Oxford University Press).

Jones, G. and T. Khanna (2005), "Bringing History (Back) Into International Business," unpublished manuscript, Harvard Business School.

- Jones, G. and J. Wale (1998), "Merchants as Business Groups: British Trading Companies in Asia before 1945," *Business History Review*, Vol. 72, pp. 367-408.
- Jung, K., B. Kim, and Y. Kim (2005), "Governance Discount: Valuation of Korean Business Groups (Chaebol)," unpublished manuscript, University of Wisconsin-Milwaukee.
- Kali, R. (1999), "Endogenous Business Networks," *Journal of Law, Economics and Organization*, Vol. 15, pp. 615-636.
- Kali, R. (2003), "Business Groups, the Financial Market and Modernization," *Economics of Transition*, Vol. 11, pp. 671-696.
- Karademir, B., H. Ozgen, R. Osborn, and A. Yaprak (2005), "The Co-evolution of Institutional Environments, Markets, Organizational Capabilities, and Organization Strategies: A Historical and Comparative Study of Turkish Family Holdings," Proceedings of the 21st European Group for Organizational Studies Colloquium.
- Keister, L. (1998), "Engineering Growth: Business Group Structure and Firm Performance in China's Transition Economy," *American Journal of Sociology*, Vol. 104, pp. 404-440.
- Keister, L. (2004), *Chinese Business Groups* (Oxford, Oxford University Press).
- Khanna, T. (2000), "Business Groups and Social Welfare in Emerging Markets: Existing Evidence and Unanswered Questions," *European Economic Review*, Vol. 44, pp. 748-761.
- Khanna, T. and K. Palepu (1997), "Why Focused Strategies May be Wrong for Emerging Markets," *Harvard Business Review*, Vol. 75, pp. 41-51.
- Khanna, T. and K. Palepu (1999a), "Policy Shocks, Market Intermediaries, and Corporate Strategy: Evidence from Chile and India," *Journal of Economics and Management Strategy*, Vol. 8, pp. 271-310.
- Khanna, T. and K. Palepu (1999b), "The Right Way to Restructure Conglomerates in Emerging Markets," *Harvard Business Review*, Vol. 77, pp. 125-133.
- Khanna, T. and K. Palepu (2000a), "Is Group Membership Profitable in Emerging Markets? An Analysis of Diversified Indian Business Groups," *Journal of Finance*, Vol. 55, pp. 867-891.
- Khanna, T. and K. Palepu (2000b), "The Future of Business Groups in Emerging Markets: Long-Run Evidence from Chile," *Academy of Management Journal*, Vol. 43, pp. 268-285.
- Khanna, T. and K. Palepu (2005), "The Evolution of Concentrated Ownership in India: Broad Patterns and the History of the Indian Software Industry," in R. Morck (ed.) *The History of Corporate Governance around the World: Family Business Groups to Professional Managers* (Chicago, University of Chicago Press).

- Khanna, T., K. Palepu, and D. Wu (1995), "The House of Tata, 1995: The Next Generation (A)," Harvard Business School Case No. 9-798-037.
- Khanna, T. and J. Rivkin (2000), "Ties That Bind Business Groups: Evidence from an Emerging Economy," Harvard Business School Working Paper No. 00-68.
- Khanna, T. and J. Rivkin (2001), "Estimating the Performance Effects of Networks in Emerging Markets," *Strategic Management Journal*, 22, pp. 45-74.
- Khanna, T. and C. Thomas (2004), "What type of Control Group Causes Stock Price Synchronicity?" unpublished manuscript, Harvard Business School.
- Khanna, T. and Y. Yafeh (2005), "Business Groups and Risk Sharing around the World," *Journal of Business*, Vol. 78, pp. 301-340.
- Kim, B. and I. Lee (2003), "Agency Problems and Performance of Korean Companies during the Asian Financial Crisis: Chaebol vs. Non-Chaebol Firms," *Pacific Basin Finance Journal*, Vol. 11, pp. 327-348.
- Kim, E. (1997), *Big Business Strong State: Collusion and Conflict in South Korean Development, 1960-1990* (Albany, SUNY Press).
- Kim, J. and C. Yi (2005), "Ownership Structure Business Group Affiliation, Listing Status and Earnings Management: Evidence from Korea," unpublished manuscript, Hong Kong Polytechnic University.
- Kim, S. (2004), "Bailouts and Conglomerates," *Journal of Financial Economics*, Vol. 71, pp. 315-347.
- Kim, W., Y. Lim, and T. Sung (2004), "What Determines the Ownership Structure of Business Conglomerates? On the Cash Flow Rights of Korea's Chaebol," ECGI Finance Working Paper No. 51/2004.
- Kompas Indonesia (1996), *Top Companies and Big Groups in Indonesia* (Jakarta, Kompas Indonesia).
- Krueger, A. (1974), "The Political Economy of the Rent-Seeking Society," *American Economic Review*, Vol. 64, pp. 291-303.
- Lang, L. and R. Stulz (1994), "Tobin's q, Corporate Diversification, and Firm Performance," *Journal of Political Economy*, Vol. 102, pp. 1248-1280 .
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1997), "Legal Determinants of External Finance," *Journal of Finance*, Vol. 52, pp. 1131-1150.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1998), "Law and Finance," *Journal of Political Economy*, Vol. 106, pp. 1113-1155.
- La Porta, R., F. Lopez-de-Silanes, and A. Shleifer (1999), "Corporate Ownership around the World," *Journal of Finance*, Vol. 54, pp. 471-517.

- La Porta, R., F. Lopez de Silanes, and G. Zamarippa (2003) "Related Lending," *Quarterly Journal of Economics*, Vol. 118, pp. 231-268.
- Lee, C., K. Lee, and K. Lee (2000), "Chaebol, Financial Liberalization and Economic Crisis: Transformation of Quasi-Internal Organization in Korea," unpublished manuscript, University of Hawaii.
- Lee, K. and D. Lee (2002), "The Dark Side of Internal Capital Allocation: The Case of Korean Chaebol," *Seoul Journal of Economics*, Vol. 15, pp. 321-368.
- Lee, K., M. Peng, and K. Lee (2001), "Institutions and Changing Performance of Corporate Groups: The Case of the Chaebols in Korea," unpublished manuscript, Korea Institute of Finance.
- Lee, K. and W. Woo (2002), "Business Groups in China Compared with Korean Chaebols," in R. Hooley and J. Yoo (eds.), *The Post Financial Crisis Challenges for Asian Industrialization* (Amsterdam, Elsevier Science).
- Lee, K., K. Ryu and J. Yoon (2000), "Productive Efficiency of Chaebols and Non-chaebol Firms in Korea: Stochastic Production Frontier Estimation using Panel Data," unpublished manuscript, Seoul National University.
- Leff, N. (1976), "Capital Markets in Less Developed Countries: The Group Principle," in R. McKinnon (ed.), *Money and Finance in Economic Growth and Development* (New York, Decker Press).
- Leff, N. (1978), "Industrial Organization and Entrepreneurship in the Developing Countries: The Economic Groups," *Economic Development and Cultural Change*, Vol. 26, pp. 661-675.
- Lemmon, M. and K. Lins (2003), "Ownership Structure, Corporate Governance and Firm Value: Evidence from the East Asian Financial Crisis," *Journal of Finance*, Vol. 58, pp. 1445-1468.
- Lensink, R., R. Van Der Molen, and S. Gangopadhyay (2003), "Business Groups, Financing Constraints and Investments: The Case of India," *Journal of Development Studies*, Vol. 40, pp. 93-119.
- Leuz, C. and F. Oberholzer-Gee (2004), "Political Relationships, Global Financing and Corporate Transparency," unpublished manuscript, Harvard Business School.
- Lim, U. and C. Kim (2005) "Determinants of Ownership Structure: An Empirical Study of the Korean Conglomerates," *Pacific Basin Finance Journal*, Vol. 13, pp. 1-28.
- Lins, K. (2003), "Equity Ownership and Firm Value in Emerging Markets," *Journal of Financial and Quantitative Analysis*, Vol. 38, pp. 159-184.

- Lins, K. and H. Servaes (2002), "Is Corporate Diversification Beneficial in Emerging Markets?" *Financial Management*, Vol. 31, pp. 5-31.
- Mahmood, I. and W. Mitchell (2004), "Two Faces: Effects of Business Group Market Share on Innovation in Emerging Economies," forthcoming, *Management Science*.
- Mahmood, I. and C. Rufin (2004), "Government's Dilemma: The Institutional Framework for Imitation and Innovation," forthcoming, *Academy of Management Review*.
- Majluf, N., Abarca, N., Rodríguez, D., and L. Fuentes (1995), "The Ownership of Economic Groups in Chile," unpublished manuscript, Pontifica Catholic University of Chile.
- Maman, D. (2002), "The Emergence of Business Groups: Israel and South Korea Compared," *Organization Studies*, Vol. 23, pp. 737-758.
- Mango, A. (2004), *The Turks Today* (New York, Overlook Press).
- Manos, R., V. Murinde, and C. Green (2004), "Business Groups and Capital Structure: Evidence from Indian Firms," unpublished manuscript, University of Birmingham.
- Martin, J. and A. Sayrak (2003), "Corporate Diversification and Shareholder Value: A Survey of Recent Evidence," *Journal of Corporate Finance*, Vol. 9, pp. 37-57.
- Matsusaka, J. (1993), "Takeover Motives during the Conglomerate Merger Wave," *RAND Journal of Economics*, Vol. 24, pp. 357-379
- Maurer, N. and T. Sharma (2001), "Enforcing Property Rights through Reputation: Mexico's Early Industrialization, 1878-1913" *Journal of Economic History*, Vol. 61, pp. 950-973.
- McDermott, G. (2002), *Embedded Politics: Industrial Networks and Institution Building in Post-Communism* (Ann Arbor, University of Michigan Press).
- McGregor (1998), *McGregor's Who Owns Whom in South Africa* (Auckland Park, McGregor Publishing).
- Mitton, T. (2002), "A Cross-Firm Analysis of the Impact of Corporate Governance on the East Asian Financial Crisis," *Journal of Financial Economics*, Vol. 64, pp. 215-241.
- Miyajima, H. and K. Fumiaki (2004), "The Unwinding of Cross-shareholding: Causes, Effects, and Implications," in M. Aoki, G. Jackson, and H. Miyajima (eds.), *Corporate Governance in Japan: Institutional Change and Organizational Diversity* (forthcoming, Oxford, Oxford University Press).

Montalvo, J. and Y. Yafeh (1994), "A Micro-econometric Analysis of Technology Transfer: The Case of Licensing Agreements of Japanese Firms," *International Journal of Industrial Organization*, Vol. 12, pp. 227-244.

Montgomery, C. (1994), "Corporate Diversification," *Journal of Economic Perspectives*, Vol. 8, pp. 163-178.

Morck, R. (2004), "How to Eliminate Pyramidal Business Groups – The Double Taxation of Inter-Corporate Dividends and Other Incisive Uses of Tax Policy," NBER Working Paper No. 10944.

Morck, R. and M. Nakamura (2005), "A Frog in a Well Knows Nothing of the Ocean: A History of Corporate Ownership in Japan," in R. Morck (ed.) *The History of Corporate Governance around the World: Family Business Groups to Professional Managers* (Chicago, University of Chicago Press).

Morck, R., A. Shleifer, and R. Vishny (1990), "Do Managerial Objectives Drive Bad Acquisitions?" *Journal of Finance*, Vol. 45, pp. 31-48.

Morck, R., M. Percy, G. Tian, and B. Yeung (2005), "The Rise and Fall of the Widely Held Firm – A History of Corporate Ownership in Canada," in R. Morck (ed.) *The History of Corporate Governance around the World: Family Business Groups to Professional Managers* (Chicago, University of Chicago Press).

Morck, R., D. Strangeland, and B. Yeung (2000), "Inherited Wealth, Corporate Control, and Economic Growth: The Canadian Disease?" in R. Morck (ed.) *Concentrated Corporate Ownership* (Chicago, University of Chicago Press).

Morck, R., D. Wolfenzon, and B. Yeung (2004), "Corporate Governance, Economic Entrenchment, and Growth," NBER Working Paper No. 10692, forthcoming *Journal of Economic Literature*.

Morck, R., and B. Yeung (2004), "Dividend Taxation and Corporate Governance," forthcoming, *Journal of Economic Perspectives*.

Morikawa, H. (1992), *Zaibatsu: The Rise and Fall of Family Enterprise Groups in Japan* (Tokyo, University of Tokyo Press).

Munshi, K., and M. Rosenzweig (2004), "Economic Development and the Decline of Rural and Urban Community-based Networks," unpublished manuscript, Brown University.

Musacchio, A. (2004), "Law and Finance in Historical Perspective: Politics, Bankruptcy Law and Corporate Governance in Brazil, 1850-2002," unpublished dissertation, Stanford University.

Nenova, T. (2003), "The Value of Corporate Voting Rights and Control: A Cross-country Analysis," *Journal of Financial Economics*, Vol. 68, pp. 325-351.

Nicodano, G. (2003), "Bankruptcy Risk: Are Business Groups More Efficient than Conglomerates and Stand-Alone Units?" unpublished dissertation, University of Turin.

Ohkawa, K. and H. Rosovsky (1973), *Japanese Economic Growth: Trend Acceleration in the Twentieth Century* (Stanford, Stanford University Press).

Okabe, M. (2003), *Cross Shareholding in Japan* (Cheltenham, Edward Elgar).

Orrù, M., N. Woolsey Biggart, and G. Hamilton (eds.) (1997), *The Economic Organization of East Asian Capitalism* (London, Sage Publications).

Pagano, M. and P. Volpin (2001), "The Political Economy of Finance," *Oxford Review of Economic Policy*, Vol. 17, pp. 502-519.

Pan, L. (1999). *The Encyclopedia of the Chinese Overseas* (Cambridge MA, Harvard University Press).

Peek J., and E. Rosengren (2003), "Unnatural Selection: Perverse Incentives and the Allocation of Credit in Japan," NBER Working Paper No. 9643.

Perez-Gonzalez, F. (2001), "Does Inherited Control Hurt Firm Performance?" unpublished manuscript, Columbia University.

Perotti, E. and S. Gelfer (2003), "Red Barons or Robber Barons? Governance and Investment in Russian Financial-Industrial Groups," *European Economic Review*, Vol. 45, pp. 1601-1617.

Piramal, G. (1998), *Business Legends* (New Delhi, Viking Penguin).

Polsiri, P. and Y. Wiwattanakantang (2005), "Thai Business Groups: Crisis and Restructuring," in S. Chang (ed.), *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth* (Oxford, Oxford University Press).

Rajan, R. and L. Zingales (2003), "The Great Reversals: The Politics of Financial Development in the Twentieth Century," *Journal of Financial Economics*, Vol. 69, pp. 5-50

Rajan, R., H. Servaes, and L. Zingales, "The Cost of Diversity: The Diversification Discount and Inefficient Investment," *Journal of Finance*, Vol. 55, pp. 35-80.

Roberts, G. (1973), *Mitsui, Three Centuries of Japanese Business* (New York, Weatherhill).

Scharfstein, D. and J. Stein, "The Dark Side of Internal Capital Markets: Divisional Rent Seeking and Inefficient Investment," *Journal of Finance*, Vol. 55, pp. 2537-2564.

Schwartz, A. (1994), *A Nation in Waiting: Indonesia in the 1990s* (Boulder, Westview Press).

- Shin, H. and Y. Park (2003), "Financing Constraints and Internal Capital Markets: Evidence from Korean Chaebols," *Journal of Corporate Finance*, Vol. 5, pp. 169-191.
- Shin H. and R. Stulz (1998), "Are Internal Capital Markets Efficient?" *Quarterly Journal of Economics*, Vol. 113, pp. 531-552.
- Shleifer, A. and R. Vishny (1997), "A Survey of Corporate Governance," *Journal of Finance*, Vol. 52, pp. 737-783.
- Shleifer, A. and D. Wolfenzon (2002), "Investor Protection and Equity Markets," *Journal of Financial Economics*, Vol. 66, pp. 3-27.
- Siegel, J. (2004), "Is Political Connectedness a Paramount Investment after Liberalization? Evidence on How Korean Firms Go Local to Become Global (1987-2000)," unpublished manuscript, Harvard Business School.
- Smith, B. and B. Amoako-Adu (1999), "Management Succession and Financial Performance of Family Controlled Firms," *Journal of Corporate Finance*, Vol. 4, pp. 341-368.
- Strachan, H. (1976), *Family and Other Business Groups in Economic Development: The Case of Nicaragua* (New York, Praeger).
- Stark, D. (1996), "Recombinant Property in East European Capitalism," *American Journal of Sociology*, Vol. 101, pp. 993-1027.
- Steers, R., Y. Shin, and G. Ungson (1999), *The Chaebol: Korea's New Industrial Might* (New York, Harper Business).
- Tara Siam (1996-97), *Thai Business Groups* (Bangkok, Tara Siam Business Information Limited).
- Tripathi, D. (2004) *Oxford Encyclopedia of Indian Business* (Oxford, Oxford University Press).
- Tsui-Auch, L. (2005a), "Unpacking Regional Ethnicity and the Strength of Ties in Shaping Ethnic Entrepreneurship," forthcoming, *Organization Studies*.
- Tsui-Auch, L. (2005b), "Singapore Business Groups: The Roles of the State and Capital in Singapore Inc.," in S. Chang (ed.), *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth* (Oxford, Oxford University Press).
- van der Molen, R. (2005), *Business Groups, Investment, and Firm Value: Empirical Studies for India*, unpublished Ph.D. dissertation, University of Groningen.
- Weinstein, D. and Y. Yafeh (1995), "Japan's Corporate Groups: Collusive or Competitive? An Empirical Investigation of *Keiretsu* Behavior," *Journal of Industrial Economics*, Vol. 43, pp. 359-376.

Weinstein, D. and Y. Yafeh (1998), "On the Costs of a Bank-Centered Financial System: Evidence from the Changing Main Bank Relations in Japan," *Journal of Finance*, Vol. 53, pp. 635-672.

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

Whited, T. (2001), "Is It Inefficient Investment that Causes the Diversification Discount?" *Journal of Finance*, Vol. 56, pp. 1667-1691.

Wilson S. and A. Villela (1997), *Industrial Policy in Brazil* (Campinas, UNICAMP).

Yafeh, Y. (1995), "Corporate Ownership, Profitability and Bank-Firm Ties: Evidence from the American Occupation Reforms in Japan," *Journal of the Japanese and International Economies*, Vol. 9, pp. 154-173.

Yafeh, Y. (2003), "Japan's Corporate Groups: Some International and Historical Perspectives," in M. Blomström, J. Corbett, F. Hayashi and A. Kashyap (eds.) *Structural Impediments to Growth in Japan* (Chicago, University of Chicago Press).

Yaprak, A., B. Karademir, H. Ozgen and R. Osborn (2004), "Complex Configurations in the Turkish Economy," Proceedings of the Academy of International Business Annual Meeting.

Zeitlin, M. and R. Ratcliff (1988), *Landlords and Capitalists: The Dominant Class of Chile* (Princeton, Princeton University Press).

Table I: Group Affiliation around the World

The table shows summary statistics on group risk and operating performance for twelve emerging markets as well as for prewar and postwar Japan. Firm numbers, as well as statistics on firm size (total assets) and median return on assets (ROA) are all based on the year for which we have maximal coverage for the country in question. In prewar Japan, group affiliation refers to affiliation in the largest three *zaibatsu* only. In postwar Japan, group members are defined as members of Presidents' Clubs only. Significance levels for the comparisons of medians are based on Wilcoxon signed-rank tests. Firms with profit rates above 100 percent or below -100 percent are excluded from the analysis. * and ** denote a difference between group-affiliated and other firms that is significant at the 5 percent and 10 levels, respectively. See Khanna and Yafeh (2005) for data sources and for more information on the sample and variable definitions.

	Years of data	No. of firms	No. of group affiliated firms	(Median size of group affiliated firms)/ (Median size of unaffiliated firms)	Median ROA of group affiliated firm (percent)	Median ROA of unaffiliated firms (percent)	Median standard deviation of ROA, group affiliated firms (percent)	Median standard deviation of ROA, unaffiliated firms (percent)
Argentina	90-97	25	11	5.5	3.9	7.8**	3.7	4.9**
Brazil	90-97	108	51	2.5	3.3	1.8**	4.1	5.1
Chile	89-96	225	50	18.7	5.9	2.2*	4.4	4.1.
India	90-97	5446	1821	4.4	11.7	9.6*	4.6	4.4*
Indonesia	93-95	236	153	2.8	7.3	7.8	1.9	2.5*
Israel	93-95	183	43	5.0	6.3	3.9*	2.1	2.6
Korea	91-95	427	218	3.9	4.8	5.1	1.9	2.6*
Mexico	88-97	55	19	2.3	8.2	6.1	3.1	2.6
Philippines	92-97	148	37	3.4	7.3	4.0	2.5	2.9
Taiwan	90-97	178	79	2.0	5.1	6.2	1.7	2.3**
Thailand	92-97	415	258	2.3	2.9	4.4*	4.3	4.9**
Turkey	88-97	40	21	1.0	24.6	26.3	6.2	9.1
Prewar Japan	32-43	58	17	6.8	5.5	6.4	4.4	7.1
Postwar Japan	77-92	1002	94	8.5	3.4	3.6	2.2	2.3

Table II: Risk Sharing and Operating Profitability: Benchmark Specification

Column 1 displays coefficients on a group-affiliation dummy in a regression where the dependent variable is the standard deviation of operating profitability and right-hand-side variables include firm assets, industry dummies, average profitability (coefficients not shown), and the group dummy. All regressions in this column are weighted by the number of observations per-firm and include heteroskedasticity-consistent standard errors. To get a sense of the magnitude of the coefficients, the mean standard deviation of operating profitability for each country appears in Column 2. Firms with profit rates above 100 percent or below -100 percent are excluded from the analysis. Column 3 reproduces the regression coefficients on group affiliation, where the dependent variable is profitability (ROA), drawn from Khanna and Rivkin (2001), Table 3. * denotes a coefficient that is significant at the 5 percent level, and ** denotes a coefficient that is significant at the 10 percent level. See Khanna and Yafeh (2005) for data sources and for more information on the sample and variable definitions.

Country	(1) Effect of group affiliation on profit volatility: estimation of Equation (1)	(2) Mean std. deviation of operating profitability in the sample	(3) Effect of group affiliation on profitability (ROA)
Argentina	-8.3	5.3	-2.8*
Brazil	-1.7*	5.6	-0.1
Chile	-1.0	6.4	-0.4
India	+0.1*	6.1	+4.0*
Indonesia	-0.0	2.7	+2.2*
Israel	-0.3	3.7	+2.4
Korea	-0.6*	2.8	0.6
Mexico	-0.9	3.4	-0.6
Philippines	-0.8	4.5	-1.9
Taiwan	-0.7**	2.9	+1.9*
Thailand	-1.4*	6.1	1.1
Turkey	-1.5	8.1	-2.5
Prewar Japan	-3.8*	4.9	-5.9
Postwar Japan, 1977-1992	-0.4*	2.5	See text and Yafeh (2003)

Table III: Group Heterogeneity around the World

Group diversification is measured as the number of 2-digit industries in which the group operates. Group vertical integration is the average input-output coefficient across all pairs of firms within the group (see footnote 3), and involvement in financial services is measured as the fraction of all group assets in group financial firms. See Khanna and Yafeh (2005) for data sources and for more information on the sample and variable definitions.

Country	Group diversification	Group vertical integration	Group assets in financial firms
Brazil	1.4	0.04	N/A
Chile	5.1	0.06	0.24
India	4.2	0.04	0.05
Indonesia	2.1	0.04	0.45
Korea	1.7	0.04	N/A
Mexico	2.7	0.02	0.05
Philippines	3.1	0.08	0.60
Taiwan	1.6	0.02	0.01
Thailand	3.5	0.04	0.35

Table IV: The Comparative Origins of Business Groups
Panel A: Comparisons by Country

	State-backing (general)	Privatization-related	Ethnic Policies and Family issues
Brazil	State protection (through tariffs and non-tariff barriers and through targeting of priority sectors) benefited groups, as did extensive state financing. In the 1990's protection decreased (although there is still some state backing in the form of technology and research grants and support).		Family ties have always been at the center of groups and groups today are still owned and sometimes run by the families that created them decades ago.
China (since the 1980's)	Government encouraged the formation of many business groups and protected them from foreign competition because they were regarded as essential for development. However, government sentiment waxed and waned depending on the fortune of business groups in neighboring countries, particularly South Korea. In addition, the People's Liberation Army has historically been involved in several business ventures, many of which are organized as business groups.		
Chile	Some groups benefited from the consolidation policies following the crises of 1970's and 1980's.	Some groups benefited from privatization during the Pinochet regime.	
Costa Rica	A limited role of the state combined with a historically homogeneous distribution of land and coffee plants. However, government protection of some sectors (e.g. sugar, meat, rice) led to the growth of certain groups.		Family groups evolved, typically as a result of the success of specific firms, especially in commodities.
Czech Republic	Industrial holding companies emerged out of former Communist planning units, sometimes with 15-30 horizontally and vertically linked plants and subsidiaries. These companies were voucher-privatized and restructured using government subsidies. The remaining shares were bought at discount by the new management team and consortia of Czech banks.	Voucher privatization led to the creation of large, diversified investment funds, often indirectly run by banks, which control linked enterprises.	
India	Favored entrepreneurs formed groups during the License Raj of the 1960's and 1970's (although other groups date back to the early twentieth century). This was despite the existence of <i>de jure</i> legislation that was anti-big business (e.g. the Monopolies and Restrictive Trade Practices – MRTP – Act).	Some entrepreneurs who formed groups benefited from the transfer of assets formerly held by the British to Indians during the Independence movement (<i>de facto</i> privatization).	Clusters of business groups formed around ethnic, religious and social communities, for example, the Marwaris of Rajasthan formed businesses in Bengal and elsewhere; the Gujeratis in the West, the Chettiars in the South, etc.
Indonesia (under Suharto)	Some groups run by members of the Suharto family. Others, such as the Salim group, were granted monopoly over mills. Close government involvement in business. State-sponsored cement and other monopolies benefited groups.	The Salim group received assets seized by the army.	Suharto viewed the involvement of his children in business groups as a way of righting the Pribumi-Chinese imbalance in the top ranks of the business community (although most groups are identified as ethnic-Chinese, including the state-supported Salim group).

Israel	State backing of preferred groups in the early decades after independence.	Privatization – transfer of some government assets to families and new groups in the 1990's.	
Italy	Government credit and protection of some groups in early post-war years (e.g. the Pesenti family who owned Pirelli).		
Korea (1960-1990)	Preferential credit and protection from foreign competition to entrepreneurs following government guidelines, especially with political contacts to General Park. The government, through its control of the financial system, often encouraged group diversification, mergers and consolidation (acquisition of ailing firms and groups), and investment in certain industries.	Sale of assets formerly controlled by the Japanese and of state assets to some favored groups and entrepreneurs.	
Malaysia (under Mahathir)	Preferential credit to businessmen with close ties, including members of Mahathir's family. Political parties explicitly involved in business. Consolidation has often been used as a remedy to salvage distressed firms, particularly by grouping companies under favored Malay entrepreneurs.	Privatization (of colonial assets and of failed government investments) – buyers have political contacts and state patronage.	President Mahathir supports Bumipeuteras entrepreneurs in the privatization processes. Some ethnic Chinese groups operate in Malaysia and across its borders (to diversify political risks).
Mexico	Until the mid 1980's the government supported business groups by protecting many sectors through tariffs and trade restrictions, as well as by granting discretionary concessions (for example, in media, mining, and other sectors), as well direct and indirect subsidies to certain goods and industries (e.g. sugar). Groups also enjoyed monopolies, state-induced consolidation and certain protection from FDI. Since 1973, groups and conglomerates have enjoyed certain special tax incentives.	The privatization period (mostly 1988 to 1994) benefited many business groups which bought the national phone company (and was granted a monopoly for 5 years) and banks. Some new groups were created following the privatization of the 1990's.	Family ties are crucial for business groups in Mexico. The largest industrial conglomerates in certain regions are still run by the families who started the businesses in the mid-nineteenth century, often with very strong ties to the government.
Nicaragua	The government of the Somozas (father and son) controlled directly a large number of industries. At the end of the Sandinista government many firms were bankrupt and a few groups acquired them, leading to consolidation		Concentration in family groups, inherited from colonial times.
Pakistan (starting around 1960)	Foreign exchange licenses given primarily to rich families. Combined with restrictions on imports.		
Russia	Some (limited) government support of industry-led FIG's which evolved with the collapse of Communism; much more support of the bank-led FIG's which enjoy (enjoyed?) political clout, lobbying power for various privileges (e.g. restrictions on foreign investors), and influence the media.	Industry-led financial-industrial groups (FIG's) emerged early in the privatization process. Bank-led FIG's emerged later, in relation to auctions initiated by President Yeltsin favoring (some) buyers; state assets sold at low prices to "Oligarchs."	

Singapore	Government-linked business groups established in the 1960's and 1970's in order to make economic investments jointly with private investors.		Ethnic Chinese, who felt threatened by the government formed private, family controlled groups, diversifying across industries and borders to reduce risk.
South Africa			During Apartheid, major groups were associated with the whites; In the post-Apartheid period, the adoption of Black Economic Empowerment (BEE) policies induced a transfer of assets from whites to blacks, and the formation of conglomerates by select black entrepreneurs, some of whom had political contacts to the ANC.
Taiwan	Not much government support and encouragement; family-groups formed endogenously (but benefited from certain tax advantages starting in the 1960's).		
Thailand	Some groups originated in the 1940's; politicians and military officers often involved in business groups; restricted competition in many sectors favors groups.		Groups are often dominated by ethnic Chinese, some of whom operate in neighboring countries as well.
Turkey	Between 1923 and 1980 some groups were supported through preferential input prices, low-cost credits, tax rebates, foreign exchange licenses, import licenses, government contracts, as well as through export-specific measures allowing business groups to establish large export companies in the 1980's. The government also encouraged diversification and internationalization of business groups via various economic incentives. (But several group-owned banks were taken over by the government after the bank crisis in 2001.)	Relatively larger business groups are the favored participants in the privatization of state owned enterprises, especially those with strong political ties. Smaller family groups participate in the privatization efforts of smaller state assets.	The 19 th century business elite was mostly composed of ethnic minorities and foreign investors. With the founding of the new Turkish Republic in 1923, the economic agenda stressed creating an indigenous business class: bureaucrats, merchants, and professionals were encouraged to become entrepreneurs.
19th C. Japan	Some "political merchants" received state credit and grants. Ailing government businesses privatized and sold to the <i>Zaibatsu</i> . Government contracts encouraged group growth around major wars.		

Sources (in English): Brazil – Leff (1978), Wilson and Villela (1997), and Musacchio (2004); Chile – Khanna and Palepu (1999a, 2000b); China – Keister (2004); Costa Rica – private communication with A. Condo; Czech Republic – Mc Dermott (2002); India – Khanna and Palepu (1999a, 2000a, 2005) and Piramal (1998); Indonesia – Commonwealth of Australia, Chapter 8, Schwartz (1994), Kompas Indonesia (1996) and Fisman (2001); Israel – Maman (2002); Italy – Aganin and Volpin (2005); Korea – Amsden (1989), Clifford (1994) and Chang (2003a); Malaysia – Gomez and Jomo (1999) and Gomez (2005); Mexico - Gómez-Galvarriato (2005); Nicaragua – Strachan (1976); Pakistan – White (1974); Russia – Johnson (1997) and Guriev and Rachinsky (2005); Singapore – Tsui-Auch (2005b); South Africa – McGregors (1998); Taiwan – Hamilton (1997) and Chung (2001); Thailand – Bertrand et al. (2004), Tara Siam (1996-97); Turkey – Mango (2004), Yarpak et al. (2004), and Karademir et al. (2005); Pre-war Japan – Morikawa (1992).

(For Latin America, a general – Spanish - source is America Economica, 1997).

Panel B: Group-specific Origins in 19th Century Japan

	Origin	Growth and Relations with the State
Mitsui*	Dates back to 1673 (dry goods); “political merchants ⁴⁰ ” who provided financial services to the Tokugawa regime since the late 17 th century.	Historically close ties with various governments. Growth and diversification through acquisitions and through establishment of new businesses, in part through government privatization and contracts.
Mitsubishi*	Founded by a former Samurai after the Meiji Restoration.	Initial investment in shipping enjoyed government protection, subsidies, loans etc. Subsequent growth and diversification patterns broadly similar to Mitsui’s.
Sumitomo*	Dates back to the late 16 th century, with ties to the Tokugawa regime.	Diversified from mining into trading, finance and industry. Again, diversification and growth through both acquisitions and through the establishment of new businesses, with government support.
Yasuda*	“Political merchants” from the Meiji Restoration period. Mainly provided financial services (including the establishment of the third national bank in 1876).	Less diversified than the other big groups, more focused on banking and finance. Again, both acquisitions and new businesses as mechanisms of growth.
Asano	Around 1870; no previous political ties.	Initial fortune out of various investments. Growth through cooperation with a separate financial institution.
Fujita	Origin: supplier of goods and engineering works to the new government (with contacts to major figures in the Meiji government).	An internal family feud led to the dissolution of this group and its reorganization as the Kuhara <i>zaibatsu</i> in 1905.
Furukawa	Formed in 1874, related to old wealth from the Ono family.	Mostly in mining and utilities, e.g. established the first hydroelectric power plant in 1890. Characterized by more vertical integration (e.g. in copper extraction and production) than diversification.
Okura	Merchant (groceries) before the Meiji Restoration; converted into gun production in the 1860’s and then into overseas trading starting 1873.	Growth mainly through acquisitions. Despite substantial operations overseas, government contracts remained a major source of income.

Source: Morikawa (1992). * denotes the big four *zaibatsu* groups.

⁴⁰ This refers to the Japanese term *seisho* which is defined by Morikawa (1992, p. 3) as “traders and financiers who used their ties to powerful political figures to obtain government favors, enabling them to earn substantial profit in return for providing goods and services to the state. Government patronage took the form of subsidies, grants and monopolies or special privileges, favorable credit arrangements, and sales of state enterprises at nominal prices.”

Panel C: Group-specific Origins in Present-Day Korea

	Origin	Growth and Relations with the State
Hyundai	Mr. Chung (the founder) started by providing mechanical services to the American army; later established contacts with the Syngman Rhee regime.	Together with Daewoo, one of General Park's favored groups in the 1970's, when Hyundai cooperated with the government's policy of investment in heavy and chemical industries. Obtained licenses and government finance as well as preferential tax treatment and protection from imports. Growth through both acquisitions and entry into new industries. Allegations that Hyundai and other big groups used government contacts to improve their competitive positions, occasionally by acquiring assets of ailing groups and by winning major government contracts. Mr. Chung was General Park's "informal construction minister" and a personal friend.
Daewoo	Mr. Kim (the founder) was the son of General Park's teacher. Group established in 1967.	Close relations with the government, which transferred to Daewoo the Okpo shipyard and some assets in the auto industry previously owned by GM. Government-induced investments in heavy industry. Expansion mainly through acquisitions. Strong international orientation (overseas investments).
Samsung	Mr. Lee (the founder) established the company in 1938, using some inherited wealth. Acquisition of assets left by the Japanese in 1945.	Samsung was relatively large already in the 1950's; made political "donations" and established contacts in government. But relations with the state were turbulent in comparison with the other major groups: General Park forced Samsung to "donate" some of its assets soon after taking power, and for a while the group was virtually excluded from most government contracts. Instead, growth fostered through cooperation with foreign firms; relative focus on electronics. Growth and diversification in 1960's through both acquisitions and establishment of new businesses.
LG	Founded as a trading company in 1947.	Growth mostly in electronics and chemicals; benefited from government development plans in the 1960's; related diversification strategy.
SK	Founded in 1957; close ties with the government since inception.	Much of its growth driven by acquisition of privatized state assets (including property left by the Japanese), through close ties to the government, including the marriage of the founder's son to the daughter of President Roh.

Source: Clifford (1994) and Chang (2003a).

Table V: Studies on Business Groups in Korea
The table lists studies published in English-language journals only

Study	Main Argument, Sample Size, Sample Period	Category	Listed Firms Only?	Groups as Pyramids?	Info. about Families?
Chang and Choi (1988)	Business groups with multidivisional structure show superior economic performance because of reduced transaction costs. 63 group affiliated and 119 independent firms, 1975-1984.	Groups as diversified entities	Yes	No reference	No specific info.
Shin and Park (1999)	Internal capital markets in the <i>chaebol</i> alleviate financing constraints, but are associated with inefficient allocation of funds. 123 group affiliated firms and 194 independent firms, 1994-1995.	Groups as diversified entities	Yes	No reference	No specific info.
Choi and Cowing (1999)	Group firms exhibited relatively low profit rates before 1989; firms affiliated with the largest groups appear to have somewhat higher growth rates and lower variation in profit rates compared with unaffiliated firms. 91 group affiliated firms and 161 independent firms, 1985-1993.	Groups as diversified entities	Yes	No reference	No specific info.
Chang and Hong (2000)	Group firms benefit from group membership through sharing intangible and financial resources with other member firms. Various forms of internal business transactions, such as debt guarantees, equity investments and internal trade are extensively used for the purpose of cross-subsidization. 1,248 companies, associated with 317 business groups, 1996.	Groups as diversified entities	Listed or statutorily audited companies	No reference	Reference to Samsung and Hyundai
Bae, Kang, and Kim (2002)	When a <i>chaebol</i> -affiliated firm makes an acquisition its stock price typically falls. Minority shareholders of the acquiring firm lose, but controlling shareholders benefit because the acquisition enhances the value of other firms in the group. Consistent with tunneling. 107 mergers, 87 firms, 1981 - 1997.	Corporate governance/pyramids/tunneling	Listed on the KSE	Assumed	No specific info.
Campbell and Keys (2002)	Corporate governance problems among the top <i>chaebol</i> may have exacerbated the recent financial crisis. 356 firms, 1993 - 1999.	Corporate governance/pyramids tunneling	Listed on the KSE	No reference	No specific info
Chang and Hong (2002)	Business groups play an important role in developing countries by circumventing market inefficiencies; these effects tend to be smaller in large business groups, and to decrease over time. 1666 companies affiliated with 368 business groups, 1985 - 1996.	Groups as diversified entities	Listed or statutorily audited companies	No reference	Samsung mentioned
Joh (2003)	Tunneling by controlling shareholders when their cash flow rights are low. 5,829 firms, 1993-1997.	Corporate governance/pyramids/tunneling	Listed or otherwise "registered" companies	Reference to this issue	No specific info

Study	Main Argument, Sample Size, Sample Period	Category	Listed Firms Only?	Groups as Pyramids?	Info. about Families?
Kim and Lee (2003)	Performance during crisis is related to agency problems. 590 firms, May 1997- August 1998.	Corporate governance/pyramids/tunneling	Listed on the KSE	Reference to this issue	General reference
Ferris, Kim, and Kitsabunnarat (2003)	<i>Chaebol</i> -affiliated firms suffer loss of value relative to non-affiliated firms. This may be due to: (1) pursuit of profit stability rather than profit maximization; (2) over-investment in low performing industries; (3) cross-subsidization of weaker members of their group. 759 <i>chaebol</i> firm-year observations and 1,316 independent firm-year observations, 1990-1995.	Groups as diversified entities	Yes	No reference	Reference to this issue; no specific info.
Baek, Kang, and Park (2003)	Change in firm value during crisis is a function of firm-level differences in corporate governance measures. 644 firms, November 1997-December 1998.	Corporate governance/pyramids/tunneling	Listed on the KSE	Reference in the model	Control by family members among other vars.
Chang (2003b)	Simultaneous nature of relationship between ownership structure and performance in a sample of group affiliated public firms. Performance determines ownership structure but not vice versa: controlling shareholders use insider information to increase their direct and indirect equity stakes in more profitable firms and transfer profits to other affiliates through intra-group trade. 419 <i>chaebol</i> -affiliates, 1986 – 1996	Corporate governance/pyramids/tunneling	yes	Significant reference to this issue	Quite a bit of reference to the family issue.
Lim and Kim (2005)	Highly leveraged groups with a high proportion of non-manufacturing business tend to have direct ownership. Larger groups with a high proportion of non-voting shares tend to have pyramidal structure. Groups with focused business lines tend to have larger family stakes. 669 firms, 1995.	Groups as diversified entities + corporate governance/pyramids/tunneling	Listed and unlisted	Reference to this issue	Reference to this issue; no specific info.

about ECGI

The European Corporate Governance Institute has been established to improve *corporate governance through fostering independent scientific research and related activities*.

The ECGI will produce and disseminate high quality research while remaining close to the concerns and interests of corporate, financial and public policy makers. It will draw on the expertise of scholars from numerous countries and bring together a critical mass of expertise and interest to bear on this important subject.

The views expressed in this working paper are those of the authors, not those of the ECGI or its members.

ECGI Working Paper Series in Finance

Editorial Board

Editor	Paolo Fulghieri, Professor of Finance, University of North Carolina, INSEAD & CEPR
Consulting Editors	Franklin Allen, Nippon Life Professor of Finance, Professor of Economics, The Wharton School of the University of Pennsylvania Patrick Bolton, John H. Scully '66 Professor of Finance and Economics, Princeton University, ECGI & CEPR Marco Pagano, Professor of Economics, Università di Salerno, ECGI & CEPR Luigi Zingales, Robert C. McCormack Professor of Entrepreneurship and Finance, University of Chicago & CEPR Julian Franks, Corporation of London Professor of Finance, London Business School & CEPR Xavier Vives, Professor of Economics and Finance, INSEAD & CEPR
Editorial Assistant :	Karina Huberman, ECGI, ECARES, Université Libre De Bruxelles

Financial assistance for the services of the editorial assistant of these series is provided by the European Commission through its RTN Programme on European Corporate Governance Training Network (Contract no.MRTN-CT-2004-504799).

Electronic Access to the Working Paper Series

The full set of ECGI working papers can be accessed through the Institute's Web-site (www.ecgi.org/wp) or SSRN:

Finance Paper Series	http://www.ssrn.com/link/ECGI-Fin.html
-----------------------------	---

Law Paper Series	http://www.ssrn.com/link/ECGI-Law.html
-------------------------	---