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Business groups, investment, and firm value

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Chapter 1

Introduction and overview

Business groups feature prominently in the industrial organization of many countries around the world. These confederations of firms take many different forms, ranging from strategic alliances between two or more firms to combinations of a parent company and wholly-owned subsidiaries. Business groups in emerging economies share a number of important characteristics. First, these groups often dominate private-sector domestic economic activity. For example, Claessens et al. (2000) show that in their sample of nine East-Asian countries 70 percent of all firms are affiliated to a business group, on average.[1] Second, there are a number of broad similarities in the organizational structure of business groups. In developing countries, business groups typically consist of legally independent firms, which are connected by a maze of economic and social ties, span a wide range of industries, and are controlled by a single family. Still, despite these similarities, considerable heterogeneity exists in the structure of business groups, both within and across countries. There are large differences in group diversification and the ties that bind group companies. For example, some groups are mainly controlled through ownership relations, whereas others rely more on social ties between directors of affiliated companies.

Their resistance to neat categorization may partly explain why business groups have been ignored by economists for a long time. Although their empirical importance had been noted earlier (see, e.g., Strachan, 1976), business

[1]More evidence on the ubiquity of business groups can be found in LaPorta et al. (1999). See also section 1.2 for additional evidence and references.

groups have only recently begun to receive the academic attention warranted by their ubiquity. As a consequence, economists' understanding of the functioning of business groups is still relatively poor, despite the increasing interest in business groups over the last decade or so.[2] Questions as to why these groups exist, what exactly is their economic function and whether they are good or bad from an efficiency point of view as yet remain unanswered.

This thesis consists of four papers that contribute to answering unresolved issues about the functioning of business groups.[3] Although the individual chapters are self-contained, they do share a common theme. Eventually, one of the main reasons why we are interested in business groups is because they may affect the value of the affiliated companies. Hence, all chapters can be traced back to this question: Does group affiliation affect firm value, and, if so, how? In answering this question, this thesis contributes to a better understanding of the functioning of business groups, their causes and their consequences.

The chapters in this thesis are empirical studies based on Indian data. There are several reasons why we chose India as the subject of our analyses. First, business groups, or business houses as they are called in India, account for a large part of the production of the Indian economy, and are a distinctive feature of Indian business. A second reason for studying Indian companies is that high quality data are available for these companies. Indian companies are affiliated to at most one business group, implying that it is relatively easy to identify a firm's group affiliation. Moreover, India is one of the few emerging economies for which a comprehensive and reliable corporate dataset is available. Third, the sheer size of the Indian economy results in a large number of firms, enabling rigorous statistical analysis.

The current chapter is an introduction to the four research papers. To give a further introduction to the notion of a business group and to get a better understanding of how (financial) economists look at this topic, section 1.1 gives a description of what is a business group, and section 1.2 surveys different explanations of business groups that have been put forward by economists. This section is confined to the theoretical literature; the em-

[2] The existing literature on pyramids or business groups is surveyed in Morck et al. (2004) and Khanna and Yafeh (2005), among others.

[3] Among other things, this implies that this thesis is not a book. One of the consequences is that there may be some overlap between the chapters.

pirical literature on business groups is surveyed in the individual chapters. Because all chapters deal with Indian business groups, section 1.3 adds some Indian flavor to this introduction. It gives a concise overview of the role of business groups in the Indian economy over the past 50 years. Finally, section 1.4 contains an outline of the rest of the thesis.

1.1 Business groups: a description

In this section, we develop a more detailed picture of what is a business group. Several authors have tried to define the concept of a business group.[4] Because of the heterogeneous nature of business groups, most authors present very general definitions. Granovetter (1994) concludes that a business group is 'a collection of firms bound together in some formal and/or informal ways.'

Because it is difficult, if not impossible, to give an accurate definition of a business group, it is important to circumscribe the kind of organizational structures that are the subject of this research. Therefore, we list the most important features of business groups below.

Legally separate companies

A business group consists of firms that are legally independent. This distinguishes a business group from a conglomerate firm, which is one legal entity, irrespective of the scale and scope of its activities. So, in general, the constituent firms are legal constructs, whereas the group itself is not. An important consequence is that the corporations that form a business group have separate liability and can be owned by different investors, and, indeed, by other group-affiliated firms.

Ownership relations

Within a group, the affiliated firms are often related through equity ownership. Although equity ownership does not always define a business group (see, for instance, Khanna and Rivkin, 2000), it is an important characteristic of many groups. Descriptions of the ownership ties in business groups have been given by Encaoua and Jacquemin (1982), Camp (1989), Steers et al. (1989), Flath (1992, 1993) and LaPorta et al. (1999), for France, Mexico,

[4] See, for instance, Leff (1978), Strachan (1976), Encarnation (1989) and Granovetter (1994).

Korea, Japan and the world, respectively. These relationships can take several forms. In some cases, there will be a centralized ownership structure, where ultimate ownership rests with a single individual or family. In other cases, reciprocal ownership results in firms being on a more equal footing.

Financial interlinkages

The firms that constitute a business group are often linked through financial ties.[5] These ties can take the form of intra-group loans or mutual debt guarantees, the latter implying that a member firm, which is on the verge of defaulting on a loan, will be bailed out by the other group members. The existence of financial interlinkages has been noted by Shin and Park (1999), Keister (2000) and Khanna and Yafeh (2005), among others. In some countries (e.g. Japan), business groups have their own bank to manage these financial interlinkages and act as the group financier (see Aoki, 1984, 1990 and Hoshi et al., 1990). In other countries (e.g. India), the affiliation of banks to a business group is prohibited.

Social structure

Instead of the rather formal nature of equity ownership and financial ties, other linkages between business group members have a more informal character. Group relations are often based on a common ethnic, religious, or regional background, or on family ties. This links the constituent firms by relationships of interpersonal trust (Leff, 1978). Because of school ties and the way managers are trained, extensive networks of enduring personal relationships exist between individual managers of business group companies (Kester, 1992 and Keister, 1998). Moreover, member firms are often related through interlocking directorates, through which group companies have common members on their respective boards of directors. According to Granovetter (1994), this leads to a 'moral community in which trustworthy behavior can be expected, normative standards understood and opportunism forgone.' Kester (1992) also notes that this enables business group companies to engage in implicit contracting, further promoting long-term relationships.

Diversification

Typically, the firms that constitute a business group are not confined to a single industry. A business group's activities often span a range of industries,

[5] Of course, equity ownership can also be seen as a financial claim.

either related or unrelated. Examples are the Tata group in India, which has interests in steel, watches, trucks, tea, automobiles, and computer software, among others[6], the Grupo Luksic in Chile with interests in banks, hotels, beer, mining, and pasta, and the Grupo Carso in Mexico, which has firms in telecoms, Internet services, retail, and finance.[7]

In sum, we can distinguish three crucial features of business groups. First, the member firms are legally independent. In other words, a business group is an intermediate form of integration, and typically not a legal construct. Second, business groups involve both formal and informal ties among group firms. The multiplicity of links is stressed by Encarnation (1989), who states that in Indian business houses, 'strong social ties of family, caste, religion, language, ethnicity and region reinforced financial and organizational linkages among the affiliated enterprises.' Third, groups are often diversified.

Although a business group is not a single legal entity, examples of group affiliates presenting a unified front abound. Member firms may create and use a group identity by sharing a brand name, raising capital as a group, lobbying bureaucrats together, recruiting managers jointly, and pooling resources. The maze of interlinkages among group firms enables them to take these coordinated actions. The ties that bind business groups, whether formal or informal, serve to effectively place the control of the affiliated companies in the hands of a small number of individuals (i.e., a family or a controlling shareholder). Although the role of equity ownership can be considered crucial, because it gives the family a formal basis for exerting control, the informal linkages are complementary and probably equally important in effectuating control.

The importance of controlling the behavior of group firms is illustrated by the words of Mr. Deep C. Anand, the chairman of the Anand Group, when he said[8]:

> The way forward will have enormous challenges and opportunities. We will continue to manage our 19 companies - though independent legal entities - as One Corporate Entity, irrespective

[6]See Appendix A for a more detailed description of the house of Tata.

[7]See 'When eight arms are better than one', *The Economist*, September 12, 1998, pp. 67-68.

[8]In a speech that was published on the group's website: `www.anandgroupindia.com`

> of the shareholding.
>
> Towards managing this and achieving a US$ 500 million turnover in this decade, we plan to strengthen our corporate function and establish a new position - that of a Group CEO -to be taken up by the current Chief Operating Officer of the Group.

However imperfect our knowledge of what exactly is a business group, we think that any theory of business groups should be consistent with the observed features of business groups. More specifically, it should be consistent with the multitude of linkages among group affiliates and the resulting centralized control.

1.2 Theories of business groups

Why do business groups exist? What can a collection of firms organized as a business group do that these firms could not accomplish as stand-alone companies? In this section, we survey the answers that economists have given to these questions.[9] We classify the different explanations into four categories: maximizing control, substitute for missing markets, related resources, and relaxing competition. Moreover, we briefly discuss how these theories relate to the stylized facts presented in section 1.1.[10]

1.2.1 Maximizing control

Business groups are often characterized by a pyramidal ownership structure (LaPorta et al., 1999). In a pyramidal ownership structure, one firm controls a second firm, which might itself control other firms, and so on. In such a pyramid, having control of the firm at the top of the ownership chain implies having (indirect) control of the companies lower down the pyramid. An investor might create a pyramidal ownership structure to increase the amount

[9] This implies that we ignore the explanations that have been given by other social scientists, e.g. by sociologists.

[10] Some of the theories mentioned here have also been used to explain the existence of conglomerate firms. The most important difference between a business group and a conglomerate firm is that a business group is indeed a collection of firms, whereas a conglomerate firm is one firm, consisting of a number of divisions.

of assets he or she controls.[11] A pyramid allows the controlling shareholder or family to control a potentially large number of companies with a relatively small ownership stake. For instance, by owning 50 percent of the shares of one company, which in turn owns 50 percent of the shares of a second company, an investor achieves full control of the latter firm with an ultimate ownership stake of 25 percent. Put differently, a pyramid separates ownership of a company's shares (or cash flow rights) from control of the company (voting rights). These pyramids may have many different forms. For our purposes, we define a pyramid to be an ownership structure that is characterized by some form of indirect control (i.e., controlling a company through one or more other companies). It is the indirect control that separates voting rights from cash-flow rights. Although many business groups do not have a 'pure' pyramidal ownership structure, most of them are to some extent characterized by indirect control.

The separation of ownership and control in business groups has received a lot of attention in the literature recently. LaPorta et al. (1999) document that most firms in countries other than the US and the UK have a controlling shareholder, usually a family or the state.[12] Barca and Becht (2001) find that familial control is common throughout the European continent. In a sample of nine East-Asian countries, Claessens et al. (2000) also find concentrated corporate control. Moreover, voting rights exceed cash-flow rights in many companies, especially family-controlled ones. The separation of ownership and control may lead to an agency problem between the controlling shareholder and the non-controlling, minority shareholders. Because the controlling shareholder's voting rights do not have a one-to-one correspondence with his cash flow rights, he has an incentive to use his control to increase his personal wealth, possibly at the expense of minority shareholders. Bebchuk et al. (2000) argue that the key difference between widely held firms and family controlled business groups is that the agency problems in the former involve managers not acting for shareholders, while agency problems in

[11] This argument implicitly assumes that there are private benefits to having control. In general, this means that some value is not shared among all the shareholders in proportion to the shares owned, but it is enjoyed exclusively by the controlling party. See Dyck and Zingales (2004) for an extensive treatment of this topic.

[12] In their sample of the 20 largest publicly traded corporations in 27 countries, they find that controlling shareholders are common in all countries except the US and the UK. Moreover, approximately 25 percent of the firms in their sample are members of pyramids.

the latter involve mangers acting solely for one shareholder, the family, and neglecting other shareholders.[13]

With respect to business groups, where the controlling shareholder typically controls a number of companies, the expropriation of minority shareholders may come in the form of non-market interest rate loans, non-market transfer pricing, or guarantees for other companies' borrowings, to name but a few possibilities. In general, the controlling shareholder has an incentive to transfer resources out of companies in which his cash-flow rights are relatively low to companies in which his cash-flow rights are relatively high. This diversion is referred to as tunneling (see Johnson et al., 2000).[14] Recent empirical research has found evidence consistent with the tunneling view of business groups (Bertrand et al., 2002 and Bae et al., 2002).

The strength of this view is its emphasis on control, which is consistent with the multitude of ties that bind group companies together. However, the 'control maximization' view has a number of shortcomings. First, its focus on ownership relations does not take into account the myriad of links that typically exist between group companies. What is the use of these relationships if all that matters is obtaining control through (formal) ownership relations? Second, it cannot explain why the substantial separation of ownership and control is not a universal feature of business groups. The literature describes many cases in which the separation achieved is minimal, or in which the controlling shareholder's ownership stake is much larger than needed to obtain control. Cases like this have been described for Germany (Franks and Mayer, 2001), Western Europe (Faccio and Lang, 2002), Chile (Lefort and Walker, 1999), Canada (Attig et al., 2003), Turkey (Demirag and Serter, 2003), and Brazil (Valadares and Leal, 2001). Moreover, it remains unclear why a family would use a pyramid to achieve separation of ownership and control if it could also achieve this by other means, for example by issuing dual-class shares, i.e. shares that deviate from one-share-one-vote. Yet,

[13]Formal models of minority shareholder expropriation can be found in Grossman and Hart (1988), Harris and Raviv (1988), Burkart et al. (1997, 1998), Bebchuk et al. (2000), Friedman et al. (2003), and Shleifer and Wolfenzon (2002), among others.

[14]In some cases the controlling shareholder may use his private funds to benefit minority shareholders. This so-called propping may be optimal if the bankruptcy of a firm reduces the controlling shareholder's tunneling potential. See for example Friedman et al. (2003) and Riyanto and Toolsema (2004).

LaPorta et al. (1999) report that pyramidal ownership structures are much more common than dual-class shares. Although there are legal restrictions to the use of dual-class shares, there is some evidence that families do not use dual-class shares to the permitted extent (Bianchi et al., 2001). All this evidence suggests that group formation serves other purposes than merely separating control from cash-flow rights.

Apart from this, one could also question the controlling shareholder's possibility to obtain any benefits from being in control other than psychic benefits. Rational investors would know what the controlling shareholder's incentives are, and anticipate the diversion of funds. Share prices will be adjusted accordingly, lowering the value of the company. In the end, the cost of expropriating minority shareholders will be born by the controlling shareholder.[15]

1.2.2 Substitute for missing markets

Another view of business groups takes transaction cost theory as its starting point. This theory, initiated by Coase (1937) and elaborated by Alchian and Demsetz (1972), Williamson (1975, 1985) and Klein et al. (1978), is based on the idea that there are costs of using the price mechanism. In Coase's words, 'it [is] the avoidance of the costs of carrying out transactions through the market that [can] explain the existence of the firm in which the allocation of factors [comes] about as a result of administrative decisions' (Coase, 1993). According to this theory, the optimal scale and scope of the firm depend on the cost of transacting through the market. When these costs are high, it may be efficient to internalize the transactions, for example by integrating several lines of business into a single hierarchy.

However, this argument does not explain exactly why a hierarchy may bring about a more efficient outcome than the market. In answering this question, Grossman and Hart (1986) and Hart and Moore (1990) stress the role of control rights. They argue that markets and hierarchies are different because integration will lead to a shift in residual control, i.e., 'the right to decide all usages of the asset in any way not inconsistent with a prior contract, custom, or law' (Hart, 1995, p.30). It is the change in control rights, or

[15] See LaPorta et al. (2002) for a model of the consequences of poor shareholder protection.

authority, that affects the behavior of economic agents, by changing both the set of potential actions and the agents' incentives. For instance, Stein (1997) argues that the crucial difference between an external financier - a bank, say - and corporate headquarters is that headquarters indeed is empowered to take resources away from some projects and give them to other ones. Because of headquarters' having control, an internal capital market may create value in ways that a bank cannot.[16]

From this perspective, Leff (1978) argues that a business group should be viewed as an organizational response to imperfect and missing markets (e.g. capital and labor markets). More specifically, the efficient functioning of markets crucially depends on the quality of institutions such as intermediaries, the regulatory framework, and the judicial system. When absence or malfunctioning of these institutions leads to high transaction costs, business groups may be created to fill these institutional voids (Khanna and Palepu, 1997, 1999). For example, a business group may build a reputation for quality in product markets where consumer protection is poor. In doing so, the brand name becomes a valuable asset that can be shared by all group companies. Moreover, by putting the group's entire reputation at stake, transaction costs due to poor contract enforcement are likely to be lower. Business groups also have the possibility to trade internally, where the economic and social punishment for opportunistic behavior by the affiliates will be large. Setting up internal management-development programs is another option for business groups when well-trained managers are scarce. Because it has a number of affiliated firms, job-rotation programs can be used to transfer managers to where they are most needed, or to jobs that match their skills best. In underdeveloped capital markets, investors may be reluctant to finance new projects because they have little information and few safeguards. A business group may overcome this hesitation by 'underwriting' security issues with its reputation, or by putting up its large asset base as collateral. Indeed, Amsden and Hikino (1991) have argued that groups play on important role

[16]There is of course no guarantee that headquarters will use its authority to achieve the socially optimal outcome. The pros and cons of internal capital markets have been modeled by Gertner et al. (1994), Stein (1997), Rajan et al. (2000), Scharfstein and Stein (2000), and Inderst and Müller (2003), among others. See Stein (2003) for a survey. The misallocation of capital in internal capital markets is seen as one of the main causes of the diversification discount.

in adopting foreign technology in emerging markets. Business groups may improve on the processes of generating and allocating capital relative to the financial markets. Because this thesis focuses on the role of business groups in substituting for imperfect or missing *financial* markets, we will discuss this issue in more detail.

First, a business group may be well suited to overcome credit rationing problems. It is well known that agency problems may result in credit rationing, i.e., the amount of credit not being determined by the firm's demand, but by the bank's zero profit condition (Stiglitz and Weiss, 1981). Business groups may mitigate agency problems in several ways. With the entire group's reputation at stake, distressed group firms may be cross-subsidized by other group members, lowering the probability of default. Berglöf and Perotti (1994) argue that the cross-holdings of debt and equity serve to mitigate moral-hazard problems within the group. In a repeated-game setup, they show that cross-shareholdings provide the affiliated companies with both the incentive and the means to monitor each other. Ghatak and Kali (2001) focus on role of cross-holding of debt, or mutual debt guarantees, in solving adverse selection problems in financial markets. They argue that mutual debt guarantees will induce firms to form groups consisting of firms with similar characteristics (assortative matching), allowing lenders to infer the riskiness of the project from the degree of cross-holding in the group.[17] Moreover, when a full-fledged stock market is not feasible because the costs of overcoming the informational asymmetries are too high, business groups may provide an alternative means of risk-sharing. This argument is formalized by Kali (2003). Almeida and Wolfenzon (2004) present a slightly different argument. They model an entrepreneur's choice between setting up a new project either as a subsidiary of an existing firm he already controls (vertical) or as a separate firm (horizontal). They argue that the advantage of creating a pyramid is that it allows the entrepreneur to use the initial firm's entire cash flow to finance the new project. Thus, when external funds are costly, a pyramid makes it easier to finance new projects.[18]

[17] This argument is closely related to the literature on joint liability lending (see Ghatak, 2000).

[18] A special feature of the Almeida and Wolfenzon (2004) model is the crucial role of investor protection. When investor protection is poor, the entrepreneur will divert more cash flows from the initial firm. As a consequence, it will become more difficult to attract

Second, a business group may improve the allocation of capital across different investment projects. The group superstructure may have access to superior information and has the authority to control the allocation of funds. This gives group headquarters an advantage over external financiers: it enables headquarters to engage in *winner-picking* (Stein, 1997). Thus, business groups may create value by putting capital to its most productive use if capital markets fail to accomplish this task.[19] There is some empirical evidence that internal capital markets play an important role in business groups (Hoshi et al. (1991) on Japanese *keiretsu* and Shin and Park (1999) on Korean *chaebols*).

This explanation of business groups has a number of attractive features. First, the theory recognizes the crucial role of control. The functioning of internal markets crucially depends on formal and informal control resting with group headquarters. Second, viewing business groups as an organizational response to the institutional framework also explains the heterogeneity of business groups across countries. According to this theory, the structure of a business group depends on the specific market failures it has to cope with. On the other hand, the theory seems to suggest that the scope for business groups narrows as markets develop. Although there are no formal tests of this proposition, there is some evidence that groups become more powerful following economic liberalization (Khanna and Palepu, 1999). Moreover, this proposition appears to be at odds with the prevalence of business groups in Western-Europe.

1.2.3 Related resources

Another explanation of business groups emphasizes the use of common or complementary resources. This argument was first set out by Penrose (1959), whose theory of the growth of the firm implies that so long as expansion provides a way of more profitably employing its underused resources, a firm has an incentive to expand. Later, the argument was refined by Williamson

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external financing. Both the higher level of diversion and the higher costs of external funds make the pyramidal structure more attractive for the entrepreneur. Hence, according to this theory, pyramids will be most prevalent in countries with poor investor protection.

[19] Note that having an efficient internal capital market will also relax the business group's financing constraint.

(1975) and Teece (1982). If resources exhibit economies of scale or scope, it may be efficient to pool different businesses into a group to capitalize on those economies. Resources can be thought of as technology, brand names and reputation, distribution systems, managerial expertise and entrepreneurship.

Note that the resource-based view of business groups implicitly assumes that there exist market failures. Increasing the scale or scope of a firm is valuable only if these economies of scale and scope cannot be exploited through market transactions or contracts. For example, integrating two lines of business into a single firm because they both use the same technology creates value only if the use of the technology cannot easily be specified in a contract. Also, a business group may be built around the specific capabilities of an entrepreneur, which - like other intangible assets - tend to be hard to trade even on well-functioning markets. Hence, the resource based view is related to the transaction cost theory described above.

1.2.4 Policy distortions

Another popular view of business groups asserts that they are privately optimal responses to avoidable policy distortions. The bundling of different firms under a group umbrella may be the result of industrial or tax policies, even though these policies do not explicitly encourage group formation. For example, if industrial policy is aimed at promoting small-scale industries, firms may choose to form a group rather than integrating into a large conglomerate firm. Other policy measures that may lead to the advance of business groups are import controls, licensing policies, regulatory restrictions on exit, or tax policies. With respect to tax policies, Ghemawat and Khanna (1998) give the example of Indian taxes, which used to be based on sales rather than on value-added, inducing many firms to (vertically) integrate.

Moreover, business groups may be able to reap the benefits from the economies of scale and scope in influencing policymakers. Rent-seeking activities are likely to exhibit economies of scale and scope, because once a firm has good access to the policymakers (e.g., knowing who to talk to, and whom and what to pay), this access can be used to lobby for different interests or to represent the common interest of a number of firms. Hence, it may be optimal to bundle the lobbying activities of a number of firms. This

may also allow them to maintain a sufficiently large 'industrial embassy' (Encarnation, 1989). In addition, the resulting favors can be directed to the group members which value them highest. This also suggests that business groups have particularly strong incentives to invest in relationships with the bureaucracy.

This explanation of business groups may be especially relevant in emerging economies, where government authorities play a large role and where the scope for rent-seeking activities is large. Although there is some empirical evidence of the importance of ties with policymakers (see, for instance, White, 1974, Strachan, 1976, Encarnation, 1989, Schwartz, 1994 and Fisman, 2001), formal models of how policy distortions lead to business group formation are lacking.

On the one hand, this view implies that differences in government policies and regulations lead to different types of business groups, which is consistent with cross-country differences in the form of business groups. On the other hand, if business groups are mainly a response to policy distortions, we would expect to see groups disappear as economies are liberalized and the power of bureaucracies declines. Furthermore, the success of a business group would primarily depend on its relationship with the administration at that time. Neither implication is supported by conclusive empirical evidence.

1.2.5 Relaxing competition

The last category of explanations of the existence of business groups contains a number of theories that focus on the effects of group formation on the competitive behavior of affiliated firms. Business groups may soften the intensity of competition, because it is easier to sustain tacit collusion when different groups have multi-market contacts (Bernhein and Whinston, 1990), because cross-shareholdings induce one firm to internalize the effect of its quantity decision on the profits of the other firm (Clayton and Jorgenson, 2005), or because the affiliated firms can strategically use the group's deep pockets (Cestone and Fumagalli, 2005). Although the relationship between business groups and product market competition is a relevant issue, these theories appear to be too focused on a single feature of business groups to be able to explain the existence of business groups in so many different forms and countries. For example, the Clayton and Jorgenson (2004) argument focuses

on cross-shareholdings only, and depends on the dependence of one firm's profits on the other firm's output decision. In reality, cross-shareholdings do not always define group affiliation, and group members may operate on completely separated markets.

1.3 The Indian situation

Business groups play an important role in the Indian economy, and have been doing so during a large part of the twentieth century. This section briefly describes the history of Indian business groups over the past sixty years, which illuminates some of the factors that have been crucial for the success or failure of these groups. An extensive description of India's largest business house, the Tata group, can be found in appendix A.

Before India achieved independence from Britain in 1947, Indian entrepreneurs had to compete fiercely for market share against the multinationals of that time. Moreover, Indians were actively discriminated against by the colonial government and by banks. Under these conditions, a number of large business houses emerged, which were set up by daring and innovative entrepreneurs. Examples are the Tata's, the Birla's and the Lalbhai's.[20] Most of these groups were controlled by a single family.

Following independence, the close relationships between the business community and the leaders of the political movement for India's independence, which already existed long before 1947, resulted in a natural collaboration to build modern India. Existing business groups were able to benefit from their close connections with the new government, whereas the transfer of assets from the British trading houses to Indian owners led to the rise of new business groups. For instance, the Goenka's acquired a number of Anglo-Indian companies from clients who decided to pull out of India (Khanna, 1997).

In the 1960s, however, the relationship between the government and the business community changed. This decade was marked by a shift in economic policy towards socialism, leading to strong government intervention in the Indian economy. The government controlled the economy by reserving some sectors for state-owned enterprises (e.g. aviation, telecommunications and financial services), nationalizing private assets (e.g. Tata airlines and

[20]See Piramal (1996, 1998) for informative descriptions of Indian business history.

several banks), setting up a large import substitution program, and imposing a large number of restrictions and rules concerning market power and foreign investment. During this period, which became known as the License Raj, the government controlled 'private sector's ability to pursue growth opportunities, access domestic finance, or collaborate with foreign technology or business partners.' (Khanna and Palepu, 2004, p.9)

The License Raj was a mixed blessing as far as business groups are concerned. On the one hand, one of the aims of government intervention was to control the large business houses. According to several government committees, these business houses had a significant influence on the Indian economy and abused their political connections. As a consequence, the licensing system was sometimes used to reject expansion proposals made by business houses.[21] For other business groups, the restrictions facing them in the Indian economy induced them to expand abroad.

On the other hand, India's heavily regulated economy has also stimulated the prevalence of large diversified business groups. The licensing system led to rent-seeking behavior, allowing the firms with the best political connections to obtain the licenses. Among the groups that benefited from playing this license game was the Ambani group. Moreover, the restrictions on market share imposed by the Monopolies and Restrictive Trade Practices (MRTP) Act induced many companies to diversify into new industries.

So, although political connections and rent-seeking have partly determined the shape of the Indian corporate sector, they are certainly not the only explanation for the prevalence of business groups. Illustrative of this is the fact that, despite its troubled relationship with the government, the Tata group still was India's largest business house in 1969 (Piramal, 1998).

India remained a closed and heavily regulated economy for at least two decades. In the mid-1980s, a gradual move towards deregulation began. However, it was not until the economic crisis of 1991 that serious economic reforms were implemented. Industrial licensing was abolished for most industries, and the MRTP Act was relaxed, as a result of which companies no longer needed government approval to pursue expansion or enter new markets. The

[21]For instance, Das (2000) reports that the Tata group made 119 new proposals for expansion in existing or new businesses between 1960 and 1969 and that every single one of them was rejected.

number of industries previously restricted to public sector participation decreased from seventeen to six, and the government divested minority shares of its public sector companies. Moreover, reductions in tariffs and the number of import quota led to a shift from protectionist trade policy towards a more open economy.

Although the 1991 reforms did not immediately change India's financial markets, the policy changes were clearly directed towards deregulation and a more market-oriented approach. Although the banking sector was still dominated by state-ownership, banks were given some freedom in setting deposit rates and ten new privately owned banks and eight foreign banks were given permission to open branches in India. The subsequent increase in the savings rate, and the private sector's eagerness to invest these funds, had a positive effect on the growth of domestic capital markets, particularly in equity markets. The functioning of capital markets was improved by the establishment of disclosure rules and a market regulator, and market capitalization rose from 1,110 billion rupees in 1991 to 3,980 billion rupees in 1995. As a result of the development of Indian financial markets, entrepreneurs and companies gained improved access to domestic and foreign capital.

The economic reforms of the 1990s led to new opportunities and challenges for business groups. On the one hand, the opening up of markets that previously had been reserved for the public sector created many new business opportunities. This led to the rise of a number of prominent companies. One prominent example is the relatively young Reliance Group, which was one of the first companies to raise huge sums of money on a stock exchange to finance its expansion plans. When a number of sectors were deregulated, Reliance started to diversify into telecommunications and power. Currently, Reliance is one of the stars of the Indian business sector.

On the other hand, the abolition of the licensing system and the import substitution programs challenged many of the established business groups. Many companies faced intensified competition from both domestic and foreign competitors, and suddenly faced the need to restructure and modernize. In this process of innovation and modernization, some of the established groups have been remarkably successful, whereas others have clearly failed. One of the groups that have successfully adapted to the new economic environment is the Tata group. Although still family owned, the Tata companies

are professionally managed, and the group has very successfully diversified into the software industry and into telecommunications. Other examples of old business houses which have restructured and modernized are the Amalgamations group, whose flagship company TAFE was one of the first to set up customer-service centers, and the Mahindra group.

However, several other groups have not been able to adjust to the new situation. They have not made the necessary reinvestments and modernizations of production and management, and are struggling to survive. Prospects are still unclear for large parts of the split-up Birla group, India's second largest business group in 1990.[22] Where successful groups have adopted professional management to lead their companies in the new business environment, in the Birlas, most of the senior executives have served the company for several generations. Other examples of failures are the Mafatlals, who failed to deal with the combination of intensified competition and destructive family dynamics, and the Modi group.

The opening up of Indian capital markets not only created an enormous potential of foreign capital, but also faced the Indian companies with new standards of corporate governance. Again, this was a challenge to the business groups. Many of these groups were characterized by very complicated ownership structures and complex networks between directors of affiliated companies. To live up to modern standards of corporate governance, these groups had to become more transparent. The groups that successfully managed to increase transparency (without losing control) were able to benefit from increased access to foreign capital.

This brief sketch of the Indian business history in the second half of the twentieth century shows that the prevalence of business groups in the Indian economy is the result of a number of factors. Political connections and responses to government regulations only tell part of the story. There are also many cases where the success or failure of a business group was merely driven by excellent entrepreneurship or good governance. Moreover, this small history shows that groups differ with respect to their *raison d'etre* and in their ability to adjust to a changing economic environment.

[22]The Aditya Birla group is an exception.

1.4 Research questions and overview

Earlier in this chapter, we mentioned the main reason why we are interested in business groups: we want to develop our knowledge of their impact on firm value. Does group affiliation affect firm value, and, if so, how? The theories of business groups disagree as to whether or not business groups add value, or whether or not they are welfare improving. The theoretical debate about business groups implies that the effect of group affiliation on firm value ultimately is an empirical matter. Most of the theories of business groups are based on explicit or implicit assumptions about the functioning of business groups. Hence, shedding more light on these assumptions and testing whether or not they hold in practice is a prerequisite for evaluating these theories.

The main contribution of this thesis is that we not only analyze whether group affiliation affects firm value, but also investigate the mechanisms of this valuation effect. In other words, we analyze the internal functioning of business groups to improve our understanding of their consequences. In each of the following four chapters, we analyze a separate research question. We start with an analysis of the valuation effect of group affiliation.

Given the ubiquity of business groups and the general theme of this thesis, a natural first question to ask is whether and how a business group affects the value of the constituent firms. We investigate this issue in chapter 2. We analyze how group affiliation affects the value of a company, by comparing the market value of group affiliates and stand-alone companies, controlling for a number of firm characteristics. Furthermore, we analyze how the valuation effect depends on group-specific and firm-specific variables. Is the valuation effect different for members of large or more diversified groups? And which group members are most affected by their affiliated status? Those who would find it most difficult to survive as stand-alone companies (small or young firms)? Or is the valuation effect related to the company's position in the group's hierarchy? Most of these questions have been analyzed by others. We argue that the results of most of these studies may be spurious due to the use of simple or inappropriate econometric techniques. We use panel data models, which allows us to separate the effect of group affiliation from firm-specific effects. Moreover, we explicitly control for possible endogeneity

problems.

As we described in section 1.2, one strand of literature views business groups as efficient organizational responses to missing or imperfect markets. In chapter 3, we investigate the empirical content of this view by investigating the investment behavior of group affiliates and analyzing whether group affiliation improves a firm's access to external financing. In a country like India, access to external financing is often restricted because financial markets are poorly developed. Being affiliated to a business group may make it easier for a company to obtain the financing necessary for investment. Hence, group affiliation may increase firm value by enabling the firm to make investments for which it would not have been able to obtain financing as a stand-alone company. We analyze whether group affiliates find it easier to attract external funds than their stand-alone counterparts. Do groups improve their affiliates' access to external finance, enabling those firms to invest in more projects? We answer this question by looking at the sensitivity of a firm's capital expenditure to changes in its internal funds. Other things equal, we would expect firms with better access to external funds to be less dependent on internal financing. We are not the first to analyze the investment-cash flow sensitivity of group companies *vis-a-vis* stand-alone companies. The value-added of this chapter is that we use advanced econometric techniques to allow for nonlinearities and endogeneity. This reduces the probability that our conclusions are based on spurious regressions. Both chapter 2 and chapter 3 show that using more appropriate econometric models sometimes yields new answers to not so new questions.

Some theories of business groups mentioned in section 1.2 stress the role of the group's internal capital market. For example, they argue that a business group may bring about a more efficient allocation of capital than the external market, increasing the value of the portfolio of companies. In this argument, it is implicitly assumed that an internal capital market exists, and that it indeed functions efficiently. However, direct evidence of internal capital markets in business groups is hard to find. To our knowledge, our analysis is the first detailed analysis of capital flows between different group members. Chapter 4 analyzes, first, whether there exists an internal capital market in Indian business groups, and, second, what determines the capital flows between companies in a group. Here, different theories have different

predictions. If business groups are efficient responses to imperfect markets, the intra-group allocation of capital should be determined by the relative investment opportunities of the affiliated companies. On the other hand, if business groups mainly serve to enrich the controlling shareholder, we would expect the amount of capital that is allocated to a company to depend on how much it would benefit the controlling shareholder. Hence, analyzing the intra-group capital allocation enables us to evaluate these theories. Moreover, we investigate how the internal capital market affects the (external) market value of group companies.

In finance, value is typically determined by the level of, say, a cash flow and its variability. Hence, value and risk are intricately related. For this reason, chapter 5 analyzes the effect of group affiliation on the riskiness of a company. We use factor models to explain the stock returns of Indian companies. The contribution of this chapter is twofold. First, we analyze whether there are differences in returns to group affiliates and stand-alone companies, and whether these return differences can be explained by differences in riskiness (beta) or style. Second, we investigate whether there is something special about business groups that is priced by investors (a group affiliation factor). In other words, we test for common variation in returns to group companies, controlling for known sources of common variation. After finding that returns to group companies indeed move together, we try to find an economic explanation for this result by analyzing the link between the group factor and group diversification.

The final chapter summarizes the main conclusions from this thesis and mentions some unanswered issues that deserve further analysis.