

**OWNERSHIP AND CAPITAL STRUCTURE OF CHILEAN  
CONGLOMERATES:  
FACTS AND HYPOTHESES FOR GOVERNANCE\***

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**ABSTRACT**

*In this paper we provide an accurate descriptive analysis of consolidated ownership and capital structures in Chilean conglomerates, emphasizing the implications of these structures for corporate governance. We avoid double counting investments made through pyramid schemes, and consider the universe of non-financial firms registered at the Superintendencia de Seguros y Valores (SVS). We find that economic groups are the predominant form of corporate structure in Chile, and that the most common way of separating control from cash-flow rights in Chilean conglomerates is through pyramid schemes. These schemes have proven to be successful in raising external funding. Controllers of Chilean conglomerates rely in a relatively small number of people in order to conduct business, and these people participate exclusively as board members of corporations affiliated to their group. However, controllers of Chilean conglomerates hold more equity than strictly needed for control, suggesting that cash-flow benefits associated to subsidiaries are relatively large. Finally, pension funds and ADRs constitute a significant minority shareholder in Chilean groups.*

*Key words: Corporate Governance, Conglomerates, Capital Structure, Chile, Emerging Economies*  
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### **RESUMEN**

*Este artículo entrega una descripción detallada de la estructura consolidada de propiedad y financiamiento de los conglomerados chilenos, y la analiza desde el punto de vista del gobierno corporativo. En este análisis se evita la doble contabilización de inversiones realizadas mediante esquemas piramidales, y se considera el universo completo de las sociedades anónimas abiertas no financieras registradas en la Superintendencia de Valores y Seguros (SVS). Encontramos que los grupos económicos son la principal forma de estructura corporativa en Chile, y que la manera más común de separar el control de los derechos a dividendos es mediante el uso de esquemas piramidales. Estos esquemas han permitido exitosamente a los grupos obtener financiamiento externo. Los controladores de los grupos conglomerados chilenos utilizan a un número relativamente reducido de personas para dirigir sus empresas, y estas personas tienden a participar exclusivamente en los directorios de empresas afiliadas a su propio grupo. Sin embargo, los controladores de los conglomerados chilenos mantienen más capital del necesario para tener el control de las empresas, lo que se asocia a la existencia de beneficios pecuniarios importantes en la mantención de acciones de las empresas subsidiarias de un grupo. Finalmente, los fondos de pensiones y los ADR constituyen los únicos accionistas minoritarios de los conglomerados chilenos.*

The standard Bearle and Means (1936) firm characterized by dispersed ownership is a rare occurrence in most emerging economies. Against popular wisdom, it is in fact a rare phenomenon in most developed western economies.<sup>1</sup> However, the mainstream literature in corporate governance usually analyzes the agency problem that arises as a consequence of the asymmetry of information between managers and dispersed shareholders.<sup>2</sup>

In most emerging economies, the typical firm is characterized by concentrated ownership. In fact, the standard firm is usually part of a complex structure controlled by an individual, a group of individuals or a family. These complex structures are known as groups or conglomerates. They are the main form of business organizations in a long list of emerging economies. This is clearly true for Chile as shown in Majluf *et al.* (1998), Gonzalez (1999), Khanna and Palepu (1997) and Lefort and Walker (1999). It is also the case for Brazil (Valadares and

<sup>1</sup> See Laporta, López-de-Silanes and Shleifer (1998), and Dietl (1998).

<sup>2</sup> See Shleifer and Vishny (1997) and the literature surveyed there.

Leal (1999)), Mexico (Castaneda (1999)), India (Khanna and Palepu (1997)), and most East Asian economies (Claessens *et al.* (1999)).

Conglomerates are not only characterized by the common ownership of a group of firms, but also by the complex mechanisms used to achieve control, including pyramid schemes, cross-holdings and dual-class shares. These complex organizations have been widely analyzed in many academic articles. One of the most salient characteristics is that groups are persistent in time, and able to adapt to most changing situations.<sup>3</sup> In fact, Khanna and Palepu (1998) have shown that conglomerates have been able to grow and increase their scope and self-intermediation even during times of fierce economic reform and deregulation, proving that their existence does not depend on archaic economic structures. It has even been argued that groups facilitate economic development by being able to operate under conditions that no other type of firm could resist (Khanna and Palepu (1999)).

However, economic groups have been recently under attack by a list of academic papers on corporate governance. In particular, it has been convincingly argued through agency theory that these concentrated structures or economic groups are prone to carry inefficient investment and generate minority shareholder expropriation. This would be most likely the case, when the controlling shareholders of these groups exercise control through the complex mechanisms described earlier. In such a case, the agency problem might be exacerbated. On the one hand, ownership concentration insulates the controller from the market for corporate control, and on the other hand, control is executed by a shareholder that holds a relatively small fraction of the cash-flow rights. Bebchuk *et al.* (1999) convincingly show that agency costs increase more than proportionally as the size of the cash-flow rights held by the controller decrease.

There are numerous studies that have looked for evidence of this sort of misconduct by economic groups. Scharfstein and Stein (1997), Scharfstein (1998) and Rajan *et al.* (2000) are among the most recent looking at inefficient allocation of investments. Regarding minority shareholder expropriation the evidence is not less compelling. Barr *et al.* (1997) look at the South African case and Claessens *et al.* (1999) at East Asian corporations. For instance, in this same volume, Claessens *et al.* (1999) find a 5% discount for East Asian groups associated with the separation of cash-flow and voting rights.

<sup>3</sup> See Lefort and Walker (1999) for a description of the Chilean case.

In spite of the compelling analysis provided by agency theory and the evidence accumulated, there has been another more favorable view of conglomerates in emerging economies.<sup>4</sup> This more strategy linked view of the firm sustains that economic groups are a natural and efficient way for firms to deal with imperfect capital markets, poor institutions, corruption and other imperfections that plague emerging economies.<sup>5</sup> In this context, economic groups arise in order to fill the voids left by poor institutions. In particular, internal capital markets, that is, the headquarters allocation of funds to the different business units of the conglomerate creates value in a credit constrained world (Stein (1997)). Other financial synergies arise because of the possibility for conglomerates to liquidate assets of specific units in response to a general downturn (Shleifer and Vishny (1992)), and because of risk diversification that might be valuable to investors in economies with imperfect capital markets.

There are also operational synergies generated through conglomeration. They might be related to economies of scale and scope in product and factor markets arising because of poor basic services like power, postal or others. It might be also related to poor consumer protection and the advantage of group branding. One of the most cited reasons for conglomerates in emerging markets is the advantage they create to deal with a corrupt government, a highly regulated economy and a poor judiciary system (Khanna and Palepu (1997)).

As with the agency theory, there is good empirical evidence supporting this view of economic groups. Claessens *et al.* (1999) show that Chilean economic groups are effective in reducing investor's risk through their internal capital markets, and Khanna and Palepu (1999, 2000) show that group affiliation in India and Chile is related to more diversification and better allocation of resources.

The purpose of this paper is to provide an accurate descriptive analysis of ownership and capital structures in Chilean conglomerates, emphasizing the implications of these structures for corporate governance.

Specifically, we analyze the way that local economic groups have structured the right hand side of their consolidated balance sheets. To our knowledge, this is the first paper that looks into the ways that most

<sup>4</sup> See Tarzizán (1999) for a survey of this literature.

<sup>5</sup> See Khanna and Palepu (1997).

conglomerates in Chile obtain their financing, considering consolidated information at the group level. In this study, we avoid almost completely double counting investments made through pyramid schemes. This is also the first study to consider the universe of non-financial firms registered at the Superintendencia de Seguros y Valores (SVS). Hence, we can look at the actual amount of assets under management by each group and uncover the fraction of which have been financed jointly with minority shareholders and debt.

Ownership concentration is one of the key variables considered when evaluating corporate governance mechanisms and minority shareholder protection. In general, high concentration is associated to poor protection.<sup>6</sup> In any case, in this study, we present more precise measures of ownership concentration in Chilean conglomerates. A recent study by Majluf *et al.* (1998) describes in detail the structure of five Chilean groups, and provide some aggregate indicators of ownership concentration. In this paper we calculate the consolidated equity holdings of groups and are, therefore, able to identify precisely the percentage of ownership held by the controllers of Chilean conglomerates.

The main results of the paper are the following.

First, economic groups are the predominant form of corporate structure in Chile. These companies represent 91 percent of total assets of non-financial firms registered in the SVS. Second, the most common way of separating control from cash-flow rights in Chilean conglomerates is through relatively simple pyramid schemes. These schemes have proven to be successful in raising external funding. Third, controllers of conglomerates rely in a relatively small number of people in order to conduct business. These people participate exclusively as board members of corporation affiliated to their group. Fourth, controllers of Chilean conglomerates hold more equity than strictly needed for control, suggesting that cash-flow benefits associated to subsidiaries are relatively large.<sup>7</sup> Finally, pension funds and ADRs constitute significant minority shareholders in Chilean groups.

The paper is organized as follows: Section I describes the data and methodology; Section II discusses the mechanisms of exercising control in Chilean conglomerates; Section III uncovers important facts regarding ownership and capital structure of Chilean economic groups; and Section

<sup>6</sup> See Laporta *et al.* (1996).

<sup>7</sup> See Leland and Pyle (1977).

IV discusses the main findings and raises some questions and hypothesis for future research.

## I. DATA SOURCES AND METHODOLOGY

As a first step towards a description of corporate governance structures in Chile, in this paper we compute aggregate indicators of group affiliation, and ownership and capital structure for Chilean corporations. We provide comparisons of these indicators for conglomerates of different sizes and non-affiliated corporations, and analyze their evolution during the 90's.

In order to obtain information about capital structure of Chilean corporations, we looked at the balance sheets, income statements and shareholder identification submitted by firms to the Superintendencia de Valores y Seguros (SVS) in the years 1990, 1994 and 1998. The database comprised 162, 252 and 195 non-financial corporations for the years 1990, 1994 and 1998 respectively. We used this information to build the "chains of property" that characterize Chilean conglomerates through a detailed analysis of groups' direct and indirect holdings in each corporation. Through this procedure we obtained consolidated balance sheets and income statements at the group level, allowing us to avoid double counting certain investments. We also analyzed corporations non-affiliated to conglomerates.

The first step in this procedure consists in identifying corporations associated to specific conglomerates. As we mentioned earlier, there is no obvious way to identify each and every Chilean economic group and their holdings. However, the SVS provides a group definition and a list of conglomerates that is periodically updated. The SVS identified 26, 58 and 71 groups for the years 1990, 1994 and 1998 respectively. The inflation of groups under the SVS definition is due, in part, to the fact that large corporations that split and make a specific business unit go public tend to become automatically a group.<sup>8</sup> These new openings were partly induced by stricter regulations for pension fund managers that reduced investment limits when subsidiaries were closed.

In order to avoid the bias introduced by the SVS group identification

<sup>8</sup> An example of that is the telephone company CTC (now Telefonica Chile). CTC was not considered a group in 1990, but became one in 1994 after CTC Mundo that carries the long distance business of CTC went public.

procedure, we take as starting point the non-financial groups identified by the SVS for 1998 and go back in time. This procedure results in 33, 45 and 47 non-financial economic groups for 1990, 1994 and 1998 respectively. These conglomerates own a large fraction of the universe of non-financial public companies considered in this study.

There are two considerations regarding our sample of conglomerates. First, this database does not include banks or other financial institutions like pension fund administrators and insurance companies, which probably tends to underestimate the importance of groups. However, since groups cannot consolidate their activities around a bank, these holdings would just have to be added to the total without any additional consolidation. Second, we also excluded groups that are only comprised of “closed” companies that are not consolidated by any public company. Third, a number of firms in the sample do not belong to any of the groups considered. These residual companies, by construction, tend to be relatively small firms that we labeled “simple firms”. The reason is that, as we mentioned earlier, large firms tend to become a group under the SVS definition when they list some of its business units in a stock exchange. However, the fact that they do not belong to any group in the sample does not mean that they do not consolidate with other firms. In spite of these considerations, this study adds a considerable amount of new information with respect to previous studies for Chile that only considered small subsamples of groups, and did not include in their analysis all direct and indirect holdings in firms registered with the SVS.<sup>9</sup>

Table 1 summarizes general characteristics of our data. Panel A presents the total number of firms and conglomerates considered in our sample. Panel B indicates that around 70 percent of the public companies listed in the SVS belongs to one of the economic groups considered in our sample. This figure has steadily increased during the 90’s going from 65.4 percent in 1990 to 73.3 percent in 1998.

In order to compute capital structure figures for Chilean corporations we value equity at market prices when possible. Otherwise, we use accounting figures. It is important to keep in mind that small groups and firms typically trade much less than larger firms or none at all. Therefore,

<sup>9</sup> See Laporta *et al.* (1996) and Majluf *et al.* (1998).

TABLE 1  
CHILEAN CONGLOMERATE AND THEIR CORPORATIONS

Panel A Corporations and Groups Considered in this Study			
	Corporations	SVS Groups	This Study Non-financial conglomerate s
1990	162	26	33
1994	252	58	45
1998	195	71	47

Panel B Number of Corporations in Groups				
	Corporations	Non-group Corporations	Corporations belonging to a group	% of Corporations belonging to a group
1990	162	56	106	65.4
1994	252	80	172	68.2
1998	195	52	143	73.3

it is more likely that in the case of smaller firms accounting numbers end up being used.

For each conglomerate in the sample we construct a consolidated balance sheet identifying the consolidated debt and equity figures. An important aspect of the consolidation procedure is the identification of all companies controlled by a group. In most cases, these companies are linked through pyramid schemes that must be properly identified in order to avoid double counting group assets. As we will discuss later on the paper, pyramid schemes are the most common way of achieving control in Chilean conglomerates, since cross-holdings are forbidden by law and dual class shares are rare.

In order to determine minority and controlling shareholders' investments in subsidiary and parent companies we use the information about the 12 most important stockholders provided by corporations to the SVS. We used public information from the "Diario Oficial" to identify the owners of investment companies among the 12 largest shareholders of each corporation, and associate them to different groups.<sup>10</sup> Therefore, the consolidated balance sheets of conglomerates consider also privately held investment companies (level 0 firms) under the assumption that they hold no debt. It is possible that we underestimate the controlling shareholders' stake, since some of the group holdings may be materialized through investment vehicles that do not appear among the 12 largest shareholders. However, considering that the 12<sup>th</sup> largest shareholder holds on average less than one percent of total shares, and that the 12 largest investors usually hold at least 80 percent of the company shares, it is very unlikely that this may introduce a substantial bias.

Through this tedious procedure we are able to compute several entries of consolidated balance sheets. First, we obtained directly from the record of shareholders of the parent firms, controlling shareholders' investment in the parent company. Secondly, we computed controlling shareholders' direct investment in subsidiaries. This is defined as the fraction of the group's investment that was made directly in subsidiaries and not through a parent company. In both cases, the specific investment vehicles used by group members had to be identified through the official company registra-

<sup>10</sup> When an investment company holds only shares of corporations of a particular group, we take that investment company as an investment vehicle of the group. Their shares are, therefore, considered part of the controlling shareholders' stake in the holding.

tion in the “Diario Oficial”. Thirdly, we identified the fraction of minority interest in each parent company and each public subsidiary and estimated its value at market prices, if available. Otherwise, we use book value figures. Finally, we computed debt figures from the consolidated balance sheets of the parent companies of each conglomerate. The main results will be discussed later in the paper.

## II. MECHANISMS OF CONTROL OF CHILEAN CONGLOMERATES

### A. *Pyramid schemes*

Before we provide a detailed description of ownership and capital structure of Chilean conglomerates, we want to briefly discuss the control mechanisms commonly used by them.

On the one hand, Chilean Corporations Law prohibits cross-holdings. On the other hand, dual-class shares are allowed under Chilean Corporation Law, as long as the terms of preference are clearly stated in company statutes. An issue of shares with distinct rights must be approved by 75 percent of votes in a shareholder meeting.<sup>11</sup> However, dual class shares are relatively rare in Chilean corporations. From a sample of 281 public firms in December of 1999 comprising holding and productive companies, only 21 had dual-class shares. Of these 21 companies 15 were productive firms and 6 were holding companies. In summary, only 7.5 percent of Chilean listed companies have dual shares.

By far, the most common way of separating control from cash-flow rights in Chilean conglomerates is through pyramid schemes. When computing consolidated balance sheets of conglomerates we have distinguished between public corporations in levels 1, 2, 3 and 4, depending on the degree of consolidation in the group. Table 2 shows the pyramid schemes used by Chilean economic groups. The table shows that although Chilean groups have increasingly used pyramid schemes to achieve control of a larger basis of assets, they use relatively simple pyramid structures where is rare to find four layers of public corporations consolidated. However, the table clearly indicates that the number of layers used by groups has

<sup>11</sup> See Lefort and Walker (2000) for an analysis of Chilean Corporate Law.

TABLE 2  
PYRAMID SCHEMES

	Corporations Level 1	Corporations Level 2	Corporations Level 3	Corporations Level 4
1990	93 87.7%	13 12.2%	0	0
1994	124 72.0%	45 26.6%	2 1.1%	1 0.5%
1998	96 67.1%	40 27.9%	5 3.5%	2 1.4%

increased during the nineties. By 1998, almost 35 percent of public corporations affiliated to groups were second or higher level. It is important to keep in mind, that although Chilean conglomerates are formed through relatively simple pyramid schemes of public companies, it is not always easy to ascertain the way the pyramid structures are controlled. The reason is that there are very few people among the largest shareholders. Controllers of these structures hold shares through private holding companies with fantasy names that participate at all levels of the pyramid structure.<sup>12</sup>

At this point, it is important to realize that, as shown by Wolfenzon (1999), agency theory predicts that pyramid schemes are used when controllers can obtain high private benefits of control in group's subsidiaries as compared to standard cash-flow benefits. Under these circumstances, controllers will find convenient to get minority shareholders in the parent company to finance the investment required to set the subsidiary. Wolfenzon (1999) also shows that, in theory, a controller can choose any percentage of consolidated cash-flow ownership, no matter how small, through pyramid schemes.

### *B. Board composition*

Company board makes important decisions. Therefore, control is exercised, in practice, through board members elected directly or indirectly

<sup>12</sup> The large difference between personal income and company tax rates explains the wide use of private holding companies.

We present the main results regarding board composition in Table 3. We first present the number of board seats and the number of different people that hold director positions. The evidence provided indicates that, on average, each board member holds 1.5 seats. The table also indicates that largest groups tend to centralize board positions in fewer people as compared to smaller groups. This tendency was clearer in 1998. While in the largest group each board member held 2.3 seats, this figure was 1.5 for smaller groups.

TABLE 3  
BOARD COMPOSITION

	Number of seats in Board		Number of different Directors		Ratio	
	1994	1998	1994	1998	1994	1998
Largest conglomerate	63	79	33	35	1.9	2.3
5 largest	268	281	173	155	1.5	1.8
10 largest	405	368	276	228	1.5	1.6
Rest	693	802	453	533	1.5	1.5
Total	1429	1530	935	951	1.5	1.6

#### INTERLOCKING OF BOARDS

	At least in 2 Groups		At least in 3 Groups	
	1994	1998	1994	1998
5 largest	6	3	0	0
10 largest	15	8	0	0
Rest	93	61	15	7

Even more interesting is the evidence shown in panel B of the same table. In that panel, we present figures that show the number of directors that act as board members for more than one conglomerate. The results indicate that, in large groups, very few directors participate in boards of firms belonging to more than one group. The five largest groups in 1998

had 281 board seats altogether. Of that total, only three actually elected board members were present in more than one of the first five groups (1.0 percent). The rest of the evidence is fairly consistent with this result indicating that, for the smaller firms in 1998, less than 10 percent and 1 percent of board members were present in two and three groups respectively. Again, the evidence indicates that the absence of interlocking boards was more significant in 1998 than in 1994.

These results indicate that a relatively small number of people stay close to their groups, with an average of two seats per person (Majluf *et al.* (1998) find much smaller numbers). However, board members tend to be exclusive of a group. Very seldom they belong to more than one. This may indicate that groups do not “collaborate” with each other, which may suggest that each group handles its own strategic information and is not willing to share it. The very small figures presented in panel B also suggest that even board members elected with minority shareholder votes are exclusive of group firms. Iglesias (1999) shows that 10 percent of board members in firms where pension fund own shares are elected with pension fund votes. However, the evidence provided here may suggest that the professional-independent board member is seldom present in Chilean corporations.

### III. CAPITAL AND OWNERSHIP STRUCTURE OF CHILEAN CONGLOMERATES

A central purpose of this paper is to construct consolidated balance sheets at conglomerate level, and use them in order to describe ownership and capital structure of Chilean economic groups. Table 4 summarizes this evidence during the nineties. Figures are presented in millions of dollars and as a percentage of total assets controlled by each group or corporation, with the exception of control figures.<sup>13</sup> The following are the most noticeable results.

Groups are the predominant form of corporate structure in Chile. We have already said that around 70 percent of non-financial listed companies in Chile belonged to one of the conglomerates considered in our classification. Table 4 shows that these companies hold 91 percent of total as-

<sup>13</sup> The concept “total assets” refers to total market value of non-financial Chilean firms reporting to the SVS, obtained as book value of debt plus market value of equity.

sets. The largest group controlled around 20 percent of total assets during the nineties. Considering the first five groups in size, these figures go up to near 50 percent. These figures have been stable over the nineties.

For conglomerates, external finance (measured as the level of debt plus minority interest) went from 60 percent of total market value in 1990 to 70 percent in 1998.<sup>14</sup> However, the percentage of external finance for groups of different sizes is surprisingly stable. External finance seems to be much lower for simple firms and has fluctuated wildly during the decade. However, since this set of firms was obtained as a residual of our group selection procedure, and the detailed consolidation procedure was not performed in this case, these figures are not easy to interpret. In any case, the evidence seems to indicate that pyramid schemes used by conglomerates have worked out to obtain a higher proportion of external finance than simple firms.<sup>15</sup> The figures in the last column of the table show that Chilean conglomerates managed to raise 1.6 dollars of external funding for each dollar provided by controllers in 1990. This figure was 1.3 in 1994 and increased to 2.3 in 1998. This sharp increase in 1998 was due to an important increase in debt financing. In 1994, debt-equity ratios seemed to be considerably lower than in 1990 and 1998. This phenomenon is probably due to a steep increase in average market-to-book ratios in 1994. Debt-equity ratios do not change much when we consider accounting figures for both debt and equity.

The evidence presented in Table 5 also shows that, with only one exception, controlling shareholders hold more equity than, in principle, is needed for control. The average controlling shareholder held 57 percent of the consolidated equity capital of the conglomerate in 1998. This figure was lower (52 percent) at the beginning of the decade, but as we already pointed out, it is remarkably stable across groups of different sizes. When interpreting this concentration figure, it is important to keep in mind, that a four layers pyramid structure can be controlled with much less than 51% of shares (in theory with 0.51<sup>4</sup>).

<sup>14</sup> The large figure of minority shareholdings for the largest group in 1998 corresponds to the ENERSIS-ENDESA group, which indeed was controlled with a relatively low percentage of total property.

<sup>15</sup> Groups seem to prefer that minority holdings be materialized in subsidiaries, whereas controllers prefer to invest in parent companies, particularly in 1998. This may have to do with a conglomerate discount. If this discount exists, it could also help to explain the recent wave of takeovers and the apparent premia.

TABLE 4  
OWNERSHIP AND CAPITAL STRUCTURE OF CHILEAN  
CONGLOMERATES

Panel A: 1990

Conglomerates	Total assets		Debt		Equity				Control	
	US\$millions	Relative size (%)	US\$ millions	% of assets	Minority shareholders		Controlling shareholders		Controlling/ Total eq. (%)	External/ Controlling
					US\$millions	% of assets	US\$millions	% of assets		
Largest	4,617	22.0	1,260	27.3	1,496	32.4	1,861	40.3	55.4	1.48
5 largest	9,264	44.0	2,464	26.6	3,233	34.9	3,567	38.5	52.5	1.60
10 largest	16,784	79.0	4,465	26.6	5,807	34.6	6,512	38.8	52.9	1.58
20 largest	18,784	88.0	4,771	25.4	6,706	35.7	7,307	38.9	52.1	1.57
All conglomerates	19,422	91.0	5,030	25.9	6,856	35.3	7,516	38.7	52.3	1.58
Non-affiliated	1,841	9.0	414	22.5	210	11.4	1,217	66.1	85.3	0.51
Total	21,263	100.0	5,443	25.6	7,081	33.3	8,739	41.1	55.2	1.43

Panel B: 1994

Conglomerates	Total assets		Debt		Minority shareholders		Equity		Controlling shareholders		Control	
	US\$millions	Relative size(%)	US\$millions	% of assets	US\$millions	% of assets	US\$millions	% of assets	US\$millions	% of assets	Controlling/ Total Eq. (%)	External / Controlling
Largest	9,454	14.0	1,324	14.0	2,950	31.2	5,181	54.8	63.7	0.82		
5 largest	34,018	51.0	5,001	14.7	13,811	40.6	15,206	44.7	52.4	1.24		
10 largest	46,316	69.0	8,291	17.9	17,785	38.4	20,240	43.7	53.2	1.29		
20 largest	54,259	81.0	9,875	18.2	20,944	38.6	23,440	43.2	52.8	1.31		
All conglomerates	57,973	87.0	10,725	18.5	21,914	37.8	25,334	43.7	53.6	1.29		
Non-affiliated	8,879	13.0	986	11.1	160	1.8	7,734	87.1	98.0	0.15		
Total	66,852	100.0	11,766	17.6	22,061	33.0	33,025	49.4	60.0	1.02		

Panel C: 1998

Conglomerates	Total assets		Debt		Minority shareholders		Equity		Controlling shareholders		Control	
	US\$millions	Relative size(%)	US\$millions	% of assets	US\$millions	% of assets	US\$millions	% of assets	US\$millions	% of assets	Controlling/ Total Eq. (%)	External / Controlling
Largest	16,220	23.0	8,629	53.2	6,180	38.1	1,395	8.6	18.4	10.62		
5 largest	37,704	54.0	17,344	46.0	9,577	25.4	10,783	28.6	53.0	2.50		
10 largest	49,357	70.0	22,161	44.9	11,944	24.2	15,202	30.8	56.0	2.24		
20 largest	57,570	82.0	26,309	45.7	13,759	23.9	17,559	30.5	56.1	2.28		
All conglomerates	63,957	91.0	29,868	46.7	14,646	22.9	19,443	30.4	57.0	2.29		
Non-affiliated	6,059	9.0	2,587	42.7	224	3.7	3,248	53.6	93.5	0.87		
Total	70,017	100.0	32,488	46.4	14,844	21.2	22,686	32.4	60.4	2.09		

TABLE 5  
OWNERSHIP BY THE LARGEST SHAREHOLDERS

	Number of largest shareholders considered			
	1	3	5	10
More concentrated firm	99.8	100.0	100.0	100.0
Concent. by quintile:				
20%	63.6	89.7	93.6	96.9
40%	51.2	75.4	82.8	91.2
60%	38.9	63.0	74.3	83.4
80%	24.1	52.6	64.1	74.7
Less concentrated firm	4.2	12.5	16.7	27.1
Average	46.2	68.7	76.8	84.9

Concentration in non-consolidated simple firm reaches more than 90 percent. This impressive difference on ownership concentration is due in part to the difference in size between affiliated and non-affiliated firms. Non-affiliated firms comprise around 25 percent of total non-financial listed firms, but account for only 10 percent of total assets. However, it is important to keep in mind that we are considering here the universe of non-financial listed firms (and indirectly, via consolidation, all the non-listed firms that belong to these conglomerates). Our results indicate that concentration in Chile, properly measured, is much higher than previously thought. La Porta *et al.* (1996) indicate that ownership concentration in Chile, measured as the percentage owned by the three largest shareholders (excluding government) in the 10 largest non-financial companies is 41 percent. Notice that this measure has three important flaws. First, it only considers large companies. Secondly, in many cases the three largest shareholders can be related directly or indirectly to the same controller. Thirdly, control might be exercised through pyramid schemes and, therefore, this concentration measure might be considering minority shareholdings.

To see the extent the size bias, we present a simple measure of ownership concentration in Table 5, by April 1999. The table shows the percentage of equity capital held by a sum of the largest shareholders for all listed companies in Chilean stock markets. The table also presents the

concentration quintiles. It is easy to see that when we measure concentration as the percentage of equity held by the three largest shareholders (like La Porta *et al.* (1996)), but considering all firms and not just the 10 largest, concentration raises to almost 70 percent. The second source of bias in La Porta *et al.* (1996) goes in the opposite direction and it is due to double counting controller's investments because of non-considered pyramid schemes. The results in Table 4 show that, when properly calculated, ownership concentration decreases to around 55 percent.

In any case, this figure indicates that controllers of Chilean conglomerates hold more equity than strictly needed for control. In light of Wolfenzon (1999) and Leland and Pyle (1977), this result suggests that cash-flow benefits associated to subsidiaries are large enough, in comparison to private benefits of control, to prevent a higher degree of pyramidation of Chilean corporations.

Finally, it is interesting to compare to some extent our results with related evidence found in other studies. La Porta *et al.* (1997) found for Chile a ratio of 0.80 of "external capital" to GDP. They also find a ratio of "Debt" to GDP of 0.63, which gives a total of 1.44 to GDP. Using our definition for external capital, and considering the 10 largest groups (similar in spirit to what they did) we obtain an equivalent number of around 50 percent of GDP, which suggests that double counting may be an important problem. With respect to previous results by Majluf *et al.* (1998), we find that the largest groups are relatively larger, and that the sample they analyze represents about one fourth of the total market value considered here. Altogether, our results indicate that groups are effective in obtaining external finance and that there are no significant differences in the capital structure of groups of different sizes. Finally, although ownership concentration has been reduced over the last decade, it is still very high and higher than previously considered.

#### A. *Minority shareholder composition*

Minority shareholders own around 30 percent of the assets controlled by Chilean groups. Table 6 shows that by 1998 pension funds managers accounted by 25 percent of minority shareholders. This figure was 42 percent in 1990. On the other hand, ADRs represented another 25 percent in 1998, while they were almost non-existent in 1990. In terms of equity, pension funds and ADRs own 10 percent each of total equity capi-

TABLE 6  
COMPOSITION OF MINORITY SHAREHOLDERS

**Panel A: 1990**

Conglomerates	Minority Shareholders equity (US\$millions)	Pension funds (%)	Insurance Companies (%)	ADR's (%)	Others (%)
Largest	1,496	98.4	1.0	0.0	0.6
5 largest	3,233	26.0	1.3	1.5	71.1
10 largest	5,807	48.8	1.1	0.8	49.2
20 largest	6,706	43.1	1.0	0.7	55.2
All conglomerates	6,856	42.1	0.9	0.7	56.2

**Panel B: 1994**

Conglomerates	Minority Shareholders equity (US\$millions)	Pension funds (%)	Insurance Companies (%)	ADR's (%)	Others (%)
Largest	2,950	10.9	2.1	0.0	87.0
5 largest	13,811	30.4	1.8	3.1	64.6
10 largest	17,785	30.1	2.1	9.2	58.6
20 largest	20,944	27.9	2.2	9.0	60.9
All conglomerates	21,914	27.3	2.3	8.6	61.7

**Panel C: 1998**

Conglomerates	Minority Shareholders equity (US\$millions)	Pension funds (%)	Insurance Companies (%)	ADR's (%)	Others (%)
Largest	6,180	27.8	0.0	20.8	51.4
5 largest	9,577	32.0	0.0	27.5	40.5
10 largest	11,944	26.6	0.0	28.0	45.4
20 largest	13,759	26.5	0.0	25.8	47.7
All conglomerates	14,646	25.4	0.0	24.4	50.1

tal issued by conglomerates, and therefore constitute a significant minority shareholder in Chilean groups. This figure is consistent with the evidence provided by Iglesias (1999) that 10 percent of board members in companies where pension funds hold shares are appointed with pension fund managers votes. The importance of these institutional investors in corporate governance in Chile is discussed in Iglesias (1999) and Lefort and Walker (1999).

#### *B. Debt composition*

Table 7 presents some interesting results regarding debt composition. First, conglomerates are able to get significantly more long-term debt financing than non-affiliated firms. While long-term debt represents almost 70 percent of total debt for groups, it is only around 40 percent in the case of non-affiliated firms. However, larger groups do not seem to be more effective than smaller ones in getting long-term financing. Secondly, groups have been able to get more funding from bond issues (20 percent in 1998 versus 2 percent for non-groups). Finally, non-affiliated corporations rely much more in suppliers as a source of funds than groups (37 percent versus 8 percent).

### **IV. HYPOTHESES FOR CONGLOMERATES IN EMERGING MARKETS**

We have argued elsewhere that conglomerates have been the predominant form of business organization in Chile since the 1950s (Lefort and Walker (1999)). These groups are diverse in nature, and many times include firms in very different sectors of the economy. Analyzing corporate governance in Chile is essentially equivalent to look into the relationship between fund providers and groups, given Shleifer and Vishny's (1997) definition of corporate governance.

In summary, the main facts uncovered by this study are the following:

- i) Groups are the predominant form of corporate structure in Chile. These companies represent 91 percent of total assets of non-financial firms registered in the SVS.
- ii) The most common way of separating control from cash-flow rights in

TABLE 7  
DEBT COMPOSITION

**Panel A: 1990**

Conglomerates	Debt US\$millions	Short term(%)	Long term(%)	Banks(%)	Bonds(%)	Suppliers (%)	Related Companies (%)	Other(%)
Largest	1,200	15.0	85.0	56.0	22.0	15.0	1.0	6.0
5 largest	2,464	28.0	72.0	40.0	20.0	13.0	12.0	16.0
10 largest	4,465	26.0	74.0	46.0	21.0	13.0	7.0	13.0
20 largest	4,771	29.0	71.0	47.0	20.0	14.0	7.0	13.0
All conglomerates	5,030	31.0	69.0	47.0	19.0	15.0	6.0	13.0
Non-affiliated	414	55.0	45.0	38.0	20.0	17.0	5.0	20.0
Total	5,443	33.0	67.0	46.0	19.0	15.0	6.0	14.0

**Panel B: 1994**

Conglomerates	Debt US\$millions	Short term(%)	Long term(%)	Banks(%)	Bonds(%)	Suppliers (%)	Related Companies (%)	Other(%)
Largest	1,324	40.0	60.0	35.0	35.0	14.0	1.0	14.0
5 largest	5,001	34.0	66.0	53.0	21.0	11.0	3.0	13.0
10 largest	8,291	35.0	65.0	47.0	25.0	11.0	2.0	14.0
20 largest	9,875	38.0	62.0	47.0	23.0	13.0	3.0	14.0
All conglomerates	10,725	41.0	59.0	48.0	21.0	14.0	4.0	14.0
Non-affiliated	986	67.0	33.0	41.0	5.0	27.0	3.0	23.0
Total	11,766	43.0	57.0	47.0	20.0	15.0	3.0	15.0

**Panel C: 1998**

Conglomerates	Debt US\$millions	Short term(%)	Long term(%)	Banks(%)	Bonds(%)	Suppliers (%)	Related Companies (%)	Other(%)
Largest	8,629	17.0	83.0	54.0	31.0	6.0	5.0	4.0
5 largest	17,344	25.0	75.0	51.0	26.0	7.0	7.0	9.0
10 largest	22,161	27.0	73.0	49.0	26.0	8.0	8.0	9.0
20 largest	26,309	30.0	70.0	50.0	22.0	8.0	8.0	11.0
All conglomerates	29,868	33.0	67.0	52.0	20.0	8.0	10.0	11.0
Non-affiliated	2,587	55.0	45.0	41.0	2.0	37.0	6.0	14.0
Total	32,488	35.0	65.0	51.0	19.0	10.0	9.0	11.0

Chilean conglomerates is through relatively simple pyramid schemes. By 1998, almost 35 percent of public corporations affiliated to groups were second or higher tier in a pyramid scheme. The evidence indicates, also, that pyramid schemes used by conglomerates have worked out to obtain a high proportion of external finance. In fact, Chilean conglomerates managed to raise 2.3 dollars of external funding for each dollar provided by controllers in 1998.

- iii) Controllers of conglomerates rely in a relatively small number of people in order to conduct business. In 1998, each board member in a large conglomerate held 2.3 seats. These people participated exclusively in in-house corporations. Only 1 percent of actually elected board members were present in corporations of more than one of the five largest groups.
- iv) The average controlling shareholder held 57 percent of the consolidated equity capital of her conglomerate in 1998. This figure indicates that controllers of Chilean conglomerates hold more equity than strictly needed for control, suggesting that cash-flow benefits associated to subsidiaries are relatively large.
- v) Pension funds and ADRs own 10 percent each of total equity capital issued by conglomerates, and therefore constitute a significant minority shareholder in Chilean groups.

In conclusion, the evidence provided indicates that the Chilean law has been relatively successful in simplifying conglomerate structures, enhancing transparency and decreasing the possibility of minority shareholder expropriation.

This evidence allows us to present several questions and hypothesis. First there is the question of “why groups in emerging markets?” There may be a tautological explanation. If a group is just a collection of firms that belong to the same reduced group of owners, the answer may just be that investors have to put their money somewhere, and if they are large enough, they simply cannot invest it in the capital markets. They have to find their own investment vehicles. The question then becomes why the distribution of wealth is so skewed, which may not be of interest in this context. However, it may be argued that these wealthy investors could invest abroad. Among the several reasons for the apparently lack of international diversification, we can suggest the existence of information

asymmetries, different scale of business and home equity bias. In addition, it is possible that Chilean firms are still at an early stage of the learning-by-doing process of international diversification.

The next question, as to why centralize the management of the firms in a group, which we have only indirectly documented, may be partly explained by the existence of the traditional principal-agent problem between owners and managers.

After this, perhaps the most relevant questions are related to ownership concentration. In particular, we have found that property is concentrated beyond what is needed to obtain control of firms. This is true for groups and non-groups. So, one could ask why is that groups do this instead of seeking to diversify. They could, for instance, exchange large non-controlling blocks of shares with other groups, or sell the “excess” holdings to the public. One possible answer for this behavior is that Chilean controllers need a larger stake on the firm to exercise control than was previously considered. Another explanation is the hypothesis of non-cooperative (or perhaps competing) groups, particularly appealing in a small country. Supporting this hypothesis, we have found evidence that board members do not cross the borders of their groups.

On the other hand, the ability to sell the “excess” shares to the public is related with the depth of capital markets, which we have shown is very shallow in Chile. Of course, that is the question that Laporta *et al.* have answered arguing the lack of legal protection. But still, if they could sell a large fraction to the public, where would the group invest that money?

Eventhough ownership is concentrated beyond what is needed for control, groups have managed to increase their voting rights beyond their dividend rights through simple pyramid schemes. Why do they seek to control firms and manage asset volumes that are larger than their initial investments? One obvious explanation comes from the standard agency problem between controller and minority shareholders. Under this hypothesis, controlling shareholders in groups would seek to expropriate minority shareholders.

A competing hypothesis to explain the evidence that conglomerates in Chile (and other emerging economies) tend to exercise control over a wide class of assets and beyond their right to dividends is related to the fact that an (real) option’s value increases with the size of the underlying asset. As we argued elsewhere<sup>16</sup>, emerging economies are subject to large

<sup>16</sup> See Lefort and Walker

economic and political events that generate enormous business opportunities for those that are in the right place at the right time.<sup>17</sup> Therefore, by extending their control to a diverse set of assets and by generating a network of personal relationships, conglomerates increase their opportunity of entering profitable new businesses. The value of that option increases with the size of the assets under control, explaining why conglomerates like to extend their control beyond their dividend rights. As any other option, the value of this one increases with the volatility of the underlying asset. Hence, this incentive is much more important in an emerging economy, where political and economic instability is the rule, than in a more developed and stable economy. As to the question of why they do not reduce further the “exercise price” (by increasing minority participation), the answer might be related to a trade-off between this and the hypothesis of non-cooperative groups mentioned before.

An important question outlined at the beginning of this paper remains unanswered. Economic groups and corporations presenting high levels of ownership concentration are regarded by agency theory as conducive to poor minority shareholder protection and inefficient resource allocation. On the other hand, conglomerates are the dominant form of business structure in most economies, and this structure has been able to survive to most dramatic changes in political and economic environment. A natural continuation of this line of research should use the information and data analysis provided in this paper in order to evaluate the relative performance of Chilean conglomerates in various dimensions, especially in terms of effective returns provided to external capital.

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<sup>17</sup> A significantly time-varying risk premium would fall in this category. See Walker (2000).

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