



INTER-AMERICAN DEVELOPMENT BANK  
BANCO INTERAMERICANO DE DESARROLLO  
LATIN AMERICAN RESEARCH NETWORK  
RED DE CENTROS DE INVESTIGACIÓN  
RESEARCH NETWORK WORKING PAPER #R-515

**THE EFFECT OF CORPORATE GOVERNANCE PRACTICES  
ON COMPANY MARKET VALUATION AND PAYOUT POLICY  
IN CHILE**

BY

FERNANDO LEFORT  
EDUARDO WALKER

**BUSINESS SCHOOL, PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE**

NOVEMBER 2005

Lefort, Fernando.

The effect of corporate governance practices on company market valuation and payout policy in Chile / by Fernando Lefort, Eduardo Walker.

p. cm.

(Research Network Working papers ; R-515)

Includes bibliographical references.

1. Corporate governance--Chile. 2. Stock ownership—Chile. 3. Dividends—Chile. I. Walker, Eduardo. II. Inter-American Development Bank. Research Dept. III. Latin American Research Network. IV. Title. V. Series.

338.74 L348-----dc22

©2005

Inter-American Development Bank

1300 New York Avenue, N.W.

Washington, DC 20577

The views and interpretations in this document are those of the authors and should not be attributed to the Inter-American Development Bank, or to any individual acting on its behalf.

This paper may be freely reproduced provided credit is given to the Research Department, Inter-American Development Bank.

The Research Department (RES) produces a quarterly newsletter, IDEA (Ideas for Development in the Americas), as well as working papers and books on diverse economic issues. To obtain a complete list of RES publications, and read or download them please visit our web site at:

<http://www.iadb.org/res>

## Abstract\*

In this paper we ask whether corporate governance practices at the firm level within a single country affect these firms' market valuation. This question is crucial in assessing the potential benefits for firms of changing their own practices, even though they cannot affect their country's rules. In particular, the Chilean case presents at least three interesting features that make its study especially relevant for other emerging economies. First, the Chilean corporate structure presents highly concentrated ownership, widespread use of pyramid structures to separate cash from control rights and opaque ultimate ownership identification. Second, an amendment to the Securities Market Law and the Corporations Law was recently passed with the intention of improving corporate governance in Chile. Finally, the Chilean capital market is relatively developed, with more than two decades of substantial participation by institutional investors.

We perform regression analysis of measures of firm performance and payout policy on corporate governance indicators at the firm level and a series of control variables. We carefully check that our results are not due to omitted variable bias or to particular specification and samples through an extensive robustness check. We also control for reverse causality using two features of Chilean Corporations Law that provide an exogenous instrument for some of the corporate governance practices of Chilean firms. We find that firms that present higher coincidence between cash and control rights tend to be consistently more valued by the market. We interpret this result as an indication that potential conflicts of interest between controllers and minority shareholders are penalized by the Chilean capital market.

---

\* We have benefited from comments by Florencio López-de-Silanes, Alberto Chong, Claudio Raddatz and Lorenzo Preve. We thank Ronald Espinosa and Katherine Villalobos for their valuable research assistance.

# THE EFFECT OF CORPORATE GOVERNANCE PRACTICES ON COMPANY MARKET VALUATION AND PAYOUT POLICY IN CHILE

## TABLE OF CONTENTS

1. INTRODUCTION
  2. CHILEAN CAPITAL MARKETS AND INSTITUTIONAL ENVIRONMENT: AN OVERVIEW
  3. CONCEPTUAL FRAMEWORK AND WORKING HYPOTHESIS
    - 3.1. *Conglomerates, Corporate Governance and Company Valuation:*
    - 3.2. *Corporate Governance and Payout Policy*
  4. DATA SOURCES AND CORPORATE GOVERNANCE MEASURES
    - 4.1. *Data Sources*
    - 4.2. *Ownership and Control Structures of Chilean Listed Firms*
    - 4.3. *Dividend Policies and Payout ratios in Chile*
    - 4.4. *Agency Problems*
    - 4.5. *Corporate Governance Practices in Chile*
  5. EMPIRICAL ANALYSIS OF THE EFFECTS OF AGENCY PROBLEMS ON FIRM'S MARKET VALUATION
    - 5.1. *Econometric Concerns*
    - 5.2. *Empirical Results on Agency Problems and Firm Valuation*
    - 5.3. *Robustness Checks*
    - 5.4. *Endogeneity Checks*
    - 5.5. *Dividend Payout Ratios*
  6. DO CORPORATE GOVERNANCE PRACTICES AFFECT FIRM MARKET VALUATION AND PAYOUT POLICY?
    - 6.1. *Correlations with Firm Market Valuation*
    - 6.2. *Controlling for Endogeneity*
  7. CONCLUSIONS
- REFERENCES
- FIGURES AND TABLES

## **1. Introduction**

The growing interest in corporate governance practices around the world has also reached Latin America, both from positive and normative perspectives. In the case of Chile, the large and controversial control premiums, paid in several acquisitions of controlling stakes of flagship Chilean companies by foreign companies, have triggered legal reform and raised investor awareness of the problem. In spite of this recent interest, and the relative development of Chilean capital markets in comparison with other countries of the region, corporate governance in Chile is far from perfect. Although recent studies such as Klapper and Love (2002) and Lefort and Walker (2003b) provide some approximate indicators, a major problem remains in that we do not have a precise measure of the relative strength of our governance mechanisms or of their importance in explaining firm value and performance.

A standard framework to analyze corporate governance practices is provided by the OECD principles. These principles acknowledge not only the importance of legal protection, but also that of other mechanisms of corporate governance. The principles are classified in five categories that encompass shareholders' rights, board responsibilities and disclosure of information, among other concerns. Based on the analysis of the Chilean legal framework, market participants' opinions and conglomerate structure, Lefort and Walker (2003a) show that, according to a preliminary review of corporate governance practices in Chile, 11 out of the 16 OECD principles reviewed are adequately complied with, for a compliance rate of 69 percent. In addition, Klapper and Love (2002) construct corporate governance indices using information produced by Credit Lyonnais Securities Asia for a list of 25 emerging economies. They find that, using a sample of 12 Chilean firms, Chile scores one of the highest values of the sample considered (61.63 percent). However, these authors also find that the two Latin American economies considered (Chile and Brazil) present the lowest correlation between firm performance and governance quality. These are not the only studies that find that Chile scores well in corporate governance measures. Using the La Porta, López-de-Silanes, Shleifer and Vishny (1999a, henceforth referred to as LLSV) anti-director rights index, Chile would score 5 on a 6-point scale.

The fact that Chile scores relatively well in corporate governance measures, compared to other emerging economies, and the early development of its capital market (fueled in part by the early reform to its pension system) in comparison to most Latin American economies, makes the

study of the effect of corporate governance measures on corporate performance in Chile an interesting subject for the region.

In particular, the Chilean case presents at least three interesting features that make its study especially relevant in terms of policy recommendations for this country and others in the region. First, Chilean corporate structure is characterized by highly concentrated ownership, widespread use of pyramid structures to separate cash from control rights, and opaque ultimate ownership identification. Second, from the legal point of view, the Chilean system has a civil origin with non-existent self-regulation practices regarding capital markets although recently, an amendment to the Securities Market Law and the Corporations Law, better known as the OPA Law, was passed with the intention of improving corporate governance in Chile. Finally, the Chilean capital market is relatively developed, with more than two decades of substantial participation by institutional investors.

Accordingly, this paper has two main objectives. First, we build an extensive database at the firm level comprising standard corporate governance charter measures. The database includes two different types of data. The first type is drawn from a corporate governance survey of principal executives and board members of over one hundred listed companies in Chile. As a result, we gathered over sixty binary-type parameters measuring transparency, accountability and other aspects of corporate governance as of the year 2003. The second type of data is drawn from a panel of several quantitative variables measuring ownership structure, separation of cash and control rights, payout policy and market valuation plus a list of firm specific characteristics, annually, for the period 1990-2002 for all listed companies in Chilean stock markets. For that purpose, we have carefully identified conglomerate structures in Chile and built consolidated financial statements at the conglomerate level.

Second, we perform panel data regression analysis to estimate the impact of these corporate governance variables on corporate valuation and payout policy in Chile. This is in line with the surge of empirical research on corporate governance following the seminal work of LLSV during the 1990s. The original research investigated whether specific legal arrangements related to investor protection in different countries affected capital markets development. The focus of this paper is a related question. Here we ask whether corporate governance practices at the firm level within a single country affect these firms' market valuation. This question is crucial in assessing the potential benefits for firms of change their own practices, even though

they cannot affect their country's rules. As more empirical studies attempt to assess this question, the understanding of the difficulties entangled in the task improves. Even if firm-level corporate governance practices correlate with share prices, we cannot be sure that these practices cause investors to value firms more highly. Alternative explanations related to different forms of endogeneity and omitted variable bias are also consistent with such empirical findings.

In this paper, we perform regression analysis of measures of firm performance and payout policy on corporate governance indicators at the firm level and a series of control variables. We carefully check that our results are not due to omitted variable bias or to particular specification and samples through an extensive robustness checkout. We also control for reverse causality using two features of the Chilean Corporations Law that provide an exogenous instrument for some of the corporate governance practices of Chilean firms. In summary, we find that firms that present higher coincidence between cash and control rights tend to be consistently more valued by the market. We interpret this result as an indication that potential conflicts of interest between controllers and minority shareholders are penalized by the Chilean capital market.

The structure of the paper is as follows. In Section 2, we describe the Chilean capital market and its institutional environment. Section 3 provides a conceptual framework for the working hypotheses used in the paper. Section 4 describes the paper's extensive data-gathering and data compilation process. Section 5 analyzes empirically the effect of agency problems on firm market valuation and payout policy, and Section 6 looks for a statistical relationship between good corporate governance practices and company value in Chile. Finally, Section 7 concludes.

## **2. Chilean Capital Markets and Institutional Environment: An Overview**

The Chilean capital market is characterized by high market capitalization and low turnover. By 2002, approximately 250 different stocks were traded on the Santiago Stock Exchange, with a total market value of nearly \$60 billion dollars, or 85 percent of GDP. However, the turnover ratio is low and has been decreasing to 7.5 percent of market capitalization. Capital issues have also decreased since 1997, averaging \$1.2 billion per annum over the last five years, with only \$270 million in 2001 or 3 percent of fixed capital formation. De-listings have increased, and since 1997 there have been only two new listings in the Chilean stock market, confirming a trend

that indicates a decline in the importance of the Chilean stock market as a source of funds for companies. Among the 60 most traded stocks, 68 percent of equity is held by the controlling shareholders. The concentration level is even higher in the case of less traded stocks. Therefore, free float is around 32 percent in the case of the most traded stocks and 14 percent overall. However, about 25 percent of the free float is held by domestic pension funds that do not trade their holdings very much. Another 25 percent of market value not held by controlling shareholders is held for depositary receipts. Therefore, only between 10 and 15 percent of issued stocks are generally traded on the domestic stock exchange.

Groups are the predominant form of corporate structure in Chile. Lefort and Walker (2000) show that around 70 percent of non-financial listed companies in Chile belong to one of approximately 50 conglomerates controlling, as a group, 91 percent of the assets of listed non-financial companies in Chile. There is no clear decreasing trend in these figures. Cross-holdings are prohibited in Chile, and dual-class shares, although allowed, are seldom used by Chilean corporations. By far, the most common way of separating control from cash-flow rights in Chilean conglomerates is through simple pyramid schemes. The 1986 Banking Law imposed restrictions on related lending and prohibited banks from owning shares of corporations. These regulations have notably decreased the importance of banks for conglomerates.

On the other hand, institutional investors are very important in Chilean securities markets. The main institutional investors are pension fund managers, with over \$35 billion in assets, and insurance companies, managing \$12 billion in assets. Although pension funds were allowed to invest in equity only after 1985, during the 1990s the value of their stock holdings reached a peak of more than 30 percent of the total market value of pension funds. Because the Chilean pension fund system is mandatory and of the “defined contribution” type, several capital market regulations have pursued the development of an adequate capital market where pension funds could safely and efficiently channel retirement savings. In addition, the authorities have developed appropriate supervision institutions that control compliance with this regulatory framework.

The Securities Market Law and the Corporations Law comprise the legal framework governing capital markets and the actions of listed companies in Chile. The main body of both the Corporations Law and the Securities Law was written in 1981. They were both amended in 1989 and more deeply in 1994. More recently both laws were amended by the Law N° 19,705 of

year 2000 known as the Corporate Governance Law. In 2001 the Securities Market Law was again amended. Although the Chilean legal system follows the tradition of French Civil Law, the Securities Market Law and the Corporations Law were written and reformed on the basis of their counterparts in the United States. However, as the Chilean judiciary does not enjoy the same flexibility as exists under Common Law, some tension arises between the spirit of the law and its application. In addition sharp differences in ownership concentration, market liquidity and law enforcement between Chile and the United States persist, and convergence is not evident.

Three main supervisory entities overlook different aspects of financial markets in Chile: the Superintendency of Securities and Insurance (SVS), the Superintendency of Banks and Financial Institutions (SBIF), and the Superintendency of Pension Fund Managers (SAFP). The Central Bank also participates actively in the financial system regulatory and supervisory process, especially in issues regarding international transactions and foreign market participants. The main supervisory entity, the SVS, was created in 1980 as an autonomous public organization related to the Chilean Finance Ministry. It regulates all issuers of securities, the stock exchanges, the insurance industry and all capital market participants, with the exception of pension fund managers and banks. The Superintendent is chosen by the President. More than 200 people work at the SVS, and recently the SVS received a budget increase in order to improve its enforcement capacities.

Self-regulation is not important in Chilean capital markets. Regulations are imposed by the appropriate authorities, in the Civil Law tradition. Public corporations must be registered at the Securities Registrar administered by the SVS. In Chile, all shares are registered. At the moment of the initial public offering, a public corporation must sell at least 10 percent of its registered shares. As a continuing obligation, listed companies must provide all relevant information to the SVS in a timely fashion and prepare quarterly financial statements, which must be externally audited in December. The stock exchanges impose no additional requirements on listed companies. However, they may stop transactions at any time provided that there is reasonable suspicion of the existence of relevant information not disclosed to the market. The stock exchange must inform the SVS within 24 hours, and transactions may be suspended for up to 5 days.

The SVS has taken the lead in recent reforms promoting minority shareholder protection and more disclosure. In December of 2000, the Securities Market Law and the Corporations Law were amended. The amendment, known as the Corporate Governance Reform, introduced changes in five areas of the law. First, the market for control was regulated, requiring transactions involving changes of control to be performed through a tender offer under a version of the equal opportunity rule. Second, the regulator increased the information and disclosure requirements for listed corporations, especially in the case of transactions with related parties. Third, large listed corporations were required to form a committee with a majority of board members not related to the controlling shareholder; the functions of this committee were specified by law. Fourth, share repurchases were allowed in order to implement stock option packages as an incentive to executives. Fifth, equal treatment of foreign shareholders was guaranteed by law, especially in matters regarding voting procedures. The amendments included a transitional rule that allowed firms to postpone the adoption of the new regulations regarding changes of control for three years. Most large companies have filed for the transitional rule. Additionally, the SVS is promoting the adoption of a Best Practices Code for Corporate Governance and the creation of an Institute of Directors.

### **3. Conceptual Framework and Working Hypothesis**

#### ***3.1. Conglomerates, Corporate Governance and Company Valuation***

It is well known by now that, contrary to popular belief, the standard Bearle and Means (1936) firm characterized by dispersed ownership is a rare phenomenon in most economies (LLSV, 1999b). In fact, most firms in emerging economies are linked in some way or another to an economic group or conglomerate that exercises tight control over the firm and owns a large fraction of its shares.

As a consequence, a growing literature in corporate governance and corporate strategy has shifted its focus away from the standard agency problem between managers and dispersed shareholders in favor of examining the relationship between minority and majority shareholders. This is especially relevant in the case of emerging economies such as Chile. In particular, it has been argued that concentrated structures or economic groups are prone to carry inefficient investments and generate minority shareholder expropriation, especially when the controlling shareholders of these groups exercise control through complex mechanisms such as pyramid

schemes, cross-holdings and dual-class shares. In those cases, the agency problem is exacerbated because, on the one hand, ownership concentration insulates the controller from the market for corporate control, and on the other hand, control is exercised by a shareholder that holds a relatively small fraction of the cash-flow rights (see Bebchuk, 1998; Bebchuk et al., 1999; and Wolfenzon, 1999). An incomplete list of papers analyzing the effect of conglomeration in corporate governance and firm performance in emerging economies includes Khanna and Palepu (1999), Ghemawat and Khanna (1998), Lefort and Walker (1999b, 2000) and Lefort (2004) for the case of Chile, Valadares and Leal (2000) for Brazil, Castaneda (2000) for Mexico, Khanna and Palepu (1999a, b, c) for India, and Claessens et al. (1999, 2000) for most East Asian economies (and Chile).

Interestingly, many of these studies recognize that one of the most salient characteristics of conglomerates in emerging economies is that they are persistent in time and able to adapt to most changing situations. Khanna and Palepu (1999) for India and Chile and Lefort and Walker (1999b) for Chile have shown that conglomerates have been able to grow and increase their scope and self-intermediation practices even during times of fierce economic reform and deregulation. This kind of evidence has supported a more favorable view of conglomerates in emerging economies, suggesting 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>1</sup> In this context, economic groups arise in order to fill the voids left by (or to take advantage of) 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 (see Stein, 1997). Other financial synergies arise because of conglomerates' option of liquidating the 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 provision or postal delivery. Groups may enjoy an additional advantage in settings where consumer protection is poor and group branding provides an advantage. One of the most-cited reasons for conglomerates in emerging markets is the advantage they create in dealing with a corrupt

---

<sup>1</sup> See Khanna and Palepu (1997).

government, a highly regulated economy and a poor judiciary system (Khanna and Palepu, 1997).

We have now a better understanding of the ownership and control structure of firms in most emerging economies, and we have at least two competing conceptual frameworks in order to explain the costs and benefits of conglomerates in emerging markets. It is not surprising, then, that an empirical literature has developed to try to ascertain whether affiliation with a conglomerate constitutes good news for investors. Some of the most important contributions trying to explain the performance of business groups in emerging markets include Khanna and Palepu (1999a, 1999b), who find that group affiliation improves firm economic performance in India and Chile. They also find that the degree of diversification of the conglomerate increases performance only after it has reached a certain threshold. In addition, Khana and Palepu (1999c) find that in Chile and India the performance of groups increased after economic reform was performed, indicating that part of the benefits of affiliation are not related to poor economic environment. Khanna and Rivkin (2000) look at firms in 18 emerging economies, finding that affiliated firms perform better in six countries, worse in three and equally in five. They also find that returns of firms belonging to the same conglomerate tend to move more closely when compared to other firms. Claessens, Djankov and Klapper (2000) find that East Asian group structures are used to diversify risks, while Claessens et al. (2000) show that East Asian firms affiliated with conglomerates present a 4 percent average value discount, and that this discount arises in firms whose owners have more voting than cash-flow rights. Thomsen and Pedersen (2000) look at the 435 largest European companies and find that ownership concentration has a non-linear relationship with performance, where too much concentration reduces performance. Lefort and Walker (2002) find preliminary evidence for Chile that firm affiliation with a group tends to decrease firm value, and that this effect is partially reduced when there is little separation between cash-flow and control rights.

Recently, Klapper and Love (2002) use firm data for over 400 companies in 25 emerging economies to show that good corporate governance practices are highly correlated with firm market valuation. Their study also indicates the importance of legal protection. It turns out that, although firm-level corporate governance practices tend to be worse in countries with poor legal protection, they make a more important difference in terms of individual market valuation.

Similar results for a developed economy such as the United States are provided by Gompers, Ishii and Metrick (2001).

### ***3.2. Corporate Governance and Payout Policy***

The major objective of adequate corporate governance practices is the satisfactory compensation of company shareholders. Under the assumptions of the original Modigliani-Miller irrelevance theorems, dividend policies are irrelevant for company value and shareholder wealth. However, under asymmetric information, there are several hypotheses that can be raised to relate corporate governance practices and payout policy in the context of the agency problem inherent to a modern corporation. On the one hand, LLSV (1999a) have argued that a specific dividend policy is the result of the pressure exercised by minority shareholders in order to force insiders to pay cash. Under this view, more investor protection should be associated with a more generous payout policy to shareholders. On the other hand, La Porta et al. (1999a) and Kathryn et al (1998) argue that the association could go the other way around in that insiders would be paying high dividends in order to obtain a good reputation. High dividends would thus act as a compensatory policy at the firm level. In this case, more and better shareholder rights will reduce the need to establish an individual good reputation; this implies lower dividend levels. This family of theories of dividend policies is refereed sometimes as the rent-seeking theory (Gugler and Yurtoglu, 2002).

More traditional theories of the relevance of dividend policies under asymmetric information emphasize the signaling importance of payout policies with respect to future cash flows in the company. An example of this line of thought is provided by Barhati, Gupta and Nanisetty (1998), who show how dividend policies can be used by insiders to give signals to the market regarding the company's prospects of future profits. A related theory of dividend policy determinants is the catering theory (Baker and Wurgler, 2002) that is related to the presence of uninformed investors and the existence of a dividend-driven stock premium.

In the context of an emerging economy, such as Chile, that presents high ownership concentration and extensive use of conglomerates and pyramid structures, the rent-seeking theory of the effect of agency problems on payout policies seems to be especially relevant. Large and controlling shareholders have the incentives and the power to extract private benefits of control at the expense of the minority shareholders, because they receive the full benefits but

only bear a fraction of the cost. In that context, a dividend payment guarantees equal treatment to all shareholders. Gurgler and Yurtoglu (2002) hypothesize that, under the rent-seeking view of dividend payments, an increase in dividends implies that there is less cash available for expropriation and therefore an abnormally positive return. Their results support this hypothesis, since dividend reductions in companies with higher ownership concentration generate larger negative wealth effects.

Other papers have tested the rent seeking hypothesis of dividends. Following La Porta et al. (1999b), Faccio et al. (2001), Mario and Pajuste (2002) and Gugler and Yurtoglu (2002) test this hypothesis for the cases of companies of Western Europe, Asia, Finland and Germany. In general, the evidence is supportive of the hypothesis indicating that firms that have a strong controlling shareholder tend to present lower payout ratios. This effect is mitigated when there is a second blockholder in the company.

## **4. Data Sources and Corporate Governance Measures**

### ***4.1 Data Sources***

We have used several data sources. Complete accounting and financial information were provided by the FECUS plus database prepared by the Santiago Stock Exchange for all listed companies. In some cases it was necessary to either contact firms directly or to use other public records in order to complete missing information. The FECUS Plus database also provides information about main shareholders, board members and a set of corporate features and policies. Some historical market information for listed companies was obtained from ECONOMATICA or directly from the Santiago Stock Exchange. The SVS (main supervisory entity) provided data on corporate actions and material information reported to the SVS. We have also used the “Official Gazzette Database” (Diario Oficial) in order to identify the different investment companies used by conglomerate ultimate owners to control firms. This is an important input in the conglomerate consolidation procedure.

In addition, we sent a questionnaire on corporate governance practices to officers and board members of over 200 listed companies in Chilean stock markets. The questionnaire consisted of 67 questions and was constructed as an adaptation to the Chilean market of the CLSA questionnaire used by Klapper and Love (2002).

#### ***4.2. Ownership and Control Structures of Chilean Listed Firms***

A crucial aspect of corporate governance mechanisms in Chile has to do with ownership structure. Conglomeration and widespread use of pyramids to separate cash from control rights constitutes an important measure of incentives structure and of the likelihood of agency costs. We have revised and expanded the Lefort and Walker (2000) database considering the universe of Chilean corporations registered with SVS for the years 1990-2002. The final database comprises almost 200 public companies listed at least one year during the period considered. We analyzed the balance sheets and shareholder identification information submitted by these firms to the SVS, and used this information jointly with the Diario Oficial Database to build the “ownership chains” that characterize Chilean conglomerates through a detailed analysis of groups’ direct and indirect holdings in each corporation. Through this procedure we obtained consolidated economic balance sheets at the group level, allowing us to avoid double counting all related investments. We also constructed market value balance sheets at the individual firm level. These calculations are essential in producing correct measures of firm economic performance and value, and in constructing measures of separation of cash flow rights to control rights.

The first step in building ownership chains consists of identifying corporations associated with specific conglomerates. We use the same definition of groups as in Lefort and Walker (2000) and apply it to the years 1991, 1992, 1993, 1995, 1996, 1997, 1999, 2000, 2001, 2002 and 2003. In this procedure we consider a list of 50 different economic groups of very diverse nature in terms of size, number of public companies controlled, identity of the controlling shareholder, and other dimensions. In using this definition, we exclude groups that are only comprised of “closed” (non-public) companies that are not consolidated by any public company. It may well be the case that a group in our sample has only two public companies. Obviously, in some cases we have not been able to consolidate the non-public companies belonging to the groups in the sample. In spite of this consideration, this study adds a considerable amount of new information with respect to previous studies on conglomerates for Chile.

The second step of the consolidation procedure is the identification of all linkages between 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 Lefort and Walker (2000) showed, 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 relatively rare. In order to determine minority and controlling shareholders' investments in subsidiary and parent companies, we have used the information about the 12 most important stockholders provided by corporations to the SVS. We have 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 with different groups. In some cases, it is possible that we have underestimated the controlling shareholders' stake, since some of the group holdings may be realized through investment vehicles that do not appear among the 12 largest shareholders. However, considering that the twelfth-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 have been able to compute several entries of consolidated balance sheets such as controlling shareholders' direct and indirect investments in the parent company and subsidiaries. In both cases, the specific investment vehicles used by group members have to be identified through the official company registration in the "Diario Oficial." A more detailed explanation can be obtained in Lefort and Walker (2000).

Tables 1 and 2 summarize data on Chilean conglomerates for selected years. Chilean economic groups directly control more than 70 percent of Chilean listed companies, corresponding to 90 percent of their assets. This proportion has been stable for more than 13 years, but the capital structure of Chilean companies has changed through time. By 1990, listed companies controlled by economic groups presented debt-to-assets ratios of nearly 26 percent. Because of rising equity prices, this ratio fell to 18 percent in 1994. As of 2002, debt-to-asset ratios have increased to an average of 45 percent because of both the decrease in equity prices after the Asian crisis of 1998 and the absolute increase in debt issues. Firms not affiliated with conglomerates present much lower debt ratios. By 2002, their debt ratios were 12 percentage points lower than those of affiliated companies.

Table 2 shows the control structure of Chilean companies. The control/tot. equity columns show the proportion of total equity directly and indirectly owned by the controllers of the companies. These ratios increased from 52 percent to 58 percent in the case of affiliated firms and decreased for non-affiliated firms. The figures were calculated considering

consolidated holdings of equity through direct ownership and pyramid structures. It is clear that the percentage of consolidated equity held by the controllers is much larger than strictly needed for control. Lefort and Walker (2000) showed that Chilean economic groups are formed on average by 2.5 layers of listed companies, so less than 20 percent of consolidated equity represents a majority in every layer of the pyramid. The other columns measure the ratio between external funds (debt plus minority shareholders) and controlling shareholders' equity. This relation gives an idea of the leverage of control used by the controller of the company at the consolidated level. In the empirical analysis in next section we will use the inverse of this measure as an indicator of the degree of coincidence between cash-flow rights and control rights, under the assumption that the controlling shareholders hold 100 percent of controlling rights.<sup>2</sup>

#### **4.3. *Dividend Policies and Payout Ratios in Chile***

In order to measure the effect of corporate governance practices and investor protection on dividends, we obtained annual payout ratios for over 200 listed companies from 1994 to 2002. The data was obtained from FECUS Plus and complemented using Economática. We used as an indicator of the dividend policy of the company the ratio between dividend payments (including non cash payments) in year  $t$  and after-tax earnings in year  $t-1$ . We used this traditional measure even though many times paid dividends may come from earnings obtained in different years.

In Chile, the law establishes a minimum dividend requirement of 30 percent of annual earnings. The rationale for such a compensatory measure is to protect minority shareholders, as indicated in LLSV (1997), and implies that Chilean controllers have less freedom in determining and using their dividend policies. In theory, a company could pay less than 30 percent of earnings if shareholders unanimously approved.<sup>3</sup> However, in practice, a company may pay less than 30 percent by declaring the dividend and postponing the payment.<sup>4</sup> Hence, despite the legal restriction it is possible to observe effective payout ratios of less than 30 percent of earnings.

Table 3 summarizes the data collected. Payout ratios in Chile were over 53 percent in 1994, but steadily declined to 36 percent in 2002. There is wide dispersion of payout ratios in our sample, with some companies paying over 150 percent of last year earnings. Negative ratios

---

<sup>2</sup> This assumption is realistic since there is only one Chilean company (Soquimich, and only since 2000) that is not tightly controlled by a single family, business group or other company.

<sup>3</sup> Corporations Law, rule 79.

<sup>4</sup> Corporations Law, rule 84 establishes that if dividends are postponed the amount finally paid must be adjusted by inflation and interest.

generally indicate that a company paid dividends even when last-year earnings were negative. The table also shows that companies affiliated with a conglomerate have, on average, higher payout ratios than non-affiliated firms.

#### **4.4. Agency Problems**

Corporate governance deals foremost with agency problems inside the firm. In highly concentrated Chilean firms, agency problems mainly take the form of conflict of interest between controlling shareholders and minority shareholders. In this paper, we explore several dimensions of this relationship and study their impact on firm valuation and payout policies.

Several of the theories previously discussed maintain that agency problems between controllers and minority shareholders are more severe in firms affiliated with conglomerate structures. However, the effect of affiliation on firm valuation is not clear as indicated by the different competing hypothesis with respect to it. For instance, after controlling for separation of rights, affiliation with a conglomerate in emerging economies could be value enhancing due to internal capital markets, information sharing and other synergies. Following Lefort and Walker (2000), we identify over 50 conglomerate structures in the Chilean economy operating between 1990 and 2002 and construct a dummy variable taking the value of 1 when a company is affiliated with any of those structures in any given year.

A key indicator of the potential existence of agency problems is the degree of separation between the cash flow rights accrued by the controller and the control rights he or she is exercising. We measure separation between cash and the control rights at the firm level considering direct and indirect holdings of controllers and the existence of dual-class shares. Under agency theory, we hypothesize that higher separation is associated with lower valuation and lower payout. We constructed two different indicators of the degree of coincidence between cash and control rights, under the assumption that the largest shareholder effectively controls all company assets.<sup>5</sup> We will analyze the validity of this assumption later on the paper. First, we measure separation as the ratio between equity directly and indirectly owned by the largest shareholder and total consolidated assets under control of the company. The ratio captures the proportion between the amount of cash flows accrued by the controllers and the total amount of

---

<sup>5</sup> Rule 67 of Corporations Law establishes that the approval of major company decisions require the support of two thirds of voting shares during a shareholder meeting. The rule also establishes a mandatory tender offer requirement whenever a shareholder reaches the two-thirds threshold through an acquisition.

cash flow potentially generated by the company including debt payments. The second measure considers only the ratio between cash flows to controllers and cash flows to all shareholders. In both cases, the assumption of total effective control by the controllers means that the percentage of cash flow rights is a direct indicator of coincidence. Perfect coincidence is achieved as these variables approach one.

Institutional investors have had an important role in helping to develop Chilean capital markets.<sup>6</sup> Specifically, pension fund managers can buy shares of Chilean companies that reach specific levels of ownership dispersion and are approved as investing vehicles by the Risk Classification Commission. Hence, the presence of pension funds as shareholders of a company is an indication that the firm is less risky and that its governance mechanisms are more mature. In addition, once the pension funds reach a given level of ownership in the company, they may elect a board member and become an active minority shareholder. Under the assumption that important institutional investors improve governance, their presence can improve performance. They can also be seen as the second important shareholder as in Gurgler and Yurtoglu (2002).

#### ***4.5. Corporate Governance Practices in Chile***

Corporate governance has many more dimensions than merely affiliation with a conglomerate and the degree of coincidence between cash flow rights and control rights. In order to complement those measures, we conducted a survey on corporate governance practices at the firm level, through a 67-item questionnaire of principal officers and board members of over 200 listed companies in Chile. The Annex at the end of this paper shows the questions and the answers per question obtained. Table 4 summarizes the main results. The survey was conducted between May and September of 2004. Questions were referred to firm practices as of the end of 2003.

The response rate was moderately low. We received 59 completed questionnaires, representing less than 30 percent of the firms contacted. The low response rate was relatively expected given the type of survey we were conducting. However, the companies that answered the questionnaire tended to be the largest in terms of market capitalization, accounting for 42 percent of total market capitalization in Chile. Around one third of the questions in the survey could be directly completed using public information available from companies' financial

---

<sup>6</sup> See Walker and Lefort (1999).

statements and annual reports or using information made public by the SVS. We have compiled information through those mechanisms for an additional 47 firms, achieving a total coverage of 106 companies, amounting to 76 percent of total market capitalization in Chile.

The questionnaire was divided into sections on the following four areas: (i) general principles; (ii) the officers and board; (iii) shareholders; and (iv) disclosure and information. Most questions could be answered by a simple yes or no. For all of those questions (approximately 55) we used an indicator variable that took the value of 1 whenever the answer could be associated with best practices and 0 otherwise. In many cases, the answer was in fact “don’t know/no answer.” This was the case, for instance, for companies for which the questionnaires were filled using sources other than officers or board members. In fact, one third of the questions could not be answered using public information as detailed above. We then normalized each answer between 0 and 7. A score of seven would correspond to questions where all respondents received a 1 in the indicator regardless of the size of the company responding the questionnaire. We then averaged the results for each section. This procedure implicitly considers that each question has the same relative importance in order to measure the quality of a company’s corporate governance practices. This assumption is not necessarily true and, hence, the average results summarized en Table 4 must be interpreted carefully. The Annex provides the precise result for each question included in the questionnaire.

Table 4 shows that, by 2003, Chilean companies scored relatively well in their corporate governance practices, obtaining an overall score (non-weighted) of 4.12 out of 7. Not surprisingly, the worst results were obtained in the first category: general principles (2.63). Most Chilean companies do not have a code or a mission statement that gives any explicit importance to governance practices. The best scores are obtained in the category disclosure and information (5.14). Chilean companies adequately disclose information on control, ownership and related party transactions. The weakest aspects of information disclosure are promptness and the lack of announced targets with respect to future performance of the company. The second category in the questionnaire involved officers and the board. The average score obtained was 4.54. The weakest aspect inn this category was the low participation of independent directors on company boards and the absence of special committees such as audit and governance committees. Corporation law in most Latin American countries explicitly indicates that boards are the main decision-making body of a company and that board members owe duty of loyalty and duty of

care to all shareholders. However, as a consequence of the high ownership concentration observed in most firms in the region, boards in Latin American countries tend to be much weaker than in the United States or United Kingdom, and constitute a poor governance mechanism. In general terms, boards in Latin America mainly serve to advise controlling shareholders, as they have very few independent board members and few if any functioning committees. Lefort and Walker (2000c) have also examined board composition and functioning in Chile and reach similar conclusions regarding the scarcity of truly independent directors in Chilean corporations. In areas related to shareholders' rights, Chilean companies scored relatively well (4.18). That was the case in the applicability of the one share-one vote rule, the general voting rights of minority shareholders and the absence of formal sanctions applied by the SVS to board members and officers.

In order to empirically ascertain the importance of corporate governance practices in Chilean firms' market valuation and payout policies, we focused on a subset of the questionnaire. We selected 20 questions according to the following three criteria. They had been answered directly or indirectly by most companies in the sample, they capture a relevant feature of corporate governance practices in an emerging economy such as a Chile, and they can be answered by a simple yes or no. Table 5 summarizes the results for this subset of 20 questions that comprise our simple index of corporate governance practices in Chile (CGI).

Questions on the CGI were grouped in four categories: disclosure, board functioning and independence, shareholders rights, and conflicts of interest. The table presents the questions and the original number of each question in the full-length questionnaire. The CGI had a maximum score of 20, but the average score of the 106 companies surveyed was 11.3, indicating only mediocre performance. Not surprisingly, the worst areas on the survey were board functioning and conflict of interest. We detected a very low level of board involvement in committees. Less than 5 percent of the largest firms of the country have a corporate governance committee, and only 14 percent had compensation or nomination committees. In only 21 percent of the companies is the chairman of the board an independent and non-affiliated board member. In 70 percent of the boards of the largest Chilean companies there are board members who are also executives or board members of other companies of the same group, indicating a high degree of board interlocking and lack of independence of board members. This result is consistent with the

findings in Lefort and Walker (2000) and indicates a high likelihood of conflict of interest at the group level.

On the other hand, large Chilean firms score relatively well in disclosure and shareholder rights. Chilean legislation, especially the OPA Law approved in the year 2000, is in large part responsible for the rigorous disclosure of related party transactions by listed Chilean companies.

## **5. Empirical Analysis of the Effects of Agency Problems of Firm Market Valuation**

Empirical research on corporate governance greatly increased in the wake of the seminal work of LLSV during the 1990s. The original research investigated whether specific legal arrangements related to investor protection in different countries affected capital markets development. This paper focuses on a related question. Here we ask whether corporate governance practices at the firm level within a single country affect these firms' market valuation. This question is crucial in assessing the potential benefits for firms of changing their own practices, even though they cannot affect their country's rules. As clearly stated by Black, Jang and Kim (2003), "to what extent can a firm increase its market value by upgrading its corporate governance practices, and to what extent is it tied to its home country's rules and reputation?"

As an increasing number of empirical studies try to assess this question, our understanding of the difficulties involved in the task improves. Even if firm-level corporate governance practices correlate with share prices, we cannot be sure that these practices cause investors to value firms more highly. Alternative explanations related to different forms of endogeneity and omitted variable bias are also consistent with such empirical findings.

In this section of the paper, we perform regression analysis of measures of firm performance and payout policy on corporate governance indicators at the firm level and a series of control variables. Among the indicators of firm performance, we consider firm market valuation using Tobin's q and market-to-book ratios, ROA and the dividend-earnings ratio. The empirical model tries to capture the hypothesis previously discussed regarding the control structure of the company, the extent of the agency problem at the firm level and the market value of the company.

The empirical model is, therefore, of the type:

$$y_{it} = \alpha + \beta_1(dgroup_{it}) + \beta_2(concent_{it}) + \beta_3(coincid_{it}) + ZF_{it} \cdot \Gamma_1 + ZG_{it} \cdot \Gamma_2 + \varepsilon_{it}$$

where:

*y*: a firm performance and value indicator such as Tobin's q, ROA, and dividend payout ratio.

*dgroup*: affiliation to a conglomerate dummy.

*coincid*: degree of coincidence between cash and control rights at the firm level.

*concent*: ownership concentration at the firm level.

*ZF*: a set of control variables at the firm level, including Tobin's q in the payout equation, and time and industry dummies.

*ZG*: a set of control variables at the group level.

For estimation purposes we will consider three different samples because of restrictions on data availability. First, we use annual panel data comprising all listed companies with a fair amount of trading (around 200) over a 13-years time horizon (1990-2002). On average, this database supplies over 1,800 year-firm observations, allowing obtaining robust estimates using different estimation procedures of the relationship between agency problems and firm market valuation. Secondly, we constructed a similar annual panel for the period 1994-2002, because no information on dividend payments was available for the period prior to 1994. This panel provides over 1,100 year-firm observations. Finally, in the next section, we additionally analyzed a cross-section sample of 106 large companies for the year 2003. Although this is a smaller database, we use it to capture the effect of other dimensions of corporate governance practices affecting firm valuation and payout policies and to provide estimates of the incidence of corporate governance practices at the firm level on company valuation that are robust to the endogeneity problem. We use the CGI (Corporate Governance Index) and its components for that purpose.

## 5.1. *Econometric Concerns*

### *Endogeneity*

A key concern in this type of study has to do with the potential endogeneity problem as discussed by Klapper and Love (2003) and Black, Jang and Kim (2003), among others. In the context of this paper, the endogeneity problem would arise, for instance, if firms with high market valuation tended to adopt good governance practices in order to further improve their share prices. In that case, part of the correlation captured in the regressions would respond in fact to reverse causality. Black, Jang and Kim (2003) refers to a slightly different type of endogeneity referred as “optimal differences” which occurs when firms endogenously and optimally choose different governance practices in the sense of Demsetz and Lehn (1985).<sup>7</sup>

A related problem of spurious correlation could arise due to omitted variable bias. In equilibrium, corporate governance likely correlates with various economic variables. A study that omits some economic variables, which predict both governance and share price, could wrongly conclude that governance is directly associated with share price. This problem can be described by observing that corporate governance practices at the firm level could be determined by the firm’s contracting environment. For instance, firms with more tangible assets or more growth opportunities would want to improve corporate governance mechanisms in order to raise external finance. In such a situation, they may decide to reduce, for instance, separation of control and cash flow rights or transfer control to other, maybe foreign, companies. Hence, if we do not adequately control for these variables, the governance factors will capture the effect of the contracting environment on the firm on its market value.

### *Panel Data Estimation*

The use of a panel database increases the number of observations but introduces potential biases into the estimation. In order to account for unobservable individual effects, we provide fixed and random effects estimations in addition to the traditional pooled least squares. Moreover, we also provide GLS heteroskedasticity-consistent estimators in case observations of different companies present different variances. We performed Hausman tests of specification in order to choose the best estimations obtained.

---

<sup>7</sup> Black, Jang and Kim (2003) offer an alternative explanation for the potential correlation: quality signaling. The idea is that firms may adopt good governance rules to signal its good behavior. In that case, the signal rather than the firm’s governance practices affects share prices.

### *Censored Data*

Traditionally, payout ratio data are censored at zero since companies do not pay negative dividends, even if they were willing to do so. In addition, Chilean legislation requires companies to pay dividends of at least 30 percent of last-year profits. Hence, we estimated panel Tobit regressions in the case of payout ratios due to the censored nature of the dependent variable, and computed Hausman tests to evaluate the importance of the censoring problem.

### **5.2. Empirical Results on Agency Problems and Firm Valuation**

In the first part of the empirical analysis we want to explore the information contained on the panel data regarding the effect of agency conflicts at the firm level on its market valuation and payout ratios. We take the lack of coincidence between cash flow rights and control rights as an indicator of conflict of interest and potential agency problems and, thus, as a proxy for bad corporate governance practices at the company level. In the next subsection, we complement our analysis by considering indicator variables of the quality of corporate governance constructed from index variables derived from the questionnaire previously described.

In order to construct our proxy for the potential existence of agency problems we calculated for each company the market value of the consolidated equity held by the controlling shareholders. We then divide this value by the market value of assets calculated as the sum of the market value of total equity plus debt. As explained before this ratio indicates the percentage accrued by the controllers of each dollar of assets created by the company. We take this variable as an indication of the coincidence between cash flow rights and control rights and we call it *Coincid*. We also computed a simple measure of ownership concentration as the fraction of total equity held by the three largest shareholders (*concent*).

In order to measure firm valuation we consider three variables. Following most of the empirical literature, we use Tobin's q measured as the ratio between the sum of the market value of equity and book value of debt, and the book value of assets. We also calculated the market-to-book ratio of equity and ROA.

From a long list of control variables, we selected group affiliation dummy, pension fund dummy, debt-equity ratios (at market values), log of firm size, investment ratios, cash flow available, average traded volume, time dummies and 11 industry dummies. Tables 6 and 7

explain the construction of these variables and summarize descriptive statistics for them including cross correlations.

We want to study the effect of agency problems in the firm and its value. A simple look at the correlation matrix of the variables, presented in Table 7.B, shows that higher ownership concentration is negatively correlated with firm valuation and that a higher coincidence between cash flow and control rights is positively correlated with firm valuation. Although group affiliation is not correlated with the proxies to market valuation of companies, affiliation is positively correlated with firms' ROA. Figure 1 complements this evidence by presenting scatter plots of these relationships indicating that these results are not likely due to few outliers.

However, as previously discussed, the correlations do not necessarily indicate causality because of potential endogenous relations and omitted variable bias. We tackle the second problem by running multiple regressions using the set of control variables listed before. Table 8 presents this first set of results using standard OLS pooled multivariate regressions. We tried several specifications in order to see whether our results are robust. We found that including a large set of control variables does not alter the preliminary results. In all specifications, firm valuation is negatively and significantly correlated with ownership concentration and positively and significantly correlated with the degree of coincidence of cash flow and control rights. We also found that changing the set of control variables did not affect the signs and significance of these coefficients.

These results tend to support the hypothesis that agency problems, characterized by a lesser degree of coincidence of cash and control rights in hands of company controllers, are penalized by the market. Holding ownership concentration constant, more aligned incentives increase company value. On the other hand, holding the relation between cash and control rights constant, an increase in ownership concentration can be associated with more power in controllers' hands and, potentially, more agency conflicts between controlling and minority shareholders. However, the negative coefficient in the ownership concentration value could also be related to liquidity problems. We will explore this possibility later in the paper using a measure of turnover.

There is another important result regarding corporate governance practices and firm valuation. We find that the presence of pension funds as minority shareholders increases the market value of listed companies. This result is robust across different estimation procedures

and means that, for a given level of separation of cash from control rights, institutional investors tend to mitigate agency problems between controlling and minority shareholders.

The results indicate that under this type of model specification group affiliation does not significantly affect firm value. Both the time dummies and the industry dummies were statistically significant as a group in all specifications where they were included. Also, we find that larger firms have a higher Tobin's  $q$ , indicating higher market valuation, while more indebted firms present lower market valuation after controlling for other factors. Both coefficients were statistically significant in most specifications.

### **5.3. *Robustness Checks***

Tables 9 and 10 present additional results that confirm the robustness of the findings. In Table 9 we replicate the last regression of Table 8 using different measures of firm valuation. The evidence shows that it is highly unlikely that our previous results are due to spurious correlations arising from measurement error in the construction of Tobin's  $q$  and the concentration and coincidence variables. The table shows that the results hold when we substitute Tobin's  $q$  with the Market-to-book ratio or the firm's ROA. In Table 10 we show cross-section regressions for each of the 12 years included in the sample. Again, the coefficient on concentration is negative and significant, while the coefficient on coincidence is positive and significant in each of the 12 cross sections.

Additional tests for robustness are presented in Table 11. In this table we show the results for different econometric methods. Among other things, we run fixed effects panel regressions that take care of potential unobservable firm effects that might be correlated with ownership concentration and rights coincidence, hence biasing our previous results. The coefficients obtained are, again, very similar to those previously obtained and almost certainly rule out the possibility that the results are due to omitted variable biases.

We also checked for the existence of non-linearities on the relationship between concentration, coincidence and valuation. We find that introducing these variables squared does not substantially change the results. We find an inverse U-shaped relation for concentration but no significant non-linear relation between coincidence and value after we control for ownership concentration. The results are presented in Table 12.

#### 5.4. *Endogeneity Checks*

Because of all these safeguards we are very confident that our results are not induced by some omitted variable bias. However, we still have to tackle the potentially endogenous nature of the correlations obtained. Both ownership concentration and the degree of coincidence between cash flow and control rights could be endogenously determined by the firm's market valuation and/or performance.

The positive coefficient obtained for the coincidence between cash and control rights variable can also be explained under the reverse causation story. Endogeneity of this type would imply that, for a given level of control rights, the owners of firms with high Tobin's  $q$  are more likely to increase their rights over the company cash flows, hence increasing the degree of coincidence between cash flow and control rights. Under this reverse causality, there could still be a causal connection between coincidence and firm value, but the OLS coefficient would overstate it. Furthermore, if an endogenous relation of the type predicted by Demsetz's hypothesis is present, even if there is a causal relation for some firms between coincidence and valuation one could not infer that other firms can improve their market values by increasing the degree of coincidence between rights.

In the case of ownership concentration, it could also be argued that the controlling shareholders of companies more valued by the market also tend to increase the concentration of their holdings. That would be the case if they increased ownership concentration through a pyramid scheme without necessarily increasing the coincidence between their cash and control rights. In this case, however, since the coefficient on concentration is negative, the reverse causality correlation would run in the opposite direction and hence, would not reinforce the direct effect.

In order to adequately solve the endogeneity problems we should find suitable instruments for running some type of instrumental variable or simultaneous equations model. A suitable instrument should ideally be exogenous and not influenced by the dependent variable of interest. It should be strongly correlated with the independent variable for which there is suspicion of endogeneity (*conc* and *coincid*), and it should predict the dependent variable only indirectly, through its effect on the independent variable, but not directly. Given those restrictions, it should be difficult to obtain suitable instruments unless some restrictive assumptions are made or an exogenous condition on corporate governance practices is imposed

on firms. The last regression in Table 11 intends to solve the endogeneity problem under some restrictive assumptions. For that purpose, we run an Arellano and Bond Dynamic Panel GMM regression. This econometric procedure takes care of unobserved firm-specific effects and potential endogeneity of the explanatory variables under the assumption that there is no second-order serial correlation on the error term. The estimated coefficients are very similar to those obtained before, but a Sargan test of the validity of the instruments (lagged values of the control variables) largely rejects the null hypothesis.

Because the concentration and coincidence measures present much less time series variation than firm valuation and performance variables, we conjecture that the endogeneity problem is unlikely to be very important in this case. However, we directly tackle the endogeneity problem using an instrument related to control concentration. In the previous analysis, we had used a measure of ownership concentration and of coincidence of cash and control rights. Rule 67 of the Chilean Corporations Law establishes that major company decisions must be taken with the support of two-thirds of voting rights. It could be argued, then, that effective control requires two-thirds of voting rights. Figures 2.A and B show the relationship between a control dummy variable and the coincidence between cash and control rights. Notice that, although both variables are related, the relationship is not obvious. For instance, a company may have a controlling shareholder that controls with two-thirds of the votes a holding company that owns two-thirds of the company shares. Therefore, the control concentration dummy for this company would be 1, although, even in the zero debt case, the coincidence between cash and control rights would be only four-ninths. Figure 2.A shows that, in any case, the degree of coincidence tends to be higher in firms that surpass the two-thirds threshold. Figure 2.B shows that there is no obvious clustering of firms around the two-thirds threshold, and that company market value does not respond in an evident way to the threshold.

Therefore, in the following analysis we will use a dummy variable that takes the value of one whenever the controller of a firm holds, directly or indirectly, more than two-thirds of voting rights as an instrument for the coincidence of cash and control rights variable. Table 13 presents OLS regressions of Tobin's  $q$  on this dummy, the coincidence variable and a series of control variables under different specifications. The results are straightforward. When we include the dummy variable in our standard specification the previous results do not change. Lower ownership concentration and higher coincidence are still related to higher valuation. We then

present a first stage 2SLS regression of the degree of coincidence on the concentration dummy and a series of controls. We find that, as expected, firms with control concentration over two-thirds present higher coincidence. A hypothesis for this result is that as a company reaches such a level of concentration in voting rights, it becomes very difficult for the controller to attract external investors in order to separate cash from control rights.

We then run a second stage regression of Tobin's  $q$  on all control variables and the instrumented coincidence variable. Table 13 shows that the 2SLS regressions indicate that, after controlling for endogeneity and omitted variable bias, the coefficient on the degree of coincidence remains positive although the economic and statistic significance is notably reduced. Table 13 shows that the results hold for a similar set of regressions run for a smaller sample of firms after controlling for traded volumes.

### **5.5. *Dividend Payout Ratios***

Tables 14 and 15 present the results for the regressions using the dividend payout ratio as the explanatory variable. They are structured in a similar way as those for Tobin's  $q$ . In the case of dividend payout ratios we find inverse U-shaped relationships similar to the one obtained for the German case by Durtouglu et al. The results are the following. First, firms affiliated with conglomerates, firms with pension funds as minority shareholders and larger firms present higher payout ratios. Second, more debt implies less dividends. Third, separation of cash from control rights affects payout ratios in a non-linear way. Similar to the German case, we find that there is a threshold around 45 percent where the effect of higher controlling shareholder participation changes the sign of the marginal effect of separation on payout ratios. We find that, for low values of the coincidence variable, increases in ownership concentration, as expected, increase payout policy. However, when concentration in terms of equity reaches over 70 percent of shares owned by the controller, payout ratios start to decrease. A hypothesis for that result might be related to tax incentives. As we already discussed, once the controller has achieved such a high level of ownership, he/she can do almost anything without opposition, and there may be better (less expensive in terms of taxes) ways of getting his/her money back.

## **6. Do Corporate Governance Practices Affect Firm Market Valuation and Payout Policy?**

### **6.1. Correlations with Firm Market Valuation**

In this section we focus on cross-section data for the year 2003 in order to include other dimensions of corporate governance in the empirical analysis. We include in the analysis the corporate governance indicator variables constructed starting from the questionnaire and summarized in the CG Index described above. As explained above, we divided the corporate governance index into four sections: disclosure, board practices, shareholders rights and conflict of interest. In addition, we consider a dummy variable that takes the value of 1 whenever we had to fill in the answers to the questionnaire without company assistance, and we consider separately the pension fund dummy. Of course, one might expect the different measures of corporate governance to be highly correlated. In Table 16 we look at the correlations between the control variables used in the previous regressions and the corporate governance indicators. In general, the CGI index and sub-indices are positively correlated among themselves and with market valuation. The sub-index of shareholders rights is the exception and presents a negative, but low, correlation with the other sub-indices. Firm size is positively correlated with good corporate governance practices and less potential for agency problems, while the opposite is true for debt.

In Table 17 we present multivariate Logit regressions between the CGI components and the control variables. Larger firms, less indebted firms, firms with more growth opportunities and firms with larger cash flows available tend to present better corporate governance practices.

Finally, we look at the effect of better corporate governance practices as measured by the CG index and its components on market valuation. The regressions presented in Tables 18 are estimated over a cross-section sample of 85 companies for the year 2003. The results are not very encouraging. We find that, after controlling for the list of control variables previously used, only the sub-index *Conflict of Interest* appears to be statistically significant in explaining firm value, and only few questions have individual significance in the regressions. The overall index is not significant, and the shareholders rights sub-index although significant, appears with a negative sign in the regressions. The lack of explanatory power can be attributed to the limited sample used, because most of the variables that were significant in the previous panel data regressions are statistically insignificant in these cross section regressions. In addition, the high

correlation observed among the different measures of corporate governance and the control variables may, of course, imply multicollinearity in the regressions, and hence low individual explanatory power.

## **6.2. Controlling for Endogeneity**

Of course, as previously discussed, even the positive and significant coefficient on the Conflict indicator could be due to endogeneity from reverse causality. Without knowing whether that is the case, we cannot affirm that these types of better corporate governance practices at the firm level are valued by the market. Following Black, Jang and Kim (2003), we look for exogenous determinants of corporate governance practices not directly caused by firm market valuation. Similarly to the Korean case, Chilean Corporations Law requires that all firms with market capitalization above 45 million dollars form an audit committee composed by a majority of independent directors.<sup>8</sup> Presumably, firms with market capitalization above this value will tend to have better corporate governance practices in order to be sure that they comply with the law. Figure 3.A shows that, in fact, firms above this threshold present an audit committee, while the smaller ones do not. As a simple way to look at the validity of this instrument, Figure 3.B shows that there is no apparent relationship between this size threshold and company's market valuation.

The last two columns of Table 18 show 2SLS regressions using the size dummy as an instrument for the CGI index in a regression of Tobin's q on the agency problem variables and the set of control variables. The results show that the second stage coefficient of *conflict of interest* on Tobin's q remains positive and similar in value to the one obtained in an OLS regression indicating no evidence of endogeneity in an important way. However, the result is only significant at the 15 percent level.

## **7. Conclusions**

Recent studies comparing corporate governance practices at the country level have shown that Chilean companies present standards comparable to those of emerging economies with higher levels of capital market development and per capita income. In general, large Chilean companies

---

<sup>8</sup> Rule 50 bis, Corporations Law.

have been characterized by corporate governance standards above those of other economies in Latin America.

The results of this paper support two complementary sets of conclusions. First, we have looked at specific aspects of corporate governance practices in companies, finding that Chilean companies are especially good in the areas of transparency and information disclosure. Among other reasons, this result might be related to early reforms in the Securities Markets and Corporations Law in the context of the pension fund privatization process. There are also indications that more recent legal reform implemented in Chile, following what is understood to be the world's best corporate governance practices, has also played a role. Because Chile shares largely the same legal and political history with countries in the region, the relatively better standards achieved by Chilean companies mean that adequate legal reform is important in shaping corporate governance practices at the firm level. Institutional investors, ADRs and creditors are important stakeholders in Chilean firms, and they understand that good corporate governance practices are valuable. They are crucial players in translating better corporate governance practices into better access to capital for firms.

The worst aspects of Chilean corporate governance practices are related to conflict of interest between controlling and minority shareholders. The results obtained from the questionnaires are consistent with the widespread use of pyramids as a way to separate cash from control rights. Pyramids seem to be an efficient way for economic groups to exercise control over a wide variety of productive assets and to establish internal capital markets that compensate for relatively poorly developed formal markets. However, the use of pyramids could exacerbate agency problems and be detrimental to the market value of companies and to the level of economic development of the country.

In this paper, we try to shed light on this issue performing regression analysis of measures of firm market valuation, performance and payout policy on corporate governance indicators at the firm level and a series of control variables. We carefully check that our results are not due to omitted variable bias or to particular specification and samples through an extensive robustness check. We also control for reverse causality using two features of Chilean Corporations Law that provide an exogenous instrument for some of the corporate governance practices of Chilean firms. In summary, we find that firms that present higher coincidence between cash and control rights tend to be consistently more valued by the market. We interpret this result as an indication

that potential conflicts of interest between controllers and minority shareholders are penalized by the Chilean capital market. Consistently, we also find that firms scoring poorly on indicators of conflict of interest are less valued by the market. Hence, company shares of firms presenting agency problems tend to be traded in the market at a discount, indicating that reducing conflict of interest and agency problems in the firm improves the conditions of access to portfolio capital.

## References

- Agosin, M., and E. Pastén. 2001. "Corporate Governance in Chile." Paper presented at the Meeting on Corporate Governance in Developing Countries and Emerging Economics sponsored by OECD Development Centre and the European Bank for Reconstruction and Development.
- Agrawal, A., and C. Knoeber. 1996. "Firm Performance and Mechanisms to Control Agency Problems between Managers and Shareholders." *Journal of Financial and Quantitative Analysis* 31(3): 377-397.
- Bebchuk, L. 1999. "The Rent Protection Theory of Corporate Ownership and Control." Cambridge, United States: Harvard Law School. Unpublished working paper.
- Bebchuk, L.A., A. Cohen and A. Ferrell. 2004. "What Matters in Corporate Governance?" Harvard Law School John M. Olin Discussion Paper 491. Cambridge, United States: Harvard Law School. Available at <http://ssrn.com/abstract=593423>.
- Becht, M., P. Bolton and A. Röell. 2002. "Corporate Governance and Control." NBER Working Paper 9371. Cambridge, United States: National Bureau of Economic Research.
- Beck, T., R. Levine and N. Loayza. 2000. "Finance and the Sources of Growth." *Journal of Financial Economics* 58(1-2): 261-300.
- Berglof, E., and L. von Thadden. 1999. "The Changing Corporate Governance Paradigm: Implications for Transition and Developing Countries." Stockholm, Sweden: Stockholm Institute of Transition Economics. Unpublished paper.
- Berle, A., and G. Means. 1932. *The Modern Corporation and Private Property*. New York, United States: Macmillan.
- Black, Bernard S., 1992. "Agents Watching Agents: The Promise of Institutional Investor Voice." *UCLA Law Review* 39: 811-893.
- Black, B.S., H. Jang and W. Kim. 2003. "Does Corporate Governance Affect Firms' Market Values? Evidence from Korea." Stanford Law and Economics Paper 237/Texas Law and Economics Paper 26. Stanford and Austin, United States: Stanford University and University of Texas. Available at <http://ssrn.com/abstract=311275>.
- Brown, L.D., and M.L. Caylor. 2004. "Corporate Governance and Firm Performance." Atlanta, United States: University of Georgia, School of Accountancy. Available at <http://ssrn.com/abstract=586423>.

- Claessens S, S. Djankov and L. Klapper. 1999. "The Role and Functioning of Business Groups in East Asia and Chile." *ABANTE* 2(2).
- Claessens, S. et al. 1999. "The Cost of Group Affiliation: Evidence from East Asia." Washington, DC, United States: World Bank. Mimeographed document.
- Coffee, J. 1999. "The Future as History: The Prospects for Global Convergence in Corporate Governance and its Implications." *Northwestern Law Review* 93: 631-707.
- Demsetz, H. 1983. "The Structure of Ownership and the Theory of the Firm." *Journal of Law and Economics* 26: 375-390.
- Demsetz, H., and K. Lehn. 1985. "The Structure of Corporate Ownership: Causes and Consequences." *Journal of Political Economy* 93: 1155-1177.
- Durnev, A., and E.H. Kim. 2003. "To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation." Ann Arbor, United States: University of Michigan, School of Business. Mimeographed document.
- Faccio, M., and L. Lang. 2002. "The Ultimate Ownership of Western European Corporations." *Journal of Financial Economics* 65: 365-395.
- Fama, E., and M. Jensen. 1983. "Separation of Ownership and Control." *Journal of Law and Economics* 26: 301-325.
- Franks, J., and C. Mayer. 1994. "The Ownership and Control of German Corporations." London, United Kingdom: London Business School. Manuscript.
- Gálvez, J., and J. Tybout. 1985. "Microeconomic Adjustments in Chile during 1977-81: The Importance of Being a Grupo." *World Development* 13(8): 969-994.
- Gillette, A., T. Noe and M. Rebelló. 2003. "Corporate Board Composition, Protocols, and Voting Behavior: Experimental Evidence." *Journal of Finance* 58: 1997-2032.
- Glaeser, E., S. Johnson and A. Shleifer. 2000. "Coase v. the Coasians." Cambridge, United States: Harvard University. Unpublished working paper.
- Gompers, P., J. Ishii and A. Metrick. 2003. "Corporate Governance and Equity Prices." *Quarterly Journal of Economics* 118(1): 107-55.
- Grossman, S., and O. Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy* 94: 691-719.
- Hayashi, F. 1982. "Tobin's Marginal Q and Average Q: A Neoclassical Interpretation." *Econometrica* 50(1): 213-224.

- Hemanlin, B., and M. Weisbach. 2003. "Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature." *Economic Policy Review of the Federal Reserve Bank of New York* 9(1): 7-36.
- Hoshi, T., A. Kashyap and D. Scharfstein. 1991. "Corporate Structure, Liquidity and Investment: Evidence from Japanese Industrial Groups." *Quarterly Journal of Economics* 106: 33-60.
- Iglesias-Palau, A. 2000. "Pension Reform and Corporate Governance: Impact in Chile." *ABANTE* 3(1): 109-141.
- Jensen, M., and W. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure." *Journal of Financial Economics* 11: 5-50.
- Khanna, T., and Y. Yafeh. 2000. "Business Groups and Sharing around the World." Cambridge, United States: Harvard Business School. Mimeographed document.
- Khanna, T., and K. Palepu. 1999a. "Is Group Affiliation Profitable in Emerging Markets? An Analysis of Diversified Indian Business Groups." *Journal of Finance* 55(2): 867-891.
- . 1999b. "The Future of Business Groups in Emerging Markets: Long Run Evidence From Chile." Working Paper 99-077. Cambridge, United States: Harvard Business School.
- . 1999c. "Policy Shocks, Market Intermediaries, and Corporate Strategy: The Evolution of Business Groups in Chile and India." *Journal of Economics and Management Strategy* 8(2): 271-310.
- Khanna, T., and J. Rivkin. 2000. "Estimating the Performance Effects of Business Groups in Emerging Markets." Cambridge, United States: Harvard Graduate School of Business. Mimeographed document.
- Klapper, L., and I. Love. 2002. "Corporate Governance, Investor Protection, and Performance in Emerging Markets." World Bank Policy Research Working Paper 2818. Washington, DC, United States: World Bank.
- Klein, A. 2002. "Audit Committee, Board of Directors Characteristics, and Earnings Management." *Journal of Accounting and Economics* 33: 375-400.
- Jensen, M. 1986. "Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers." *American Economic Review* 76: 323-329.
- Jensen, M., and K.J. Murphy. 1990. "Performance Pay and Top Management Incentives." *Journal of Political Economy* 98(2): 225-264.

- La Porta, R. et al. 1996. "Law and Finance." NBER Working Paper 5661. Cambridge, United States: National Bureau of Economic Research.
- . 1997. "Legal Determinants of External Finance." *Journal of Finance* 52: 1131-52.
- . 1999a. "Corporate Ownership Around the World." *Journal of Finance* 54(2): 471-517.
- . 1999b. "Agency Problems and Dividend Policies around the World. *Journal of Finance* 55(1): 1-33.
- Lefort, F., and E. Walker. 2000 "Corporate Governance: A Challenge for Latin America." *ABANTE* 2(2): 99-111.
- . 2000. "Ownership and Capital Structure of Chilean Conglomerates: Facts and Hypotheses of Governance." *ABANTE* 3(1): 3-27.
- . 2001b. "Gobierno Corporativo, Protección a Accionistas Minoritarios y Tomas de Control." Documentos de Discusión 1, SVS, May.
- . 2003a. "Chilean Financial Markets and Corporate Structure." Santiago, Chile: Pontificia Universidad Católica de Chile, Business School. Mimeographed document.
- . 2003b. "Economic Performance of Conglomerates: Evidence from Chile." Santiago, Chile: Pontificia Universidad Católica de Chile, Business School. Mimeographed document.
- Ley de Mercado de Valores de Chile (Ley N° 18.405). [www.svs.cl](http://www.svs.cl).
- Leal, R. P.C., A. Carvalhal Da Silva, and S. Valadares. 2000. "Ownership, Control and Corporate Valuation of Brazilian Companies." Proceedings of the Latin American Corporate Governance Roundtable, Sao Paulo.
- Majluf, N. et al. 1998. "Governance and Ownership Structure in Chilean Economic Groups." *ABANTE* 1(1): 111-139.
- Morck, R., A. Shleifer and R. Vishny. 1988. "Management Ownership and Market Valuation." *Journal of Financial Economics* 20(1-2): 293-315.
- Myers, S. 2000. "Outside Equity." *Journal of Finance* 55: 1005-1037.
- Myers, S., and N. Majluf. 1984. "Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have." *Journal of Financial Economics* 13: 187-221.
- Paredes, R., and J.M. Sánchez. 1995. "Organización Industrial y Grupos económicos: El caso de Chile." Santiago, Chile: Mimeo, Programa de Postgrado en Economía Ilades-Georgetown University. Mimeographed document.

- Parisi, F., R. Godoy and A. Parisi. 2000. "Gobierno Corporativo en Chile: Evidencia." Santiago, Chile: Universidad de Chile: Facultad de Ciencias Económicas y Administrativas. Mimeographed document.
- Scharfstein, D., and J. Stein. 1997. "The Dark Side of Internal Capital Markets: Divisional Rent Seeking and Inefficient Investment." NBER Working Paper 5969. Cambridge, United States: National Bureau of Economic Research.
- Scharfstein, D. 1998. "The Dark Side of Internal Capital Markets II: Evidence from Diversified Conglomerates." Cambridge, United States: MIT Sloan School of Management. Mimeographed document.
- Shleifer, A., and D. Wolfenson. 2002. "Investor Protection and Equity Markets." *Journal of Financial Economics* 66: 3-27.
- Stein, J. 1989. "Internal Capital Markets and the Competition for Corporate Resources." *Journal of Finance* 52(1): 111-133.
- Stulz, R. 1988. "Managerial Control of Voting Rights: Financing Policies and the Market for Corporate Control." *Journal of Financial Economics* 20: 25-54.
- Wolfenzon, D. 1999. "A Theory of Pyramidal Structures." Cambridge, United States: Harvard University. Unpublished paper.
- Xie, B., W. Davidson and P. DaDalt. 2003. "Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee." *Journal of Corporate Finance* 9(3): 295-316.
- Zingales, L. 1997. "Corporate Governance." NBER Working Paper 6309. Cambridge, United States: National Bureau of Economic Research.

**Figure 1. Scatter Plot of Ownership Concentration and Coincidence of Control and Cash Flow Rights on Measures of Firm Valuation and Performance**

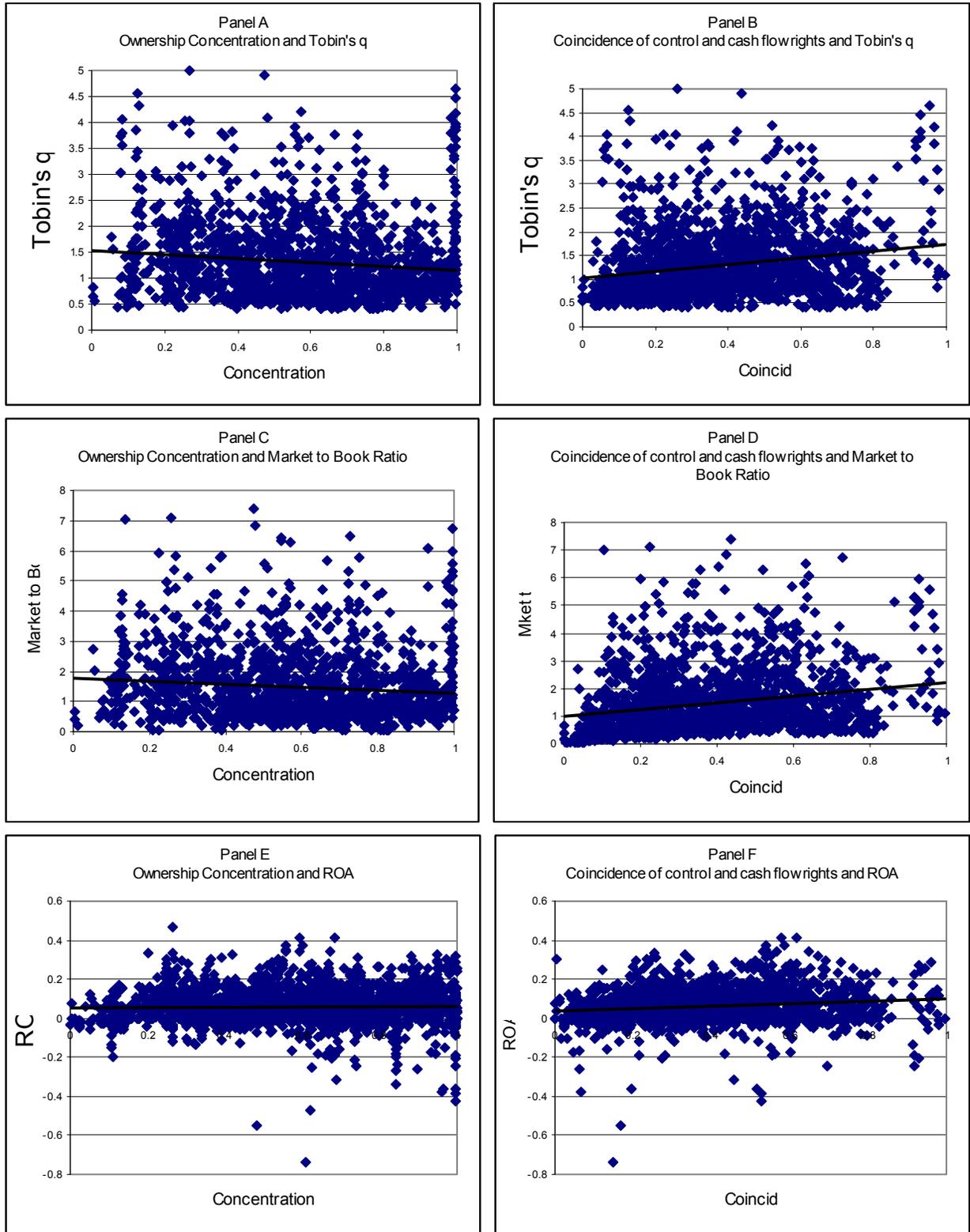


Figure 2.A.

Coincidence of Cash and Control Rights and Effective Company's Control Rule 67, Corp. Law

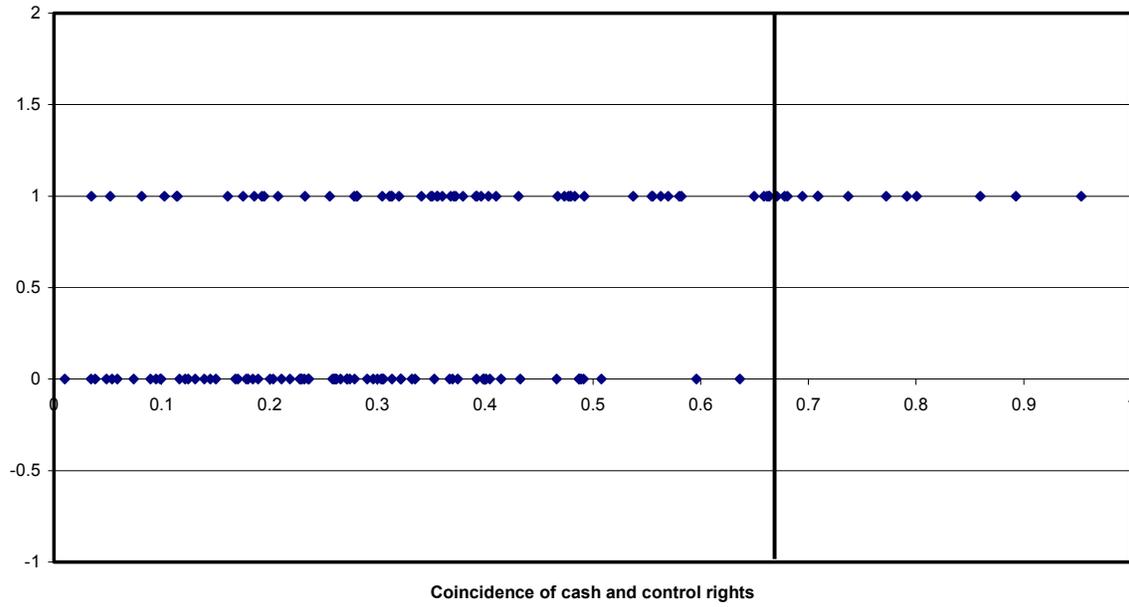


Figure 2.B.

Tobin's q and Ownership Concentration

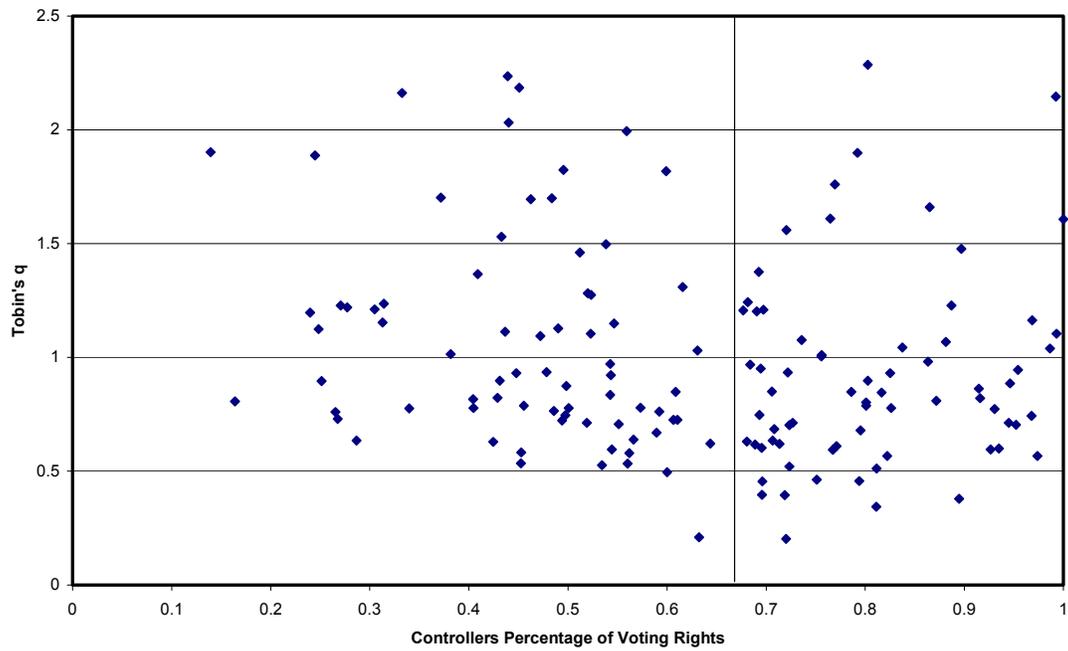


Figure 3.A

**Audit Committee and Company's equity size  
Art. 50bis, Corp. Law**

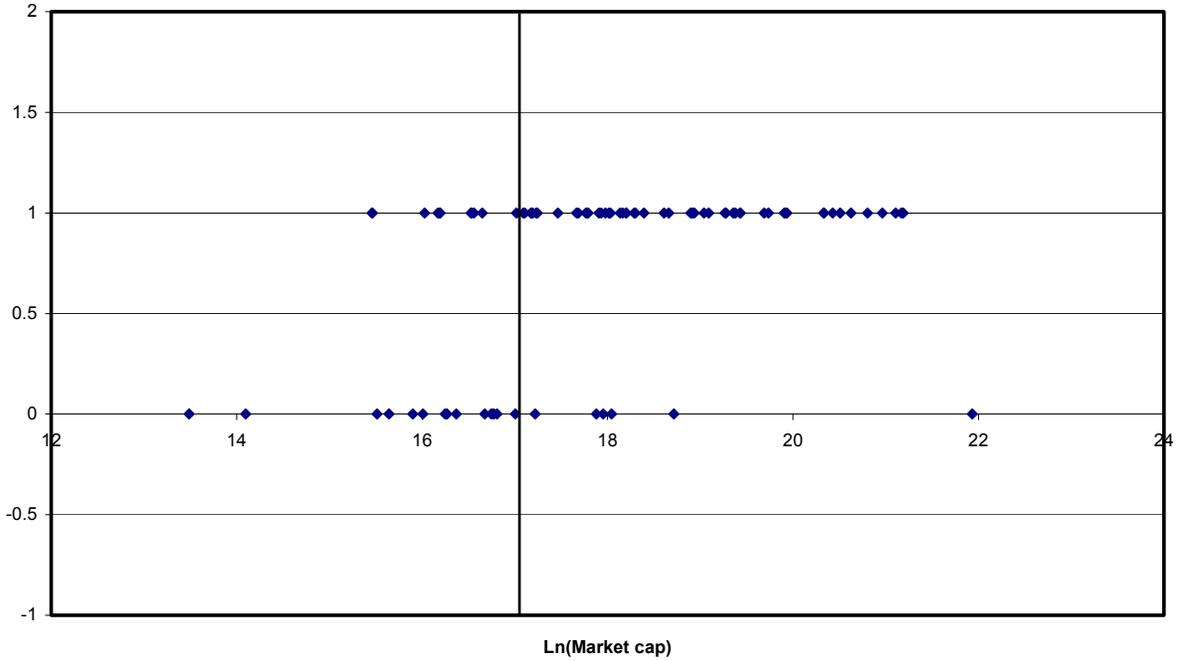
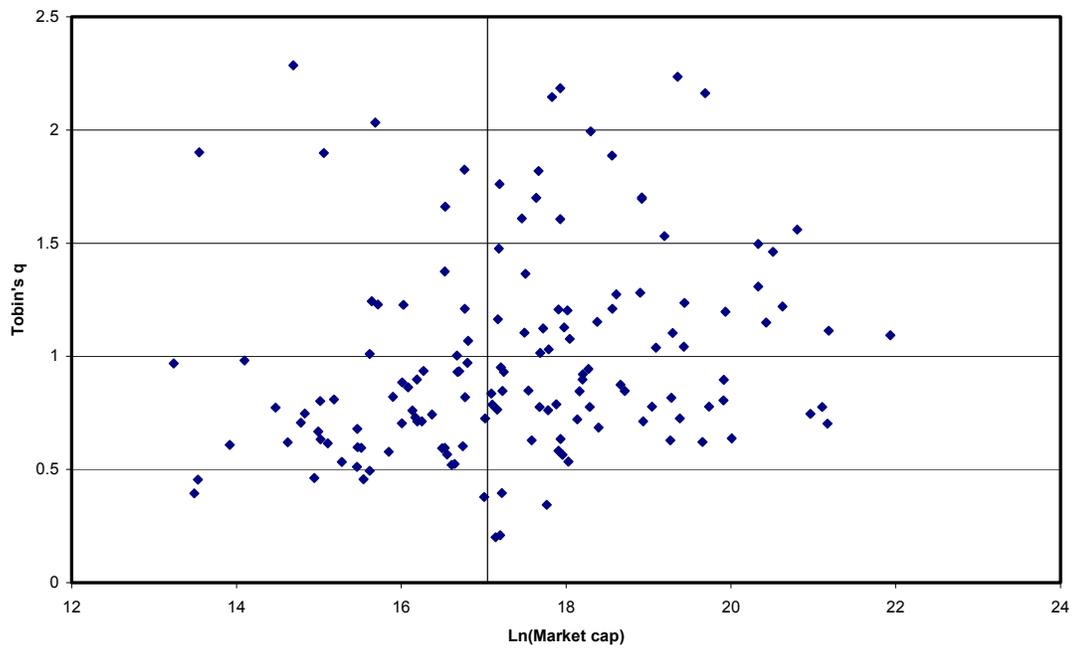


Figure 3.B

**Tobin's q and Company's equity size**



**Table 1**  
**Importance of Chilean Conglomerates**

Conglomerates	1990		1994		1998		2002	
	Assets (MMUS\$)	Relative size (%)	Assets (MMUS\$)	Relative size (%)	Assets (MMUS\$)	Relative size (%)	Assets (MMUS\$)	Relative size (%)
<b>Largest</b>	4,617	22.0	9,454	14.0	16,220	23.0	11,306	20.5
<b>5 largest</b>	9,264	44.0	34,018	51.0	37,704	54.0	26,304	47.6
<b>10 largest</b>	16,784	79.0	46,316	69.0	49,357	70.0	37,008	67.0
<b>20 largest</b>	18,784	88.0	54,259	81.0	57,570	82.0	46,655	84.5
<b>All conglomerates</b>	19,422	91.0	57,973	87.0	63,957	91.0	49,729	90.0
<b>Non-affiliated</b>	1,841	9.0	8,879	13.0	6,059	9.0	5,511	10.0
<b>Total</b>	21,263	100.0	66,852	100.0	70,017	100.0	55,241	100.0

**Table 2.a**  
**Capital Structure of Chilean Conglomerates**

Conglomerates	1990		1994		1998		2002	
	Debt/ Assets (%)	Equity/ Assets (%)	Debt/ Assets (%)	Equity/ Assets (%)	Debt/ Assets (%)	Equity/ Assets (%)	Debt/ Assets (%)	Equity/ Assets (%)
<b>Largest</b>	27.3	72.7	14.0	86.0	53.2	46.8	58.1	41.9
<b>5 largest</b>	26.6	73.4	14.7	85.3	46.0	54.0	52.9	47.1
<b>10 largest</b>	26.6	73.4	17.9	82.1	44.9	55.1	55.1	44.9
<b>20 largest</b>	25.4	74.6	18.2	81.8	45.7	54.3	54.8	45.2
<b>All conglomerates</b>	25.9	74.1	18.5	81.5	46.7	53.3	54.7	45.3
<b>Non-affiliated</b>	22.5	77.5	11.1	88.9	42.7	57.3	43.4	56.6
<b>Total</b>	25.6	74.4	17.6	82.4	46.4	53.6	53.6	46.4

**Table 2.b**  
**Control Structure of Chilean Conglomerates**

Conglomerates	1990		1994		1998		2002	
	Control/ Total eq. (%)	External / Control						
<b>Largest</b>	55.4	1.5	63.7	0.8	18.4	10.6	49.1	3.9
<b>5 largest</b>	52.5	1.6	52.4	1.2	53.0	2.5	57.1	2.7
<b>10 largest</b>	52.9	1.6	53.2	1.3	56.0	2.2	60.2	2.7
<b>20 largest</b>	52.1	1.6	52.8	1.3	56.1	2.3	59.0	2.7
<b>All conglomerates</b>	52.3	1.6	53.6	1.3	57.0	2.3	58.8	2.8
<b>Non-affiliated</b>	85.3	0.5	98.0	0.1	93.5	0.9	62.8	1.8
<b>Total</b>	55.2	1.4	60.0	1.0	60.4	2.1	59.3	2.6

**Table 3**  
**Payout Ratio**  
(Summary statistics by year)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Mean</b>	0.536	0.496	0.447	0.380	0.348	0.321	0.367	0.347	0.366
<b>Stand. Dev.</b>	0.374	0.327	0.346	0.347	0.334	0.337	0.375	0.337	0.447
<b>Max.</b>	1.538	1.447	1.203	1.369	1.261	1.283	1.383	1.193	1.579
<b>Min.</b>	0.000	0.000	-0.309	-0.380	-0.214	-0.571	-0.046	-0.608	-0.850

**Payout Ratio**  
(Statistics by affiliation)

	All companies	Affiliated companies	Non affiliated companies
<b>Mean</b>	0.391	0.428	0.314
<b>Stand. Dev.</b>	0.366	0.366	0.353
<b>Max.</b>	1.579	1.538	1.579
<b>Min.</b>	-0.850	-0.850	-0.776

**Table 4**  
**Questionnaire on Corporate Governance Practices: Chile, 2003**

<b>Sample</b>	<b>Number of firms</b>	<b>Percentage of firms contacted</b>	<b>Percentage of total listed firms</b>	<b>Market Capitalization</b>	<b>% of Total Market cap</b>
<b>Companies contacted</b>	206	100.0%	76.3%	81,000	98%
<b>Filled questionnaires</b>	59	28.6%	21.9%	35,004	42%
<b>Direct sources</b>	47	22.8%	17.4%	28,479	34%
<b>Total</b>	106	51.5%	39.3%	63,484	76%
<b>Summary of Results</b> (out of 7; higher score means better CG practices)					
<b>Category:</b>			<b>Number of questions</b>	<b>Average Score</b>	
<b>I. ABOUT GENERAL PRINCIPLES</b>			7	2.63	
<b>II. ABOUT OFFICERS AND THE BOARD</b>			26	4.54	
<b>III. ABOUT SHAREHOLDERS</b>			20	4.18	
<b>IV. ABOUT DISCLOSURE AND INFORMATION</b>			14	5.14	
<b>TOTAL / AVERAGE</b>			67	4.12	

**Table 5**  
**Index on Corporate Governance Practices**  
**Chile, 2003**

Question number	Original quest. Number	Question	Number of Yes	Number of No	No answers	Average score
<b>I</b>		<b>Disclosure</b>				<b>4.46</b>
1	67	Does the company disclose related party transactions and/or conflicts of interest of managers and directors on the board?	106	0	0	100.0%
2	2	Does the company's Annual Report include a section devoted to the company's performance in implementing corporate governance principles?	12	93	1	11.4%
3	55	Has the company been sanctioned for failure to publish company reports timely in the last three years?	2	102	2	98.1%
4	54	Are accounts presented according to IGAAP?	51	55	0	48.1%
5	61	Is the external auditing company internationally recognized?	101	5	0	95.3%
6	25	Does the company disclose board compensation and benefits?	98	7	1	93.3%
<b>II</b>		<b>Board functioning and independence</b>				<b>2.28</b>
7	18	Does the company have a corporate governance committee?	5	100	1	4.8%
8	16	Does the company have an audit committee?	76	30	0	71.7%
9	14	Is the Chairman of the Board an independent, non-affiliated director?	17	63	26	21.3%
10	9	Has the board 5 to 9 members?	22	84	0	20.8%
11	21	Are there any other committees in the board (i.e. compensation, nomination, etc.)?	15	87	4	14.7%
12	30	Has there been any sanction to the board or management for violations of Securities and/or Corporations laws in the last three years?	5	101	0	95.3%
<b>III</b>		<b>Shareholders rights</b>				<b>2.61</b>
13	34	Does each share have one vote?	100	6	0	94.3%
14	38	Do shareholders have to be present in the meeting to vote?	30	75	1	71.4%
15	41	Can shareholders ask management to include items in the list of topics to be dealt with during the shareholders' meetings?	83	17	6	83.0%
16	7	Is the company listed on a major foreign stock exchange?	13	93	0	12.3%
<b>IV</b>		<b>Conflict of interest</b>				<b>1.92</b>
17	28	Is any board member also board members/executives of firms belonging to the same economic group?	68	30	8	30.6%
18	33	Is senior management remuneration tied to the value of company shares?	5	101	0	4.7%
19	42	Does the company disclose its ownership structure (i.e. the ownership by large shareholders)?	102	3	1	97.1%
20	12	Do the Chairman of the Board and the CEO belong to the same family/controlling group?	26	39	41	60.0%

Table 6

## Descriptive Statistics for Main Variables

	Tobin's q	MB Ratio	ROA	Concent	Coincid	DGroup	Dafp	LAEC	DE Ratio	Cash	Invest	Volume
<b>All sample (1990-2002)</b>												
<b>Number of obs.</b>	1851	1820	2500	2495	1980	3081	3081	2014	1960	1899	2030	1102
<b>Mean</b>	1.30	1.47	5.9%	59.0%	38.0%	0.52	0.39	17.46	1.07	20.4%	6.1%	130983
<b>Median</b>	1.08	1.12	5.4%	61.1%	34.5%	1.00	0.00	17.58	0.40	15.7%	2.3%	3497
<b>Max</b>	5.00	7.40	47.0%	100.0%	99.7%	1.00	1.00	22.97	47.83	99.9%	98.0%	14400000
<b>Min</b>	0.40	0.04	-73.5%	0.0%	0.1%	0.00	0.00	6.82	0.00	-37.0%	-39.1%	0
<b>Stan. Deviation</b>	0.73	1.15	8.9%	24.9%	21.5%	0.50	0.49	2.11	2.77	19.7%	18.5%	678779
<b>Year by year statistics</b>												
<b>1990</b>												
<b>Number of obs.</b>	109	108	145	141	119	237	237	122	118	0	0	0
<b>Mean</b>	1.15	1.29	7.7%	53.9%	34.8%	0.41	0.16	16.15	1.03	.	.	.
<b>Median</b>	0.99	1.00	6.3%	54.4%	32.5%	0.00	0.00	16.38	0.42	.	.	.
<b>Max</b>	5.00	7.03	47.0%	99.8%	91.3%	1.00	1.00	20.52	10.15	.	.	.
<b>Min</b>	0.44	0.15	-31.4%	2.2%	2.2%	0.00	0.00	8.71	0.00	.	.	.
<b>Stan. Deviation</b>	0.62	1.12	10.2%	26.7%	21.3%	0.49	0.36	2.10	1.82	.	.	.
<b>1991</b>												
<b>Number of obs.</b>	115	112	152	147	124	237	237	126	123	122	130	0
<b>Mean</b>	1.60	1.96	8.7%	56.9%	41.9%	0.44	0.20	16.79	0.45	27.5%	6.3%	.
<b>Median</b>	1.40	1.57	7.2%	57.2%	43.0%	0.00	0.00	16.93	0.25	22.2%	2.1%	.
<b>Max</b>	4.04	6.71	35.9%	99.8%	96.3%	1.00	1.00	21.06	4.08	97.3%	90.1%	.
<b>Min</b>	0.46	0.21	-19.3%	2.2%	2.2%	0.00	0.00	8.34	0.00	-3.9%	-33.2%	.
<b>Stan. Deviation</b>	0.84	1.38	9.7%	26.2%	21.7%	0.50	0.40	2.07	0.69	24.5%	17.8%	.
<b>1992</b>												
<b>Number of obs.</b>	113	111	169	164	124	237	237	126	123	128	135	0
<b>Mean</b>	1.55	1.90	8.7%	58.3%	41.1%	0.48	0.27	17.02	0.52	28.6%	12.4%	.
<b>Median</b>	1.44	1.63	8.1%	59.6%	40.1%	0.00	0.00	17.13	0.26	23.7%	5.1%	.
<b>Max</b>	3.80	5.40	41.5%	100.0%	91.7%	1.00	1.00	21.24	13.57	99.9%	98.0%	.
<b>Min</b>	0.55	0.41	-26.1%	2.4%	2.4%	0.00	0.00	8.34	0.00	-20.8%	-32.8%	.
<b>Stan. Deviation</b>	0.74	1.17	9.9%	26.3%	20.9%	0.50	0.44	2.01	1.29	24.3%	24.1%	.
<b>1993</b>												
<b>Number of obs.</b>	116	114	179	180	125	237	237	126	124	137	147	0
<b>Mean</b>	1.64	2.02	8.0%	59.1%	41.2%	0.50	0.32	17.28	0.57	25.6%	8.8%	.
<b>Median</b>	1.41	1.61	7.3%	60.0%	39.3%	1.00	0.00	17.28	0.22	24.5%	6.1%	.
<b>Max</b>	4.10	6.49	34.1%	100.0%	92.9%	1.00	1.00	21.72	18.54	89.4%	83.0%	.
<b>Min</b>	0.44	0.14	-17.5%	2.4%	2.4%	0.00	0.00	8.34	0.00	-32.9%	-36.7%	.
<b>Stan. Deviation</b>	0.87	1.40	8.7%	25.7%	21.0%	0.50	0.47	2.08	1.76	21.1%	16.7%	.
<b>1994</b>												
<b>Number of obs.</b>	111	109	181	181	126	237	237	128	124	152	148	92
<b>Mean</b>	1.75	2.17	6.5%	57.9%	42.4%	0.51	0.41	17.32	1.00	24.9%	7.5%	81422
<b>Median</b>	1.56	1.86	6.7%	61.1%	40.4%	1.00	0.00	17.55	0.20	22.7%	3.3%	2495
<b>Max</b>	4.66	6.84	41.2%	99.8%	96.4%	1.00	1.00	21.99	47.83	98.7%	88.0%	2286086
<b>Min</b>	0.43	0.36	-73.5%	2.3%	1.7%	0.00	0.00	6.82	0.00	-30.0%	-30.0%	0
<b>Stan. Deviation</b>	0.87	1.33	10.5%	24.2%	21.8%	0.50	0.49	2.52	4.67	20.6%	19.2%	294279
<b>1995</b>												
<b>Number of obs.</b>	115	112	192	193	126	237	237	127	124	155	161	96
<b>Mean</b>	1.71	2.05	7.1%	58.1%	41.8%	0.52	0.43	17.71	0.39	24.3%	8.3%	301793
<b>Median</b>	1.57	1.83	5.9%	61.1%	40.9%	1.00	0.00	17.83	0.23	21.1%	4.5%	4128
<b>Max</b>	4.92	7.40	37.3%	100.0%	97.7%	1.00	1.00	21.93	3.91	88.3%	81.4%	14400000
<b>Min</b>	0.52	0.37	-35.9%	2.2%	2.2%	0.00	0.00	8.38	0.00	-28.9%	-38.3%	0
<b>Stan. Deviation</b>	0.83	1.20	8.7%	25.0%	22.1%	0.50	0.50	2.12	0.51	19.4%	18.7%	1542535

Table 6 (cont.)

## Descriptive Statistics for Main Variables

	Tobin's q	MB Ratio	ROA	Concent	Coincid	DGroup	Dafp	LAEC	DE Ratio	Cash	Invest	Volume
<b>1996</b>												
<b>Number of obs.</b>	120	116	202	203	126	237	237	128	123	174	178	101
<b>Mean</b>	1.43	1.59	6.8%	58.4%	39.8%	0.55	0.47	17.62	0.79	22.1%	10.2%	177948
<b>Median</b>	1.20	1.37	6.2%	60.6%	36.7%	1.00	0.00	17.66	0.36	21.5%	5.6%	2879
<b>Max</b>	4.67	6.27	33.9%	100.0%	98.0%	1.00	1.00	22.97	35.55	75.8%	86.9%	8008483
<b>Min</b>	0.40	0.04	-35.8%	2.4%	0.4%	0.00	0.00	8.74	0.00	-37.0%	-24.3%	0
<b>Stan. Deviation</b>	0.80	1.07	8.1%	24.5%	22.4%	0.50	0.50	2.18	3.21	19.7%	19.2%	897931
<b>1997</b>												
<b>Number of obs.</b>	173	171	211	211	183	237	237	186	181	164	183	144
<b>Mean</b>	1.22	1.33	5.6%	58.9%	37.5%	0.56	0.48	17.71	0.96	22.1%	9.6%	110663
<b>Median</b>	1.00	0.99	4.9%	61.3%	33.9%	1.00	0.00	17.75	0.46	19.2%	5.0%	7623
<b>Max</b>	3.93	6.08	27.5%	99.8%	95.8%	1.00	1.00	22.30	21.63	92.2%	93.9%	3997243
<b>Min</b>	0.42	0.06	-38.7%	2.4%	1.0%	0.00	0.00	8.43	0.00	-35.2%	-23.6%	0
<b>Stan. Deviation</b>	0.63	1.00	8.1%	24.9%	21.0%	0.50	0.50	1.93	2.17	19.8%	19.9%	498631
<b>1998</b>												
<b>Number of obs.</b>	173	171	212	211	183	237	237	186	181	169	192	136
<b>Mean</b>	1.22	1.33	4.7%	58.9%	37.5%	0.56	0.48	17.71	0.96	19.5%	6.4%	119914
<b>Median</b>	1.00	0.99	4.7%	61.3%	33.9%	1.00	0.00	17.75	0.46	17.8%	3.6%	7175
<b>Max</b>	3.93	6.08	31.1%	99.8%	95.8%	1.00	1.00	22.30	21.63	90.5%	79.4%	4845584
<b>Min</b>	0.42	0.06	-42.8%	2.4%	1.0%	0.00	0.00	8.43	0.00	-27.3%	-38.6%	0
<b>Stan. Deviation</b>	0.63	1.00	8.6%	24.9%	21.0%	0.50	0.50	1.93	2.17	19.6%	18.0%	522536
<b>1999</b>												
<b>Number of obs.</b>	172	169	216	213	186	237	237	189	184	165	185	122
<b>Mean</b>	1.05	1.03	4.0%	60.7%	35.1%	0.57	0.48	17.56	1.37	17.5%	2.1%	148478
<b>Median</b>	0.88	0.77	3.8%	62.7%	31.0%	1.00	0.00	17.63	0.72	16.4%	0.3%	3024
<b>Max</b>	4.46	5.98	29.5%	100.0%	98.0%	1.00	1.00	22.45	26.37	80.4%	94.3%	4475889
<b>Min</b>	0.41	0.07	-20.9%	2.4%	2.4%	0.00	0.00	8.44	0.00	-33.7%	-39.1%	0
<b>Stan. Deviation</b>	0.61	0.84	7.7%	24.0%	21.2%	0.50	0.50	1.96	2.53	19.0%	16.3%	619599
<b>2000</b>												
<b>Number of obs.</b>	175	173	220	215	185	237	237	188	184	161	190	128
<b>Mean</b>	1.11	1.17	4.1%	61.1%	36.6%	0.57	0.48	17.71	1.36	19.2%	2.3%	90781
<b>Median</b>	0.95	0.91	3.6%	63.1%	33.3%	1.00	0.00	17.76	0.58	18.1%	-1.1%	2633
<b>Max</b>	3.55	4.68	28.5%	100.0%	98.0%	1.00	1.00	22.86	22.87	69.2%	95.1%	3840981
<b>Min</b>	0.42	0.07	-24.2%	0.5%	0.2%	0.00	0.00	8.45	0.00	-23.0%	-36.1%	0
<b>Stan. Deviation</b>	0.59	0.91	7.2%	24.3%	21.0%	0.50	0.50	2.04	2.66	16.8%	17.1%	421632
<b>2001</b>												
<b>Number of obs.</b>	178	176	216	222	186	237	237	189	185	190	199	141
<b>Mean</b>	1.02	1.05	3.7%	61.5%	35.1%	0.56	0.48	17.74	1.72	11.4%	3.7%	109526
<b>Median</b>	0.88	0.79	4.3%	62.9%	31.6%	1.00	0.00	17.75	0.61	8.4%	-0.5%	3077
<b>Max</b>	3.72	4.73	29.8%	100.0%	98.0%	1.00	1.00	22.82	28.18	90.7%	82.6%	4402062
<b>Min</b>	0.40	0.04	-46.8%	2.6%	2.6%	0.00	0.00	8.46	0.00	0.4%	-36.6%	0
<b>Stan. Deviation</b>	0.53	0.88	8.4%	24.2%	21.4%	0.50	0.50	2.09	3.49	13.5%	17.6%	463807
<b>2002</b>												
<b>Number of obs.</b>	181	178	205	214	187	237	237	193	186	182	182	142
<b>Mean</b>	1.07	1.15	4.2%	60.3%	34.4%	0.56	0.48	17.82	1.84	9.9%	-0.7%	87934
<b>Median</b>	0.94	0.87	4.4%	61.3%	30.7%	1.00	0.00	17.83	0.73	7.9%	-1.4%	2321
<b>Max</b>	3.27	5.77	28.2%	100.0%	99.7%	1.00	1.00	22.89	39.88	61.4%	57.0%	2363277
<b>Min</b>	0.40	0.04	-54.9%	0.0%	0.1%	0.00	0.00	11.68	0.00	0.1%	-39.1%	0
<b>Stan. Deviation</b>	0.52	0.98	8.6%	24.0%	21.9%	0.50	0.50	2.06	4.19	8.7%	13.6%	349906

**Table 7**

**Correlation Matrix for Main Variables**

	Tobin's q	MB Ratio	ROA	Concent	Coincid	DGroup	Dafp	LAEC	DE Ratio	Cash	Invest	Volume
<b>Tobin's q</b>	1											
<b>MB Ratio</b>	0.94 *	1										
<b>ROA</b>	0.33 *	0.40 *	1									
<b>Concent</b>	-0.13 *	-0.11 *	0.02	1								
<b>Coincid</b>	0.20 *	0.22 *	0.15 *	0.69 *	1							
<b>DGroup</b>	-0.01	0.02	0.13 *	-0.15 *	-0.11 *	1						
<b>Dafp</b>	0.13 *	0.18 *	0.25 *	-0.11 *	-0.04	0.39 *	1					
<b>LAEC</b>	0.08 *	0.14 *	0.17 *	-0.07 *	-0.10 *	0.46 *	0.55 *	1				
<b>DE Ratio</b>	-0.24 *	-0.28 *	-0.17 *	0.10 *	-0.35 *	0.01	-0.11 *	0.01	1			
<b>Cash</b>	0.32 *	0.37 *	0.64 *	0.01	0.17 *	0.05 *	0.20 *	0.05 *	-0.13 *	1		
<b>Invest</b>	0.15 *	0.17 *	0.21 *	-0.03	0.04	0.08 *	0.14 *	0.17 *	-0.11 *	0.25 *	1	
<b>Volume</b>	-0.07 *	-0.07 *	-0.07 *	-0.18 *	-0.18 *	0.12 *	-0.03	0.14 *	0.05	-0.03	0.05	1

**Table 8**

**OLS Pooled Regressions for Coincidence of Cash and Control Rights on Tobin's q**

Annual data from 1990 to 2002 for 177 companies

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Concent</b>	-0.330 <i>-4.8</i> 0.0%	-	-1.431 <i>-13.0</i> 0.0%	-	-	-1.404 <i>-12.5</i> 0.0%
<b>Coincid</b>	-	0.266 <i>3.0</i> 0.2%	1.755 <i>12.4</i> 0.0%	-	-	1.728 <i>12.1</i> 0.0%
<b>DGroup</b>	-	-	-	0.049 <i>1.2</i> 21.7%	-	-0.017 <i>-0.4</i> 66.0%
<b>Dafp</b>	-	-	-	-	0.145 <i>3.6</i> 0.0%	0.081 <i>2.1</i> 3.8%
<b>LAEC</b>	0.052 <i>5.4</i> 0.0%	0.065 <i>6.7</i> 0.0%	0.051 <i>5.4</i> 0.0%	0.056 <i>5.2</i> 0.0%	0.043 <i>4.0</i> 0.0%	0.043 <i>3.9</i> 0.0%
<b>DE Ratio</b>	-0.061 <i>-7.5</i> 0.0%	-0.053 <i>-6.1</i> 0.0%	0.015 <i>1.6</i> 11.7%	-0.063 <i>-7.8</i> 0.0%	-0.058 <i>-7.1</i> 0.0%	0.017 <i>1.7</i> 8.3%
<b>Cash</b>	0.953 <i>10.1</i> 0.0%	0.903 <i>9.5</i> 0.0%	0.790 <i>8.8</i> 0.0%	0.945 <i>10.0</i> 0.0%	0.920 <i>9.8</i> 0.0%	0.781 <i>8.6</i> 0.0%
<b>Invest</b>	0.117 <i>1.3</i> 20.1%	0.125 <i>1.4</i> 17.1%	0.076 <i>0.9</i> 37.9%	0.127 <i>1.4</i> 16.7%	0.128 <i>1.4</i> 16.3%	0.078 <i>0.9</i> 37.0%
<b>Industry dummies</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Time dummies</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Number of obs</b>	1413	1418	1413	1418	1418	1413
<b>F( 29, 1383)</b>	33.8	33.0	41.7	32.5	33.2	39.1
<b>Prob &gt; F</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>R-squared</b>	0.388	0.381	0.449	0.378	0.383	0.450
<b>Adj R-squared</b>	0.376	0.370	0.438	0.366	0.371	0.439
<b>Root MSE</b>	0.568	0.571	0.540	0.572	0.570	0.539

**Table 9**

**OLS Pooled Regressions for Coincidence of  
Cash and Control Rights on Different  
Indicators of Firm Valuation and  
Performance**

Annual data from 1990 to 2002 for 177 companies

---

	<b>Tobin's q</b>	<b>M to B Ratio</b>	<b>ROA</b>
<b>Concent</b>	-1.404	-1.772	-0.040
	-12.5	-9.6	-3.9
	0.0%	0.0%	0.0%
<b>Coincid</b>	1.728	2.348	0.070
	12.1	10.0	5.5
	0.0%	0.0%	0.0%
<b>DGroup</b>	-0.017	-0.043	0.011
	-0.4	-0.7	2.9
	66.0%	48.7%	0.4%
<b>Dafp</b>	0.081	0.111	0.014
	2.1	1.7	3.8
	3.8%	8.3%	0.0%
<b>LAEC</b>	0.043	0.109	-0.001
	3.9	6.1	-1.0
	0.0%	0.0%	29.7%
<b>DE Ratio</b>	0.017	-0.026	-0.003
	1.7	-1.5	-3.6
	8.3%	13.0%	0.0%
<b>Cash</b>	0.781	1.551	0.257
	8.6	10.4	30.7
	0.0%	0.0%	0.0%
<b>Invest</b>	0.078	0.161	-0.015
	0.9	1.1	-1.8
	37.0%	25.5%	6.6%
<b>Industry dummies</b>	Yes	Yes	Yes
<b>Time dummies</b>	Yes	Yes	Yes

---

<b>Number of obs</b>	1413	1401	1467
<b>F( 29, 1383)</b>	39.1	37.7	62.3
<b>Prob &gt; F</b>	0.0%	0.0%	0.0%
<b>R-squared</b>	0.450	0.443	0.557
<b>Adj R-squared</b>	0.439	0.432	0.548
<b>Root MSE</b>	0.539	0.875	0.051

---

Table 10

## OLS Cross Section Regressions for Coincidence of Cash and Control Rights on Tobin's q

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Concent</b>	-2.967	-2.174	-2.938	-2.731	-3.829	-1.742	-1.153	-1.121	-0.877	-0.825	-1.055	-0.965
	-3.0	-3.6	-4.2	-3.6	-3.2	-2.1	-4.5	-4.3	-2.1	-2.8	-3.7	-3.8
	0.3%	0.1%	0.0%	0.1%	0.2%	3.8%	0.0%	0.0%	3.4%	0.6%	0.0%	0.0%
<b>Coincid</b>	3.099	2.126	3.157	3.284	4.546	2.259	1.427	1.241	1.543	1.216	1.313	1.515
	2.5	2.9	3.7	3.6	3.1	2.1	4.2	3.5	2.7	2.9	3.7	4.6
	1.5%	0.5%	0.0%	0.1%	0.2%	3.6%	0.0%	0.1%	0.8%	0.5%	0.0%	0.0%
<b>DGroup</b>	-0.070	-0.187	-0.244	0.376	0.119	-0.078	0.019	-0.014	-0.040	0.048	-0.078	0.024
	-0.3	-1.0	-1.2	1.8	0.6	-0.5	0.2	-0.2	-0.4	0.5	-0.8	0.3
	76.8%	32.0%	24.9%	7.4%	55.8%	65.0%	83.2%	87.8%	71.7%	63.0%	41.3%	79.2%
<b>Dafp</b>	0.239	0.054	0.223	0.127	0.213	-0.084	-0.074	-0.029	-0.029	0.046	0.037	0.100
	1.1	0.3	1.1	0.6	1.1	-0.5	-0.8	-0.3	-0.2	0.4	0.3	1.0
	29.6%	77.2%	28.0%	56.7%	28.0%	62.6%	42.6%	75.7%	81.2%	66.8%	73.2%	32.7%
<b>LAEC</b>	0.068	0.053	0.091	0.084	-0.043	0.076	0.014	0.032	-0.001	0.022	0.030	0.031
	1.0	1.0	1.6	1.6	-0.8	1.6	0.5	1.2	0.0	0.8	1.1	1.2
	30.0%	31.0%	10.9%	11.7%	42.4%	11.3%	63.3%	24.9%	98.2%	45.0%	26.7%	22.7%
<b>DE Ratio</b>	0.203	0.124	0.130	0.180	0.651	-0.146	-0.023	-0.019	0.024	0.008	0.013	0.007
	0.9	1.9	2.4	2.3	1.8	-0.7	-1.3	-1.0	0.4	0.2	0.6	0.4
	38.1%	5.6%	1.8%	2.4%	7.6%	49.1%	21.3%	31.6%	71.4%	86.0%	55.8%	70.9%
<b>Cash</b>	1.672	1.203	1.744	1.500	0.878	0.155	1.115	0.883	0.250	0.672	-0.264	0.236
	3.7	3.1	3.4	3.3	2.1	0.4	5.0	4.1	0.9	2.5	-0.8	0.4
	0.0%	0.2%	0.1%	0.2%	4.2%	68.1%	0.0%	0.0%	37.4%	1.5%	41.6%	69.0%
<b>Invest</b>	-0.251	-0.020	0.168	0.106	-0.238	-0.089	0.048	0.259	-0.252	0.100	0.229	0.246
	-0.4	-0.1	0.3	0.3	-0.6	-0.2	0.2	1.2	-0.9	0.4	1.0	0.8
	69.2%	95.1%	74.3%	79.8%	56.9%	81.8%	83.8%	22.4%	35.1%	69.3%	34.4%	43.6%
<b>Industry dummies</b>	Yes											
<b>Number of obs</b>	97	96	97	93	99	104	132	136	132	131	153	143
<b>F</b>	3.2	3.8	4.8	5.3	3.8	3.9	8.8	8.4	3.0	4.4	3.7	4.1
<b>Prob &gt; F</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>R-squared</b>	0.421	0.469	0.524	0.563	0.463	0.449	0.584	0.564	0.320	0.412	0.330	0.372
<b>Adj R-squared</b>	0.287	0.345	0.414	0.457	0.343	0.332	0.517	0.497	0.212	0.317	0.240	0.280
<b>Root MSE</b>	0.718	0.590	0.672	0.652	0.657	0.607	0.388	0.402	0.470	0.429	0.466	0.438

**Table 11**

**Panel Regressions for Coincidence of Cash and Control Rights  
on Tobin's q**

Annual data from 1990 to 2002 for 177 companies

	OLS	GLS Het. Corr.	Random Effects	Fixed Effects	A-B Dynamic Panel
<b>Tobin's q (-1)</b>					0.108 5.3 0.0%
<b>Concent</b>	-1.404 -12.5 0.0%	-1.224 -18.8 0.0%	-1.913 -14.3 0.0%	-2.046 -13.9 0.0%	-1.321 -6.9 0.0%
<b>Coincid</b>	1.728 12.1 0.0%	1.702 19.4 0.0%	2.770 17.3 0.0%	3.056 17.6 0.0%	1.668 7.0 0.0%
<b>DGroup</b>	-0.017 -0.4 66.0%	-0.010 -0.5 62.5%	-0.225 -2.7 0.7%	-0.445 -2.1 3.3%	-0.088 -0.3 79.6%
<b>Dafp</b>	0.081 2.1 3.8%	0.078 4.0 0.0%	-0.105 -2.1 3.7%	-0.154 -2.7 0.7%	
<b>LAEC</b>	0.043 3.9 0.0%	0.056 8.3 0.0%	0.146 7.7 0.0%	0.244 9.4 0.0%	0.768 24.5 0.0%
<b>DE Ratio</b>	0.017 1.7 8.3%	0.026 0.0 0.0%	0.021 2.5 1.3%	0.021 2.4 1.5%	0.018 2.4 1.6%
<b>Cash</b>	0.781 8.6 0.0%	0.789 14.1 0.0%	0.762 9.2 0.0%	0.790 9.1 0.0%	0.116 1.7 8.1%
<b>Invest</b>	0.078 0.9 37.0%	-0.002 -0.1 96.1%	0.033 0.5 62.5%	-0.004 -0.1 95.1%	-0.134 -3.0 0.2%
<b>Industry dummies</b>	Yes		No	No	No
<b>Time dummies</b>	Yes		Yes	Yes	No
<b>Number of obs</b>	1413	1413	1413	1413	1413
<b>Number of groups</b>		177	177	177	177
<b>F( 29, 1383)</b>	39.1			82.5	
<b>Prob &gt; F</b>	0.0%			0.0%	
<b>Wald chi2</b>		3215.8	1833.9		1415.0
<b>Prob &gt; chi2</b>		0.0%	0.0%		0.0%
<b>Adj R-squared</b>	0.439				
<b>Root MSE</b>	0.539				

**Table 12****OLS Pooled Regressions for Coincidence of Cash and Control Rights on Tobin's q: Non-linear relationships explored**

Annual data from 1990 to 2002 for 177 companies

	(1)	(2)	(3)	(4)	(6)
<b>Concent</b>	-1.788 -5.7 0.0%	-	-1.295 -11.0 0.0%	-3.057 -9.7 0.0%	-3.262 -7.7 0.0%
<b>Concent2</b>	1.314 4.8 0.0%	-	-	1.447 5.6 0.0%	1.595 4.8 0.0%
<b>Coincid</b>	-	-1.716 -5.2 0.0%	0.682 1.7 8.2%	1.760 12.4 0.0%	2.098 4.3 0.0%
<b>Coincid2</b>	-	2.240 6.3 0.0%	1.050 2.9 0.4%	-	-0.336 -0.7 46.8%
<b>Controls</b>	Yes	Yes	Yes	Yes	Yes
<b>Industry dummies</b>	Yes	Yes	Yes	Yes	Yes
<b>Time dummies</b>	Yes	Yes	Yes	Yes	Yes
<b>Number of obs</b>	1413	1418	1413	1413	1413
<b>F( 29, 1383)</b>	32.1	32.5	38.3	39.6	38.4
<b>Prob &gt; F</b>	0.0%	0.0%	0.0%	0.0%	0.0%
<b>R-squared</b>	0.402	0.405	0.454	0.463	0.463
<b>Adj R-squared</b>	0.390	0.392	0.442	0.451	0.451
<b>Root MSE</b>	0.562	0.560	0.538	0.533	0.533

Table 13

2SLS Instrumental Variables Estimation for Coincidence of Cash Flow and Control Rights on Tobin's q

Instrument: Concentration dummy

(1990 - 2002)

(1994 - 2002)

Dep. Variable	IV Estimation (1990 - 2002)			IV Estimation (1994 - 2002)		
	OLS Tobin's q	First Stage Coincid	Second Stage Tobin's q	OLS Tobin's q	First Stage Coincid	Second Stage Tobin's q
<b>Dconc</b>	0.074 1.4 15.9%	0.254 31.5 0.0%			0.216 21.6 0.0%	
<b>Concent</b>	-1.524 -10.8 0.0%		-0.430 -3.8 0.0%	-0.978 -9.7 0.0%		-0.269 -2.5 1.3%
<b>Coincid</b>	1.727 12.1 0.0%		0.301 1.4 16.7%	1.309 10.2 0.0%		0.234 1.0 31.4%
<b>DGroup</b>	-0.013 -0.3 73.8%	0.005 0.5 59.5%	0.012 0.3 76.3%	-0.001 0.0 98.2%	0.000 0.0 98.4%	0.013 0.4 72.0%
<b>Volume</b>				0.000 -3.2 0.1%	0.000 -3.0 0.3%	0.000 -3.1 0.2%
<b>Dafp</b>	0.080 2.1 4.0%	0.014 1.4 15.6%	0.123 3.0 0.3%	0.101 2.8 0.5%	0.017 1.5 14.3%	0.140 3.7 0.0%
<b>LAEC</b>	0.045 4.1 0.0%	0.005 2.0 4.9%	0.037 3.2 0.1%	0.032 3.1 0.2%	-0.006 -1.8 7.4%	0.027 2.4 1.5%
<b>DE Ratio</b>	0.017 1.7 9.0%	-0.033 -20.3 0.0%	-0.046 -4.3 0.0%	0.002 0.2 84.8%	-0.040 -18.0 0.0%	-0.039 -3.5 0.1%
<b>Cash</b>	0.793 8.7 0.0%	0.145 6.4 0.0%	0.911 9.4 0.0%	0.585 6.7 0.0%	0.086 3.0 0.3%	0.666 7.2 0.0%
<b>Invest</b>	0.078 0.9 36.8%	0.011 0.5 61.9%	0.116 1.3 20.5%	0.256 3.1 0.2%	0.024 0.9 38.2%	0.305 3.5 0.1%
<b>Industry dummies</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Time dummies</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Number of obs</b>	1413	1481	1413	915	928	915
<b>F( 29, 1383)</b>	37.9	58.6	30.9	41.3	41.8	33.5
<b>Prob &gt; F</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>R-squared</b>	0.451	0.531	0.393	0.557	0.547	0.505
<b>Adj R-squared</b>	0.439	0.522	0.380	0.543	0.534	0.490
<b>Root MSE</b>	0.539	0.141	0.567	0.393	0.133	0.415

**Table 14**

**Dividend Pay-out Ratio and Coincidence of Cash-flow-rights to Control-rights**

(Chile: 1994 - 2002)

**Generalized Least Squares, Heterocedasticity Corrected**

<b>Group</b>	0.080 0.1%		0.077 0.1%	0.077 0.1%	0.109 6.2%
<b>Coincidence</b>		-0.083 19.9%	-0.050 44.2%	-0.030 63.8%	0.010 91.3%
<b>Coincidence*Group</b>					-0.058 58.5%
<b>Pension Fund</b>				0.100 0.0%	0.103 0.0%
<b>Tobin's q</b>	0.155 0.0%	0.150 0.0%	0.155 0.0%	0.143 0.0%	0.140 0.1%
<b>Tobin's q*Group</b>					-0.001 99.0%
<b>Cash flow</b>	0.578 1.7%	0.552 2.3%	0.581 1.6%	0.564 1.9%	0.715 3.2%
<b>Cash flow*Group</b>					-0.235 48.3%
<b>Assets</b>	-0.002 79.8%	0.004 50.4%	-0.002 71.6%	-0.013 5.8%	-0.011 10.7%
<b>Debt</b>	-0.387 0.0%	-0.452 0.0%	-0.417 0.0%	-0.381 0.0%	-0.357 0.0%
<b>Time dummies</b>	Yes	Yes	Yes	Yes	Yes
<b>Industry dummies</b>	Yes	Yes	Yes	Yes	Yes
<b>Wald test</b>	412.25	398.12	413.06	436.21	420.65
<b>p</b>	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Number of comp.</b>	178	178	178	178	177
<b>Number of obs.</b>	1117	1117	1117	1117	1085

Table 15

Dividend Pay-out Ratio and Coincidence of Cash-flow-rights to Control-rights

(Chile: 1994 - 2002)

	Random Effects	Fixed Effects	Generalized Least Squares	Panel Tobit LC=0	Panel Tobit LC=0.3
<b>Group</b>	0.201 6.0%	0.137 37.2%	0.230 0.0%	0.244 8.9%	0.330 2.6%
<b>Coincidence</b>	0.969 2.2%	1.239 1.8%	1.108 0.0%	1.445 0.9%	1.504 0.7%
<b>(Coincidence)2</b>	-1.157 1.1%	-1.473 0.9%	-1.177 0.0%	-1.653 0.5%	-1.676 0.4%
<b>Coincidence*Group</b>	-0.683 15.1%	-1.245 2.9%	-0.832 0.3%	-1.064 8.3%	-1.169 5.8%
<b>(Coincidence)2*Group</b>	0.694 19.1%	1.232 5.8%	0.805 1.3%	1.037 12.1%	1.176 7.9%
<b>Tobin's q</b>	0.045 35.5%	-0.112 8.7%	0.112 0.0%	-0.047 44.6%	0.029 63.2%
<b>Tobin's q*Group</b>	-0.025 62.8%	0.007 91.8%	0.031 28.5%	-0.021 73.5%	-0.043 47.2%
<b>Cash flow</b>	0.409 17.5%	0.210 49.7%	0.595 0.1%	0.762 4.3%	0.363 31.7%
<b>Cash flow*Group</b>	-0.123 68.6%	-0.039 90.1%	-0.077 70.9%	-0.291 43.4%	-0.258 46.8%
<b>Assets</b>	0.000 97.1%	0.053 9.3%	-0.003 52.3%	0.042 0.1%	-0.002 90.6%
<b>Debt</b>	-0.396 0.0%	-0.456 0.0%	-0.333 0.0%	-0.665 0.0%	-0.478 0.0%
<b>Pension Fund</b>	0.110 0.8%	0.017 89.2%	0.099 0.0%	0.133 0.5%	0.173 0.4%
<b>Time dummies</b>	Yes	Yes	Yes	Yes	Yes
<b>Industry dummies</b>	Yes	No	Yes	Yes	Yes
<b>Alpha</b>	0.418564	0.420593	0.470804	0.436994	0.448524
<b>Alpha*Group</b>	0.308586	-0.011778	0.371893	0.309425	0.334579
<b>Wald test</b>	168.5		1368.6	221.0	167.4
<b>p</b>	0.0%		0.0%	0.0%	0.0%
<b>F test</b>		3.9			
<b>p</b>		0			
<b>Sigma ui</b>	19.2%			30.1%	0.251
<b>Sigma e</b>	25.1%			28.4%	0.260
<b>Number of comp.</b>	177	177	177	177	177
<b>Number of obs.</b>	1085	1085	1085	1085	1085

Table 16

Pairwise Correlations of Key Variables  
Chile, 2003

	Tobin's q	Separ.	Disclos.	Board	Share.	Conflict	CGI	Assets	Debt	Pension F.
<b>Tobin's q</b>	100.0%									
<b>Separation</b>	27.9%	100.0%								
<b>Disclosure</b>	-0.5%	4.6%	100.0%							
<b>Board</b>	8.9%	-3.3%	28.9%	100.0%						
<b>Shareholders</b>	-0.6%	-2.1%	-14.8%	5.8%	100.0%					
<b>Conflict</b>	16.7%	5.1%	23.8%	34.3%	-11.2%	100.0%				
<b>CGI</b>	6.7%	0.5%	61.9%	76.1%	19.9%	66.9%	100.0%			
<b>Assets</b>	8.8%	-18.5%	11.7%	10.7%	25.7%	-17.3%	9.5%	100.0%		
<b>Debt</b>	-45.8%	-71.9%	-4.9%	-9.6%	10.8%	-17.9%	-10.6%	23.3%	100.0%	
<b>Pension Fund</b>	19.2%	1.3%	-0.3%	4.7%	3.7%	-14.3%	-7.8%	47.5%	3.3%	100.0%

**Table 17**

**Ordered Logit Regressions of CG Indices on Control Variables**

**Chile, 2003**

	<b>CGI</b>	<b>Disclos.</b>	<b>Board</b>	<b>Share.</b>	<b>Conflict(*)</b>
<b>Assets</b>	0.294 0.9%	0.208 9.4%	0.283 1.5%	0.320 0.7%	-0.016
<b>Debt</b>	-1.631 5.6%	-0.866 37.4%	-1.685 6.7%	0.182 83.8%	-1.740
<b>ROA</b>	1.254 42.6%	2.900 14.1%	2.249 22.8%	-1.733 34.2%	-0.162
<b>Liquidity</b>	-2.758 13.7%	-2.891 18.3%	-1.546 44.3%	2.255 27.2%	-2.371
<b>Industry dummies</b>	Yes	Yes	Yes	Yes	Yes
Number of obs.	100	100	100	100	100
LR chi2(14)	24.98	24.16	25	20.2	35.46
P Value	0.0347	0.0438	0.0346	0.1241	0.0013
Pseudo R2	0.0601	0.1107	0.0928	0.085	0.1683

(\*) Convergence not achieved.

**Table 18**  
**Corporate Governance Practices and Firm Market Valuation**  
(Chile: 2003)

	OLS	OLS	OLS	OLS	OLS	OLS	IV Estimation	
	Tobin's q	First Stage	Second Stage					
<b>DSize</b>							0.367	
							18.3%	
<b>Source</b>	-0.218	0.022	0.032	-0.067	-0.032	0.026	0.497	-0.050
	6.6%	82.7%	74.9%	52.1%	73.5%	79.8%	0.7%	81.3%
<b>Disclosure</b>	0.049	0.031						
	45.2%	64.0%						
<b>Board</b>	-0.009		0.016					
	86.2%		74.6%					
<b>Shareholders</b>	-0.168			-0.126				
	0.5%			3.4%				
<b>Conflict</b>	0.188				0.154			0.192
	0.4%				1.5%			14.8%
<b>CGI</b>						0.008		
						71.9%		
<b>Concent</b>	-0.749	-0.768	-0.743	-0.764	-0.717	-0.750	-0.133	-0.708
	1.6%	2.2%	2.7%	1.8%	2.5%	2.5%	83.2%	4.1%
<b>Coincid</b>	0.898	0.846	0.835	0.906	0.822	0.836	-0.007	0.816
	0.2%	0.7%	0.9%	0.3%	0.7%	0.9%	99.0%	1.1%
<b>DGroup</b>	-0.018	-0.101	-0.103	-0.085	-0.055	-0.101	-0.354	-0.044
	84.7%	31.7%	30.6%	38.4%	57.2%	31.6%	7.0%	78.0%
<b>DAFP</b>	0.091	0.210	0.216	0.152	0.194	0.217	0.134	0.188
	43.7%	8.7%	7.6%	21.0%	9.6%	7.4%	55.7%	16.3%
<b>LAEC</b>	0.027	0.009	0.009	0.029	0.006	0.008	-0.034	0.005
	37.5%	77.2%	77.2%	36.6%	84.1%	80.1%	66.5%	88.6%
<b>DE Ratio</b>	-0.002	-0.012	-0.014	-0.007	-0.013	-0.013	0.014	-0.013
	86.0%	41.7%	35.2%	64.5%	33.9%	35.4%	63.0%	35.9%
<b>Cash</b>	0.825	0.752	0.618	1.725	-0.287	0.567	7.180	-0.542
	70.7%	74.3%	79.1%	44.6%	89.8%	81.0%	10.2%	87.8%
<b>Industry dummies</b>	Yes	Yes						
<b>Number of obs</b>	85	85	85	85	85	85	85	85
<b>F( 29, 1383)</b>	3.0	2.3	2.3	2.7	2.8	2.3	2.4	2.3
<b>Prob &gt; F</b>	0.0%	0.8%	0.8%	0.2%	0.1%	0.8%	0.4%	0.8%
<b>R-squared</b>	0.517	0.398	0.397	0.436	0.449	0.397	0.416	0.398
<b>Adj R-squared</b>	0.345	0.222	0.220	0.272	0.288	0.221	0.245	0.222
<b>Root MSE</b>	0.330	0.359	0.360	0.348	0.344	0.360	0.680	0.359