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Determinants of Ownership Concentration and Tender Offer Law in the Chilean Stock Market

by

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Abstract

This paper analyzes econometrically the determinants of ownership concentration in the Chilean stock market, with particular attention to the effects of the Tender Offer Law (OPA law). Even though the central purpose of OPAs Law is achieved, the tender offer mechanism increases the ownership concentration. The main reason for this effect has to do with the "residual OPA" obligation considered by the law.

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1 Introduction

The law and finance literature have extensively analyzed the relation between ownership concentration and legal protection to minority shareholders. At the empirical level, statistical evidence indicates that in average ownership is more concentrated in countries where legal protection is weaker.

Following La Porta et al. (1998, 1999), when the legal protection is weak the ownership concentration become a substitute for investors, given that large shareholders have a higher probability to receive a positive return for their investment. On the other hand, investors would be willing to take minority positions and to finance firms in countries where legal rules exist and its enforcement is effective.

However, the concept of weak or strong legal protection is not always clear. The same papers above propose that better accounting standards reduce ownership concentration, while mandatory dividend payments increases concentration. In the same line, Faccio et al. (2001) analyze the dividend policies for several countries in Asia and Europe, finding that in european countries concentration is higher even though firms there pay proportionally larger dividends than firms in asian countries. If we consider that higher dividends are related to better legal protection, then the relation between concentration and legal protection to shareholders wouldn't be inverse as suggested by empirical evidence.

This contradiction could be solved by the arguments presented by Bukart and Pa-

nunzi (2006). Beyond the popular idea that legal protection reduces the probability that managers deviate resources from the firm, this paper considers the relationship between the quality of law and the incentives of shareholders for monitoring to managers. This way, when the law is a substitute for monitoring, then legal protection to shareholders could increase ownership concentration more than reducing it as we expect from the average empirical evidence. On the other hand, ownership concentration would depend on the trade-off between the manager's initiative and shareholder's monitoring which is directly related to the law. Then, in countries with a strong legal protection monitoring is higher, and ownership concentration is not required as protection to shareholders. Hence, while some rules or laws are complements for monitoring, others are substitutes producing this direct relationship between legal protection and ownership concentration that contradicts the average empirical evidence.

Finally, Musacchio (2007) analyzes the historical evolution of ownership concentration and legal protection to minority shareholders in Brazil. His work is mainly focused on the effects of voting systems limiting power to larger shareholders, as well as in regulations ensuring the payment of dividends, on the ownership concentration for firms where property is disperse. Even though the results are not statistically conclusive, there is some evidence supporting policies limiting the voting rights for larger shareholders, beyond legal protection of minorities, with the objective to reduce

ownership concentration.

This paper analyzes econometrically the determinants of ownership concentration in the Chilean stock market, with particular attention to the effects of the Tender Offer Law (OPA law). Section 2 begins with a description of the main variables commonly cited in the literature as determinants for ownership concentration.. Section 3 outlines the basic aspects of the OPAs law, considering how it protects the interests of minority shareholders during an exchange of control in the firm. Section 4 presents the econometric analysis, including a description of the dataset and the results from the estimation. Finally, section 5 presents the conclusions derived from empirical evidence and discusses about the research agenda for future work.

2 Determinants of Ownership Concentration

Beside the existence and quality of laws protecting minority shareholders, as well as those related to corporate governance, other firm's specific (size, financial ratios, etc.) or aggregate variables (market capitalization and liquidity, per-capita income, etc.) should be considered as potential determinants for ownership concentration in the market.

Even though the empirical analysis of these determinants should be based on the specification of a function coming from first principles (first order conditions from a utility maximization problem solved for the shareholders and their interaction),

most of the statistical evidence comes from cross section studies for several countries including those variables that could affect ownership concentration, but under no consistent model building approach.

Among the firm's specific variables usually considered as determinants for ownership concentration we have size, leverage and dividend policy of the company.

A first argument says that the larger the size of the firm, the larger the number of shareholders required to complete the stock of capital and the property must be more disperse. However, if we consider that in most of the countries -with the exception of US, UK and Japan- companies are usually controlled by families or even a single person, and there is no significant deviation from the rule "one share one vote" (implying that voting rights are proportional to property stake), then the control is obtained mainly through ownership concentration. Hence, in this case any equity increase would come from the larger shareholders, instead of adding more minority shareholders to the company, increasing the ownership concentration.

Second, a higher level of debt -measured by financial leverage- indicates better access to banking and bond financing, reducing the need for a larger number of minority shareholder for financing new investment projects. This way, a larger leverage may have a direct relation with ownership concentration.

In addition, dividend policy is considered as a protection mechanism for minority shareholders given a potential expropriation from controllers. In fact, policies con-

sidering minimum percentages of dividend payouts could be seen as substitutes for specific legal protection to small shareholders. Then, the larger the percentage of dividend payment (above a possible legal minimum), the larger the number of minority shareholders willing to enter the company. So, ownership concentration should have an inverse relation with the dividend payment. However, as discussed in the introduction the relationship could be direct if the dividend payout policy induces a lower monitoring by shareholders.

Pension Funds, given the regulatory limits on their investments, are minority shareholders by definition. However, since those institutional investors have teams of well trained financial analysts and moreover, several Funds could vote as a block to gain a seat at the Board of the company, they are able to monitor managers and maybe to improve the corporate governance of the firms. All these action may induce a more disperse ownership concentration, by reducing the control premium to large shareholders or giving more confidence to minorities to participate. In the Chilean case the role of Pension Funds could be particularly important, given the significant level of funds accumulated from the start of the private pension system at the beginning of 80s.

In terms of aggregate variables (common to all firms), a deep and complete stock market -measured by market capitalization to GDP- should facilitate minority shareholders entering firms, helping to reduce ownership concentration. In the same line,

per-capita GDP as a proxy for average income should have a direct relationship with the number of minority shareholders, helping to reduce concentration.

3 Tender Offer Law

The OPAs law -published on december of year 2000- regulates the process of exchange of corporate control by a tender offer mechanism, identifying the cases when the offer must be made, the information to be disclosure to shareholders, the time period the offer must be hold, as well as the prorata conditions whenever the tender offer generates a excess supply of shares. In addition, the law establishes the conditions under which there is no mandatory tender offer, as well as a transitory period -of three years- where control could be exchanged outside the tender offer mechanism.

The tender offer mechanism gives all the shareholders the same price and opportunity to sell their shares to the new controller, who informs the percentage to buy and the time period the offer will be hold. In addition, the buyer indicates the prorata conditions to assign the shares when the supply is larger than demand, in order to ensure that all the shareholders have similar opportunities to sell shares to the controller.

In analyzing ownership concentration it is interesting to highlight the role of "residual OPAs" whenever the controller achieve two-thirds of voting rights (shares representing that percentage), no matter if this participation was obtained by a tender offer

or any other acquisition mechanism. This residual tender offer obligation is supported by the fact that with two-thirds of voting rights the controller have no opposition to rule the company, even for those actions requiring qualified quorum. On the other hand, the obligation could be justified by considering the reduced liquidity faced by minority shareholders once just one-third of the company is traded in the market, and the corresponding liquidity premium affecting prices. However, given this last situation the law includes the right to retirement for minority shareholders, who could sell their shares to the firm at the average market value for the previous two months.

Overall, the main element incorporated by the Tender offer Law -in order to protect minority shareholders- is the impossibility for large shareholders to receive a "control premium" when selling their property, given that the mechanism offer the same conditions for all the shareholders no matter the percentage of the company they own.

4 Econometric Analysis

4.1 Data Description

The dataset includes 67 firms listed at the Santiago Stock Exchange, during the period 1990-2007. Even though the total number of listed firms is larger we excluded companies with a significant State property, firms with low or no trade, as well as those firms with incomplete or not reliable data.

To measure ownership concentration the international literature usually considers the sum of the three largest shareholders, considering that companies in countries like US, UK or Japan are widely held. However, in the Chilean case the main shareholder -in average- owns almost half of the company, followed by one-seventh and one-sixteenth corresponding to the second and third shareholder respectively. This way, by looking at the sum of the first three shareholders we are assuming an homogeneous behavior between them, but in fact they could have a totally different response to the variables determining the ownership concentration.

In terms of independent variables, Equity of the company is measured in millions of Chilean pesos at constant 2003 prices, while financial Leverage corresponds to the total debt divided by equity, as of December of each year. Given the mandatory dividend payout of 30% of previous year earnings, the variable indicates the payment in excess of that minimum.

The Pension Funds variable measures the overall share of the group of funds, provided they are among the top-ten shareholders of the firm. Aggregate variables, as market capitalization to GDP and GDP per capita, are all measured at constant 2003 prices.

By looking at the size (equity) of companies, we can see in Figure 2 that the distribution is less skewed to small companies by the end of the sample. The average

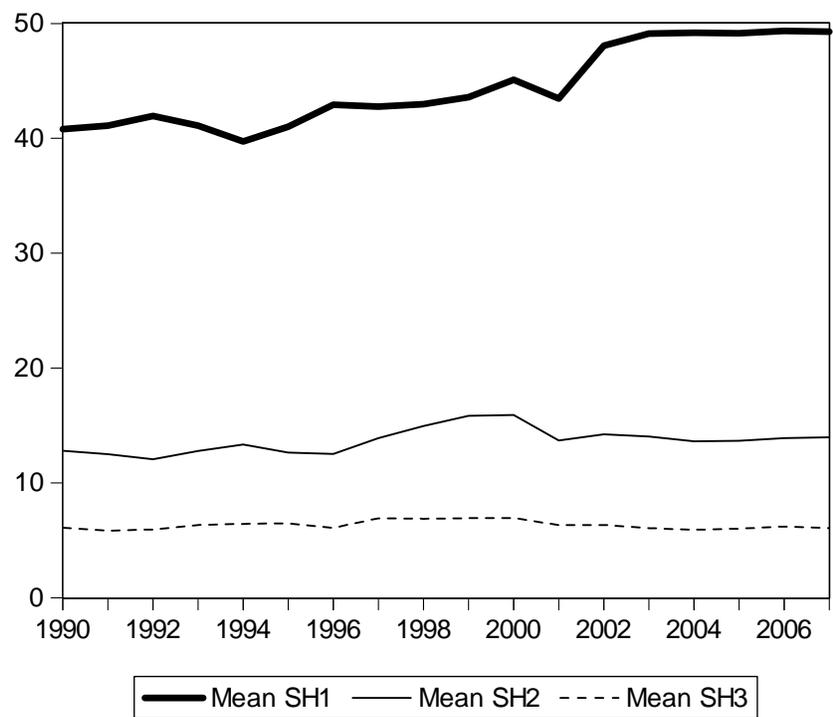


Figure 1: Mean Shareholder's Ownership

size -for years 1998 and 2007- is between 100 to 500 millions of dollars.

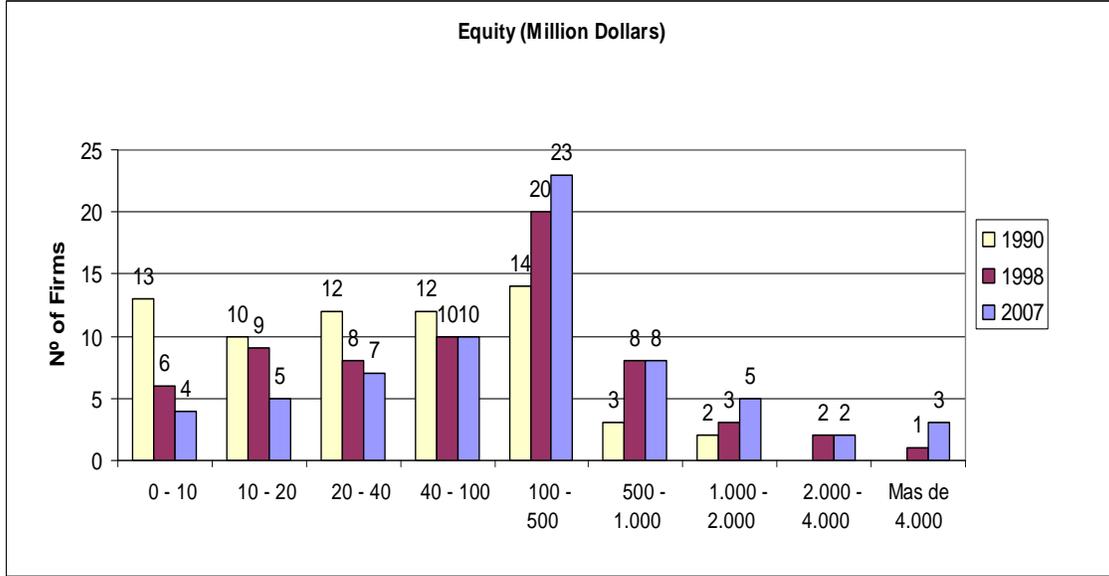


Figure 2: Size distribution of companies

4.2 Panel Estimation

The following specification is estimated by Fixed Effects Panel methods, considering 4 alternative shareholder's share as dependent variable

$$\begin{aligned}
 SHARE_{j,t} = f & (C, DIV_{j,t-1}^{+-}, \ln EQ_{j,t}^{+-}, \ln LEV_{j,t}^{+-}, \ln GDP_PC_{j,t}^-, MC_GDP_{j,t}^-, \\
 & PF_{j,t}^-, OPA_{j,t}^{+-}, TRANS_{j,t}^{+-}, SHARE_{j,t-1}^{+-})
 \end{aligned}$$

Dividends are lagged one period to avoid its potential endogeneity, since the payout policy may depend on ownership concentration.

The effect from the OPAs Law is represented by a dummy variable taking value equal to 1 for year 2001 on, and 0 otherwise. The transition period is considered by a second dummy variable equal to 1 for year 2001, and 0 for the rest of the sample. In this later case, only during the first year made sense to sell the control outside the tender offer mechanism since the premium they could pay for doing this later in the transition period will be larger (the reputational cost was supposed to be increasing during the transition period to the eyes of domestic and foreign institutional investors).

Lagged dependent variable is included to take into account autocorrelation in the error term. The resulting dynamic panel model is consistently estimated by a Fixed Effects method since the bias in the autoregressive coefficients goes to zero as time series observations go to infinity. On the other hand, the rest of the parameters are unbiased provided the independent variables are strictly exogenous.

4.3 Estimation Results

The following table presents the econometric results, for each of the four dependent variables used as measures of ownership concentration. The first column contains the regression model for the popular definition considering the top three shareholders. The next three models consider the first, second and third shareholder in order to check if the inference from the popular analysis is appropriate for the Chilean case.

Table 1: Ownership Concentration (Fixed Effects Panel Estimation)

Dependent variable: Shareholder's share				
Independent variable	Top-three	First	Second	Third
Constant	-0.7180 (0.01)	0.0855 (0.75)	-0.6157 (0.00)	-0.2234 (0.02)
Dividend Payout (-1)	-0.0099 (0.04)	-0.0214 (0.00)	0.0127 (0.00)	-0.0007 (0.69)
Log (Equity)	0.0076 (0.10)	0.0173 (0.00)	-0.0053 (0.09)	-0.0038 (0.03)
Log (Leverage)	0.0009 (0.57)	0.0005 (0.78)	-0.0005 (0.67)	0.0005 (0.39)
Log (GDP per-capita)	0.0529 (0.01)	-0.0167 (0.45)	0.0509 (0.00)	0.0210 (0.01)
Market Capitalization/GDP	-0.0431 (0.00)	-0.0350 (0.00)	-0.0085 (0.12)	-0.0011 (0.73)
Pension Funds' share	-0.2069 (0.00)	-0.2311 (0.00)	0.0167 (0.56)	0.0121 (0.46)
Tender Offer Law dummy	0.0066 (0.24)	0.0185 (0.00)	-0.0087 (0.02)	-0.0047 (0.03)
Transition 2001 dummy	-0.0637 (0.00)	-0.0432 (0.00)	-0.0157 (0.00)	-0.0024 (0.43)
Lagged Dependent variable	0.7784 (0.00)	0.7934 (0.00)	0.7055 (0.00)	0.6977 (0.00)
Adjusted R^2	0.9385	0.9383	0.8482	0.7988
Number of observations	1139	1139	1139	1139

P-value in parentheses

As we can see from the estimation results above, dividend policy reduces ownership concentration for the first shareholder -as well as for the top three- while is increasing it for the second one (for the third the coefficient is not different from zero). A similar contradiction is shown by the level of equity, which has a direct relationship with the

first and with the top three shareholders, but negative for the second and third. In the same line, pension fund's property reduces concentration if we look at the top three shareholders, but this is really explained by a lower ownership concentration just for the first one (for the second and third shareholder the coefficient is positive but not different from zero).

GDP per capita seems to increase concentration, even though it has no statistical effect on the first shareholder share. On the other hand, a deeper market is reducing overall concentration.

The Tender Offer Law produces an increase in concentration for the first shareholder, but is reducing the share of the second and third, making even more concentrated the ownership of the companies after its implementation. The transition period seems to induce a lower ownership concentration, despite the coefficient is not statistically significant for the third shareholder.

5 Conclusions

Dividend payout policy reduces ownership concentration, what could be evidence on favor of a complementary role of legal protection and monitoring. It is interesting to note that the reduction on the first shareholder share is more than compensating the increase in the second shareholder participation, which in turn makes clear the opposite response between the controller and the following shareholders.

The direct relationship between equity and concentration for the controller, and the negative effect for the second and third shareholders, implies a higher concentration on larger companies and capital increases made by the main shareholder more than by including minorities.

The positive sign of GDP per-capita for the top-three shareholders, as well as for the second and the third, but statistically equal to zero for the controller means that the higher the average income of the country, relatively more minority shareholders are coming to the stock market.

A deeper stock market seems to help reducing concentration, as the positive sign for Market capitalization to GDP is telling us.

The role played by Pension Funds, in terms of monitoring and enhancing the corporate governance, is statistically significant in reducing ownership concentration.

Even though the central purpose of OPAs Law is achieved, the tender offer mechanism increases the ownership concentration. The main reason for this effect has to do with the "residual OPA" obligation considered by the law.

The current evidence of statistically significant opposite responses between the controller and the following two-top shareholders should be taken as a warning for international comparisons based on a common measure of ownership concentration, between stock markets with totally different property structures.

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