# **Control premium for Romanian listed companies**

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## Abstract

Control premium valuation is one of the main issues in Corporate Finance, strongly related to Corporate Governance principles and minority shareholders' protection. The aim of this paper is to estimate control premium for Romanian listed companies. Larger control premium could be an evidence for a low minority shareholders' protection. Control premium was estimated as the abnormal return at the moment of tender bid announcements. The median value for control premium is 44.62% and the mean value is 79.96%.

#### **JEL Classification:**

G34 - Mergers; Acquisitions; Restructuring; Corporate Governance

**Keywords:** Corporate Governance; Control premium; Minority shareholders' protection; Capital markets

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#### 1. Introduction

Finance literature mainstream emphasizes the differences in Corporate Governance practices, which vary from country to country. Doidge, Karolyi and Stulz [2004] state that most of this diversity in governance ratings across companies in less developed countries is mainly explained by economic characteristics of that country rather than companies' performances, typically used to explain governance choices. Better Corporate Governance enables companies to optimize the capital structure. One measure for good Corporate Governance could be the size of control premium. If someone is interested in paying more than the market price for a share that could be the result of one the following causes:

• The potential new controlling shareholder could change the general company's policy in order to achieve a better performance and, based on that, he / she is expecting in the future an increase in the market price of the shares. Not only controller shareholders will benefit of this price increase, but, also the smaller (minority) shareholders.

• The potential new controlling shareholders expect to take control over the corporation in order to obtain higher private benefits. In this case, the increase in wealth for controller shareholder is equivalent to a decrease of smaller shareholders' wealth.

Unfortunately, in the real world it is very difficult to state which one of these two cases applies. The minority shareholders are often confronted with unethical or illegal issues, such as: (1) controller shareholders may refuse to declare dividends; (2) controller shareholders may depress the corporate earnings by paying themselves excessive salaries and extra bonuses and / or by increasing expenditures (for instance, the company may pay high rent for property that is being leased from controller shareholders or other family members); (3) the controller shareholders could agree to sell corporate assets to themselves at prices that are substantially below the market value; (4) the assets and the clients are moved away from the business and another business is started, without the minority shareholders; (5) there are issued more stocks in order to dilute the minority shareholders' stake in company's share capital.

A minority shareholder can be, as well, a 49% or a 0.01% owner of the company's equity, thus control premium valuation is becoming one of the main issues in Corporate Finance. This study aims to analyze the above mentioned topic for Romanian listed companies. One specific aspect in former Communist economies is the presence of larger shareholders that could not be justified by the evolution that is characteristic for developed countries. For example, before 1989, the year of Romanian anti-Communist Revolution, private ownership was, practically, inexistent. As long as there is a category of wealthy investors on Romanian capital markets, it is possible that the larger shareholders existence to be not only an ethical problem but, also a threat for capital markets development (see the possibility to obtain abnormal returns by tunnelling, lighted by Johnson, La Porta, Lopez-de-Silanes and Shleifer [2000]). In fact, it is possible that the current ownership structure of Romanian companies to be the result of a previous minority shareholders expropriation. Therefore, the poor development of capital markets could be not only the result of current regulations but, also, a result of a poor protection of minority shareholders in the past. Based on this previous experience, Romanian investors could be reluctant to invest on the capital markets. For instance, in 2004, Romanian market capitalization represented only 14.3% of GDP.

The paper is structured as follows. In Section 2, it is reviewed the literature related to control premium estimation in different countries. In Section 3, there are presented some aspects on Romanian capital markets regarding the procedures used in Romania in order to assure the protection of minority shareholders, compared to other countries. Sections 4 and 5 present the database and methodology used in order to estimate the probability distribution of control premium. Section 6 presents the main empirical results and Section 7 contains the concluding remarks and some further issues that will be taken into consideration in next studies.

#### 2. Control Premium: A Short Review of International Results

The control premium could be explained not only by the reason of taking control over a company as that the new owner might change, by his / her decision, the value of the company, for the benefits of each shareholder, but for other reasons, too. Varaiya [1987] explains the premium in acquisition transactions by the magnitude of acquiring companies' estimation of acquisition gains and the acquired companies' relative bargaining strengths. Existence of a large control premium could induce the idea that the minority shareholders rights are not respected. This reality occurs not only in emerging markets, but in developed countries, too (see Johnson, La Porta, Lopez-de-Silanes and Shleifer [2000]).

Theoretically, control premium should be equal to the sum of each advantage produced by the controlling position. In this category of advantages could be included the positive effects of changing the management (considering here a new strategy, new policies within the companies, etc.), but also, expropriation of minority shareholders. Nenova [2000] finds that more than 70% of systematic differences in vote value are explained by the quality of investors' protection. However, as this study emphasized, the benefits that a controlling owner extracts from the value of a corporation are generally unobservable for the markets. Nevertheless, the vote value has large magnitudes from country to country. For example, if the vote value in Canada, South Africa, the UK, the US, and the Scandinavian countries is below 10% of the total value of the company (for instance, in Denmark is close to zero), in Mexico (the highest average control value) the estimation ranges between 46% and 51%. In Nenova [2000] paper were not presented indicators for East European Ex-Communist Countries.

Pratt, Reilly and Schweihs [1995] observed that control premiums represent 30%-40% in United States in the 80s and 90s. Between 1998 and 2000, the control premium spanned on an interval between 41.3% and 48.9%, while for Europe control premiums represents in some cases 80% of the former share price.

Zingales [1994] estimated control premium voting shares for stocks traded on Milan Stock Exchange between 1987 and 1990 and found that the size of premium represents 60% of the value of equity. Meeker and Joy [1980] estimated price premium on control shares for closely held bank stocks and found large premiums spanned on an interval between 50% and 70%. They also found that relatively small groups tend to dominate activity in the control shares market, and this behaviour is a clue that they value control more than larger groups.

Theoretically, the control premium could be estimated in various ways. For example, Nenova [2000] measures corporate control benefits, respectively the value that dominant vote-holders expropriate from a controlled company to the detriment of other shareholders. The author states that the dual-class firms (corporations with two classes of shares that differ only in their voting rights) are the only instance in which the value of vote is directly observable. Also, Nenova [2000] states that premium in block sales and price rises during proxy fights could be used to get an idea about the value of control, but there are significant problems with proper isolation of the vote value from intervening effects. Zingales [1995] argues that empirical results support for US firms that the price of a vote is determined by the expected additional payment vote which holders will receive for their votes in the case of a control contest.

However, if on the capital markets such dual-class shares are not existent, we have to accept the estimation of control premium based on the difference between Offer Price (in a Tender bid) and the share prices before this offer. More precisely, control premium represents the abnormal return in the day of announcement of the Tender bid (see Section 5).

# 3. Minority shareholders protection and control premium on Romanian capital markets

As Nenova [2000] suggests, an important component of control premium is given by the general perception of the capital markets participants regarding the way the rights of minority shareholders are respected. This section is structured as follows. In section 3.1, it will be made a comparative analysis between Romania and other countries situation regarding shareholders rights protection. In this section we focus on the law regulations and enforcement of the law. Section 3.2 presents some organizationally aspects for Romanian capital markets, which could influence the minority shareholders status. In Section 3.3, will be presented some aspects related to informational efficiency of Romanian capital markets.

#### 3.1. Shareholders' rights protection for Romanian companies

Shareholders' rights protection is one of the OECD principles regarding the good practice in Corporate Governance and it is fundamental for capital markets development. Important aspects of shareholders' rights protection are: the reliability on registration procedures of their property rights, the ways of conveying the information on meetings and vote the resolutions proposed. Generally, in most East European ex-communist countries independent share registers exist and the shareholders are notified about the general meeting organization via the media rather than by letters sent to individual shareholders. The opportunity for postal voting is generally not available in most countries (Lithuania, Macedonia and Russia represent exceptions) and proxy voting, though technically possible, in many countries is often subject to additional administrative conditions. Furthermore, in some countries shares have to be deposited with a third party for a minimum period before the shareholders' meetings (Hashi [2004]). In Romania, the most common practice is to ask for a certificate to prove the representative/legal power of the natural person that represents a legal person or who signs a proxy in the name of a legal person (Ene and Fătu [2004]). These restrictions clearly weaken the shareholders ability to participate to shareholders meetings and to influence the company's decisions.

In general, 'one share – one vote' principle represents the normative and most countries impose a quorum and a super-majority requirement on the meetings of shareholders. In most of these countries law stipulates that existing shareholders have pre-emptive rights to subscribe for newly issued shares in proportion to their relevant shareholding and they have the right to bring an action in order to set aside a shareholder's resolution in cases of violations of the rules relating to the holding of shareholders meetings. Among these countries, only in Poland and Romania the minority

shareholders are entitled to one seat on company boards (Hashi [2004]). In Romania, according to the current legislation, the pre-emptive rights of the shareholders must be honoured. Any share capital increase that breaches the pre-emptive right shall be null and void (Ene and Fătu [2004]). Though, this law also establishes special rules regarding the shareholder's general right to abolish the pre-emptive right in the case of cash contributions.

One of OECD recommendations stipulates that companies should have a proper number of independent directors, not related to the company or to the controlling shareholders. Unfortunately, the concept of independent board members is at its beginnings for the East European Ex-Communist Countries analyzed by Hashi [2004]. Among these, only legislation in Poland and Russia has a *recommendation* to engage independent members on boards on a voluntary basis. The representation of employees on the supervisory boards is also rare; Slovenia and Czech Republic are the only countries with statutory representation of employees at board level (Hashi [2004]). On the other hand, for all nine East European ex-communist countries, legislation stipulates the need for independent auditors and regular financial reporting, as well as obligatory reporting.

In Romania, there is no procedure for nomination of Board members included in the current legislation or rules and in many cases shareholders are not timely, adequately and effectively informed about nominees. Though, recent regulations regarding cumulative voting represent an important step forward. According to this, at the request of a significant shareholder owning at least 10% of shares, the cumulative method of voting is compulsory.

In Romania, shareholders owning at least 5% of total voting rights of an issuer in General Shareholders Assembly can request additional reports from the financial auditors. The information will be available on Romanian National Security Commission (CNVM) website. In most of East European Ex-Communist Countries, the mandatory bid rule (the obligation to make an offer to buy out other shareholders once an owner reaches a certain threshold, between 30 and 50%) is also stipulated to ensure that minority shareholders can exit without financial penalties if a controlling shareholder enters the scene (Hashi [2004]).

Romanian legislation stipulates that companies must report the following information: details regarding the salaries and retirement benefits of the managers and of the members of the Board of Directors; details regarding the loans provided to the members of the Board of Directors (including the corresponding interest) and the guarantees offered by them; the payments made to auditors. Unfortunately there are only few companies that comply with this requirement (Ene and Fătu [2004]). Though, Romanian legislation has regulations regarding the sanctions which could be applied to directors, founders, executive managers or shareholders that act when they have conflicting interests to those of the company's in a deal. However, in practice, there were only few cases when directors were found legally responsible and sanctioned (Ene and Fătu [2004]).

Concluding, one important issue of shareholders' right protection is the regulation effectiveness. La Porta, Lopez-de-Silanes, Shleifer and Vishny [1998] pointed out that law and its enforcement vary across countries. For instance, even if there are only few regulations, one solution for protecting shareholders rights is a strong enforcement of law. For example, Dragotă [2006] concludes that dividend ratio for companies detained in more than 50% by minority shareholders are significantly greater than the dividend ratio for the other firms. The results seem to be in accordance with the hypothesis that the power of controller shareholders could be proven by little dividend ratios. One possible explanation could be, unfortunately, that controller shareholders could obtain benefits from other sources, more or less observable from outside. This little concerning on minority shareholders could generate difficulties for companies' financing decision because the new shares issues will become unattractive for companies, because the price for new shares will be lower. However, even this fact creates great difficulties for firms which operate in Anglo-Saxon financial systems, is less observable in financial markets like Romanian one, where shares issues are not very important as financing mechanisms. The general accepted argument is that lower dividend ratios are a result of better growth opportunities after liberalisation: they may choose to distribute fewer dividends and invest more (Bekaert and Harvey [2000]). Another explanation is given by Shleifer and Vishny [1997], who argued that a large investor might be rich enough to prefer the maximisation of private benefits of control rather than wealth. On the other hand, this

evidence implies a very slow development for capital markets.

# 3.2. Some organizationally aspects regarding Romanian Capital Market

The level of minority shareholders protection, a determinant cause for the control premium, could be assumed as being influenced by the organizationally aspects related to the Romanian capital markets. This section describes the main issues on this topic.

In Romania, the instruments used by the companies to collect financial resources are traded through Bucharest Securities Exchange (BSE) and RASDAQ Market has been set up in 1996, a year later than the opening of Bucharest Stock Exchange. It has been set up especially as a trading system, additional to the capital market, meant to facilitate the concentration of the post-privatization shareholders for approximately 6,000 companies, as a result of the Mass-Privatization Program (MPP). This market was based on a concept expected to offer the optimal logistic support for a secondary market based mainly on a quantitative thinking requested by the large number of companies included in MPP and the large number of shareholders resulted. At this moment, these two markets had been merged (since the beginning of 2006). The future development of the Romanian capital market will consist of a regulated market and an alternative trading system.

The main difference between these two markets is represented by the way transactions are made. RASDAQ is a negotiation market where negotiations terms, such as price and quantity are negotiated by the brokerage companies' traders. The identity of the two parts involved in a negotiation is not public to the other participants. The trading session is a one step one, and the market needs to be open for the transactions to be done. Also, the level of regulations implied by trading on BSE is more severe comparatively to the situation for RASDAQ trading.

#### 3.3. Informational Efficiency: Evidence for Romanian capital market

The lack of informational efficiency of Romanian capital market could be a cause for the poor protection of minority shareholders and for a large control premium. If the investors have not enough information or the ability of information processing, they could be tempted to pay much more for shares in order to obtain this information. On the other hand, this relationship is not very clear. It is possible that a lack in information to become a "noise" for a correct estimation of the market for control premium.

According to studies related to Romanian capital market informational efficiency, there is no clear evidence. Dragotă and Mitrică [2001] concluded the stocks rate of returns follow a random walk, but they also emphasized that the lack of liquidity on Romanian capital market could distort econometric tests and, even if autocorrelation coefficients or stationarity tests reveal a random walk, capital market could not be efficient on its weak form. Further, Dragotă and Mitrică [2004] concluded that there are large differences between stock price and stock fair value and even if random walk hypothesis is confirmed, it is possible that stocks prices do not entire reflect their intrinsic value. Dragotă, Dragotă and Stoian [2004] also revealed that the most part of the studies which have analysed informational efficiency of Romanian capital market have used classical tools of investigation (scatter representation, autocorrelation, normality or stationarity tests, filter-rules) but they have not paid enough attention to the relationship between stocks prices and their intrinsic values.

Most of the studies have been focused on investigating the informational efficiency of Romanian capital market in its weak form by using simple serial correlation tests or other similar techniques. But there are some studies (Dragotă and Mitrică [2001], Dragotă and Mitrică [2004], Dragotă, Dragotă, and Stoian [2004]) that have tried to reveal specific features of Romanian capital market (e.g. lack of liquidity) due to which Efficiency Market Hypothesis could be rejected. Moreover, there are studies (Căruntu [2005]), which identifies some anomalies on Romanian capital market that distort its efficiency.

The control premium could be the cumulative result of two components: an "objective" ("true") control premium and the impact of the lack of efficiency. Studies

conducted in order to investigate informational efficiency of Romanian capital market have not reached yet to an obvious conclusion. Despite the fact that serial correlation tests reveals forms of weak efficiency or lack of efficiency, there are some anomalies on Romanian capital market that could distort the results, and, also, the lack of liquidity implies a substantial shortcoming for econometric tests and their significance. Therefore, the general view is that there are large differences between stocks' price and their fair market value, which means that Romanian investors are not able, yet, to compile all the necessary information in order to obtain a true estimation of stocks' value.

#### 4. Database

For the estimation of the probability distribution of control premiums for Romanian listed companies, there were used data regarding tender bids and takeover bids run on RASDAQ Market for 2002-2004. Even if for Romanian capital market, RASDAQ does not represent the main component of regulated capital market (this one is BSE), we could not take into account BSE because only a small number of tender bids were run on BSE.

In order to create the database, first there were included the cases for which a bid tender was launched. Second, there were chosen the cases for which the stake acquired after the closing of bid process was higher than 50%. Also, there were identified and included in the final database the cases for which the stake acquired after the closing of the bid process was lower than 50%, but the individual/legal person who initiated the bid held the highest percentage of the issuers' share capital and held the control of the company. In case of two or more individual/legal persons initiated the bid together and after the closing of the bid process the sum of stakes held individually give them the control of the issuer, the information for this tender bid were transferred to the final database. Also, there were included in the final database the cases for which the intention of taking control of the issuer through a tender bid was obvious. For instance, if stake held before the tender bid was 40% and the bid was made for 11%, we considered such cases appropriate for this study.

#### 5. Methodology of the study

Control premium (cp) could be estimated as a percentage change between the price paid in the case of a tender bid aiming in acquisition of the proper number of shares which gives the control over company's decision ( $P_O$ ), and the shares' price on the market before the bidding moment ( $P_M$ ):

$$\mathbf{cp} = \frac{\mathbf{P}_{\mathrm{O}} - \mathbf{P}_{\mathrm{M}}}{\mathbf{P}_{\mathrm{M}}} \tag{1}$$

However, using this estimation of control premium could not be appropriate, due to the fact that it is not taking into account price evolution related to other factors than the tender bid. In fact, one share's return in the day of tender bid announcement has two components: (1) a normal return, due to market evolution in the absence of the announcements; (2) an abnormal return, which represents exactly the control premium.

The common way in order to estimate control premium is to consider residuals ( $\epsilon_t$ ) from the market model, about announcement day, as abnormal returns, AR (see Copeland, Koller and Murrin [1996]). Daily abnormal returns are the residual term,  $\epsilon_t$ , in the regression of the market model:

$$\mathbf{R}_{it} = \boldsymbol{\alpha}_i + \boldsymbol{\beta}_i \cdot \mathbf{R}_{Mt} + \boldsymbol{\varepsilon}_t \qquad (2),$$

with:  $R_{it}$  = the total return of the *i* stock on day *t*;

 $\alpha_i$ ,  $\beta_i$  = the intercept and the slope terms from a linear regression of R<sub>it</sub> and R<sub>Mt</sub> during a benchmark period (different from the period when ARs are estimated);

 $R_{Mt}$  = the total return on an index representative of the entire market.

Control premium represents exactly the abnormal return (AR):

$$cp_{it} = \varepsilon_{it} = R_{it} - E_{t-1}(R_{it}) = R_{it} - E_{t-1}(\alpha_i + \beta_i \cdot R_{Mt})$$
(3)

with:

 $E_{t-1}(R_{it})$  = expected return (estimated at the moment *t*-1) for asset *i*, at moment *t* 

Using market model for estimation of control premium has some particularly difficulties in the case of emerging capital markets, like Romania. We estimated

regression parameters from equation (2) by using OLS on daily returns for each company, and for market (RASDAQ-C Index) for 2002, 2003, and 2004, and reached the conclusion that market model is not appropriate in estimating stocks' return on Romanian capital market. Statistic tests (R-squared, F-statistic) rejected the significance of  $\beta$  parameter for all companies within our data base (see Appendix 1).

Given that market model failed in estimating stocks' return, we used another methodology and proceeding in estimating normal return by using an autoregressive process (see equation 4):

$$R_t = \alpha + \sum_{i=1}^n \beta_i R_{t-i} \qquad (4)$$

with:

 $R_t$  = rate of return at moment *t*;

 $\alpha$  =intercept;

 $\beta_i$  = the slope term from a linear regression between return at the moment *t*, and return at the moment *t-i*. We chose the number of lags based on correlogram returns and taking into account the values of R-squared returned from OLS estimations.

We observed that returns are correlated at lag k in time, even if there were many gaps between two transactions. Because on RASDAQ market there are many non-trading days (for many companies there were only a few transaction within a year and large gaps between stocks' price), in order to eliminate gaps in transaction periods and to have a longer time series, due to econometric reasons, we extrapolated data. For instance, if stocks' prices were available for days 1 and 5, and during this period there was no transaction made, it was considered return for days 2, 3, 4, and 5 equal to return computed based on Price 5 and Price 1 and divided by 4 (number of days missing). For a representation, see equation (5):

$$\left(\frac{P_n - P_{n-k}}{P_{n-k}}\right) / k = R_{n-k,n-k+1} = R_{n-k+1,n-k+2} = \dots = R_{n-1,n} \quad (5),$$

with:  $P_n$ ,  $P_{n-k}$  prices at *n* and *n-k* moments,  $R_{n-k-1}$ , ... returns at *n-k*, *n-k+1*... moments.

The regression used in order to estimate normal returns are statistically significant according to R-squared values (see Appendix 2).

This estimation method was the most appropriate for Romanian capital market, given the fact that other estimating methods like CAPM, are not useful for Romanian capital markets how time studies for market efficiency reject the Market Efficiency Hypothesis (see Dragotă and Mitrică [2004]).

Due to the lack of liquidity for listed shares in Romania, computing a relevant regression was impossible for some cases. For instance, in 2002 and 2003 there were cases when tender bid was made at the beginning of the year and there was no price recorded for that company. In other cases, we confronted with a major issue referring to the fact that data were not stationary, according to Augmented Dickey – Fuller tests (ADF), and, therefore, we chose to eliminate such cases from the database. It was considered that using first differences of returns in order to reach stationarity goes to a statistical significance gain but to a financial misleading significance.

Given the theoretically background above, the control premium was estimated based on the equation (6):

$$cp_{it} = \varepsilon_{it} = R_{it} - E_{t-1}(R_{it}) = R_{it} - E_{t-1}(\alpha + \sum_{i=1}^{n} \beta_i R_{t-i})$$
(6)

For each asset, it was estimated a regression function for the normal return and control premium as difference between estimated return and effective return (see Appendix 3).

# 6. Results

According to the proposed methodology, we found a median control premium of 44.62% and a mean of 79.96% (total observations: 44) (see Figure 1). An interesting aspect is related to negative control premium. There was recorded 6 cases of negative control premium out of 44 observations (the sample spanned over 2002-2004). This particular evidence seems to be related to an informational asymmetry on the RASDAQ market. One explanation could be that operators simply do not know when a tender bid is launched.



Mean	79.96% <sup>*)</sup>		
Median	44.62%		
Standard Deviation	121.23%		
Kurtosis	7.10		
Skewness	2.42		
Minimum	-85.96%		
Maximum	566.70%		
<sup>*)</sup> t-statistic: 4.361189			
probability: 0.0001			
Mean is statistically significant different from			
zero for 95% confidence level.			

The estimated level of control premiums over the analyzed period are represented in Table 1.

Table 1: Control premium evolution in time				
Year	No. of observations	Mean	Median	
2002	10	82.89%	48.21%	
2003	14	105.26%	37.15%	
2004	20	60.78%	47.64%	

Also, it was noticed that are some cases in which control premiums are very large, this fact implying the large values for medians (in every year, mean values are larger than the median values).

# 7. Conclusions and new directions of the study

The large size of control premium could be an evidence for the lack of minority shareholders protection. The median value for control premium is 44.62% and the mean value is 79.96%. This level for control premium could be considered very close even to normal situation of developed countries. However, it could be noticed that there are some anomalies which is very difficult to be explained in a rational behaviour hypothesis (in some cases, transactions are made at a price below tender bid price).

It could be noticed that the level for control premium reach a maximal level of 566.7%, which is obvious a case of over-valuation for offer price or an under-valuation case for price before this offer. Even unusual, is to explain negative control premiums. There were recorded 6 cases when control premium was negative. In this case, it is clear that the bidder tried to benefit from market lack of information or even by its lack of rationality. For instance, in one case there was no transaction made after the announcement moment or even during tender bid period. Moreover, Dragotă and Stoian [2006] found that in 60% of cases of tender offers (during 2002-2004 were investigated 77 of cases) the transactions within the bidding period were made at prices below the offered price, in 32% of cases, transactions were made at the same price to offered price, and only in 8% of cases, transactions were made at prices higher then the bidding price.

It could be noticed that control premium size for Romanian capital markets is close to situation reported for other countries. However, it could be observed the high level for this control premium. This high level for control premium could be explained by the general feeling that minority shareholders rights are not respected. For this reason, investors are interested to pay almost more half than shares prices in order to take control over the company (in this context, see, also, the maximum control premium – 567%). Another possible argument is the large difference between share prices and intrinsic values, which could be explained by a lack of informational efficiency or, more a lack of rationality for Romanian capital markets.

Concluding, the level of control premium for Romanian listed companies could be the result of two opposite causes. On the one hand, larger control premium could be the result of the lack of minority shareholders protection: investors are interested to take the control over companies because they know it is the only solution for defend their interests. On the other hand, smaller control premiums could be the result of a lack of information or of the lack of protection: how time minority shareholders are not protected, they have not the instruments to defend their rights. For this reason, they are disposed to accept very small control premiums (or, even, negative levels for them).

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# **Appendix 1:**

Dep	oendent varia	able Shares Ra	ate of Return	າ of listed compa	nies
Company Symbol/Sample	Variable	Coefficient	t-Statistic	Prob.	R-square
BURO	RB_RAQ	-0.209252	-0.225495	0.8217	0.00015
340 obs.	Ċ	0.017799	1.793703	0.0738	
ARIS	RB RAQ	0.348066	2.426557	0.0163	0.03255
177 obs.	Ċ	0.005716	3.134522	0.0020	
ELCU	RB RAQ	0.040393	0.695171	0.4874	0.00149
324 obs.	C	-0.000535	-0.847621	0.3973	
FOSP	RB RAQ	-0.121363	-0.804794	0.4215	0.00192
338 obs.	Ċ	0.002425	1.501693	0.1341	
FRAJ	RB RAQ	-0.100994	-0.525310	0.5997	0.00079
350 obs.	Ċ	0.002429	1.176771	0.2401	
FRII	RB RAQ	3.652452	0.908045	0.3647	0.00305
271 obs.	-C	0.276088	6.060422	0.0000	
GRIA	RB RAQ	0.363398	0.709132	0.4787	0.00130
388 obs.	-C	0.010443	1.981467	0.0482	
ICOS	RB RAQ	5.999925	2.994926	0.0031	0.03934
221 obs.	-C	0.068493	2.836763	0.0050	
IPAB	RB RAQ	0.025362	0.417745	0.6765	0.00074
235 obs.	-C	0.001644	2.305091	0.0220	
MASA	RB RAQ	-0.059044	-0.617578	0.5372	0.00082
465 obs.	-C	0.001569	1.665618	0.0965	
PANJ	RB RAQ	0.028566	0.296183	0.7673	0.00027
322 obs.	-C	0.003757	3.578926	0.0004	
PULI	RB RAQ	-0.009268	-0.207325	0.8359	0.00015
284 obs.	-C	0.000339	0.670252	0.5032	
SPCU	RB RAQ	-0.009041	-0.035138	0.9720	0.00000
468 obs.	-C	0.004440	1.756320	0.0797	
STRO	RB RAQ	0.485464	1.588237	0.1140	0.01367
184 obs.	-C	0.012022	5.176563	0.0000	
TRAT	RB RAQ	0.006486	0.046482	0.9630	0.00000
254 obs.	C	0.006727	4.078476	0.0001	
TXIN	RB RAQ	0.063982	1.379050	0.1689	0.00629
302 obs.	C	0.002394	5.698443		

Results of market model estimation for RASDAQ market listed companies

<sup>\*)</sup>We presented only the companies sample for 2003 in order to emphasize the fact that market model is not consistent within Romanian RASDAQ. The same results (market model rejection) were obtained for 2002, and 2004.

With:

RB\_RAQ = market rate of return estimated on RASDAQ Index (RASDAQ-C) C = intercept

	Table 2A: Normal return estimations				
Year	Symbol	Regression			
2002	ANBU	$R_{t} = 0.01644389557 + 0.4922571069 \cdot R_{t-19}$			
		t-stat (0.503) (3.66)	R-sq: 0.24		
2002	ASCE	$R_{t} = -0.00166776481 + 0.7351444007 \cdot R_{t-1}$	•		
		t-stat (-0.69) (8.50)	R-sq: 0.68		
2002	FORB	$R_{t} = 0.05675262624 + 0.4714373963 \cdot R_{t-1}$	1		
		t-stat (3.45) (6.37)	R-sq: 0.27		
2002	NAPP	$R_t = 0.04013032605 - 0.2112313431 \cdot R_{t-16} + 0.2504596767 \cdot R_{t-19}$			
		t-stat (1.60) (-2.49) (3.26)	R-sq: 0.13		
2002	PAPO	$R_{t} = 0.006308365618 + 0.1817672462 \cdot R_{t-2} + 0.144268853 \cdot R_{t-4}$			
		t-stat $(0.78)$ $(2.61)$ $(2.13)$	R-sq: 0.07		
2002	RERP	$R_{t} = 0.0004479998241 + 0.8874188593 \cdot R_{t-1}$	1		
		t-stat (0.17) (24.23)	R-sq: 0.84		
2002	ROMC	$R_t = 0.01543610641 + 0.2298379359 \cdot R_{t-1} - 0.1852192514 \cdot R_{t-4}$			
		t-stat (1.62) (3.03) (-2.65)	R-sq: 0.10		
2002	TRCM	$R_t = -0.0003359251921 + 0.293347736 \cdot R_{t-1}$			
		t-stat (-0.13) (3.46)	R-sq: 0.08		
2002	TREF	$R_t = 0.01090127378 + 0.6252730622 \cdot R_{t-1} - 0.2528303644 \cdot R_{t-3}$			
_00_			R-sq: 0.37		
2002	VIVA	$\begin{array}{c} \text{t-stat}  (1.02)  (8.54)  (-3.43) \\ \text{R}_{t} = 0.001372705073 + 0.3029784501 \cdot \text{R}_{t-1} - 0.287981837 \cdot \text{R}_{t-4} \end{array}$	IC 59. 0.57		
2002		t-stat $(0.31)$ $(3.09)$ $(-2.65)$	R-sq: 0.18		
Total	10 cases	(0.01) (0.03) (2.03)	R 5q. 0.10		
2003	ARIS	$R_t = 0.0005721873869 + 0.8382708046 \cdot R_{t-1}$			
2005	711115	t-stat $(0.66)$ (24.37)	R-sq: 0.77		
2003	ELCU	$R_t = -0.0003472199133 + 0.3048505441 \cdot R_{t-1}$	R 59.0.77		
2005	LLCO	t-stat $(-0.57)$ $(5.73)$	R-sq: 0.09		
2003	FOSP	$R_{t} = 0.001817796268 + 0.2128413339 \cdot R_{t-2}$	IC 5q. 0.07		
2005	1001	t-stat $(1.14)$ $(3.98)$	R-sq: 0.04		
2003	FRAJ	$R_{t} = 0.003344963956 - 0.1694236039 \cdot R_{t-1} - 0.2557649376 \cdot R_{t-2}$	IC 54. 0.01		
2005	ТКАЈ	$\begin{array}{ccc} R_{t} & 0.005544905950 & 0.1094250059 & R_{t-1} & 0.2557049570 & R_{t-2} \\ t-stat & (1.67) & (-3.25) & (-4.91) \end{array}$	R-sq: 0.08		
2003	GRIA	$\frac{(-4.71)}{R_{t}} = 0.008675722832 + 0.2442317215 \cdot R_{t-1} - 0.1490433234 \cdot R_{t-5}$	R-5q. 0.00		
2005	UNIA	$\begin{array}{cccc} R_{t} & 0.000075722052 + 0.2442517215 & R_{t-1} + 0.1450455254 & R_{t-5} \\ t-stat & (1.72) & (4.95) & (-3.08) \end{array}$	R-sq: 0.09		
2003	ICOS	$\frac{(1.72)}{R_{t}} = 0.02682879088 + 0.6482976333 \cdot R_{t-1}$	R-3q. 0.07		
2005	1005	$\begin{array}{ccc} R_t & 0.02002077000 + 0.0402770555 & R_{t-1} \\ t-stat & (1.40) & (12.57) \end{array}$	R-sq: 0.42		
2003	IPAB	$\frac{(12.57)}{R_{t}} = 0.000654066745 + 0.6220647599 \cdot R_{t-1}$	K-5q. 0.42		
2003	IFAD	$\begin{array}{ccc} \mathbf{R}_{t} = 0.000054000745 + 0.0220047555 + \mathbf{R}_{t-1} \\ \text{t-stat} & (1.15) & (11.76) \end{array}$	R-sq: 0.37		
2003	MASA	$R_{t} = 0.001599134878 - 0.1065047834 \cdot R_{t-3}$	K-sq. 0.37		
2003	MASA		P. sc: 0.01		
2003	PANJ	$\begin{array}{c c} t\text{-stat} & (1.70) & (-2.29) \\ \hline R_t = 0.0003120772557 + 0.5175543625 \cdot R_{t-1} + 0.2015643027 \cdot R_{t-2} + 0.145634 \\ \hline \end{array}$	R-sq: 0.01		
2003	I AINJ		$1093 \cdot K_{t-3}$		
		t-stat $(0.48)$ $(9.28)$ $(3.25)$ $(2.61)$	D ag: 0.64		
2003	PULI	$\mathbf{R}_{t} = 0.0002067851393 + 0.3864127694 \cdot \mathbf{R}_{t-1} + 0.2336978437 \cdot \mathbf{R}_{t-2} + 0.143397$	R-sq: 0.64		
2005	FULI		$0935 \cdot K_{t-3}$		
		t-stat $(0.54)$ $(6.49)$ $(3.74)$ $(2.40)$	D age 0.42		
2003	SPCU	P = 0.005257208140 = 0.1470205675 + P = 0.1227048652 + P	R-sq: 0.43		
2003	SPCU	$R_{t} = 0.005257208149 - 0.1479305675 \cdot R_{t-2} - 0.1227048652 \cdot R_{t-4}$	D ag: 0.02		
2002	STRO	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	R-sq: 0.03		
2003	STRO	$R_{t} = -1.426313788 + 0.9616970799 \cdot R_{t-1}$	D === 0.07		
2002	TDAT	t-stat $(-0.02)$ (62.53)	R-sq: 0.95		
2003	TRAT	$R_{t} = 0.002190285405 + 0.7719587657 \cdot R_{t-1} - 0.1262193472 \cdot R_{t-4}$	D		
		t-stat (1.88) (17.14) (-2.82)	R-sq: 0.55		

Appendix 2 Regression function for normal return estimations

2002	TVDI	D 7 000022011 + 0.0(075 D	
2003	TXIN	$R_{t} = 7.999023911 + 0.96875 \cdot R_{t-1} $	<b>D</b>
		t-stat (9.83E-15) (91.01)	R-sq: 0.96
	14 cases	T	
2004	AVRG	$R_t = 0.3173355237 + 0.6447535892 \cdot R_{t-1}$	
		t-stat (1.28) (19.17)	R-sq: 0.41
2004	BEGA	$R_t = 0.5456398524 + 0.4951310130 \cdot R_{t-1}$	
		t-stat (1.29) (12.93)	R-sq: 0.24
2004	CCBR	$R_t = 0.0736708948 + 0.9599180436 \cdot R_{t-1}$	
		t-stat (0.794) (83.77)	R-sq: 0.92
2004	CHIB	$R_t = 0.8656952149 + 0.8361996243 \cdot R_{t-1}$	1
	_	t-stat (1.15) (29.20)	R-sq: 0.68
2004	CICE	$R_t = 2.903098993 + 0.6112827941 \cdot R_{t-1}$	
	010L	t-stat $(2.33)$ (20)	R-sq: 0.37
2004	CIVA	$R_{t} = 0.639255799 + 0.6733548431 \cdot R_{t-1}$	it 5q. 0.57
2001	CIVII	t-stat (1.88) (18.97)	R-sq: 0.45
2004	COSY	$R_{t} = 2.65735882 + 0.6271401228 \cdot R_{t-1}$	K-5q. 0.+5
2004	0051	$\begin{array}{ccc} \mathbf{R}_{t} & 2.05753002 + 0.0271401228 & \mathbf{R}_{t-1} \\ \text{t-stat} & (2.48) & (14.03) \end{array}$	R-sq: 0.40
2004	CREI	$R_{t} = 2.781937245 + 0.6036092905 \cdot R_{t-1}$	K-sq. 0.40
2004	UKEI		D age 0.27
2004	EDIL	t-stat (1.56) (18.03) $R_t = 1.337968639 + 0.8799718613 \cdot R_{t-1}$	R-sq: 0.37
2004	EDIL		D
2004	FDU	t-stat (1.78) (33.19)	R-sq: 0.70
2004	EINV	$R_{t} = 0.5715896755 + 0.8254862311 \cdot R_{t-1}$	D 0.00
2004		t-stat (1.12) (21.15)	R-sq: 0.69
2004	IAME	$R_{t} = 0.1128180653 + 0.9153364523 \cdot R_{t-1}$	
		t-stat (0.76) (48.79)	R-sq: 0.83
2004	IMAI	$R_t = 0.04752276867 + 0.7966528788 \cdot R_{t-1}$	_
		t-stat (0.982) (30.83)	R-sq: 0.64
2004	LUJE	$R_t = 0.2133147164 + 0.9465837507 \cdot R_{t-1}$	
		t-stat (1.018) (40.93)	R-sq: 0.19
2004	MEGL	$R_t = 0.2312902715 + 0.1379857558 \cdot R_{t-1}$	
		t-stat (1.09) (3.12)	R-sq: 0.05
2004	SARF	$R_{t} = 1.266420908 + 0.8464577331 \cdot R_{t-1}$	
		t-stat (1.175) (31.50)	R-sq: 0.55
2004	SIOB	$R_t = 1.959334142 + 0.0841001828 \cdot R_{t-1}$	
		t-stat (2.34) (1.08)	R-sq: 0.20
2004	SIOR	$R_t = 1.996037576 + 0.5564637255 \cdot R_{t-1}$	•
		t-stat (2.61) (17.22)	R-sq: 0.31
2004	TEBV	$R_{t} = 0.07495646845 + 0.7800664481 \cdot R_{t-1}$	Å
		t-stat $(1.38)$ (29.9)	R-sq: 0.52
2004	TRFA	$R_{t} = 2.229564034 + 0.5575767803 \cdot R_{t-1}$	1004.0.02
		t-stat $(2.21)$ $(7.84)$	R-sq: 0.28
2004	VITK	$R_{t} = 0.4148519557 + 0.8337797653 \cdot R_{t-1}$	10 54. 0.20
2001	,	t-stat $(0.74)$ (20.12)	R-sq: 0.35
Total	: 20 cases	(0.71) (20.12)	11-5q. 0.55
IUtal	. 20 cases		

Appendi	x 3	
<b>Control</b>	premium	estimation

• •	Table 3A: Control premium for Romanian listed companies				
No.	Symbol Company	Return rate on the day of announcement (%)	Normal rate return (%)	Control premium(%)	
		YEAR 200	2		
1	ANBU	-8.05	26.26	-34.30	
2	ASCE	118.75	-0.17	118.92	
3	FORB	107.69	5.68	102.02	
4	NAPP	34.48	4.01	30.47	
5	PAPO	221.43	-0.56	221.99	
6	RERP	50.00	0.47	49.53	
7	ROMC	48.11	1,20	46,91	
8	TRCM	6.67	-0.03	6.70	
9	TREF	288.89	7.40	281.49	
10	VIVA	12.50	7.29	5.21	
10	VIVI	YEAR 200		5.21	
11	ARIS	78.57	2.82	75.75	
12	ELCU	566.67	-0.03	566.70	
13	FOSP	123.40	0.18	123.22	
14	FRAJ	75.27	-0.37	75.65	
15	GRIA	8.70	0.87	7.83	
16	ICOS	35.00	2.68	32.32	
17	IPAB	470.18	0.07	470.11	
18	MASA	-4.29	0.04	-4.33	
19	PANJ	40.63	-1.37	41.99	
20	PULI	14.29	1.05	13.23	
21	SPCU	5.41	0.53	4.88	
22	STRO	-0.11	-0.03	-0.07	
23	TRAT	42.86	0.22	42.64	
24	TXIN	23.81	0.00	23.81	
		YEAR 200			
25	AVRG	44.14	-6.14	50.28	
26	BEGA	56	9.39	46.61	
27	CCBR	-20.17	0.31	-20.48	
28	CHIB	85.19	15.11	70.08	
29	CICE	-76.19	9.77	-85.96	
30	CIVA	150	0.64	149,36	
31	COSY	150	2.66	147.34	
32	CREI	6.67	2.27	4.4	
33	EDIL	1.87	1.15	0.72	
34	EINV	21.95	1	20.95	
35	IAME	50	1.32	48.68	
36	IMAI	233.33	0.05	233.38	
37	LUJE	75.28	-0.4	74.88	
38	MEGL	14.82	0.23	14.59	
39	SARF	34.29	1.29	33	
40	SIOB	150	1.96	148.04	
41	SIOR	37.94	2	35.94	
42	TEBV	122	4.92	117,08	

43	TRFA	0	2.23	-2.23
44	VITK	129.5	0.5	129