

ALTERNATIVE CAPITAL STRUCTURE EXPLANATIONS

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Abstract

Although empirical research has shown that some of the capital structure differences can be explained by modern capital structure theories in mature market economies, the factors behind the capital structure decisions in CEE transition economies remain a puzzle. Taking into account the assumptions behind these theories, the specific economic environment in CEE transition economies and the resulting behavior of firms in these countries this is not surprising. We are convinced that it is only logical to assume that the change of economic system and corporate governance has been gradual and, therefore, other factors must be at work when firms in CEE transition economies decide on their capital structures. After determining relevant factors in the Slovenian firms, we show that throughout the period from 1999 and 2004 factors other than those proposed by neoclassical capital structure theory explained the biggest part of capital structure decisions. However, the explanatory power of these factors was diminishing which implies changing corporate governance during transition.

1. Introduction

Although empirical research shows that some of the capital structure differences can be explained by neoclassical capital structure theory in mature market economies, it has been able to explain relatively little variance in the observed firms' capital structures in CEE transition economies. Berk (2005), for example, found that most of the factors explaining the variance in leverage in mature market economies do not exhibit statistical significance in Slovenia. Moreover, some of the correlations do not conform to theoretical predictions. Clearly, some other forces are at work when managers in Slovenian firms decide on the capital structure.

Taking into account the assumptions behind neoclassical capital structure theory and the specific economic environment in CEE transition economies, which started transition toward market economies only in early 90s, and the resulting behavior of the firms in these countries, this is actually not surprising. Firms in these countries operate in a very different economic environment and thus probably follow different goals than the firms in mature market economies. From our point view, that is why only neoclassical capital structure theory, which is based on the central assumption that firms follow the goal of maximizing shareholders' wealth, cannot offer a complete explanation of the capital structure choice in these countries.

We are convinced that it is only logical to assume that the change of economic systems and corporate governance in CEE transition economies has been only gradual. Despite it could be argued that during this process the role and the power of each stakeholder is changing, which induces also changes in relevant goals of the firms, thus slowly adopting some elements of neoclassical behavior, other goals had been followed by the firms in these countries at the beginning of the transition. Only when these goals of the firms are discovered, a proper understanding of financial behavior is possible and relevant forces driving the capital structure choice can be determined. However, a capital structure theory for economic systems in which some other goals than maximizing shareholder's wealth are followed by the firms is not well developed. In our empirical research we rely on scarce theoretical explanations that are available, mainly the post-Keynesian theory and the theory of employee-governed firm.

In this study we limit our research to the transition economy of Slovenia, where some prior theoretical and empirical research in this direction has been conducted. In the study we try to determine the factors affecting the capital structure choice in the period from 1999 to 2004, which coincides with the period immediately following the end of mass privatization. Our empirical research shows that throughout the period under investigation forces other than those proposed by neoclassical capital structure theories

explain most of the differences in firms' capital structures. However, the explanatory power of these forces gradually diminished, which implies changing corporate governance and the behavior of the firms in these countries during transition.

The paper is structured as follows. The second section starts with a discussion of the neoclassical capital structure theory, while in the third we briefly examine the results of empirical studies testing it in CEE transition economies. By recognizing the inability of the neoclassical capital structure theory to fully explain the forces behind the capital structure choice in these countries, we focus in the fourth section on Slovenia and explore its ex economic system, corporate governance during transition and the goals followed by Slovenian firms at that time. Using existing theories that try to explain financial behavior of firms with different stakeholders in control, we determined the forces that may explain the capital structure choice of Slovenian firms during transition. In the fifth section we present the model of capital structure. In the sixth section we discuss the data, variables of the model and present descriptive statistics, while the seventh section presents the empirical results. In the eighth section we present some robustness checks and the last section concludes with a discussion of the results.

2. Neoclassical capital structure theory

The neoclassical capital structure theory began to emerge with the paper of Modigliani and Miller (1958) arguing that in a perfect capital market and world without taxes and bankruptcy costs capital structure choice is irrelevant. Despite the trivial result they set the direction for the future research. By relaxing several unrealistic assumptions about taxes, bankruptcy costs, and market efficiency some plausible albeit only partial explanations have been developed.

2.1. Trade-off theory

According to the trade-off theory a firm, on the one hand, increases its value by increasing the leverage because of the tax shield provided by interests paid, which are tax deductible. On the other hand, by increasing the leverage a firm is increasing bankruptcy costs and decreases its value. Thus a firm's optimal capital structure is found by trading off tax benefits of debt against bankruptcy costs.

It is expected that more profitable firms have higher incomes to shield, thus to operate with higher leverage, while firms with non-debt tax shields available to operate with lower leverage. DeAngelo and Masulis (1980) argue that negative relation between non-debt tax shields and leverage arises from the increased likelihood of bankruptcy

occurring at higher leverage thus a negative marginal advantage of debt as a result of the increased probability that the potential tax shield from an extra quantity of leverage will be partially or totally lost through bankruptcy. Higher leverage is expected to be found also in firms with low bankruptcy cost, i.e. firms with higher fraction of tangible assets. Moreover, Titman and Vessels (1988) argue that larger firms tend to be more diversified than the smaller ones, thus being less prone to go bankrupt, and that larger firms tend to have higher liquidation value.

2.2. Theory based on agency costs

Next group of models are based on the agency costs. Jensen and Meckling (1976) identify two types of agency conflicts. Conflicts between shareholders and managers arise because managers do not hold total residual claim thus they cannot capture the entire gain from their value-maximizing activities, while they bear the entire cost. As a result, they do not pursue their activities in a manner to maximize shareholders wealth, meaning consume perquisites, invest in unrelated business to build empires, etc. This inefficiency can be mitigated by larger ownership share is held by manager, which increases also with the fraction of firm financed with debt. Moreover, Jensen (1986) argues that debt commits to pay out cash, thus it reduces the amount available to managers to overinvest. Not least, if bankruptcy is costly for managers, because of the potential reputation lost, debt can create an incentive to pursue only value-maximizing activities, because such behavior reduces the probability of bankruptcy.

Second type of conflicts arises between debtholders and equityholders because debt contracts give equityholders an incentive to invest suboptimally. The debt contract results in asymmetric distribution of the gains, meaning that if an investment is profitable above the face value of debt, most of the gain is captured by equityholders, while if investment fails, debtholders bear all the consequences because of the limited liability of the equityholders. As a result, equityholders may benefit from investing in very risky projects, even if they are value-decreasing. Such investments result in a decrease of the value of debt, while the loss in the value of equity due to poor investment is more than offset by the gain in equity value transferred from debtholders. However, this asset substitution effect is anticipated by debtholders, and the cost of debt is increased accordingly. Myers (1977) points out another agency cost of debt. He argues that when firms are likely to go bankrupt in the near future, equityholders have no incentive to contribute new capital, even to invest in value-increasing projects because they bear the entire cost of the investment, while the returns may be captured mainly by debtholders.

To sum up, a firm finds its optimal capital structure by trading off the agency costs of debt against the benefits of debt. It follows that firms in industries in which opportunities for asset substitution are limited, i.e. have few growth opportunities and have large free cash flow available, should be more highly levered.

2.3. Asymmetric information

Models based on asymmetric information assume that firm managers or insiders possess private information about the firm's operations and its investment opportunities which are not known by outsider investors. Myers and Majluf (1984) showed that if the firm finances a new project by issuing equity, when outside investors are less informed than insiders, underpricing may be so severe that new investors would capture more than the NPV of the new project. This results in a net loss to the existing shareholders, thus rejecting the project, in spite of positive NPV. The underinvestment problem is mitigated by financing the project with internal sources of finance or issuing a security which is less underpriced by the market if internal sources are exhausted. According to Myers (1984) the financing process follows a pecking order forcing firms to exhaust internal sources first, and when external sources are required first to issue debt, while issuing equity capital only as a last resort. It is thus expected that less profitable firms and firms characterized by higher information asymmetry, i.e. firms with less tangible assets or firms with more growth opportunities, will operate with higher leverage.

On the other hand, Ross (1977) argues that debt can be used as a signaling device. Investors perceive larger debt levels as a signal of higher quality. Thus, managers can increase the market value of the firm, but they are penalized if the firm goes bankrupt, making the imitation of high quality firms by low quality firms not desirable. That is why, a positive correlation between leverage and firm value (or profitability) and a probability of bankruptcy is expected.

3. Capital structure research on CEE transition economies

Most empirical studies of capital structure focus on market economies, whereas less has been done in this field in CEE transition economies. Moreover, the existing studies on CEE countries mostly repeat empirical tests made for mature market economies, trying to confirm "portability" of neoclassical capital structure theories across countries. Not surprisingly, they mainly end up with statistically insignificant coefficients, sometimes even theoretically unacceptable correlations, and low explanatory power of the models.

Berk (2005) studied the drivers of leverage in Slovene blue-chip firms by focusing on the trade-off and pecking order theory. He tested the dependence of leverage on tangibility of assets, growth rate, future growth opportunities, firm size, earnings volatility, profitability, and value of non-debt tax shields in the periods 2000-01 and 2002-03. In the first period only profitability exhibits statistical significance at a 0,05 level, while tangibility of assets and future growth opportunities are significant at a 0,1 level. Moreover, only tangibility of assets is statistically significant in the second period.¹ He found negative correlation between profitability and leverage, and tangibility of assets and leverage, while the observed correlation between future growth opportunities and leverage is positive.

Hussain and Nivorozhkin (1997), who examined the capital structure of Polish firms, found that only large, new, foreign-owned firms and firms with stronger cash position had higher leverage, while shareholder concentration had neutral impact on leverage. Besides, small sample size critically limits the findings of the study. Cornelli et al. (1996) investigated whether the financial sector in CEE countries provided enough funds to firms and, consequently whether it is monitoring them adequately, by focusing on Hungary and Poland. They found negative correlation between profitability and leverage and tangibility and leverage and positive correlation between size and leverage. On the other hand, Baer and Gray (1995), conducting a regression analysis on a sample of Polish firms found positive but mainly insignificant coefficients on these variables.

Klapper et al. (2001), studying financing patterns in small and medium-sized firms in Eastern Europe, evaluated the key relation between different debt ratios and determinants of leverage predicted by neoclassical theories of capital structure. They found that leverage is positively correlated with size and growth, and negatively with age. The correlation between profitability and long-term debt was found negative, while the correlation between profitability and short-term debt as well as total debt was found positive. Besides, a negative correlation between tangibility of assets and short-term and total debt was found, while the correlation between tangibility and long-term debt was positive. Not least, a negative correlation between non-debt tax shields and all types of debt ratios was observed. Despite of the encouraging results of the study highlighting the uniqueness of the Eastern European region, on one hand, and the robustness of the neoclassical capital structure theory which appears to hold also in transition economies, on the other hand, the models demonstrate low explanatory power. Adjusted R square of the models ranges between 0,03 and 0,07.

¹ Because of multicollinearity in the model without intercept, only the model with intercept is taken into account.

De Haas and Peeters (2006) examined the capital structure dynamics of CEE firms, the target leverage, and the adjustment speed. They found that during the transition process firms increased their leverage and lowered the gap between actual and target leverage in Estonia, Hungary, Latvia, and Slovenia while in other CEE countries most firms are still underlevered. The most robust determinants of target leverage in which large differences between countries exist are profitability and age which are negatively and positively correlated with leverage, respectively. The adjustment speed compared to the speed in developed countries is very low, indicating that market frictions were still significant. Similar results were obtained by Nivorozhkin (2004) and Claessens and Laeven (2003), who conduct similar analysis of determinants of target capital structures and the speed of adjustment in these countries.

Only Mramor and Valentinčič (2001) in the empirical analysis of investment and financial behavior of the Slovenian firms based also on the data collected with a questionnaire questioned the relevance of neoclassical theory and its main underlying assumption. In the study, a limited number of capital structure determinants of the neoclassical and the post-Keynesian theory - profitability and tangibility of assets, equity capital per employee, and the ratio of net investment to net income was tested. A negative correlation was found between profitability, tangibility of assets, equity capital per employee and the ratio of net investment to net income, and leverage. They conclude that an average privatized firm does not pursue the goal of maximizing the shareholders' wealth and probably neither the post-Keynesian goal of maximization of the probability of long-term survival. They found employee-governed behavior with the goal of maximizing wages as the most probable.

4. Slovenian economic environment and alternative capital structure explanations

Being aware of the specific economic environment and the resulting behavior of Slovenian firms leads us to the conclusion that other forces than those proposed by the neoclassical theories must be relevant in capital structure choice. In order to determine the factors that may explain capital structures of Slovenian firms, we first explored Slovenian ex economic system and its transition process. Understanding corporate governance at the start of transition allows us to hypothesize about the goals followed by Slovenian firms at that time. Under the assumption that corporate governance have changed only gradually during transition, thus probably the same goals were followed by Slovenian firms, relevant factors have been determined.

4.1. Slovenian economic environment and the goals followed by Slovenian firms

Slovenia was one of the six republics in ex Socialistic Federative Republic of Yugoslavia until 1991, when it declared its independence. Yugoslavia was a federation of relatively diverse parts without a leading nation. That is why, market-planned economic system arose as an alternative to the centrally-planned economies in other CEE countries. The main features of the system were social ownership of the firms and workers' self-management. In social ownership, firms were owned neither by the state, nor by the private persons, but generally by everybody. In all other aspects firms were similar to those in market economies, in the sense that they owned assets and had liabilities like debt to banks and trade loans. In addition, they had non-debt capital similar to equity. This quasi equity was not repayable and required no contractual payments, but it had no owners except the society (Ribnikar, 1996). The missing agent was found among the firm's employees, and worker's self-management, the second characteristic of the ex economic system, was instituted (Ribnikar, 1998). However, the power, although not institutionalized, remained to a certain extent at the central authority and those in power at lower levels. The main problem of the system, which at the first glance ingenuously avoided state ownership on the one hand and capitalism on the other, was that nobody was interested to invest in quasi equity. Because of this those in power, who also controlled the banks, played a "deus-ex-machina", providing funds to the firms. Bank loans were one of the most important sources of capital, resulting in firms being highly indebted. The debt burden soon required more funds than generated by the firms' operating activities. The solution to this problem was found in inflation, transforming the positive nominal interest rates into negative real one and thus loans into grants, and the market-planned economic system eventually financially collapsed (Ribnikar, 1996).

Slovenia started transition toward a market economic system already in the late 80ies when first reforms were introduced, however the main changes appeared in the early 90ies after the announcement of the independence. Slovenia decided to abolish social ownership mainly by a free distribution of vouchers. Recognizing the special role of the employees they were given priority in investing the vouchers and discounts if they decided to invest additional funds in the firm where they were employed. The share of the capital aimed to be distributed in this a way amounted to 40%, another 40% was transferred to the investment funds which were established exclusively for the purpose of the ownership transformation, while two public funds received 10% each. This mass privatization started in late 1994 and mostly ended by 1998. At the end of privatization insider owners gained the majority stakes in 802 firms, 61,3% of those included in the process of ownership transformation. Most of the firms controlled by majority insider owners at that time were small and medium-sized firms, since large firms were to a

higher extent owned by investment funds or outsider minority shareholders (Simoneti and Gregorič, 2004).

The corporate governance that resulted from such an ownership transformation favored internal owners. It enabled the employees to remain in control and prevent external shareholders to take over. Only later in the process of ownership consolidation, when management and/or outside shareholders acquired higher stakes in the firms, they started to succeed employees. Other shareholders, with maybe the exception of the state, did not prove to be important at that time. Thus, in contrast to other CEE countries where large blockholders characterize the corporate governance systems, the Slovenian system is shaped by the insider-outsider conflict where none of the outsider shareholders is being strong enough to exercise active control (Gregorič and Vespro, 2003).

Mramor and Valentinčič (2001) argue that an average privatized Slovenian firm did not pursue the goal of maximizing shareholders' wealth, but rather found employee-governed behavior with the goal of maximizing the wages. However, they found empirical results inconclusive for capital structure decisions which also did not allow them to reject management-governed behavior. They state some possible reasons for such behavior even several years after privatization. The first reason, probably the most important one, is cultural. In the ex economic system of workers' self-management, employees who governed the firms had established a special relationship with the management who were just the first among them. The second concerns the majority shareholding by employees in most privatized firms. The third reason is the two-tier governance system, with employee participation on management boards and supervisory bodies.² Other reasons are strong labour unions and simply lack of knowledge of the existing CFOs.

4.2. Theory of employee-governed firm

By taking into account the goal of maximizing the wages in the Slovenian firms some alternative explanation for capital structure choice could be derived. Intuitively we can expect that employee-governed behavior with the goal of maximizing the wages results in a very conservative capital structure policy, favoring the lowest possible level of debt. The lowest possible interests paid are a necessary condition for maximizing the wages. Meaning, the more a firm is characterized by employee-governed behavior, the lower the leverage. On the other hand, debt is preferred to equity capital when external

² Firms with over 500 employees must have a representative in management board and at least one third of the members of the supervisory board. The number raises in firms with more than 1000 employees to at least one half of the members of the supervisory board.

sources are required because of the possible dilution of the employees' control, since employees proved to be important owners of Slovenian firms. Meaning, more profitable firms are expected to operate with lower leverage, while faster growing firms are expected to operate with higher leverage.

But firms characterized by employee ownership might be limited in the quantity of debt they can get. Stiglitz and Weiss (1981) argue that credit rationing results from moral hazard and adverse selection problems which arise on the market characterized by imperfect information. The moral hazard problem suggests that borrowers – employees can engage in behavior imposing cost on the lenders, as choosing excessively risky projects because of the asymmetric payoff resulted from limited liability of the firm. This argument suggests that lenders prefer to deal with firms having concentrated ownership which finds monitoring and influencing the behavior of the firm beneficial rather than dispersed one, an ownership structure characterizing most of the employee-governed (owned) firms. It is thus expected bankruptcy costs, reflected in risk and availability of collateral, to be an important determinant when lenders and borrowers agree on the amount of debt supplied.

On the other hand, adverse selection problem suggests that lenders have difficulties in predicting the borrowers' probability of default. Lenders know that low-risk borrowers will only be willing to pay low interest, while high-risk borrowers will be willing to pay high interest, thus the problem is solved by limiting the quantity lenders are willing to supply at market interest and some borrowers crowded out. Therefore, high-quality borrowers have the incentive to signal their quality. Such information are effectively conveyed by investing some own funds as to communicating the confidence. However, taking into account limited personal wealth of employees this is often not the case, thus again resulting in lower leverage of the firms characterized by employee-governed behavior.

Not least, one might argue that employees, who were being at the same time shareholder of the firms, would behave like other shareholders. From our point of view, there are several reasons that employees' behavior in Slovenian firms did not coincide with that of other shareholders. Because employees are typically more risk averse than other investors, either because their wealth is less diversified or because they are less wealthy, they prefer fairly steady wage, rather than the share of profit which is volatile. Besides, they had higher bargaining power as employees compared to the power they had as shareholders and often did not perceive the ownership as an investment that would make a return. This was inherited from ex economic system and the process of ownership transformation in which they got the shares mainly for free. Only when

dilution of their control and the expropriation of the rents were threatened by outsiders shareholders, some changes in their behavior could have been observed.

4.3. Post-Keynesian theory

In the process of ownership consolidation employees were slowly selling their shares primarily to managers but also to outsiders. According to Simoneti and Gregorič (2004) the number of shareholders in the Slovenian firms more than halved in the three-year period after privatization has ended. Moreover, they observe an increase of 5,2% in managers' ownership in year 1999 and a slight decrease in the fraction held by employees (2,2%).³ As a result of the increased ownership shares held by managers which also enable the concentration of the control in the hands of few individuals compared to the wide workers' councils in the ex economic system we can expect that managers were becoming a more distinct stakeholder.

According to the post-Keynesian theory (Gordon, 1994), that assumes management-governed behavior of firms, a firm can maximize the probability of long term survival by increasing the amount of capital, by increasing the growth rate and decreasing the variability of the rate of return. Since, the structure of the firm's investments is determined primarily by technology and not easily modified, firm's financial risk and the rate of return is easier controlled by its capital structure policy. However, firms' capital structure choice is tightly connected to its investment policy. A firm invests in order to decrease the difference between the desired and actual amount of capital. The ratio of desired capital to equity capital depends on the autonomous ratio of desired capital to equity capital, expected rate of return on capital, its variability and the actual amount of equity capital. As in the neoclassical theory, investments are positively correlated to expected rate of return on capital and negatively correlated to its variability, while, in light of maximizing the probability of long term survival, the amount of equity capital negatively impacts investments.

Gordon concludes that a firm with low level of equity capital (for example per employee) earns an insufficient return that does not guarantee a long-term survival. Therefore, it has high ratio of desired to actual equity capital, thus invests heavily. Such firm can increase the growth rate only at higher variability of the rate of return, thus it is willing to accept riskier investment projects and higher share of debt financing. Only when the amount of equity capital exceeds the amount which guarantees a long-term

³ Further increase in the ownership stakes held by managers was expected in the period after 1999 indicated by the desired ownership shares by managers – 21,8% relative to actual 9,0% at the end of 1999, while minor changes are expected in employees ownership. Other significant increase in the ownership share is expected to happen in shares held by strategic investors – 23,1% relative to actual 10,9% at the end of 1999 (Simoneti and Gregorič, 2004).

survival, a firm reduces investing and adopts a more conservative capital structure policy. Risk of going bankrupt is at this level of equity capital lower at lower share of debt financing.

Taking into account maximization of the equity capital growth rate, optimal capital structure is expected to depend on the expected rate of return, its variability, payout ratio and effective tax rate. However actual capital structure may depart from the optimal due to the several reasons. Thus, Chamberlain (1990) argue that leverage depend not only on factors that determine optimal capital structure but also on the ability of the firm to earn monopoly profits and the expected earnings of the firm's investment opportunities relatively to the expected earnings of the firm's existing assets. Leverage is thus expected to be positively correlated to expected return on assets and growth rate, while it is expected to decreases with the variability of the rate of return and the amount of equity capital (for example per employee). Leverage should be also negatively correlated with tangibility of assets because higher tangibility of assets exposes a firm to lower risk, while less risky projects are primarily financed with equity capital and to a lesser extent with debt.

5. The model

Based on the analysis of the forces determining capital structure choice in Slovenian firms we have examined the impacts of the following factors on leverage: volatility, tangibility of assets, profitability, employees' power in corporate governance and the amount of equity capital per employee. Thus, we estimated the parameters of the following model:

$$LEV_{it} = \beta_0 + \beta_1 TANG_{it} + \beta_2 SDROA_{it} + \beta_3 \log S_{it} + \beta_4 ROA_{it} + \beta_5 gS_{it} + \beta_6 DIFF_{it} + \beta_7 \frac{E_{it}}{L_{it}} + \varepsilon_{it},$$

where:

LEV_{it}	leverage, measured by the ratio of total liabilities to total assets
$TANG_{it}$	fraction of the fixed assets in total assets
$SDROA_{it}$	standard deviation of ROA, calculated from the ROA in the three-year period
$\log S_{it}$	logarithm of sales
ROA_{it}	return on assets, calculated as ratio of EBIT to average total assets
gS_{it}	cumulative growth rate of sales in last two years

$DIFF_{it}$ the difference between growth rate of labour costs per employee and growth rate of value added per employee

$\frac{E_{it}}{L_{it}}$ equity capital per employee

We also control for the industry specific effects, using six industry dummies in the following industries: construction (F), trade (G), hotels and restaurants (H), transport and communication (I), business activities (groups 72, 73 and 74 in the industry K) and other industries (those not included in industries above or manufacturing), while manufacturing (D) represents the base category (dummies are labeled as *DC*, *DT*, *DHR*, *DTC*, *DBA* and *DOTHER*, respectively). Besides, a dummy variable for firm size is used when testing for interactions. We distinguished small firms (*DSI*), while we treated medium-sized and large firms as the base category.⁴

Table 1 summarizes the expected correlation of relevant factors to leverage according to different capital structure theories.

Table 1: Expected correlations of relevant factors to leverage according neoclassical theory, theory based on employee-governed firm and post-Keynesian theory

Variable	Neoclassical theory	Theory of employee-governed firm	Post-Keynesian theory
Tangibility	+	+	-
Earnings volatility	-	-	-
Firm size	+	+	(-)
Profitability	+/-	-	+
Growth	-/+	+	+
Employees' power		-	
Equity capital			-

6. Data, specific variables definitions and descriptive statistics

6.1. Data

The data used in the study were obtained by AJPES (Agencija Republike Slovenije za javno pravne evidence in storitve). The database includes income statement, balance sheet, and some other data which Slovenian limited liabilities companies and PLC

⁴ When testing for interactions *logS* is dropped from the model because of the multicollinearity.

registrations are obliged to report, but excludes sole-proprietors.⁵ The limitations of the firm-level data available in the period before 1996 allow us to study the factors affecting the capital structure choice in Slovenian firms only in the period from 1999 to 2004. This coincides with the period immediately following the end of mass privatization.⁶

The model of capital structure was tested on samples of cross-section data consisting of non-financial firms available at AJPES separately for each year of the period from 1999 to 2004. In addition we used some other limitations. All the samples consist only of firms with positive value of equity capital and excluding micro firms, i.e. firms with 10 or less employees. Moreover, we reduced the samples for outliers which were defined for each explanatory variable.⁷ The number of firms in the samples ranges around 3.500.

6.2. Specific variables definitions

Restrictions of the database used in the study allow as measuring leverage only by the broadest definition of leverage, i.e. ratio of total liabilities to total assets, because Slovenian accounting standards used in the period from 2002 require firms to report some of the financial liabilities together with operational liabilities and distinguishing only bank or public debt. Having relatively high fraction of small firms in the samples which often used other sources of debt finance beside bank or public debt, we cannot focus only on bank or public debt. Using a sample of mostly non-listed firms also restricted our study to book values. It is possible that these results would differ if market values could be used. However, market values were heavily influenced by the huge and variable post-privatization supply of shares on the rather illiquid and developing capital market. Because of such circumstances and despite their known pitfalls, book values might be a better indicator of capital structure decisions. Besides, the choice between book and market value terms when examining the factors behind the capital structure decisions does not influence the results significantly (see for example Banerjee et al., 2000; Hovakimian et al., 2001; and Roberts, 2002).

Endogeneity of the equity capital per employee suggested by the Granger causality test probably somewhat affects the results. That is why lagged values of equity capital per employees (*E/L lagged*) were applied. In robustness checks we also tried alternative proxy – ratio of firm's equity capital per employee to industry average of equity capital per employee (*E/L R*) and its lagged values (*E/L R lagged*).

⁵ For example other data are type of organization, size, number of employees etc.

⁶ Four-year period data is used to calculate *SDROA*, thus not being available before 1999.

⁷ 1% of the firms with the highest and 1% with the lowest value of *SDROA*, *logS*, *TANG*, *ROA* and *E/L* are excluded, while 2% and 5% is used at *gS* and *DIFF*, respectively.

The size of the firm is determined by the Slovenian Company law adopted in 1993 and amended in the section covering firm size in 2001. That is why two different definitions of small, medium-sized and large firm is used (first in the period from 1999 to 2001, and the second in the period from 2002 to 2004). Both definitions classify firms according to the number of employees, sales and value of assets, however each one differ in the corresponding value of sales and assets. Small firms are defined as firms with less than 50 employees or have sales less than 200/1.000 million SIT or value of assets less than 100/5000 million SIT, medium-sized firms as firms with less than 250 employees or have sales less than 800/4.000 million SIT or value of assets less than 400/2.000 million SIT, while large firms are defined as firms which cannot be characterized as small or medium-sized firms. This results in a slightly different distribution of the firms in the periods mentioned, but since we do not use panel data or perform time-series analysis this does not affect the results. Moreover, Slovenian inflation rate range between 5 and 10% in the studied period, thus some kind of the revision of the criteria was required.

6.3. Descriptive statistics

Table 1 in appendix shows descriptive statistics. The firms in the samples are mostly small – the median value of assets, equity capital, sales or number of employees amounts to less than half of the average value. However, Slovenian firms have exhibited fairly high growth rate on average in the studied period especially that of profits, indicating increasing profit margins. Meanwhile, average number of employees has been decreasing steadily.

Leverage (*LEV*), measured by the ratio of total liabilities to total assets, increased only moderately (about 1 percentage point). In spite of the fact that Slovenian firms were being relatively less levered than the firms in market economies and an increase in leverage was expected after the process of ownership transformation (Mramor, 1998), leverage has not increased, since employees remain in control and thus conservative capital structure policies were followed by Slovenian firms. Besides, increased profitability resulted in plenty of internal sources available.

Tangibility of assets (*TANG*) decreased, suggesting that the suppliers of debt should perceive firms' risk to increase. However, they should have been aware that the decrease at least partly resulted from the introduction of the new accounting standards in 2002 which did not require revaluating fixed assets as in the period until 2001. This resulted in too high book value of the fixed assets compared to their collateral value. It is thus logical to assume, that collateral value probably did not change much during the studied period. In addition, earnings volatility (*SDROA*) decreased and firm size (*logS*)

increased. On the other hand, profitability (*ROA*) was decreasing until 2001 but picked up again in 2002, moreover growth rate (*gS*) has decreased, suggesting more internal sources were available and less external sources were required. Again, one should take into account that new accounting standards were introduced in 2002 resulted in value of fixed assets to decrease. The difference between the growth rate of labour costs per employee and value added per employee (*DIFF*) was negative and fluctuated, but not in accordance with profitability (not even asymmetrically, as one would expect when taking into account the stickiness of wages). Equity capital (*E/L*) increased quite significantly in the studied period. To sum up, we can assume that suppliers of debt were increasing their willingness willing to lend. Since we observe relatively stable leverage ratios in the studied period, the demand for debt in Slovenian firms probably has not changed much. However, one could expect the increase if the firms were followed the goal of maximizing shareholders wealth.

Small firms represent approximately 40% of the firms in the period from 1999 to 2001 and about 75% in the period from 2002 to 2004. This is uncommon in similar studies, in which mostly large listed firms have been analyzed. The distribution of firms according to size in the subsamples of small firms is like the distribution of the whole samples skewed to the left, meaning many firms being very small.⁸ As could be seen on table 2, small firms are the most highly levered, however, they are characterized by the lowest asset tangibility and the highest earnings volatility.⁹ Profitability of the small firms lags behind the profitability of medium-sized and large firms until 2001 but exceeds it afterwards. Small firms have also exhibited the highest growth rate in most of the years. The difference between the growth rate of labour costs per employee and value added per employee was negative, and in absolute terms it was higher than the difference in medium-sized and large firms. This is actually not surprising since small firms are riskier and need relatively more internal sources at hand to deal with unexpected earnings fluctuations, thus making the rent extraction by employees less desirable. Moreover, in small firms the role of managers and employees often coincide with that of owners, since small firms are owned mainly by insiders. Like medium-sized and large firms small firms have increased equity capital per employee in the studied period, however it remained lower than in medium-sized and large firms.

Medium-sized firms represent approximately 40% of the firms in the period from 1999 to 2001 and about 20% in 2002 and 2003, while the share in 2004 amounts 15%. As could be seen on table 3, medium-sized firms are on average less levered than small firms but significantly more than large firms. They have also more tangible assets, lower earnings volatility, higher profitability until 2001, but slightly lower afterwards

⁸ The distribution would be even more skewed if micro firms were included in the sample or subsample.

⁹ We have not tested the differences for statistical significance. This applies also to other comparisons.

and lower growth rate compared to small firms. The difference between the growth rate of labour costs per employee and value added per employee is negative, however lower in absolute terms than the difference in small firms.

The remaining fraction is represented by large firms. As could be seen on table 4, large firms are significantly less levered than small and medium sized firms, however they have the highest assets tangibility, the least volatile earnings, the lowest profitability and have exhibited the lowest growth rates in the studied period. As expected, the difference between the growth rate of labour costs per employee and value added per employee is positive in the period immediately following the end of the privatization (1999). However it turned negative afterwards, but remains lower in absolute terms than the difference in medium-sized and small firms.

The highest fraction of firms in 2004 are classified as manufacturing (34,6%), followed by trade (21,5%), business activities (14,7%) and construction (11,2%). Other industries are represented by less than 10% share. Similar distribution is observed in the previous years.

7. The results

Table 5 and table 6 in appendix show regression results, former including equity capital per employee and latter its lagged values in the model. Tables 7, 8 and 9 shows the results of tests conducted on subsamples, including only small, medium-sized and large firms, respectively.

Contrary to the neoclassical theory and the theory of employee-governed firm but in accordance with post-Keynesian capital structure theory we have found statistically significant negative correlation between tangibility of assets (*TANG*) and leverage. This is also in accordance with studies conducted in other CEE transition economies where typically negative correlation between tangibility and leverage has been observed. Negative correlation in Slovenian firms can be partly explained also by revaluation of fixed assets which was required by the accounting standards in force until 2001. In many firms it has resulted in too high book value of the fixed assets compared to their collateral value, and these were often the firms with a lot of tangible assets. Besides, high assets tangibility does not always imply lower risk because firm assets might be specific thus have low liquidation value. However, the negative impact of tangibility on leverage has been declining throughout the studied period, as suggested by decreasing value of the regression coefficient. The impact of assets tangibility proved to be less negative in small firms, suggesting that collateral probably played more important role

in supply of debt compared to that in medium-sized and large firms. The difference in regression coefficient is until 2003 statistically significant.

Earnings volatility (*SDROA*) proved to be negatively correlated to leverage, as suggested by the theories, only in two years of the studied period.¹⁰ However, earnings volatility proved to be more important determinant of capital structure choice in small firms (see the results of testing the model on subsamples of small firms). Besides, the difference in regression coefficients was found statistically significant in the first half of studied period. Beside other factors that explain higher debt capacity of larger firms it is possible that this was caused by more generous government support to firms with higher number of employees enabling them to increase the leverage despite their volatile earnings. Soft budget constraints enable them to survive, thus the government to decrease the negative social consequences of major enterprise sector restructuring in the transition.

As suggested by the neoclassical theory and the theory of employee-governed firm, firm size (*logs*) was found to be positively correlated to leverage. Regression coefficient is statistically significant in all years of the studied period. However, when testing the model on different subsamples the impact proved to be statistically significant only in small and medium-sized firms. As suggested by the regression coefficient the impact has strengthen during the period in small and especially medium-sized firms, suggesting information asymmetry probably has not decreased, thus suppliers of debt still preferred to supply the funds to larger firms.

As predicted by the pecking order theory and the theory based on the employee-governed behavior, highly statistically significant negative correlation between profitability (*ROA*) and leverage can be observed in all the years of the studied period. Moreover, as suggested by the increasing value of the regression coefficient, the impact of the profitability strengthened during the studied period. The negative correlation between profitability and leverage is not surprising because of continuation of employees' control, extensive asymmetric information and huge transaction costs of issuing new equity during a postprivatization period of depressed share prices. Also, interest tax shields most probably did not influence the capital structure decisions significantly. This was due to the very low effective tax rates of the Slovenian firms which were caused mainly by favorable capital investment tax allowances. However, it is surprising that the negative impact of profitability on leverage has strengthened during transition period, as we expected that other stakeholder like managers and

¹⁰ Statistical insignificance of the coefficient in other years is probably result of inappropriate proxy used. Standard deviation of *ROA* in the three-year period probably does not catch the extent of earnings volatility sufficiently.

shareholders rather than employees were gaining control, asymmetry of information and transaction costs were declining and the tax benefits of debt have increased.

As predicted, positive correlation between growth rate (gS) and leverage has been found. The impact is statistically significant in all the years of the studied period. It is not surprising that faster growing firms were financed with debt to a larger extent than firms exhibiting slower growth, as profitability of Slovenian firms compared to the firms in the developed and other CEE countries was relatively low, capital market was underdeveloped and most of the non-equity financing was short term and, not least, most firms were characterized by employee-governed behavior. The impact of growth rate proved to be smaller in small firms, however the difference is statistically significant in 1999 and 2000.

As expected, a persistent statistically significant negative impact of the factor representing the extent the firm is characterized by employee-governed behavior, ($DIFF$) on leverage could be observed. This clearly suggests that corporate governance in Slovenia has changed only gradually and other goals of the firms than maximizing shareholders wealth are still being followed. Moreover, the impact proved to be a similarly important factor in explaining the capital structure decisions in small firms. This is somewhat in contrast to our expectation because correlation was expected to be observed mainly in large and medium-sized firms, which were existing already in the economic system and were thus to a higher extent characterized by the employee-governed behavior. This confirms the conclusion of previous research that cultural factors had an important impact as well. In four years of the studied period we found the impact in small firms to be less intense compared to the impact in medium-sized and large firms, however only in two years the difference is statistically significant. Meanwhile, in other two years positive statistically significant difference could be observed.

Similarly, as predicted we have found a statistically significant negative impact of equity capital per employee, measured with (E/L) or its lagged value (E/L lagged), on leverage. By acknowledging this we could conclude that managers were to a certain extent in control and the goal of maximizing the probability of long-term survival was followed by the Slovenian firm. Taking into account the rough transition period which coincided with the vital loss of the excess to the Yugoslav market experienced by Slovenian firms after a rather unfriendly dissolution of the common state, worries about long-term survival should have been very much real, managers being in control or not. The factor proved to be relatively more important in explaining capital structure decisions in small firms, the differences being highly statistically significant.

Regression coefficients of the controlling variables suggest that industry specific effects are important determinants of capital structure differences as well. We found leverage of firms in construction, trade, transport and communication, and other industries, i.e. those not treated separately by dummy variables significantly more levered than firms in manufacturing, especially those in trade, while the difference in hotels and restaurants and business activities have not proved to be statistically significant.

Adjusted R square of the model ranges between 0,350 and 0,254 (0,338 and 0,234 if lagged value of equity capital per employee are included in the model), indicating fairly high explanatory power compared to similar empirical studies. The decreasing value of the adjusted R square suggests that transition in financial behavior of Slovenian firms was still taking place. The corporate governance was changing very slowly and other goals than maximizing shareholders' wealth were still very important and were followed by Slovenian firms during transition.

8. Robustness checks

In order to further check the validity of our results various robustness checks have been performed. First we tried to address the problem of endogeneity we arrived to when including equity capital per employee in the model. Since including lagged values has not solved the problem efficiently we approximated the relative extent of equity capital by the ratio of firm's equity capital per employee to industry average equity capital per employee (E/LR) and its lagged values (E/LR lagged). Table 10 and table 11 show that our results do not change.

Since even this transformation probably did not solve the problem of endogeneity efficiently, we like Rajan and Zingales (1995) applied average-cross-section regressions. As could be seen in table 12, we again obtain very similar results.

We have also tested the models including alternative proxies for equity capital per employee on the sample including only micro firms, i.e. firms with 10 or less employees. As seen in table 13 and 14, estimated parameters of the models suggest our results being very robust. Moreover, we found statistically significant negative impact of earnings volatility ($SDROA$), on leverage, which proved to be insignificant when testing the model on the sample excluding micro firms. By acknowledging that, we can reject the concerns about the appropriateness of the proxy for earning volatility used in the model.

9. Conclusions

To show that other forces than those proposed by the neoclassical capital structure theory affect the capital structure choice in CEE transition economies we have examined capital structure in Slovenian firms. We analyzed its ex economic system, the corporate governance during transition and the goals followed by Slovenian firms at that time. Using existing theories that try to explain financial behavior of firms with different stakeholders in control, mainly the post-Keynesian theory and the theory of employee-governed firm, we determined factors that should best explain their capital structure choice.

By assuming employee-governed behavior in Slovenian firms we hypothesized that the more the firm is characterized by such behavior, the lower the leverage, since the firm maximizes the wages at the lowest possible level of debt. Moreover, it was assumed that ownership consolidation, when employees were slowly selling their shares primarily to managers but also outsiders, resulted in managers succeeding the employees and taking control in Slovenian firms. According to the post-Keynesian theory management who controls firms maximize the probability of long term survival. This is achieved by a decrease of the firm's leverage when equity capital per employee increases. Besides, the impact of some other factors proposed also by the neoclassical capital structure theory, like tangibility of assets, earnings volatility, firm size, profitability and growth, have been examined.

In the empirical study we have found statistically significant negative correlation between leverage and tangibility of assets, earnings volatility, profitability, the extent to which a firm is characterized by employee-governed behavior and equity capital per employee, while statistically significant positive correlation between leverage and firm size and growth rate was observed. Thus, we have shown that other forces than those proposed by the neoclassical capital structure theory are at work when managers in Slovenian firms decide on the capital structure since throughout the period under investigation these determinants were explaining the biggest part of differences. However, the explanatory power of these determinants was diminishing which implies changing corporate governance and the goals followed by Slovenian firms during transition.

On the basis of the Slovenian example we may conclude that, despite changes in corporate governance with shareholders most probably slowly gaining over other stakeholders in firms in CEE transition economies, financial behavior of the firms in CEE transition economies remains different from financial behavior of the firms in

mature market economies. This is a challenge for future research as quite scarce research results are available so far.

9. References

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10. Appendix

Table 1: Descriptive statistics (all firms)

	1999		2000		2001		2002		2003		2004	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Assets	633.315	1.169.167	664.643	1.114.817	719.424	1.264.832	775.068	1.430.479	804.867	1.404.245	869.648	1.521.304
<i>Growth rate (1 year)</i>			4,9		8,2		7,7		3,8		8,0	
Equity capital	294.907	623.627	309.675	666.509	330.802	691.821	352.603	797.127	357.510	751.394	376.882	804.229
<i>Growth rate (1 year)</i>			5,0		6,8		6,6		1,4		5,4	
Sales	613.761	683.664	656.354	728.444	709.208	804.430	761.937	856.790	799.801	908.536	853.000	975.119
<i>Growth rate (1 year)</i>			6,9		8,1		7,4		5,0		6,7	
EBIT	9.679	73.678	12.631	90.520	16.258	75.615	22.852	100.374	31.316	99.893	36.002	106.275
<i>Growth rate (1 year)</i>			30,5		28,7		40,6		37,0		15,0	
Net income	9.226	90.388	10.813	114.973	12.772	88.150	15.038	107.462	23.098	93.349	27.156	92.284
<i>Growth rate (1 year)</i>			17,2		18,1		17,7		53,6		17,6	
Number of employees	55,8	74,3	53,9	73,3	52,3	73,3	50,3	70,0	50,2	156,9	47,2	67,4
<i>Growth rate (1 year)</i>			-3,4		-3,0		-3,8		-0,2		-6,0	
LEV	0,590	0,252	0,591	0,245	0,589	0,242	0,592	0,238	0,594	0,238	0,606	0,231
TANG	0,436	0,240	0,424	0,238	0,419	0,239	0,409	0,239	0,401	0,241	0,396	0,239
SDROA	0,063	0,069	0,061	0,065	0,059	0,061	0,057	0,072	0,056	0,072	0,054	0,066
LOGS	5,539	0,490	5,572	0,483	5,601	0,485	5,633	0,485	5,655	0,479	5,680	0,482
ROA	0,034	0,123	0,032	0,123	0,028	0,127	0,043	0,114	0,054	0,103	0,058	0,109
GS	0,446	0,945	0,468	0,984	0,370	0,640	0,372	0,811	0,366	0,858	0,398	0,950
DIFF	-0,089	0,456	-0,071	0,424	-0,036	0,401	-0,071	0,400	-0,053	0,370	-0,073	0,378
E/L	5.087	6.497	5.715	7.136	6.483	8.315	7.309	10.706	8.150	12.747	8.742	13.922
N	3.214		3.390		3.498		3.729		3.858		3.997	

Source: AJPES, authors' own calculations.

Table 2: Descriptive statistics (small firms)

	1999		2000		2001		2002		2003		2004	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Assets	131.974	150.449	146.519	166.220	146.703	161.970	290.494	325.253	326.949	453.408	398.615	441.867
Equity capital	55.176	85.800	62.534	99.410	61.099	91.652	115.282	164.642	132.044	214.845	158.841	251.257
Sales	158.874	100.013	159.642	99.645	159.478	97.330	356.132	294.495	371.477	315.315	475.980	428.352
EBIT	3.232	14.121	2.545	14.982	1.699	17.250	12.209	35.407	15.199	35.786	20.812	48.555
Net income	3.966	12.066	2.656	13.368	1.974	17.265	7.964	34.059	11.040	36.211	15.774	46.153
Number of employees	21,4	14,4	20,9	12,4	20,1	11,4	25,6	25,5	25,1	23,5	27,6	27,0
LEV	0,612	0,247	0,605	0,242	0,603	0,242	0,612	0,232	0,608	0,237	0,620	0,225
TANG	0,417	0,247	0,407	0,249	0,397	0,256	0,391	0,241	0,390	0,245	0,385	0,239
SDROA	0,077	0,080	0,078	0,080	0,076	0,075	0,065	0,080	0,062	0,077	0,059	0,070
LOGS	5,113	0,300	5,123	0,278	5,128	0,269	5,410	0,369	5,434	0,355	5,517	0,390
ROA	0,036	0,140	0,026	0,137	0,018	0,148	0,048	0,122	0,057	0,106	0,061	0,113
GS	0,548	1,168	0,478	1,127	0,335	0,667	0,394	0,845	0,389	0,907	0,410	0,974
DIFF	-0,119	0,448	-0,071	0,421	-0,046	0,406	-0,084	0,403	-0,063	0,371	-0,080	0,377
E/L	2.908	4.023	3.274	4.505	3.396	4.641	5.414	7.128	6.370	10.352	7.258	12.215
N	1.405	1.397	1.342	2.622	2.723	3.138						

Source: AJPES, authors' own calculations.

Table 3: Descriptive statistics (medium-sized firms)

	1999		2000		2001		2002		2003		2004	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Assets	602.170	575.225	592.664	657.544	553.156	530.388	1.616.452	1.871.892	1.626.485	1.854.567	2.321.077	2.388.012
Equity capital	259.292	341.732	249.699	338.371	236.219	312.839	688.545	763.666	679.977	765.652	956.201	1.001.146
Sales	661.857	411.588	601.540	317.937	598.824	322.701	1.577.415	809.219	1.664.181	871.282	2.156.867	1.045.436
EBIT	13.576	64.084	11.367	63.089	11.394	52.624	44.360	151.369	58.975	149.726	85.354	193.138
Net income	12.705	66.533	9.999	68.733	9.585	75.810	31.774	131.444	43.500	122.980	67.901	155.944
Number of employees	54,2	48,0	49,2	44,2	44,1	41,1	92,0	64,8	98,1	310,9	105,8	78,2
LEV	0,596	0,247	0,602	0,242	0,603	0,236	0,564	0,249	0,572	0,241	0,565	0,249
TANG	0,439	0,239	0,431	0,236	0,429	0,234	0,460	0,228	0,434	0,233	0,463	0,239
SDROA	0,056	0,060	0,053	0,051	0,052	0,051	0,039	0,043	0,043	0,062	0,039	0,046
LOGS	5,748	0,261	5,726	0,221	5,725	0,216	6,137	0,244	6,157	0,261	6,275	0,243
ROA	0,039	0,115	0,037	0,114	0,035	0,121	0,035	0,096	0,048	0,099	0,052	0,090
GS	0,414	0,757	0,480	0,869	0,403	0,637	0,342	0,762	0,331	0,762	0,383	0,886
DIFF	-0,104	0,464	-0,081	0,432	-0,037	0,400	-0,044	0,377	-0,037	0,353	-0,053	0,339
E/L	6.193	7.127	6.523	7.236	6.940	7.693	10.355	13.013	10.964	14.373	11.953	13.563
N	1.361		1.394		1.384		810		837		587	

Source: AJPES, authors' own calculations.

Table 4: Descriptive statistics (large firms)

	1999		2000		2001		2002		2003		2004	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Assets	2.300.218	2.273.757	2.040.531	1.853.704	2.013.085	2.099.915	2.758.336	2.700.849	2.864.189	2.406.474	3.171.537	2.661.678
Equity capital	1.154.940	1.221.154	1.025.640	1.250.305	969.199	1.195.799	1.531.541	1.991.606	1.511.996	1.778.343	1.642.152	1.937.711
Sales	1.894.241	715.571	1.942.360	713.165	1.862.720	922.816	2.120.465	1.248.011	2.285.836	1.291.570	2.388.736	1.355.695
EBIT	18.058	160.158	39.096	188.938	50.288	137.393	58.151	222.817	100.901	212.963	104.747	214.239
Net income	15.153	211.283	31.731	250.791	37.257	153.606	31.847	294.035	75.977	230.788	70.543	203.345
Number of employees	168,7	124,4	142,2	123,0	123,1	119,1	154,4	152,9	145,4	145,6	147,1	153,0
LEV	0,502	0,262	0,534	0,250	0,541	0,244	0,494	0,234	0,519	0,222	0,527	0,234
TANG	0,490	0,214	0,448	0,211	0,439	0,214	0,433	0,224	0,406	0,217	0,388	0,214
SDROA	0,037	0,043	0,039	0,042	0,040	0,039	0,036	0,037	0,036	0,037	0,037	0,048
LOGS	6,239	0,204	6,258	0,175	6,200	0,289	6,223	0,339	6,264	0,328	6,282	0,328
ROA	0,014	0,084	0,033	0,109	0,034	0,088	0,028	0,090	0,042	0,086	0,039	0,085
GS	0,221	0,549	0,413	0,872	0,373	0,591	0,260	0,585	0,255	0,602	0,282	0,789
DIFF	0,053	0,429	-0,048	0,410	-0,019	0,392	-0,030	0,424	-0,007	0,404	-0,031	0,458
E/L	8.558	8.200	9.523	9.448	11.030	11.502	15.732	20.064	16.512	20.610	18.944	24.099
N	448		599		772		297		298		272	

Source: AJPES, authors' own calculations.

Table 5: Estimated regression coefficients, t statistics and significance levels, and interaction terms with equity capital per employee in the model (all firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,52302	11,241	0,00	0,47596	10,524	0,00	0,50642	11,263	0,00	0,53432	12,239	0,00	0,53004	12,189	0,00	0,56864	13,631	0,00
TANG	-0,22284	-13,507	0,00	-0,21154	-13,495	0,00	-0,18052	-11,755	0,00	-0,15437	-10,249	0,00	-0,11030	-7,446	0,00	-0,08140	-5,683	0,00
SDROA	0,01109	0,200	0,84	-0,03518	-0,634	0,53	-0,17825	-3,037	0,00	-0,01760	-0,366	0,71	0,04806	1,011	0,31	-0,16093	-3,202	0,00
LOGS	0,03713	4,582	0,00	0,04369	5,582	0,00	0,03557	4,570	0,00	0,02704	3,599	0,00	0,02471	3,316	0,00	0,02016	2,838	0,00
ROA	-0,21994	-6,672	0,00	-0,17361	-5,655	0,00	-0,21146	-7,081	0,00	-0,29754	-9,189	0,00	-0,39587	-11,089	0,00	-0,40411	-12,516	0,00
GS	0,02890	7,085	0,00	0,03334	9,197	0,00	0,04920	8,644	0,00	0,03486	8,146	0,00	0,03590	8,630	0,00	0,03144	8,665	0,00
DIFF	-0,03587	-4,037	0,00	-0,04265	-4,877	0,00	-0,03998	-4,219	0,00	-0,04849	-5,244	0,00	-0,03912	-3,892	0,00	-0,05405	-5,751	0,00
E/L	-0,00002	-28,594	0,00	-0,00002	-29,825	0,00	-0,00001	-29,388	0,00	-0,00001	-27,649	0,00	-0,00001	-27,987	0,00	-0,00001	-27,923	0,00
DC	0,03983	3,144	0,00	0,05173	4,359	0,00	0,07162	6,086	0,00	0,07083	6,071	0,00	0,07407	6,439	0,00	0,06985	6,271	0,00
DT	0,10724	10,649	0,00	0,11528	12,195	0,00	0,11578	12,154	0,00	0,10236	11,047	0,00	0,10112	11,028	0,00	0,08766	9,914	0,00
DHR	0,00942	0,498	0,62	0,02009	1,107	0,27	0,03177	1,750	0,08	0,01116	0,618	0,54	-0,00783	-0,427	0,67	-0,02213	-1,230	0,22
DTC	0,04163	2,338	0,02	0,05060	3,066	0,00	0,04679	2,904	0,00	0,04097	2,587	0,01	0,04107	2,603	0,01	0,03950	2,604	0,01
DBA	0,01141	0,983	0,33	0,00134	0,123	0,90	0,00610	0,558	0,58	-0,00561	-0,529	0,60	-0,00708	-0,671	0,50	-0,00655	-0,648	0,52
DOTHER	0,08065	5,763	0,00	0,06956	5,294	0,00	0,03792	3,050	0,00	0,02906	2,311	0,02	0,03269	2,634	0,01	0,02331	1,953	0,05
DSI	-0,02275	-1,242	0,21	-0,02771	-1,572	0,12	0,00474	0,274	0,78	0,02544	1,347	0,18	-0,01853	-1,372	0,17	0,05479	2,729	0,01
TANG_SI	0,18874	5,957	0,00	0,12461	4,106	0,00	0,11052	3,712	0,00	0,09871	3,081	0,00	0,09091	4,561	0,00	0,02639	0,781	0,43
SDROA_SI	-0,44168	-4,018	0,00	-0,21126	-1,838	0,07	-0,46893	-4,012	0,00	-0,12783	-0,831	0,41	-0,01453	-0,123	0,90	-0,27873	-1,731	0,08
ROA_SI	-0,04253	-0,655	0,51	-0,01217	-0,204	0,84	-0,02034	-0,353	0,72	0,05009	0,603	0,55	0,12541	1,551	0,12	0,20099	2,095	0,04
GS_SI	-0,02066	-2,407	0,02	-0,02370	-3,297	0,00	-0,00103	-0,090	0,93	-0,00993	-0,992	0,32	-0,00769	-0,737	0,46	-0,01111	-1,190	0,23
DIFF_SI	-0,00783	-0,442	0,66	-0,04154	-2,360	0,02	0,03662	1,911	0,06	-0,04051	-1,946	0,05	-0,04375	-1,957	0,05	0,06154	2,682	0,01
E/L_SI	-0,00002	-9,989	0,00	-0,00001	-7,710	0,00	-0,00001	-10,308	0,00	-0,00001	-11,169	0,00	0,00000	-8,726	0,00	0,00000	-6,129	0,00
R square	0,350			0,355			0,324			0,282			0,268			0,254		
N	3,214			3,390			3,498			3,729			3,858			3,997		

Source: AJPES, authors' own calculations.

Table 6: Estimated regression coefficients, t statistics and significance levels, and interaction terms with lagged values of equity capital per employee (all firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,53614	11,402	0,00	0,48897	10,747	0,00	0,51641	11,421	0,00	0,48337	11,223	0,00	0,51324	11,781	0,00	0,59846	14,161	0,00
TANG	-0,22468	-13,492	0,00	-0,21126	-13,365	0,00	-0,17712	-11,481	0,00	-0,14206	-9,569	0,00	-0,11225	-7,578	0,00	-0,08017	-5,506	0,00
SDROA	0,00521	0,093	0,93	-0,05197	-0,929	0,35	-0,20600	-3,499	0,00	-0,04481	-0,948	0,34	0,03045	0,642	0,52	-0,15779	-3,071	0,00
LOGS	0,03447	4,210	0,00	0,04116	5,227	0,00	0,03405	4,353	0,00	0,03846	5,174	0,00	0,02914	3,894	0,00	0,01407	1,957	0,05
ROA	-0,27399	-8,276	0,00	-0,22195	-7,135	0,00	-0,25221	-8,448	0,00	-0,32634	-10,305	0,00	-0,43710	-12,304	0,00	-0,46452	-14,059	0,00
GS	0,03091	7,514	0,00	0,03406	9,322	0,00	0,04849	8,454	0,00	0,03446	8,210	0,00	0,03668	8,842	0,00	0,03370	9,152	0,00
DIFF	-0,04051	-4,516	0,00	-0,04385	-4,966	0,00	-0,04954	-5,208	0,00	-0,04961	-5,508	0,00	-0,04661	-4,655	0,00	-0,06467	-6,776	0,00
E/L lagged	-0,00002	-27,342	0,00	-0,00002	-28,780	0,00	-0,00001	-28,922	0,00	-0,00001	-30,217	0,00	-0,00001	-27,933	0,00	-0,00001	-25,268	0,00
DC	0,04136	3,236	0,00	0,05164	4,325	0,00	0,07446	6,319	0,00	0,06774	5,916	0,00	0,07141	6,225	0,00	0,06916	6,115	0,00
DT	0,10465	10,306	0,00	0,11553	12,140	0,00	0,11399	11,942	0,00	0,10887	11,952	0,00	0,10318	11,274	0,00	0,08638	9,626	0,00
DHR	0,00124	0,065	0,95	0,01734	0,948	0,34	0,03128	1,719	0,09	0,03016	1,692	0,09	-0,00484	-0,265	0,79	-0,02450	-1,343	0,18
DTC	0,04024	2,240	0,03	0,04551	2,739	0,01	0,04488	2,779	0,01	0,04115	2,643	0,01	0,03989	2,536	0,01	0,03866	2,506	0,01
DBA	0,00843	0,719	0,47	-0,00049	-0,045	0,96	0,00593	0,540	0,59	-0,00005	-0,005	1,00	-0,00505	-0,480	0,63	-0,00574	-0,559	0,58
DOTHER	0,07660	5,422	0,00	0,07118	5,383	0,00	0,03225	2,590	0,01	0,02854	2,305	0,02	0,03177	2,563	0,01	0,01733	1,433	0,15
DSI	-0,01154	-0,622	0,53	-0,01823	-1,031	0,30	-0,01024	-0,589	0,56	-0,02152	-1,175	0,24	-0,01061	-0,596	0,55	0,05378	2,720	0,01
TANG_SI	0,16509	5,181	0,00	0,08475	2,821	0,00	0,07506	2,552	0,01	0,10826	3,407	0,00	0,08827	2,776	0,01	0,02856	0,836	0,40
SDROA_SI	-0,45706	-4,101	0,00	-0,24025	-2,063	0,04	-0,40974	-3,474	0,00	-0,07463	-0,493	0,62	0,05285	0,425	0,67	-0,28503	-1,753	0,08
ROA_SI	-0,06609	-1,012	0,31	0,01486	0,245	0,81	-0,01097	-0,189	0,85	-0,06276	-0,775	0,44	0,10830	1,316	0,19	0,20311	2,114	0,03
GS_SI	-0,02639	-3,039	0,00	-0,02380	-3,278	0,00	0,00434	0,376	0,71	-0,00250	-0,254	0,80	-0,01769	-1,677	0,09	-0,01049	-1,112	0,27
DIFF_SI	-0,02654	-1,480	0,14	-0,04141	-2,328	0,02	0,03682	1,895	0,06	-0,04994	-2,468	0,01	-0,04243	-1,911	0,06	0,06707	2,909	0,00
E/L lagged_SI	-0,00002	-8,839	0,00	-0,00001	-7,562	0,00	-0,00001	-8,203	0,00	-0,00001	-9,796	0,00	0,00000	-7,206	0,00	0,00000	-7,887	0,00
R square	0,338			0,347			0,321			0,306			0,269			0,234		
N	3.212			3.390			3.495			3.717			3.852			3.993		

Source: AJPES, authors' own calculations.

Table 7: Estimated regression coefficients, t statistics and significance levels with equity capital per employee or its lagged values in the model (small firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,21617	2,238	0,03	0,27727	2,667	0,01	0,32305	2,971	0,00	0,21779	3,523	0,00	0,27093	4,186	0,00	0,32648	5,959	0,00
TANG	-0,09201	-3,864	0,00	-0,13238	-5,661	0,00	-0,10229	-4,444	0,00	-0,10144	-6,046	0,00	-0,08311	-4,981	0,00	-0,06451	-4,207	0,00
SDROA	-0,12547	-1,826	0,07	-0,08929	-1,314	0,19	-0,34785	-4,713	0,00	-0,05353	-1,109	0,27	0,04838	0,949	0,34	-0,17784	-3,446	0,00
LOGS	0,10410	5,572	0,00	0,08994	4,467	0,00	0,08376	3,981	0,00	0,09273	8,237	0,00	0,07792	6,621	0,00	0,06897	7,092	0,00
ROA	-0,28968	-6,871	0,00	-0,23472	-5,563	0,00	-0,26097	-6,460	0,00	-0,29057	-8,532	0,00	-0,41121	-10,212	0,00	-0,41145	-12,214	0,00
GS	0,02253	4,706	0,00	0,02045	4,192	0,00	0,03988	4,568	0,00	0,02940	6,370	0,00	0,03167	6,982	0,00	0,02919	7,524	0,00
DIFF	-0,03377	-2,565	0,01	-0,06235	-4,616	0,00	-0,02327	-1,561	0,12	-0,05165	-5,038	0,00	-0,05595	-4,834	0,00	-0,04427	-4,324	0,00
E/L	-0,00003	-21,572	0,00	-0,00002	-19,328	0,00	-0,00003	-20,482	0,00	-0,00002	-26,582	0,00	-0,00001	-26,091	0,00	-0,00001	-26,207	0,00
DC	0,01679	0,968	0,33	0,03962	2,313	0,02	0,04487	2,588	0,01	0,05690	4,393	0,00	0,06088	4,654	0,00	0,05573	4,671	0,00
DT	0,04482	2,696	0,01	0,05769	3,419	0,00	0,02651	1,486	0,14	0,06374	5,909	0,00	0,06086	5,483	0,00	0,05725	5,841	0,00
DHR	-0,00903	-0,383	0,70	0,02305	0,969	0,33	0,03692	1,608	0,11	0,02380	1,207	0,23	0,01350	0,652	0,51	-0,00386	-0,195	0,85
DTC	-0,00150	-0,057	0,95	-0,02265	-0,832	0,41	0,00037	0,014	0,99	0,02620	1,488	0,14	0,03021	1,680	0,09	0,02482	1,507	0,13
DBA	-0,04693	-3,095	0,00	-0,05753	-3,837	0,00	-0,05413	-3,517	0,00	-0,03338	-2,979	0,00	-0,03921	-3,393	0,00	-0,02768	-2,625	0,01
DOTHER	-0,01590	-0,820	0,41	-0,01610	-0,835	0,40	-0,04893	-2,552	0,01	-0,00901	-0,609	0,54	-0,00175	-0,118	0,91	-0,01882	-1,382	0,17
R square	0,380			0,357			0,364			0,322			0,294			0,269		
N	1.405			1.397			1.342			2.622			2.723			3.138		
Constant	0,29351	2,992	0,00	0,29425	2,785	0,01	0,30256	2,685	0,01	0,23889	3,849	0,00	0,24446	3,780	0,00	0,37464	6,761	0,00
TANG	-0,11186	-4,657	0,00	-0,15660	-6,658	0,00	-0,11301	-4,829	0,00	-0,10269	-6,078	0,00	-0,07480	-4,477	0,00	-0,06447	-4,131	0,00
SDROA	-0,14439	-2,060	0,04	-0,11194	-1,615	0,11	-0,34045	-4,536	0,00	-0,07766	-1,598	0,11	0,03570	0,703	0,48	-0,17505	-3,316	0,00
LOGS	0,08996	4,744	0,00	0,08810	4,304	0,00	0,08603	3,954	0,00	0,08917	7,888	0,00	0,08457	7,182	0,00	0,05952	6,056	0,00
ROA	-0,37237	-8,725	0,00	-0,26351	-6,141	0,00	-0,30041	-7,315	0,00	-0,35676	-10,462	0,00	-0,43839	-10,934	0,00	-0,46857	-13,559	0,00
GS	0,02228	4,572	0,00	0,02221	4,484	0,00	0,04662	5,244	0,00	0,03196	6,895	0,00	0,03128	6,927	0,00	0,03151	8,001	0,00
DIFF	-0,05317	-3,976	0,00	-0,06136	-4,430	0,00	-0,03101	-2,017	0,04	-0,05841	-5,689	0,00	-0,05505	-4,777	0,00	-0,05220	-5,018	0,00
E/L lagged	-0,00003	-20,094	0,00	-0,00003	-17,822	0,00	-0,00003	-18,994	0,00	-0,00002	-25,661	0,00	-0,00001	-26,177	0,00	-0,00001	-23,870	0,00
DC	0,01453	0,822	0,41	0,03969	2,280	0,02	0,04956	2,809	0,01	0,05490	4,213	0,00	0,05703	4,380	0,00	0,05531	4,564	0,00
DT	0,05163	3,059	0,00	0,05587	3,258	0,00	0,02661	1,466	0,14	0,06758	6,226	0,00	0,06418	5,806	0,00	0,05788	5,817	0,00
DHR	-0,01364	-0,568	0,57	0,01232	0,511	0,61	0,03811	1,630	0,10	0,02420	1,216	0,22	0,00938	0,455	0,65	-0,00412	-0,204	0,84
DTC	-0,00570	-0,212	0,83	-0,02901	-1,049	0,29	0,00157	0,057	0,95	0,02713	1,532	0,13	0,02895	1,618	0,11	0,02672	1,596	0,11
DBA	-0,05177	-3,352	0,00	-0,05899	-3,867	0,00	-0,05132	-3,271	0,00	-0,02868	-2,541	0,01	-0,03512	-3,049	0,00	-0,02638	-2,464	0,01
DOTHER	-0,03105	-1,570	0,12	-0,01559	-0,795	0,43	-0,05462	-2,798	0,01	-0,01619	-1,088	0,28	-0,00547	-0,371	0,71	-0,02248	-1,627	0,10
R square	0,357			0,337			0,342			0,313			0,296			0,249		
N	1.404			1.396			1.341			2.619			2.717			3.135		

Source: AJPES, authors' own calculations.

Table 8: Estimated regression coefficients, t statistics and significance levels with equity capital per employee or its lagged values in the model (medium-sized firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,74928	5,780	0,00	0,40716	2,902	0,00	0,40074	2,827	0,00	0,08530	0,406	0,69	0,00235	0,012	0,99	-0,33286	-1,283	0,20
TANG	-0,25858	-10,091	0,00	-0,20199	-8,194	0,00	-0,11209	-4,607	0,00	-0,14474	-3,766	0,00	-0,09095	-2,440	0,01	-0,07243	-1,569	0,12
SDROA	0,13125	1,434	0,15	0,02188	0,209	0,83	-0,02078	-0,205	0,84	0,05135	0,296	0,77	0,03631	0,284	0,78	0,08941	0,442	0,66
LOGS	-0,00377	-0,171	0,86	0,05498	2,282	0,02	0,05095	2,091	0,04	0,09150	2,720	0,01	0,10118	3,346	0,00	0,15055	3,717	0,00
ROA	-0,11951	-2,221	0,03	-0,15540	-2,957	0,00	-0,15652	-3,346	0,00	-0,26774	-2,757	0,01	-0,44184	-5,108	0,00	-0,58678	-4,954	0,00
GS	0,03804	4,974	0,00	0,04423	7,056	0,00	0,04237	4,979	0,00	0,02944	2,907	0,00	0,03419	3,159	0,00	0,04478	4,391	0,00
DIFF	-0,03713	-2,871	0,00	-0,01315	-0,983	0,33	-0,04331	-3,077	0,00	-0,03834	-1,664	0,10	-0,00533	-0,225	0,82	-0,09026	-3,091	0,00
E/L	-0,00002	-19,494	0,00	-0,00002	-20,708	0,00	-0,00002	-22,445	0,00	-0,00001	-13,647	0,00	-0,00001	-12,389	0,00	-0,00001	-10,057	0,00
DC	0,03382	1,679	0,09	0,03333	1,774	0,08	0,05483	2,991	0,00	0,10394	3,922	0,00	0,10244	4,086	0,00	0,12339	3,873	0,00
DT	0,12046	8,679	0,00	0,11128	8,244	0,00	0,12819	9,706	0,00	0,14457	7,373	0,00	0,14639	7,904	0,00	0,12088	5,095	0,00
DHR	-0,03262	-0,944	0,35	-0,02459	-0,747	0,46	-0,01895	-0,547	0,58	-0,04702	-1,028	0,30	-0,09427	-2,247	0,02	-0,06845	-1,430	0,15
DTC	0,08023	3,105	0,00	0,08186	3,550	0,00	0,06969	3,123	0,00	0,04491	1,125	0,26	0,02508	0,657	0,51	0,05665	1,341	0,18
DBA	0,05416	2,950	0,00	0,04856	2,726	0,01	0,03554	2,000	0,05	0,10563	3,092	0,00	0,10255	3,177	0,00	0,07406	1,737	0,08
DOTHER	0,13023	6,140	0,00	0,10969	5,616	0,00	0,07888	4,218	0,00	0,11597	4,561	0,00	0,14317	5,673	0,00	0,21324	7,378	0,00
R square	0,385			0,386			0,385			0,302			0,296			0,312		
N	1.361			1.394			1.384			810			837			587		
Constant	0,62138	4,656	0,00	0,33293	2,341	0,02	0,36315	2,534	0,01	0,05824	0,282	0,78	-0,03700	-0,199	0,84	-0,35468	-1,357	0,18
TANG	-0,24931	-9,650	0,00	-0,19262	-7,673	0,00	-0,11520	-4,686	0,00	-0,14569	-3,857	0,00	-0,09992	-2,741	0,01	-0,07112	-1,531	0,13
SDROA	0,13452	1,466	0,14	0,02689	0,253	0,80	-0,05756	-0,561	0,57	-0,01110	-0,065	0,95	-0,00699	-0,056	0,96	0,11955	0,588	0,56
LOGS	0,01779	0,782	0,43	0,06590	2,697	0,01	0,05782	2,346	0,02	0,09943	3,011	0,00	0,11059	3,739	0,00	0,15330	3,756	0,00
ROA	-0,17147	-3,200	0,00	-0,22997	-4,360	0,00	-0,22364	-4,781	0,00	-0,31920	-3,403	0,00	-0,47454	-5,692	0,00	-0,67404	-5,733	0,00
GS	0,04008	5,236	0,00	0,04551	7,159	0,00	0,03810	4,464	0,00	0,02958	2,983	0,00	0,03755	3,546	0,00	0,04623	4,505	0,00
DIFF	-0,03502	-2,702	0,01	-0,01913	-1,414	0,16	-0,05595	-3,956	0,00	-0,04167	-1,846	0,07	-0,01295	-0,565	0,57	-0,09164	-3,118	0,00
E/L lagged	-0,00002	-19,379	0,00	-0,00002	-19,501	0,00	-0,00002	-21,699	0,00	-0,00001	-14,870	0,00	-0,00001	-14,178	0,00	-0,00001	-9,637	0,00
DC	0,03773	1,871	0,06	0,03245	1,704	0,09	0,06225	3,361	0,00	0,09778	3,763	0,00	0,09684	3,953	0,00	0,12319	3,842	0,00
DT	0,11466	8,266	0,00	0,11283	8,239	0,00	0,12481	9,359	0,00	0,15330	7,947	0,00	0,14771	8,153	0,00	0,11951	5,007	0,00
DHR	-0,03738	-1,081	0,28	-0,02530	-0,757	0,45	-0,03177	-0,909	0,36	-0,00066	-0,014	0,99	-0,07236	-1,759	0,08	-0,06584	-1,364	0,17
DTC	0,07745	2,993	0,00	0,07610	3,257	0,00	0,06612	2,933	0,00	0,01906	0,480	0,63	0,02894	0,776	0,44	0,05608	1,320	0,19
DBA	0,04901	2,663	0,01	0,04317	2,388	0,02	0,03348	1,865	0,06	0,10000	2,986	0,00	0,09313	2,952	0,00	0,08684	2,023	0,04
DOTHER	0,13117	6,174	0,00	0,11363	5,753	0,00	0,06645	3,525	0,00	0,12445	4,984	0,00	0,15122	6,122	0,00	0,21450	7,364	0,00
R square	0,383			0,369			0,372			0,326			0,329			0,303		
N	1.360			1.394			1.385			807			836			587		

Source: AJPES, authors' own calculations.

Table 9: Estimated regression coefficients, t statistics and significance levels with equity capital per employee or its lagged values in the model (large firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,84962	2,589	0,01	0,39610	1,372	0,17	0,53096	3,176	0,00	0,52206	2,293	0,02	0,73579	3,257	0,00	0,64729	2,565	0,01
TANG	-0,34720	-6,898	0,00	-0,31896	-7,696	0,00	-0,27450	-7,356	0,00	-0,24125	-4,204	0,00	-0,19692	-3,501	0,00	-0,12832	-1,910	0,06
SDROA	0,23811	0,960	0,34	0,07554	0,383	0,70	0,24333	1,259	0,21	0,31194	0,971	0,33	0,87578	2,826	0,01	0,39370	1,478	0,14
LOGS	-0,02171	-0,420	0,67	0,04887	1,074	0,28	0,02160	0,827	0,41	0,01233	0,349	0,73	-0,02291	-0,647	0,52	-0,00885	-0,225	0,82
ROA	-0,66247	-4,902	0,00	-0,13650	-1,684	0,09	-0,18909	-1,911	0,06	-0,47591	-3,388	0,00	-0,61410	-4,489	0,00	-0,44148	-2,759	0,01
GS	0,07961	4,003	0,00	0,04000	4,218	0,00	0,04854	3,637	0,00	0,08297	3,825	0,00	0,05055	2,626	0,01	0,00904	0,526	0,60
DIFF	0,01674	0,681	0,50	-0,05319	-2,643	0,01	-0,04669	-2,174	0,03	0,04467	1,379	0,17	-0,01931	-0,627	0,53	-0,12727	-4,208	0,00
E/L	-0,00001	-11,537	0,00	-0,00001	-13,835	0,00	-0,00001	-13,332	0,00	0,00000	-6,924	0,00	0,00000	-7,041	0,00	0,00000	-6,339	0,00
DC	0,05944	1,729	0,08	0,06011	1,987	0,05	0,11024	4,085	0,00	0,04777	1,029	0,30	0,07954	1,596	0,11	0,08734	1,738	0,08
DT	0,13198	5,266	0,00	0,18041	9,217	0,00	0,16829	8,845	0,00	0,16862	5,094	0,00	0,17099	5,729	0,00	0,18679	5,344	0,00
DHR	0,11576	2,033	0,04	0,04756	0,965	0,33	0,02135	0,440	0,66	-0,03749	-0,579	0,56	-0,03058	-0,435	0,66	-0,04071	-0,606	0,55
DTC	0,07572	1,614	0,11	0,10427	2,550	0,01	0,05706	1,610	0,11	0,08484	1,776	0,08	0,06227	1,298	0,20	0,02829	0,484	0,63
DBA	0,10285	2,143	0,03	0,07503	2,221	0,03	0,09798	3,639	0,00	0,08030	2,024	0,04	0,08259	2,315	0,02	0,07262	1,748	0,08
DOTHER	0,31433	7,409	0,00	0,20149	5,287	0,00	0,10467	3,848	0,00	0,04710	1,101	0,27	0,00788	0,196	0,84	-0,01605	-0,355	0,72
R square	0,423			0,425			0,339			0,318			0,331			0,296		
N	448			599			772			297			298			272		
Constant	0,79068	2,345	0,02	0,20974	0,726	0,47	0,51841	3,071	0,00	0,53706	2,441	0,02	0,75688	3,334	0,00	0,57568	2,243	0,03
TANG	-0,34750	-6,711	0,00	-0,31965	-7,755	0,00	-0,27272	-7,275	0,00	-0,29165	-5,132	0,00	-0,20035	-3,542	0,00	-0,10090	-1,476	0,14
SDROA	0,22052	0,864	0,39	0,03554	0,180	0,86	0,15292	0,786	0,43	0,40367	1,307	0,19	0,87637	2,814	0,01	0,38610	1,419	0,16
LOGS	-0,01484	-0,279	0,78	0,07988	1,753	0,08	0,02397	0,907	0,36	0,01934	0,567	0,57	-0,02613	-0,735	0,46	-0,00047	-0,012	0,99
ROA	-0,79225	-5,761	0,00	-0,24958	-2,918	0,00	-0,30052	-3,014	0,00	-0,44711	-3,286	0,00	-0,68651	-5,037	0,00	-0,50154	-3,088	0,00
GS	0,09513	4,685	0,00	0,04050	4,274	0,00	0,05779	4,136	0,00	0,07846	3,700	0,00	0,05664	2,921	0,00	0,01327	0,756	0,45
DIFF	0,01450	0,573	0,57	-0,05290	-2,662	0,01	-0,06415	-2,999	0,00	0,04423	1,484	0,14	-0,03429	-1,108	0,27	-0,15547	-5,065	0,00
E/L lagged	-0,00001	-10,110	0,00	-0,00001	-13,801	0,00	-0,00001	-12,675	0,00	-0,00001	-8,317	0,00	0,00000	-6,775	0,00	0,00000	-5,385	0,00
DC	0,06275	1,774	0,08	0,05798	1,942	0,05	0,11181	4,153	0,00	0,03369	0,751	0,45	0,08378	1,674	0,10	0,08509	1,661	0,10
DT	0,13128	5,093	0,00	0,17969	9,271	0,00	0,16724	8,759	0,00	0,17948	5,510	0,00	0,17416	5,785	0,00	0,18833	5,225	0,00
DHR	0,06302	1,091	0,28	0,04799	0,977	0,33	0,01906	0,391	0,70	0,05925	0,911	0,36	-0,01831	-0,258	0,80	-0,06379	-0,934	0,35
DTC	0,08041	1,667	0,10	0,09270	2,280	0,02	0,05259	1,479	0,14	0,10465	2,269	0,02	0,05935	1,231	0,22	0,01070	0,180	0,86
DBA	0,11128	2,248	0,03	0,07311	2,178	0,03	0,10389	3,789	0,00	0,08565	2,220	0,03	0,07712	2,175	0,03	0,06863	1,620	0,11
DOTHER	0,31131	7,126	0,00	0,20969	5,468	0,00	0,10333	3,780	0,00	0,04707	1,099	0,27	-0,00050	-0,013	0,99	-0,03755	-0,822	0,41
R square	0,390			0,433			0,334			0,363			0,323			0,271		
N	448			600			769			291			299			271		

Source: AJPES, authors' own calculations.

Table 10: Estimated regression coefficients, t statistics and significance levels with the ratio of firm's equity capital per employee to industry average equity capital per employee in the model (all firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,50190	10,904	0,00	0,45996	10,218	0,00	0,49591	11,114	0,00	0,47731	11,211	0,00	0,47797	11,248	0,00	0,52061	12,706	0,00
TANG	-0,22546	-13,833	0,00	-0,21355	-13,695	0,00	-0,17466	-11,429	0,00	-0,14333	-9,739	0,00	-0,10598	-7,321	0,00	-0,07321	-5,198	0,00
SDROA	0,04072	0,744	0,46	-0,01853	-0,336	0,74	-0,15382	-2,640	0,01	-0,01557	-0,335	0,74	0,02486	0,540	0,59	-0,17250	-3,508	0,00
LOGS	0,04271	5,317	0,00	0,04757	6,103	0,00	0,03819	4,944	0,00	0,04010	5,452	0,00	0,03829	5,229	0,00	0,03172	4,530	0,00
ROA	-0,21052	-6,455	0,00	-0,16981	-5,559	0,00	-0,20986	-7,081	0,00	-0,26745	-8,465	0,00	-0,37118	-10,643	0,00	-0,37891	-11,964	0,00
GS	0,02821	6,995	0,00	0,03240	8,993	0,00	0,04610	8,151	0,00	0,03247	7,783	0,00	0,03224	7,940	0,00	0,02935	8,262	0,00
DIFF	-0,03314	-3,771	0,00	-0,03908	-4,500	0,00	-0,04597	-4,899	0,00	-0,04663	-5,194	0,00	-0,04519	-4,612	0,00	-0,04577	-5,003	0,00
E/L R	-0,14401	-30,106	0,00	-0,13923	-30,612	0,00	-0,12937	-30,539	0,00	-0,12467	-31,779	0,00	-0,11730	-31,828	0,00	-0,10581	-31,710	0,00
DC	0,09385	7,479	0,00	0,11548	9,698	0,00	0,12775	10,839	0,00	0,13291	11,537	0,00	0,13362	11,743	0,00	0,12499	11,314	0,00
DT	0,09974	10,032	0,00	0,10615	11,323	0,00	0,10628	11,271	0,00	0,09836	10,891	0,00	0,07932	8,884	0,00	0,08443	9,763	0,00
DHR	-0,02390	-1,284	0,20	-0,01584	-0,884	0,38	0,00050	0,028	0,98	-0,00193	-0,110	0,91	-0,01808	-1,013	0,31	-0,02842	-1,616	0,11
DTC	0,00318	0,181	0,86	0,01828	1,118	0,26	0,01182	0,741	0,46	0,01286	0,832	0,41	0,01119	0,727	0,47	0,01012	0,682	0,50
DBA	-0,02666	-2,321	0,02	-0,03479	-3,209	0,00	-0,03294	-3,039	0,00	-0,05158	-4,979	0,00	-0,05631	-5,471	0,00	-0,04522	-4,579	0,00
DOTHER	0,06685	4,815	0,00	0,06784	5,145	0,00	0,03540	2,852	0,00	0,00291	0,238	0,81	0,00517	0,428	0,67	-0,01170	-1,005	0,31
R square	0,365			0,364			0,335			0,321			0,302			0,288		
N	3.211			3.382			3.491			3.724			3.853			3.990		

Source: AJPES, authors' own calculations.

Table 11: Estimated regression coefficients, t statistics and significance levels with the lagged values of the ratio of firm's equity capital per employee to industry average equity capital per employee in the model (all firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	0,54015	11,685	0,00	0,47208	10,404	0,00	0,50707	11,284	0,00	0,49471	11,642	0,00	0,47683	11,147	0,00	0,54527	13,240	0,00
TANG	-0,23131	-14,070	0,00	-0,21585	-13,736	0,00	-0,17700	-11,529	0,00	-0,14156	-9,598	0,00	-0,10260	-7,037	0,00	-0,07732	-5,442	0,00
SDROA	0,02320	0,420	0,67	-0,01949	-0,351	0,73	-0,18038	-3,084	0,00	-0,03411	-0,734	0,46	0,00488	0,105	0,92	-0,18744	-3,739	0,00
LOGS	0,03677	4,559	0,00	0,04480	5,702	0,00	0,03658	4,705	0,00	0,03793	5,165	0,00	0,03848	5,218	0,00	0,02811	3,991	0,00
ROA	-0,27263	-8,328	0,00	-0,21470	-6,929	0,00	-0,25838	-8,711	0,00	-0,32425	-10,317	0,00	-0,41716	-11,943	0,00	-0,44822	-13,923	0,00
GS	0,02967	7,295	0,00	0,03506	9,685	0,00	0,04704	8,244	0,00	0,03451	8,285	0,00	0,03356	8,233	0,00	0,03132	8,743	0,00
DIFF	-0,03831	-4,327	0,00	-0,03937	-4,485	0,00	-0,05033	-5,326	0,00	-0,04984	-5,594	0,00	-0,04698	-4,779	0,00	-0,05705	-6,169	0,00
E/L R lagged	-0,13904	-28,927	0,00	-0,13163	-29,467	0,00	-0,13003	-29,764	0,00	-0,12953	-31,363	0,00	-0,11857	-30,983	0,00	-0,10527	-30,522	0,00
DC	0,08149	6,451	0,00	0,10462	8,764	0,00	0,13188	11,124	0,00	0,11933	10,409	0,00	0,12732	11,172	0,00	0,11817	10,625	0,00
DT	0,09452	9,431	0,00	0,10714	11,337	0,00	0,10567	11,165	0,00	0,09750	10,811	0,00	0,09817	10,927	0,00	0,06881	7,903	0,00
DHR	-0,02777	-1,479	0,14	-0,01713	-0,944	0,34	-0,00295	-0,164	0,87	0,00127	0,072	0,94	-0,02046	-1,143	0,25	-0,03163	-1,785	0,07
DTC	-0,00207	-0,117	0,91	0,01006	0,609	0,54	0,01433	0,895	0,37	0,00694	0,449	0,65	0,01239	0,802	0,42	0,01477	0,985	0,32
DBA	-0,03140	-2,703	0,01	-0,03461	-3,158	0,00	-0,02766	-2,536	0,01	-0,04200	-4,058	0,00	-0,05210	-5,042	0,00	-0,04246	-4,263	0,00
DOTHER	0,04456	3,177	0,00	0,06499	4,921	0,00	0,02189	1,754	0,08	0,01141	0,930	0,35	0,00535	0,441	0,66	-0,00855	-0,728	0,47
R square	0,354			0,353			0,329			0,318			0,297			0,279		
N	3,209			3,387			3,484			3,713			3,848			3,984		

Source: AJPES, authors' own calculations.

Table 12: Estimated regression coefficients, t statistics and significance levels obtained by average cross-section analysis with the ratio of firm's equity capital per employee to industry average equity capital per employee or its lagged values in the model (all firms)

	1 st model			2 nd model		
	B	t	Sig.	B	t	Sig.
Constant	0,60536	12,366	0,00	0,58057	11,994	0,00
TANG	-0,26212	-3,300	0,00	-0,24718	-3,154	0,00
SDROA	-0,16387	-8,783	0,00	-0,15373	-8,309	0,00
LOGS	0,01583	1,929	0,05	0,02233	2,748	0,01
ROA	-0,57560	-12,563	0,00	-0,55218	-12,180	0,00
GS	0,05775	9,098	0,00	0,05407	8,552	0,00
DIFF	-0,07113	-4,943	0,00	-0,07116	-4,987	0,00
E/L (E/L R)	-0,00001	-21,112	0,00	-0,10733	-23,089	0,00
DC	0,04450	3,471	0,00	0,09287	7,265	0,00
DT	0,10108	10,217	0,00	0,09046	9,295	0,00
DHR	-0,01275	-0,611	0,54	-0,03448	-1,681	0,09
DTC	0,02730	1,649	0,10	-0,00212	-0,129	0,90
DBA	-0,01621	-1,419	0,16	-0,05190	-4,604	0,00
DOTHER	0,02526	1,782	0,07	0,00770	0,549	0,58
R square	0,267			0,285		
N	3.114			3.009		

Source: AJPES, authors' own calculations.

Table 13: Estimated regression coefficients, t statistics and significance levels with equity capital per employee or its lagged values in the model (micro firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	-0,17023	-10,603	0,00	-0,13715	-8,374	0,00	-0,10658	-6,582	0,00	0,02059	1,255	0,21	0,01850	1,131	0,26	0,0169	1,020	0,31
TANG	-0,07519	-10,758	0,00	-0,05988	-8,459	0,00	-0,05041	-7,139	0,00	-0,03139	-4,420	0,00	-0,01959	-2,809	0,00	0,0135	1,930	0,05
SDROA	-0,13159	-6,983	0,00	-0,12399	-6,598	0,00	-0,13992	-7,587	0,00	-0,09366	-5,188	0,00	-0,05900	-3,243	0,00	-0,0399	-2,271	0,02
LOGS	0,18902	55,567	0,00	0,17780	51,132	0,00	0,16562	47,923	0,00	0,13169	37,983	0,00	0,12866	37,403	0,00	0,1266	36,457	0,00
ROA	-0,28769	-21,589	0,00	-0,30365	-21,428	0,00	-0,28139	-19,906	0,00	-0,25639	-18,182	0,00	-0,32121	-21,708	0,00	-0,3401	-23,243	0,00
GS	0,01912	14,179	0,00	0,01671	11,398	0,00	0,02194	9,724	0,00	0,02273	13,516	0,00	0,02229	13,243	0,00	0,0249	15,085	0,00
DIFF	-0,00059	-0,204	0,84	0,00285	0,884	0,38	-0,00050	-0,148	0,88	-0,00589	-1,795	0,07	-0,01000	-2,678	0,01	-0,0235	-6,070	0,00
E/L	-0,00001	-40,050	0,00	-0,00001	-41,084	0,00	-0,00001	-39,993	0,00	-0,00001	-37,312	0,00	0,00000	-35,867	0,00	0,0000	-35,641	0,00
DC	0,00727	0,913	0,36	0,01879	2,355	0,02	0,02049	2,516	0,01	0,02714	3,389	0,00	0,03479	4,444	0,00	0,0389	5,135	0,00
DT	0,03502	6,876	0,00	0,04791	9,260	0,00	0,04762	8,863	0,00	0,05308	9,691	0,00	0,05490	10,081	0,00	0,0577	10,561	0,00
DHR	0,03365	2,933	0,00	0,03586	3,075	0,00	0,03184	2,688	0,01	0,02838	2,351	0,02	0,04117	3,568	0,00	0,0533	4,826	0,00
DTC	0,03086	3,709	0,00	0,02705	3,122	0,00	0,03015	3,442	0,00	0,04251	4,832	0,00	0,04536	5,229	0,00	0,0346	4,069	0,00
DBA	-0,02846	-5,184	0,00	-0,03311	-5,973	0,00	-0,02623	-4,581	0,00	-0,03297	-5,704	0,00	-0,03608	-6,307	0,00	-0,0388	-6,812	0,00
DOTHER	0,02087	2,553	0,01	0,01877	2,323	0,02	0,01404	1,791	0,07	0,00557	0,706	0,48	0,01391	1,800	0,07	0,0193	2,525	0,01
R square	0,295			0,272			0,245			0,206			0,202			0,202		
N	14,553			14,494			14,894			15,235			15,467			15,729		
Constant	-0,16084	-10,113	0,00	-0,12776	-7,821	0,00	-0,10783	-6,684	0,00	-0,02031	-1,240	0,21	0,00609	0,373	0,71	0,00787	0,474	0,64
TANG	-0,07600	-10,961	0,00	-0,06119	-8,666	0,00	-0,05109	-7,271	0,00	-0,02237	-3,173	0,00	-0,01141	-1,637	0,10	0,01526	2,174	0,03
SDROA	-0,14068	-7,514	0,00	-0,12682	-6,756	0,00	-0,14700	-7,993	0,00	-0,10439	-5,838	0,00	-0,06060	-3,343	0,00	-0,04254	-2,432	0,02
LOGS	0,18835	55,909	0,00	0,17668	50,925	0,00	0,16704	48,430	0,00	0,14309	41,117	0,00	0,13215	38,378	0,00	0,12864	36,850	0,00
ROA	-0,33794	-25,724	0,00	-0,35212	-25,086	0,00	-0,32857	-23,514	0,00	-0,30061	-21,655	0,00	-0,36247	-24,766	0,00	-0,38210	-26,216	0,00
GS	0,01899	14,137	0,00	0,01648	11,250	0,00	0,02291	10,188	0,00	0,02288	13,778	0,00	0,02286	13,641	0,00	0,02573	15,583	0,00
DIFF	-0,00477	-1,655	0,10	-0,00440	-1,373	0,17	-0,00692	-2,053	0,04	-0,01103	-3,409	0,00	-0,01550	-4,192	0,00	-0,03084	-7,995	0,00
E/L lagged	-0,00002	-42,678	0,00	-0,00001	-41,190	0,00	-0,00001	-41,554	0,00	-0,00001	-41,141	0,00	-0,00001	-37,599	0,00	0,00000	-34,828	0,00
DC	0,00646	0,816	0,41	0,01601	2,007	0,04	0,02036	2,508	0,01	0,02572	3,245	0,00	0,03410	4,373	0,00	0,03977	5,241	0,00
DT	0,03438	6,793	0,00	0,04585	8,871	0,00	0,04605	8,601	0,00	0,05256	9,693	0,00	0,05491	10,122	0,00	0,05640	10,303	0,00
DHR	0,02976	2,610	0,01	0,03141	2,695	0,01	0,02668	2,262	0,02	0,01800	1,505	0,13	0,03905	3,394	0,00	0,05033	4,559	0,00
DTC	0,03036	3,666	0,00	0,02711	3,131	0,00	0,02882	3,302	0,00	0,03902	4,478	0,00	0,04472	5,171	0,00	0,03522	4,136	0,00
DBA	-0,02971	-5,446	0,00	-0,03437	-6,205	0,00	-0,02729	-4,785	0,00	-0,03160	-5,520	0,00	-0,03562	-6,250	0,00	-0,03872	-6,778	0,00
DOTHER	0,01734	2,133	0,03	0,01715	2,124	0,03	0,01306	1,671	0,09	0,00748	0,958	0,34	0,01185	1,539	0,12	0,02088	2,730	0,01
R square	0,304			0,273			0,25			0,221			0,209			0,200		
N	14,553			14,491			14,897			15,218			15,465			15,735		

Source: AJPES, authors' own calculations.

Table 14: Estimated regression coefficients, t statistics and significance levels with the ratio of firm's equity capital per employee to industry average equity capital per employee or its lagged values in the model (micro firms)

	1999			2000			2001			2002			2003			2004		
	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.	B	t	Sig.
Constant	-0,15940	-9,966	0,00	-0,13253	-8,105	0,00	-0,10555	-6,560	0,00	0,01898	1,165	0,24	0,01745	1,077	0,28	0,00959	0,585	0,56
TANG	-0,07442	-10,647	0,00	-0,05844	-8,254	0,00	-0,04525	-6,423	0,00	-0,02926	-4,147	0,00	-0,01395	-2,017	0,04	0,01656	2,382	0,02
SDROA	-0,13263	-7,034	0,00	-0,11459	-6,114	0,00	-0,13809	-7,531	0,00	-0,09594	-5,350	0,00	-0,06409	-3,554	0,00	-0,04564	-2,615	0,01
LOGS	0,18872	55,624	0,00	0,17776	51,135	0,00	0,16759	48,665	0,00	0,13569	39,286	0,00	0,13352	39,050	0,00	0,13173	38,155	0,00
ROA	-0,27930	-20,913	0,00	-0,29470	-20,760	0,00	-0,27451	-19,472	0,00	-0,25018	-17,812	0,00	-0,31154	-21,239	0,00	-0,33061	-22,743	0,00
GS	0,01862	13,833	0,00	0,01630	11,117	0,00	0,02029	9,020	0,00	0,02129	12,709	0,00	0,02115	12,606	0,00	0,02457	15,060	0,00
DIFF	-0,00104	-0,357	0,72	0,00345	1,069	0,29	-0,00227	-0,670	0,50	-0,00463	-1,418	0,16	-0,00711	-1,923	0,05	-0,02223	-5,800	0,00
E/L R	-0,11042	-40,983	0,00	-0,10410	-41,227	0,00	-0,10304	-42,050	0,00	-0,08470	-40,433	0,00	-0,08119	-40,999	0,00	-0,07236	-39,909	0,00
DC	0,05208	6,489	0,00	0,06703	8,314	0,00	0,06639	8,119	0,00	0,07107	8,874	0,00	0,07536	9,648	0,00	0,07574	10,025	0,00
DT	0,02997	5,894	0,00	0,04304	8,324	0,00	0,04108	7,689	0,00	0,04622	8,493	0,00	0,03987	7,394	0,00	0,05280	9,767	0,00
DHR	0,02114	1,847	0,06	0,02394	2,052	0,04	0,01839	1,560	0,12	0,01433	1,196	0,23	0,02275	1,987	0,05	0,04207	3,848	0,00
DTC	0,00532	0,638	0,52	0,00677	0,779	0,44	0,00687	0,786	0,43	0,02275	2,600	0,01	0,02353	2,735	0,01	0,01440	1,708	0,09
DBA	-0,05798	-10,536	0,00	-0,06031	-10,859	0,00	-0,05879	-10,312	0,00	-0,07291	-12,637	0,00	-0,07557	-13,304	0,00	-0,07445	-13,138	0,00
DOTHER	0,03214	3,866	0,00	0,03732	4,556	0,00	0,03212	4,053	0,00	-0,00386	-0,487	0,63	-0,00047	-0,061	0,95	0,00676	0,883	0,38
R square	0,299			0,273			0,254			0,218			0,221			0,218		
N	14,495			14,452			14,845			15,190			15,415			15,659		
Constant	-0,14642	-9,214	0,00	-0,12061	-7,418	0,00	-0,10046	-6,252	0,00	-0,01913	-1,180	0,24	0,00538	0,332	0,74	0,00984	0,599	0,55
TANG	-0,07657	-11,022	0,00	-0,06019	-8,540	0,00	-0,04890	-6,963	0,00	-0,01521	-2,169	0,03	-0,00897	-1,297	0,19	0,01721	2,472	0,01
SDROA	-0,13675	-7,274	0,00	-0,12427	-6,643	0,00	-0,14169	-7,719	0,00	-0,10939	-6,165	0,00	-0,06485	-3,608	0,00	-0,04713	-2,714	0,01
LOGS	0,18723	55,560	0,00	0,17703	51,185	0,00	0,16682	48,512	0,00	0,14545	42,139	0,00	0,13601	39,728	0,00	0,13237	38,224	0,00
ROA	-0,33534	-25,431	0,00	-0,34823	-24,870	0,00	-0,32600	-23,346	0,00	-0,29609	-21,452	0,00	-0,36452	-25,086	0,00	-0,38000	-26,288	0,00
GS	0,01879	13,985	0,00	0,01641	11,241	0,00	0,02102	9,347	0,00	0,02158	13,071	0,00	0,02176	13,021	0,00	0,02520	15,384	0,00
DIFF	-0,00673	-2,332	0,02	-0,00507	-1,588	0,11	-0,00906	-2,689	0,01	-0,01119	-3,481	0,00	-0,01600	-4,364	0,00	-0,03180	-8,326	0,00
E/L R lagged	-0,11520	-42,346	0,00	-0,11307	-42,103	0,00	-0,10642	-42,070	0,00	-0,10766	-44,260	0,00	-0,08557	-41,480	0,00	-0,07759	-39,139	0,00
DC	0,04391	5,516	0,00	0,06002	7,492	0,00	0,06789	8,301	0,00	0,06999	8,829	0,00	0,07452	9,573	0,00	0,07447	9,831	0,00
DT	0,02698	5,327	0,00	0,04007	7,776	0,00	0,04056	7,591	0,00	0,04636	8,614	0,00	0,04929	9,165	0,00	0,04267	7,868	0,00
DHR	0,01597	1,398	0,16	0,01788	1,538	0,12	0,01408	1,195	0,23	0,00352	0,296	0,77	0,02208	1,934	0,05	0,03597	3,290	0,00
DTC	0,00189	0,227	0,82	0,00128	0,147	0,88	0,00766	0,877	0,38	0,01623	1,873	0,06	0,02678	3,121	0,00	0,01647	1,950	0,05
DBA	-0,06358	-11,568	0,00	-0,06433	-11,612	0,00	-0,05596	-9,817	0,00	-0,06423	-11,291	0,00	-0,07311	-12,906	0,00	-0,07332	-12,922	0,00
DOTHER	0,02420	2,923	0,00	0,03069	3,767	0,00	0,02528	3,198	0,00	0,02291	2,922	0,00	0,00039	0,050	0,96	0,00758	0,990	0,32
R square	0,303			0,277			0,253			0,234			0,224			0,215		
N	14,500			14,448			14,850			15,173			15,409			15,671		

Source: AJPES, authors' own calculations.