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CORPORATE FINANCING DECISIONS AND PERFORMANCE IN TIMES OF CRISIS: THREAT OR CHALLENGE?

Abstract. *The objective of this study is to provide empirical evidence regarding the impact of financial crisis on companies' financing preference and economic performance. In order to highlight this objective the data was organized in two different panels consisting of performance determinants in 79 different-sized companies (large and SMEs), listed on the Bucharest Stock Exchange over the period 2003-2014. Both panels were also divided in two sub-periods, before and after 2007, when the crisis was triggered in Romania. The main results obtained in the comparative regression analysis indicate that large companies register higher returns when they operate with limited borrowings, while small companies tend to perform better when they have higher debt ratios in the capital structure. The financial crisis affected the corporate performance and companies had to change their financing activity in order to minimize financial risks, avoiding borrowed funds.*

Keywords: *performance, capital structure, financial crisis, large companies, SMEs.*
JEL Classification: G32, L25

1. Introduction

Although financial markets were always influenced by economic cycle phases, the global financial crisis led to a global reconfiguration of investors' behavior. In order to identify the best investment opportunities, investors tend to focus on short-term gains, most showing a risk-averse attitude. Some investors

base their decisions on technical analysis while less educated ones are not able to perceive market signals and may imitate others' actions. This generates a herding behavior which is more common in developing financial markets, such as the Romanian one. Besides, companies operating in developing countries rarely use share issuance when they are in need of resources, preferring to raise debt.

From its perspective, this study tries to answer multiple questions. The first is referred to the identification of relevant economic and financial indicators influencing corporate performance, and the second tries to reveal how the financial crisis affected the companies listed on Bucharest Stock Exchange since it was installed in Romania, causing a significant reduction of corporate performance and resizing the capital mix by diminishing access to borrowed resources. Many studies from the corporate finance literature focused on the relationship between financing decisions and performance, but little of them involved the analysis of individual performance of companies listed on Romania, during the crisis.

Financial crises may have different stages, but all reflect economic downturn, reduced productivity, asset price reduction, capital markets downsizing, financial institutions collapses and bankruptcies or high unemployment rate. Past crises, such as Great Depression in 1929 or Asian Crisis in 1997, developed over time inducing profound recessions with slow economic revival. Their causes were different: the Great Depression came as an effect of inefficient monetary policies and overinvestment, while the Asian Crisis was sudden and due to major investments with short-term maturities that caused instability. The global financial crisis developed in 2007-2008, over the breaking of speculative bubbles after a lack of transparency in the banking sector and high risks gathered. Companies operating in Romania reduced the number of employees and their activities facing significant declines in their returns.

Studies on Romanian companies focused primarily on determinants of capital structure, but the impact of financing decisions on performance was less analyzed and to our knowledge, did not consider a pre- and during crisis overview. Therefore, the theoretical perspective of this analysis is to frame the corporate performance during the crisis, based on financing behavior, asset composition, sales, earnings volatility and economic factors such as fiscal pressure and inflation.

The rest of the paper is organized as follows: Section 2 addresses some relevant literature regarding capital structure theories and their impact on corporate performance, considering economic conditions; Section 3 describes the research methodology; Section 4 discusses the descriptive analysis and Section 5 presents the empirical findings; Section 6 concludes.

2. Literature review

The global financial crisis affected the performance of listed companies around the world, especially those operating in developing countries. Managers were constrained to look for survival solutions, sustainable over unstable economic periods with restrictive conditions. Decrease in profits, high risks and constant deterioration of results and performance reflect negative signals on the financial markets, so risk-averse investors sell their shares to protect against future company

degradation. Moreover, during the financial crisis, potential investors tend to be more skeptical in terms of the companies development opportunities avoiding large investments unless they provide certain profitability.

Over time, major implications of investment and financing decisions on corporate performance and through various capital structure theories, namely the irrelevance theory, trade-off theory, agency theory, pecking order theory and market timing theory. However, in order to explain the contemporary financing decisions, the capital structure literature focuses on two competing models, Trade-off and Pecking Order Theory. The first assumes a positive relationship between leverage and performance, while companies obtain the optimal leverage levelby balancing its costs and benefits. Some studies showed debt has a positive influence on assets performance, in relation to the company market value (Zeitun and Tian, 2007; Pirtea et al., 2015).Pecking Order Theory occurs when issuance costs of risky securities (transaction costs, costs related to information asymmetry etc.) outweigh the costs and benefits obtained by borrowing these funds. In such case, firms undertake new investments with various resources in the following order: retained profits, debt implying allow level of risk, debt with higher risks involved and only if they are able to face more financial pressure, companies resort to equity resource (Fama and French, 2004).In comparative studies of pecking order and trade-off theories, greater support was demonstrated for the first, mainly because it is based on empirical factsand identifies corporate behavior (Shyam-Sunder and Myers, 1999; Pirtea et al, 2014).Considering the main theories, our study has anew insight to approach both concurrently, opening the way to an analysis that tries to demonstrate the preference for various financing resources but also observe the impact of taxation on financing decisions and company performance in companies operating in Romania.

Baker and Wurgler (2002) examined new ways of defining financing decisions, disregarding the traditional theories of capital structure. They concluded that low-leverage companies raised funds when their valuations were high, and high-leverage companies were those that raised funds during low valuation. Deviations and fluctuations in market valuations have a large persistent impact on capital structure, over a decade long. Relating to Baker and Wurgler's study, we considered relevant the introduction of profitability variation in performance analysis, as a measure of financial risk.

Corporate policies are usually modeled on the conflict of interests between key stakeholders: managers, the majority of shareholders and external investors. As underlined by La Porta et al. (1998), one of the most important remedies for this problem is the legal protection consisting of laws and their executive quality. Depending on the country degree of development, legal protection of foreign investors has a significant variance. Legal systems based on common law rights offer foreign investors greater protection than systems based on civil law. Therefore, it is expected for common law countries to use more long-term debt and equity resources.

The degree of legal enforcement is determined by the efficiency and integrity of the legal system, its power and impartiality. When the legal system displays a lack of integrity debt should be used in greater proportion than shareholders equity. It also makes greater use of short-term debt than long-term loans. Given the opportunistic environment offered by raising equity, the contract structure of debt is limited to the potential expropriation of investors' rights. When the legal system is poor in terms of integrity, companies are expected to choose short-term debt more often, since limited maturity period reduces creditors' expropriation possibility (Fan et al., 2012). Considering that the Romanian legal system has some of the characteristics mentioned, this study is expected to find that companies depend on internal resources and raise debt with short maturity when in need of external resources.

The economic conditions imposed by the capital market play a decisive role in corporate financing decisions. Developed financial markets ensure the applicability of the legal framework and protection of creditors and debtors. Besides the financial markets that have a direct impact on capital, other economic and political factors have a direct influence on the capital structure. Previous studies referring to comparative analysis of different countries (Rajan and Zingales, 1995; Booth et al., 2001) showed that gross domestic product and means of creditors' rights protection are economic factors with great influence on funding decisions. In countries with strict laws and stable economies, companies benefit of numerous investment opportunities, easily accessing borrowed funds.

Altogether, the capital structure-corporate performance relationship has been debated and studied over the decades without identifying a general theory applying to all companies, regardless of economic conditions or industries in which they operate. Although equity was always considered the most secured type of resource, involving reduced risks, studies discovered that debt does not necessarily affect performance indicators such as market valuation, share price evaluation or return on equity. Appreciation of share prices and increase in earnings are often independent of each other without exhibiting a systematic change of capital structure in order to increase shares value. However, the system is too complex to be identified and managed with a simple relationship between debt or equity ratios and performance, and thus this study comprises asset composition, sales, risk and economic factors such as fiscal pressure and inflation, means by which the relationship can be justified in detail.

3. Data and methodology

3.1 Samples and variables used

Two samples gathered were classified based on the number of employees every company has. All the companies were listed on the Bucharest Stock Exchange (BSE) between 2003 and 2014. Indicators were computed annually, over the whole period, using the financial information from the summarized balance sheets. In order to obtain balanced panels, all the companies selected had their

financial data available every year, from 2003 until 2014.To ensure the results reliability, the following categories of companies were excluded from the samples:

- delisted companies, those in dissolution stage or those registering negative equity values, in order to reduce the number of outliers;
- companies operating in the financial sector, as they have different regulations and specific requirements.

The financial performance should indicate the overall financial health of a company or how well companies use their assets in order to generate profits. Therefore, we consider return on assets, one of the most common profitability indicators. This performance proxy is the ratio of net income over total assets:

$$ROA = \frac{NetIncome}{TotalAssets} \quad (1)$$

The capital structure will be expressed through shareholders equity ratio. Equity, along with debt, is the main component of the capital structure. It is defined by summing up the common and preferred stocks with the retained earnings. This type of capital represents a permanent type of funding used to support companies' investments and growth. Therefore, it refers to the capitalization of companies, and especially for the analysis of Romanian companies, it can be considered as one of the most suitable proxies of capital structure, as long as these companies prefer either equity or short-term debt for their financing. In addition, data for computing the shareholders equity ratio was collected from the balance sheets, and used in the following formula:

$$Equity = \frac{ShareholdersEquity}{TotalAssets} \quad (2)$$

Considering previous studies, the level of fixed assets in total assets, referred to as tangibility, has two conflicting influences on company performance. On one hand, studies focusing on developing countries with rather young capital markets, revealed a negative relationship between tangibility and profitability (Zeitun and Tian, 2007; Nunes et al., 2009).Accordingly, companies with large values of fixed assets tend to be less profitable. On the other hand, earlier studies such as Himmelberg et al. (1999) indicated a positive effect. In this case, fixed assets played the role of collateral ensuring a better control while they are closely monitored by their creditors. Moreover, higher values of fixed assets tend to reduce agency conflict between creditors, managers and shareholders. In order to test the impact of tangibility on the performance of Romanian companies, the ratio (tang) is the fixed assets value over total assets:

$$tang = \frac{FixedAssets}{TotalAsets} \quad (3)$$

Studies focusing on this performance topic often use assets or sales in order to reflect the companies' dimension (Rajan and Zingales, 1995; Pirtea et al., 2014). In this context, the analysis already refers to different sized companies, in term of their employees, but this supplementary size variable will be calculated as logarithm of sales turnover. The logarithm procedure is computed in order to level up the values of the sales turnover to the rest of the ratios used as dependent and explanatory variables.

$$size = \log(SalesTurnover) \quad (4)$$

Liquidity ratios have an essential role in determining profitability. Some consider them performance indicators as they are measure of income sources, reflecting how safe the operating activities are and how long is the process of converting current assets, such as inventories and accounts receivables, into cash. However, high liquidity ratios do not always indicate a risk-aversion; sometimes they are a sign of poor management of current assets, especially when it comes tothe current assets previously mentioned. Deloof (2003) argued that companies with higher levels of liquidity have more investment opportunities over the long term especially when they focus on innovation and research and development. This way, they compensate for their reduced values of fixed assets. The explanatory variable used in this study is the current ratio:

$$liquid = \frac{CurrentAssets}{Short-termdebt} \quad (5)$$

Business risk is measured by the standard deviation of the profitability divided by its average, which is actually the coefficient of variation for profitability. Although risky companies are expected to generate higher returns, well-capitalized companies are usually less risky but register lower profits. According to the trade-off theory, companies operating in hazardous environments have a higher probability of experiencing financial difficulties, facing greater financial and business risks. Referring to pre and during crises periods, the analysis also focuses on how earnings volatility and higher risks reflect on performance.

$$risk = \frac{stdev\left(\frac{Earningsbeforeinterestandtax}{TotalAssets}\right)}{average\left(\frac{Earningsbeforeinterestandtax}{TotalAssets}\right)} \quad (6)$$

Related to state specific factors, taxation will also be included in the analysis. Given the fiscal savings, achieved through interest payments, it is important that companies understand the benefits of using borrowed capital especially when tax rate of corporate income and profits are increasing. This would not necessarily be the case for Romanian companies which avoid long-term debt in order to reduce their financial risks. Moreover, in Romania the standard corporate income tax rate is 16%, while micro-companies are required to pay a 3% tax on revenue and foreign companies that have representative offices operating in Romania pay an annual fixed tax of 4,000 Euros, regardless of their profits. In this study, the tax variable is the ratio of tax over earnings before interest and tax:

$$tax = \frac{Taxpaid}{Earningsbeforeinterestandtax} \quad (7)$$

In order to capture the exogenous influence of macroeconomic conditions, we also considered the rate of inflation and the presence of crisis. The inflation variable is the annual variation of the harmonized indices of consumer prices. Wasiuzzaman and Tarmizi (2010) argue that a positive effect of inflation on profitability may come as banks and creditors are able to anticipate inflation and adjust their interest rates accordingly. Therefore, they gain more profits before costs increase. However, companies would not be able to react so quickly. Instead, they suffer from costs increase, which is even stronger when the inflation

fluctuations are not anticipated. Crisis is the last variable included in the model, a dummy variable with 0values between 2003 and 2007, and 1 starting from 2008, capturing the financial crisis period.

3.2 Methodology

This paper intends to evaluate economic performance of companies listed on BSE over the long term, but also before and after 2007, in order to capture to what extent corporate performance was affected by the financial crisis. Performance will be considered as a function of various financial and economic indicators, internal or exogenous to companies, as presented in equation (8):

$$\text{Performance} = f(\text{equity, tangibility, size, liquidity, business risk, tax, inflation, crisis}) \quad (8)$$

The following equation expresses the linear model of performance:

$$ROA_{it} = \alpha_i + \beta_1 Equity_{it} + \beta_2 tang_{it} + \beta_3 size_{it} + \beta_4 liquid_{it} + \beta_5 risk_{it} + \beta_6 tax_{it} + \beta_7 inflation_t + \beta_8 Crisis_t + \varepsilon_{it} \quad (9)$$

where α_i represents the unknown intercept of every company, i = 1…41 for the sample with large companies and i = 1…38 for the sample with SMEs, t is the year analyzed (t = 2003...2014), βs are the coefficients of each explanatory variable, and ε_{it} is the error term.

The first stage of analysis refers to descriptive statistics and variables dynamics, capturing at a first glance the main influences over the economic activity of companies. Then, performance will be evaluated in terms of economic and financial indicators which play the role of explanatory variables in regression analysis. In order to test if the independent variables have a persistent influence on return on assets, comparative regression analysis will be conducted, starting with Pooled Ordinary Least Square (OLS), continuing with Fixed Effect (FE) and Random Effect (RE) models on panels of different-sized companies and time periods. The main advantage of panel data analysis is that it accounts for individual heterogeneity, controlling for unobserved differences in business practices across companies and time. Moreover, by means of Hausman Test, the accuracy of FE or RE model results can be determined. If the individual characteristics of companies are time-invariant the fixed effect model is recommended, while the random effect model is more appropriate when variation across entities is random and uncorrelated with explanatory variables.

An endogeneity issue is raised in terms of the inverse causality of exogenous variables towards the dependent variable. Linear regression methods such as OLS, FE and RE models may return inaccurate estimates under these conditions. To solve this problem, the generalized method of moments (GMM) proposed by Arellano and Bover (1995) and Blundell and Bond (1998) can provide solutions to simultaneity bias, reverse causality and potentially omitted variables, being employed as a final stage of analysis. This is a dynamic method used to solve endogeneity issues through a series of instrumental variables generated from lagged dependent variables.

4. Descriptive analysis

The return on assets mean indicates a limited economic efficiency for most Romanian companies listed on BSE (3.8%). The average total equity ratio demonstrates a preference for internal resources, as shareholders' equity represents approximately 65% of the capital structure. Regardless of the industries in which companies operate, the level of fixed assets is greater than current assets. On average, companies listed on BSE own just below 60% of fixed assets from their total assets. The level of sales turnover, reflecting the size variable, is large for most companies. With an average of 7.93, the size variable reflects annual sales of 85million lei. Disregarding the extreme values of liquidity ratio, for most companies comprised in the panels, short-term debt covers around 37% of their current assets. In theory, a liquidity ratio of two is normal and companies exceeding this value are likely to have an improper management of current assets. Although this degree might be problematic over long term, the "optimal" liquidity level is also specific to the industries in which companies operate. The business risk proxy shows volatile earnings: although based on the average risk Romanian companies do not face highly unstable earnings over long periods of time, the standard deviation of this variable is larger than its mean. Companies listed on the Bucharest Stock Exchange pay an average of 18.6% of their gross earnings as taxes. This is very close to the corporate income tax of 16% supported by all businesses except micro enterprises and foreign companies that have representation offices operating in Romania. According to the national statistic, inflation rate varied from 14.1% to less than 2%, with an average of 6.7% for the period analyzed.

Table 4.1 Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
ROA	0.038	0.093	-0.432	0.777
Equity	0.655	0.211	0	1
Tang	0.581	0.175	0.132	0.997
Size	7.928	0.92	0	10.29
Liquid	2.675	2.632	0.011	18.701
Risk	0.479	1.799	-8.353	7.737
Tax	0.186	0.172	0	0.975
Inflation	0.067	0.035	0.014	0.141

According to Fig. 4.1, for the overall period, SMEs perform better. However, in comparison to large companies, small and medium firms experienced a much stronger decrease. In the early years of the period analyzed, the average return on assets registered was above 10%. Net income gradually decreased until the SMEs listed on BSE registered, on average, a very low return on assets, almost null. During the financial crisis these companies had a boost in 2012 and 2013, when their economic performance exceeded 2%. Large companies reflect more volatile return on assets, varying from 5-7% in the first five years of the analysis, to approximately 3% after the crisis. As long as these companies do not face a

constant decrease, it can be assumed that they were affected by the financial crisis to a smaller extent. However, most large companies registered very low net income in 2013, as indicated by the average return on assets of approximately zero.

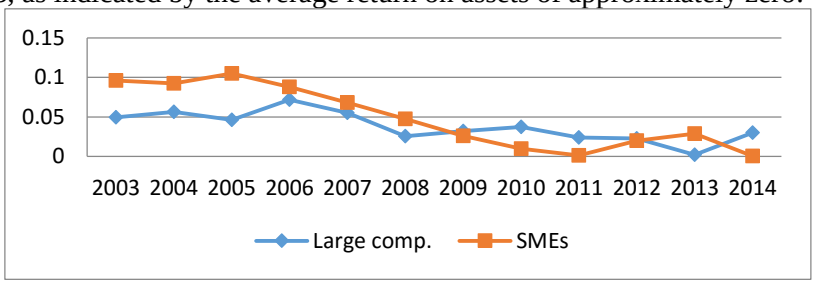

Figure 4.1. Return on assets - large companies versus SMEs

Regardless of their number of employees, all the companies analyzed have a preference for equity. The second common resource used by companies operating in Romania is current debt, while debt with extensive maturity represents below10% of the capital structure. More specifically, the capital structure in large companies consists of 60-70% internal resources. In small and medium companies this ratio is slightly higher, with a maximum average in 2009, when the equity ratio was approximately 75% of the capital. Since the crisis started, the trend of total equity decreased, while the needs for resources were covered on the basis of current liabilities.

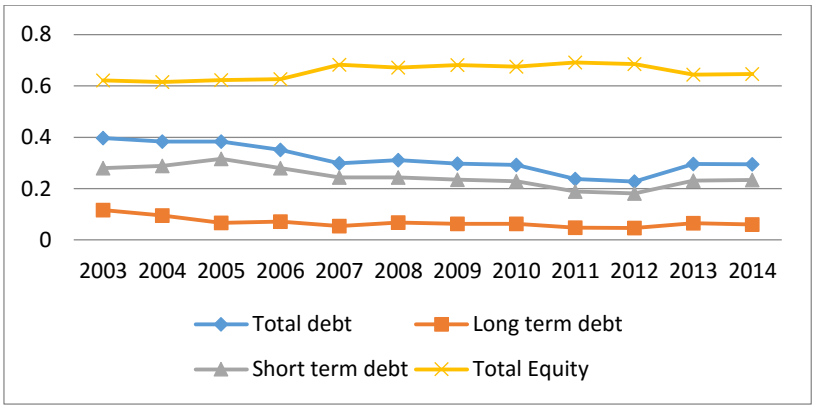

Figure 4.2. Capital structure ratios - large companies

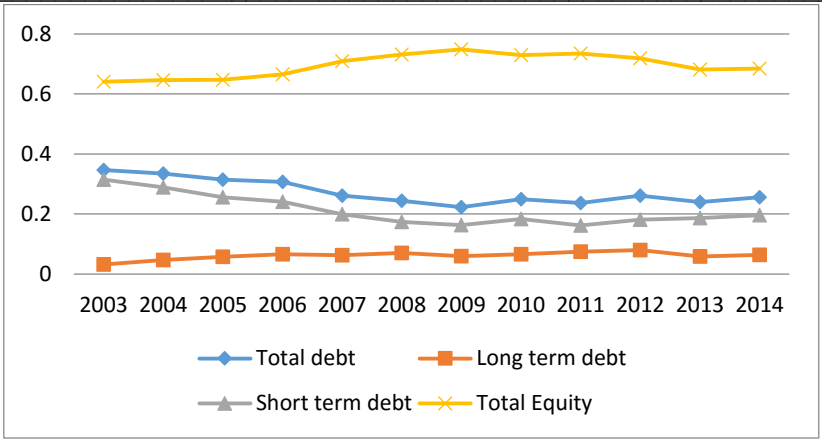

Figure 4.3. Capital structure ratios - SMEs

According to fig. 4.4 before the crisis companies had approximately 55% of fixed assets in their patrimony, large companies indicating a slightly higher percentage of tangible assets in total assets. However, from 2007, when the tangibility ratio reached 57% for all companies, regardless of their size, the SMEs experienced a large continuous growth, up to 64% of their total assets in 2014. Large companies also increased their level of tangible assets, but in a smaller extent, reaching 58% of fixed assets in 2014.

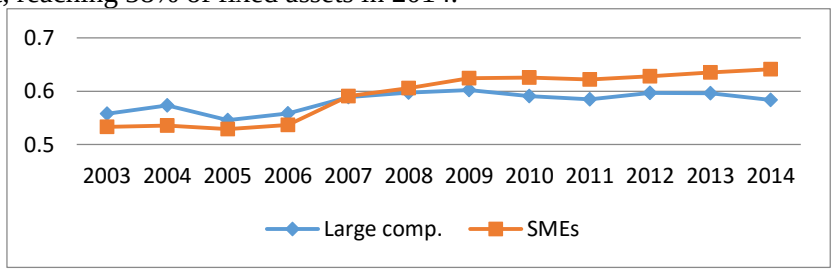

Figure 4.4. Level of fixed assets in total assets - large companies versus SMEs

Large companies maintained their level of sales until 2012, to an average of 100 million lei, even after the crisis started, but from 2012 they faced an important decrease, sales dropping with 50%. In the first period analyzed, SMEs registered an increase in their sales, from 8 to 11 million lei, but faced a gradual decline to only half a million lei since the crisis started.

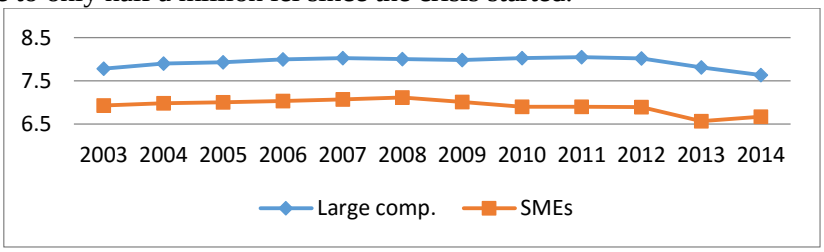

Figure 4.5. Level of sales turnover (size) - large companies versus SMEs

Before the crisis, liquidity ratio was higher for large companies, but from 2007 SMEs reduced their level of current debt, registering higher liquidity ratios compared to large companies. The crisis had an important influence on the companies' financing decisions since the management of current assets changed. Companies tried to lower their debt, and finance their current assets with internal resources and reduce their financial risks.

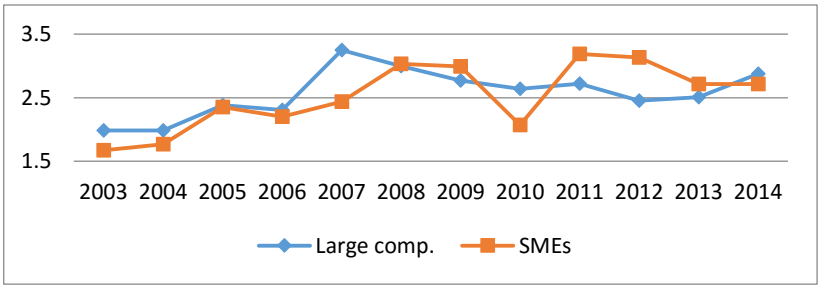

Figure 4.6. Liquidity - large companies versus SMEs

As fig. 4.7 illustrates, business risk increased over the period analyzed, especially for SMEs. Large companies managed to reduce and balance it during the crisis period. The average values of this risk variable prove the negative impact of the financial crisis, showing that earnings volatility during this unstable period is very high. In addition, the financial uncertainty for small and medium companies is extremely high during the crisis.

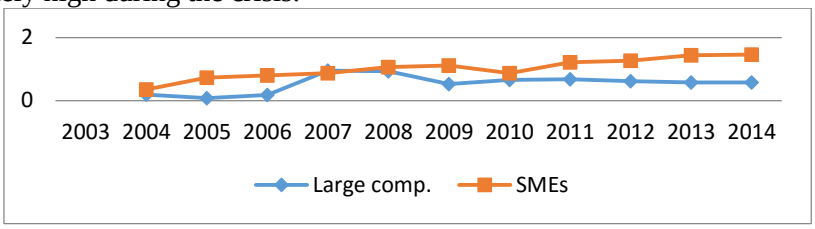

Figure 4.7. Risk - large companies versus SMEs

The state tried to cope with risks and loses involved by the crisis deepening, inducing constant changes in macroeconomic factors such as taxation or inflation. As observed in fig. 4.8, the inflation rate decreased continually from 2003, when it was 14.1%, to 1.4% in 2014. The level of taxes paid out from corporate profits is larger for SMEs. In 2003 these paid approximately 30% of their gross earnings, while large companies had tax expenses of 25%. Over time, these percentages decreased, to a level close to 13-14% regardless of the size of the companies analyzed. This lower percentage of taxes paid is an annual average, showing that by the end of the period analyzed, more companies were affected while the crisis continued in term of their gross earnings.

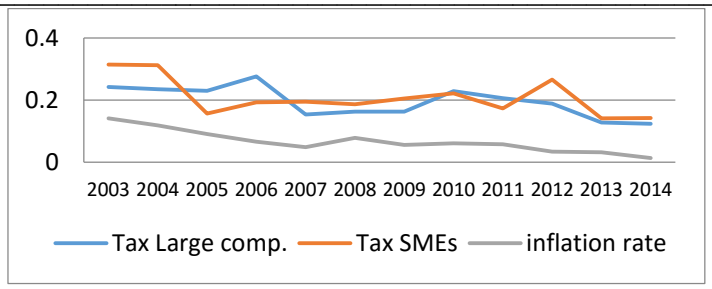

Figure 4.8. Level of taxes paid from earnings before interest and tax and rate of inflation - large companies versus SMEs

5. Findings

Table 5.1 and 5.2 present the main results of the comparative regression analysis, for large companies and SMEs, over the 2003-2014 period. The first model used, OLS is a Pooled Ordinary Least Square regression model applied on return on assets of large companies and respectively on SMEs listed on Bucharest Stock Exchange. The second model computed was fixed effects (FE), followed by random effects (RE) models, and for those panels where the Hausman test suggested that companies have specific characteristics which influence the relationships between variables, a corrected fixed effect model was used to receive more reliable coefficients. In case the Hausman test indicated that the sample or sub-sample is not affected by company characteristics, a RE corrected model was used, and included in the table only if these results were different from those obtained with the initial RE model. The final model employed was the Generalized Method of Moments using lagged dependent variable. Its results showed that, regardless of the company size or time period, return on assets is directly correlated to its previous year level. Sargan tests validate the over-identifying restrictions, with the highest probability of 99% for the overall period samples. The Arrelano Bond test for serial correlation in the first-differenced errors also validates the GMM models results. For every coefficient of independent variables t-values are specified in the tables.

Table 5.1. Factors with potential influence on the performance of large companies (2003-2014)

	OLS	FE	RE	GMM
L.ROA				0.471*** (33.36)
L2.ROA				0.066*** (3.71)
Equity	0.114*** (5.82)	0.104*** (3.44)	0.106*** (4.5)	0.059*** (7.00)
Tang	-0.095*** (-4.13)	-0.047 (-1.15)	-0.076** (-2.52)	-0.178*** (-20.38)
Size	0.006 (1.43)	0 (-0.04)	0.002 (0.50)	0.013*** (11.47)

Liquid	0 (0.25)	0 (-0.04)	0 (0.04)	-0.00*** (-8.93)
Risk	0 (-0.09)	0 (0.52)	0 (0.28)	0 (-0.35)
Tax	0.013 (0.70)	0 (0.03)	0.006 (0.32)	0.018*** (4.64)
Inflation	0.035 (0.20)	0.04 (0.28)	0.034 (0.24)	-0.183*** (-3.00)
Crisis	-0.034*** (-3.34)	-0.034*** (-3.71)	-0.034*** (-3.66)	-0.021*** (-12.20)
Cons	-0.013 (-0.32)	0.019 (0.34)	0.011 (0.24)	
R-Squared	0.13	0.21	0.26	
F / Wald Test	8.00***	4.34***	46.36***	121987.11***
Hausman			0.9633	
Sargan (prob.)				36.87 (0.99)
Arr-Bond test (prob.)				-3.29 (0.00) -0.79 (0.43)

*p< 0.1, **p< 0.05, ***p< 0.01; t statistics are reported in parenthesis
Source: our own calculations using STATA 13.0

Table 5.2. Factors with potential influence on the performance of SMEs (2003-2014)

	OLS	FE	RE	FE corr	GMM
L.ROA					1.339*** (15.50)
Equity	-1.007*** (-5.85)	-0.495* (-1.72)	-1.020*** (-5.07)	-0.495 (-1.53)	-0.571*** (-8.60)
Tang	0.194 (0.99)	0.602** (2)	0.253 (1.17)	0.602 (0.82)	2.320*** (97.78)
Size	-0.711*** (-12.56)	-0.975*** (-13.14)	-0.777*** -12.88)	-0.975*** (-3.11)	-0.134*** (-11.99)
Liquid	0.003 (0.72)	0.001 (0.23)	0.003 (0.51)	0.001 (0.48)	0.007*** (5.98)
Risk	0.020 (1.39)	0.023* (1.65)	0.022 (1.60)	0.023* (1.81)	0.022*** 5.53)
Tax	0.027 (0.19)	0.078 (0.53)	0.050 (0.35)	0.078 (0.88)	-0.047 (-1.15)
Inflation	-0.705 (-0.39)	0.214 (0.13)	-0.493 (-0.29)	0.214 (0.23)	1.984*** (3.53)
Crisis	-0.077 -0.75)	-0.143 (-1.49)	-0.086 (-0.86)	-0.143* (-1.82	-0.010 (-0.46)
Cons	5.719*** (11.74)	6.886*** (11.12)	6.099*** (11.83)	6.886*** (3.38)	
R-Squared	0.37	0.46	0.44	0.46	
F / Wald Test	30.65***	38.91***	263.61***	3.29***	33970.79***
	OLS	FE	RE	FE corr	GMM
Hausman			54.09***		

Sargan (prob.)					33.62 (0.99)
Arr-Bond test (prob.)					-0.97 (0.33) -1.32 (0.19)

*p< 0.1, **p< 0.05, ***p< 0.01; t statistics are reported inparenthesis
Source: our own calculations using STATA 13.0

Regression results indicate that capital structure has an important influence on the corporate performance, but this is specific to company size. Over the 12-year period, equity ratio is positively correlated to the performance of large companies, but has a negative influence on the SMEs. These results show that large companies are more profitable when they dispose of higher values of internal resources. On the contrary, profitable small and medium-sized companies depend more on borrowed resources. Raising equity through financial markets is more accessible for large companies. Risk-averse investors who want to mobilize their savings on the stock market assess these companies as more secure. In contrast, raising funds through equity or shares issuance remains a challenge for SMEs, despite the fact that over the past years their equity ratio constantly increased.

Table 5.3 and 5.4 include the regression models applied on the panel of large companies, over the sub-periods: pre-crisis period (2003-2007)and during the crisis period (2008-2014).Tables 5.5 and 5.6 present the regression models employed over SMEs database, over the sub-periods .For large companies, equity ratio had more influence on ROA before the crisis started. However, the coefficients of equity proxy were statistically significant at 1% level, confirming the direct impact of equity level on profitability. The financing decisions of SMEs were highly sensitive to economic changes produced during financial crisis. High equity ratios characterized profitable small and medium companies until 2007. However, since the crisis emerged, results show that SMEs are less profitable when their capital structure is predominantly consisting of internal resources.

Table 5.3 Factors with potential influence on the performance of large companies before the crisis

	OLS	FE	RE	FE corr	GMM
L.ROA					0.164** (1.99)
Equity	0.189*** (5.78)	0.190*** (3.29)	0.192*** (4.87)	0.190** (2.12)	0.163*** (3.46)
Tang	-0.155*** (-4.08)	-0.209*** (-2.87)	-0.155*** (-3.33)	-0.209** (-2.12)	-0.312*** (-4.01)
Size	0.010 (1.11)	0.117** (2.50)	0.016 (1.25)	0.117* (1.85)	0.022*** (3.58)
Liquid	-0.005*** (-2.67)	-0.009*** (-3.12)	-0.008*** (-4.09)	-0.009** (-2.01)	-0.011*** (-3.29)
Risk	0.001 (0.58)	0.001 (0.45)	0.001 (0.77)	0.001 (0.42)	-0.001 (-0.41)
Tax	-0.023 (-1.06)	-0.008 (-0.41	-0.014 (-0.7	-0.008 (-0.49)	0.019** (2.14)
Inflation	0.023	0.150	-0.015	0.150	-0.186

	(0.11)	(0.76)	(-0.09)	(0.56)	(-1.07)
Cons	-0.037 (-0.44)	0.019 (0.34)	-0.077 (-0.68)	-0.860 (-1.60)	
R-Squared	0.21	0.22	0.17	0.22	
F / Wald Test	6.03***	4.75***	35.29***	4.67***	52.41***
Hausman			17.04**		
Sargan (prob.)					5.16 (0.74)
Arr-Bond test (prob.)					-1.87 (0.06) 1.03 (0.31)

*p< 0.1, **p< 0.05, ***p< 0.01; t statistics are reported in parenthesis

Table 5.4. Factors with potential influence on the performance of large companies during the crisis

	OLS	FE	RE	GMM
L.ROA				0.426*** (6.40)
	OLS	FE	RE	GMM
Equity	0.090*** (3.35)	0.055 (1.03)	0.79** (2.38)	0.107*** (3.10)
Tang	-0.084*** (-2.86)	-0.063 (-0.98)	-0.071* (-1.82)	0.002 (0.05)
Size	0.005 (1.04)	0 (0.02)	0.001 (0.21)	0.042*** (12.08)
Liquid	0 (0.49)	0 (0.34)	0 (0.43)	0 (-0.76)
Risk	0 (-0.04)	0 (-0.46)	0 (-0.37)	0*** (5.49)
Tax	0.054* (1.79)	0 (0.33)	0.030 (1.01)	0.029 (1.06)
Inflation	0.034 (0.13)	0.080 (0.33)	0.056 (0.24)	-0.093 (-0.61)
Cons	-0.037 (-0.81)	0.019 (0.28)	-0.003 (-0.06)	-0.404*** (-13.13)
R-Squared	0.09	0.02	0.22	
F / Wald Test	3.75***	0.52	12.02*** *	2267.64***
Hausman			6.54	
Sargan (prob.)				16.67 (0.61)
Arr-Bond test (prob.)				-2.07 (0.04) 0.57 (0.57)

*p< 0.1, **p< 0.05, ***p< 0.01; t statistics are reported in parenthesis

Table 5.5 Factors with potential influence on the performance of SMEs before the crisis

	OLS	FE	RE	FE corr	GMM
L.ROA					0.445*** (8.06)
Equity	0.149*** (3.27)	0.220*** (3.36)	0.171*** (3.32)	0.220** (2.49)	0.127** (2.38)
Tang	-0.202*** (-5.73)	-0.404*** (-7.55)	-0.290*** (-7.08)	-0.404*** (-3.03)	-0.477*** (-5.95)
Size	0.014 (0.76)	0.059 (1.21)	0.016 (0.65)	0.059 (1.39)	0.006 (0.61)
Liquid	0 (-0.05)	-0.002 (-0.56)	-0.001 (-0.19)	-0.002 (-0.72)	-0.002 (-0.6)
Risk	0.003 (1.46)	0.005** (2.55)	0.004** (2.28)	0.004*** (5.83)	0.006*** (21.89)
Tax	-0.091** (-2.310	-0.103*** (-2.62)	-0.109*** (-3.00)	-0.103** (-2.52)	-0.188*** (-5.66)
Inflation	0.522* (1.97)	0.502** (2.25)	0.512** (2.43)	0.502* (1.99)	0.301* (1.82)
Cons	-0.023 (-0.15)	-0.263 (-0.72)	0.002 (0.01)	-0.263 (-0.79)	
R-Squared	0.27	0.45	0.43	0.45	
F / Wald Test	7.65***	12.27***	77.81***	8.38***	1532.54***
Hausman			14.97**		
Sargan (prob.)					4.25 (0.84)
Arr-Bond test, (prob.)					-2.85 (0.04) 1.30 (0.19)

*p< 0.1, **p< 0.05, ***p< 0.01; t reported in parenthesis

Table 5.6 Factors with potential influence on the performance of SMEs during the crisis

	OLS	FE	RE	FE corr	GMM
L.ROA					2.076*** (3.21)
Equity	-1.305*** (-4.94)	-0.481 (-0.89)	-1.249*** (-4.14)	-0.481 (-0.97)	0.091 (0.16)
Tang	0.315 (1.08)	2.489*** (3.91)	0.506 (1.49)	2.489 (1.21)	3.955*** (8.34)
Size	-0.076*** (-9.90)	-0.771*** (-6.68)	-0.797*** (-9.61)	-0.771*** (-3.72)	-0.372*** (-6.34)
Liquid	0.006 (0.94)	0.003 (0.40)	0.005 (0.76)	0.003 (0.94)	0.006 (0.81)
Risk	0.036 (1.6)	0.052* (1.84)	0.045* (1.88)	0.052* (1.80)	0.016*** (3.04)
Tax	0.117 (0.61)	-0.151 (0.78)	0.136 (0.72)	-0.151 (1.21)	0.007 (0.19)
Inflation	0.550 (0.18)	0.956 (0.34)	0.915 (0.31)	0.956 (0.39)	0.810 (0.44)
Cons	5.964*** (9.1)	4.061*** (3.83)	6.037*** (8.44)	4.061** (2.28)	

R-Squared	0.42	0.49	0.46	0.49	
F / Wald Test	26.34***	30.75***	192.52***	3.61***	245.92***
Hausman			14.79***		
Sargan (prob.)					6.06 (0.53)
Arr-Bond test, (prob.)					-0.87 (0.38) -1.42 (0.16)

*p< 0.1, **p< 0.05, ***p< 0.01; t statistics are reported in parenthesis
Source: Tables 5.3 – 5.6 include our own calculations using STATA 13.0

In terms of the level of fixed assets, different results were found depending on the size of the companies analyzed. The overall period indicated an opposite influence: large companies with lower ratios of fixed assets in total assets are more profitable, while SMEs register higher returns when they own more tangible assets. Although, for large companies, tangibility variable reflected a higher influence on performance before the crisis, its coefficients were statistically significant to a lesser extent after 2008. Before the crisis, small and medium-sized companies performed better with low levels of fixed assets. From 2008, profitable SMEs owned more fixed assets. Based on the influence of capital structure previously mentioned, since the crisis started, small and medium companies tend to raise more debt in order to expand and increase their profits. Borrowed funds are more accessible when companies prove their security with fixed assets used as collateral. Also, the increase in tangibility presented in the descriptive analysis shows that SMEs invested in order to develop their businesses and limited their level of current assets to reduce their inventory expenses.

The level of sales turnover, used as proxy for the size variable, also reflects different influences on companies listed on the BSE. The obvious relationship between sales and returns is a positive one, but it was confirmed only for large firms. For SMEs, regression results indicate that return on assets is affected by large levels of sales. This exceptional relationship is based on the fact that small and medium companies undertake investment opportunities in order to grow when their sales have a positive dynamics. An increase in sales induces an increase in returns. But during these performing periods, companies invest in fixed assets, inducing a higher increase in the level of assets compared to the increase in net income. Therefore, the return on assets shows a decrease during this period. Such investments prove their profitability and positive net present values only based on a constant sales increase in the future.

Liquidity should have a positive influence on return on assets, as long as its level is not extremely high due to a poor inventory and accounts receivable management. Based on comparative regression results, the companies with lower liquidity levels were more profitable, but during the crisis the influence turned into a direct one. Therefore, companies tried to secure their activity by reducing the level of short-term debt. This change in the corporate financing behavior was induced by the crisis. However, liquidity coefficients are very low and statistically significant only for large companies, before the crisis began. Although the management of current assets is extremely important for a profitable performance,

liquidity is not one of the most influential factors for the return on assets registered by listed companies.

Business risk is illustrated by the profitability coefficient of variation. The risk coefficients are very low, indicating a limited impact on return on assets. Moreover, results are not statistically significant for large companies, but for SMEs, volatile earnings are specific to more profitable companies. As the descriptive analysis captured, over the crisis period, the SMEs risks were highly dynamic, increasing every year. Regression results indicate that an increase in business risk is not necessarily linked to a poor performance, at least not over the short-term.

According to the method used to compute the tax ratio, taxes paid over gross profit, companies that pay higher taxes should be associated with higher returns, as the normal income tax rate is not progressive but a fixed percentage of gross profit. Tax coefficients resulted from regression models are positive for large companies, but mostly insignificant. Tax coefficients were statistically significant for all regression models only for SMEs panel, before the crisis. These results suggest that the unique income tax rate of 16% reduces earnings of small and medium businesses, limiting their profitability.

Considering the statistically significant coefficients, the inflation rate has a negative influence. For large companies only the relevant result is the one obtained with GMM model, applied on the overall period. This shows that large companies perform better over periods of reduced inflation. On the contrary, small and medium firms used to register higher return on assets during inflationary periods. In this case, results are statistically relevant before the crisis. Moreover, they support the descriptive analysis of the overall period, indicating highest ROA levels in 2003, 2004 and 2005, when the inflation rates were at their maximum level.

As the negative coefficients show, the crisis affect the economic performance of companies listed on BSE. Although differences in results prove that SMEs were forced to make changes in their financing and investment decisions since the crisis began, the economic downturn seemed to have greater impact on large companies, as the regression coefficients of the crisis dummy variable are statistically significant at 1% level, regardless of the regression model used.

6. Conclusions

Compared to studies related to identifying the determinants of capital structure, the impact of financing decisions on performance was less analyzed in Romania. According to our results, Romanian companies will keep their business operational with borrowed funds when they lack of significant profits. Alternatives for external resources are limited to loans because raising internal resources through equity issuance is difficult in less developed capital markets, like the Romanian one. Furthermore, our study proves that during the crisis, companies avoided long-term debt to protect against an increase in financial risks. The economic environment and the complexity and development stage of capital

markets influences decisions at financial management level but solutions offered to financial problems are limited. The main role of financial managers is to identify ways of raising capital and choose the cheapest resource, while maximizing the company's value.

It can also be noticed that companies listed on BSE comply with the basic rule of finance, using permanent resources (equity and long term debt) to finance fixed assets, and short-term debt to cover current assets. Although current liabilities represent most of the borrowed capital, these resources finance current assets, and are not used for investments. The results also highlight that companies operating in Romania follow the pecking order theory, since they access external resources only if the internal funds are insufficient. Although the theory mentions a specific hierarchy, our analysis indicates that companies rarely resort to raising equity through capital markets. Essentially, companies listed on BSE avoid raising capital by issuing preferred shares, and prefer short-term loans for raising production and long-term borrowed resources, thus signaling on the market a need for equity and opportunities for profitable investments. These results confirm those of previous studies on emerging countries (Fama and French, 2004; Beck et al., 2008; Pirtea et al., 2014).

Profitability is sensitive to the capital mix of the company, but also to its size. Large companies recorded higher performance based on higher equity ratios, while small and medium-sized companies are more profitable with higher leverage ratios. Since the crisis started, SMEs tend to increase the level of fixed assets, using them as collateral in order to access borrowed funds. Liquidity ratios show higher risk-aversion in the SMEs case, which need a better management of current assets, especially when it comes to their accounts receivable.

Nowadays, most companies experience the crisis effects and strive for the sustainability of their business. In the complex context of the economic environment evolution and dynamics, to ensure a proper and functional activity, companies depend on their financing opportunities under severe and competitive conditions. On this background, the financial crisis greatly affected the economic performance of all companies listed on BSE, and to a greater extent SMEs. Although these tried to take minimum risks, they faced major fallout in performance throughout the overall period, bearing important changes in financing and investment decisions.

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