THE IMPACT OF BORROWED CAPITAL ON ENTERPRISE PROFIT-THE CASE OF SMALL AND MEDIUM ENTERPRISES IN THE POLOG REGION

Sindise Salihi[1], Lindita Muaremi[2]

[1*]*Department of Accounting and Finance, Faculty of Economics*
[2] *Department of Business and Economy, Faculty of Economics*
[*]*Corresponding author e-mail:* sindise.salihi@unite.edu.mk

Abstract

The capital structure of enterprises is an important research field of corporate finance and it remains at the center of studies of various academics. Determining the capital structure of enterprises consists of very difficult decisions, which often involve conflicting factors such as risk and profitability. Decisions become even more difficult at a time when the economic environment in which enterprises operate has lost its stability. Debt capital includes all long-term borrowings of the enterprise. Therefore, deciding on the ideal share of the debt and own wealth can affect the value and profitability of the enterprise. However, most studies have focused on listed firms in developed countries and little attention has been paid to unlisted firms in developing countries. Therefore, this study tries to fill the gap by analyzing the capital structure specifically the borrowed capital of small and medium enterprises in the Polog region. The sample includes 69 small and medium enterprises, the data of which are taken from the financial reports. So, the purpose of conducting this research is to analyze the impact of borrowed capital on the economic profit of the enterprise. The methodology to be used in this paper is based on the multivariate regression methodology, using secondary cross-sectional data. The results obtained suggest that borrowed capital has a positive relationship with net profit and is statistically significant. To increase the net profit for 1 unit the borrowed capital must increase by 0.001 units when the other factors are constant

Keywords: Financial structure, borrowed capital, economic profit, SMEs

1. Introduction

We must take into consideration that accounting considers the financial structure as a composition of three elements: assets, liabilities, and capital. If we look at the long-term aspect of the financial structure then we are talking about the capital structure i.e., the division of capital into its two components debt capital and own capital. Debt capital includes all long-term borrowings of the enterprise. Equity consists of long-term funds provided by the owners of the enterprise, by shareholders. Enterprise capital structure is an important field of corporate finance research, and it remains at the center of studies of various academics.

In today's contemporary literature there are different opinions about the impact of the division between equity and debt on the value of the enterprise. Some authors claim that the financial structure would be neutral on the value of the enterprise, while others, on the contrary, think it would not.

The impact of debt on the value of the enterprise has traditionally been addressed by the leverage effect, which points to the existence of a performance effect on the financial profitability of the

enterprise. Although this position has been opposed by some authors such as Modigliani and Miller, who advocate the neutrality of the financial structure. Modigliani and Miller (1958) have identified two criteria for making rational decisions, which are: profit maximization and market value maximization. "The profit maximization criterion states that an asset must be purchased if it increases net profit of firm owners, while the criterion of maximizing market value states that an asset must be purchased if it increases the value of the owners' capital" (Modigliani and Miller, 1958, p. 262). The pioneering work of Modigliani and Miller in 1958, also known as the MM theory of capital structure, led to the development of other theories that focused on explaining the key determinants of firm capital structure.

Recent, more realistic treatments call it that the debt entry rate has an impact on the value of the enterprise and, as a result, certainly has the optimal financial structure.

Entering debt carries a financial burden, generally fixed, which is not related to the performance of the enterprise. The decision on the ideal share of the debt and own capital can affect the value and profitability of the enterprise. Financial structure indicators: total assets are financed either by equity or by creditors. The liability structure can be combined in different ways depending on how it fits the individual needs of the enterprise and the asset structure. When combining liabilities, one must keep in mind that the golden rules of the balance sheet in the narrow or broad sense must be met. The combination of liability or the ratio between equity and borrowing resources is called a financial structure. Indicators of the financial structure for that reason are the inevitable tools used by the analyst to assess the financial position of the enterprise.

Alan J Taub, 1975, investigated the relationship between variables that explain the influence of various factors in business decision-making related to financing activity. That is why the author considered a sample of 89 firms, for a period of 10 years, from 1960 to 1969. Two types of tests were used to treat the empirical model: the feasibility test and the t - test. Empirical results show that the differences between firm returns and interest rate in the long run and firm size have shown positive influence on the debt-to-equity ratio. The firm's income uncertainty has been shown to have a negative impact on the debt-to-equity ratio. Results for the remaining variables were contrary to expectations. Among the theory of firm capital structure and financing decisions, we also mention the theory of the order of choice, developed by Myers & Majluf (1984). This theory argues that companies, in terms of their capital structure, do not aim for a certain debt ratio because it does not exist. Also, to minimize information asymmetry between managers and investors, firms prefer to first use retained earnings to fund their capital budgeting decisions. In the second place, according to this theory, is the use of debt and, finally, the issuance of new capital.

Myers (2001) suggests: "There is no universal theory of the choice between capital and debt, and there is no reason why we should have one" (Myers, 2001, p. 81). Buferna et al., 2005, provided empirical evidence for the theories of capital structure of firms of developed countries. The dependent variable was the financial leverage ratio and the explanatory variables were: firm size, firm growth opportunities, asset to debt ratio and firm profitability. The sample of this research was based on 5 years dealing with data from 1995 to 1999 for 55 companies. The selection of companies within the sample included public companies and private companies. The sample included 32 public companies and 22 private companies. To test the relationship between the level of debt and the explanatory variables they used the econometric method of the sum of the least squares (OLS). The results showed that private companies tended to have higher average growth rates and more assets than public companies. On the other hand, the results showed that private companies have higher levels of short-term debt than public companies, which means that private companies had higher average debt rates than public companies. The level of long-term debt has

been shown to be similar for both private and public companies. Asset and growth variables have shown positive correlation with short-term debt and negative correlation with long-term debt. The profitability and size of the firm has been shown to have a negative correlation with long-term debt. This implies that growing companies and companies with higher levels of fixed assets tend to use more short-term debt than long-term debt and large and profitable companies tend to use debt in general. On the other hand, raising the interest rate may cause firms to increase the debt ratio due to pre-tax deduction benefits or reduce it to reduce the risk of bankruptcy (Abzari, M., Fathi. S., Nematizadeh, F., 2012).

Most studies have focused on listed firms in developed countries and little attention has been paid to unlisted firms in developing countries. Therefore, this study tries to fill the gap by analyzing the capital structure specifically the borrowed capital of small and medium enterprises in the Polog region.

The basic and primary purpose of conducting this scientific research is to analyze the impact of the financial structure-borrowed capital of enterprises from various economic activities in the Polog region on the profitability of these enterprises. Entering debt carries a financial burden, generally fixed, which is not related to the performance of the enterprise. Deciding on the ideal share of debt and own capital can affect the value and profitability of the enterprise. In this research, we examine the impact of borrowed capital on the profitability of enterprises.

2. Methods

The methodology to be used in this paper is based on the simple regression, multivariate regression methodology, using secondary cross-sectional data. This methodology enables through a simple and multivariate regression analysis, to analyze the effects of different variables that affect business decision-making, based on the capital structure and liquidity. So, the main purpose of the small squares sum methodology that will be applied through the multivariate regression analysis is to predict the average change of the dependent variable (profit), because of the unit change of the explanatory variables.

3. Results

During the analysis of the size of the borrowed capital, the ratio of the borrowed capital/equity was analyzed, 69 firms small and medium were chosen for analysis. The following table shows the distribution of enterprises based on the ratio between borrowed capital and equity. This ratio can be best seen at the highest and lowest point in the table and graph below.

Table 2. Distribution of enterprises-based

Graph 1. Percentage of enterprises based on capital on the ratio of borrowed capital and equity ratio.

	Frequency	%Freq
0.01- 0.5	429	62.17%
0.51-1.0	111	16.09%
1.01-1.5	26	3.77%
1.51-2.0	30	4.35%
2.01-2.5	28	4.06%
2.51-3.0	0	0.00%
3.01-3.5	28	4.06%
3.51-4.0	20	2.90%
4.01-8.5	18	2.61%
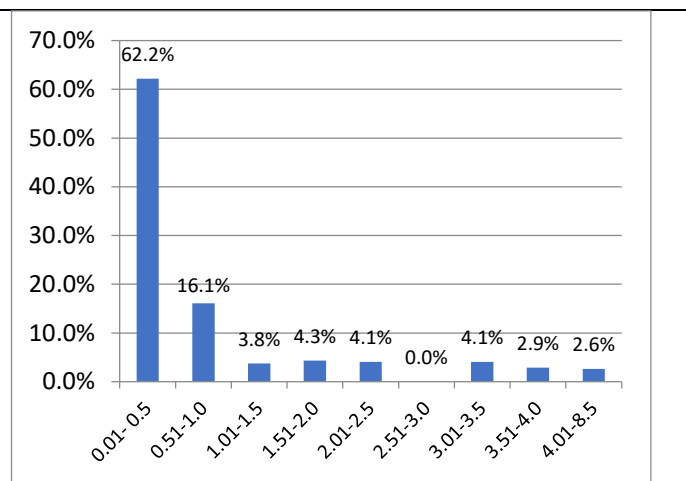
Source: Author calculations

From the table we can see that the ratio of borrowed capital and equity from 0.01 to 0.50 has 429 frequencies or expressed in percentage 62.17% which means the higher frequency of the ratio between borrowed capital and equity, the coefficient 0.51 to 1.00 has 111 frequencies or expressed in percentage 16.09%, the coefficient 1.01 to 1.50 has 26 frequencies or expressed in percentage 3.77%, the coefficient 1.51 to 2.00 30 frequencies or expressed in percentage 4.35%, the coefficient 2.01 to 2.50 has 28 frequencies, the coefficient 2.51 to 3.00 has no frequency, the coefficient 3.01 to 3.50 has 28 frequencies or expressed in percentage 4.06%, 3.51 to 4.00 has 20 frequencies or expressed in percentage 2.90%, the coefficient 4.01 to 8.50 has 18 frequencies or expressed in percentage 2.61%.

So, the total observations for the hypothesis analysis are 69 firms in 10 years, 690 observations.

Borrowed capital size determinants, borrowed capital/equity ratio for 69 small and medium-sized firms in the Polog region were studied individually by calculating the maximum, minimum, average, standard deviation, mode, and median of equity capital borrowed and net profit. In the following pages, we will present the table where we have descriptive statistics on net profit, equity, and borrowed capital for 69 firms for 10 years, i.e., a total of 690 observations.

Statistics

		Net profit	Own capital
N	Valid	690	690
Mean		499299.4784	3.3891E6
Median		58451.9500	522810.5650
Mode		-129687.04[a]	1241755.48[a]
Std. Deviation		1.75114E6	7.95144E6
Minimum		-129687.04	8371.33
Maximum		20666246.54	62937229.75

a. Multiple modes exist. The smallest value is shown

Source: Author calculations

From the table, we see that the average equity of 690 observations is 33891E6 denars which are obtained based on the division of the collected amount of individual equity data of 69 firms for 10 years with their number in the series, while the average of net profit of 690 observations is 499299.4784 denars whereas the average of the borrowed capital of 690 observations is 23776E6 denars.

The median or average of equity of 690 observations is 522810.5650 denars while the median of net profit of 690 observations is 58451.9500 denars, while the median of the borrowed capital of 690 observations is 382636.0550 denars.

The equity mode of 690 observations is 41241755.48[a] denars, while the net profit mode of 690 observations is 12129687.04[a] denars and the borrowed capital mode of 690 observations is 55058.05 denars.

The standard deviation of equity of 690 observations is 795144E6 denars, while the standard deviation of the net profit of 690 observations is 175114E6 denars, while the standard deviation of borrowed capital of 690 observations is 581675E6. As can be seen, these errors are relatively small and we can believe in the validity of the calculated parameters, as well as in the model itself.

The minimum equity of 690 observations is 8371.33 i.e., the lowest value of equity of all observations, while the minimum net profit of 690 observations is -129687.04 i.e., the lowest value of net profit of all observations. The minimum of the borrowed capital of 690 observations is 5058.05 i.e., the lowest value of borrowed capital of all observations.

Borrowed capital
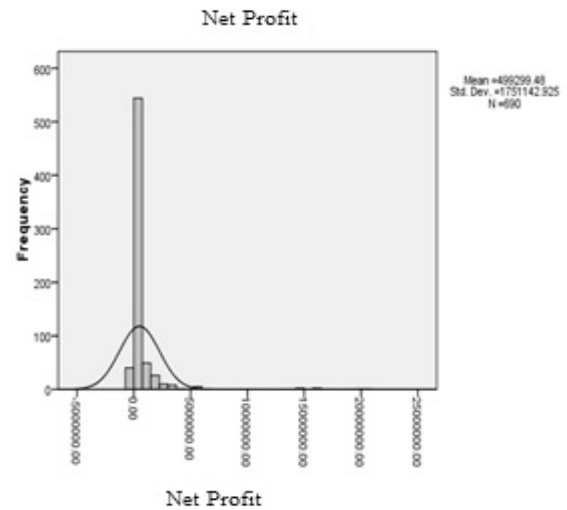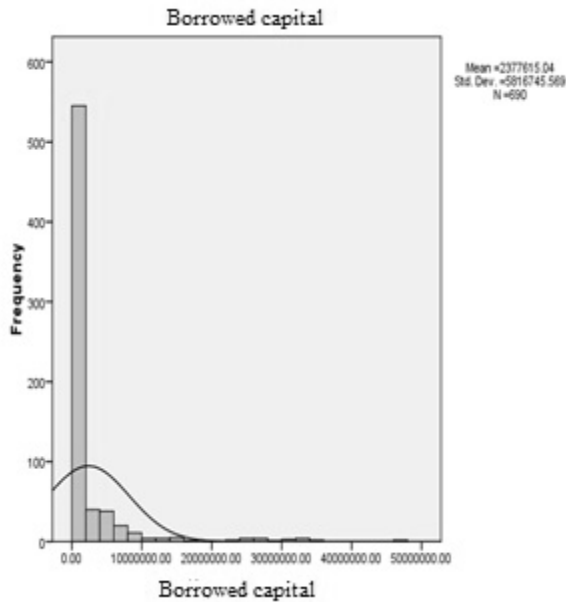
Net Profit

The maximum equity of 690 observations is 62937229.75 i.e., the highest value of equity of all observations. The maximum net profit of 690 observations is 20666246.54 i.e., the highest value of net profit of all observations. The maximum of borrowed capital of 690 observations is 47202922.32 i.e., the highest value of borrowed capital of all observations.

All this data can be best seen in the following graphs:

Own capital
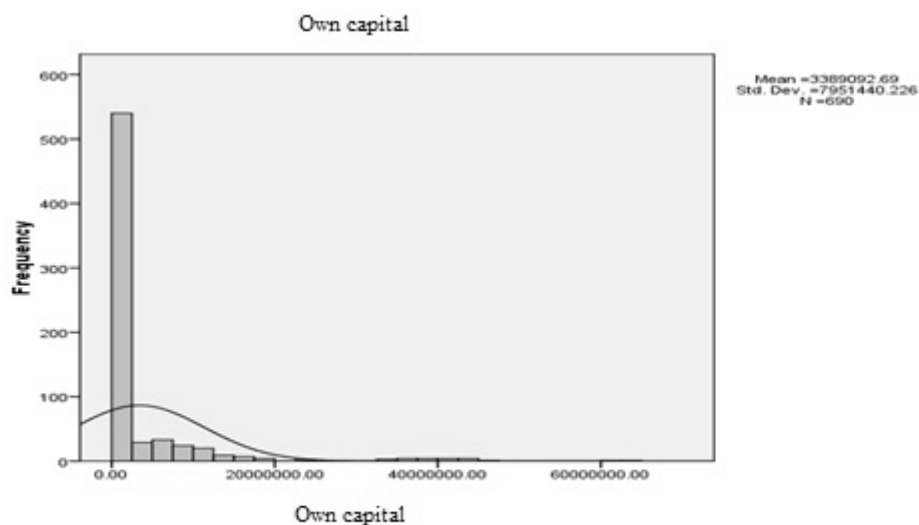
In this case, as well, we will follow the same paths of regression analysis, as we did above. To reach a reliable analysis, several steps must be followed:

1. It is important to form the economic hypothesis in the regression analysis, or other words the formulation of the appropriate economic model. Thus, the basic hypothesis and the alternative hypothesis are formulated as follows:

   - **HO: Borrowed capital does not have a positive impact on the economic profit of the enterprise.**

   - **H1: Borrowed capital has a positive impact on the economic profit of the enterprise.**

2. Specification of mathematical/economic model. It is the specification of the appropriate economic model that constitutes an important and necessary stage in the regressive statistical analysis. The defined model is the positive impact of borrowed capital on the economic profit of the enterprise.

$$\text{Net profit} = a + b * \text{borrowed capital} + \mu \qquad (1)$$

3. Obtaining data and evaluating or quantifying the model. It is at this stage that we have further concretization of the economic model formulated, giving it numerical or empirical content. The main method used is the Ordinary Least Squares Method (OLSM), after which the model becomes fully and economically interpretable.

Rated Model:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	T
1	(Constant)	499403.089	75276.125		6.634
	Borrowed capital	.001	.031	.554	.019

a. Dependent Variable: Net profit

Source: Author calculations

In this case, the model that is evaluated is:

$$\textbf{Net profit} = 499403.089 + 0.001 \, (borrowed \, capital) + \mu \qquad (2)$$

We interpret the data:

499403.089 - is the free intercept/term indicating how much the net profit will be when the size of the company is zero.

0.001- indicates that with the change (increase) of the borrowed capital by 1 unit, the net profit will change (increase) by 0.001 units.

The results obtained suggest that the size of borrowed capital is positively correlated with net profit and is statistically significant. To increase the net profit for 1 unit the borrowed capital must increase by 0.001 units when the other factors are constant.

The positive sign of the regression coefficient (+0.001) shows the logical relationship that exists between the net profit and the size of the capital of the enterprise, in this case, we say that the assumed model is consistent with economic logic.

4. An important step in regression analysis is model testing. In our case it is important to test the formulated economic model, taking a level of significance $a = 0.05$. In our case the two most usable types of testing will be performed:

a) Hypothesis on the importance of the model as a whole
b) Hypothesis on the importance of parameters

a) Testing on the relevance of the model.

H0: The model is not important (borrowed capital does not affect economic profit)
H1: The model is important (borrowed capital affects economic profit)
The main indicator used in model testing is called the Fisher Test:

The following table calculates some indicators related to the model as a whole.

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F
1	Regression	1.124E9	1	1.124E9	.000
	Residual	2.139E15	699	3.060E12	
	Total	2.139E15	700		

a. Predictors: (Constant), Borrowed capital
b. Dependent Variable: Net profit

Source: Author calculations

So first, one should always look at model fit. No mistake should be made in viewing the R-square before checking the fit.

Significance of the model (Does the model explain the deviations in the dependent variable).

The last column in the table shows the model fit. The smaller this number the better the fit. Typically, if „sig„ is greater than 0.05 we conclude that the model cannot fit the data.

If sig <.01 then the model is 99% important, if,, sig,, <.05, then the model is 95% important, if „sig „ <.1, then the model is 90% Important.

Importantly, we must understand that we can accept the model. If,, sig ,,>., 1 then the model is not significant (no connection can be found) or the R-square is not significantly different from 0.

From the table we see that our model has "sig" 0.018 which means it is 82% important.

Fischer actual results = 0.000

Critical Fisher (α = 0.05) (with n-k = 690-2 = 688, and k-1 = 2-1 = 1, degree of freedom) = 4.1

Doing a comparison, we have:

Ff <Fk, then we say that Ho is accepted, the hypothesis holds, we say that the regression model has no statistically significant effect on the dependent variable - (economic gain). If F is not significant then we cannot say that model 1 is better than model 2. The implication is clear - the use of independent variables does not help in predicting the dependent variable.

a) Test on the importance of model parameters.

The main test used in this case is the student test.

H0: The effect of the size of the borrowed capital on the net profit of the company is not significant.

H1: The effect of the size of the borrowed capital on the net profit of the company is significant.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	T
1	(Constant)	499403.089	75276.125		6.634
	Borrowed capital	.001	.031	.554	.019

Dependent Variable: Net profit
Source: author calculations

Tf = b/Sb = 0.019

Tkr (α/2 = 0.05/2)(n – k = 690-2 = 688, degree of freedom) = 2.34

tf <tkr, then we say that the basic Ho hypothesis is accepted, which means that the influence of the size of borrowed capital on economic profit is not significant.

Based on the steps followed above, we can conclude that through the regression analysis, we have assessed the economic relationship between the variables, and we have reached the assessment of these indicators, their importance and the reliability of the model built. In this case as well, we conclude that the first model is better than the second model.

The following are some other indicators:

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Borrowed capital [a]		. Enter

a. All requested variables entered.

b. Dependent Variable: Net profit

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.554[a]	.395	.364	1.74920E6

a. Predictors: (Constant), Borrowed capital

Source: Author calculations

Adjusted R-Square measures the proportion of the mismatch in the dependent variable (net profit) that was explained by the changes in the independent variables. In our case, the "Adjusted R-Square" indicates that 36.4% of the variance is explained. As a dependent variable, we have the Net Profit while as an independent variable the Borrowed Capital. So, the variability of Net Profit from Capital is explained by 36.4%.

R-Square measures the proportion of variation in the dependent variable (Net Profit) that was explained by the variations in the independent variables. In our case, the 'R-square' indicates that 39.5% of the variation (and not the discrepancy) was explained.

4. Discussion and conclusions

Theoretically, it has been proven that the financial structure of the enterprise is a fundamental basis for its stability. If the enterprise has a strong financial structure, it will be easier to face all the difficulties that may arise during the business of the enterprise and to successfully continue with its existence. On the other hand, if an enterprise has a weak financial structure, even the smallest difficulties that may arise can break down and liquidate the enterprise.

Based on economic and financial theory, in formal terms, if we accept the fact that the financial structure is expressed through the liability structure of the balance sheet, which in a word

represents the way the business investments of the enterprise are financed, then the financial structure includes the structure of assets and the structure of funding sources together with their interrelationship. The structure of financing plays an important role in the profitability of enterprises because business results are very closely related to how the enterprise manages financial resources. Enterprises can avoid the risk of financial distress if they manage to maintain their ability to meet their contractual interest and capital payment obligations. A bad debt ratio is not necessarily bad.

In a word, debt has its advantages and disadvantages. Debt saves taxes to be paid to the state because interest is calculated as a deductible expense and at the same time debt can cause financial distress to the enterprise. If a company can manage high debt well without any risk, it will increase the wealth of its owners. On the other hand, the low debt ratio of the enterprise can be very severe for the enterprise which has a problem with its liquidity.

The results obtained suggest that the size of borrowed capital is positively correlated with net profit and is statistically significant. To increase the net profit for 1 unit the borrowed capital must increase by 0.001 units when other factors are kept constant.

The positive sign of the regression coefficient (+0.001) shows the logical relationship that exists between the net profit and the size of the capital of the enterprise, in this case, we say that the assumed model is consistent with the economic logic.

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