



## **IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY: A STUDY OF LISTED COMPANIES IN THE BALTIC COUNTRIES**

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**Abstract.** Capital structure is of particular importance in estimating the value of a company; an accurately estimated and selected equity and debt ratios can maximise company value and minimise the cost of capital; therefore, this issue is especially significant in the changing conditions of economic development. Profitability ratios show the ability of the company to generate profit and these ratios are used by the company, financial institutions, etc. to determine the performance of the company. Previous research on the relationship of capital structure with profitability has discovered that capital structure impacts profitability, but provided mixed results regarding the trend (positive/negative relationship).

The **aim of the research** is to evaluate the impact of capital structure on profitability and, based on empirical results, to make conclusions. In the research paper, the following qualitative and quantitative **methods of research** are applied: the monographic method, correlation analysis and multiple regression analysis. The correlation and regression analyses are used to estimate the functions relating to the impact of profitability on the measures of capital structure.

The results of research indicate a significantly negative relationship between profitability and capital structure. This implies that an increase in the debt ratios is associated with a decrease in profitability. During the economic downturn, an increase in the debt levels is related to an even deeper fall in profitability. The results also show that the profitability increases with size and sales growth.

**Key words:** *capital, debt, equity, profitability*

**JEL code:** G30, G32

### **Introduction**

Capital structure is of particular importance in estimating the value of a company; an accurately estimated and selected equity and debt ratios can maximise company value and minimise the cost of capital; therefore, this issue is especially significant in the changing conditions of economic development. Profitability ratios show the ability of the company to generate profit and these ratios are used by the company, financial institutions, etc. to determine the performance of the company. Previous research on the relationship of capital structure with profitability has discovered that capital structure impacts profitability, but provided mixed results regarding the trend (positive/negative relationship). In addition, by investigating the correlation between capital structure and profitability, it is possible to state which

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optimal capital structure theory the Baltic listed companies are following. The pecking order theory states that companies prioritise their sources of financing (at first, they prefer to use internal funds, then to borrow and to issue equity as a last resort). The trade-off theory states that the company chooses debt and equity mix by balancing the benefits and costs of debts. The pecking order theory expects a negative relationship and the trade-off theory expects a positive relationship between profitability and leverage.

The **aim of the research** is to evaluate the impact of capital structure on profitability and, based on the empirical results, to make conclusions. The **tasks of the research** are as follows: 1) To overview the results of previous research made on the relationship of capital structure and profitability; 2) to evaluate the relationship between capital structure and profitability using correlation analysis; 3) to evaluate the impact of leverage on profitability ratios using multiple regression analysis; 4) to make conclusions.

Analysis is conducted on a sample of 75 listed companies (Baltic Stock Exchange) over the period from 2004 to 2011. The author analyses the relationship of capital structure with several profitability ratios – return on assets (ROA), return on sales (ROS), and return on equity (ROE). In the research paper, the following qualitative and quantitative **methods of research** are applied: the monographic method, correlation analysis and multiple regression analysis. The correlation and regression analyses are used to estimate the functions relating profitability with measures of capital structure. The research is based on published papers on capital structure and profitability, as well as information provided by Baltic Stock Exchange. Correlation and multiple regression analyses are done using Statistical Package for the Social Sciences (SPSS).

## Research results and discussion

### 1. Literature Review

If the company increases its debt, the tax benefit of debt should increase, since interest payment on debt is tax deductible. Therefore it is expected that debt level and profitability have a positive relationship. Yet empirical results are inconsistent.

Results by Abor (2005) revealed a significant positive relationship between the ratio of short-term debt to total assets and ROE, a negative relationship between the ratio of long-term debt to total assets and ROE, a significantly positive association between the ratio of total debt to total assets and ROE. A study by Amjed (2007) found that a significant positive relationship exists between the short-term debt and profitability and statistically significant negative relationship between long-term debt and profitability. Salawu (2009) concluded that profitability presents a positive correlation with short-term debt and an inverse correlation with long-term debt. The results also show a negative correlation between the ratio of total debt to total assets and profitability. A study by Gill *et al.* (2011) stated a positive relationship between short-term debt and profitability and total debt and profitability in the service industry, however they found a positive relationship between short-term, long-term and total debt and profitability in the manufacturing industry. The results by Saeedi and Mahmoodi (2011) indicate negative relation between capital structure and ROA and no significant relationship between ROE and capital structure. Ramachandran and Candasamy (2011) proved that there is a strong one-to-one relationship between capital structure variables and profitability variables – ROA and ROCE (return on capital employed). Pratheepkanth (2011) found a negative relationship between total debt and ROA and ROI (return on investment). Abu-Rub (2011) results showed that firm's capital structure has a positive impact on the measures of firm performance, in both – the accounting and market measures. No statistically significant relationship was found between short-term and long-term debt and ROA/ROE, however, a positive relation between total debt and ROA/ROE was stated. Shubita and Alsawalhah (2012) found negative relationship between profitability and debt (total debt, short-term debt and long-term debt).



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Table 1

## Summary of recent publications on capital structure and profitability

Author, publication year	Country	Sample size	Period	Method	Findings
Abor (2005)	Ghana, Ghana Stock Exchange	22	1998-2002	Regression analysis.	STD:ROE “+” LTD:ROE “-” TD:ROE “+”
Amjed (2007)	Pakistan, Karachi Stock Exchange	100	1999-2004	Regression analysis.	STD:ROE “+” LTD:ROE “-” TD:ROE “N”
Salawu (2009)	Nigeria, Nigerian Stock Exchange	50	1990-2004	Pooled ordinary least squares (OLS), fixed effect model (FEM), random effect model (REM)	STD:ROA “+” LTD:ROA “-” TD:ROA “-”
Gill <i>et al.</i> (2011)	USA, New York Stock Exchange	272	2005-2007	Correlation analysis. Regression analysis.	Service industry: STD:ROA “+” LTD:ROA “N” TD:ROA “+” Manufacturing industry: STD:ROA “+” LTD:ROA “+” TD:ROA “+”
Saeedi, Mahmoodi (2011)	Iran, Tehran Stock Exchange	320	2002-2009	Pooled ordinary least squares (OLS), fixed effect model (FEM), random effect model (REM)	STD:ROE “N” LTD:ROE “N” TD:ROE “N” STD:ROA “-” LTD:ROA “-” TD:ROA “-”
Ramachandran, Candasamy (2011)	India, Bombay Stock Exchange	102	2000-2007	Correlation analysis. Regression analysis.	TD:ROA “-” TD:ROCE “-”
Pratheepkanth (2011)	Sri Lanka, Colombo Stock Exchange	N/A	2005-2009	Correlation analysis. Regression analysis.	TD:ROI “-” TD:ROA “-”
Abu-Rub (2011)	Palestine, Palestinian Stock Exchange	28	2007-2010	Correlation analysis. Regression analysis.	STD:ROE “N” LTD:ROE “N” TD:ROE “+” STD:ROA “N” LTD:ROA “N” TD:ROA “+”
Shubite, Alsawalhah (2012)	Jordan, Amman Stock Exchange	39	2004-2009	Correlation analysis. Regression analysis.	STD:ROE “-” LTD:ROE “-” TD:ROE “-”

Notes: “+” positive relationship, “-” negative relationship, “N” not stated significant relationship, STD – short-term debt, LTD – long-term debt, TD – total debt, ROE – return on equity, ROA – return on assets, ROI – return on investment, ROCE – return on capital employed.



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Table 1 summarized recent publications and their findings regarding relationship between profitability and capital structure. These studies cover different countries, sample sizes and periods. Correlation and regression analyses are the most common methods used. Overall, empirical results show mixed results on the relationship between profitability and capital structure.

Several studies have been done on capital structure of the Baltic listed companies. Norvaisiene and Stankeviciene (2007) analysed the capital structure of the Lithuanian, Latvian and Estonian listed companies and its change in the period from 2000 to 2005. This research stated the dependence between the capital structure and return on assets, tangibility, company size, growth prospects and free cash flows. Norvaisiene *et al.* (2008) found that a higher level of debt preconditions a lower corporate value and smaller growth opportunities. Avarmaa (2011) used a fixed effects regression model on company level data, covering the period from 2001 to 2008 and found that leverage has a positive impact on the growth of local companies, especially at low levels of leverage. Study by Bistrova *et al.* (2011) covered the time period of 4 years (2007-2010) and the sample data of 36 “blue-chip” companies listed on the Baltic Stock Exchange. The study found an inverse relationship between the level of debt and capital profitability.

## 2. Research methodology

Data consist of 75 companies listed on the Baltic Stock Exchange for the period 2004-2011. Annual data extracted from the financial statements of these companies were used for analysis. The study excluded the financial and real estate sector companies, since their balance sheet structure is significantly different from non-financial companies. All variables were calculated using book values. Period of 2004-2011 is divided into two equal subsamples of 2004-2007 and 2008-2011 due to the business cycle changes.

To be consistent with previous studies, the relationship between debt and profitability is estimated using the following regression models by Abor (2005):

$$ROA_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (1)$$

$$ROA_{it} = \beta_0 + \beta_1 LTD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (2)$$

$$ROA_{it} = \beta_0 + \beta_1 TD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (3)$$

$$ROE_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (4)$$

$$ROE_{it} = \beta_0 + \beta_1 LTD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (5)$$

$$ROE_{it} = \beta_0 + \beta_1 TD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (6)$$

$$ROS_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (7)$$

$$ROS_{it} = \beta_0 + \beta_1 LTD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (8)$$

$$ROS_{it} = \beta_0 + \beta_1 TD_{it} + \beta_2 SIZE_{it} + \beta_3 SG_{it} + e_{it}, \quad (9)$$

where:

$ROA_{it}$  is net profits divided by total assets for firm  $i$  in time  $t$ ;

$ROE_{it}$  is net profits divided by stockholders' equity for firm  $i$  in time  $t$ ;

$ROS_{it}$  is net profits divided by sales for firm  $i$  in time  $t$ ;

$STD_{it}$  is short-term debt divided by the total assets for firm  $i$  in time  $t$ ;

$LTD_{it}$  is long-term debt divided by the total assets for firm  $i$  in time  $t$ ;

$TD_{it}$  is total debt divided by the total assets for firm  $i$  in time  $t$ ;

$SIZE_{it}$  is the log of sales for firm  $i$  in time  $t$ ;

$SG_{it}$  is sales growth for firm  $i$  in time  $t$ ;

$e_{it}$  is the error term.



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These regression models have been previously used by Amjed (2007), Gill *et al.* (2011) and Shubite, Alsawalhah (2012), and the results were mixed and inconsistent.

In addition, the presence of autocorrelation is verified through the Durbin-Watson test and the Variance Inflation Factor is used to test multicollinearity.

### 3. Analysis and results

Correlation and regression analyses are used to investigate the relationship between the capital structure and profitability. The Pearson correlation measures the degree and direction of a linear relationship between two variables. Correlation coefficient of +1 corresponds to a perfect positive linear relationship, coefficient of -1 corresponds to a perfect negative linear relationship, and 0 indicates no linear relationship between variables. Regression analysis studies the dependence of one variable on other variables.

Table 2 provides the Pearson correlation matrix of the variables for period of 2004-2007. ROA is negatively correlated with the short-term debt, long-term debt and total debt. Correlation coefficients of other profitability ratios (ROE and ROS) and debt ratios are not significant at the 0.05 level.

Table 2

**Correlation matrix of Baltic listed companies (2004-2007)**

	ROA	ROE	ROS	STD	LTD	TD
ROA	1	0.688** (0.000)	0.665** (0.000)	-0.184** (0.004)	-0.171** (0.007)	-0.231** (0.000)
ROE	0.688*** (0.000)	1	0.504*** (0.000)	-0.079 (0.220)	0.040 (0.537)	-0.006 (0.930)
ROS	0.665*** (0.000)	0.504*** (0.000)	1	-0.121 (0.057)	0.037 (0.564)	-0.029 (0.654)
STD	-0.184** (0.004)	-0.079 (0.220)	-0.121 (0.057)	1	0.096 (0.134)	0.568** (0.000)
LTD	-0.171** (0.007)	0.040 (0.537)	0.037 (0.564)	0.096 (0.134)	1	0.874** (0.000)
TD	-0.231** (0.000)	-0.006 (0.930)	-0.029 (0.654)	-0.568** (0.000)	0.874** (0.000)	1

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: author's calculations based on the annual reports of listed companies (Baltic Stock Exchange).

Table 3 below summarizes the Pearson correlation matrix for the period of 2008-2011. ROA and ROS are negatively correlated with the short-term debt, long-term debt and total debt, however, ROE is negatively correlated with the short-term debt and total debt (correlation coefficient of ROE and long-term debt is not significant at the 0.05 level).

To sum up, based on the correlation analysis, it can be stated that there is an inverse relationship between capital structure and profitability during a recession (all profitability ratios are negatively correlated with leverage), whereas there are mixed results during economic boom (only ROA is negatively correlated).

Regression results for ROA are presented in Table 4. The results from the regression models (1), (2) and (3) denote that the independent variables explain the variance in the degree of profitability at 12%, 11% and 14%, respectively, for the period of 2004-2007, and at 14%, 12% and 16%, respectively, for the period of 2008-2011. The F-statistics prove the validity of the estimated models. In models, there is no



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autocorrelation problem (Durbin-Watson d statistics are within interval of 1.715 and 2.285) and no multicollinearity problem (VIF coefficients are around 1 and tolerance coefficients are greater than 0.5).

Table 3

**Correlation matrix of Baltic listed companies (2008-2011)**

	ROA	ROE	ROS	STD	LTD	TD
ROA	1	0.722** (0.000)	0.777*** (0.000)	-0.248*** (0.000)	-0.198*** (0.001)	-0.304** (0.000)
ROE	0.722** (0.000)	1	0.544** (0.000)	-0.226** (0.000)	-0.114 (0.059)	-0.222** (0.000)
ROS	0.777** (0.000)	0.544*** (0.000)	1	-0.172** (0.004)	-0.164** (0.006)	-0.233** (0.000)
STD	-0.248** (0.000)	-0.226** (0.000)	-0.172** (0.004)	1	-0.005 (0.928)	0.559** (0.000)
LTD	-0.198** (0.001)	-0.114 (0.059)	-0.164** (0.006)	-0.005 (0.928)	1	-0.826** (0.000)
TD	-0.304** (0.000)	-0.222** (0.000)	-0.233** (0.000)	0.559** (0.000)	0.826** (0.000)	1

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: author's calculations based on the annual reports of listed companies (Baltic Stock Exchange).

Table 4

**Regression model results for Baltic listed companies, 2004-2011 – ROA**

Variable	ROA					
	2004-2007			2008-2011		
	1	2	3	1	2	3
STD	-0.154*** (0.001)			-0.262*** (0.000)		
LTD		-0.074*** (0.005)			-0.137*** (0.002)	
TD			-0.088*** (0.000)			-0.178*** (0.000)
SIZE	0.496** (0.012)	0.513*** (0.010)	0.556*** (0.005)	0.914*** (0.008)	0.689** (0.044)	0.834** (0.013)
SG	0.041*** (0.000)	0.036*** (0.000)	0.038*** (0.000)	0.067*** (0.000)	0.074*** (0.000)	0.067*** (0.000)
R <sup>2</sup>	0.12	0.11	0.14	0.14	0.12	0.16
Prob. (F)	0.000	0.000	0.000	0.000	0.000	0.000
Durbin-Watson	1.761	1.760	1.750	1.935	1.878	1.893

\*, \*\* and \*\*\* indicate significance at 10%, 5% and 1% level respectively. If Durbin-Watson d statistics is between 1.715 and 2.285, then there is no autocorrelation problem in the model.

Source: author's calculations based on the annual reports of listed companies (Baltic Stock Exchange).

A negative relationship between ROA and short-term debt, long-term debt and total debt was found in both periods (2004-2007 and 2008-2011). All coefficients are statistically significant at 1% level. There is also a significant positive relationship between both sales growth and ROA and company size and ROA.



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In summary, 14% and 16% of the variance in the degree of ROA can be explained by the degree of TD, SIZE and SG for the period of 2004-2007 and 2008-2011, respectively. The results in regression indicate a significantly negative relationship between ROA and debt ratios. This implies that an increase in the debt ratios is associated with a decrease in profitability. The results also show that profitability increases with size and sales growth.

Table 5 provides regression results for ROE. The results from the regression models (4), (5) and (6) denote that the independent variables explain the variance in the degree of profitability at 12%, 10% and 11%, respectively, for the period of 2004-2007, and at 9%, 5% and 9%, respectively, for the period of 2008-2011. The F-statistics prove the validity of the estimated models. In models for the period of 2004-2007, an autocorrelation problem might be found (Durbin-Watson d statistics is slightly less than 1.715), however, there is no multicollinearity problem (VIF coefficients are around 1 and tolerance coefficients are greater than 0.5). In models for the period of 2008-2011, there are no autocorrelation or multicollinearity problems.

Table 5

**Regression model results for Baltic listed companies, 2004-2011 – ROE**

Variable	ROE					
	2004-2007			2008-2011		
	1	2	3	1	2	3
<b>STD</b>	-0.479* (0.065)			-1.077*** (0.000)		
<b>LTD</b>		0.046 (0.765)			-0.322* (0.075)	
<b>TD</b>			-0.084 (0.512)			-0.560*** (0.000)
<b>SIZE</b>	5.395*** (0.000)	5.190*** (0.000)	5.340*** (0.000)	4.513*** (0.001)	3.605** (0.012)	4.053*** (0.004)
<b>SG</b>	0.171*** (0.003)	0.164*** (0.005)	0.162*** (0.005)	0.099 (0.145)	0.134* (0.054)	0.106 (0.119)
<b>R<sup>2</sup></b>	0.12	0.10	0.11	0.09	0.05	0.09
<b>Prob. (F)</b>	0.000	0.000	0.000	0.000	0.004	0.000
<b>Durbin-Watson</b>	1.622	1.646	1.642	1.769	1.789	1.771

\*, \*\* and \*\*\* indicate significance at 10%, 5% and 1% level respectively. If Durbin-Watson d statistics is between 1.715 and 2.285, then there is no autocorrelation problem in the model

Source: author's calculations based on the annual reports of listed companies (Baltic Stock Exchange).

A negative relationship between ROE and short-term debt was found for the period of 2004-2007. Non-significant relationships between the ROE and long-term debt and total debt, for the period of 2004-2007, were found. For the period of 2008-2011, there are significant relationships between the ROE and the short-term debt, long-term debt and total debt.

In general, 12% of the variance in the ROE can be explained by the degree of STD, SIZE and SG for the period of 2004-2007. The results in regression indicate a significantly negative relationship between ROE and debt ratios in a recession, however provide mixed results regarding economic boom.

Table 6 represents regression results for ROS. The results from the regression models (7), (8) and (9) denote that the independent variables explain the variance in the profitability at 5%, 3% and 3%, respectively, for the period of 2004-2007, and at 9%, 9% and 11%, respectively, for the period of 2008-2011. The F-statistics prove the validity of the estimated models, except LTD and TD models for 2004-



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2007, where F-statistics are 0.084 and 0.072, respectively. There is no autocorrelation problem (Durbin-Watson d statistics are within the interval of 1.715 and 2.285) and no multicollinearity problem (VIF coefficients are around 1 and tolerance coefficients are greater than 0.5 in models).

Table 6

**Regression model results for Baltic listed companies, 2004-2011 – ROS**

Variable	ROS					
	2004-2007			2008-2011		
	1	2	3	1	2	3
<b>STD</b>	-0.187** (0.028)			-0.333*** (0.007)		
<b>LTD</b>		0.021 (0.680)			-0.212*** (0.010)	
<b>TD</b>			-0.031 (0.464)			-0.252*** (0.000)
<b>SIZE</b>	0.900** (0.018)	0.817** (0.034)	0.876** (0.023)	1.521** (0.021)	1.233* (0.058)	1.439** (0.026)
<b>SG</b>	0.029 (0.125)	0.026 (0.166)	0.025 (0.179)	0.117*** (0.000)	0.125*** (0.000)	0.114*** (0.000)
<b>R<sup>2</sup></b>	0.046	0.027	0.028	0.09	0.09	0.11
<b>Prob. (F)</b>	0.010	0.084	0.072	0.000	0.000	0.000
<b>Durbin-Watson</b>	1.864	1.905	1.888	2.118	2.101	2.124

\*, \*\* and \*\*\* indicate significance at 10%, 5% and 1% level respectively. If Durbin-Watson d statistics is between 1.715 and 2.285, then there is no autocorrelation problem in the model.

Source: author's calculations based on the annual reports of listed companies (Baltic Stock Exchange).

The regression data shows a negative relationship between ROS and short-term debt for the period of 2004-2007. A negative and significant relationship between ROS and short-term debt, long-term debt and total debt was found for the period of 2008-2011.

In summary, 11% of the variance in the degree of ROS can be explained by the degree of TD, SIZE and SG for the period of 2008-2011. The results in regression indicate a significantly negative relationship between ROS and debt ratios during a recession, but provide mixed results regarding economic boom.

Although debt creates tax shield and should increase profitability, for the Baltic listed companies this assertion is not applicable. The results indicate that profitability ratios are inversely correlated to debt; if company increases its debt, the profitability decreases. These findings are consistent with the study by Bistрова *et al.* (2011), where negative relationships between debt levels and profitability for the Baltic listed companies were proved.

2<sup>nd</sup> subsample (2008-2011) shows increased coefficients in both correlation and regression analysis for ROA. For example, regression results of ROA and debt levels indicate coefficients of -0.154 (STD), -0.074 (LTD) and -0.088 (TD) for the 1<sup>st</sup> subsample, however for the period of 2008-2011 they decreased significantly to -0.262 (STD), -0.137 (LTD) and -0.178 (TD). These results reveal that during the economic downturn, an increase in debt levels is associated with deeper fall in profitability (compared to economic boom).

Overall, these results show that profitable companies depend more on equity than debt financing. By analysing the relationship between the capital structure and profitability, it is possible to conclude that the





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Baltic listed companies are following the pecking order theory of capital structure (pecking order theory expects a negative correlation between capital structure and profitability).

Based on these results the following recommendations are suggested:

- Further research should investigate the impact of other factors on profitability, not just the capital structure;
- Before capital raising in the form of debt, the company should evaluate the benefits and costs of this capital and estimate how it is going to impact profitability.

## Conclusions and recommendations

The research examines the relationship between the capital structure and profitability. Analysis is conducted using correlation and multiple regression analyses. The study finds that:

1. For period of 2004-2007, ROA is negatively correlated with the short-term debt, long-term debt and total debt ratios. Correlation coefficients of other profitability ratios (ROE and ROS) and debt ratios are not significant at the 0.05 level. For period of 2008-2011, ROA and ROS are negatively correlated with the short-term debt, long-term debt and total debt, however ROE is negatively correlated with the short-term debt and total debt.
2. 14% and 16% of the variance in the degree of ROA can be explained by the degree of TD, SIZE and SG for the period of 2004-2007 and 2008-2011, respectively. The regression results indicate a significantly negative relationship between ROA and debt ratios.
3. 12% of the variance in the degree of ROE can be explained by the degree of STD, SIZE and SG for the period of 2004-2007. The results in regression indicate a significantly negative relationship between ROE and debt ratios.
4. 11% of the variance in the degree of ROS can be explained by the degree of TD, SIZE and SG for the period of 2008-2011. The results in regression indicate a significantly negative relationship between ROS and debt ratios.
5. 2<sup>nd</sup> subsample (2008-2011) shows increased coefficients in both correlation and regression analysis. These results reveal that, during the economic downturn, an increase in debt levels is associated with a deeper fall in profitability (compared to economic boom).
6. The results imply that an increase in the debt ratios is associated with a decrease in profitability, albeit profitability increases with size and sales growth. Profitable companies depend more on equity than debt financing. By analysing the relationship between the capital structure and profitability, it is possible to conclude that the Baltic listed companies are following the pecking order theory of capital structure.
7. Based on these results the following recommendations are suggested:
  - Further research should investigate the impact of other factors on profitability, not just the capital structure;
  - Before capital raising in the form of debt, the company should evaluate the benefits and costs of this capital and estimate how it is going to impact profitability.

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