The Analysis of the Interest Cost of the Trading Companies in Serbia

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ABSTRACT

Interest costs are a component of operational costs of trading companies. They are covered from the margin. Their size varies depending on the interest rate, foreign exchange rate, investment management efficiency, financial indebtedness, sales and other controlled and uncontrolled determinants. This paper examines the dynamics and factors of the size of the costs of interest rates of trade companies in Serbia for the period 2013 – 2017. The empirical results of the research show a continuous reduction of the interest costs in the last years of the analyzed period. This had a positive effect on the performance of trade companies in Serbia.

KEYWORDS: *interest costs, financial indebtedness, inventory management, liquidity, efficiency, profitability.*

JEL CLASSIFICATION: *L81, M31, M41, O32*

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1. INTRODUCTION

Interest costs become an increasingly important component of total – operating costs of trading companies. In view of this, they are the subject of research in this paper, with particular reference to trade companies in Serbia. The purpose of the research is to comprehensively examine the factors of the dynamics of the size of the interest costs of trading companies in Serbia. This should enable the most efficient management of interest costs in order to improve the performance of trading companies in Serbia in the future, in what we see the scientific and professional contribution of this paper.

As is well known, there is extensive literature that deals with the general problem of measuring the significance of gross operating margin (earnings before interest, taxes, depreciation and amortization - EBITDA, and earnings before interest and tax EBIT) in financial reporting for the needs of the most efficient company management (Sui, 2017), which includes interest. In this context, the interest coverage ratio (EBIT / interest rate) is analyzed in particular. However, it is significant that a smaller number of published comprehensive papers are devoted to the specificities of gross operating margin analysis, interest coverage ratio in trading companies (Berman, 2013; Calva, 2017; Carstea et al., 2017; Corona, 2014; Gülşah et al., 2016; Hoe, 2017; Ko et al., 2017; Levy, 2014; Manini, 2017; Špička, 2016; Susmus, 2017; Tan, 2016). This

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particularly applies to literature in Serbia (Lukic, 2017a, b), that is, as far as we know, no work has been published so far as a whole on the issue of the importance of measuring and analyzing gross operational margin and, in that context, the cost of interest in trading companies in Serbia. This emptiness should be, to a certain extent, filled with this paper, which is dedicated to the complex analysis of the factor of the interest costs size, as a component of the gross operating margin, what also gives the reflection of its scientific and professional contribution.

The basic hypothesis of research in this paper is that efficient cost management, primarily by the application of modern concepts, significantly contributes to improving the performance of trading companies. This fully applies to interest costs, especially in the conditions of the financial crisis. Acknowledgement of key determinants of size is a prerequisite for efficient management of interest costs. By applying the certain methodology in this paper we explore the determinants of interest costs size of trading companies in Serbia.

In conducting the research in this paper we used the methodology based on comparative analysis, financial analysis, ratio analysis and the application of the strategic profit model. To a certain extent, the statistical analysis was also used.

In order to conduct the research in this paper we collected empirical data from the Agency for Business Registers of the Republic of Serbia. Furthermore, empirical data were also collected from financial statements of selected retail chains and their websites (CSI Market company). For trade companies in Serbia, empirical data were "produced" according to a unique methodology, so they can be comparable internationally and, in this respect, there are no restrictions whatsoever.

2. IMPORTANCE OF TRADE COMPANIES IN SERBIA

The importance of trading companies will be envisaged through participation of the 100 largest companies in Serbia, in respect to their business revenues. Table 1 shows the participation of wholesale and retail trade companies in the 100 largest companies, considering their business revenues in 2017.

Table 1. Participation of trade companies in the 100 largest companies according to business revenues in Serbia

	Participation in 100 largest companies – according to operating revenues in 2017, (%)
Wholesale	5.3
Nelt Co.	0.8
Phoenix Pharma	0.4
Mercata	0.4
Other wholesale companies	3.3
Retail	3.6
Delhaize Serbia	1.0
Mercator-S	0.9
MOL Serbia	0.4
Lukoil Serbia	0.3
Other retail companies	1.0

Source: Agency for Business Registers of the Republic of Serbia

The data in the table show that the wholesale companies participated in the 100 largest companies according to business revenues in Serbia in 2017 with 5.3% and in retail trade with 3.3%. Observation of individual trading companies' data shows that the largest share was registered with Delhaize Serbia and Mercator-S. The share itself reflected on the size of the costs (including interest) and revenues, that is – the performance of trading companies in Serbia.

3. DYNAMICS OF THE SIZE OF INTEREST COSTS OF TRADING COMPANIES IN SERBIA

Numerous factors influence on the size of interest costs in trading companies, such as: bank interest rate, exchange rate, liquidity, financial indebtedness, efficiency and profitability. Their effective control can be "optimized". Table 2 shows the dynamics of the interest rate and foreign exchange rates in Serbia.

Table 2. Interest rate (in %, annually) and dinar exchange rate against foreign currency (average period) in Serbia

	Reference interest rate	EURO
2013 December	9.50	114.6421
2014 December	8.00	120.9583
2015 December	4.50	121.6261
2016 December	4.00	123.4723
2017 December	3.50	118.4727
2018 October	3.00	118.3198 (2018 November)

Source: National Bank of Serbia

The data in the given table show that in the observed period the reference interest rate decreased from year to year. The exchange rate of the dinar against the euro is almost stable. This has a positive effect on the movement of interest costs, net interest costs of all companies in Serbia, including trade companies.

Net interest costs are determined by the formula:
Net interest costs = Interest costs – Interest income

Table 3 shows parallel between the net interest costs in processing industry and trade in Serbia for the period 2013-2017.

Table 3. Net interest costs of processing industry and trade companies in Serbia

	Processing industry					Trade				
	Interest costs (million dinars)	Interest revenue (million dinars)	Net interest costs (million dinars)*	Interest costs (in % from revenue)	Net interest costs (in % from revenue)*	Interest costs (million dinars)	Interest revenue (million dinars)	Net interest costs (million dinars)*	Interest costs (in % from revenue)	Net interest costs (in % from revenue)*
2013	38.049	9.950	28.099	1.72	1.27	23.864	9.401	14.463	0.82	0.50
2014	45.376	4.758	40.618	2.03	1.82	24.194	6.558	17.636	0.86	0.62
2015	35.745	4.299	31.446	1.48	1.30	19.758	4.737	15.021	0.66	0.50
2016	27.569	2.876	24.693	1.05	0.94	15.160	3.466	11.694	0.46	0.35
2017	28.188	2.283	25.905	0.99	0.91	15.383	3.056	12.327	0.44	0.36
Median	35745.0000	4299.0000	28099.0000	1.4800	1.3000	19758.0000	4737.0000	14463.0000	6600	5000

Note: *Calculations performed by the author. The Median was determined in the SPSS software
Source: Agency for Business Registers of the Republic of Serbia

Interest costs, i.e. net interest costs, show a declining trend in Serbia, both in processing industry and trade. They are lower than in trade in the United States (Table 4), what has positively affected their overall performance.

Table 4. Interest Rates in US Trade

	Interest costs in % from net sales, 4Q 2017
Production	2.11
Wholesale	0.60
Retail	0.75

Source: U.S. Census Bureau, Washington, DC 20233 Quarterly Financial Report for Manufacturing, Mining, Trade, and Selected Service Industries. Third Quarter 2018, Series QFR/1 8- Q3, Retrieved fromhttps://www.census.gov/econ/qfr/mmws/current/qfr_pub.pdf (December 24, 2018)

The size of the interest cost was to a significant extent determined by investment activities. Table 5 and Figure 1 show the investment activity, measured by the size of assets, trade companies in Serbia, for the period 2013 - 2017.

Table 5. Investments of trade companies in Serbia

	Assets (million dinars)	Index*
2013	2.160.474	98.8
2014	2.077.002	96.1
2015	2.234.368	107.5
2016	2.311.644	103.4
2017	2.393.721	103.5
(CAGR - Compound Annual Growth Rate)*	2.07%	

Note: *Calculations performed by the author
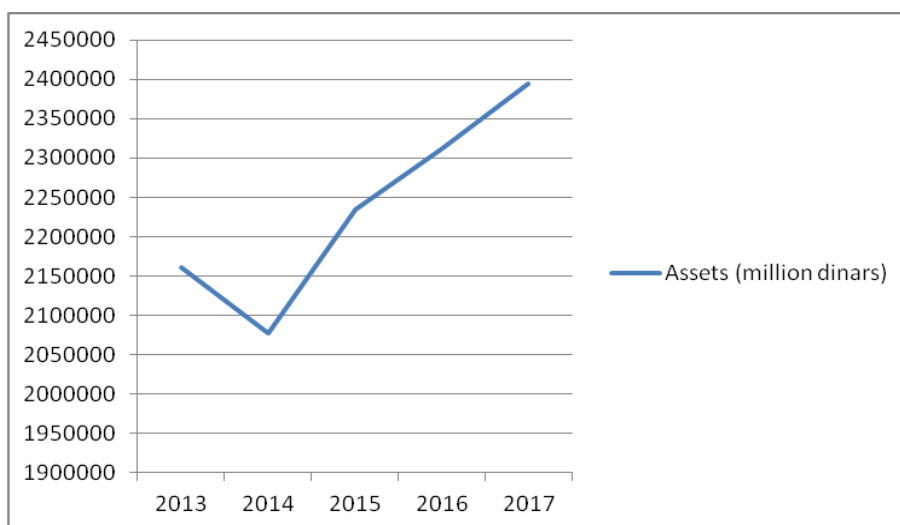*Source*: Business Registers Agency of the Republic of Serbia

Figure 1. Investments of trade companies in Serbia

Investment activities of trading companies in Serbia have been intensified in recent years. The annual growth rate of assets is 2.07%. This has significantly influenced on the size of the interest

costs of trading companies in Serbia (according to the results of regression analysis: $R^2 =, 889$, $F = 33.143$, Sig. =, 010).

Table 6 shows the investment indicators of some member states of the European Union and Serbia for 2016.

Table 6. Investment indicators of selected EU Member States and Serbia in 2016

	Investments per employee (thousand Euros)	Investment rate (investments / added value per factor costs)
Germany	4.0	8.4
France	5.9	11.4
Croatia	2.1	10.9
Italy	4.0	10.1
Slovenia	4.9	14.1
Serbia*	2.1	18.0

Note: *Calculations performed by the author
Source: Euro stat and Statistical Yearbook of the Republic of Serbia 2018.

Technical equipment in Serbia's trade is therefore lower than in Germany, France, Italy and Slovenia. It is at the same level as in Croatia. The investment rate in Serbia's trade is higher than in the observed countries. In addition to its influence on the size of interest costs, it had a positive impact on its overall performance.

4. LIQUIDIRY AND FINANCIAL INDEBTEDNESS AS A DETERMINANT OF THE SIZE OF THE INTEREST COSTS OF TRADING COMPANIES IN SERBIA

Liquidity and solvency (financial indebtedness) are important factors of the interest costs size in trading companies. Liquidity is expressed through current liquidity in the following way: current liquidity = working capital / short-term liabilities. It can also be expressed with the size of net working capital, which are determined by the formula: Net working capital = Current assets - Short-term liabilities. Net working capital represents a part of working capital financed from long-term sources of funds. Financial indebtedness (as a measure of solvency) is most often defined as the ratio between assets and capital, i.e.: financial indebtedness = assets / capital. Table 7 shows the liquidity and financial indebtedness of trade companies in Serbia for the period 2013 – 2017.

Table 7. Liquidity and financial indebtedness of trade companies in Serbia

	Current assets (million dinars)	Short-term liabilities (million dinars)	Net working capital (million dinars)*	Current liquidity*	Net working assets (in % from revenue)*	Financial indebtedness (assets / capital)
2013	1.361.155	1.368.137	-6.982	0.99	-0.24	2.89
2014	1.318.032	1.299.874	18.158	1.01	0.64	2.82
2015	1.424.135	1.377.180	46.953	1.03	1.57	2.74
2016	1.503.476	1.478.299	25.177	1.02	0.76	2.68
2017	1.568.615	1.470.677	97.938	1.07	2.83	2.56
Median	1424135.0000	1377180.0000	25177.0000	1.0200	0.7600	2.7400

	Current assets (million dinars)	Short-term liabilities (million dinars)	Net working capital (million dinars)*	Current liquidity*	Net working assets (in % from revenue)*	Financial indebtedness (assets / capital)
(CAGR - Compound Annual Growth Rate)*	2.88%	1.46%				

Note: *Calculations performed by the author. The Median was determined in SPSS software.
Source: Business Registers Agency of the Republic of Serbia

Liquidity and financial indebtedness of trading companies in Serbia have been lately improved. The annual growth rate of working capital (2.88%) is higher than short-term liabilities (1.46%). This had a favourable impact on their costs (including interest) and revenues, i.e. performance.

5. EFFICIENCY AS A DETERMINANT OF THE INTEREST COSTS SIZE IN TRADING COMPANIES IN SERBIA

Efficiency affects the size of interest costs in trading companies. This is particularly true of inventory management, bearing in mind their dominant share in working capital. Table 8 shows the efficiency of trading companies in Serbia for the period 2013-2017 (measured by the turnover of assets, working capital, inventories and short-term liabilities).

Table 8. Efficiency of trade companies in Serbia

	Assets turnover ratio (revenues / assets)	Working assets turnover ratio (revenues / working assets)	Inventory turnover ratio (revenues / inventory)	Short-time liabilities turnover ratio (revenues / short-time liabilities)
2013	1.34	2.12	6.00	2.11
2014	1.36	2.14	5.97	2.17
2015	1.34	2.10	5.57	2.17
2016	1.43	2.20	5.65	2.23
2017	1.44	2.20	5.62	2.34
Median	1.3600	2.1400	5.6500	2.1700

Note: Calculations performed by the author. The Median was determined in SPSS software.
Source: Business Registers Agency of the Republic of Serbia

According to all shown criteria, the efficiency of trade companies in Serbia has improved year after year in the observed period. This has had a favourable effect on their performance, including the size of interest costs.

6. PROFITABILITY AS A FACTOR OF THE INTEREST COSTS SIZE OF TRADING COMPANIES IN SERBIA

In addition to liquidity, financial indebtedness, efficiency, profitability is also a factor in the interest cost of trading companies. In this paper, it is presented as: return on sales = net profit / sales; return on assets = net profit / assets; and return on equity = net profit / equity.

An integrated approach to profitability analysis is based on a strategic profit model. It shows key determinants of profitability, by which effective control it can be significantly improved.

In order to measure the profitability of trading enterprises in Serbia, we used the strategic profit model, and it is formulated as follows:

$$\text{Return on assets } = \frac{Netprofit}{Sales} x \frac{Sales}{Assets}$$

$$\text{Return on equity} = \frac{Netprofit}{Sales} x \frac{Sales}{Assets} x \frac{Assets}{Capital}$$

$$\text{Gross margin return on inventory} = \frac{Grossmargin}{Sales} x \frac{Sales}{Inventories}$$

Table 9 presents the strategic profit model of trade companies in Serbia for the period 2013 - 2017.

Table 9. Analysis of the efficiency and profitability of trade companies in Serbia based on the strategic profit model

	Return on assets			
	Return on assets (net profit / assets), (%) =	Return on sales (net profit / revenues), (%) x	Assets turnover ratio (revenues / assets)	
2013	4.15	3.10	1.34	
2014	3.81	2.81	1.36	
2015	4.58	3.42	1.34	
2016	4.41	3.08	1.43	
2017	5.29	3.67	1.44	
Median	4.4100	3.1000	1.3600	
	Return on capital			
	Return on capital (net profit / capital) =	Return on sales (net profit / revenues), (%) x	Assets turnover ratio (revenues / assets)	Financial indebtedness (assets / capital)
2013	12.01	3.10	1.34	2.89
2014	10.77	2.81	1.36	2.82
2015	12.53	3.42	1.34	2.74
2016	11.84	3.08	1.43	2.68
2017	13.58	3.67	1.44	2.56
Median	12.0100	3.1000	1.3600	2.7400

	Return on inventory			
	Return on inventory (gross margin / inventory), (%) =	**Return on sales (gross margin / revenues), (%) x**	**Inventory turnover ratio (revenues / inventory)**	
2013	142.66	23.01	6.20	
2014	145.78	23.59	6.18	
2015	136.58	23.63	5.78	
2016	136.23	23.57	5.78	
2017	139.49	24.05	5.80	
Median	139.4900	23.5900	5.8000	

Note: Calculations performed by the author. The median was determined in SPSS software.
Source: Business Registers Agency of the Republic of Serbia

The data in the given table show improved profitability of trade companies in Serbia in 2017 compared to the previous year according to all the presented criteria. Along with other factors it had a favourable effect on their performance, i.e. on the interest costs. The impact of interest costs on the return on assets of trade companies in Serbia ($R2 = 0.7001$) is significant.

7. THE RATIO OF INTEREST COVERAGE OF TRADING COMPANIES IN SERBIA

The significant indicator for managing interest costs is the ratio of interest coverage. Interest coverage ratio is determined as the ratio between earnings before interest and taxes (EBIT) and interest, i.e.

$$Interest coverage ratio = \frac{Earnings before interest and taxes}{Interest}$$

It shows how many times the interest is covered by earnings before interest and taxes, i.e. provides information on what are the possibilities to cover interest from the realized earnings before interest and taxes. There is no "solid" standard for this ratio, according to some estimates it should be between 3 - 7 and more. It is considered that this ratio is at a satisfactory level, if it increases from year to year (which is achieved by reducing interest through repayment of loans, by not taking new loans and with an increase in earnings before interest and taxes). Weakness is considered to be that it does not say anything about the effects of the principal on the repayment of debts.

Table 10 shows earnings before interest and taxes as a component of interest coverage ratio of trading companies in Serbia.

Table 10. Earnings before interest and taxes of trading companies in Serbia

	Net profit (million dinars)	interest (million dinars)	Tax (million dinars)	Earnings before interest and tax (million dinars)*	Earnings before interest and tax per employee (thousand dinars)*	Earnings before interest and tax (in % from revenue)*
2013	89.730	23.864	10.647	124.241	643.036	4.29
2014	79.234	24.194	9.494	112.922	590.682	4.00
2015	102.303	19.758	13.855	135.916	694.792	4.54
2016	102.002	15.160	16.115	133.277	646.686	4.03
2017	126.734	15.383	17.496	159.613	767.296	4.62
Descriptive Statistics						
Minimum	79234.00	15160.00	9494.00	112922.00	590.68	4.00
Maximum	126734.00	24194.00	17496.00	159613.00	767.30	4.62
Mean	100000.6000	19671.8000	13521.4000	133193.8000	668.4984	4.2960
Std. Deviation	17753.29704	4381.27860	3432.11382	17295.15775	66.39244	0.28413
Valid N (listwise)	5					
Global retail						Earnings before interest and tax (in % from revenue)
Tesco						1.26
Carrefour						1.80
Ahold Delhaize						7.67

Note: *Calculations performed by the author. Descriptive statistics were made in the SPSS software.
Source: Serbian Business Registers Agency, Annual Report Tesco, Carrefour, Ahold Delhaize (2017)

The data in the given table show that on average, earnings before interest and taxes in percentages of revenues in trade companies of Serbia amount to 4.10%. Productivity measured by the ratio between earnings before interest and taxes and employees in Serbia's trading companies increased from year to year over the observed period, and on average it amounted to 668.4984 thousand dinars. This positively reflected on the size of the interest coverage ratio, which is above the standard.

Earnings before interest and taxes can also be taken as a component of a strategic profit model. For the purpose of illustration, in Table 11, a strategic profit model is presented in this form for trading companies in Serbia for 2017.

Table 11. Strategic profit model with component of earnings before interest and taxes of trading companies in Serbia, 2017

2017	**Return on assets**			
	Return on assets (EBIT / assets) =	Return on sales (EBIT / sales) x	Assets turnover ratio (revenues / assets)	
	6.65	4.62	1.44	
2017	**Return on capital**			
	Return on capital (EBIT / capital)) =	Return on sales (EBIT / sales) x	Assets turnover ratio (revenues / assets)x	Financial indebtedness (assets / capital)
	17.03	4.62	1.44	2.56

Note: Calculations performed by the author. Instead of earnings before interest and taxes – EBIT in a strategic profit model, EBITDA – earnings before interest, taxes, depreciation and depreciation can be also used as a component.
Source: Business Registers Agency of the Republic of Serbia

Measured in such manner, the data in the given table show that returns from assets and capital are quite satisfactory in trade companies in Serbia, in comparison to the defined comparable industry standards.
Table 12 shows the interest coverage ratio in processing industry and trade companies in Serbia (with international comparisons).

Table 12. Interest coverage ratio of in processing industry and trading companies in Serbia

	Interest coverage ratio
Processing industry	
2015	3.70
2016	6.72
Trade	
2013	5.20
2014	4.67
2015	6.88
2016	8.89
2017	10.37
Median	6.8800
Comparison	
CSIMarket: Wholesale Q4 2017	24.23
CSIMarket: Retail Q4 2017	12.13

Note: Calculations performed by the author
Source: Business Registers Agency of the Republic of Serbia and CSIMarket (Retrieved from https://csimarket.com/) (December 14, 2018)

Data in the given table show that the ratio of coverage of interest rates of commercial enterprises in Serbia in the last years of the observed period increased (the financial indebtedness measured by the related assets and capital was decreasing). It is above a defined comparable industry standard. The solvency of trade companies in Serbia is on the rise and at a satisfactory level, taking into account the current general macroeconomic conditions of business. It is, however, at a lower level in relation to the trade of countries of a developed market economy.
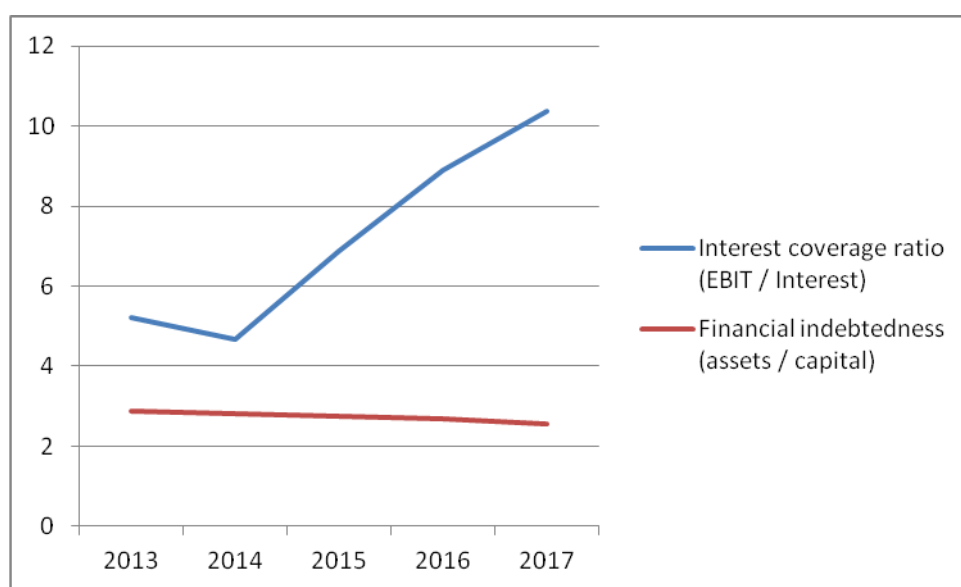
Table 13 and Figure 2 show the movement of the ratio between the interest coverage and the financial indebtedness of trading companies in Serbia.

**Table 13. Ratio of interest coverage and financial indebtedness
of trade companies in Serbia**

	Interest coverage ratio (EBIT / Interest)	Financial indebtedness (assets / capital)
2013	5.20	2.89
2014	4.67	2.82
2015	6.88	2.74
2016	8.89	2.68
2017	10.37	2.56
(CAGR - Compound Annual Growth Rate)	14.8	-2.4

Note: Calculations performed by the author
Source: Business Registers Agency of the Republic of Serbia

Figure 2. Interest rate coverage and financial indebtedness of trade companies in Serbia

The data in the given table show that the interest coverage ratio increased in the observed period and the financial indebtedness of trading companies in Serbia decreased. This points to the conclusion that their financial stability (i.e. solvency) has increased.

For the purpose of a more complex analysis in Table 14, descriptive statistics of interest coverage and financial indebtedness of trade companies in Serbia are presented.

Table 14. Descriptive statistics of the interest coverage ratio and financial indebtedness of trade companies in Serbia

Descriptive Statistics			
	Mean	**Std. Deviation**	**N**
Interest coverage ratio (EBIT / interest)	7.2020	2.41911	5
Financial indebtedness (assets / capital)	2.7380	0.12736	5

Note: Calculation performed by the author, in the SPSS software

The data in the given table show that the interest coverage ratio of trading companies in Serbia is, on average, 7.20. Therefore, it is above a defined comparable industry standard, which means that, according to this indicator, the solvency of trading companies in Serbia is at satisfactory level.

Data in Table 15. Show that there is, at the level of statistical significance, a strong negative correlation between the interest coverage ratio and the financial indebtedness of trading companies in Serbia.

Table 15. Correlation matrix of interest coverage ratio and financial indebtedness of trading companies in Serbia

Correlations		Interest coverage ratio (EBIT / interest)	Financial indebtedness (assets / capital)
Pearson Correlation	Interest coverage ratio (EBIT / interest)	1.000	-.953
	Financial indebtedness (assets / capital)	-.953	1.000
Sig. (1-tailed)	Interest coverage ratio (EBIT / interest)	.	.006
	Financial indebtedness (assets / capital)	.006	.
N	Interest coverage ratio (EBIT / interest)	5	5
	Financial indebtedness (assets / capital)	5	5

Note: Calculations performed by the author in SPSS software

For the purposes of regression analysis, the interest coverage ratio of trade companies in Serbia will define the regression linear function as:

$$Y_i = a + bX_i + e_i \quad i = 1, ..., n$$

where: Y = dependent variable (interest coverage ratio), X = independent variable (financial indebtedness), and b = regression coefficients, and e = random error.

Table 16 and Figure 3 show the results of the regression analysis of the interest coverage ratio and the financial indebtedness of trading companies in Serbia.

Table 16. Regression analysis of the interest coverage ratio and financial indebtedness of trading companies in Serbia

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.953[a]	.908	.877	.84677	.908	29.647	1	3	.012	2.391

a. Predictors: (Constant), Financial indebtedness (assets / capital)

b. Dependent Variable: interest coverage ratio (EBIT / interest)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.257	1	21.257	29.647	.012[b]
	Residual	2.151	3	.717		
	Total	23.408	4			

a. Dependent Variable: interest coverage ratio (EBIT / interest)

b. Predictors: (Constant), Financial indebtedness (assets / interest)

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	56.762	9.110		6.231	.008
	Financial indebtedness (assets / capital)	-18.101	3.324	-.953	-5.445	.012

a. Dependent Variable: Interest coverage ratio (EBIT / interest)

Note: Calculations performed by the author in SPSS software

The data in the given table show that the correlation between the interest coverage ratio and the financial indebtedness of trading companies in Serbia (Adjusted R Square =.877; Sig. F Change =.012) is strong at the level of statistical significance. There is no autocorrelation in the regression analysis ratios (Durbin-Watson = 2.391). Regression coefficients are at the level of statistical significance ((Constant) = Sig. .008; Financial indebtedness (assets / capital) = Sig., 012). The regression linear function is therefore:

$$Y = 56.762 - 18.101X$$

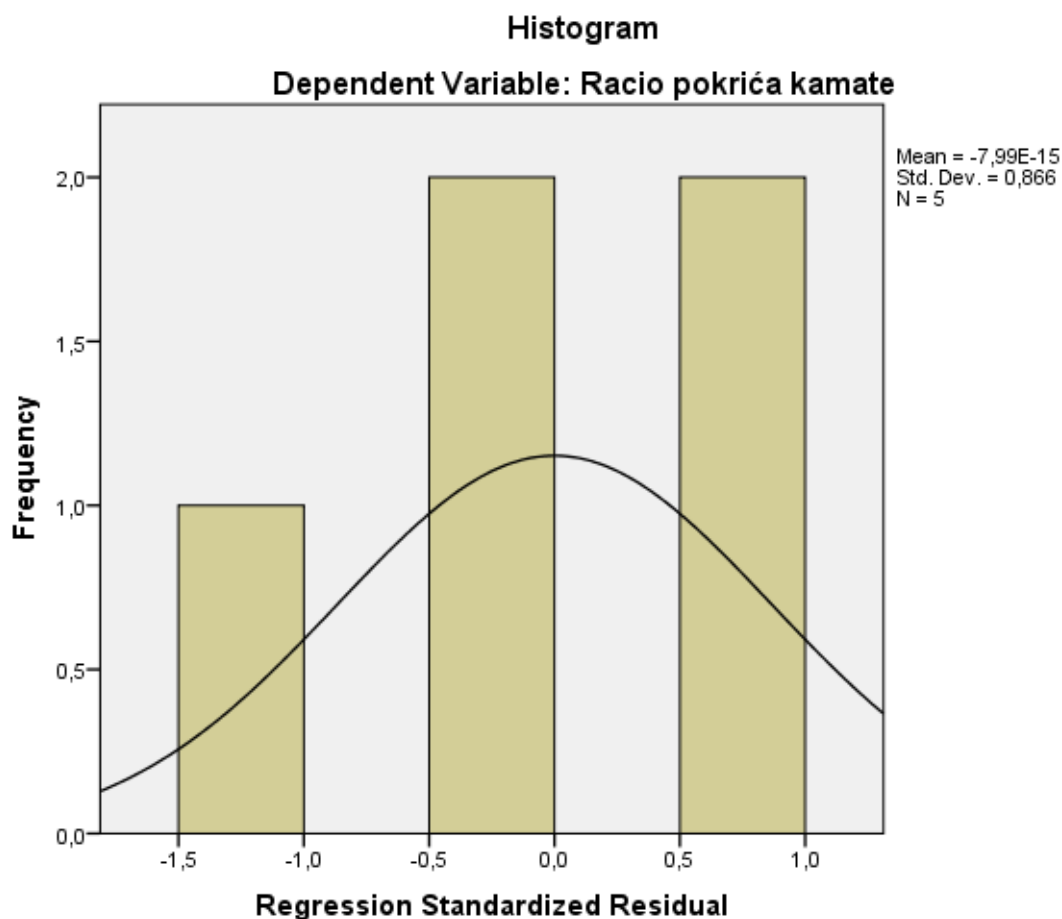Future expectations can be established through this regression.

Figure 3. Histogram of the interest coverage ratio of trading companies in Serbia

8. INTEREST RATES FOR SELECTIVE RETAILERS IN SERBIA

In order to make a more complex analysis of the issues discussed in this paper, we will look at the dynamics of interest costs of Delhaize Serbia and Mercator-S. These two companies are the most important retailers in Serbia (according to the realized business revenues in 2017). Table 17

shows the dynamics of interest costs of Delhaize Serbia and Mercator-S, and some global retail chains for the purpose of international comparisons.

Table 17. Interest costs of selected retailers in Serbia

	Delhaize Serbia					Mercator-S				
	Revenues (million dinars)	Interest cost (million dinars)	Interest costs (% of revenues)*	Interest revenues (million dinars)	Net interest costs (million dinars)	Revenues (million dinars)	Interest costs (million dinars)	Interest costs (% revenues)*	Interest revenues (million dinars)	Net interest costs (million dinars)
2014	74.943	13	0,02	179	166	72.554	555	0,76	68	487
2015	77.383	11	0,01	239	228	112.229	975	0,87	83	892
2016	85.025	1	0,00	215	214	100.042	1.247	1,24	64	1.183
2017	94.884	1	0,00	410	409	90.747	1.314	1,45	12	1.302
Global retailers			Interest costs (% from revenues), 2017							
Wal-Mart Q4 2017			0.47							
Target Q4 2017			0.92							
Kroger Co. Q4 2017			0.49							
Tesco			1.56							
Carrefour			0.40							
Ahold Delhaize			0.46							
X5 Retail Group			1.16							

Note: *Calculation performed by the author
Source: Business Registers Agency of the Republic of Serbia, CSIMarket (Retrieved from https://csimarket.com/) (December 14, 2018), and Annual Report Tesco 2017, Annual Report Carrefour 2017, Annual Report Ahold Delhaize 2017, X5 Retail Group Annual Report 2017 (Retrieved from https://ar2017.x5.ru/en) (December 24, 2018)

The data in the given table show that the interest costs in Delhaize Serbia decreased in the observed period, and increased with Mercator-S from year to year. In 2017, interest costs in percentages of revenues are higher in the company Mercator-S, and lower in Delhaize Serbia in comparison to the observed global retail chains (Wal-Mart, Target, Kroger Co.).

Table 18 shows the interest coverage ratio of selected retailers in Serbia in 2017.

Table 18. Interest coverage ratio of selected retailers in Serbia, 2017

	Net profit (million dinars)	Interest (million dinars)	Tax (million dinars)	Earnings before interest and tax (EBIT) (million dinars)*	Interest coverage ratio (Earnings before interest and tax / Interest)*
Delhaize Serbia	4.264	1	237	4.502	4.502
Mercator-S	(6851)	1.314	144	(5.393)	(4.10)

	Net profit (million dinars)	Interest (million dinars)	Tax (million dinars)	Earnings before interest and tax (EBIT) (million dinars)*	Interest coverage ratio (Earnings before interest and tax / Interest)*
Global retailers					
Wal-Mart					9.08
Target					13.74
Kroger Co.					10.99
X5 Retail Group					3.77

Note: *Calculation performed by the author
Source: Business Registers Agency of the Republic of Serbia, CSIMarket (Retrieved from https://csimarket.com/) (December 14, 2018) and X5 Retail Group Annual Report 2017 (Retrieved from https://ar2017.x5.ru/en) (December 24, 2018)

The data in the given table show that the interest coverage ratio of selected retailers in Serbia is lower compared to the observed global retailers. This is, among other things, the result of more unfavourable general conditions of business in Serbia. In addition to the unfavourable financial structure, we need to add that there is also a lower level of implementation of modern concepts of business as well as modern technology in the retail market of Serbia.

CONCLUSIONS

For trade companies in Serbia, there is a tendency of reducing interest costs. This was influenced by numerous factors, among other things, by reducing the banking interest rate, a stable exchange rate and improving general business conditions.

There is a tendency of increasing interest coverage ratio in trading companies in Serbia. It is slightly higher than a defined comparable industry standard. In view of this, the solvency of trading companies in Serbia is increasing.

According to the realized business income in 2017 in Serbia, the two most important retailers are Delhaize Serbia and Mercator-S. The general conclusion is that their interest coverage ratio is lower than with the global retailers such as Wal-Mart, Target and Kroger Co. This is due to the fact that there are unfavourable structures of the capital of the observed retailers in Serbia.

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