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Article

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Reference: Čulková, Katarína/Taušová, Marcela et. al. (2018). Indebtedness in chosen industrial sectors with regard to the economic development in the world. In: Ekonomický časopis 66 (1), S. 28 - 42.

This Version is available at:

<http://hdl.handle.net/11159/3916>

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Indebtedness in Chosen Industrial Sectors with Regard to the Economic Development in the World¹

Katarína ČULKOVÁ – Marcela TAUŠOVÁ – Mária SHEJBALOVÁ MUCHOVÁ – Lucia DOMARACKÁ – Peter TAUŠ*

Abstract

The specific corporate indebtedness and capital structure of the companies in individual industrial sectors is a fundamentally serious problem, resulting from a number of factors. The aim of the contribution is to evaluate indebtedness in chosen industrial sectors according to available financial statements and research of the problem in the market with the consequent possible determination of financial situation improving. Due to the evaluation of indebtedness chosen indexes had been evaluated; mainly total indebtedness, financial leverage ratio, and insolvency. Results show numbers of companies overreach recommended indebtedness and threaten their future acting. They need to consistently evaluate obtaining of financial means for covering of their property and in case of overreaching optimum; they need to find the proper alternative to business financing.

Keywords: *level of indebtedness, macro-economic indexes, industrial sector, capital structure, economic development, Slovakia*

JEL Classification: D24, G39

Introduction

Analysis of debt of the company in various sectors is an essential part of the financial position evaluation, in which company is located, and also it enables to state structure of the capital available to the undertakings. It presents a tool to assess the way the company manages funds and also serves to locate the areas where the company has the inefficient economy. Such analysis also reflects the

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¹ Contribution is part of the project VEGA No. 1/0310/16 *Identification of Factors Determining Bankruptcy of Companies in Conditions of Chosen Industrial Sectors*.

short-term and long-term financial development of the company, leaving the owner the image, by which the company is developing.

Capital independence of the company means the ability of a company to create the optimal structure of assets and capital. Debt capital is cheaper than the own capital, and therefore, firms tend to borrow more funds to finance their assets. This solution, however, is effective only after reaching the optimum, in which the company is still able to effectively meet its obligations. Calculation of debt indicators serves to know limits when the company is still in a position to acquire external financial sources without threatening its business.

The main stimulus for debt capital using is their relatively lower price in comparing with own sources, enabling to decrease the average total price of used capital. The growth of indebtedness can lead to total profitability, but at the same time, there is increased the risk of financial instability. Using of debt capital is convenient therefore only in case interest rate is lower than expected profitability of total capital. Also, interests of creditors and management must be regarded.

The purpose and aim of the paper is the, therefore evaluation of indebtedness of Slovakian companies in chosen industrial branches according to freely available financial statements of the companies and ministry of the industry. Due to the results there is possible to make some subsequent improvement in the financial performance of selected sectors and organization of their internal structure.

Literature Review

During the current period, the world economy is characterized by a process of globalization, which implies that the national economy is part of the global economy, which it influences, but the latter also determines a certain trend of developing a national economy. In this context, industrial companies are part of the globalized economy, which determines a certain complexity in the development of any industrial company (Kot and Măcriș 2014).

The specific corporate indebtedness and capital structure is fundamentally a complex process dependent on a large variety of determinants; and the chosen financial strategy, therefore depends on the particular decisions of individual firms (Bolfíková et al., 2010). A severe debt overhang problem, either public or private, the analysis of the factors that influence companies' leverage reveals essential, in particular for the high-indebted firms. Also, it is important to define accurately enterprise indebtedness, because it is used in the calculation of financial ratios, serving for evaluation of enterprises financial performance (Ishchenko, 2013).

Indebtedness and capital structure of the company are marked a number of factors. Myers (1977) predicts that it is inversely related to the proportion

of market value accounted for by real options. It also rationalizes other aspects of corporate borrowing behaviour, for example, the practice of matching maturities of assets and debt liabilities. According to Sánchez-Vidal (2014) for the highly-leveraged companies, many factors are no longer significant and that cash flow variable is crucial if the companies would like to decrease their debt levels. A problem with liquidity and indebtedness has the impact on the consumption and investment decisions of households and small businesses. Karlan, Osman and Zinman (2016) compared in this area different ways to identify what happens after the liquidity shock in order to identify the mechanisms driving the longer-term results. Identifying mechanisms is important because different paths can have different welfare implications.

Other factors had been studied by Strýčková (2015) from the perspective of entrepreneurs on the basis of an empirical inquiry. The key external factors, brought in by the entrepreneurs, were derived: the economic and political development of the country, the market environment of the country, and the levels of tax and interest rates. The effect of internal factors determining the corporate capital structure was perceived by respondents as more important. Internal factors were supposed to be: the corporate philosophy, the cost of the capital, and the financial health and indebtedness of a business, so the final capital structure of a company is the result of its own decision-making, or rather a result of various external factors, thus tends rather to the predominance of the internal factors, performance monitoring have positive impact on business performance by Teplická, Daubner and Augustínová (2015).

Moreover, according to De Miguel and Pindado (2001), the evidence obtained confirms the impact of some institutional characteristics on capital structure. The findings of the study by Iatridis and Kilirgiotis (2012) provide evidence that also the firm size is positively related to indebtedness and fixed asset revaluation. Firms with operations abroad, with low fixed assets, and with high debt capital needs are more likely to perform fixed asset revaluations and firms with capital needs would be inclined to undertake a fixed asset revaluation in order to reinforce their financial position.

González and Jareño (2014) carry out an analysis of four key financial variables: percentage of indebtedness, volume of equity, overall liquidity, and returns on equity, concluding that some expected relationships are confirmed – such as the logical exchange between equity and borrowed capital – as well as other less obvious relationships – like the positive relationship between the returns and the volume of equity.

In 1999 Demirgüç-Kunt and Maksimovic (1999) examined firm debt maturity in 30 countries during the period 1980 – 1991, finding that in countries with

active stock markets, large firms have more long-term debt. Stock market activity is not correlated with debt levels of small firms. By contrast, in countries with a large banking sector, small firms have less short-term debt and their debt is longer maturity. Further study, made by Booth et al. (2001) uses a new data set to assess whether indebtedness and capital structure theory is portable across countries with different institutional structures, finding there are persistent differences across countries, indicating that specific country factors are at work and much remains to be done to understand the impact of different institutional features on capital structure choices.

Céspedes, González and Molina (2010) find a positive relation between leverage and ownership concentration when losing control becomes an issue. Also, the study shows a positive relation between leverage and growth. Firms that are larger, have more tangible assets, and are less profitable are also more leveraged. Kudlawicz, Senff and Bach (2015) study the existence of fit between the capital structure and economic performance leading companies to position themselves on the efficient frontier. The results are indicating that the efficiency increases the performance of the company and still more companies, close the efficient frontier, have a higher economic performance and in addition, lower levels of indebtedness. A similar study had been done by Vintilă and Nenu (2015) that investigated potential factors of influence on corporate financial performance. The results in terms of indebtedness revealed a negative relationship.

Access to credit is critical for consumers, small and medium- sized enterprises (SMEs) and large companies. Lack of access to funds reveals susceptibility to loss of business for SMEs. This problem can be solved according Akseli (2012), when during times of financial crisis central banks may purchase private sector debt to assist corporate credit markets to be relieved. This assists companies to continue to lend and reduce the cost of credit by giving confidence to investors.

The typical firm could double tax benefits by issuing debt until the marginal tax benefit begins to decline. Graham (2000) studied how aggressively a firm uses debt by observing the shape of its tax benefit function. Large, liquid, profitable firms with low expected distress costs use debt conservatively. Product market factors, growth options, low asset collateral, and planning for future expenditures lead to conservative debt usage.

According to Wisman (2013) greater indebtedness is caused by constrained consumption, reducing also profitable investment potential in the real economy and encouraging financial markets with credit, helping keep interest rates low, stimulating the creation of new credit instruments, and speculation.

Antoniades (2013) analyses the G20 advanced and emerging economies, examining a number of key indicators related to debt, indebtedness and financial

leverage. Results show the crisis has given rise to new global debt relations. The USA maintains its capacity to control the parameters of this new global debt politics and economics but cannot directly impose the terms of a solution to the existing global imbalances' on the rising powers.

Duczynski (2009) focused his research on various trends in the indebtedness of regional economies using the correlation matrices for selected base years; the degree of capital mobility across regions and states is quantified, providing evidence that states are more open to capital flows than regions. Problem with indebtedness causes loss of competitiveness, which is one of the main problems in Eurozone crisis, highlight the systemic causes for the crisis, brought about by the construction of a common currency for institutionally very heterogeneous economies (Noelke, 2016).

The recent debt crises in Europe and the U.S. states feature similar sharp increases. In Europe, the crisis occurred at high government indebtedness levels and had spill-overs to the private sector. In the United States, state government indebtedness was low, and the crisis had no spill-overs to the private sector. These different debt experiences result from the interplay between differences in the ability of governments to interfere in private external debt contracts (Arellano, Atkeson and Wright, 2016).

So far, research on the causes of over-indebtedness in Europe has predominantly focused on the characteristics of individuals or households. Angel and Heitzmann (2015) examined variables that reflect policies aimed at combating over-indebtedness (the average level of economic literacy prevalent within a country and its classification into a specific debt-discharge regime) and variables that reflect other welfare-state policies (a country's affiliation to a specific employment regime and a summary measure referring to the net replacement rate in the case of long-term unemployment). The results suggest that all four country-level factors matter.

Methodology and Material

Indebtedness of individual industrial sectors had been evaluated by common indexes. Consequently, influence of the individual sectors specifics to the indebtedness had been studied by cluster analysis, which helped to create homogeneous sectors, created by sectors with the similar reaction of analysed indexes to the economic development in the world.

Ward method of cluster analysis had been used that is based on the principle of hierarchic clustering. The method is mostly used in the practice, while it is based on maximizing of internal cluster homogeneity.

In Ward's minimum variance method, the distance between two clusters is the ANOVA sum of squares between the two clusters added up over all the variables. At each generation, the within-cluster sum of squares is minimized over all partitions obtainable by merging two clusters from the previous generation. The sums of squares are easier to interpret when they are divided by the total sum of squares to give the proportions of variance (squared semi-partial correlations). Ward's method tends to join clusters with a small number of observations and is strongly biased toward producing clusters with roughly the same number of observations. It is also very sensitive to outliers (Milligan, 1980). Distance from Ward's method is:

$$D_{KL} = \frac{\|\bar{x}_K - \bar{x}_L\|^2}{\frac{1}{N_K} + \frac{1}{N_L}} \quad (1)$$

where

- n – the number of observations,
- v – the number of variables,
- x_i – the i -th observation,
- C_K – the K th cluster, subset of $\{1, 2, \dots, n\}$,
- N_K – the number of observations in C_K ,
- \bar{x} – the sample mean vector,
- \bar{x}_K – the mean vector for cluster C_K ,
- $\|x\|$ – the square root of the sum of the squares of the elements of x (the Euclidean length of the vector x).

Partial analysis of data was realized by statistic software JMP from company © SAS Institute Inc. while resulting from average sector indexes in 2014.

Main period of the searching was:

1. Determination of key indexes of indebtedness
2. Analysis of indexes in individual sectors
3. Cluster analysis – sectors

Table 1

Determination of Key Indexes of Indebtedness

Index	Calculation	Optimal interval
Indebtedness indexes	debt capital/total assets	<0,3; 0,6>
Leverage ratio	total assets/equity	<2; 3>
Insolvency	liabilities/receivables	Insolvency = 1 ... optimal Insolvency > 1 ... = primary insolvency Insolvency < 1 ... = secondary insolvency

Source: Own processing.

Information had been obtained from various rating agencies. Company Euromoney Institutional Investor PLC in the frame of the broad spectrum of its activities monitors political, economic and financial stability in 187 countries, according which it published two times per year evaluation of country risks (Euromoney Country Risk). During evaluation, it results from information about economic results of the companies and countries, including indebtedness indexes (7, 5% rate on evaluation; see <www.euromoney.com>).

Paying experiences with companies in countries with financial obligations are also important a factor for risks evaluation that contributes to the optimal investment decision and protection of business relations among business partners. Such service is offered by Global Claims Insurance Company COFACE. In the frame of its services, there are sectors 'evaluations, in which average risk of payment failure is measured for companies from certain sectors during business transactions (see <www.coface.fr>). Such evaluation results except others from financial situation of companies in individual sectors and payment form of the companies, influencing total indebtedness in sector.

Mentioned indicators had been searched in companies, acting in Visegrad countries ("Visegrad Four" – V4), analysed in the frame of chosen industrial sectors. Every sector included five chosen companies, where internal data served for interpretation of their financial situation. Consequently according to obtained data from financial reports during 2009 – 2014, searched indicators had been calculated for every company individually. Calculated values of given indexes in chosen sectors had been evaluated by graphs, serving for final evaluation of indebtedness in the chosen companies in the frame of chosen sectors. Indebtedness of countries influences totals debt of state sector since mainly industrial companies contribute to the GDP and consequently potential need for debts.

Table 1 illustrates the development of debt in state sector in analysed V4 countries in 2010 – 2013 since the period was considered as the first strong period of providing the state help from EU funds. The table shows in spite of EU help the analysed countries had the problem with high debt. The results confirm there is the necessity to deal with the area of indebtedness.

Table 2

Development of Total Debt of State Sector in V4 Countries

Debt of state sector (%)	2010	2011	2012	2013
Czech Republic	38.4	41.4	46.2	46.0
Hungary	82.2	82.1	79.8	79.2
Poland	54.9	56.2	55.6	57.0
Slovakia	41.0	43.6	52.7	55.4

Source: <www.statistics.sk>.

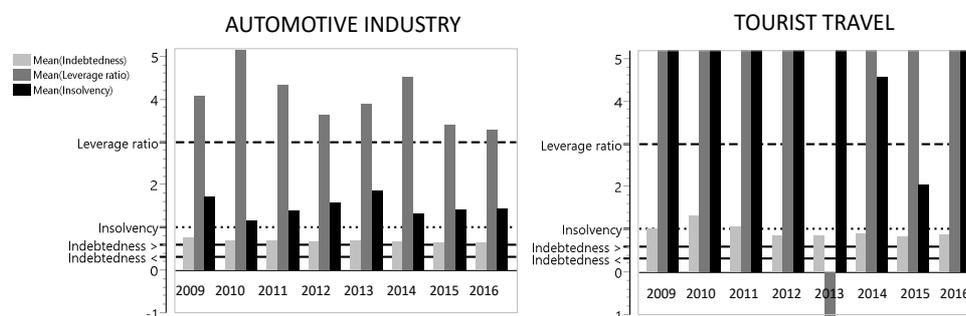
The necessity to deal with indebtedness in Visegrad countries (V4) is necessary also since all V4 countries present former post-communist countries, we choose Slovakia as the example for analysis of indebtedness development. Similar results are expected to be recorded also in other V4 countries. Indebtedness development had been searched in strongly developed sectors in Slovakia since they contribute to the GDP and debt development in the analysed country considerably. In case their indebtedness is high, all other sectors could have the more negative influence on the GDP and debt development. Due to the paper extend we will not deal with all sectors; it could be subject to future searching.

Results of Analysis of Indexes in Individual Sectors

As for the analysis of indexes in individual sectors, Figure 1 shows indebtedness indexes in automotive industry versus tourist travel sector, which are the main profitable sector in Slovakia.

Figure 1

Indebtedness Indexes in Automotive Industry versus Tourist Travel Sector



Source: Own processing.

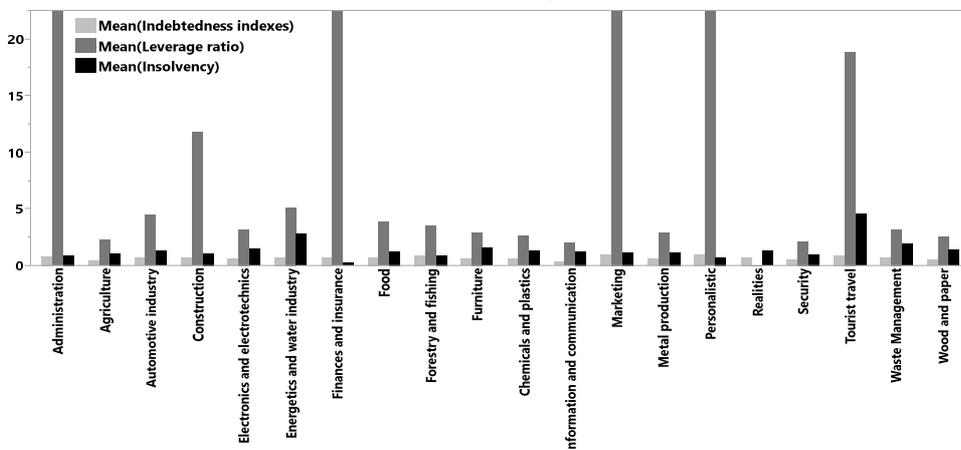
Analysed companies in the automotive industry in Slovakia recorded during whole period indebtedness higher than 50%, indebtedness in the sector is high, prevailing part of the property is covered by debt capital. Financial leverage ratio for chosen companies in the given sector is in interval 3.5 – 5 that means companies use debt capital for the financing of their business, and by this way, they increase also the profitability of their own capital. All results of the paying ability index in given period considerably overreach value 1, which means primary paying disability, which means also that value of short-term claims overreaches value of short term liabilities.

In tourist travel sector analysed companies reached the value of indebtedness higher than 80%, such indebtedness of the companies can be considered as critical. Analysed companies in given sector do not use sufficiently own capital in relation to their total sources. Financial leverage ratio of the companies in tourist travel sector during the whole period overreaches significantly value 3. During whole period this value is over 9, companies are highly indebted. Paying ability of the companies in the sector is greatly overreaching value 1. In 2009 its value increased almost to 17, it means primary paying disability.

The similar analysis had been done in other industries. In following part we will summarize results of indebtedness from other sectors as well. In comparing in the frame of the sectors mostly indebted companies during given period are in the area of Personalistics and marketing. Their indebtedness reaches critical values and it speaks about the bad economy in chosen companies. On the other hand, lower indebtedness is in companies from sector Information and communication, wood and paper, where the value of the indebtedness is not over 50%.

Figure 2

Evaluation of Indebtedness Indexes in All Analysed Sectors



Source: Own processing.

The highest value of financial leverage ratio is recorded in sector Personalistics and Tourist travel, where indebtedness is high and therefore such companies have increased risk of paying ability to cover their liabilities. Area with lowest value of financial leverage ratio is in sector Information and communication, where index reaches value 2, 12. Sector of tourist travel reaches highest value of paying disability – 10, 17; the value of short term claims in the companies in giving area

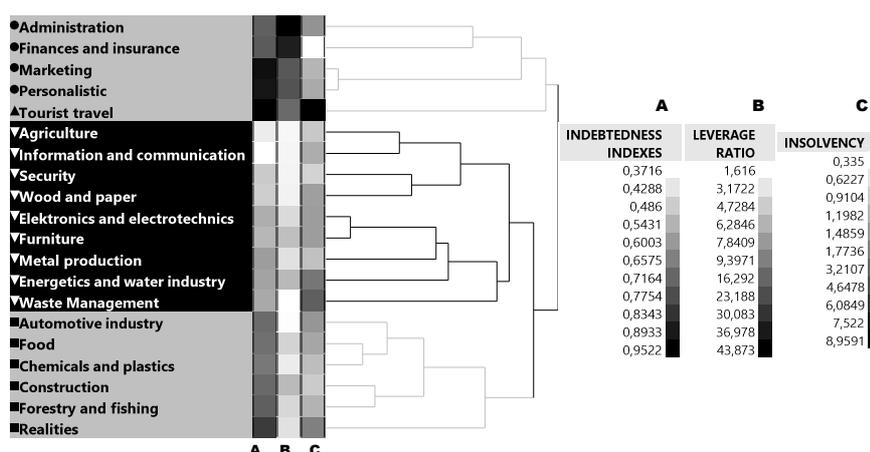
overreaches value of their short-term liabilities. In this case, it means primary paying disability. On the other hand lowest value of the index, Insolvency is in sector Finances and insurance; it means secondary paying disability with value 0.41.

Results by the Way of Cluster Analysis – Sector

Average values for the year 2009 – 2016 made by clusters of sectors have similar results of indicators (Figure 3). On this base, we can state, that the best results are in the sectors, which are in the black cluster, while values of indicators are closest to optimum. Here belong sectors like: Agriculture, Security, Information and communication, Electronics and electrical engineering, Wood and paper, Furniture, Chemicals and plastics, Metal production, Waste management.

Figure 3

Dendrogram of Sectors in National Economy According to Indicators of Debt for the Year 2009 – 2016



Source: Own processing in software JMP.

Worst results are achieved in tourist travel, automotive industry, food, chemicals and plastics, construction, forestry and fishing and realities; they are typical for its high level of indebtedness, insolvency and high values of leverage indicators. Here belong sectors: Tourism, Human resources, Finances, and Insurance.

Achieved average results for each sector for the year 2009 – 2016 is important to perceive in the connection to previous development because even the negative result in the view from the past can show us mitigation of negative effects, can be the positive result. This applies to the tourism sector, which has the tendency to improve leverage indicators and solvency indicators (see the Figure 4).

On the other hand, the fall in average sectors in prosperous sectors may show when analysing a longer period if the deterioration is the case for Furniture and Chemicals and plastics.

Figure 4
Development of Indicators 2009 – 2016

SECTOR	INDEBTEDNESS INDEXES						LEVERAGE RATIO						INSOLVENCY								
	10	11	12	13	14	15	16	10	11	12	13	14	15	16	10	11	12	13	14	15	16
Administration	↘	→	↗	↗	↘	↗	↘	→	↗	↗	↘	↘	↗	↘	↗	↘	↘	↗	↘	↗	↗
Finances and insurance	↗	↘	↘	↘	↘	↘	↗	↘	↘	↗	↗	↘	↘	↘	↗	↗	↘	↘	↘	↘	↘
Marketing	→	→	→	→	→	↘	↗	↗	↗	↗	↗	↘	↘	↘	↗	↗	↘	↘	↘	↘	↘
Personalistic	↘	↘	↗	↗	→	→	↘	↗	↘	↗	↗	↗	↘	↘	↘	↗	↘	↘	↘	↘	↘
Tourist travel	↗	↘	↘	↘	↗	↘	↗	↗	↘	↗	↘	↗	↗	↘	↘	↘	↘	↗	↘	↘	↗
Agriculture	→	→	→	→	→	→	→	→	→	→	→	→	→	→	↗	↗	↗	↗	↗	↗	↘
Information and communication	→	→	→	→	→	→	→	→	→	→	→	→	→	→	↗	↗	↗	↗	↗	↗	↘
Security	→	→	→	→	→	→	→	→	→	→	→	→	→	→	↗	↗	↗	↗	↗	↗	↘
Wood and paper	→	→	→	→	→	→	→	→	→	→	→	→	→	→	↘	↗	↗	↗	↗	↗	↗
Electronics and electrotechnics	↘	→	→	→	→	→	→	↘	↘	↗	↗	↘	↘	↘	↘	↗	↗	↗	↗	↗	↘
Furniture	→	→	→	→	→	↗	↗	→	→	→	→	→	↗	↗	↗	↗	↗	↗	↗	↗	↘
Metal production	→	→	↗	↘	↗	→	↗	↘	↗	↗	↗	↘	↘	↘	↘	↘	↗	↗	↗	↗	↗
Energetics and water industry	→	→	↗	↗	↗	↘	↘	→	↗	↘	↘	↘	↘	↘	↗	↗	↗	↗	↗	↗	↘
Waste Management	→	→	→	↗	↗	↘	↘	↗	↘	↗	↗	↗	↘	↘	↘	↗	↘	↘	↘	↘	↗
Automotive industry	↘	→	→	→	→	→	↗	↘	↘	↗	↗	↗	↘	↘	↘	↗	↗	↗	↗	↗	↘
Realities	↗	↘	↘	↗	↘	↘	↗	↘	↗	↗	↗	↗	↘	↘	↗	↗	↗	↗	↗	↗	↗
Food	↘	↗	↗	↘	↘	↘	↘	↘	↗	↗	↗	↗	↗	↘	↗	↗	↘	↘	↘	↘	↘
Forestry and fishing	↘	↗	↗	↗	↗	↗	↘	↘	↗	↘	↗	↘	↘	↘	↗	↗	↗	↗	↗	↗	↗
Construction	→	→	↗	↘	↗	→	↘	↗	↘	↗	↗	↘	↘	↘	↗	↗	↘	↘	↘	↘	↘
Chemicals and plastics	↗	↘	↗	↗	↘	→	→	→	→	→	→	→	↗	↘	↗	↗	↗	↗	↗	↗	↗
Optimal	0,3 – 0,6						max 3						1								

Note: Red means development from optimum values; blue field means approach to optimum values.

Source: Own processing.

Discussion

Results of the research confirm considerable indebtedness of the companies in Slovakia, mainly in small and medium businesses. Slovakian companies reach negative results of measured indexes and they should increase the effectiveness of structure of total capital division of the companies by the way they would be further in the future trustworthy for their clients and able to be competitive. Companies must orientate mainly to the optimization of the internal factor that can be influenced. Lack of financial liquidity, secondary paying disability, prolongation is all scenarios that put Slovakian businessmen to the hopeless situation, ending by the bankruptcy of the company (Fontionnel&Co s.r.o., 2015).

Most common reason for prolongation of business companies is the inconsistent economy of its management. It connects very closely with the risky behaviour of businessmen. They are motivated by the vision of earnings to close

contracts with “not verified clients” that consequently “tunnel” their business partners. The scenario is always the same – well supplied – invoice not paid. In case the company will have contact with the less correct partner and unpaid invoice, there could be the accumulation of liabilities against the state, which could lead company to the bankruptcy (Elakova, 2014). Therefore there is necessary to verify the partner in the list of financial administration, resp. demand payment in ahead. Such trend of problematic claims covering is very common in various sectors in Slovakia.

The second category of the companies with the negative situation is presented by companies when owners service company with debt. Their invoices are paid; there is recorded stable or growing income from new orders. But in balance sheet, there is red situation due to the very favourable leasing or single unpaid invoices to suppliers. Businessmen can regulate such situation by further debt financial means (factoring, overdraft), but such situation end with the decline and mostly its only question of time when the company would bankrupt (Fonctionnel&Co s.r.o., 2015).

Economic situation and indebtedness of the company are influenced also by economic and financial risk. In the frame of the company, such risk can be improper financial management, including its consequences (loss, indebtedness, problems with liquidity, etc.), bad system of internal management and improper management of other areas of the company, mainly production effectiveness. External risk can be mainly conditions of business – political, legislative, business, market, and economic. There is therefore to make considerate prevention. The business of SMEs in Slovakia is burdened also by negative legislation. Companies must pay taxes also in case they did not receive payment from the client, further high tax burden, and bureaucracy, etc.

It is necessary to solve problem with indebtedness since it could prevent the growth of the companies. In this area there is study of Sasidharan and Rajesh Raj (2014), proving that proprietary and large firms survive and grow; enterprises managed by women are less likely to decline; inadequate power supply poses a severe growth obstacle to all categories of firms; and proprietary firms encounter capital shortage while large firms are constrained by the non-availability of raw materials. We do not find evidence of sub-contracting acting as an enabling factor in firm growth. Willingness to solve indebtedness problems is part of social responsibility in the management, generally perceived as moral and qualitative readiness of managers to solve consequences of their behaviour in relation to the external and internal environment and respecting of its needs (Antošová and Csikósová, 2016). By this way companies can plan protection from possible insolvency.

As for the comparing V4 countries, Slovakia is resulting in the area of average indebtedness positively, but on the other hand, it is against indexes of material deprivation, reflecting material insufficiency of the inhabitants. Results of the index in 2015 proved that yet 20.3% of inhabitants cannot fill their basic needs for the life. In comparing Slovakia is behind the Czech Republic and Poland, in comparing with whole Europe Slovakia belongs among countries with the lower standard of living (World Bank Group, 2014). The task is if the development of the economy that is appearing in last years, is not considered and mainly consequence of low incomes of inhabitants and by this way also wages costs, which presents most considerable cost item in the majority of the Slovakian companies. The problem of social and economic effects of regional economies growth should be therefore further analysed in detail. Indebtedness development had been searched in strongly developed sectors and average or under average companies could be searched to find out what is the measure of their influence to the sector, as well as verification, if also other post-communist countries recorded similar problems with indebtedness.

Also, it could be worthy to follow up risks of indebtedness rising, such as lack of finances, change of interest rate, bad liquidity, business risks and other financial risks (Maverick, 2015).

Conclusion

Numbers of Slovakian companies overreach recommended level of indebtedness and by this way, they threaten their future actions. It is mainly due to high payments, bureaucracy and tax burden of businessmen by useless state intervention to the market. Also, such factors burden businessmen in Slovakia to create positive values of indebtedness, but also external factors, which single companies cannot influence. Therefore they need to consistently evaluate own financial possibilities during obtaining of financial means for covering of their property and when they overreach determined optimum, they need to find the proper alternative to its financing. The aim of the contribution was to analyse indebtedness in companies of chosen sectors and to find out possibilities to solve the problem. According to results of the analysis, there were determined areas of business, in which indebtedness is the highest and sectors with the lowest value of indebtedness. The area with the highest level of indebtedness and paying disability is the area of human resources. Companies from this sector have problems to cover their liabilities and they do not use their own capital sufficiently. Companies with optimal indebtedness and economy are from area of information and communication.

The subject of further research will be analysing of indebtedness indicators correlation depends on property structure, cost, and revenues in the sectors. We believe the main implication of our results is the benchmark of chosen sectors from the view of indebtedness, which is possible to use for further determination of its development in individual V4 countries that present important area for improvement of whole European economy.

References

- AKSELI, O. (2012): Vulnerability and Access to Low Cost Credit. In: *Consumer Credit, Debt and Investment in Europe*. Cambridge, NJ: Cambridge University Press. ISBN 9781107013025.
- ANGEL, S. – HEITZMANN, K. (2015): Over-indebtedness in Europe: The Relevance of Country-level Variables for the Over-indebtedness of Private Households. *Journal of European Social Policy*, 25, No. 3, pp. 331 – 351.
- ANTONIADES, A. (2013): Recasting the Power Politics of Debt: Structural Power, Hegemonic Stabilizers and Change. *Third World Quarterly*, 34, No. 2, pp. 214 – 232.
- ANTOŠOVÁ, M. – CSIKÓSOVÁ, A. (2016): Corporate Social Responsibility in Small and Medium Enterprises in Slovakia. *Actual Problems of Economics*, 175, No. 1, pp. 217 – 224.
- ARELLANO, C. – ATKESON, A. – WRIGHT, M. (2016): External and Public Debt Crises. [Macroeconomics Annual, 30.] Cambridge, MA: NBER.
- BOLFÍKOVÁ, E. – HREHOVÁ, D. – FRENOVÁ, J. (2010): Manager's Decision-making in Organizations – Empirical Analysis of Bureaucratic vs. Learning Approach. *Zbornik radova Ekonomskog fakulteta u Rijeci, časopis za ekonomsku teoriju i praksu – Proceedings of Rijeka Faculty of Economics*, 28, No. 1, pp. 135 – 163.
- BOOTH, L. – AIVAZIAN, V. – DEMIRGUC-KUNT, A. – MAKSIMOVIC, V. (2001): Capital Structures in Developing Countries. *Journal of Finance*, 56, No. 1, pp. 87 – 130.
- CÉSPEDES, J. – GONZÁLEZ, M. – MOLINA, C. A. (2010): Ownership and Capital Structure in Latin America. *Journal of Business Research*, 63, No. 3, pp. 248 – 254.
- De MIGUEL, A. – PINDADO, J. (2001): Determinants of Capital Structure: New Evidence from Spanish Panel Data. *Journal of Corporate Finance*, 7, No. 1, pp. 77 – 99.
- DEMIRGÜÇ-KUNT, A. – MAKSIMOVIC, V. (1999): Institutions, Financial Markets, and Firm Debt Maturity. *Journal of Financial Economics*, 54, No. 3, pp. 295 – 336.
- DUCZYNSKI, P. (2009): On Net External Assets in Regions and States of the USA. *Prague Economic Papers*, 18, No. 4, 342 – 352.
- ELAKOVA, A. A. (2014): Financial Policy for an Insolvent Company. *Life Science Journal*, 11, No. 10, pp. 349 – 351.
- FONTIONNEL&CO s. r. o. (2015): Ako zrušiť zadlženú spoločnosť. Available at: <<http://www.podnikajte.sk/pravo-a-legislativa/c/1765/category/ukoncenie-podnikania/article/zrusenie-zadlzenej-spolocnosti.xhtml#sthash.mtznCJ5i.dpuf>>.
- GONZÁLEZ, C. – JAREÑO, F. (2014): Financial Analysis of the Main Hotel Chains of the Spanish Tourism Sector. *Regional and Sectoral Economic Studies*, 14, No. 2, pp. 91 – 108.
- GRAHAM, J. R. (2000): How Big Are the Tax Benefits of Debt? *Journal of Finance*, 55, No. 5, pp. 1901 – 1941.
- IATRIDIS, G. E. – KILIRGIOTIS, G. (2012): Incentives for Fixed Asset Revaluations: The UK Evidence. *Journal of Applied Accounting Research*, 13, No. 1, pp. 5 – 20.
- ISHCHENKO, M. (2013): Mining and Beneficiation Companies' Liabilities Figures Correction. *Economic Annals-XXI*, 11 – 12, No. 1, pp. 58 – 61.

- KARLAN, D. – OSMAN, A. – ZINMAN, J. (2016): Follow the Money not the Cash: Comparing Methods for Identifying Consumption and Investment Responses to a Liquidity Shock. *Journal of Development Economics*, 121, No. 1, pp. 11 – 23.
- KOT, S. – MĂCRIȘ, M. (2014): Companies' Operation Environments in a Global Economy. In: *Systemic Approaches to Strategic Management: Examples from the Automotive Industry*. Hershey, USA: IGI Global, pp. 50 – 63. ISBN 9781466664814.
- KUDLAWICZ, C. – SENFF, C. O. – BACH, T. M. (2015): The Economic Performance and Capital Structure: Brazilian Companies to Light Efficiency Frontier. *Journal Globalization, Competitiveness and Governability*, 9, No. 3, pp. 40 – 52.
- MAVERICK, J. B. (2015): What are the Major Categories of Financial Risk for a Company? Available at: <<http://www.investopedia.com/ask/answers/062415/what-are-major-categories-financial-risk-company.asp>>.
- MILLIGAN, G. W. (1980): An Examination of the Effect of Six Types of Error Perturbation on Fifteen Clustering Algorithms. *Psychometrika*, 45, No. 3, pp. 325 – 342.
- MYERS, S. C. (1977): Determinants of Corporate Borrowing. *Journal of Financial Economics*, 5, No. 2, pp. 147 – 175.
- NOELKE, A. (2016): Economic Causes of the Eurozone Crisis: The Analytical Contribution of Comparative Capitalism. *Socio-economic Review*, 14, No. 1, pp. 141 – 161.
- WORLD BANK GROUP (2014): Resolving Insolvency – Doing Business. Available at: <www.doingbusiness.org/data/exploretopics/resolving-insolvency>.
- SÁNCHEZ-VIDAL, F. J. (2014): High Debt Companies' Leverage Determinants in Spain: A Quantile Regression Approach. *Economic Modelling*, 36, No. 1, pp. 455 – 465.
- SASIDHARAN, S. – RAJESH RAJ, S. N. (2014): The Growth Barriers of Informal Sector Enterprises: Evidence from India. *The Developing Economies*, 52, No. 4, pp. 351 – 375.
- STRÝČKOVÁ, L. (2015): Factors Determining the Corporate Capital Structure in Czech Republic from the Perspective of Business Entities. *E + M: Ekonomie a Management*, 18, No. 2, pp. 40 – 56.
- TEPLICKÁ, K. – DAUBNER, M. – AUGUSTÍNOVÁ, E. (2015): Analysis of Causal Relationships between Selected Factors in Process of Performance Management in Industrial Companies in Slovakia. *Ekonomický časopis/Journal of Economics*, 63, No. 5, pp. 504 – 523.
- VINTILĂ, G. – NENU, E. A. (2015): An Analysis of Determinants of Corporate Financial Performance: Evidence from the Bucharest Stock Exchange Listed Companies. *International Journal of Economics and Financial Issues*, 5, No. 3, pp. 732 – 739.
- WISMAN, J. D. (2013): Wage Stagnation, Rising Inequality and the Financial Crisis of 2008. *Cambridge Journal of Economics*, 37, No. 4, pp. 921 – 945.