

## **FINANCIAL ANALYSIS OF A SELECTED COMPANY**

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### **Abstract**

*The success of every business enterprise is directly related to the competencies of business management. The business enterprise can, as a result, create variations of how to approach the new complex and changing situations of success in the market. Therefore managers are trying during negative times to change their management approach, to ensure long-term and stable running of the business enterprise. They are forced to continuously maintain and obtain customers and suppliers. By implementing these measures they have the opportunity to achieve a competitive advantage over other business enterprises.*

### **Key words**

*Financial analysis, company, profit, activity, profitability, liquidity, indebtedness*

## **INTRODUCTION**

In a global market economy that is determined by its constant uncertainty, the business enterprises are faced with demanding economic conditions. They are exposed to constant changes of environment as well as uncompromised pressure of competitors, who are trying every day to increase the quality of their products and services and continuously to progress ahead. This fact results in a negative impact on the whole performance of the business subject.

The business subject, in order to be able to maintain a stable and competitive position on the market, to provide inputs for the management, to make important strategic decisions and to achieve their economic goals, is forced to constantly analyse and monitor their financial situation with which appears towards financial subjects and the surrounding's situation. A principal factor of effective financial management consist SLOVAK UNIVERSITY OF TECHNOLOGY in Bratislava, s of financial situation knowledge. For this purpose the financial analysis is used. With it the business subject will be capable to prevent the crisis, which would lead to remediation or even to bankruptcy.

## **OBJECTIVE**

The objective of this article is to provide basic knowledge about financial analysis ex-post and subsequently to evaluate the business subject progress in an area of activity, liquidity profitability and indebtedness, to reveal strengths and opportunities that the business subject should rely on. Furthermore, it also aims to determine weaknesses and threats that could lead them to difficult situations and based on the results to provide measures to improve the system of financial economic analysis of the business subject.

## **METHODS**

In this article the basic scientific methods used were analysis, synthesis, induction, deduction and hypothesis creation. A synthesis of theory and knowledge will serve to obtain the theoretical basis to meet the set objective. The analysis will focus on the financial statements of a public limited company which produces equipment and components for the mining, chemical and energy industries, as well as boat and marine components. From the results of the analysis, by induction, deduction and hypothesis creation, we shall draw conclusions and suggest actions for improvement of the business subject's financial and economic analysis system.

### **1. FINANCIAL ANALYSIS OF THE SELECTED COMPANY**

The financial situation of the business subject is considered to be a complex output of their whole performance. This output is presented through the ratio indicators of activity, profitability, liquidity, indebtedness and market value. These indicators are based on the synthetic indicators of financial accounting and they demonstrate the complexity of the business subject's performance interpretation (Baran and Pastýr, 2014, 6).

#### **1.1 Financial analysis - Ex post**

A financial situation analysis is the foundation of the company's economic performance analysis and usually proceeds down to primary fields and results as effectivity, efficiency, production capacity utilisation, supplement management and the like. Financial analysis detects weaknesses and strengths of the company, is the tool of "health" diagnostics and provides essential information to business management and to owners (Vlachynský, 2009, 369).

Sedláček understands the financial analysis of the company as a method of the company's financial management evaluation, during which the data obtained is graded, aggregated and compared to each other. Furthermore, the relationships between them are quantified, looking for the causal connection between the data and their development is determined. This increases the explanatory power of data processing and its informative value. Thus it focuses on identifying problems, strengths, weaknesses and foremost the company's value processes. Information obtained through financial analysis enables us to reach some conclusions about general management and the financial situation of the company and represents a background for management decision making (Sedláček, 2009, 3).

The main purpose of financial analysis is to express assets and the financial position of the company and to prepare the inputs for internal management decision making. The complexity and continuous execution are the essential requirements of financial analysis (Hrdý, 2009, 118).

The company's financial situation is diverse and a multifaceted complex phenomenon; consequently this diversity is transferred also into the financial analysis process. The user of the financial analysis results decides which indicator's to select and the priority of utilisation of individual parts of the financial analysis according to demand and intention (Baran et. al, 2011).

Among primary users of the financial analysis we might include various subjects mainly as owners, managers, employees, lenders (suppliers, banks), debtors (customers), institutions of state and public administration, external analytics, media and etc (Baran, 2008).

The review of the company's financial situation is declared by the system of financial indicators, which have to be in order and designed to reflect all the important aspects of the financial situation. Therefore, for a description of the financial situation the ratio indicators are used. The ratio indicators enable a comparative analysis of the company with other companies or with indicators for the relevant area. The sum of ratio indicators we'll present, can be considered as the sum of representative indicators. Specifically, these will be the most commonly used indicators of the financial situation characteristics. However, along with the practical application, dozens of indicators are used, and it is not possible to mention all of them (Baran, 2015).

In practice, the use of several basic indicators has been proven relevant which can be categorised into groups according to individual areas of management evaluation and the financial health of the company. Mostly these are groups of indicators such as debt, liquidity, profitability, activity, capital market indicators, as well as other indicators (Knapková, 2013, 84).

Based on the objectives that have been set within this article, we'll provide more detail on the ratio indicators of profitability and liquidity.

### ***1.1.1 Financial analysis - Indicators of activity***

The activity indicators are used for business asset management, because they evaluate how effectively a business subject manages their assets. A business subject rates the commitment of individual items of the capital in certain forms of assets. If the business subject may have more assets than is appropriate, then unnecessary costs are incurred and the profit is adjusted. In contrast, if the business subject may have few assets the possible incomes may be lost (Baran, 2015).

When applying indicators of activity we see a problem in the work with flows and stocks. While the balance sheet represents assets and liabilities at a particular point in time, the profit and loss statement records the costs and revenues continuously over the year. Therefore, when working with those indicators it is necessary due to the least possible deviation from the actual that the calculation shows the average of individual balance sheets items (Pastýr, 2014).

The time of stock turnover testifies how many days does a stock turnover take. In other words, it indicates the time that is required for the transition of financial resources through production and products back into the form of money. The ideal situation is when the business subject over time shows a decreasing value of this indicator. A short time (time scale) is usually the expression of greater efficiency. However, it is necessary to take into account the nature of the business. Alternatively, in the denominator instead of revenues the costs can be used.

$$\text{stock turnover} = \frac{\text{average stock}}{\text{revenues}} \times 365$$

The receivables turnover tells how long the business assets hang in the form of receivables or in how long time the receivables are paid on average. The recommended value is obviously the standard time period of invoices maturity, because most of the consigned products are invoiced and each invoice has its maturity. If the time period of receivables turnover has been longer than the standard time period of invoices maturity that would mean failure to comply with the trade credit policy from business partners. However, at present it is quite common that the time of invoices payment exceeds the declared. Definitely, in this case it is important to take into consideration what is the size of the analysed company. For small businesses the longer period of receivables maturity may cause significant financial issues with the possibility of bankruptcy. While large businesses are from the financial point of view more able to tolerate longer period of maturity. The time horizon, which could be considered as optimal, should also meet the criteria of business commercial policy (Růčková, 2005, 122).

$$\text{receivables turnover} = \frac{\text{average stock of short – term receivables}}{\text{revenues}} \times 365$$

The maturity of short-term liabilities reflects the time of incurrence until its payment. This indicator should reach at least the values of receivables turnover maturity. The indicators of receivables turnover maturity and the liabilities turnover maturity are important for assessing the timing differences from the inception of receivables until their collections and from incurring of liabilities until the payment. This difference directly influences the business liquidity. As far as the turnover, the time of commitment is greater than the sum of stock and receivables turnover, the suppliers credits finance receivables and stock, which is preferable. However, it may reflect low liquidity levels. Between the level of liquidity and activity is a close connection and a certain compromise should be looked for (Knapková, 2013, 105).

$$\text{liabilities turnover} = \frac{\text{average stock of short – term liabilities}}{\text{revenues}} \times 365$$

The long-term asset turnover is relevant in decision-making to determine whether to procure the next long-term production asset. A lower value of the indicator than the average in the field is a signal for production to increase capacity utilisation and for financial managers to reduce business investments (Sedláček, 2001, 61).

$$\text{long – term asset turnover} = \frac{\text{revenue}}{\text{average stock of long – term assets}}$$

In general, with asset turnover, it applies that the larger the value of the indicator, the more positively the situation is assessed. A minimal recommended value of this indicator is 1. Yet the value is influenced by the industry as well. A low value of indicator means a disproportionate business subject's asset facilities and its inefficient use (Knapková, 2013, 104).

$$\text{asset turnover} = \frac{\text{revenues}}{\text{average stock of assets}}$$

In this case, it is possible to substitute the revenues with the profits, though the result may be overestimated due to different types of income that are not related to the main business activity.

It is appropriate to use the sale or revenues from the sales of ones own products and services or to combine both kinds of profits (Knapková, 2013, 104).

### ***1.1.2 Financial analysis - Indicators of profitability***

The indicators of profitability, sometimes referred to as indicators of profit, return, profitability ratio, are designed as a ratio of the final effect achieved by business activity (output) to some comparative base (input) that can be on the side of assets as well as on the side of liabilities, or to another base. These indicators display the positive or also negative influence on asset management, the business subject's financing and liquidity on profitability (Kislingerová, 2007, 83).

All indicators of profitability have a similar interpretation, because they specify how much EUR of revenues (the numerator) cases per 1 EUR of indicator mentioned in the denominator. Because there exists a multitude of profitability ratio indicators; we'll address only those that are the most important. Altogether we'll approach the explanatory power of selected and mentioned indicators. In this article we'll mention the following, in practice most frequently used indicators of profitability (Baran, 2015).

A return on sales indicator explains to us, how is the business subject able to use inputs for their effective operations. The final value of this indicator is directly influenced by the character of the business activity, price policy, production regulation, etc. A more accurate statement of this type of indicator provides us a ratio of partial results of the business subject's management to their revenues (Baran, 2015).

$$\text{return on sales} = \frac{\text{net income}}{\text{income}} \times 100$$

$$\text{operating return on sales} = \frac{\text{operating profit}}{\text{income}} \times 100$$

$$\text{share of added value in revenues} = \frac{\text{added value}}{\text{income}} \times 100$$

The profitability indicator (return of income) of total capital compares the result of business activity with the volume of invested capital (Farkašová, 2007, 42). This indicator specifies the assessment of total capital, the business subject has used for their activity. By assessment of the capital part of the equity, is a process of profit distribution after tax. It is possible for the business subject to execute the profit distribution after tax, but not until the general assembly approves the following:

- to increase capital,
- to subsidise funds from revenues,
- to retain the profit after tax undistributed or
- to repay dividends (in the case of plc).

By valorisation of capital, the business subject is commissioned to pay back part of the capital to the lender. Professional literature states an indicator level reference not to be higher than the interest rate of long-term loans.

$$\text{return on assets (ROA)} = \frac{\text{net profit}}{\text{assets}} \times 100$$

A return on equity is essential for the business subject's owners and for lenders has a supporting meaning. In general, the value of indicators should be higher than the interest rate of risk-free bonds (Černá, 1997, 73).

$$\text{return on equity (ROE)} = \frac{\text{net profit}}{\text{equity}} \times 100$$

The level of return on equity is strongly dependent on the return on assets and on the interest rate of borrowed capital. The increase of the indicator ROE mostly depends on the level of the business subject's created profit, on a drop in interest rate of the borrowed capital, on a decline in the equity's share on a business subject's return on assets and a combination of all previous factors (Baran, 2015).

### ***1.1.3 Financial analysis - Indicator of liquidity***

Liquidity is a combination of all potential liquid resources that are available for the company to meet their payment obligations. According to professional literature solvency is defined as the readiness of the business subject to undertake payment of their obligations at the time of their reimbursement and therefore is one of the basic conditions of the company's successful existence (Sedláček, 2009, 66).

We can conclude that there exists mutual conditioning of liquidity indicators and solvency. The condition of solvency is to attain that the business subject would have part of the assets bonded to the available assets, which are disposable to obligations for reimbursement in the form of short-term financial assets- mostly bank accounts. Furthermore, we are able to conclude that the condition of solvency is liquidity. The indicators of liquidity are put into the ratio: the individual short-term financial assets against short-term obligations. Indicators of liquidity engage into the most liquid part of the business subject's assets and are divided according to level of liquidity of individual assets, which are mentioned in the numerator of financial statements- the balance sheet. The disadvantage of indicators is that these indicators evaluate liquidity according to balances of short-term assets (current assets) which on the other hand mainly depends on future cash-flow (Baran and Pastyr, 2014, 9).

Liquidity of the 1<sup>st</sup> level shows, how many times the short-term financial assets (current assets) covers the short-term obligations of the business subject. This means, how many times is the business subject able to satisfy their lenders, if they would convert some of the short-term assets (current assets) items instantly into available assets (Baran, 2015, 10).

For the success of the company it is essential to pay short-term obligations from those assets that are designated for this purpose (Valach, 1999, 109). The 1<sup>st</sup> level liquidity indicator has its meaning foremost for the lenders of business subject's short-term obligations and provides information of the extent to which the short-term components of capital (borrowed capital) covers the value of the asset, because lenders undertake some risk, which is, that their claim won't be reimbursed. The higher the value of the 1<sup>st</sup> level liquidity indicator is, in general, the more likely is the business subject's solvency is ensured.

This characteristic is only really a rough sketch, because its explanatory ability further depends on the current assets structure, liquidity of individual kinds of current assets and as well on the type of industry the company operates in (Valach, 1999, 109).

$$\text{1st level liquidity} = \frac{\text{current financial assets}}{\text{short - term foreign sources}}$$

For coverage of the business subject's short-term obligations, can be used the immediate financial resources that are available on bank accounts and in treasury as well as expected financial resources of not yet refunded short-term obligations. This relationship gives us liquidity of the 2<sup>nd</sup> level. As professional literature states, the recommended values should be located within interval 1- 1.5.

$$\text{2nd level liquidity} = \frac{\text{current financial assets} + \text{short-term obligations}}{\text{short-term foreign sources}}$$

Liquidity of the 3<sup>rd</sup> level determines the ability of the company to pay their obligations to short-term borrowed capital through the current assets. This means that the company does have enough short-term resources to manage their regular operation. The optimal interval is 1.5 to a max of 2.5 and in comparison to the liquidity of 1<sup>st</sup> or 2<sup>nd</sup> level is increased for the reasons of lower liquidity of supplies. The short-term borrowed capital shouldn't exceed 40 % of the current asset value (Kotulič, 2010, 60).

$$\text{3rd level liquidity} = \frac{\text{current assets}}{\text{short-term foreign sources}}$$

Current assets includes the sum of current financial assets, short-term receivables and supplies. Permanent solvency is one of the basic conditions of the business subject's successful existence within the market conditions. Thus, the probability of its maintenance is a reasonable part of the global characteristic of the business subject's financial health.

#### ***1.1.4 Financial analysis - Horizontal liquidity***

A very important task within liquidity analysis is horizontal liquidity. The horizontal liquidity examines the mutual context and relations among items of assets and items of capital in financial statements- the balance sheet. The current assets of the business subject should be covered by short-term resources (Baran and Pastyr, 2014, 8).

##### ***1.1.4.1 Golden statistic rule***

Every kind of asset should be financed by the source of the asset with the reimbursement period (liquidity) that corresponds to the period of effective use of relevant asset. This fact is considered as the basic finance management rule and is called the golden statistic rule (Šlosárová, 2006, 351).

The golden statistic rule requires that the source coverage of long-term assets (LA) is long-term sources coverage (LC). This means that the financial resources won't be available for shorter than the commitment of equity participation, for which this serves. A relationship between long-term assets and long-term sources can be in this case threefold (Kotulič, 2010):

- $LC < LA$ , or  $LA - LC < 0 \Rightarrow$  company is pre-financed,
- $LA > LC$ , or  $LA - LC > 0 \Rightarrow$  company is under-financed,
- $LA = LC$ , or  $LA - LC = 0 \Rightarrow$  company assets are optimally financed.

Balance equilibrium, which has to be preserved in the balance sheet, results in these relationships having an effect on the current assets and its finance. The current assets (CA) should be covered mostly by current sources (CS). The difference between CA and CS is called a NET working capital.

#### *1.1.4.2 NET working capital*

The net working capital is an indicator, which reconstructs part of the current assets (current assets) that is financed by long-term financial resources, either by equity or by borrowed capital. The business subject's net working capital enables in theory a case that the business subject in real time is obligated to reimburse a significant proportion of their short-term obligations, which form a meaningful source of their funding to further operate. The overload of current assets towards short-term obligations demonstrates to us that the business subject is from the point of view of current liquidity liquid. This means that the business subject has a financial background in the form of long-term financial resources. (Baran, 2015)

$$NWC = \text{current assets} - \text{short-term obligations}$$

where NWC is the net working capital.

#### *1.1.5 Financial analysis - Indicators of indebtedness*

The term of indebtedness expresses the fact that the company finances their assets by foreign sources. By using foreign sources the company affects both the profitability of shareholders as well as the business risk. Today, it's practically pointless for large sized companies to finance all their assets from equity or vice versa only from foreign capital. By using only equity would result in an overall return on invested capital reduction within the company. On the other hand, financing of all business activities only by foreign capital is excluded, because within the legal regulations a certain mandatory amount of equity to start a business is bound. Therefore, in business finance activities its own as well as foreign capital are implicated. The main motive of financing their activities by foreign capital is the relatively low price compared to its own resources. The involvement of foreign sources in business financing enables reduce costs for the use of capital in the company (Kislingarová, 2007, 96).

Although the theory of referred higher cost of equity compared to foreign capital is questionable, at the present time of low interest rates it seems to be more advantageous to use ones own equity unless the company or shareholders have it at their disposal.

The indicator of total indebtedness, which is expressed by the ratio of foreign sources to overall assets further expresses to what extent the assets of the company include foreign sources. The creditors do not prefer too high a proportion of debt. Rather they favour a lower proportion of debt. This gives them greater assurance that in the case of the company's liquidation their receivables will be more likely satisfied. For the owners, the foreign sources are less expensive than their own and at a higher debt rate the profitability of capital is increased. The optimal value of this indicator for the production company is 40 % up to 60 % (Farkašová, 2007, 39).

$$\text{total indebtedness} = \frac{\text{foreign sources}}{\text{assets}} \times 100$$

To measure the indebtedness, a ratio of equity to total assets is used.

- coefficient of self-financing, which is a complementary indicator ( self-financing) and their sum with total indebtedness should give 100 %. This indicator expresses the proportion, in which the assets of the company are financed by shareholders' finances. It is considered as one of the most important ratios of indebtedness for the overall financial situation assessment. Yet once again the relationship with the profitability indicator is important (Růčková, 2005, 117).

$$\text{coefficient of self – financing} = \frac{\text{equity}}{\text{assets}} \times 100$$



Insolvency notes the relationship between items- assets and liabilities. If the resulting value is greater than 1, it is a so-called primary insolvency and if the value is less than 1, we're talking about so-called secondary insolvency of the company (Farkašová, 2007, 40).

$$\text{insolvency} = \frac{\text{short - term liabilities}}{\text{short - term receivables}} \times 100$$

Credit indebtedness is interpreted as a mutual relationship between bank loans and overdrafts in the numerator and foreign sources located in the denominator. The resulting relationship is expressed in a percentage (Pastýr, 2014).

$$\text{credit indebtedness} = \frac{\text{bank loans and overdrafts}}{\text{foreign sources}} \times 100$$

The indicator of interest coverage expresses the number of times the profit is higher than the paid interest. Hence this indicator is used by the company to determine whether the debt burden is feasible. It informs shareholders about the company's ability to pay interests and creditors about whether and how to ensure their rights in the case of the company's liquidation. The inability to pay the interests payments from the profit can predict approaching business bankruptcy. If the value of this indicator reaches a value of 1, the entire profit would cover the interest expense. Thus it is recommended that the value of the indicator is higher than 3 (Hrdý, 2009, 130).

$$\text{interest coverage} = \frac{\text{economic result before tax} + \text{interest expense}}{\text{interest expense}}$$

The indebtedness flow tells about the value of commitment in terms of total annual cash flow of the company. This indirectly implies about the time required to cover the debts from the annual perspective, where the entire value is considered 100 %. Usually it is required that the repayment of debt is not longer than 3 years (Farkašová, 2007, 40).

$$\text{indebtedness flow} = \frac{\text{foreign sources}}{\text{cash flow}}$$

The indebtedness is not always a negative characteristic of the company. Nevertheless, the higher the debt, the greater the business risk and the harder it is to obtain foreign sources of financing foremostly to get a loan from a bank (Šlosárová, 2006, 345).

## 2. RESULTS AND DISCUSSION

In this chapter we interpret the financial-economic analysis of assets, liquidity, profitability and indebtedness, the golden statistic rule or the net working capital in the specific example of the following business subject. The research consists of results from the calculations, graphs and following the course and trend evaluation of the monitored indicators. The data for financial-economic analysis has been derived from financial statements as the balance sheet, and profit and loss account. For the cause of relevance we used the statements, reports dated from 2009 till 2014.

## 2.1 Activity indicators of the monitored business subject

In the next subchapter we'll look how a business subject manages its assets and what is its effectiveness. The exact values of the analysed indicators and their development can be seen in Table 1 and Graph 1 (see Tab. 1 and Graph 1 below).

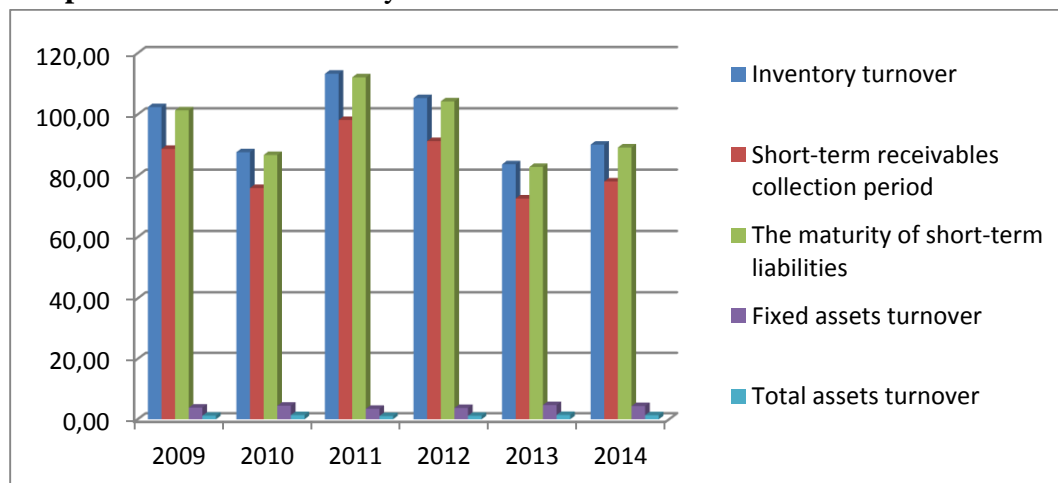
**Tab. 1** Indicators of activity

	m. u.	2009	2010	2011	2012	2013	2014
Inventory turnover	day	102,41	87,69	113,29	105,36	83,75	90,16
Short-term receivables collection period	day	88,77	76,01	98,20	91,32	72,60	78,16
The maturity of short-term liabilities	day	101,35	86,79	112,13	104,27	82,89	89,24
Fixed assets turnover	coef.	3,85	4,50	3,48	3,74	4,71	4,37
Total assets turnover	coef.	1,18	1,38	1,07	1,15	1,44	1,34

Source: (Pastýr, 2014, 72)

In graph 1, the activity indicators of the monitored business subject are graphically shown.

**Graph 1** Indicators of activity



Source: (Pastýr, 2014, 73)

The values of assets turnover through the analysed period both increased and decreased. The highest value the company recorded in 2013 i.e. 1.44. The weakest asset use of the business subject has been reached in 2011 with the value 1.07. This result has been mostly affected by an item production in progress and semi-finished products with the value € 3,418,601, which entered in the following year the highest value € 20,425,932. With the decline of production in progress also the profits decreased, which in 2011 have been the lowest during the reporting period. This implies that the business subject had during this time issues with contracts, which has been proved as well by employment decline from 477 to 307. In the last year the indicator declined slightly due to the growth of long-term fixed assets.

The long-term asset turnover has the same development as total assets turnover, though the differences between the values are greater. Fixed assets had approximately the same value, but is worth noting that in 2013 the value is € 8,719,077 and in 2014, the value is € 26,737,025. The difference between them was due to constructions and separate movable assets and sets of movable assets, which grew from the merger of the analysed business subject with SAM by the E.S.C.B, Inc. Bratislava. The indicator reaches its lowest value in 2011 at 3.48. In this year, as we already stated, the decline of profits from sales of their own products and services occurred.

The indicator of the stock turnover time period has fluctuating values by 6 months. The peak was reached in 2011 of 113 days. This long stock turnover was been mainly caused by the decline of material and production in progress and semi-finished products. In this year the revenues decreased by about € 10,960,961. The ideal situation is to achieve the minimum of this indicator, which occurred in 2013, when the stock turnover amounted to 83.75 days.

The receivables and stock turnover time period show similar trends. The lowest value was reached in 2013, when the short-term receivables collection period was 72.60 days and maturity of short-term liabilities was 82.89 days. In every reporting year we can see that the short-term receivables collection had a lower value than the maturity of short-term liabilities. For the business subject this state is of a positive nature, because it expresses that the customers repay their debts before the business subject repays its liabilities.

## 2.2 Profitability indicators of the monitored business subject

The indicators of profitability are designed as the business subject's economic result rate (output) to a comparative item (input). These indicators tell us at what level is the business subject able to reach profit with the help of the capital used. In table 2 (see Tab. 2 below) the profitability indicators values are shown.

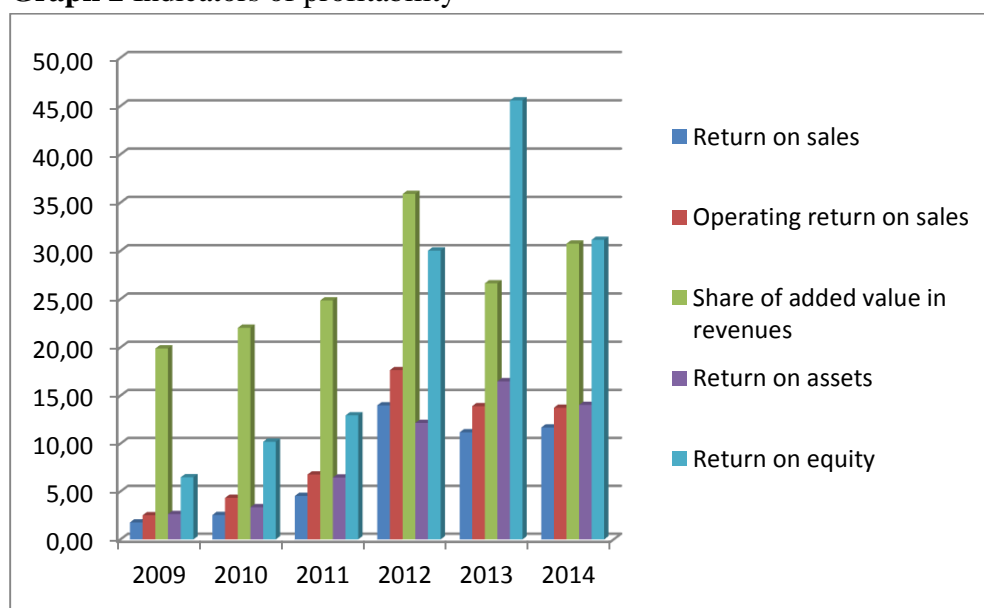
**Tab. 2** Indicators of profitability

	m. u.	2009	2010	2011	2012	2013	2014
Return on sales	%	1,77	2,55	4,54	13,98	11,18	11,68
Operating return on sales	%	2,52	4,34	6,77	17,65	13,90	13,74
The share of value added in revenues	%	19,90	22,04	24,87	35,90	26,64	30,75
Return on assets (ROA)	%	2,65	3,36	6,46	12,15	16,50	14,03
Return on equity (ROE)	%	6,48	10,18	12,94	30,03	45,59	31,14

Source: (Pastýr, 2014, 71)

In graph 2, the profitability indicators of the monitored business subject are graphically shown.

**Graph 2** Indicators of profitability



Source: (Pastýr, 2014, 71)

The profitability indicator of return on sale interprets that the business subject has reached a profit increase, which was highest in 2012 with the value 13.98 %. This was caused by a larger amount of orders and subsequently the increase of supplies at the date of the report compilation. In the following two years this value decreased due to a slight change of sales return state which stabilised to the level 11.18 % and 11.68 %.

The return on sales shows a similar trend to the operating return on sales. Until 2012 the operating return on sales has shown an increase, when the indicator reached almost 17.65 % mainly due to the lower return on sales of their own products and services and due to higher profit from business activity operations. In the last two years the income from operations stabilised yet the revenues increased, which caused the indicator to decrease to 13.90 % and to 13.74 %.

Once again, in 2012, the share of added value to revenues, displayed the highest value at 35.90 %, which for the business subject over the last 6 years was the most successful. Within the next two years, a lower value occurred mainly due to change of revenues size from the sale of their products and services. The indicator shows overall positive progress.

The positive profitability of the total capital reflects the production power, and provides details about the effective asset utilisation and thus the assets of the business subject. This indicator has been increasing every year and the highest value reached in 2013 of 16.50 %. In the following year, only a small decline to 14.03 % occurred mainly due to the merger with a minor business subject and due to the increase in fixed assets of land, buildings and non-fixed assets.

Return on equity invested by the owners into the business, reached a positive value as well, which is a positive signal for the business subject's owners. It is worth noting 2013, in which the return on equity reached the level of 45.59 %. This was caused by a decrease of retained earnings, which means, that the profit was redistributed among owners of the public limited company via dividends reimbursement.

In the latest year the return on equity value declined to 31.14 % due to capital funds subsidies.

### 2.3 Liquidity indicators of the monitored business subject

The business subject's ability to repay their obligations is a necessary factor for a long-term successful venture. Therefore constant monitoring is important by both the business subject and by external users, who could cooperate with the business subject or that already cooperate with them. In table 3 (see Tab. 3 below) the values of the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> level liquidity indicators are shown.

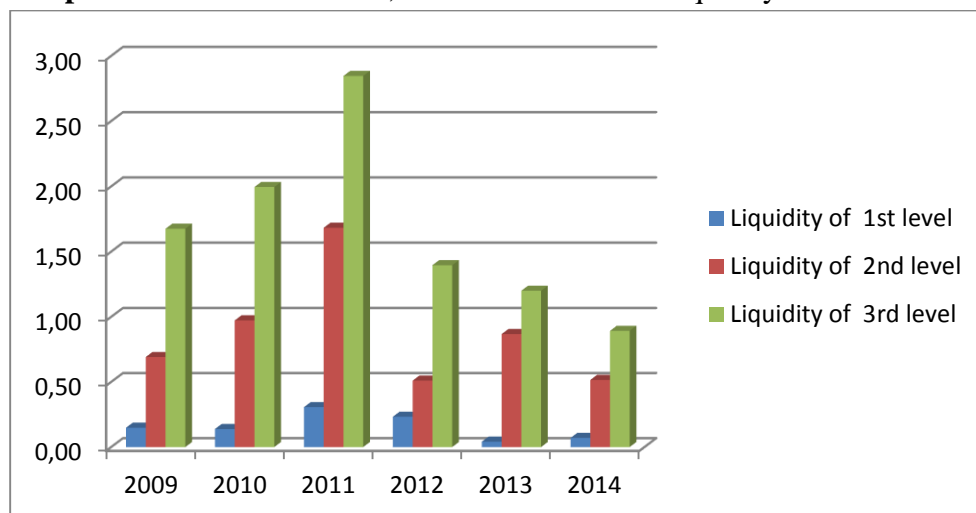
**Tab. 3** Indicators of the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> level of liquidity

	m. u	2009	2010	2011	2012	2013	2014
Liquidity of 1 <sup>st</sup> level	coef.	0,15	0,14	0,31	0,23	0,04	0,07
Liquidity of 2 <sup>nd</sup> level	coef.	0,69	0,97	1,68	0,51	0,87	0,52
Liquidity of 3 <sup>rd</sup> level	coef.	1,68	2,00	2,85	1,40	1,20	0,89

*Source: (Pastýr, 2014, 71)*

Graph 3 shows the monitored business subject's indicators for the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> level of liquidity.

**Graph 3** Indicators of the 1st, 2nd and 3rd level of liquidity



Source: (Pastýr, 2014, 71)

According to the recommended range for engineering business subjects indicated by professional literature the values of the 1<sup>st</sup> level of liquidity should vary from 0.2 to 0.6. When looking at the table, it is visible that the values of the monitored business subject are generally much lower and they don't reach the recommended value. This tells us about the business subject's inability to instantly refund their short-term obligations. The lowest rate that the indicator has registered was during the most recent two years, when the values reached 0.04 and 0.07 %. These low values were mainly caused by an increase of obligations from business relationships and an increase of obligations towards the owners. Two exceptions can be taken as a positive fact and that is 2011 with a value of 0.31 and 2012 with a value of 0.23. The 2<sup>nd</sup> level of liquidity should vary within an interval of 1-1.5. Within this range only the value 1.68 achieved in 2011 is located. In recent years, the values were lower than the interval limit 1. The lowest value 0.51 was reached in 2012. This value was largely influenced by accruals, more accurately, by short-term deferred revenues, which reached up to 17 400 198 €. From these values we can assume that the business subject besides in 2011 didn't have the ability to refund their short-term obligations with their short-term receivables. Also in the case of a need to repay their short-term obligations the business subject would have to proceed with a change of less liquid assets to more liquid assets. For the 3<sup>rd</sup> level of liquidity the business subject's supplies were included. The recommended values should vary between 2 and 2.5. Within this range falls 2010 with the value 2 and 2011 with the value up to 2.85. For some positive fact we can consider that the business subject has their 3<sup>rd</sup> level liquidity over the value of 1, which creates a situation, in which they are able to repay their short-term obligations with their current assets. The indicator's lowest value is achieved by the business subject in 2014 at 0.89 due to changes of several items of production in the progress decline, blank stock, business relationship receivables, the increase in other current reserves and liabilities towards partners.

## 2.4 Horizontal liquidity of the monitored business subject

In the following part of the article we will outline the achieved values of different indicators, the golden statistic rule and the net working capital of the business subject.

### 2.4.1 Golden statistic rule

In table 4 (see Tab. 4 below) the values of the golden statistic rule indicator of the monitored business subject for each year are shown.

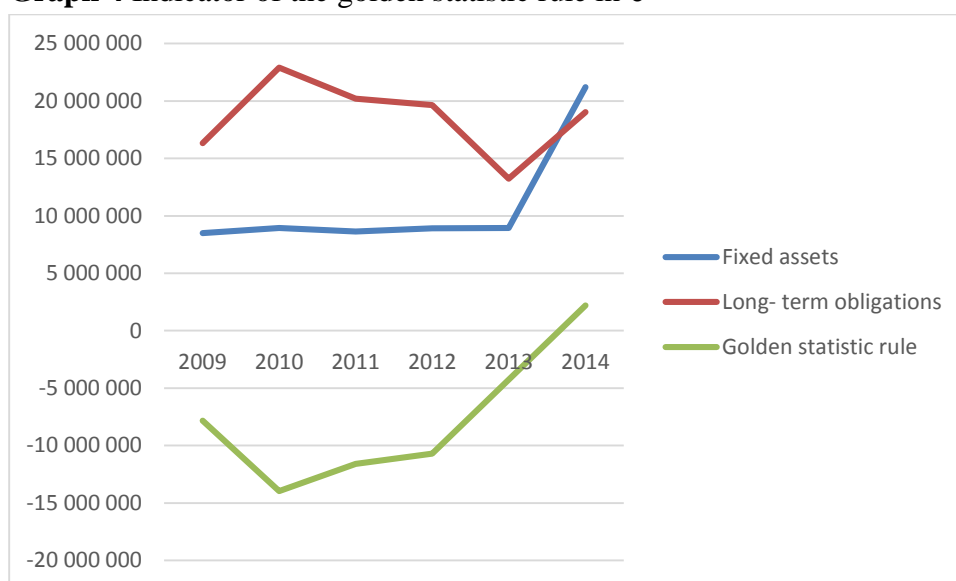
**Tab. 4** Indicator of the golden statistic rule in €

	m.u.	2009	2010	2011	2012	2013	2014
FA	€	8 502 386	8 940 079	8 622 571	8 919 781	8 955 423	21 217 512
LO	€	16 325 290	22 915 781	20 215 408	19 635 581	13 229 395	19 020 903
FA- LO = GSR	€	-7 822 904	-13 975 702	-11 592 837	-10 715 800	-4 273 972	2 196 609

Source: own research

In graph 4 the business subject's indicator of the golden statistic rule is graphically displayed.

**Graph 4** Indicator of the golden statistic rule in €



Source: own research

A view of the business subject's long-term funding displays the golden statistic rule. From graph 4 it is clearly seen that the business subject was in all analysed years of time series, with exception of the latest year, over-financed. This indicates that they have more long-term resources as fixed asset that is owned by the business subject.

Given the fact that the business subject disposes of approximately the same fixed asset value, the size of difference is conditional mostly on equity development and by accruals. The highest negative value was reached by the business subject in 2010 due to a high level item of deferred long-term earnings. From this year the value of the golden statistic rose slightly. In the latest year the indicator's value reached a negative value due to the merger of the monitored business subject with a minor business subject, resulting in high growth of fixed assets mostly in the form of buildings and non-fixed assets.

### 2.4.2 Net working capital

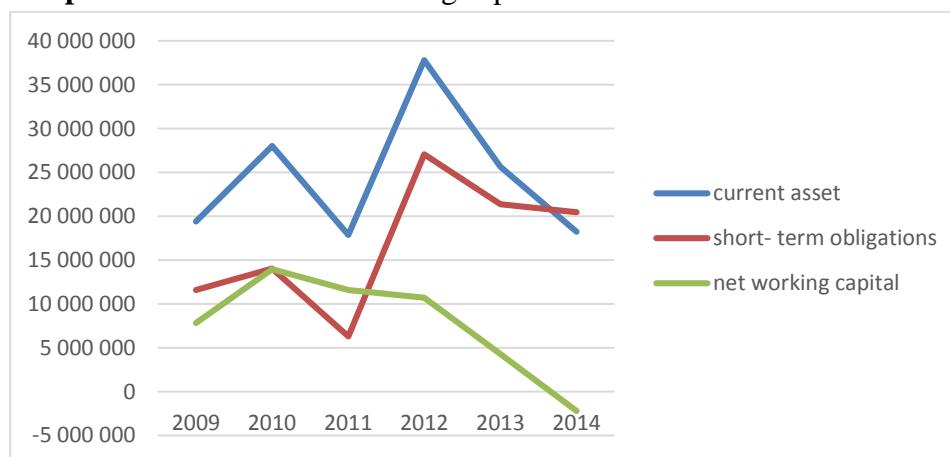
In table 5 (see below Tab. 5 below) the indicator values of net working capital by the monitored business subject for each year are listed.

**Tab. 5** Indicators of net working capital

	2009	2010	2011	2012	2013	2014
CA	19 403 638	28 020 007	17 872 437	37 793 178	25 639 724	18 248 631
SO	11 580 734	14 044 305	6 279 600	27 077 378	21 365 752	20 445 240
CA- SO=NWC	7 822 904	13 975 702	11 592 837	10 715 800	4 273 972	-2 196 609

Source: own research

In graph 5 the indicator development of net working capital by the monitored business subject is graphically displayed.

**Graph 5** Indicators of net working capital

Source: own research

From the viewpoint of a comparison with net working capital we can state that NWC has a natural reverse correlation with the golden statistic rule. In the business subject until 2012, current assets exceeded short-term obligations. This fact from the business subject's point of view is judged as positive, because in the case of necessity, the business subject is able to reimburse their obligations by current assets, which testifies of their good financial situation. According to graph 5 we can conclude that this value from 2010 decreases due to the decline of incomplete production and blank stock. In 2012, 2013 and 2014 the decline is also caused by the increase of business relationship obligations. In the last reporting year, 2014, the net working capital reached negative values. Based on this, arises slightly unfunded debt, which is for the business subject a warning signal, because in the need for repayment of short-term obligations, they would be forced to sell part of their fixed assets and thereby would be forced to influence the business subject's operations.

## 2.5 Indebtedness indicators of monitored business subject

By means of these indicators, we look at the financial structure and indebtedness of the business subject and its indebtedness repayment ability. The results are shown in table 6 below.

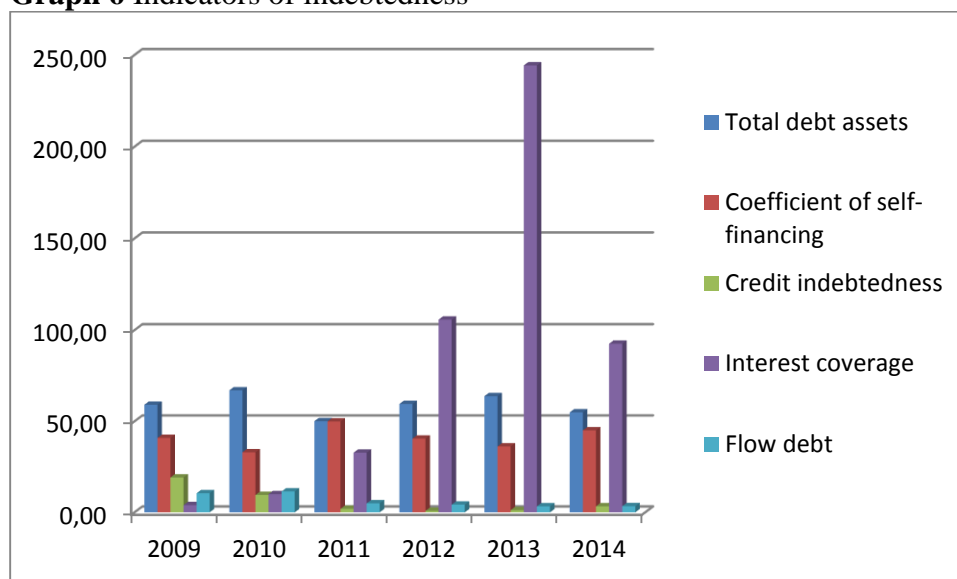
**Tab. 6** Indicators of indebtedness

	m. u.	2009	2010	2011	2012	2013	2014
Total debt assets	%	59,12	67,01	50,08	59,54	63,80	54,94
Coefficient of self-financing	%	40,88	32,99	49,92	40,46	36,20	45,06
Insolvency	coef.	1,12	0,99	0,76	1,16	1,18	1,98
Credit indebtedness	%	19,14	9,54	1,92	0,80	1,22	3,27
Interest coverage	coef.	3,94	9,97	32,78	105,71	244,30	92,55
Flow debt	year	10,51	11,50	4,94	4,22	3,31	3,36

Source: (Pastýr, 2014, 74)

In graph 6 the indebtedness indicators of the monitored business subject are graphically shown.

**Graph 6** Indicators of indebtedness



Source: (Pastýr, 2014, 74)

Total assets indebtedness during our 6 year reporting period showed a fluctuating character. Their values are in the range from 50.08 up to 67.01. For the optimal total indebtedness is considered the value 50 %. The company was the closest to this point in 2011 with the value 50.08. They were the most in debt in 2012 with the value 67.01 mainly due to the increase of time differentiation or profits from future long-term periods.

The coefficient of self-financing is directly related to total assets indebtedness, which assesses the field from the point of view of the company's owners and its sum is made of 100 %. Thus its development is the opposite and equally volatile to total asset indebtedness. The business subject was the most financially independent in 2011 with 49.92.

Immediately in the first reporting year the indicator of insolvency had the highest value of 2.04, from which we can judge that the business subject had issues surrounding its own activity, whereas its liabilities to receivables were higher by more than twice and its the initial insolvency mainly due to short-term trade receivables. The business subject entered secondary insolvency in 2011, when the indicator's value was 0.91 due to a slight increase of short-term receivables and decrease of short-term liabilities from trade.

In 2012 the credit indebtedness was a decreasing trend. The highest financing of foreign sources through bank loans was reported in the first reporting year of 2009 with 19.14 %. In 2012 they reached the lowest value of only 0.80 % due to an increase of time differentiation item profits from future long-term periods.

The interest coverage after 2013 showed an increasing trend. Its value increases exponentially, which can also be seen on the graph. In 2009 this indicator reached the value only of 3.94, which was caused by low pre-tax trading income and higher interest expense. In 2013 this indicator increased to 105.71 and in 2013 to a value of 244.30, which was mainly due to high trade income before tax and low interest expense. This implies that the company covers their interests with its profit without any issues.

The indebtedness flow has a fluctuating trend. In 2009 and 2010 this indicator increases to the value of 11.50. Afterwards the indicator's decline until 2013, when the business subject



would pay its liabilities (debts) at the formation of cash flow of 3.31 per year. Already in the last reporting year only a slight decrease occurred.

### **3. PROPOSAL FOR IMPROVEMENTS OF MONITORED BUSINESS SUBJECT'S SELECTED RATIO INDICATORS OF FINANCIAL-ECONOMIC ANALYSIS**

After the processing of financial-economic analysis several weaknesses of the business subject have been revealed. In the synthesis of this information and following induction we can generalise some measures for long- term successful operation of the business subject. It is the incorporation of the following measures.

#### **3.1 The activity ratio indicator of the monitored business subject**

At the time of stock turnover we propose continuous stock monitoring to prevent the adversely high inventory. As well in the future we propose some optimisation of stock flow management in relation to production or its improved procurement from various suppliers, storage and use through a precise time system, motion planning in parallel with production needs.

The time of short-term receivables collection can enable further possible business development within fair trade and good customer-supplier relationships. I see the possibility of improvement or the volume and frequency of short- term receivables reduction as well as the time period of their reimbursement in the incentives of customers themselves through the provision of cash discount, price discounts for payment before the due date of the relevant receivable and thereby ensuring stabilisation or receivables turnover time reduction.

A further possibility to decrease the short-term receivables collection is to introduce a strict internal control system in issuing e.g. customer invoices in the form of rescheduling.

To ensure the timely payment of receivables of less responsible customers it is necessary to apply the reminders notice mechanism or sanctioning for non-compliance of contractual conditions of payment.

In the case of receivables management improvement the acquired financial sources could be used to reduce the size as well as the short-term liabilities time period of the business subject from trade by invoice reimbursement from their suppliers to maturity or sooner, or reducing the need to use short- term bank loans.

The long- term asset turnover has significant different values, thus I recommend that the business subject uses their long-term assets more effectively.

By decreasing the stock turnover time period ensures the greater production flexibility, because the high volume of stocks binds unnecessary finances that could be invested into other business areas e.g. into its development, modernisation and etc.

By reducing the short- term receivables time period through using a cash discount or price discounts for payment before maturity of the receivable will lead to a decline of unliquidated short-term receivables in the business subject. This allows further use of cashed financial sources e.g. the earlier payment of short-term liabilities of the business subject or reducing the need to use short-term bank loans. In the supplier this motivational tool can induce the willingness on his part to closer cooperate under favourable conditions. The introduction of an internal control system in issuing of customer invoices timeliness and excellence may ensured this.

The decline of the short-term liabilities time period or proper and timely payment of liability to a supplier can create between him and the business subject a favourable and competitive supplier-customer relationship that can be in the future reflected e.g. in material supply for more favourable quantitative and price conditions.

### **3.2 The profitability ratio indicator of the monitored business subject**

We can state that the results of profitability indicators have positive values. That means the business subject achieves continuous profit. Almost all these indicators in a period of six years achieved within the recent two years a slight downward trend. The interests of the business subject is to stabilise or to increase these values. Therefore a continuous monitoring of indicators of sales and profit is required, to increase the level of these indicators. These objectives can be achieved by the following measures:

- by a flexible pricing policy,
- by improving the efficiency of the marketing mix,
- by efforts to win new customers and cheaper suppliers,
- by investing in financial market products for example in bonds and funds.

On the other hand, to prevent further decline of the business subject's profit, it is required to secure the economy and efficiency by optimisation of costs and by individual asset items utilisation. It is mainly the following cost items:

- the cost of material and energy consumption,
  - by applying new production technologies and the use of new or innovated technology,
  - by improving work organisation and production management in the form of production process harmonisation, production capacity utilisation,
  - by raising the educational level of employees,
- the reduction of personnel costs,
  - by standardised work of production employees,
  - by optimisation of overhead employees,
  - by optimisation of technical and administrative employees.

Following the introduction of design measures there is a premise of the business subjects economic result increase for the accounting period as well as the increase of the revenue indicators. The business subject will accomplish a stabilised position on the market by obtaining new and more advantageous financial relationships. As well higher profitability and more efficient capital utilisation for business subject's owners will be accomplished by realisation of the mentioned measures.

By optimisation of costs the business subject will secure their decrease and at the same time will create conditions for the implementation of innovative and new technologies and techniques that should be introduced to employees on the appropriate educational level.

### **3.3 The ratio and differential liquidity indicator of the monitored business subject**

In 2012, the value of the golden statistic rule indicator for the monitored business subject registered growth due to the merger of two business subjects and the growth of current assets. The value of this indicator thus reached a positive value that means the business subject is under-financed. As a result of this adverse situation, three ways of this value reduction are proposed:

- by increase of their fixed resources of settlement by raising their equity through basic capital increase in the form of share issue,
- by bond issue,
- by increase of their external sources through obtaining of long-term bank loan.

Within the monitored business subject the current assets exceeds short-term obligations. The exception of this is the latest year, therefore we propose towards the future period to increase the business subject's liquidity by increasing the volume of their current financial assets:

- by reducing the time of debt collection from business relations (by discount, by monitoring, by mechanism of reminders, by penalties),
- by reduction of supplement turnover time (better supplement management),
- by advance charge on customised production,
- by sale of surplus assets, but this asset change could result in a lower ability for further business activities development in the future.

After the implementation of submitted proposals for increasing the business subject's liquidity, there is the premise of a business subject's solvency increase while the conditions for balanced development are created. The business subject will have the necessary financial resources and will be able to reimburse on time their short-term obligations with their financial resources as well as be able to use them for further development.

### **3.4 The indebtedness ratio indicator of the monitored business subject**

Undertaking in relation to business activity, the business subject has acceptable values of total indebtedness as well as the self-financing coefficient, thus I do recommend to monitor, maintain and not to exceed this state or this indebtedness rate.

Regarding the insolvency indicator the business subject is primarily located in insolvency, therefore I recommend that the business subject shall try to reduce the level of a short-term liabilities.

After the incorporation of measures the level of equity and foreign capital will stabilise and the overall stability will be ensured. The business subject will seem more attractive in the provision of loans as well as in individual investments.

## **CONCLUSION**

In the present turbulent competitive environment the financial analysis is an essential part of monitoring the business subject and is an important tool to support the decision making of various stakeholder groups. Also it provides a picture or feedback about the whole condition of business subject and their development and about a condition of individual operation areas. This analysis is able to identify factors that with the largest stake have caused undesirable results within the business subject. Through prediction models of financial-economic analysis the business subject is able to predict their future development and possible option for bankruptcy.

Among the benefits of this article belongs financial-economic analysis focused on the business subject's ratio indicators of activity, profitability, liquidity and indebtedness itself.

Related proposals mentioned in this article for weaknesses elimination which were found by financial analysis are focused on practical use in the business subject's experience.

## Note

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