

BALANCE SHEET ANALYSIS BASED ON THE RATE METHOD FOR A COMPANY SALING CONSTRUCTION MATERIALS

CRISTINA MIHAELA NAGY, FRANCA MLADIN

„TIBISCUS” UNIVERSITY TIMIȘOARA, FACULTY OF ECONOMIC SCIENCES
cristinanagy2009@yahoo.com, frankamladin@yahoo.com

Abstract:

The balance sheet is defined as a table, respectively a “stop-frame” of an entity’s patrimony situation, determined at the end of the fiscal year, being a control and management tool, useful to managers for decision-making.

Key words: *Structure rates; Financial stability rate; Analysis of the correlations between assets and liabilities of the balance sheet.*

JEL classification: M41, K22

INTRODUCTION

The balance sheet highlights the balance relations between the economic means of enterprises, on the one hand, and their economic sources, expressed in value, on the other hand. Between the two there is an equality called “balance sheet equality”. It is based on the principle that each asset element corresponds to a liability element, as a source of provenance, and each liability element is a generator of economic goods.

The preparation of the balance sheet follows the way in which the financing sources acquired by the entity were used.

Balance sheet analysis is a necessary tool for examining an entity in order to identify and solve its current and potential problems. The economic and financial diagnostic activity is overly complex because the same effect can be generated by different causes, different effects can combine in a complex way, generating other effects, essential features can combine with non-essential, secondary, or random ones.

The analysis of the financial structure of the entity’s assets aims to reflect the reports between the patrimonial elements and the changes occurring within the use of permanent and current resources. The method used in the analysis is the “ratios” method of rates.¹

The analysis based on the functional balance aims to identify its needs and how to allocate funding sources for different functional cycles.²

¹ Bîrsan Mihaela (2014). „Analiza economico-financiară II”. Universitatea „Ștefan cel Mare” Suceava. Disponibil http://www.seap.usv.ro/~ro/div/15/Analiza_economica_II_2014-2015, accesat septembrie 2021, p. 82)

² Untaru, Mircea. (2013). „Analiză Economico-financiară”. Editura Fundației pentru Cultură și Învățământ „Ioan Slavici”. Timișoara. p. 20)

Beta S.R.L. company³ (where the case study was conducted) is a limited liability company registered with the Trade Register with a unique registration code, established in 2007 and has as object of activity the sale of construction materials and finishes, having its registered office in Timis County.

ANALYSIS OF ASSET STRUCTURE RATES

„**Structure rates** are determined as the ratio between an asset or liability item (or group of items) and the balance sheet total, as well as the ratio between different asset or liability components. Although technically simple, this method provides enlightening information on the financial situation of the company, especially in the case of comparative analyzes in time and space.”⁴

The structure rates highlight the financial characteristics of the entity, such as:⁵

- the ability of assets to be transformed into liquidity,
- financial autonomy and independence,
- quality of the short-term financial balance,
- financial structure (financing).

The rate of fixed assets (Rai) “measures the degree of capital investment in that entity. The different content of immobilized components, as well as the nuanced reaction of these components to the action of technical, legal, economic factors, justify the use of complementary rates, in economic theory and practice.”⁶

If we divide the fixed assets into intangible, tangible, and financial assets, we see these rates calculated for the period 2018-2020 in Table no. 1.

Studying these rates, we observe that throughout the analyzed period, the company has the majority of the capital invested in tangible assets.

We note that in 2019 and 2020 the rate of fixed assets falls within the 60% limit, considered as ideal. The rate of fixed assets is on a downward slope, which is beneficial for the company (from 61,89% in 2018 to 54,76% in 2020).

From Table 1 it can be noted that starting with 2019, the **Rate of tangible assets** is on a downward slope, which is beneficial for the company, by increasing the share of current assets. **The rates of intangible and financial assets** have insignificant, subunit values, with a slight increase in 2019, due to investments in this regard.

³ Beta S.R.L. este o societate reală, însă datorită Legii nr. 129/2018 „pentru modificarea și completarea Legii nr. 102/2005 privind înființarea, organizarea și funcționarea Autorității Naționale de Supraveghere a Prelucrării Datelor cu Caracter Personal, precum și pentru abrogarea Legii nr. 677/2001 pentru protecția persoanelor cu privire la prelucrarea datelor cu caracter personal și libera circulație a acestor date”, numele societății a fost atribuit în mod convențional (Beta S.R.L. is a real company, but due to Law no. 129/2018 „for the amendment and completion of Law no. 102/2005 regarding the establishment, organization and functioning of the National Authority for the Supervision of Personal Data Processing, as well as for the abrogation of Law no. 677/2001 for the protection of individuals with regard to the processing of personal data and on the free movement of such data”, the name of the company has been conventionally assigned)

⁴ Bîrsan, Mihaela (2014). „Analiza economico-financiară II”. Universitatea „Ștefan cel Mare” Suceava. Disponibil http://www.seap.usv.ro/~ro/div/15/Analiza_economica_II_2014-2015, accesat septembrie 2021, p. 82

⁵ Petrescu, Silvia. (2010). „Analiză și diagnostic financiar-contabil, Ghid Teoretico-Applicativ”, ediția a III-a Editura CECCAR, Timișoara, p. 214

⁶ Bîrsan Mihaela (2014). „Analiza economico-financiară II”. Universitatea „Ștefan cel Mare” Suceava. Disponibil http://www.seap.usv.ro/~ro/div/15/Analiza_economica_II_2014-2015, p. 83

The *current asset rates* are calculated for the period 2018 - 2020 and are presented in Table no. 2.

Table 1. Calculation of the rate of fixed assets, with its sub-branches

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Intangible assets	In		261	3.437	3.437
Tangible assets	Ic		1.321.243	1.412.206	1.361.116
Financial assets	If		1.000	11.530	8.000
Fixed assets	Ai		1.322.504	1.427.173	1.372.553
Total Assets	At		2.136.824	2.447.956	2.506.390
Rate of fixed assets	r_{AI}	$r_{AI} = \frac{Ai}{At} \times 100$	61,89%	58,30%	54,76%
Rate of intangible assets	r_{IN}	$r_{IN} = \frac{In}{At} \times 100$	0,01%	0,14%	0,14%
Rate of tangible assets	r_{IC}	$r_{IC} = \frac{Ic}{At} \times 100$	61,83%	57,69%	54,30%
Rate of financial assets	r_{IF}	$r_{IF} = \frac{If}{At} \times 100$	0,05%	0,47%	0,32%

Source: Own processing according to the data from the financial statements of the entity

Table 2. Calculation of the current assets' rate, with its sub-branches

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Inventories	St		54.780	61.679	57.237
Receivables	Cr		585.900	718.193	757.793
Treasury	Tz		173.640	240.911	318.807
Current assets	Ac		814.320	1.020.783	1.133.837
Total Assets	At		2.136.824	2.447.956	2.506.390
Rate of current assets	r_{AC}	$r_{AC} = \frac{Ac}{At} * 100$	38,11%	41,70%	45,24%
Inventory rate	r_{St}	$r_{IN} = \frac{St}{At} * 100$	2,56%	2,52%	2,28%
Receivables rate	r_{Cr}	$r_{IC} = \frac{Cr}{At} * 100$	27,42%	29,34%	30,23%
Treasury rate	r_{Tz}	$r_{IF} = \frac{Tz}{At} * 100$	8,13%	9,84%	12,72%

Source: Own processing according to the data from the financial statements of the entity

The two asset structure rates (the **Rate of fixed assets** and the **Rate of current assets**) added together must give an integer: $rAI + rAC = 1$, therefore we deduce that the optimal value of rAC must be somewhere around 40%, with a growing trend for optimal development of the entity.

From Table 2 we note that the *current asset rate* is around the optimal value of 40%, which it exceeds in 2019 and then continues with a slight positive growth in 2020, when it reaches 45,24%.

The rate of current assets can be divided “depending on the components of current assets, in the *rate of stocks, rate of receivables* and the *treasury rate*.”⁷

At the level of an entity, “*treasury is represented in the form of a table of monetary availabilities and short-term payments, derived from current receipts and payments.*”⁸

If we analyze the breakdown by item, we notice that about 70% of the *current assets rate* is composed of the *receivables rate* (which should tend to zero, for the benefit of the entity), the *treasury rate* is about 23-28%, and the *inventory rate* also registers a reduced value of 5-7% (in terms of the entity’s object of activity).

While it would be ideal for *inventory and treasury rates* to be preponderant in the *total current assets rate*, given the entity's object of activity, which consists of selling construction materials and finishes, we realize that the level of inventory or treasury cannot be so high, however, more efficient management of the customer credit is required to reduce the average time taken to collect the invoices issued.

The treasury rate is between 8-13% of total assets and is increasing year by year being ensured only by cash, which is not particularly useful for entity. It would be beneficial to reduce the **receivables rate** and increase the **treasury rate** by placing the surplus money collected faster from customers in short-term financial investments.

ANALYSIS OF LIABILITY STRUCTURE RATES

The financial rates or liability structure rates best reflect the financial policy of the entity and give us information about its stability and autonomy. The most important financial rates will be analyzed further.

We calculate the financial stability rate in 2018, 2019 and 2020 for BETA SRL and we will obtain the following results presented in Table no. 3.

Considering an optimal level for **rsf** of 66%, we notice that in 2018, when this indicator is below the optimal level, the permanent capital representing only 56,64% of total liabilities, in the following fiscal years BETA SRL develops a healthy policy of increasing the share of this balance sheet item in the total liabilities. Thus, in 2019, the permanent capital already represents 73,79% of the total financial sources, and in 2020 its level reaches 86,24% of total liabilities. During the entire period studied, 2018 - 2020, there is a constant increase in the share of stable sources in relation to cyclical sources, the company developing a positive financial stability and security.

⁷ Şuşu, Ştefaniă. (2016). „Analiză economico-financiară. Note de curs pentru uzul studenţilor”, Universitatea Ştefan cel Mare, Suceava, 2016, p.128.

⁸ Ţole, Marin (coordonator). Matei, Nicoleta Cristina. Ţole, Alexandru Adrian. Horhotă Luminiţa (2020). „Analiză economico-financiară. Metode si modele. Ediţia a VI-a, revizuita si adaugita.”, Editura Pro Universitara, , p. 194.

The rate of financial autonomy (raf) reflects the relationship between the company's equity and total liabilities. "It is considered that the enterprise presents a balanced financial structure if the share of own sources in permanent sources is at least 50%, respectively $raf_i > 50\%$."⁹

Table 3. Financial stability rate

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Permanent capital	Cp		1.210.324	1.806.330	2.161.432
Short term debts	Dts		926.500	641.626	344.958
Total liabilities	Pt		2.136.824	2.447.956	2.506.390
Financial stability rate 1	r_{sf1}	$r_{sf1} = \frac{Cp}{Pt} * 100$	56,64%	73,79%	86,24%
Financial stability rate 2	r_{sf2}	$r_{sf2} = (1 - \frac{Dts}{Pt}) * 100$	56,64%	73,79%	86,24%

Source: Own processing according to the data from the financial statements of the entity

Table 4. Financial autonomy rate for BETA SRL

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Equity	Cpr		1.210.324	1.806.330	2.161.432
Permanent capital	Cp		1.210.324	1.806.330	2.161.432
Total liabilities	Pt		2.136.824	2.447.956	2.506.390
Global autonomy rate	r_{ag}	$r_{ag} = \frac{Cpr}{Pt} * 100$	56,64%	73,79%	86,24%
Financial autonomy rate at term	r_{aft}	$r_{aft} = \frac{Cpr}{Cp} * 100$	100%	100%	100%

Source: Own processing according to the data from the financial statements of the entity

From Table 4 it is noted that, in the period studied 2018 - 2020, due to the lack of medium and long-term debts, BETA SRL has the **Global autonomy rate** much higher (even increasing) compared to the percentage of 33%, which is considered optimal to represent the share of equity in total liabilities, according to the relation $PT = CPR + DTS + Dtml = 1/3 + 1/3 + 1/3$, where the three balance sheet items are found equally. Due to the lack of medium and long-term debt ($Dtml = 0$), the **financial autonomy rate at term** takes the maximum value of 100%, and we can conclude that this company has a full-term financial autonomy of 100%, all stable sources of financing being its own.

⁹ Ghic, Grația. Poenaru-Grigorescu, Carmen Judith (2015). „Analiză economico financiară”, Editura Universitara, București, p.114.

The indebtedness ratio is calculated using the indebtedness coefficients, which measure the share of liabilities in total liabilities and is calculated in two variants, presented in Table no. 5.

Considering the optimal levels of these *global indebtedness coefficients*, **Kig1<2/3 and Kig2<2**, and the particular situation of the analyzed entity, which has no medium and long-term liabilities, $D_{tml} = 0$ ($DT = DTS$), we observe that the level of indebtedness is low and has a downward evolution, halving from year to year.

Taking these into account, we deduce that BETA SRL can always use a medium, or long-term loan amounting to maximum 3.977.906 lei in 2020, 2.971.034 lei in 2019, or 1.494.148 lei in 2018, according to the calculations below:

$$K_{ig2} = \frac{Dt}{Cpr} = \frac{Dts + Dtml}{Cpr} < 2 \quad D_{tml} < (2 \times Cpr) - Dts$$

2018 $D_{tml} < (2 \times 1.210.324) - 926.500 < 2.420.648 - 926.500 < 1.494.148$
2019 $D_{tml} < (2 \times 1.806.330) - 641.626 < 3.612.660 - 641.626 < 2.971.034$
2020 $D_{tml} < (2 \times 2.161.432) - 344.958 < 4.322.864 - 344.958 < 3.977.906$

Table 5. Global debt ratio for BETA SRL

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Equity	Cpr		1.210.324	1.806.330	2.161.432
Total liabilities	Pt		2.136.824	2.447.956	2.506.390
Short-term debts	Dts		926.500	641.626	344.958
Long-term debts	Dtml		0	0	0
Total debts	Dt		926.500	641.626	344.958
Global indebtedness ratio	K_{ig1}	$= \frac{Dt}{Pt} = \frac{Dts + Dtml}{Pt}$	0,43	0,26	0,14
Global indebtedness ratio	K_{ig2}	$\frac{Dt}{Cpr}$	0,77	0,36	0,16

Source: Own processing according to the data from the financial statements of the entity

Table 6. Term indebtedness coefficient for BETA SRL

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Equity	Cpr		1.210.324	1.806.330	2.161.432
Permanent capital	Cp		1.210.324	1.806.330	2.161.432
Long-term debt	Dtml		0	0	0
Coefficient of term indebtedness	K_{it1}	$= \frac{Dtml}{Cp} < 1/2$	0	0	0
Coefficient of term indebtedness	K_{it2}	$= \frac{Dtml}{Cpr} < 1$	0	0	0

Source: Own processing according to the data from the financial statements of the entity

From Table 6 it can be observed that this coefficient is determined by reporting medium and long-term debts to equity or permanent capital, but in the case of our entity, Dtml being equal to zero, we cannot calculate these coefficients. Eventually, we can calculate the extent to which the company can borrow in case of need, without destabilizing the financial balance and, at the same time, be able to deal with short-term debts:

$$K_{it2} = \frac{D_{tml}}{C_{pr}} < 1 \quad \text{so,} \quad D_{tml} < C_{pr}$$

$$\underline{2018} \ D_{tml} < 1.210.324$$

$$\underline{2019} \ D_{tml} < 1.806.330$$

$$\underline{2020} \ D_{tml} < 2.161.432$$

Table 7. Indebtedness rate for BETA SRL

Name of the indicator		Calculation formula	Value		
			2018	2019	2020
Equity	Cpr		1.210.324	1.806.330	2.161.432
Permanent capital	Cp		1.210.324	1.806.330	2.161.432
Total liabilities	Pt		2.136.824	2.447.956	2.506.390
Short-term debts	Dts		926.500	641.626	344.958
Medium and long-term debts	Dtml		0	0	0
Global indebtedness coefficient 1	K_{ig1}	$K_{ig1} = \frac{Dts + Dtml}{Pt}$	0,43	0,26	0,14
Global indebtedness coefficient 2	K_{ig2}	$K_{ig2} = \frac{Dt}{Cpr}$	0,76	0,35	0,16
Coefficient of term indebtedness	K_{it}	$K_{it1} = \frac{Dtml}{Cp}$	0	0	0

Source: Own processing according to the data from the financial statements of the entity

The relation $K_{ig2} = \frac{1}{raft}$ shows us to what extent the company uses *leverage* and appreciates its indebtedness ability. Thus, the lower the *term indebtedness coefficient*, the higher the indebtedness possibilities, and in the case of BETA SRL, because $K_{it} = 0$, the indebtedness possibilities are maximum. Due to the fact that the company has CP = CPR, so a large financial autonomy, it can always deal with a major investment or a less successful period, by contracting a medium or long-term loan.

ANALYSIS OF THE CORRELATIONS BETWEEN BALANCE SHEET ASSETS AND LIABILITIES AT BETA SRL

The analysis of correlations between assets and liabilities of the balance sheet is conducted using several indicators, from which we chose those related to solvency and liquidity.

The solvency of the entity expressed through the net accounting assets indicator, has positive values throughout the analyzed period. This means that the entity's total

liabilities are lower than its actual assets, which is a favorable aspect. The **net accounting asset (NCA)** is an indicator that expresses solvency as we have seen in theory, it is determined as the difference between total asset and total liabilities and better reflects the value of the achievable asset at a given time, which interests the shareholders of the entity, and is presented in the Table 8.

Table 8. Net accounting assets, General solvency index - calculations

Item no.	Specification	Analysis period		
		2018	2019	2020
1	Total assets	2.136.824	2.447.956	2.506.390
2	Total liabilities	926.500	641.626	344.958
3	Net accounting asset (Anc) (1-2)	1.210.324	1.806.330	2.161.432
4	General solvency index (1/2)	2,31	3,82	7,27
5	General solvency ratio (3/1)	0,57	0,74	0,86

Source: Own processing according to the data from the financial statements of the entity

From Table 8 we can observe that the net accounting asset increases from 1.210.324 lei in 2018 to 2.161.432 lei in 2020, so the shareholder's wealth increased, due to the change in the total asset, which is financed both from equity capital and from the commitment of debt on various terms, but the pace of equity dynamics is advancing the pace of debt dynamics. We can see that the General solvency index increases from 2,31 in 2018, to 7,27 in 2020, (the value considered optimal for this indicator is between 1,5 and 3), so we can say that the company is able to honor its long-term obligations.

From Table 8 it can also be observed that the General solvency ratio is above the minimum acceptable level (of 35%) and exceeds the normal one, which has been 50% since 2018, and increases from 0,57 to 0,86 in 2020.

According to certain authors,¹⁰ "liquidity is the possibility for an economic agent to fulfill its financial obligations, including the possibility of converting its assets into money."

The current (immediate) liquidity ratio matches the most liquid elements of the asset with short-term obligations, reflecting the entity's ability to meet short-term obligations from investments and availability.¹¹

From Table 9 it can be observed that the *liquidity* of BETA SRL, expressed by the **general liquidity** coefficient, has subunit values (minimum level is 1) in 2018 being 0,88 and increases over the following period reaching 3,29 in 2020, therefore, the company is able to deal with short-term payment obligations. The reduced liquidity ratio

¹⁰ Gostin, Cecilia. (2018). „Elemente de economie și analiză financiară a întreprinderii pe bază de bilanț”. Proiectul „Abordarea provocărilor generate de noua legislație a muncii și a dialogului social în România” p. 24 (“Elements of economics and financial analysis of the enterprise on the basis of balance sheet”. The project “Addressing the challenges generated by the new labor legislation and social dialogue in Romania” pp. 24)

¹¹ Sabău, C. Uher, Marina. Nagy, Cristina Mihaela.. (2015). „Contabilitatea reorganizării și lichidării întreprinderii”, Ediția a II-a. Editura Eurostampa, Timișoara, p. 157 (“Accounting for the reorganization and liquidation of the enterprise”, 2nd Edition. Eurostampa Publishing House, Timișoara, pp. 157)

is subunit in the first year and over unity in the next two years, and increases from 0,82 in 2018 to 3,12 in 2020, so the company has the possibility to pay short-term debts from receivables and cash availability

Another aspect that can be noted from Table 9 is that the immediate liquidity coefficient is subunit throughout the analyzed period, which is unfavorable, but still optimistic, as it increases from 0,19 in 2018 to 0,92 in 2020. This situation reflects a permanent lack of cash availabilities at the disposal of the entity to pay its current debts.

Table 9. Liquidity rates - calculations

Item no.	Indicators	2018	2019	2020
1	Current assets (Ac)	814.320	1.020.783	1.133.837
2	Short-term debts (Dts)	926.500	641.626	344.958
3	Receivables (Cr)	585.900	718.193	757.793
4	Cash availabilities (Db)	173.640	240.911	318.807
6	<i>General liquidity (Lg = Ac / Dts)</i>	0,88	1,59	3,29
7	<i>Reduced liquidity [Lr = (Cr + Db)/Dts]</i>	0,82	1,49	3,12
8	<i>Immediate liquidity (Li = Db / Dts)</i>	0,19	0,38	0,92

Source: Own processing according to the data from the financial statements of the entity

CONCLUSION

The analysis based on the balance sheet involves the study of the relation between the information contained in it at a given time and the trend of their evolution in a given period of time.

The analysis of the balance sheet is based on a series of synthetic data, summary documents and statistical findings, in order to find out the causal relations between economic phenomena and processes.

The structure rates provide the possibility to express the balance sheet in percentage terms and allow the identification of the major characteristics of the balance sheet structure, also offering the possibility to carry out comparative analyzes in time and space.

The analysis of the balance sheet structure rates has the following objectives:

- assessing the patrimonial and financial status of the entity,
- establishing and evaluating the relationships between different patrimonial elements,
- Substantiation of financial policy and strategy.

The conclusions obtained from the analysis are instruments for forecasting the future activities of the entity and provide the necessary data for making management decisions in order to mitigate negative phenomena and maintain performance to ensure the entity's continuity.

We consider it particularly important that an adequate financial structure of the entity is only a necessary condition for the long-term viability of the business, for the increase of the entity's value and for the prosperity of the participants in its business and life, but not enough as long as the assets of the entity are not well structured, and asset

allocations are deficient. In other words, it is not enough that the sources of financing are at the level of needs, when required, if they are not well invested, they are not well used, so as to increase financial performance and achieve competitive advantage. This is where a close link emerges between the structure of the entity's liabilities and the structure of its assets.

REFERENCES

Books and articles

1. Bîrsan Mihaela (2014). „Analiza economico-financiară II”. Universitatea „Ștefan cel Mare” Suceava. Disponibil http://www.seap.usv.ro/~ro/div/15/Analiza_economica_II_2014-2015, accesat septembrie 2021 (*“Economic-financial analysis II”*). “Ștefan cel Mare” University of Suceava. Available http://www.seap.usv.ro/~ro/div/15/Analiza_economica_II_2014-2015, accessed September 2021)
2. Ghic, Grațiela. Poenaru-Grigorescu, Carmen Judith (2015). „Analiză economico financiară”, Editura Universitara, București. (*“Economic and financial analysis”*, Universitara Publishing House, Bucuresti, pp.114.)
3. Gostin, Cecilia. (2018). „Elemente de economie și analiză financiară a întreprinderii pe bază de bilanț”. Proiectul „Abordarea provocărilor generate de noua legislație a muncii și a dialogului social în România” (*“Elements of economics and financial analysis of the enterprise on the basis of balance sheet”*). The project “Addressing the challenges generated by the new labor legislation and social dialogue in Romania” pp. 24)
4. Petrescu, Silvia. (2010). „Analiză și diagnostic financiar-contabil, Ghid Teoretico-Applicativ”, ediția a III-a Editura CECCAR, Timișoara, p. 214 (*“Financial-accounting analysis and diagnosis, Theoretical-Applied Guide”*, 3rd edition CECCAR Publishing House, Timișoara, p. 214)
5. Sabău, C. Uher, Marina. Nagy, Cristina Mihaela.. (2015). „Contabilitatea reorganizării și lichidării întreprinderii”, Ediția a II-a. Editura Eurostampa, Timișoara, p. 157 (*“Accounting for the reorganization and liquidation of the enterprise”*, 2nd Edition. Eurostampa Publishing House, Timișoara, pp. 157)
6. Șușu, Ștefaniță. (2016). „Analiză economico-financiară. Note de curs pentru uzul studenților”, Universitatea Ștefan cel Mare, Suceava, 2016, p.128. (*“Economic and financial analysis. Course notes for students' use”*, Ștefan cel Mare University, Suceava, 2016, pp. 128.)
7. Țole, Marin (coordonator). Matei, Nicoleta Cristina. Țole, Alexandru Adrian. Horhotă Luminița (2020). „Analiză economico-financiară. Metode si modele. Ediția a VI-a, revizuita si adaugita.”, Editura Pro Universitara. (*“Economic and financial analysis. Methods and models. 6th edition, revised and added”*, Pro Universitara Publishing House., pp. 194.)
8. Untaru, Mircea. (2013). „Analiză Economico-financiară”. Editura Fundației pentru Cultură și Învățământ „Ioan Slavici”. Timișoara. p. 20 (*“Financial and economic analysis”*. “Ioan Slavici” Foundation for Culture and Education Publishing House. Timisoara. pp. 20)