MODEL FOR ANALYSIS OF THE FINANCIAL POSITION OF THE COMPANY

Dana Luiza GRIGORESCU PhD Student *(danaluiza2004@yahoo.com)*
Bucharest University of Economic Studies

Abstract

The financial position of a trading company is established according to the main resources available to the company, the activity carried out, the cycle of investments realized as well as the patrimonial structure of the company. In order to establish the financial position of a company, a series of indicators must be studied, thus ensuring the analysis of the structure of the assets, the analysis of the structure of financial resources, the analysis of the net assets, the liquidity and solvency of the company. Also, the degree of indebtedness must be studied and, finally, the financial balance of the company must be interpreted. The analysis of the correlation between the working capital, the need for working capital and the net cash is another part of the analysis that is carried out in accordance with the first part, in order to determine precisely what is the position at this time of this company. This is why banks are first and foremost interested in establishing the company's position at any given time.

Keywords: *Financial position, balance sheet, equity, financial resources, net assets, liquidity, solvency*

JEL Classification: D53, G32, O16

Introduction

In this article, the authors aimed to study the financial position of the company, analyzing all these elements from a theoretical point of view. Thus, in order, a series of appraisals are expressed in relation to the balance sheet which is important for all categories of users, but especially for current and potential investors and financial creditors. Also, an analysis of the structure of the company's assets is made, calculating a number of efficient indicators that suggest the situation of the company at a given time. The analysis of the structure of financing resources is also based on a series of indicators that show the situation of the company at a given moment. at the same time, the net assets are interpreted based on indicators as well as the liquidity, solvency of the trading company. Note that in the whole analysis, a system of indicators is calculated that expresses the situation from a specific point of view of the company and in a correlated way, it expresses how it evolves from time to time. The article expresses the calculation relationships of the main indicators, thus representing a concrete way of analysis.

Literature review

Anghelache and Anghel (2019) investigated the main statistical indicators applied in economic studies. Anghelache and Anghel (2014) highlighted the main models for analyzing the financial position of an economic entity. Anghelache (2008) is a reference work in the economic-financial analyzes. Bushman and Williams (2012) addressed issues related to loan losses. Carrell, Sacerdote and West (2013) presented the econometric variation. Delis and Kouretas (2011) studied the correlation between interest rates and bank risk taking. Einav, Finkelstein, Kluender and Schrimpf (2016) investigated the economic content of risk scores. Gasha et al. (2009) presented aspects of credit risk modeling, and Lazăr and Lazăr (2012) of the statistical-economic analysis. Mundy and Bryant (2015) studied aspects of SMEs' access to intermediary credit. Spătaru and Stancovici (2010) examined elements of business efficiency. Wehinger (2013) conducted a research on the current difficulties of financing SMEs.

Methodology, data, results and discussions

The financial analysis can be broken down into: the analysis of the financial position (based on the financial balance sheet); financial performance analysis (based on the Profit and Loss Account); cash flow analysis (based on cash flow).

The main objectives of the analysis of the financial position of the company can be summarized as follows: establishing the net assets, as a form of accounting valuation of the shareholders' wealth; characterization of the financial structure (financial balance); establishing the liquidity and solvency, which mainly concern the creditors of the company; appreciation of financial condition.

The financial position of an enterprise, according to paragraph 16 of the General Framework for the Preparation and Presentation of Financial Statements, elaborated by the Committee for International Accounting Standards, is „influenced by the economic resources it controls, its financial structure, its liquidity and solvency. and its ability to adapt to the changes in the environment in which it operates.

The main source of information on the financial position is the balance sheet.

The balance sheet and the explanatory notes respond to the multiple legal and accounting requirements being established on the basis of legal regulations. There may be differences between the data provided by the balance sheet and the economic-financial reality of the analyzed company. For this reason, most financial analysts believe that operating with a so-called

„analysis support balance" is required. Theoretical value and practical utility are distinguished: the patrimonial balance, the functional balance and the „pool de fonds" balance.

For the analysis of the net assets, the financial structure, liquidity and solvency of the company, the information from the balance sheet (financial) is used, and for the analysis of the financial balance the information can be obtained from the functional balance.

The balance sheet is important for all categories of users, but especially for current and potential investors and financial creditors.

When establishing the balance sheet, the following rules are taken into account:

- the valuation of the patrimonial elements at their net value;
- for assets: the order of increasing liquidity (the ability of assets to be converted into cash);
- for liabilities: the reverse order of the demand (the time that the respective source remains available to the company).

The functional balance has the role of providing an image on the economically operating mode of the enterprise, highlighting the uses and sources corresponding to each operating cycle. The cycles of the company envisaged are: of investment, of operation, of financing and of treasury.

The investment cycle includes the acquisition of fixed assets.

The operating cycle corresponds to the flows of supply, production and distribution (sales), both in the form of physical flows and financial flows.

The financing cycle comprises all the operations between the company and the owners of the capital (shareholders and financial creditors of the company).

The financing flow allows the company to cope with the gap between the flow of inflows and outflows caused by the operating cycle.

The establishment of the functional balance is made taking into account the following rules:

- the assets are taken into account at their gross value;
- the leased assets, held in leasing or in the management location are integrated in assets and, correspondingly, in liabilities to „Loans and similar debts" due to the fact that they serve the operating cycle;
- the concept of fictitious assets is no longer operational;
- the expenses related to the following financial years are assimilated to the fixed assets;
- the expected effects not reached at maturity, the debtors regarding the subscribed and unpaid capital are treated in the same way as the elaboration of the balance sheet;

- depreciation and provisions are included in the liabilities of the functional balance sheet as acyclic sources (which remain available to the company for a period longer than one year);

- the difference is made between the cyclical assets of the exploitation and outside the exploitation, also between the cyclical sources of exploitation and the cyclical sources from the non-exploitation.

• The analysis of the corporate structure of the company

The objective of the analysis of the patrimonial structure is to establish and monitor the evolution of the weight of the patrimonial elements.

The analysis method is the rate method. Structure rates allow the „normalization" of the situation of the patrimony, allowing an easy comparison between companies of different sizes, as well as the rapid observation of structural changes within an enterprise over time.

a) The analysis of the asset structure

Structure rates in the case of economic resources (Rai) are determined by the relation:

$$Rai = \frac{Ai}{At} \cdot 100$$

where:

Ai = the value by categories of assets;

At = the value of total assets.

The main rates of the asset structure are:

$$\text{Rate of fixed assets} = \frac{Fixed\_assets}{Total\_assets} \times 100$$

This rate measures the relative importance of long-term assets in the total assets of the enterprise. This indicator allows to appreciate the financial flexibility of the company insofar as it highlights the composition of capital invested in fixed assets.

Due to the different content of the components of the fixed assets, the following complementary rates can be used:

$$\text{Rate of intangible assets} = \frac{Intangible\_assets}{Total\_assets} \times 100$$

$$\text{Rate of tangible assets} = \frac{Tangible\_assets}{Total\_assets} \times 100$$

$$\text{Rate of financial assets} = \frac{Financial\_assets}{Total\_assets} \times 100$$

$$\text{Rate of current assets} = \frac{Current\_assets}{Total\_assets} \times 100$$

This rate reflects the weight of the current assets in the total assets of the company, being a measure of financial flexibility, which highlights the relative importance of the assets that can be easily transformed into money.

As relative rates of analysis, in this case, the following are considered:

$$\text{Stock rate} = \frac{Stocks}{Total\_assets} \times 100$$

$$\text{The rate of trade receivables} = \frac{Customers\_and\_similar\_accounts}{Total\_assets} \times 100$$

$$\text{Availability rate} = \frac{Cash\_and\_equivalent\_assets}{Total\_assets} \times 100$$

The size of all these indicators is influenced by both general factors that affect the structure of the asset, as well as the accounting policies of the company, the specific activity and size of the company, the „history" of the company, the bargaining power with the trading partners and the management of the company.

b) The analysis of the structure of financing sources

The structure rates in the case of financing sources (Rsi) analyze the relative importance and the evolution over time of the different financing sources used by the company and are calculated as follows:

$$\text{Rsi} = \frac{\text{Si}}{\text{Pt}} \cdot 100$$

where:

Si = sum by categories of sources of financing;

Pt = total financing sources (liabilities).

The main structure rates of the financing sources are:

$$\text{Financial stability rate} = \frac{Permanent\_capital}{Total\_sources\_funded} \times 100$$

$$\text{Rate of global autonomy} = \frac{Equity}{Total\_sources\_funded} \times 100$$

$$\text{Short-term debt rate} = \frac{Short\_term\_debts}{Total\_sources\_funded} \times 100$$

$$\text{Total debt rate} = \frac{Total\_debts}{Total\_sources\_funded} \times 100$$

By calculating the rates of structure of assets and liabilities, the balance sheet in percentages is obtained. The information obtained in this way is, in most cases, more relevant than in the case of using absolute values.

The values of asset and liability structure rates are influenced by the technical, economic, legal characteristics, size of the company, the chosen strategy, etc.

• **The analysis of net assets**

The elements directly related to the evaluation of the financial position of the company are assets, liabilities and equity.

The net asset represents the residual interest of the owners in the assets of the company after deducting all its debts, being similar to their assets as a result of the allocation and involvement of the capital in its activity. This indicator is the equivalent of the net accounting assets, respectively of the corrected equity.

The net asset can be determined in two ways:

a) as the difference between total assets and total liabilities (synthetic method)

$$\mathbf{Ant = At - D}$$

where:

Ant = net assets;

At = total assets;

D = total debt.

b) as a sum of its financing sources (additive method)

$$\mathbf{Ant = Ks + Rz + Rr + Re - Rrep}$$

where:

Ks = social capital;

Rz = reserved;

Rr = result reported;

Re = the result of the exercise;

Rrep = the distributions made from the result during the year.

In order to establish the sources of financing of the net assets, the information from the „Statement of changes in equity" is considered.

Considering the material composition of the net asset, respectively the first method of calculation, its increase is recorded when the assets outweigh the total debt.

Analyzing the sources of financing of the net asset, the following aspects can usually be met:

- the most accentuated dynamics is recorded by the sources constituted on the basis of the profitability of the company: the legal reserves up to the limit provided by the law, the statutory reserves increased on account of the net profit as a result of the shareholders' decision and the deferred result that can be non-distributed profit (and then determines the growth of the net assets) or uncovered loss (in which case the net asset decrease);

- the share capital is modified only in the case of new contributions, respectively of financing from external sources (of the old shareholders or of new shareholders) and / or by converting some debts into share capital (extinguishing some debts in exchange for a package of shares) .

Also, the deferred result may come from the application for the first time of IAS, less IAS 29, the modification of accounting policies, the correction of fundamental errors, the surplus realized from revaluation reserves.

Therefore, the net assets can increase on the basis of the internal sources (the profitability of the company) and on the basis of external sources (contributions, free receipt of some assets, conversion of debts into share capital, etc.).

If the shareholders are pursuing an increase in equity by capitalizing the net profit, then the managers must estimate the turnover to achieve this objective.

The calculation relation is:

$$CA_r = \frac{\Delta Kp - Pf \cdot Cip \cdot \overline{K}cp}{R^c\left(1 - \frac{Cip}{100}\right) \cdot \overline{K}cp} \cdot 100$$

where:

CA_r = turnover to be achieved under the given conditions;

ΔKp = the increase of the equity by capitalizing the net profit;

Pf = fiscal loss;

Cip = tax rate on profit;

$\overline{K}cp$ = the share of the net profit capitalization;

R^c = the rate of commercial profitability.

The change in the net assets, excluding the one determined by new contributions of the assets, the conversion of debt into shares, the result

carried over from the application for the first time of the IAS, the modification of the accounting policies and the correction of the fundamental errors, may represent the overall result of the shareholders obtained during the analyzed period.

• The analysis of the liquidity and solvency of the company

The liquidity and solvency information are needed to estimate the ability of an enterprise to meet its outstanding debts.

The liquidity can be defined as the ability of the company to meet its maturity payment obligations on the basis of its current assets.

The solvency is defined as the ability of the company to honor its total debts.

According to International Accounting Standards, liquidity „refers to cash availability in the near future, after taking into account the financial obligations related to this period", and solvency „refers to cash availability for a longer period to be honored. the maturing financial commitments ".

A) Liquidity analysis

The liquidity analysis of the company can be performed based on the liquidity rates and the working capital fund.

Based on the data from the balance sheet, the following rates can be established:

a) Current or general liquidity rate (Rlc):

$$Rlc = \frac{\text{Current assets}}{Current\_debts}$$

The current assets include current assets, less moving, degraded or downgraded stocks and uncertain debts (if no provisions were established).

The current liabilities include debts with a payable term of less than one year.

b) Rapid liquidity rate (acid test):

$$Rlr = \frac{\text{Current assets - Stocks}}{\text{Current\_debts}}$$

c) Rate of liquidity in sight:

$$Rlv = \frac{Cash}{\text{Im}mediate\_payable\_debts}$$

The liquidity rate at sight reflects the ability to pay for a short period of time (usually one month).

In order to assess the financial position of an enterprise from a liquidity point of view, the rates „a" and „b" must be compared with the sectoral average rates, and the rate „c" must be higher than 1.

According to international usages, the rate „a" must be around 2, and the rate „b" between 0.8 and 1.

B) Solvency analysis

The solvency of an enterprise can be measured using the global solvency rate (Rsg):

$$Rsg = \frac{\text{Total assets}}{Total\_debts}$$

The minimum level of this rate is 1.4 (when the minimum share of equity in total capital is 30%).

A sub-unit size of the overall solvency rate shows that the company is insolvent, the total assets being lower than the total debts. The cause of such a situation is the loss recorded, which is higher than the share capital, the reserves and other own sources, which has resulted in a negative equity.

• **Analysis of the degree of indebtedness**

The financial position of the company can also be characterized by debt ratios.

For this purpose the following rates can be set:

a) the global debt ratio:

$$\frac{Total\_debts}{Equity}$$

A value greater than 2 reflects a saturated debt capacity.

b) the term debt ratio (also called the financial autonomy rate):

$$\frac{Long\_term\_debt}{Equity}$$

A rate lower than 1 indicates that long-term debt is covered by equity.

Applying for borrowed capital also involves financial expenses. The assessment of the risk to which the company is exposed by resorting to loans can be made on the basis of the rates:

a) the ratio between financial expenses and turnover:

$$\frac{Financial\_\text{exp}enses}{CA} \cdot 100$$

A value greater than 3% is considered as a potential debt risk for the firm.

b) the share of the financial expenses in the gross operating surplus:

$$\frac{Financial\_\exp enses}{EBE}\cdot 100$$

This rate is considered one of the most important when using the scores method. In the case of a value greater than 50%, the financial risk is considered high.

c) interest rate coverage:

$$\frac{EBIT}{Interest\_\exp enses}$$

where:

EBIT = the result before interest deduction and profit tax.

The mentioned rate shows how many times the interest expense is covered, especially on account of the operating profit. The lower the value of the indicator, the more risky the financial position of the company. For a value lower than 1, the company records a negative current result.

• **The analysis of the financial balance**

The financial balance, from the multitude of meanings it has, designates the equality between the financial sources and the economic means necessary to carry out the commercialization and investment activity, in the long and short term.

The financial balance is based on three main rules:

a) The rule of the minimum financial balance assumes that the resources used to finance the assets will remain available to the company for a period that must correspond at least, to that of the fixed assets;

b) The maximum indebtedness rule implies the existence of two limits: the sum of the term debt must not exceed the sum of the own equity, and the sum of the medium and long term debts should not exceed the average self-financing for a period of 3 years. These limits cause the debt to take place under certain conditions, the banks will not be able to accept exceeding these debt limits so as not to unreasonably increase the risk of insolvency of the bank's customers.

c) The rule of maximum financing is based on the principle that for any investment operation, undertaken by the company, the recourse to debt must not exceed a percentage of the value of the investment envisaged, in practice

this percentage can be between 50 and 75% of the value of the investment. excluding VAT, which corresponds to 85.5% of the amount including VAT.

• The analysis of the correlation between the Working Capital Fund, the Need for Working Capital Fund and the Net Treasury

The main indicators used in the analysis of the financial balance are: Working capital; Need for rolling stock; Net cash. These three indicators can be determined in patrimonial acceptance, based on the financial balance sheet, and in functional acceptance, based on the functional balance sheet.

a. In heritage acceptance

The working capital fund, hereinafter referred to as the working capital fund (FR), reflects the current liquidity in absolute size of a short-term enterprise.

The working capital represents the safety margin of the company, imposed by the gap between the amounts receivable and the amounts to be paid in the short term, as well as the gap between the average term for converting current assets into liquidity and the average duration in which short-term debts become due. .

It is determined in two ways:

• based on the upper part of the balance sheet, as a difference between permanent capital and net fixed assets, using the relationship:

FR = Permanent capital - Fixed assets

Permanent capital (employee) = Equity + Long-term debt

It turns out that the working capital is the part of the permanent capital used to finance the current assets.

• based on the lower part of the balance sheet, as a difference between current assets (stocks + receivables + availability) and short-term liabilities (operating obligations and short-term financial liabilities):

FR = Current assets (current) - Short-term debts (current)

The working capital correlates the liquidity of the current assets with the exigibility of the current debts.

It can be seen that the working capital fund represents that part of the permanent capital that exceeds the fixed assets and is intended to finance the current assets.

In order to achieve the financial balance at the enterprise level, the principle of parity of maturities according to which the permanent allocations (fixed assets) must be financed on the basis of the permanent sources (equity

and long-term loans) due to their slower turnover must be respected; cyclical allocations (current assets) are financed on the basis of temporary sources (short-term debt).

As long as the permanent sources are greater than the permanent needs for the allocation of the money funds, the more the company has a margin of security, which puts it to shelter from unforeseen events.

This surplus of permanent resources, released from the investment financing cycle, can be run for the renewal of stocks and receivables, as shown in the following figure:

Working capital - source of financing of current assets

Figure 1

Permanent assets	Permanent liabilities FR = ACN
Current assets ↕	Current liabilities

where:

ACN = Net current assets

ACN = Current assets - Current funding sources

Based on this correlation, the following rates can be calculated:

• the financing rate of the stocks (Rfs):

$$Rfs = \frac{\text{Working\_capital}}{Stocks}$$

• the rate of coverage of current assets (Rac):

$$Rac = \frac{\text{Working\_capital}}{Current\_assets}$$

These rates are compared with the sectoral averages.

The working capital fund can be viewed, from the perspective of the financing sources, as:

• Own working capital:

FRp = Equity - Fixed assets

• Loan working capital:

FRî = Long-term debt

The need for working capital represents an element having an asset nature and represents that part of the current assets to be financed on the basis of the working capital, so the part of the cyclical assets to be financed from

stable sources, respectively the assets with a liquidity term under one year which to be financed from sources with demand for over a year:

NFR = (Current assets - Availability - Financial investments) - Short-term obligations

or

NFR = (Stocks + Receivables) - (Short-term debt - Short-term loans)

We are in the situation where we ensure the financing of current assets from stable resources, which is the part of the positive working fund not used for financing the permanent needs.

The use of permanent sources to finance short-term needs may become unprofitable due to the costs of long-term bank loans in particular.

Net cash is the indicator that correlates the working capital with the working capital requirement and expresses:

• If positive, the cash surplus at the end of a financial year;

• If it is negative, the need for cash at the end of a financial year, covered by the cash loans (short term).

The net treasury is the most conclusive expression of the conduct of a balanced and efficient activity. It reveals the quality of the overall balance of the enterprise both in the long term and in the short term.

It can be determined on the basis of two relationships:

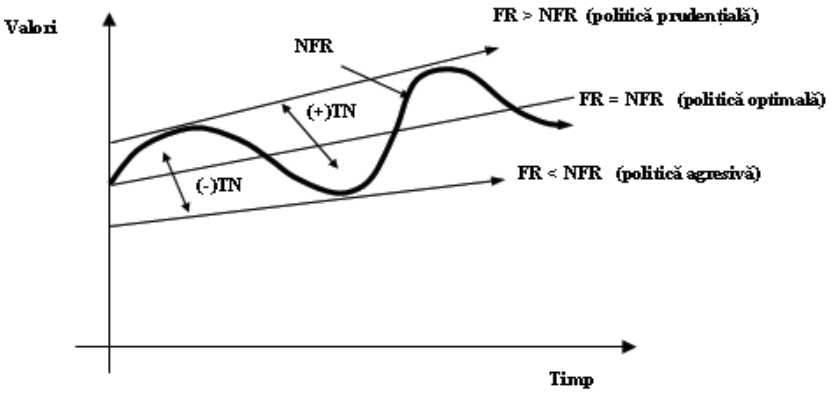
(1) TN = FR – NFR

(2) TN = Cash availability - Short term bank loanst

Depending on the results obtained from the financial analysis on the basis of the balance sheet, a number of strategies for sizing the working capital can be developed, as shown in the following figure:

Correlation between FR, NFR and TN

Figure 2



b. In functional acceptance

The analysis of the functional financial balance implies the study of the correlation between the global net working fund and the working capital requirement, materialized in the net treasury, as well as the turnover rates of operating assets and liabilities.

The financial balance from a functional point of view is ensured when the company can finance its growth without affecting its net cash. For this, the global net working fund must cover the structural part of the working capital requirement, and the seasonal or conjunctural variations will be covered by the cash loans.

- Global net working fund (FRNG)

The calculation formula is:

FRNG = Acyclic sources (stable) - Acyclic assets (stable)

- Working capital requirement (NFR)

The working capital requirement (NFR) represents the difference between the cyclical needs and the cyclical sources, respectively the amount necessary to finance the time gaps that occur, between the actual flows and the cash flows mainly determined by the operating activity.

Based on the functional balance, the required working capital is determined as follows:

NFR = Cyclic assets - Cyclic sources

The need for working capital can be broken down into two components: the required working capital (NFRE) and the need for working capital (NFRAE).

NFR = NFRE + NFRAE

NFRE = Cyclical assets related to the operation - Cyclical sources related to the operation

NFRAE = Non-operating cyclical assets - Non-operating cyclical sources

The size of the working capital requirement of the operation is influenced by: the nature of the activity, the duration of the manufacturing cycle, the speed of rotation of stocks and receivables, the level of activity, etc.

- Net cash

The net treasury (Tn) is the indicator that expresses the correlation between the global net working fund and the need for working capital,

reflecting the financial situation of the company, both in the medium and long term and in the short term.

The net treasury can be calculated on the basis of the functional balance as follows:

$$\mathbf{Tn = FRNG – NFR}$$

or

$$\mathbf{Tn = Ta – Tp}$$

where:

Ta = the treasury of the asset, respectively the outstanding balances of the accounts of investments and investments;

Tp = liabilities, respectively credit balances of short-term credit accounts.

The net positive cash flow is a monetary surplus for the financial year. If the working capital requirement is constant, then the net positive treasury is the equivalent of the net profit, less the dividends paid during the same period, plus depreciation and other expenses that do not involve payments.

The negative net cash flow reflects a monetary deficit at the end of the year and which was covered by short-term loans. If the working capital requirement is constant, the negative net cash flow is the effect of the loss recording.

When the company makes profitable products, it has a market (supply and sale), but there is an increase of the working capital requirement, as a result of the activity development, finding a negative net treasury does not mean an unfavorable economic-financial situation, but recording a discrepancy between the average term for the transformation of stocks and receivables into liquidity and the average duration of short-term obligations.

- **The analysis of the economic-financial balance by the rates method**

The financial balance is ensured by a set of correlations that are formed in the process of capital rotation.

The main financial rates used in the analysis of the financial balance are:

- Debt rates (patrimonial)

A high proportion of interest bearing debt compared to equity, implies a more volatile net result and the increase of the probability that his company can honor its outstanding obligations.

For this reason, the higher the debt ratio, the higher the financial risk. The acceptable level depends in a significant proportion on the type of activity

carried out. On the other hand, we must bear in mind that investors agree to accept a higher financial risk if the operational risk of the company is low.

The main debt rates used are:

a) Debt to equity ratio (Rikp):

$$RIkp = \frac{Total\_long\_term\_debt}{Equity}$$

b) Global debt ratio (Rig):

$$RIg = \frac{Total\_debts}{Total\_liabilities}$$

- Cash-flow based rates

The financial lenders are accustomed to analyzing, in addition to the degree of indebtedness and the link between the cash flow and interest expense or lease payments. The higher the cash flow from financial expenses with interest, the lower the financial risk. For this purpose, the rates are recommended: the rate of total financial debt coverage, the interest rate coverage, the current financial debt coverage rate, the operational cash-flow rate, the financing rate of the fixed assets, the degree of cash coverage. flow.

These rates usually measure the correlation between a flow indicator and a stock indicator (financial debt, total current debt, etc.).

- Other rates of economic-financial balance

a) Self-financing rate of assets:

$$Rfa = \frac{Equity}{Total\_assets} \times 100$$

b) Financing rate of fixed assets through equity

$$Rfi = \frac{Equity}{Fixed\_assets} \times 100$$

c) Rate of financial autonomy

$$Raf = \frac{Equity}{Permanent\_capital} \times 100$$

Conclusions

From the study, it is important to calculate a system of indicators that can express the financial position of the company at a given time. We note that this financial position of the trading company is important when the company

requests loans, but it is also important from the point of view of the banking company that is required to give these loans. It is clear, as a general conclusion, that the system of calculated indicators must be analyzed and interpreted as a correlated system that expresses, in part, a position of the company from a certain point of view, but concretely shows, in a functional way, the degree of solvency, degree of liquidity and all other necessary elements for commercial companies that grant commercial loans. The study shows that there are a significant number of indicators that ultimately lead to a conclusion regarding the economic-financial balance of the company. Of course, this balance is established on the basis of pre-existing concrete methods, but it is essential that the indicators be interpreted in their complexity.

References

1. Anghelache, C., Anghel, M.G. (2019). *Statistică economică generală*, ediția a doua, revizuită și adăugită, Editura Economică, Bucureşti
2. Anghelache, C., Anghel, M.G. (2014). *Modelare economică. Concepte, teorie şi studii de caz*, Editura Economică, Bucureşti
3. Anghelache, C. (2008). *Tratat de statistică teoretică şi economică*, Editura Economică, București
4. Bushman, R., Williams, C. (2012). Accounting discretion, loan loss provisioning, and discipline of Banks' risk-taking. *Journal of Accounting and Economics, 54* (1), 1-18
5. Carrell, S., Sacerdote, B., West, J. (2013). From Natural Variation to Optimal Policy? The Importance of Endogenous Peer Group Formation. *Econometrica, 81* (3), 855 – 882
6. Delis, M., Kouretas, G. (2011). Interest rates and bank risk-taking. *Journal of Banking & Finance, 35* (4), 840-855
7. Einav, L., Finkelstein, A., Kluender, R., Schrimpf, P. (2016). Beyond Statistics: The Economic Content of Risk Scores. *American Economic Journal: Applied Economics, 8* (2), 195-224
8. Gasha, J.G. et al. (2009). *Recent Advances in Credit Risk Modeling*, International Monetary Fund in IMF Working Papers
9. Lazăr, M., Lazăr, C. (2012). *Analiză statistico-economică*, Editura Economică, București
10. Mundy, W., Bryant, M. (2015). *Discussion of SME Access to Intermediated Credit: What Do We Know and What Don't We Know?*, in Angus Moore & John Simon (ed.) Small Business Conditions and Finance, Reserve Bank of Australia
11. Spătaru, L., Stancovici, A. (2010). *Eficiența și evaluarea afacerilor*, Editura Economică, București
12. Wehinger, G. (2013). SMEs and the credit crunch: Current financing difficulties, policy measures and a review of literature. *OECD Journal: Financial Market Trends*, 2, 115-148