

A STUDY ON DETERMINING THE FINANCIAL POSITION BASED ON FINANCIAL DIAGNOSIS IN COMPANIES LISTED ON THE BUCHAREST STOCK EXCHANGE

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Abstract: This study presents aspects related to determining a company's financial position by means of financial diagnosis, in the case of 64 companies listed on the Bucharest Stock Exchange. The aim of this study is to show, in a wide structure, how to determine a company's financial position. The study is divided into four paragraphs and their related subparagraphs. In the first paragraph the objective, the research methodology and the novelty brought by this study are revealed. In the second paragraph various viewpoints of financial diagnosis construct are shown, followed by a third paragraph where the variables needed to determine financial position and the rating criteria are established, and in the last paragraph the aggregate score is determined. The end of the study is reserved to establishing conclusions and proposals.

Keywords: financial diagnosis, financial position, scoring method, aggregate score, Bucharest Stock Exchange

JEL Codes: G12, G31, G32, M41

Introduction

Built on the words of the great French philosopher Claude Adrien Helvetius, "The one who knows the cause is the master of effects", this work aims to an analysis of the financial diagnosis for 64 companies listed on the Bucharest Stock Exchange. The objective of this research is to determine their financial position by applying the "Cematt" metod, based on a case study in the analyzed companies.

The methodology for developing this work involved selecting the topic, documentation, data collection, observation, comparison and financial analysis. The topic selected *A Study on Determining the Financial Position based on Financial Diagnosis in Companies Listed on the Bucharest Stock Exchange* is based on the idea that knowing the financial diagnosis of a company implies to previously determine its financial position. The reference cited in this study is bibliographic, since there appear different viewpoints of Romanian and foreign authors on the present research, as well as a practical study on the companies listed on the Bucharest Stock Exchange. Another stage in this study consisted in collecting data published in books and works of authors, from studies and articles published in professional journals for the theoretical section, and from the company's financial statements for the practice. After having gathered all the required data, we passed to observation, analysis and comparison of these data. The work cited at the end of the study made possible to present the level of documenting and broadening knowledge on companies' financial diagnosis, based on determining their financial position.

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The novelty brought by this study consists in the analysis of a large number of companies to determine their financial position using the method "Cematt", which is a method meeting the analysis requirements of the Romanian economy.

General considerations on financial diagnosis

The term "diagnosis" is a particular method of access to knowledge, which identifies the current situation and prepares determining the project goals (Christian Bottin, 1991, p. 201).

Global diagnosis is "the underlying pattern analyzing the company in a global perspective via its functions and organization and reaching to proposals for its improvement". Global diagnosis includes the following diagnostic categories: financial diagnosis, the diagnosis of the adaptive capacity on the market requirements, technology diagnosis, quality diagnosis, diagnosis of overall management quality, and diagnosis of human resources (Jean-Pierre Thibaut, 1989).

Due to the business environment in which companies operate, they are subject to economic risk, financial risk and bankruptcy risk. Therefore determining the financial risk is a must to highlight the risks that might disrupt the company's future work.

The financial accounting diagnosis "can be reduced to risk assessment assumed by an external partner, as a result of its business relationship with the company and primarily requires assessing the solvency of the company's guarantors" (Silvia Petrescu, 2008, p. 252).

The aims of financial diagnosis are "to measure the company's return on equity, to assess economic and financial risk with which it achieved this profitability and to assess the company's value as a ratio between obtained and assumed return" (Ion Stancu, 2007, p. 755).

Maria Niculescu (2003, p. 22) defines economic financial diagnosis as being "a handy tool allowing managers to formulate qualitative and/or quantitative judgments on a company's status, growth and expectations, emphasizing its strengths and weaknesses, and its capacity to grow in a profitable manner".

The financial diagnosis is "the result of the company's financial potential assessing process and implies different objectives for shareholders, such as financial, economic and commercial return, bankruptcy risk, the autonomy degree and, in the case of creditors, the bankruptcy risk, solvency risk, and liquidity risk" (Mihaela Onofrei, 2006, pp. 43-44).

The current study used diagnosis method lately applied by some Romanian management consulting companies, named "Cematt" (Cezar Mereuta, 1994, p.76), with the necessary improvements to establishing the criteria and scoring of the financial diagnosis.

Analysis of financial position

The balance sheet structure reveals the "assets, liabilities, and equity, and the relationship between them, namely the financial position. Financial statement analysis is based on the data in the balance sheet and includes: the analysis of economic resources controlled by the company, the analysis of financial structure of assets, liabilities and capital, the company's liquidity and solvency analysis, and financial adjustment" (Maria Bătrâncea, Larissa-Margareta Bătrâncea, 2004, p. 145).

To determine the financial position, a number of 64 companies have been studied, according to the Top 100 market capitalization issuers, listed on Bucharest Stock Exchange. The data were processed using the annual financial statements denominated in lei for 2011, published on the Bucharest Stock Exchange website.

Criteria for determining financial diagnosis using financial ratios

The company's financial diagnosis, seen as "area and depth is organic, conditioned by the variables framework and informational capacity of each" (Teodor Hada, 2010, p. 312). To determine the financial diagnosis, using the Cematt method, a number of 11 variables were used:

- *Economic Return* (Er) “measures the material and financial resources efficiency, assigned to the company’s entire activity. The capitals on which business profitability will be analyzing are those engaged by the company in the exercise, to increase the owners’ assets, and pay the capital providers” (Nicoleta Bărbuță-Mișu, 2009, p. 95).

$$Er = \frac{\text{Operation result}}{\text{Total assets}} \times 100$$

- *Financial Return* (Fr) “remunerates the reserve owners of the company, which in fact, represents an increase of owners’ assets, by their incorporation into capital, and hence an increase in the shares taken” (Georgeta Vintilă, 2004, p. 196).

$$Fr = \frac{\text{Net result}}{\text{Equity}} \times 100$$

- *Productivity of invested capital* (Pic) is determined by reporting net turnover, present in the profit and loss of assets in the balance sheet.

$$Pic = \frac{\text{Net turnover}}{\text{Non current assets}}$$

- *Indebtedness rates* (Ir) computed “as the proportion where the total assets is financed from sources other than its own, such as loans, suppliers, debts to the state” (Ion Stancu, 2007, p. 777).

$$Ir = \frac{\text{Debts: The amounts to be paid within a period of more than one year}}{(\text{Debts: The amounts to be paid within a period of more than one year} + \text{Equity})} \times 100$$

- *Financial Leverage* (Fl) is “the ratio between financial liabilities and equity, reflecting the ability of financial managers to attract external resources to stimulate the efficiency of equity” (Ion Stancu, 2007, p.777).

$$Fl = \frac{\text{Debts: The amounts to be paid within a period of more than one year}}{\text{Equity}} \times 100$$

- *Correlation between term debt and ability to finance itself* (Cbtdafi) starts from the assumption that “if long-and medium-term requirements, under the condition that the debt should not exceed a certain multiple of the cash flow. The higher the self-financing capacity, the more increases the possibility of resorting to loans. Loans under these conditions is a positive factor for the company, interest being covered by the return obtained, the company still having a profit which could be used for paying input, tax due, etc.” (Teodor Hada, 1999, p. 177).

$$Cbtdafi = \frac{\text{Term debts}}{\text{Ability to finance itself}}$$

where: Term debt = Debts: The amounts to be paid within a period of more than one year

- *Liquidity asset* (La) reflects “the ability of current assets available to turn into cash, to cover the company’s liabilities” (Maria Bătrâncea, Larissa-Margareta Bătrâncea, 2004, p. 172).

$$La = \frac{\text{Current assets} + \text{Prepaid expenses}}{\text{Current liabilities}}$$

where: Current liabilities = Debts: The amounts to be paid within a period of less than one year – Revenue in advance

- *Rotational speed of current assets* (Rsc_a), according to Teodor Hada (1999, p. 124) it comes from the fact that “in order to follow the rotation of current assets, during a rotation, the financial practices has created rotation of current assets variable in days, variable which measures the efficient use of working capital”.

$$Rsc_a = \frac{(\text{Current assets} + \text{Prepaid expenses})}{\text{Net turnover}} \times T$$

where: “T” is time and is equal to 365 days

- *Reduced liquidity* (RI), according to professors Monica Violeta Achim and Sorin Nicolae Borlea (2012, p. 232) it emphasizes “the ability of current assets with high and average liquidity to face the entity’s current liabilities”.

$$RI = \frac{(\text{Current assets} + \text{Prepaid expenses}) - \text{Inventories}}{\text{Current liabilities}}$$

- *Patrimonial solvency* (Ps) is “the ability of the company to meet short-term maturities. It results from the balance between revenue and expenditure flows. Capital adequacy ratio is measured by ratios taking into account the liquidity of its assets and the liability of its debts. Patrimonial solvency relates its equity to total liabilities” (Marin Toma, Marius Chivulescu, 1994, p. 71).

$$Ps = \frac{\text{Equity}}{\text{Total liabilities}} \times 100$$

- *Immediate liquidity* (II) measure “the degree to which money availabilities covers maturing payments” (Maria Bătrâncea, Larissa-Margareta Bătrâncea, 2004, p. 174).

$$II = \frac{\text{Cash and banks}}{\text{Debts: The amounts to be paid within a period of less than one year}}$$

Next we determined the variables needed for financial diagnosis for 2011 using the formulas outlined above, and the values of these variables are presented in Annex no. 1 “Determining financial variables needed for financial diagnosis (1)” and Annex no. 2 “Determining financial variables needed for financial diagnosis (2)”. The computation of variables required to determine the financial position was performed using balance sheets and profit and loss accounts in lei, for companies subject to the current study. For example, the economic return of the company COS Târgoviște (COS) was determined as follows: $(-117.182.073 / 499.900.018) \times 100 = -23,44\%$, the financial return o OMV Petrom S.A. (SNP), the result of Annex no. 1 was thus obtained: $(3.685.607.226/18.890.892.162) \times 100 = 19,51\%$. Other variables is invested capital productivity for Casa de Bucovina-Mountain Club (BCM) the result obtained was thus determined: $5.379.360 / 27.520.502 = 0,20$; the indebtedness rates for Electromagnetica S.A. București (ELMA) is $(1.558.086 / (1.558.086 + 269.148.045)) \times 100 = 0,58\%$; the financial leverage was thus determined for Teraplast S.A. (TRP): $(35.999.810 / 130.073.871) \times 100 = 27,68\%$. The correlation between term debt and ability to finance itself for Prodplast S.A. (PPL) was calculated as follows: $0 / 3.753.950 = 0$. The liquidity asset in the case of Amonil S.A. (AMO) is: $32.751.343 / 19.772.384 = 1,66$; the variable rotational speed of current assets for Mefin S.A. (MEF) was thus determined: $(24.991.134 / 994.713) \times 365 = 9.170,25$ days; the reduced liquidity for OIL Terminal S.A. (OIL) was computed taking into account: $(16.477.888 - 2.876.496) / 26.578.205 = 0,51$; the patrimonial

solvency in the case of Socep S.A. (SOCP) is: $(99.800.086 / 106.795.772) \times 100 = 93,45\%$; and the immediate liquidity for Ves S.A. (VESY) includes: $1.157.131 / 24.580.567 = 0,05$. Therefore, based on the pattern for each variable, on a company analyzed in this study, the same was done for each of the 64 companies listed on the Bucharest Stock Exchange.

Scoring using the score framework

In order to sustain the options for restructuring solutions and strategic plans to guide a company in the current period of transition to a market economy, the “Cematt” analyzing pattern is designed as a multicriteria diagnostic tool of the company’s status.

The structure of the pattern is heuristic because it refers to a procedure of searching for an unknown target, using several criteria to obtain a complete picture of the company’s status. The procedure involves evaluation and successive aggregation of assessments (Teodor Hada, 1999, p. 218).

The assessment mechanism follows the principle that for each criterion "i" in "Dj" is set a number of points “Nij” where $i = n$ and $j = 1,6$ with the property that "Nij" belongs to the set $N = \{20, 40, 60, 80, 100\}$. The minimum of the set, i.e. 20 is the score given to a criterion which is a situation of total or almost total lack of adaptation to the requirements of a market economy; the maximum element of the set “N”, i.e. 100 shows a situation of meeting a high-level international requirements (5th International Vilnius Conference, 2009, p. 252).

- [0,20] - *concealed bankruptcy* - detection of profit centers and starting the procedures for the sale of the company;
- [21,40] - *critical situation* - radical restructuring, taking measures to overcome the "alarm thresholds" significant restriction of activity, significant changes of profile / markets, capital inflows;
- [41,60] - *difficult balance* - major restructuring, new targets in the short / medium term, commercial marketing activities, improvement of management and drastic schemes of savings, capital inflow;
- [61,80] - *satisfactory adjustment* - selection of strategic objectives, “freezing” unprofitable business, capital inflow;
- [81,100] - *validity in competitive environment* - adopting a corporate offensive strategy, in this case major restructurings are not required.

The scoring for the criteria shown below, presents the score for each criterion 20, 40, 60, 80, 100 according to the limits set for the value of the criterion (5th International Vilnius Conference, 2009, p. 248)

	20	40	60	80	100
• Economic profitability (should fall below 10%)	<4	(4,10]	(10,15]	(15,20]	>20
• Return on equity (will not fall below 5%)	<2	(2,5]	(5,10]	(10,15]	>15
• The productivity of invested capital (not less than 2)	<2	(2,3]	(3,4]	(4,5]	>5
• Indebtedness rate (will not rise above 80 %)	>0,80	(0,60-0,80]	(0,40-0,60]	(0,20-0,40]	<0,20
• Financial Leverage (will not rise above 100 %)	>175	(175-150]	(150-125]	(125-100]	<100
• Correlation between term debt and ability of self-financing (will not increase more than 4)	>10	(10-8]	(8-6]	(6-4]	<4
• Liquidity asset (will not fall below 1.30)	<1,30	(1,30-1,40]	(1,40-1,50]	(1,50-1,60]	>1,60
• Rotational speed of current assets	>120	(90-120]	(60-90]	(30-60]	<30
• Reduced liquidity (will not be less than 1)	<1	(1-1,20]	(1,2-1,40]	(1,40-1,60]	>1,60
• Patrimonial solvency	<25	(25-50]	(50,75]	(75-100]	>100
• Immediate liquidity	<0,25	(0,25-0,50]	(0,50-0,75]	(0,75-1]	>1

With the 11 variables, determined in the previous paragraph, the score was established for them, according to Annex no. 3 “Setting the scoring and determining the aggregate mark” using the score method. For example, for economic profitability, in the case of the company Alumil Rom Industry SA (ALU), the rate is 4,59 % and gained 40 points since it falls between 4 and 10. Therefore bounding the values outlined above, the equity for Dafora S.A. (DAFR) has a value of 1,27% and a score of 20, the productivity of invested capital has the value of 2,75 for Zentiva SA (SCD) and 40 points, the indebtedness rate for Electroargeş SA Curtea de Arges is worth 0% and has a score of 100, in the case of the company S.N.T.G.N. TRANSGAZ S. A. (TGN), the financial leverage has the value of 2,30% and a score of 100. Other indicators used are the correlation between term debt and ability to finance itself; in the case of Socep SA (SOPC) it has a value of 0,18 and 100 points. As concerns the liquidity asset a value of 1,23 and a score of 20 belongs to the company Artego SA Târgu Jiu (ARTE), the rotation speed of current assets COMELF S.A. (CMF) is 2.719,83 days and 20 points, in the case of Retrasib S.A. Sibiu (RTRA), low liquidity has a value of 0,69 and a score of 20, the solvency asset has a value of 75.23 % and a score of 80, these values being recorded by Calipso S.A. Oradea (CAOR), and for immediate liquidity the company Boromir Prod S.A. Buzau - Spicul (SPCU) has recorded the value of 0,31 and 40 points.

According to the analysis above, the company that is closest to the score limit allowed is the CONTED SA Dorohoi company (CNTE), thereby obtaining the status of viable in its competitive environment, and the one that is the farthest from the maximum score are the companies Cemacon S.A. Cluj-Napoca (CEON), Electroputere S.A. (EPT), Petrolexportimport S.A. (PEI), these companies obtaining therefore the concealed bankruptcy grade.

Determining the aggregate score

For each criterion “i” in “Dj” a degree of importance is set, which corresponds to a coefficient of importance “Kij” so (Teodor Hada, 1999, pp. 218-219):

- Kij = 5 for a very important criterion (the consequences of its failure are extremely serious in the entire fulfillment);
- Kij = 2 for a major criterion (the consequences of its failure are serious, but only at the level of departments or sections);
- Kij = 1 for a secondary criterion (the consequences of its failure has isolated effects).

The importance for each variable is set forth in Annex no. 3 “Setting the scoring and determining the aggregate score”.

For each diagnosis direction reviewed “Dj” *the aggregate score* is calculated using:

$$N_{Dj} = \frac{\sum_{i=1}^{n_j} K_{ij} \times N_{ij}}{\sum_{i=1}^{n_j} K_{ij}}$$

The aggregate score is a weighted average of the scores assigned to each criterion of diagnosis direction “Dj”, having as weighting coefficients, the importance of criteria coefficients in the direction “Dj” (Teodor Hada, 2010, p. 219).

The last column of Annex no. 3 “Setting the scoring and determining the aggregate score” shows the results of calculating the aggregate score. Taking as an example the company Armatura SA (ARM), the aggregate score was determined as follows:

$$N_{D1} = \frac{(20 \times 2) + (20 \times 5) + (20 \times 1) + (20 \times 5) + (20 \times 2) + (100 \times 5) + (100 \times 1) + (100 \times 1) + (20 \times 5) + (20 \times 1) + (20 \times 5)}{2 + 5 + 1 + 5 + 2 + 5 + 1 + 1 + 5 + 1 + 5} = 36,97$$

points

Another example is the company Synthesis S.A. (STZ) where the aggregate score is equal to:

$$N_{D2} = \frac{(20 \times 2) + (20 \times 5) + (20 \times 1) + (20 \times 5) + (100 \times 2) + (100 \times 5) + (20 \times 1) + (100 \times 1) + (20 \times 5) + (80 \times 1) + (20 \times 5)}{2+5+1+5+2+5+1+1+5+1+5} = 41,21$$

points

The highest value of the aggregate score is held by Alumil Rom Industry S.A. (ALU) with a total score of 383,03 points, so it surpasses 100 the highest value in terms of classification, therefore this company works properly. The lowest score of 24,24 points is owned by the company Dafora S.A. (DAFR), the value falling under the classifications synthesis in a critical situation, and at first glance, most companies reviewed rated as difficult balance.

Conclusions

By the study conducted, with the help of financial statements and the work cited, I found the need to introduce such methods in the companies to more accurately identify and analyze financial diagnosis.

On this basis, I can conclude that financial diagnosis is part of the global diagnosis, which through a system of variables may show aspects of financial equilibrium, the company's position, its liquidity, the company's performance at a time, and allow making decisions on the future of the company.

Determining the financial position was performed by using 11 variables based on profitability, liquidity, solvency, rotational speed, and the correlation between debts and the capacity of self-financing, these variables being expressed in ratios, days and percentages. After calculating the exposed variables for all 64 analyzed companies, I have moved to the next stage in which each company and each variable was given a score. For example, the company Conted S.A. Dorohoi (CNTE) received 100 points for financial return because it has a value of 22,07 %, thus is higher than 15 %; another example is the case of Alro S.A. (ALR) which obtained a score of 20 for the rotational speed of current assets, because it has a value of 1.046,02 days and it is greater than 120 days. For immediate liquidity variable the company Prefab S.A. Bucharest (PREH) was awarded 40 points because its value is between 0,25 and 0,50. Once set the scores, we were able to set the coefficients of importance, and in the end the aggregate score was calculated for each company separately.

A proposal for the companies to reduce their financial imbalance would be to try to calculate and constantly check the financial diagnosis situation, by using various methods, including the "Cematt" method, considered one of the most reliable methods to be used in the current period.

According to all those presented, compared, calculated, analyzed, I could rank the analyzed companies, thus leaders being Alumil Rom Industry S.A. (ALU), Conted S.A. Dorohoi (CNTE), Mecanica Ceahlau (MECF). One can affirm that most of the analyzed and listed on the Bucharest Stock trading companies are in the middle area, with unstable balance that must be kept constantly under control to avoid falling into a lower rating, but only to rise, in order to obtain the desired maximal effects.

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Annex no. 1
Determining financial variables needed for financial diagnosis (1)

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Company name (transaction symbol)	Operating result	Total assets or Total liabilities	Net result	Equity	Net turnover	Non current assets	Debts: The amounts to be paid within a period of more than one year	Economic profitability	Return on equity	The productivity of invested capital	Indebtedness rate	Financial Leverage
								%	%	coeff.	%	
ALR	368.408.008	2.428.474.516	228.309.982	1.553.478.084	2.241.390.928	1.496.637.226	572.823.176	15,17	14,70	1,50	26,940	36,87
ALT	4.394.743	176.219.694	378.405	108.817.664	133.908.870	117.144.492	2.601.708	2,49	0,35	1,14	2,34	2,39
ALU	3.815.574	83.213.766	3.683.071	67.317.750	74.007.746	21.550.788	0	4,59	5,47	3,43	0	0
AMO	-23.407.846	89.426.766	-22.741.061	65.085.786	9.627.605	56.675.423	0	-26,18	-34,94	0,17	0	0
APC	8.775.309	80.863.942	7.163.903	61.770.689	90.153.992	26.826.467	0	10,85	11,60	3,36	0	0
ARM	-1.232.542	28.280.824	-2.099.932	174.910	20.075.758	14.646.848	21.598.500	-4,36	-1.200,58	1,37	99,20	12.348,35
ARS	14.503.430	160.559.680	11.618.296	102.543.403	158.402.223	75.459.594	0	9,03	11,33	2,10	0	0
ART	89.823.532	901.458.946	67.503.261	428.779.733	856.313.578	473.477.735	303.629.332	9,96	15,74	1,81	41,46	70,81
ARTE	8.233.409	151.715.681	4.349.174	78.885.933	198.265.652	61.922.741	33.936	5,43	5,51	3,20	0,04	0,04
ATB	32.062.861	449.313.171	20.298.909	287.058.407	281.847.455	175.363.858	0	7,14	7,07	1,61	0	0
BCM	136.197	41.781.363	792.059	41.188.707	5.379.360	27.520.502	0	0,33	1,92	0,20	0	0
BIO	15.707.018	184.918.511	14.220.788	153.957.996	93.443.090	68.660.609	402.687	8,49	9,24	1,36	0,26	0,26
BRM	2.521.139	29.320.729	2.255.143	23.061.192	23.098.100	16.036.533	0	8,60	9,78	1,44	0	0
CAOR	834.125	90.741.231	1.251.432	68.265.291	6.056.335	78.958.057	11.402.695	0,92	1,83	0,08	14,31	16,70
CBC	2.238.388	73.689.237	1.468.013	64.750.678	30.321.507	55.273.102	158.376	3,04	2,27	0,55	0,24	0,24
CEON	775.196	164.109.261	-7.891.411	28.556.970	27.370.101	152.819.945	74.935.959	0,47	-27,63	0,18	72,41	262,41
CGC	-61.787.180	57.463.997	-67.032.139	-6.250.349	18.857.699	44.360.648	0	-107,52	1.072,45	0,43	0	0
CMCM	1.406.576	276.653.788	1.139.891	262.717.089	29.374.755	263.863.501	6.443.536	0,51	0,43	0,11	2,39	2,45
CMF	4.656.981	83.427.743	923.006	31.673.038	142.154.245	29.205.292	0	5,58	2,91	4,87	0	0
CMP	27.158.629	493.965.989	17.369.837	292.562.890	475.420.370	329.181.211	76.947.904	5,50	5,94	1,44	20,82	26,30
CNTE	2.543.951	11.784.618	2.285.540	10.353.981	18.644.924	3.529.881	14.849	21,59	22,07	5,28	0,14	0,14
COMI	539.204	188.987.421	850.645	133.194.377	113.716.459	105.092.659	12.546.041	0,29	0,64	1,08	8,61	9,42
COS	-117.182.073	499.900.018	-133.495.504	-92.021.529	1.099.750.708	203.225.976	990.135	-23,44	145,07	5,41	-1,09	-1,08
COTE	26.763.130	630.665.072	28.558.866	540.817.576	341.768.185	380.165.258	0	4,24	5,28	0,90	0	0
COTR	1.957.900	182.656.543	1.085.936	129.964.290	43.255.975	145.519.689	30.302.669	1,07	0,84	0,30	18,91	23,32
DAFR	14.373.944	438.727.700	2.008.175	157.590.102	161.599.658	299.794.782	167.042.255	3,28	1,27	0,54	51,46	106,00
ECT	-624.283	14.777.197	-596.485	11.698.064	6.817.985	7.104.844	0	-4,22	-5,10	0,96	0	0
EFO	649.181	251.691.068	172.844	232.964.488	26.430.368	230.196.175	1.137.324	0,26	0,07	0,11	0,49	0,49

ELGS	8.996.684	46.396.208	7.310.566	26.260.086	125.615.939	8.699.482	0	19,39	27,84	14,44	0	0
ELJ	-1.296.420	29.639.064	-3.778.037	25.631.133	18.891.831	11.733.505	868.085	-4,37	-14,74	1,61	3,28	3,39
ELMA	16.420.386	323.373.668	15.075.281	269.148.045	495.195.622	233.495.625	1.558.086	5,08	5,60	2,12	0,58	0,58
ENP	1.385.721	31.722.305	56.773	9.936.674	17.837.293	5.425.826	3.507.294	4,37	0,57	3,29	26,09	35,30
EPT	-27.105.019	432.419.499	-48.063.969	20.898.016	199.082.319	304.404.885	278.383.786	-6,27	-229,99	0,65	93,02	1.332,11
IMP	-16.608.101	408.352.467	-22.261.046	296.828.111	13.540.400	90.810.963	64.696.047	-4,07	-7,50	0,15	17,90	21,80
MECF	8.365.602	48.492.503	7.246.828	42.913.158	31.578.535	24.743.718	0	17,25	16,89	1,28	0	0
MEF	187.971	40.665.360	11.263	34.928.783	17.664.283	15.674.226	1.506.630	0,46	0,03	1,13	4,14	4,31
MJM	-4.051.537	33.830.932	-4.872.415	-8.607.446	35.742.014	22.657.811	0	-11,98	56,61	1,58	0	0
OIL	1.835.912	378.359.615	545.419	345.226.806	115.773.802	361.881.727	4.263.066	0,49	0,16	0,32	1,22	1,23
OLT	-158.895.924	2.198.423.759	-278.342.623	-826.884.427	1.533.016.194	1.876.114.299	986.004.655	-7,23	33,66	0,82	619,66	-119,24
PEI	2.633.974	68.847.745	235.341	13.013.030	521.232.193	10.971.825	22.910.779	3,83	1,81	47,51	63,78	176,06
PPL	1.109.843	50.362.569	2.929.971	47.572.517	53.828.304	9.285.759	0	2,20	6,16	5,80	0	0
PREH	3.143.303	262.126.063	917.740	202.531.399	64.764.491	198.191.648	25.605.300	1,20	0,45	0,33	11,22	12,64
PTR	15.595.526	143.029.244	15.813.330	128.436.335	95.488.935	60.340.022	0	10,90	12,31	1,58	0	0
RMAH	5.568.914	162.942.722	4.077.449	39.835.319	203.467.822	36.303.710	537.635	3,42	10,24	5,60	1,33	1,35
ROCE	5.683.105	234.855.956	2.712.128	133.187.047	107.017.783	195.268.211	27.393.645	2,42	2,04	0,55	17,06	20,57
RPH	12.896.086	388.347.032	10.687.756	91.212.485	385.169.835	70.021.302	5.061.758	3,32	11,72	5,50	5,26	5,55
RRC	-274.099.425	6.563.566.885	-735.847.584	-134.091.000	10.174.808.952	4.300.764.385	0	-4,18	548,77	2,37	0	0
RTRA	3.029.782	47.863.063	1.188.188	23.037.153	41.308.854	21.786.116	1.404.554	6,33	5,16	1,90	5,75	6,10
SCD	38.020.442	347.755.737	33.857.309	256.395.838	235.648.166	85.823.334	0	10,93	13,21	2,75	0	0
SNO	155.507	96.507.307	380.016	88.410.039	55.795.808	41.518.154	0	0,16	0,43	1,34	0	0
SNP	5.033.585.274	33.819.553.700	3.685.607.226	18.890.892.162	16.565.465.973	28.568.337.614	2.255.228.600	14,88	19,51	0,58	10,66	11,94
SOCP	6.776.617	106.795.772	7.092.137	99.800.086	59.103.455	56.451.421	2.299.916	6,35	7,11	1,05	2,25	2,30
SPCU	2.488.227	158.590.729	1.177.362	128.786.567	148.719.552	123.780.263	11.047.413	1,57	0,91	1,20	7,90	8,58
SRT	-467.884	31.241.446	-823.2	13.152.686	9.338.719	14.159.841	5.035.956	-1,50	-0,006	0,66	27,69	38,29
STIB	26.303.030	380.864.669	19.462.703	260.042.571	207.570.716	227.785.195	7.199.501	6,91	7,48	0,91	2,69	2,77
STZ	-1.479.491	179.125.518	-1.330.486	167.543.309	14.232.173	171.044.907	4.967.730	-0,83	-0,79	0,08	2,88	2,97
TBM	-12.455.884	161.531.440	-19.411.417	67.520.493	46.491.763	121.135.007	23.500.980	-7,71	-28,75	0,38	25,82	34,81
TEL	159.473.510	5.215.805.828	90.913.316	2.468.483.557	3.113.142.778	3.667.984.393	943.492.527	3,06	3,68	0,85	27,65	38,22
TGN	442.570.859	4.089.037.220	379.571.465	3.262.877.964	1.343.321.806	3.402.786.965	75.147.643	10,82	11,63	0,39	2,25	2,30
TRP	-11.234.148	236.656.907	-14.642.198	130.073.871	209.359.979	156.800.070	35.999.810	-4,75	-11,26	1,34	21,68	27,68
TUFE	9.111.498	194.142.239	6.738.894	173.052.703	48.437.997	178.306.529	17.119.011	4,69	3,89	0,27	9,00	9,89
UAM	3.406.949	96.850.931	542.995	46.546.752	84.091.931	50.656.972	7.310.786	3,52	1,17	1,66	13,57	15,71
VESY	-3.914.487	43.362.218	-4.879.702	18.597.132	35.986.329	20.263.039	153.352	-9,03	-26,24	1,78	0,82	0,82
VNC	5.908.103	224.686.235	1.997.353	88.234.850	163.751.672	161.444.013	62.321.559	2,63	2,26	1,01	41,39	70,63

Source: www.bvb.ro, Authors' processing

Annex no. 2
Determining financial variables needed for financial diagnosis (2)

-lei-

Company name (transaction symbol)	Ability to finance itself	Current assets + Prepaid expenses	Inventories	Current liabilities	Debts: The amounts to be paid within a period of less than one year	Cash and banks	Correlation between term debt and ability of self-financing	Liquidity asset	Rotational speed of current assets	Reduced liquidity	Patrimonial solvency	Immediate liquidity
ALR	325.158.383	931.837.290	447.520.845	245.819.828	237.136.574	254.511.559	1,76	3,79	1.046,02	1,97	63,97	1,07
ALT	4.275.414	590.755.202	20.546.081	64.800.322	56.963.602	376.896	0,61	9,12	50.433,86	8,80	61,75	0,01
ALU	8.626.646	61.662.978	14.592.025	15.821.444	15.761.595	19.109.137	0	3,90	2.609,01	2,98	80,90	1,21
AMO	-20.874.035	32.751.343	12.078.850	19.772.384	19.772.384	19.052	0	1,66	-572,68	1,05	72,78	0,00
APC	10.445.984	54.037.475	20.506.976	18.260.393	18.181.627	18.127.800	0	2,96	1.888,16	1,84	76,39	1,00
ARM	-1.452.140	13.633.976	12.078.850	6.246.013	5.991.786	228.389	-14,87	2,18	-3.426,94	0,25	0,62	0,04
ARS	34.147.442	85.100.086	15.474.466	21.792.580	18.119.220	439.799	0	3,91	909,63	3,19	63,87	0,02
ART	96.520.776	427.981.211	215.065.774	164.111.746	164.070.044	9.535.257	3,15	2,61	1.618,44	1,30	47,57	0,06
ARTE	10.227.783	89.792.940	48.218.297	72.795.812	68.937.111	3.539.505	0	1,23	3.204,45	0,57	52,00	0,05
ATB	45.548.341	273.949.313	41.932.333	147.660.127	142.722.089	5.339.857	0	1,86	2.195,28	1,57	63,89	0,04
BCM	1.477.201	14.260.861	180.829	492.398	492.398	2.234.049	0	28,96	3.523,70	28,59	98,58	4,54
BIO	19.777.031	116.257.902	15.231.010	26.547.462	26.547.462	736.337	0,02	4,38	2.145,63	3,81	83,26	0,03
BRM	3.428.963	13.284.196	11.655.151	6.259.537	6.259.537	29.847	0	2,12	1.414,05	0,26	78,65	0,00
CAOR	1.763.139	11.783.174	131.627	8.797.100	8.619.700	9.606.415	6,47	1,34	2.439,32	1,32	75,23	1,11
CBC	3.139.195	18.416.135	10.266.594	8.779.072	8.774.901	362.388	0,05	2,10	2.141,28	0,93	87,87	0,04
CEON	-874.140	11.289.316	7.610.260	55.375.589	53.838.543	1.631.892	-85,73	0,20	-4.713,89	0,07	17,40	0,03
CGC	-17.877.314	13.103.349	8.663.546	63.623.314	63.623.314	371.813	0	0,21	-267,53	0,07	-10,88	0,01
CMCM	6.127.250	12.790.287	1.376.300	7.493.163	6.945.341	1.482.873	1,05	1,71	761,92	1,52	94,96	0,21
CMF	7.276.638	54.222.451	22.996.245	50.963.383	50.215.466	4.061.680	0	1,06	2.719,83	0,61	37,96	0,08
CMP	53.759.411	164.784.778	55.605.002	123.195.195	99.869.085	3.488.210	1,43	1,34	1.118,81	0,89	59,23	0,03
CNTE	2.865.135	8.254.737	1.894.090	1.415.788	1.415.788	4.369.684	0,01	5,83	1.051,60	4,49	87,86	3,09
COMI	9.359.657	83.894.762	14.780.100	42.147.476	42.147.476	15.031.391	1,34	1,99	3.271,66	1,64	70,48	0,36
COS	-118.679.304	296.674.042	160.842.006	589.348.406	589.348.406	41.317.864	-0,01	0,50	-912,43	0,23	-18,41	0,07
COTE	89.776.573	250.499.814	19.509.879	67.904.538	67.904.538	1.328.900	0	3,69	1.018,44	3,40	85,75	0,02
COTR	7.543.070	37.136.854	26.836.115	20.628.933	20.337.347	4.374.801	4,02	1,80	1.797,01	0,50	71,15	0,22
DAFR	16.128.980	138.932.918	51.454.914	113.120.356	113.120.356	4.374.801	10,36	1,23	3.144,06	0,77	35,92	0,04
ECT	-322.932	7.672.353	2.778.599	3.079.133	3.059.113	644.376	0	2,49	-8.671,82	1,59	79,16	0,21

EFO	7.940.001	21.494.893	2.708.150	17.589.256	15.716.221	7.934.697	0,14	1,22	988,12	1,07	92,56	0,50
ELGS	8.140.645	37.696.726	17.691.551	20.136.122	19.975.509	3.720.512	0	1,87	1.690,20	0,99	56,60	0,19
ELJ	-3.987.223	17.905.559	10.350.588	2.794.715	2.760.116	1.942.714	-0,22	6,41	-1.639,12	2,70	86,48	0,70
ELMA	20.816.726	89.878.043	21.518.630	51.866.006	45.825.385	12.302.452	0,07	1,73	1.575,92	1,32	83,23	0,27
ENP	444.401	26.296.479	7.715.933	17.831.316	17.831.316	158.227	7,89	1,47	21.598,09	1,04	31,32	0,01
EPT	-41.229.967	128.014.614	18.464.606	127.323.860	127.240.953	5.208.461	-6,75	1,01	-1.133,29	0,86	4,83	0,04
IMP	-15.055.151	317.541.504	258.299.960	44.418.653	40.564.811	8.915.228	-4,30	7,15	-7.698,54	1,33	72,69	0,22
MECF	8.528.663	25.426.598	7.747.394	6.981.407	6.877.370	10.358.837	0	3,64	1.088,18	2,53	88,49	1,51
MEF	994.713	24.991.134	13.464.910	4.229.947	3.559.147	6.197.363	1,51	5,91	9.170,25	2,72	85,89	1,74
MJM	-5.321.528	11.173.121	2.876.496	42.438.378	42.277.382	1.229.957	0	0,26	-766,36	0,20	-25,44	0,03
OIL	15.894.222	16.477.888	2.876.496	26.578.205	26.025.160	1.066.463	0,27	0,62	378,40	0,51	91,24	0,04
OLT	-149.700.775	322.309.460	101.313.664	2.009.452.066	1.553.448.319	3.326.508	-6,59	0,16	-785,85	0,11	-37,61	0
PEI	871.380	57.875.920	52.918.968	26.921.671	26.917.309	1.506.155	26,29	2,15	24.242,82	0,18	18,90	0,06
PPL	3.753.950	41.076.810	4.992.598	2.790.052	2.790.052	1.033.561	0	14,72	3.993,94	12,93	94,46	0,37
PREH	6.869.810	63.934.415	12.381.839	33.989.364	33.863.201	14.699.915	3,73	1,88	3.396,90	1,52	77,26	0,43
PTR	25.057.951	82.689.222	5.822.873	11.738.025	11.607.647	16.709.881	0	7,04	1.204,47	6,55	89,80	1,44
RMAH	8.542.880	126.639.012	24.358.494	120.614.152	120.614.152	15.082.162	0,06	1,05	5.410,73	0,85	24,45	0,13
ROCE	6.160.393	39.587.745	11.017.892	74.275.264	68.709.356	8.672.653	4,45	0,53	2.345,55	0,38	56,71	0,13
RPH	16.046.435	318.325.730	44.273.210	292.018.475	291.992.463	25.404.405	0,32	1,09	7.240,79	0,94	23,49	0,09
RRC	-484.821.367	2.262.802.500	906.137.452	6.617.973.868	6.617.973.868	43.062.148	0	0,34	-1.703,56	0,20	-2,04	0,01
RTRA	2.257.301	26.076.947	9.873.752	23.421.356	23.416.657	280.157	0,62	1,11	4.216,58	0,69	48,13	0,01
SCD	41.393.793	261.932.403	25.474.665	78.500.876	78.422.152	10.227.387	0	3,34	2.309,65	3,01	73,73	0,13
SNO	5.329.027	54.989.153	32.684.422	7.767.081	7.767.081	1.743.302	0	7,08	3.766,36	2,87	91,61	0,22
SNP	5.782.794.691	5.251.216.086	1.695.805.503	4.710.750.374	4.677.942.732	567.026.496	0,39	1,11	331,45	0,75	55,86	0,12
SOCP	12.831.304	50.344.351	1.518.066	3.955.210	3.771.610	2.673.494	0,18	12,73	1.432,10	12,34	93,45	0,71
SPCU	7.213.309	34.810.466	10.809.772	18.756.749	18.648.416	5.695.384	1,53	1,86	1.761,44	1,28	81,21	0,31
SRT	-256.885	17.081.605	3.442.061	13.052.804	12.813.608	881.031	-19,60	1,31	-24.270,73	1,04	42,10	0,07
STIB	36.465.478	153.079.474	46.457.765	112.055.012	111.897.337	2.535.990	0,20	1,37	1.532,24	0,95	68,28	0,02
STZ	-687.624	8.080.611	3.081.180	6.614.479	6.263.673	605.733	-7,22	1,22	-4.289,30	0,76	93,53	0,10
TBM	-12.700.531	40.396.433	31.462.798	67.714.785	66.562.407	1.463.811	-1,85	0,60	-1.160,95	0,13	41,80	0,02
TEL	445.497.407	1.547.821.435	41.723.456	1.755.883.953	1.390.691.247	178.684.658	2,12	0,88	1.268,14	0,86	47,33	0,13
TGN	541.699.296	686.250.255	43.247.769	708.584.237	358.127.194	19.154.501	0,14	0,97	462,40	0,91	79,80	0,05
TRP	5.434.449	79.856.837	30.013.441	66.806.132	66.806.132	2.501.319	6,62	1,20	5.363,51	0,75	54,96	0,04
TUFE	11.371.011	15.835.710	909.212	3.931.462	3.740.372	13.222.585	1,51	4,03	508,31	3,80	89,14	3,54
UAM	6.156.840	46.193.959	22.968.122	42.993.393	42.857.050	1.787.067	1,19	1,07	2.738,55	0,54	48,06	0,04
VESY	-621.146	23.099.179	9.717.323	24.611.734	24.580.567	1.157.131	-0,25	0,94	-13.573,62	0,54	42,89	0,05
VNC	9.559.504	63.242.222	22.546.777	74.129.826	63.144.123	870.784	6,52	0,85	2.414,71	0,55	39,27	0,01

Source: www.bvb.ro, Authors' processing

Annex no. 3
Setting the scoring and determining the aggregate mark

-points -

Company name (transaction symbol)	Economic profitability	Return on equity	The productivity of invested capital	Indebtedness rate	Financial Leverage	Correlation between term debt and ability of self-financing	Liquidity asset	Rotational speed of current assets	Reduced liquidity	Patrimonial solvency	Immediate liquidity	Aggregate score
Coefficient of importance	2	5	1	5	2	5	1	1	5	1	5	
ALR	80	80	20	20	100	100	100	20	100	60	100	77,58
ALT	20	20	20	20	100	100	100	20	100	60	20	52,73
ALU	40	60	60	100	100	100	100	20	100	80	100	383,03
AMO	20	20	20	100	100	100	100	100	40	60	20	58,18
APC	60	80	60	100	100	100	100	20	100	80	80	87,27
ARM	20	20	20	20	20	100	100	100	20	20	20	36,97
ARS	40	80	40	100	100	100	100	20	100	60	20	75,76
ART	40	100	20	20	100	100	100	20	60	40	20	59,39
ARTE	40	60	60	100	100	100	20	20	20	40	20	58,18
ATB	40	60	20	100	100	100	100	20	80	60	20	69,09
BCM	20	20	20	100	100	100	100	20	100	80	100	77,58
BIO	40	60	20	80	100	100	100	20	100	80	20	69,70
BRM	40	60	20	100	100	100	100	20	20	80	20	60,61
CAOR	20	20	20	20	100	60	40	20	60	80	100	51,52
CBC	20	40	20	80	100	100	100	20	20	80	20	53,33
CEON	20	20	20	20	20	100	20	100	20	20	20	34,55
CGC	20	100	20	100	100	100	20	100	20	20	20	63,64
CMCM	20	20	20	20	100	100	100	20	80	80	20	50,30
CMF	40	40	80	100	100	100	20	20	20	40	20	55,76
CMP	40	60	20	20	100	100	40	20	20	60	20	46,06
CNTE	100	100	100	100	100	100	100	20	100	80	100	96,97
COMI	20	20	20	20	100	100	100	20	100	60	40	55,76
COS	20	100	100	100	100	100	20	100	20	20	20	66,06
COTE	40	60	20	100	100	100	100	20	100	80	20	72,73
COTR	20	20	20	20	100	80	100	20	20	60	20	37,58
DAFR	20	20	20	20	80	20	20	20	20	40	20	24,24

ECT	20	20	20	100	100	100	100	100	80	60	20	64,24
EFO	20	20	20	60	100	100	20	20	40	80	40	50,91
ELGS	80	100	100	100	100	100	100	20	20	60	20	70,91
ELJ	20	20	20	20	100	100	100	100	100	80	60	61,82
ELMA	40	60	40	60	100	100	100	20	60	80	40	64,24
ENP	40	20	60	20	100	60	40	20	20	40	20	34,55
EPT	20	20	20	20	20	100	20	100	20	20	20	34,55
IMP	20	20	20	20	100	100	100	100	60	60	20	49,09
MECF	80	100	20	100	100	100	100	20	100	80	100	93,33
MEF	20	20	20	20	100	100	100	20	100	80	100	65,45
MJM	20	100	20	100	100	100	20	100	20	20	20	63,64
OIL	20	20	20	20	100	100	20	20	20	80	20	38,79
OLT	20	100	20	20	100	100	20	100	20	20	20	51,52
PEI	20	20	100	20	20	20	100	20	20	20	20	24,85
PPL	20	60	100	100	100	100	100	20	100	80	40	76,97
PREH	20	20	20	20	100	100	100	20	80	80	40	53,33
PTR	60	80	20	100	100	100	100	20	100	80	100	89,09
RMAH	20	80	100	20	100	100	20	20	20	20	20	48,48
ROCE	20	40	20	20	100	80	20	20	20	60	20	38,18
RPH	20	80	100	20	100	100	20	20	20	20	20	48,48
RRC	20	100	60	100	100	100	20	100	20	20	20	64,85
RTRA	40	60	20	20	100	100	20	20	20	40	20	44,85
SCD	60	80	40	100	100	100	100	20	100	60	20	76,97
SNO	20	20	20	100	100	100	100	20	100	80	20	65,45
SNP	60	100	20	20	100	100	20	20	20	60	20	52,73
SOCP	40	60	20	20	100	100	100	20	100	80	60	66,67
SPCU	20	20	20	20	100	100	100	20	60	80	40	50,30
SRT	20	20	20	20	100	100	40	100	40	40	20	43,64
STIB	40	60	20	20	100	100	40	20	20	60	20	46,06
STZ	20	20	20	20	100	100	20	100	20	80	20	41,21
TBM	20	20	20	20	100	100	20	100	20	40	20	40,00
TEL	20	40	20	20	100	100	20	20	20	40	20	40,61
TGN	60	80	20	20	100	100	20	20	20	80	20	50,30
TRP	20	20	20	20	100	60	20	20	20	60	20	32,12
TUFE	40	40	20	20	100	100	100	20	100	80	100	69,70
UAM	20	20	20	20	100	100	20	20	20	40	20	37,58
VESY	20	20	20	20	100	100	20	100	20	40	20	40,00
VNC	20	40	20	20	100	60	20	20	20	40	20	34,55

Source: Authors' processing