

# THEORETICAL AND PRACTICAL APPROACH ON THE FINANCIAL STRUCTURE AND ON THE FINANCING STRUCTURE OF A COMPANY

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## **Abstract:**

*The financial structure of the organizations is defined as representing the way of financing the stable activity, generating information regarding the financing decision based on own sources or on the basis of foreign, external sources. As a consequence, the financial structure is a component of an entire, respectively part of the organization's financing structure. Thus, it is useful not to confuse the two distinct concepts. Within the specialized literature, the financial structure of the organization is also known as the capital structure. In a comparative way with the financing structure of the organization, its financial structure only reveals the financial strategy of the organization, determined by the accumulation of investment opportunities, corresponding to the immediate next time interval. The present article aims to analyze the main components of the financial structure and of the financing structure of a company which is listed on the Bucharest Stock Exchange. The analysis will be done, both from a static and a dynamic point of view.*

*Key words:* financial structure, financing structure, listed company, indicators, dynamics.

*JEL classification:* G32 - Capital and Ownership Structure

## **Introduction**

Establishing the financial structure of the organization is a complex approach that brings to light the management of multiple factors that show their influence. The financial structure aims to maximize the value of the organization. In this respect, the influencing factors of the organization's value must be managed in the most efficient way.

The dilemma arises in the context in which a higher number of such factors of influence have divergent characteristics, so that the direction of influence of each differs. The main factors that directly determine the financial structure are: the cost of generating the financing sources, the financial profitability and the risk to which the organization is exposed.

Each financing source automatically generates a purchase cost. The purchase cost constitutes the return on capital from the investor's point of view, a return defined as a remuneration factor corresponding to the capital thus invested. From another point of view, this is an expense for the organization. As a consequence, the organization aims to raise capital at minimum costs, while investors want a higher return on the invested capital. The cost corresponding to the capital is found in inverse relation proportional to the value of the organization. The main factors that determine and affect the financial structure and the financing structure of an organization are various, and can list, among them, the cost of obtaining the sources of financing, the profitability of the financial invoice and the risk to which the organization is exposed. Each source of financing entails a cost to obtain.

The balance sheet liabilities, respectively the financing structure of the organization, are consolidated through the accounting operations that involve

supplements, decreases or stagnations, determining direct affectation at managerial decisions level, manifesting its influence, at the same time, the financing policy, the dividend policy, the investment policy, the operating policy or the taxation policy of the organization.

Any wrong decision can lead to financial difficulties and even insolvency. The real perspective for the members of management bodies of a company to be held personally liable for the decisions taken prior to beginning the insolvency procedure but also during its development will certainly contribute to rendering more responsible the business environment participants<sup>1</sup>.

## Materials and methods

In order to piece together this study, besides the static and the dynamic analysis, it has been used also the mathematical modeling through the Pearson coefficient and the determination coefficient.

The Pearson correlation coefficient, also referred to as the Pearson index (R), reveals the degree to which the value tendency of one variable manifests its influence on the value tendency of another variable in the context of a certain temporal invoice interval being analyzed (as the time interval covers more periods, the result that will be returned is more relevant).

The coefficient of determination, also called the mean square deviation (R<sup>2</sup>), reveals the proportion, more precisely the percentage, in which the dynamic tendency of one variable shows its influence on the value tendency of another variable during the interval under analysis (as long as the time interval implies more periods, the result generated is of a greater relevance).

In the following, there are emphasized the possibilities of interpretation related to the Pearson correlation coefficient or the Pearson index:

**Table no. 1: The interdependence between the value horizon of the coefficient and the intensity of the correlation**

Pearson coefficient or index	The relation between the two variables	Value range	Correlation type
	<b>Directly proportional</b> (Supplementing a variable generates supplementation of the second / Decreasing a variable generates a decrease of the second)		0 - 0,25
		0,25 - 0,50	Moderate
		0,50 - 0,75	Good
		0,75 - 1	Optimum
<b>Inversely proportional</b> (Supplementing a variable generates the decrease of the second / Decreasing a variable generates the supplementation of the second)		0 - -0,25	Weak
		-0,25 - -0,50	Moderate
		-0,50 - -0,75	Good
		-0,75 - -1	Optimum

(Source: Bălan, L., Csorba, L., Lile, R., Rusu, S., Szentesi, S., 2015, *Statistică economică*, Cluj, Editura Presa Universitară Clujeană.)

## Research results

In order to accomplish the present study, there was taken into consideration the company ROMAERO, which is a big company, listed on the Bucharest Stock Exchange. ROMAERO Bucharest began its activity in 1991, being a well known company on the Romanian market.

<sup>1</sup> L.Iancu,(2016) Sanctions for the fraudulent directors in the insolvency procedure in Romania, Business, Economics And Mercantile Law Selected Issues, The Athens Institute for Education and Research, Athena, p.55

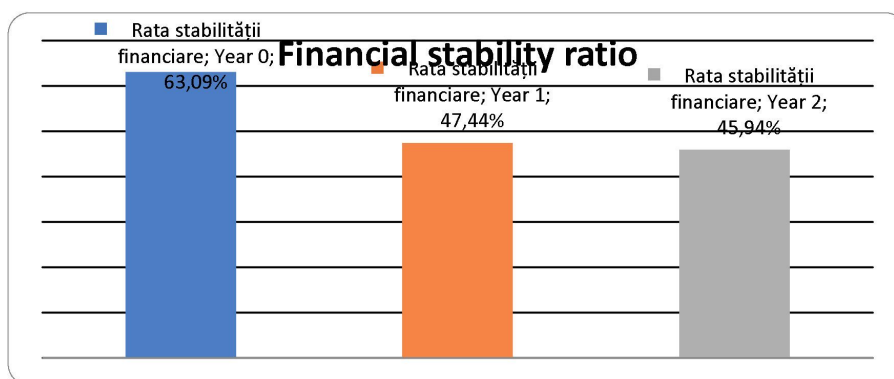
In the following, there will be analyzed the stability, the autonomy, the indebtedness and the working capital related to ROMAERO for the time period 2016-2018.

The financial stability is presented as it follows:

**Table no. 2: The financial stability ratio for the period 2016-2018**

No.	Elements	Uni	Year 2016	Year 2017	Year 2018
1	Equity + Long-term liabilities	lei	507770031	373052801	408125753
2	Total liabilities	lei	804820540	786423672	888309304
3	<b>Financial stability ratio</b>	%	<b>63.09%</b>	<b>47.44%</b>	<b>45.94%</b>
4	$\Delta$ Equity + Long-term liabilities	lei		-134717230	35072952
5	$\Delta$ Total liabilities	lei		-18396868	101885632
6	<b><math>\Delta</math> Financial stability ratio</b>	%		<b>-15.65%</b>	<b>-1.49%</b>
7	I Equity + Long-term liabilities	%		73.47%	109.40%
8	I Total liabilities	%		97.71%	112.96%
9	<b>I Financial stability ratio</b>	%		<b>75.19%</b>	<b>96.85%</b>

(Source: own elaboration based on the financial reports of the company.)



**Graph no. 1: The financial stability ratio for the period 2016-2018**

(Source: own elaboration based on the financial reports of the company.)

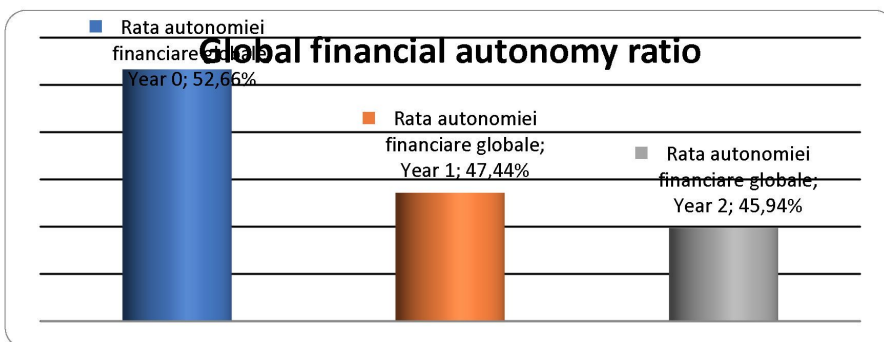
The financial stability ratio defines the weight held by the permanent capital (equity + long-term liabilities), representing the sources of long-term financing, defining the financial structure, within the total liabilities, highlighting the total financing sources of the company, both long-term and short-term and, thus, defining the financing structure of the company. There is a downward trend in this indicator, more pronounced in 2017 compared to 2016 and lighter in 2018 compared to 2017. Thus, a weakening of the financial stability at the beginning of the period under review is subsequently reduced later on.

The global financial autonomy is presented as it follows:

**Table no. 3: The global financial autonomy ratio for the period 2016-2018**

No.	Elements	Units	Year 2016	Year 2017	Year 2018
1	Equity	lei	423795131	373052801	408125753
2	Total liabilities	lei	804820540	786423672	888309304
3	<b>Global financial autonomy ratio</b>	%	<b>52.66%</b>	<b>47.44%</b>	<b>45.94%</b>
4	$\Delta$ Equity	lei		-50742330	35072952
5	$\Delta$ Total liabilities	lei		-18396868	101885632
6	<b><math>\Delta</math> Global financial autonomy ratio</b>	%		<b>-5.22%</b>	<b>-1.49%</b>
7	I Equity	%		88.03%	109.40%
8	I Total liabilities	%		97.71%	112.96%
9	<b>I Global financial autonomy ratio</b>	%		<b>90.09%</b>	<b>96.85%</b>

(Source: own elaboration based on the financial reports of the company.)



**Graph no. 2: The global financial autonomy ratio for the period 2016-2018**  
(Source: own elaboration based on the financial reports of the company.)

The rate of global financial autonomy reveals the weight of own financing sources (equity) in the total financing structure of the company (total liabilities).

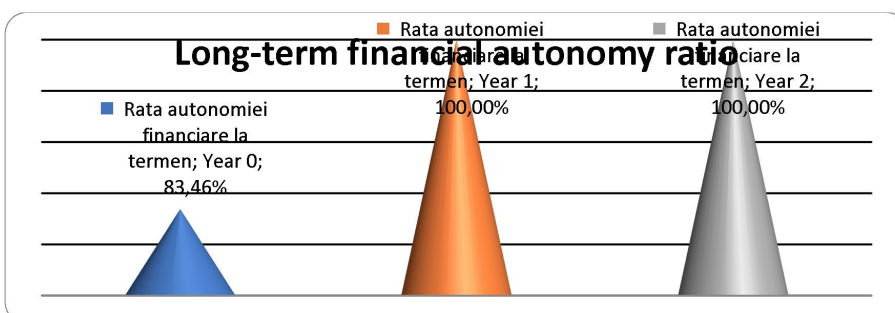
Although, dynamically, over the period considered as subject to our analysis, this rate shows a decreasing trend within the three financial years, we note a perpetual positioning around the 50% threshold, which indicates that the company benefits from a consistent global financial autonomy. This aspect also comes from its legal organization, as a joint stock company and from its listing on the stock market, which gives it a predilection towards equity and structures of equity that are consistent in terms of value.

The long-term financial autonomy is presented as it follows:

**Table no. 4: The long-term financial autonomy ratio for the period 2016-2018**

No.	Elements	Units	Year 2016	Year 2017	Year 2018
1	Equity	lei	423795131	373052801	408125753
2	Equity + Long-term liabilities	lei	507770031	373052801	408125753
3	<b>Long-term financial autonomy ratio</b>	%	<b>83.46%</b>	<b>100.00%</b>	<b>100.00%</b>
4	Δ Equity	lei		-50742330	35072952
5	Δ Equity + Long-term liabilities	lei		-134717230	35072952
6	<b>Δ Long-term financial autonomy ratio</b>	%		<b>16.54%</b>	<b>0.00%</b>
7	I Equity	%		88.03%	109.40%
8	I Equity + Long-term liabilities	%		73.47%	109.40%
9	<b>I Long-term financial autonomy ratio</b>	%		<b>119.81%</b>	<b>100.00%</b>

(Source: own elaboration based on the financial reports of the company.)



**Graph no. 3: The long-term financial autonomy ratio for the period 2016-2018**  
(Source: own elaboration based on the financial reports of the company.)

The rate of long-term financial autonomy reveals the weight of the own financing (equity) within the long-term financing or the financial structure (permanent

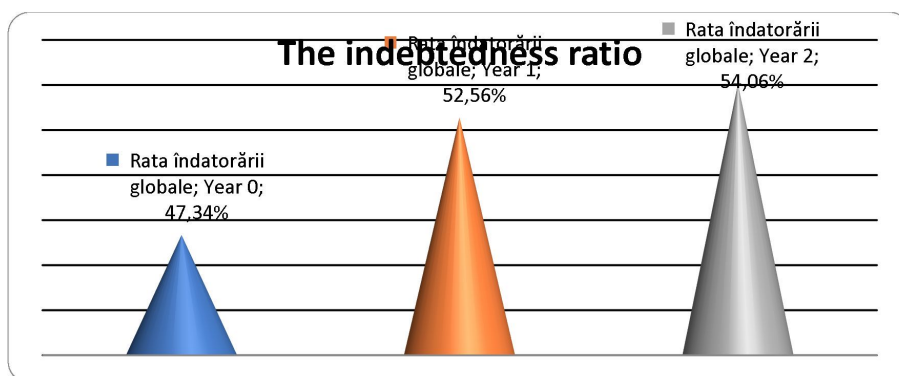
capital/equity + long-term liabilities). In the context of our company, the presence of a long-term debt, of the type of bank credit, is shown only at the level of the first year under review (2016), which is subsequently reimbursed, fact that is particularly favorable for the company, which is not involved in interest payments incurred of these debts at the level of the financial years 2017 and 2018.

The indebtedness of the company is presented as it follows:

**Table no. 5: The indebtedness ratio for the period 2016-2018**

No.	Elements	Units	Year 2016	Year 2017	Year 2018
1	Total debts	lei	381025409	413370871	480183551
2	Total liabilities	lei	804820540	786423672	888309304
3	<b>Indebtedness ratio</b>	%	<b>47.34%</b>	<b>52.56%</b>	<b>54.06%</b>
4	$\Delta$ Total debts	lei		32345462	66812680
5	$\Delta$ Total liabilities	lei		-18396868	101885632
6	$\Delta$ Indebtedness ratio	%		5.22%	1.49%
7	I Total debts	%		108.49%	116.16%
8	I Total liabilities	%		97.71%	112.96%
9	<b>I Indebtedness ratio</b>	%		<b>111.03%</b>	<b>102.84%</b>

(Source: own elaboration based on the financial reports of the company.)



**Graph no. 4: The indebtedness ratio for the period 2016-2018**

(Source: own elaboration based on the financial reports of the company.)

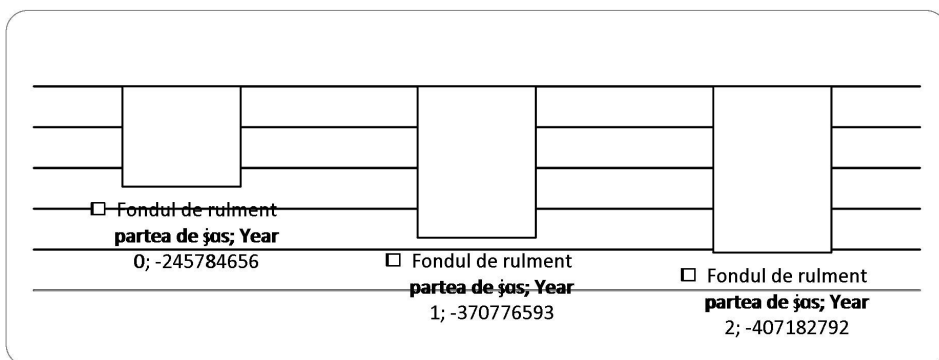
The global debt ratio refers to the share of external sources (long-term and short-term debt) in the total financing structure, respectively in the total liabilities of the company. Being complementary to the rate of global financial autonomy, it is certain that it will evolve in the opposite direction, respectively with a more substantial increase in the financial year 2017 compared to 2016 and with a more modest increase in the financial year 2018 compared to 2017. As well as its complementary ratio (the global financial autonomy ratio) they are positioned around 50%, but also include long-term debts only within the first year of analysis. Thus, within the years 2017 and 2018, the entire indebtedness is based on short-term debts, which, although temporary at the disposal of the company, they are extremely advantageous through their free of costs (debts to suppliers, employees, state, do not involve interest and result through simple negotiation verbal or contractual with them).

The working capital situation is presented as it follows:

Table no. 6: The working capital for the period 2016-2018

No.	Elements	Units	Year 2016	Year 2017	Year 2018
1	Equity+Long-term liabilities	lei	507770031	373052801	408125753
2	Fixed assets	lei	753554687	743829394	815308545
3	<b>Working capital determined on the upper part</b>	lei	<b>-245784656</b>	<b>-370776593</b>	<b>-407182792</b>
4	Current assets	lei	51265853	42594278	73000759
5	Short-term liabilities	lei	297050509	413370871	480183551
6	<b>Working capital determined on the lower part</b>	lei	<b>-245784656</b>	<b>-370776593</b>	<b>-407182792</b>
7	Δ Equity+Long-term liabilities	lei		-134717230	35072952
8	Δ Fixed assets	lei		-9725293	71479151
9	<b>Δ Working capital determined on the upper part</b>	lei		<b>-124991937</b>	<b>-36406199</b>
10	Δ Current assets	lei		-8671575	30406481
11	Δ Short-term liabilities	lei		116320362	66812680
12	<b>Δ Working capital determined on the lower part</b>	lei		<b>-124991937</b>	<b>-36406199</b>
13	I Equity+Long-term liabilities	%		73.47%	109.40%
14	I Fixed assets	%		98.71%	109.61%
15	<b>I Working capital determined on the upper part</b>	%		<b>150.85%</b>	<b>109.82%</b>
16	I Current assets	%		83.09%	171.39%
17	I Short-term liabilities	%		139.16%	116.16%
18	<b>I Working capital determined on the lower part</b>	%		<b>150.85%</b>	<b>109.82%</b>

(Source: own elaboration based on the financial reports of the company.)



Graph no. 5: The working capital for the period 2016-2018

(Source: own elaboration based on the financial reports of the company.)

The working capital represents the company's margin of safety and arises as a surplus of the financial structure (permanent capital) in relation to the net fixed assets (the fixed assets at the input value from which decreases the accumulated depreciation until the moment of analysis). At the company level, we note the presence of a negative working capital over the entire time period under analysis, which translates into a long-term financial imbalance. Moreover, the values of working capital are decreasing from year to year, a sign that there are investment values (fixed assets) at the company level that are financed from temporary sources (short-term liabilities), fact that is not at all beneficial in terms of harmonizing the liquidity of long and short term assets with the requirement of long and short term liabilities. The negativity of the margin of safety of the company entails a crisis in the level of the operating activity, which, if it implies the need for working capital, not only implies a crisis at the level of liquidity, but also leads to the necessity of hiring bank loans on short term, such as mobilization or cash loans, very disadvantageous due to the very high interest rates involved.

Following the research, there will be made two Pearson correlations between various elements of the company's liabilities structure.

A first correlation refers to the equity and the short term liabilities, presented as it follows:

**Table no. 7: Working basis for the correlation Equity - Short-term liabilities at ROMAERO for the period 2016-2018**

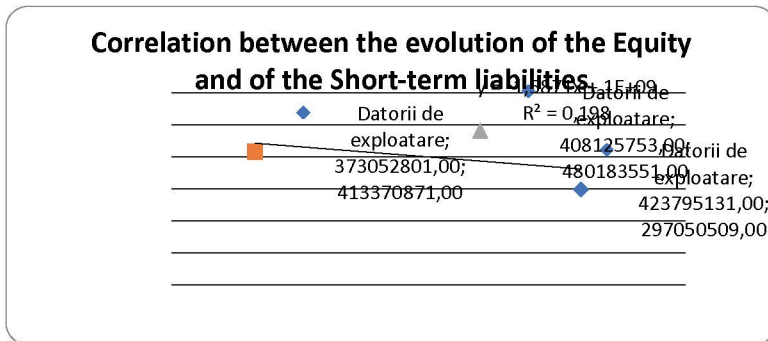
Year	Equity	Short-term liabilities
2016	423795131.00	297050509.00
2017	373052801.00	413370871.00
2018	408125753.00	480183551.00

(Source: own elaboration based on the financial reports of the company.)

**Table no. 8: The correlation Equity - Short-term liabilities at ROMAERO for the period 2016-2018**

	Pearson correlation coefficient
Equity and Short-term liabilities	-0.44
	Moderate correlation

(Source: own elaboration based on the financial reports of the company.)



**Graph no. 6: The correlation between the evolution of the Equity and the evolution of the Short-term liabilities at ROMAERO for the period 2016-2018**

(Source: own elaboration based on the financial reports of the company.)

The correlation between the value of the equity (own sources of financing) and the value of short-term liabilities (operating, interest-free) returns a Pearson correlation coefficient  $R$  of -0.44, which denotes an inversely proportional correlation with moderate in character. The inverse proportionality is somehow natural, considering that a high volume of equity raises working capital, not requiring such a large volume of operating debt, whereas a deficit of equity automatically implies the urgent need for a higher amount of debts in order to finance the current, operating activity. The coefficient of determination or the squared average deviation  $R^2$  from the time-dispersion graph shows a reduced influence, of 19.8 percent between the two variables.

A second correlation refers to the long terms liabilities and the short term liabilities, presented as it follows:

**Table no. 9: Working basis for the correlation Long-term liabilities - Short-term liabilities at ROMAERO for the period 2016-2018**

Year	Long-term liabilities	Short-term liabilities
2016	83974900.00	297050509.00
2017	0.00	413370871.00
2018	0.00	480183551.00

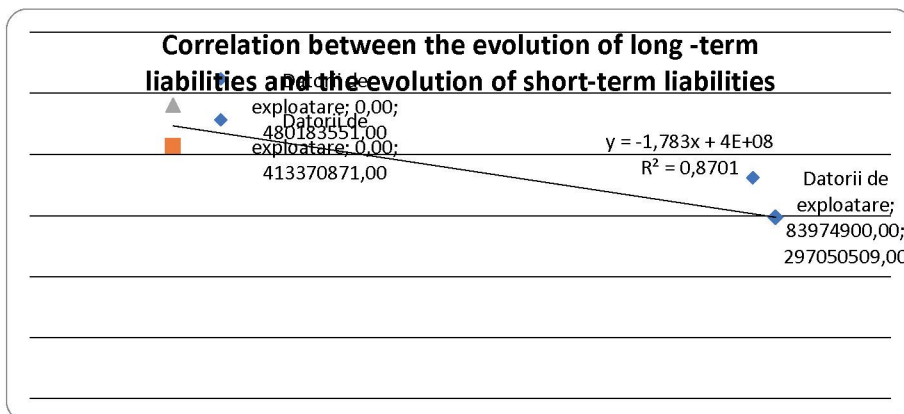
(Source: own elaboration based on the financial reports of the company.)



**Table no. 10: The correlation Long-term liabilities - Short-term liabilities at ROMAERO for the period 2016-2018**

	<b>Pearson correlation coefficient</b>
Long-term liabilities and Short-term liabilities	<b>-0.93</b>
	<b>Optimum correlation</b>

(Source: own elaboration based on the financial reports of the company.)



**Graph no. 7: The correlation between the evolution of the Long-term liabilities and the evolution of the Short-term liabilities at ROMAERO for the period 2016-2018**

(Source: own elaboration based on the financial reports of the company.)

The correlation between the value of long-term liabilities (external sources, interest-bearing financing) and the value of short-term liabilities (operating, non-interest-bearing financing) returns a Pearson correlation coefficient R of -0.93, which denotes an inverse proportional correlation, with an optimal character. The inverse proportionality is somehow natural, taking into account the complementarity between the two categories of liabilities. The coefficient of determination or the squared average deviation  $R^2$  from the dispersion time graph shows a strong influence, of 87.01 percent between the two variables.

## Conclusions

It is absolutely natural for a stock exchange listed company to have a balanced financial and financing structure. Of course that the equity represents a major part of the company's liabilities, defining both a financial stability and a financial autonomy. The long-term liabilities could miss and it would be indicated their absence taking into consideration the costs involved, as interests. Depending a lot on the field of activity, we could have a wider or reduced amount of short-term/current liabilities. Most of them are interest-free, but they are useful only if the company has a dynamic monetary flow activity, otherwise the company engaged in such debts could often reach the point of not being able to pay them back.



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