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IDENTIFICATION AND ASSESSMENT OF THE FINANCIAL RISK WITHIN THE FRAMEWORK OF ECONOMIC ENTITIES

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Abstract
The risk represents a challenge for any economic entity, because it cannot be totally canceled, and it is assumed differently depending on the different attitude towards the danger. Regarding the financial risk, it implies the way in which the profitability of the own capital changes under the influence of the financial structure of an economic entity. Thus, for a risk to be considered financial in nature, it must include the following elements: the economic entity exposed to a potential loss, the factors that cause a financial loss and a source of risk. In the methodological approach of the present paper the radiography, the determination and the analysis of the financial risk were considered, the analysis of the way of determining this risk being realized through the global profitability threshold and subsequently based on the financial leverage effect, for two economic entities Alfa and Beta , which operates in the same geographical area, having the same object of activity.

Key words*:* financial risk, global breakeven, financial leverage coefficient, economic profitability, financial profitability, coefficient of economic leverage, coefficient of total leverage.

JEL Classification: G00, G32, M29

I. INTRODUCTION

The financial risk, or capital risk, concerns the financial structure and depends on the way of financing the activity of an economic entity. If it is financed exclusively from equity, it does not entail any financial risk, this risk appearing in the financing situation of the activity of an economic entity from borrowed sources, which involves financial expenses for the remuneration of the debts (interests) and influences the profitability of that economic entity. As it is known, financial expenses absorb part of the operating result and contribute to diminishing the net result, increasing the financial risk (Mihalciuc & Musteață, 2018:194-202).

When an increase in leverage is recorded, an increase in financial risk is also recorded, which makes the shareholders request a higher level of financial return in order to cover the increase of the risk (Bărbulescu, 2002).

II. CATEGORIES OF RISKS ASSOCIATED WITH FINANCIAL RISKS

The following risks are included in the family of financial risks, briefly presented in Table 1.

Table 1. The family of financial risks

Financial risks	1. The interest rate risk	• changes in the interest rate level negatively affect the development of investment projects • an eventual increase in the interest rate will increase the costs of the borrowed capital
	2. Financing risk	• the occurrence of this risk depends on the structure of the capital used, the higher share of the equity in the total capital being a safety element in the face of the occurrence of this risk
	3. The risk of inflation	• inflation influences the purchasing power, and in the event of producing this risk, an economic entity may face the situation when it cannot buy the same quantity of raw materials or materials as at present
	4. Liquidity risk	• the absence of liquidity can lead to profound imbalances for the economic entity
	5. Price risk	• manifests itself mainly in foreign trade activity
	6. Audit risk	• it appears when the financial auditors make recommendations, conclusions not in line with the reality, formulated so that some funds obtained from loans are disguised in cash - flow elements and certain costs omitted from the calculation of the result

Source: Processing after: Mândru (2011)

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In the specialized literature, it is recommended as a means of diagnosing the financial risk, the overall profitability threshold and the model of the financial leverage effect (Mihalciuc & Musteață, 2018: 194-202).

III. Financial Risk Assessment Through Global Breakeven

The financial risk analysis through global breakeven is envisaged completion of certain steps noting that for a given capital needs, financial expenses are considered fixed costs (Mihalciuc & Musteață, 2018:194-202). Thus, the way of determining the global profitability threshold is presented in the following:

$$GB = \frac{FC+Intrst}{1-\overline{R}ve}$$

where: FC- fixed costs related to the operation;
Intrst – interest;
$1-\overline{R}ve$ – average rate of variable expenses (variable expenses at 100 lei / 1000 lei turnover);
GB- global breakeven.

The financial risk will be evaluated by means of the "position indicator" (absolute and relative) against the global profitability threshold.

IV. Financial Leverage - Leverage Influence On Profitability Equity

The financial leverage effect reflects the influence, which may be positive, negative or zero, of the economic entity's indebtedness on the return on its equity (Brezeanu, Boștinaru, & Prăjisteanu, 2003: 453).

Profitability is one of the most synthetic forms of expressing the efficiency of the economic-financial activity of an economic entity, taking into account all the stages of the operating cycle (supply - production - sale - realization), (Berheci, 2010: 461).

A. *Economic profitability (Pe)* represents the ratio between the economic result from exploitation (Rexp) of the economic entity and the whole of the capital used to achieve this result (Mihalciuc & Musteață, 2018: 194-202).

$$P_e = \frac{R_{exp}}{A_t} \text{ but } A_t \text{ (Total assets) } = L_t \text{ (total liabilities) } = E+D$$

where: E – equity; D – debs.

$R_{exp} = P_e \times (E+D)$ – a result that allows economic entity to pay creditors on borrowed capital, to pay taxes and provide compensation to investors.

The use of the operating result will determine an independent rate of both the fiscal policy and the capital structure, if we refer to the financing policy, as well as the flows related to other operating activities, such as unforced events (Vâlceanu, Robu & Georgescu, 2004: 27).

B. *Financial profitability* aims at the profitability only of the equity of the economic entity (venture capital) (Mironiuc, 1999: 104), signaling the ability of the management of the economic entity to ensure the return of the capital that has been entrusted to management by the various shareholders (Pătruț & Rotilă, 2010: 426), thus determining itself according to the formula below.

$$P_f = \frac{R_{net}}{CP}$$

where: R_{net} - net result; CP – capitals.

The rate of financial return thus expresses, the ratio between profit and capitals, as sources of financing for the activity of the economic entity (Spătaru, 2004: 393).

In the specialty literature, the rate of financial return is also known as "Return on equity", this rate allowing to cover the efficiency of the share capital investments and the opportunity to maintain them (Păvăloaia, Paraschivescu, Olaru & Radu, 2006: 67).

For managers, financial profitability is a fundamental objective, an essential condition of their strategy of maintaining power (Mihalciuc, 2009: 435).

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C. *Financial leverage coefficient* (FLC) dynamically appreciates the reaction of the net result to the variation of the operating result, a reaction in close correlation with the size of the financial expenses. *„The coefficient reflects how much the net result changes when a percentage change of the operating result, after the relation* (Mironiuc, 2006: 433):"

$$FLC = \frac{\frac{\Delta R_{net}}{R_{net}}}{\frac{\Delta R_{exp}}{R_{exp}}} = \frac{\Delta_r R_{net}}{\Delta_r R_{exp}} = \frac{IR_{net} - 100}{IR_{exp} - 100} \quad \text{or} \quad FLC = \frac{R_{exp}}{R_{exp} - FC}$$

where: IR_{net} – Index of net result: IR_{exp} – Index of operating result (the result of exploitation).

Factorial, the coefficient of the financial lever and the automatic financial risk is determined starting from the information in the profit and loss account, in which the net result is obtained after deducting from the gross result the profit tax.

It is found that the size of the financial expenses influences the value of the financial leverage coefficient, which increases as the financial expenses increase and reflects the size of the financial risk, being able to outline the risk situations presented in Table 2.

Table 2. Financial risk reflection situations

Situation	Calculation	Explanations
Non-existent financial risk	$FLC = \frac{R_{exp}}{R_{exp} - FC} = 0$, when $R_{exp} = 0$	At the dead end, capital risk is non-existent
Minor financial risk	$FLC = \frac{R_{exp}}{R_{exp} - FC} = 1$, when FC = 0	When financing from equity, the risk of capital is minor, and the net result has an evolution proportional to the evolution of the operating result
Maximum financial risk	$FLC = \frac{R_{exp}}{R_{exp} - FC} \rightarrow \infty$, when $FC = R_{exp}$	When financing from the loan, which have interest rates attached, which enhance the operating result, the capital risk is maximum, the risk of bankruptcy being imminent.

Source: author's own elaboration

D. The coefficient of total leverage

The total risk of the enterprise is determined by combining the economic risk with the financial risk with the aid of the total leverage coefficient (CTL).

$$CTL = CEL \times FLC$$

$$CTL = \frac{\Delta_r R_{exp}}{\Delta_r T} \times \frac{\Delta_r R_{net}}{\Delta_r R_{exp}} = \frac{\Delta_r R_{net}}{\Delta_r T} = \frac{IR_{net} - 100}{IT - 100}, \text{ and } \quad \Delta_r R_{net} = \Delta_r T \times CEL \times FLC$$

where: CEL – the coefficient of economic leverage; T – Turnover.

"This last calculation relation shows that the relative variation of the turnover increased by the operating lever is transmitted on the operating result, in turn the relative variation of the operating result amplified with the financial lever is transmitted on the net result (Mironiuc, 2006: 433)" , (Figure1).

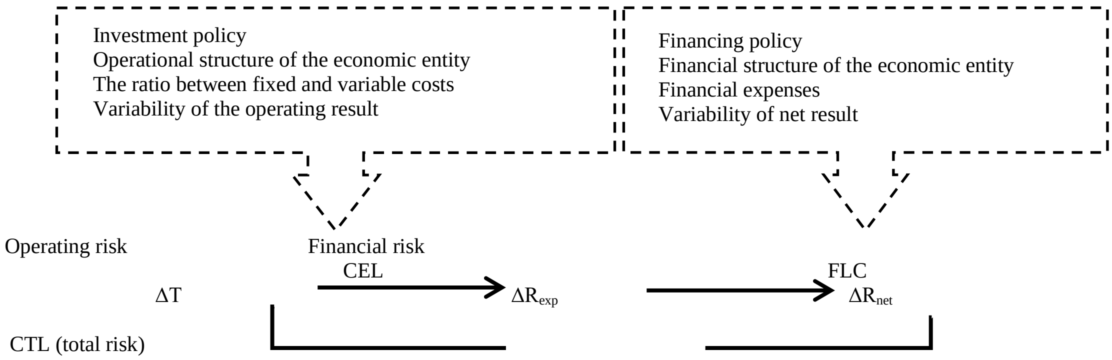

Figure 1 - The determinants factors of global risk in economic entities
Source: processing after: Mironiuc (2006)

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V. Identification And Evaluation Of The Financial Risk At SC Alfa SRL And SC Beta SRL

Financial risk is the bridge between the variability of the financial structure of the economic entity and the modification of the results indicators (Bogdan, 2004). The lower the leverage, the less the profit of an economic entity is less sensitive to any short term change (financial risk is lower). Although leverage can allow for an increase in financial profitability, this working capital must be used with caution, because all this can weaken the financial entity's financial position.

In order to be able to identify the degree of financial risk that is planned on the two economic entities analyzed, the information from the financial statements of its will be centralized in Table 3.

Table 3. Financial risk analysis at SC ALFA SRL and SC BETA SRL

No. Crt	Indicators	Financial year			Absolute deviation (±Δ)	Relative deviation (Δ%)
		2016	2017	2018		
	Financial risk analysis at SC ALFA SRL					
1	Economic result from exploitation (Rexp)	4.569.658	2.988.728	2.310.420	-678.308	-22,69
2	Total assets (AT)	50.210.260	47.768.488	49.165.962	1.397.474	2,92
3	Equty (E)	32.354.858	39.232.984	37.607.320	-1.625.664	-4,14
4	Total debts	17.839.676	8.519.926	11.559.242	3.039.316	35,67
5	*The leverage (4/3) (%)*	*55,13*	*21,71*	*30,73*	-	-
6	*Economic profitability (Pe) (1/2) (%)*	*9,10*	*6,25*	*4,69*	-	-
7	Net result (Rnet)	2.942.152	2.443.192	1.863.040	-580.152	-23,74
8	*Net financial return (7/3) (%)*	*9,09*	*6,22*	*4,95*	-	-
9	*Financial leverage (8-6) (%)*	*-0,01*	*-0,03*	*0,26*	-	-
10	Financial expenses	2.076.596	426.916	438.988	12.072	2,82
11	*Financial leverage coefficient (FLC) (1/(1-10))*	*1,83*	*1,16*	*1,23*	-	-
12	*The coefficient of economic leverage (CEL)*	*15,17*	*11,8*	*13,44*	-	-
13	*The coefficient of total leverage (CTL) (11*12)*	*27,76*	*13,68*	*16,53*	-	-
	Financial risk analysis at SC BETA SRL					
1	Economic result from exploitation (Rexp)	5.275.824	1.599.700	1.129.412	-470.288	-29,39
2	Total assets (AT)	49.193.254	48.343.880	50.383.998	2.040.118	4,22
3	Equty (E)	38.788.600	38.005.394	37.871.918	-133.476	-0,35
4	Total debts	10.395.482	10.309.038	12.497.164	2.188.126	21,22
5	*The leverage (4/3) (%)*	*26,80*	*27,12*	*32,99*	-	-
6	*Economic profitability (Pe) (1/2) (%)*	*10,72*	*3,3*	*2,24*	-	-
7	Net result (Rnet)	4.576.238	1.019.450	520.166	-499.284	-48,97
8	*Net financial return (7/3) (%)*	*11,79*	*2,68*	*1,37*	-	-
9	*Financial leverage (8-6) (%)*	*1,07*	*-0,62*	*-0,87*	-	-
10	Financial expenses	928.588	761.340	838.780	77.440	10,17
11	*Financial leverage coefficient (FLC) (1/(1-10))*	*1,21*	*1,9*	*3,88*	-	-
12	*The coefficient of economic leverage (CEL)*	*4,73*	*35,62*	*94,78*	-	-
13	*The coefficient of total leverage (CTL) (11*12)*	*5,72*	*67,67*	*367,74*	-	-

Source: author's own elaboration

The interpretation of the financial risk for the two economic entities analyzed is presented in Table 4, having as a starting point the information found in Table 3.

Table 4. Interpretation of financial risk indicators

SC ALFA SRL
The leverage of this economic entity is 55.13% in 2016, in 2017 of 21.71%, exercising a negative financial leverage of 0.03%, and in 2018 it increases to 30.73%, and however, it has a positive financial leverage of 0.26%. This situation is explained by the fact that the economic entity has borrowed at lower costs. The increase of the leverage is explained by the increase of the total debts by 35.67% in 2018 compared to 2017 and by the reduction of the equity by 4.14% in the reference period.
Economic profitability shows a downward trend in the period, from 9.10% to 6.25% and 4.69% in 2018 as investors leading to concerns as to an increase of 2.92% of its total assets corresponds to a reduction of 22.69% of the operating result. This raises a question mark, as the growth of assets has not proved to be quite profitable. Thus, in 2017 a u.m. of used assets returns 6.25 u.m., and in 2018, one u.m. of used assets returns only 4.69 u.m. result.
Net financial return is decreasing from 2016 to 2017 and 2018, which suggests that the efficiency degree of the use of equity has deteriorated, at a reduction of the equity of 4.14% the answer from the point of view of the net result it decreased by 23.74% in 2018. The rate of financial return is nonetheless a satisfactory one in 2016 and 2017, only the downward trend recorded in the following year triggers an alarm signal.
Financial leverage determined in 2016 is -0.01 in 2016 and -0.03% in 2017, so it can be considered that debt has no effect on the return on assets, and in 2018, the value of 0, 26% of the financial leverage effect reflects a weak positive effect of debt on economic profitability. The financial structure is quite balanced in this situation.

Financial leverage coefficient revolves around the value that expresses a minor financial risk, registering in 2016 - 1.83, in 2017 - 1.16% and in the following year the value of 1.23%. The high degree of equity financing confers a minor financial risk, and the net result evolves almost in proportion to the evolution of the operating result.
The coefficient of total leverage – the increase of the total leverage ratio from 13.68% in 2017 to 16.53% in 2018 shows the increase of the sensitivity of the net result to the change of the turnover and the increase of the total risk (economic - financial).
SC BETA SRL
The leverage increases for this economic entity, from 26.8% in 2016, to 27.12% in 2017 and to 32.99% in 2018, an increase over the last two years that has negative financial leverage in the last two years analyzed. The degree of debt increases based on the increase of 21.22% of the total debts and the reduction by 0.35% of the equity.
Economic profitability is very high in 2016, but it drops sharply in the following years (3.3% in 2015 and 2.24% in 2018) and shows a decreasing trend during the period under review. This indicator indicates the reduced efficiency of using the assets of the economic entity, thus, if in 2017 a u.m. of assets returns 3.3 u.m. the result is that in 2018 a u.m. of assets to return only 2.24 u.m. result.
Net financial return is also a good one in 2016 but very low and it shows a decreasing trend, from 2.68% to 1.37% in the next two years, as a consequence of the 48.97% decrease in net result. There is a risk in this case that the economic entity may have difficulties in attracting capital, because there is a reduced ability of equity to create a surplus, for the remuneration of associates (dividends) and self-financing.
Financial leverage recorded a positive value in 2016, but in the following years it registered negative values, the increase of the borrowed capital corroborated with the diminution of the performance of the operating activity, having a negative influence on the rate of financial profitability of the economic entity, which becomes a function decreasing by the degree of indebtedness. The cost of borrowing exerts a corrosive effect on the rate of financial return, which becomes significantly lower than the rate of economic return.
Financial leverage coefficient recorded in 2016 and 2017 reflects a low financial risk, but that in 2018 it increases quite a lot, by doubling the CEL, reaching a value of 3.88%. Thus, in 2018, the financial risk increases compared to the year 2017 by increasing by 10% of the financial expenses, which reach close to the value of the operating result, in the future there is the risk of its absorption if no measures are taken to reduce the financial risk.
The coefficient of total leverage - registers low value in 2016 but high values both in 2017, 67.67%, and in 2018 it jumps to 367.74%, which shows that the net result is extremely sensitive to the change in turnover, and announces the escalation of the total risk (economic - financial).

Source: author's own elaboration

Based on the analysis of the financial risk presented in Table 4, the following conclusions are drawn: the financial structure of SC ALFA SRL is more balanced compared to that of SC BETA SRL, the invested capital is more profitable and the resources are more judiciously used; the financial and total risk is higher at SC BETA SRL, reflected by the negative financial leverage effect, by a coefficient of the increasing financial leverage and by a coefficient of the total leverage much higher than that registered by SC ALFA SRL; both economic entities needed external financing in 2018, but SC ALFA SRL borrowed at lower costs, and the borrowed capital had a higher return than for the other economic entity.

An increased economic risk coupled with an out of control financial risk are the first symptoms of the occurrence of an entry risk in a difficult area of the economic entity, with the possibility of bankruptcy due to the chronic financial blockade.

VI. CONCLUSIONS

Changes in the global economic environment, which have taken place lately with an unexpected speed, point out that the methods of operation that were valid in the twentieth century no longer produce results in the twenty-first century. The accelerated changes that occur in any activity make today's strategy no longer effective tomorrow.

The only way to cope with such a demanding and uncertain business environment is to develop the internal ability to make plans, organize and use prudently the necessary resources. For this, it is necessary to define strategies, which must reflect the way in which the parameters of competitiveness such as speed, flexibility, cost, quality, etc. will be completed simultaneously.

The strategic approach is identified with four main phases that are completed in a logical manner. First, it is a phase of analysis, diagnosis of the situation of the economic entity in the environment in which it acts, this being followed by the strategic decision, that is, choosing the development objectives and formulating a strategy to achieve them. There follows the crucial stage, the one of implementation, which consists in the decomposition of the strategy into subassemblies to be accepted by each hierarchical level. The strategic approach ends with the implementation of the piloting and control systems that allow the ongoing analysis of any major differences between the desired strategy and the effectively applied one.

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