

The analysis of the inflation's influence over the profit corresponding to turnover and profitability ratios

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Abstract—*The priority given to prices stability should be a fundamental objective of the monetary policy towards promoting a sustainable economic growth, to the extent in which it does not damage the fulfilment of its fundamental objective.*

The financial structure reflects the financing method through own resources or borrowed. The adoption of a certain financial structure represents an important aspect of financial policy of the company. The decision of the financial structure depends on the company, of its economic growth objectives, on the level of the planned profitability and on the risks is prepared to assume and also on the shareholders, banks, state, as the economic conjuncture.

The study of the profitability evolution can be done in absolute changes through profit and in relative measures through profitability ratios. The classic patterns of analyzing dynamic rates of return (between accounting periods) met in the specialized literature are built by leaving aside the inflation, and results cannot be compared. The information of the profit and loss account is reported at the date when sales and expenses are made. For a better understanding, We will present IAS 29 "Current cost financial statements", par. 30 "Global income statement" according to which: the statement of the global income to the current cost, before retreatment, generally reports current costs at the date the transactions or events generating them occur. The cost of sales and depreciation are recorded at current cost at the time of consumption; sales and expenses are recorded at current costs at the time of consumption; sales and expenses are recorded at money value at that time. This is why all values should be retreated in the unit of measurement existing at the end of the reporting period, using a general price index.[12]

We will present next the methods to analyze sales related profit and the rates of return under conditions of inflation, using present values as compared to rated values.

Keywords - *commercial profitability, current cost, economic profitability, financial profitability, incomes, inflation, profit*

I. INTRODUCTION

The macroeconomic environment, through inflation, the interest rate, the exchange course, influences the process of financing of a company. The inflation has always been present after 1990 and its comparison with the nominal profitability ratios can lead to the idea of real loss of capital.

Inflation is a major unbalance in the economy of any country, represented by a generalized price increase and by simultaneous decrease of the purchase power of the national currency. Inflation is a final indicator, which indicates at the end of the fiscal year whether monetary, fiscal, legislative governmental policies along with Central Bank policies are coordinated and result in consumption prices stability. [8]

Common factors to the company, as the weight of tangible assets in total assets, the dimension of the company, the profitability, the instability of the sales, the corporate control etc., are taken always into account by managers when they need new sources of funding. From the macroeconomic factors, the inflation and the cyclical economic development have the most important relevance in the composition of the company's liabilities. There are, also, international factors that include governmental incentives for attracting funds from abroad, protectionist strategies and the repatriation of capital, but also cultural factors that include social values that concern the distribution of revenues, the development stage of the capital markets, the accounting and the fiscal system.

The inflationist process is characterized by two major trends, namely: generalized prices increase and money purchase power decrease. On a long term, inflation is present in any economy. The phenomenon cannot be completely controlled, and at the same time it is not disadvantageous for everybody. Those who accurately anticipate the evolution of inflation can always find methods to get rich, to the disadvantage of those who cannot anticipate it. Under conditions of inflation there is no real profit at the end of an accounting period unless the company has built its equity capital again in constant currency.

From the economists' point of view, inflation has much more important effects, even some of them consider them mainly negative, and others mainly positive, especially in the case of a low inflation rate. Among the most important consequences of inflation in economy we can count:

- drops in sales and therefore of the company's profit, respectively the distortion of outcomes indicators;
- incomes and wealth redistribution through which some economic actors lose, being even in the position to reach bankruptcy, while other gain due to the uneven prices and incomes rises;
- it determines the rising pressure on the available active capital;

- undervaluation of equity capitals, frozen assets, amortization etc;
- capital decrease as a result of profit tax; unreal dividend distribution etc;
- it determines a runaway of active capital and a trend to place available cash in non-productive durable commodities.

This process may result in a slowdown or even a stagnation of the economic growth. Inflation is one of the most important factors that financial managers should take into consideration. Profitability (profit and profitability rates), under inflation conditions, calculated based on the nominal values of the Loss and Profit Account and of the balance sheet is not relevant.

We will present next the methods proposed in order to analyze profit and profitability rates if information is presented in constant monetary units, in comparison to the case in which it is presented in nominal values.

II. ANALYSIS OF TURNOVER RELATED PROFIT

Of the well-known forms to express profit, we think that sales related profit is relevant for this study. This is determined by following the relation [8]:

$$Pv = \sum qv \cdot p - \sum qv \cdot c \tag{1}$$

For exemplification, we will use the following data:

Table no.1

| No. | Indicators | Year 2008 | | Year 2009 | |
|-----|---|----------------|----------------------------|----------------|----------------------------|
| | | Nominal values | Compared values 31.12.2008 | Nominal values | Compared values 31.12.2009 |
| 1. | Net turnover | 37.500 | 48.862 | 45.000 | 49.938 |
| 2. | Net turnover related expenses | 33.000 | 42.998 | 39.250 | 43.548 |
| 3. | Volume of sales from 2009 expressed in the prices from 2008 | x | x | 37.875 | 49.351 |
| 4. | Volume of sales from 2009 expressed in the costs from 2008 | x | x | 33.660 | 43.858 |
| 5. | Turnover related profit | 4.500 | 5.863 | 5.750 | 6.390 |

Note: The general price index at 31st of December 2009 compared to 31st of December 2008 was of 130,3%.

The data necessary for establishing the comparable values of 2009 are described in the following table:

Table no.2

| No. | Explanations | Turnover | | Turnover related expenses | | Profit | | General price index |
|-----|--------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------|
| | | Nom. val. | Comp. val. | Nom. val. | Comp. val. | Nom. val. | Comp. val. | |
| 1. | January | 1.250 | 1.625 | 1.000 | 1.300 | 250 | 325 | 130 |
| 2. | February | 2.500 | 3.200 | 2.250 | 2.880 | 250 | 320 | 128 |
| 3. | March | 3.125 | 3.937 | 2.750 | 3.465 | 375 | 472 | 126 |
| 4. | April | 3.000 | 3.600 | 2.500 | 3.000 | 500 | 600 | 120 |
| 5. | May | 2.250 | 2.655 | 2.000 | 2.360 | 250 | 295 | 118 |
| 6. | June | 3.750 | 4.312 | 3.375 | 3.881 | 375 | 431 | 115 |
| 7. | July | 4.375 | 4.812 | 3.750 | 4.125 | 625 | 687 | 110 |
| 8. | August | 5.000 | 5.400 | 4.500 | 4.860 | 500 | 540 | 108 |
| 9. | September | 5.000 | 5.300 | 4.375 | 4.637 | 625 | 663 | 106 |
| 10. | October | 4.750 | 4.940 | 4.000 | 4.160 | 750 | 780 | 104 |
| 11. | November | 5.000 | 5.107 | 4.375 | 4.462 | 625 | 645 | 102 |
| 12. | December | 5.000 | 5.050 | 4.375 | 4.418 | 625 | 632 | 101 |
| 13. | TOTAL | 45.000 | 49.938 | 39.250 | 43.548 | 5.750 | 6.390 | x |

The factor analysis of sales related profit based on nominal values results in the following situation:

➤ The change of the profit corresponding to sales (turnover):

$$\Delta P = P_1 - P_0 = 5.750 - 4.500 = +1.250 lei \tag{2}$$

➤ The measurement of the influence of component factors:

1. The influence of sold production volume:

$$\Delta P^{qv} = P_{2008} \cdot I_{qv} - P_{2008} = 4.500 \cdot 101\% - 4.500 = +45 lei \tag{3}$$

where: $I_{qv} = \frac{qv_{2009} \cdot P_{2008}}{qv_{2008} \cdot P_{2008}} \cdot 100 = \frac{37.875}{37.500} \cdot 100 = 101\%$ (4)

2. The influence of sold production structure:

$$\Delta P^g = (\sum qv_{2009} \cdot P_{2008} - \sum qv_{2009} \cdot c_{2008}) - P_{2008} \cdot I_{qv} = (37.875 - 33.660) - 4.500 \cdot 101\% = 4.215 - 4.545 = -330 lei \tag{5}$$

3. The influence of unit costs:

$$\Delta P^c = -(\sum qv_{2009} \cdot c_{2009} - \sum qv_{2009} \cdot c_{2008}) = -(39.250 - 33.660) = -5.590 lei \tag{6}$$

4. The influence of the selling price:

$$\Delta P^p = (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot p_{2008}) = 45.000 - 37.875 = +7.125 lei \tag{7}$$

4.1. The influence of the inflation:

$$\Delta P^\alpha = (\sum qv_{2009} \cdot p_{2008} \cdot Ip - \sum qv_{2009} \cdot p_{2008}) = 37.875 \cdot 1,303 - 37.875 = +11.476,125 lei \tag{8}$$

4.2. The influence of the prices exclusively the inflation effect:

$$\Delta P^{p-\alpha} = (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot p_{2008} \cdot Ip) = 45.000 - 37.875 \cdot 1,303 = -4.351,125 lei \tag{9}$$

For verification purposes, we shall use the relation:

$$\Delta P = \Delta P^{qv} + \Delta P^g + \Delta P^c + \Delta P^p \tag{10}$$

$$1.250 = 45 + (-330) + (-5.590) + 7.125$$

The profit factor analysis based on the values expressed in comparable monetary units is as follows:

➤ The change of the profit corresponding to sales (turnover):

$$\Delta P = P_1 - P_0 = 6.390 - 5.863 = +527 lei \tag{11}$$

➤ The measurement of the influence of component factors:

1. The influence of sold production volume:

$$\Delta P^{qv} = P_{2008} \cdot I_{qv} - P_{2008} = 5.863 \cdot 101\% - 5.863 = +58,63 lei \tag{12}$$

where: $I_{qv} = \frac{qv_{2009} \cdot P_{2008}}{qv_{2008} \cdot P_{2008}} \cdot 100 = \frac{49.351}{48.862} \cdot 100 = 101\%$ (13)

2. The influence of sold production structure:

$$\Delta P^g = (\sum qv_{2009} \cdot P_{2008} - \sum qv_{2009} \cdot c_{2008}) - P_{2008} \cdot I_{qv} = (49.351 - 43.858) - 5.863 \cdot 101\% = -428,63 lei \tag{14}$$

3. The influence of unit costs:

$$\Delta P^c = -(\sum qv_{2009} \cdot c_{2009} - \sum qv_{2009} \cdot c_{2008}) = -(43.548 - 43.858) = +310 lei \tag{15}$$

4. The influence of the selling price:

$$\Delta P^p = (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot p_{2008}) = 49.938 - 49.351 = +587 lei \tag{16}$$

4.1. The influence of the inflation:

$$\Delta P^\alpha = (\sum qv_{2009} \cdot p_{2008} \cdot Ip - \sum qv_{2009} \cdot p_{2008}) = 49.351 \cdot 1,303 - 49.351 = +14.953,353 lei \tag{17}$$

4.2. The influence of the prices exclusively the inflation effect:

$$\Delta P^{p-\alpha} = (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot p_{2008} \cdot Ip) = 49.938 - 49.351 \cdot 1,303 = -14.366,353 lei \tag{18}$$

For verification purposes, we shall use the relation:

$$\Delta P = \Delta P^{qv} + \Delta P^g + \Delta P^c + \Delta P^p \tag{19}$$

$$527 = 58,63 + (-428,63) + 310 + 587$$

After having analyzed factors influences in the two variants, we notice the following:

- the influences of the sold production volume and structure are expressed in the reporting monetary unit of the accounting period taken as comparison basis unit costs influences is totally distorted both from the point of view of meaning and size. In the example described above, based on the nominal values, we notice a rise of costs and a decrease of profit, and based on the expression in comparable

- monetary units, we notice a decrease of costs and an increase of profit;

- the influence of selling prices is distorted from the point of view of size, the meaning being preserved in the two variants.

For a more complex analysis we can use the following model:

$$P = (\sum qv \cdot p) \cdot \overline{pr} \quad (20)$$

where:

$$\overline{pr} = 1 - \frac{\sum qv \cdot c}{\sum qv \cdot p} \quad (21)$$

P-the profit corresponding to turnover; qv – the physical volume of the production sold; p – the sale price; \overline{pr} – the average profit at 1 leu turnover; c – product cost.

The factorial system of the profit corresponding to turnover can be represented schematically:

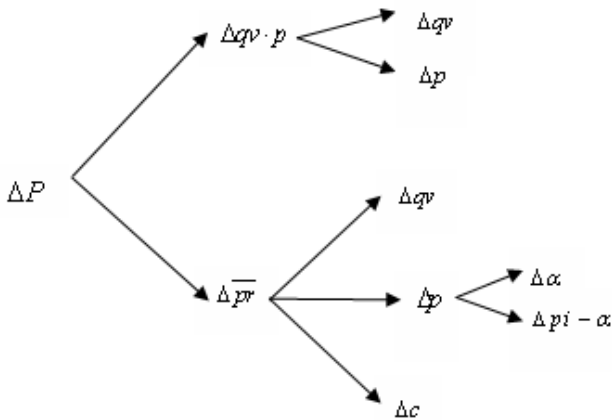


Figure no. 1

The factorial system of the profit corresponding to turnover

The diagnosis analysis of factorial type of the profit corresponding to sales done on the basis of the nominal values, leads to the following situation:

➤The change in the profit corresponding to sales (turnover):
 $\Delta P = P_1 - P_0 = 5.750 - 4.500 = +1.250 lei \quad (22)$

➤The measurement of the influence of component factors:

1. The influence of turnover:

$$\begin{aligned} \Delta_P^{CA} &= (CA_{2009} - CA_{2008}) \cdot \overline{pr}_{2008} = \\ &= (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2008} \cdot p_{2008}) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) = \\ &= (45.000 - 37.500) \cdot 0,12 = +900 lei \end{aligned} \quad (23)$$

1.1. The influence of the volume of the production sold:

$$\begin{aligned} \Delta_P^{qv} &= (\sum qv_{2009} \cdot p_{2008} - \sum qv_{2008} \cdot p_{2008}) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) = \\ &= (37.875 - 37.500) \cdot 0,12 = +45 lei \end{aligned} \quad (24)$$

1.2. The influence of the sale price :

$$\begin{aligned} \Delta_P^p &= (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot p_{2008}) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) = \\ &= (45.000 - 37.875) \cdot 0,12 = +855 lei \end{aligned} \quad (25)$$

1.2.1 The influence of the inflation:

$$\begin{aligned} \Delta_P^\alpha &= (\sum qv_{2009} \cdot p_{2008} \cdot Ip - \sum qv_{2009} \cdot p_{2008}) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) = \\ &= (37.875 \cdot 1,303 - 37.875) \cdot 0,12 = +1.377,135 lei \end{aligned} \quad (26)$$

1.2.2. The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_P^{p-\alpha} &= (\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot p_{2008} \cdot Ip) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) = \\ &= (45.000 - 37.875 \cdot 1,303) \cdot 0,12 = -522,135 lei \end{aligned} \quad (27)$$

2. The influence of the profit corresponding to turnover:

$$\begin{aligned} \Delta_P^{\overline{pr}} &= CA_{2009} \cdot (\overline{pr}_{2009} - \overline{pr}_{2008}) = \sum qv_{2009} \cdot p_{2009} \cdot \\ &\cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}}\right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{39.250}{45.000}\right) - \left(1 - \frac{33.000}{37.500}\right) \right] = \\ &= 45.000 \cdot (0,1277778 - 0,12) = +350 lei \end{aligned} \quad (28)$$

2.1. The influence of the volume of production sold:

$$\begin{aligned} \Delta_P^{qv} &= CA_{2009} \cdot (\overline{pr}' - \overline{pr}_{2008}) = \\ &= \sum qv_{2009} \cdot p_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}}\right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}}\right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{33.660}{37.875}\right) - \left(1 - \frac{33.000}{37.500}\right) \right] = \\ &= 45.000 \cdot (0,1112871 - 0,12) = -392,0805 lei \end{aligned} \quad (29)$$

2.2. The influence of the sale price:

$$\begin{aligned} \Delta_P^p &= CA_{2009} \cdot (\overline{pr}'' - \overline{pr}_{2008}) = \\ &= \sum qv_{2009} \cdot p_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}}\right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}}\right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{33.660}{45.000}\right) - \left(1 - \frac{33.660}{37.875}\right) \right] = \\ &= 45.000 \cdot (0,252 - 0,1112871) = +6.332,0805 lei \end{aligned} \quad (30)$$

2.2.1. The influence of the inflation:

$$\begin{aligned} \Delta_p^\alpha &= CA_{2009} \cdot \left(\frac{''\overline{pr}}{\overline{pr}} - \frac{'\overline{pr}}{\overline{pr}} \right) = \sum qv_{2009} \cdot P_{2009} \cdot \\ &\cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008} \cdot Ip} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008}} \right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{33.660}{37.875 \cdot 1,303} \right) - \left(1 - \frac{33.660}{37.875} \right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{33.660}{49.351,125} \right) - \left(1 - \frac{33.660}{37.875} \right) \right] = \\ &= 45.000 \cdot (0,31794868 - 0,1112871) = +9.299,7711 \text{ lei} \end{aligned} \quad (31)$$

2.2.2. The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_p^{p-\alpha} &= CA_{2009} \cdot \left(\frac{''\overline{pr}}{\overline{pr}} - \frac{'\overline{pr}}{\overline{pr}} \right) = \sum qv_{2009} \cdot P_{2009} \cdot \\ &\cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008} \cdot Ip} \right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{33.660}{45.000} \right) - \left(1 - \frac{33.660}{37.875 \cdot 1,303} \right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{33.660}{45.000} \right) - \left(1 - \frac{33.660}{49.351,125} \right) \right] = \\ &= 45.000 \cdot (0,252 - 0,31794868) = -2.967,6906 \text{ lei} \end{aligned} \quad (32)$$

2.3. The influence of the unit cost:

$$\begin{aligned} \Delta_p^\epsilon &= CA_{2009} \cdot \left(\overline{pr}_{2009} - \frac{''\overline{pr}}{\overline{pr}} \right) = \\ &= \sum qv_{2009} \cdot P_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot P_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2009}} \right) \right] = \\ &= 45.000 \cdot \left[\left(1 - \frac{39.250}{45.000} \right) - \left(1 - \frac{33.660}{45.000} \right) \right] = \\ &= 45.000 \cdot (0,1277778 - 0,252) = -5.589,999 \text{ lei} \end{aligned} \quad (33)$$

For verification we have the relationship:

$$\Delta P = \Delta_p^{CA} + \Delta_p^{\overline{pr}} \quad (34)$$

$$1.250 = 900 + 350$$

The factorial analysis of the profit based on values expressed on comparable monetary units is realized as :

➤ The change in the profit corresponding to sales (turnover):

$$\Delta P = P_1 - P_0 = 6.390 - 5.863 = +527 \text{ lei} \quad (35)$$

➤ The measurement of the influence of the component factors:

1. The influence of turnover:

$$\begin{aligned} \Delta_p^{CA} &= (CA_{2009} - CA_{2008}) \cdot \overline{pr}_{2008} = \\ &= \left(\sum qv_{2009} \cdot P_{2009} - \sum qv_{2008} \cdot P_{2008} \right) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) = \\ &= (49.938 - 48.862) \cdot 0,1200115 = +129,132374 \text{ lei} \end{aligned} \quad (36)$$

1.1. The influence of the volume of production sold:

$$\begin{aligned} \Delta_p^{qv} &= \left(\sum qv_{2009} \cdot P_{2008} - \sum qv_{2008} \cdot P_{2008} \right) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) = \\ &= (49.351 - 48.862) \cdot 0,1200115 = +58,686 \text{ lei} \end{aligned} \quad (37)$$

1.2. The influence of the sale price:

$$\begin{aligned} \Delta_p^p &= \left(\sum qv_{2009} \cdot P_{2009} - \sum qv_{2009} \cdot P_{2008} \right) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) = \\ &= (49.938 - 49.351) \cdot 0,1200115 = +70,447 \text{ lei} \end{aligned} \quad (38)$$

1.2.1. The influence of the inflation:

$$\begin{aligned} \Delta_p^\alpha &= \left(\sum qv_{2009} \cdot P_{2008} \cdot Ip - \sum qv_{2009} \cdot P_{2008} \right) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) = \\ &= (49.351 \cdot 1,303 - 49.351) \cdot 0,1200115 = +1.794,5743 \text{ lei} \end{aligned} \quad (39)$$

1.2.2. The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_p^{p-\alpha} &= \left(\sum qv_{2009} \cdot P_{2009} - \sum qv_{2009} \cdot P_{2008} \cdot Ip \right) \cdot \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) = \\ &= (49.938 - 49.351 \cdot 1,303) \cdot 0,1200115 = -1.724,1276 \text{ lei} \end{aligned} \quad (40)$$

2. The influence of the profit corresponding to turnover:

$$\begin{aligned} \Delta_p^{\overline{pr}} &= CA_{2009} \cdot \left(\overline{pr}_{2009} - \overline{pr}_{2008} \right) = \\ &= \sum qv_{2009} \cdot P_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot P_{2009}} \right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.548}{49.938} \right) - \left(1 - \frac{42.998}{48.862} \right) \right] = \\ &= 49.938 \cdot (0,1279587 - 0,1200115) = +396,867 \text{ lei} \end{aligned} \quad (41)$$

2.1. The influence of the volume of production sold:

$$\begin{aligned} \Delta_p^{qv} &= CA_{2009} \cdot \left(\frac{'\overline{pr}}{\overline{pr}} - \overline{pr}_{2008} \right) = \\ &= \sum qv_{2009} \cdot P_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008}} \right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{42.998}{48.862} \right) \right] = \\ &= 49.938 \cdot (0,1113047 - 0,1200115) = -434,800 \text{ lei} \end{aligned} \quad (42)$$

2.2. The influence of the sale price:

$$\begin{aligned} \Delta_p^p &= CA_{2009} \cdot \left(\frac{''\overline{pr}}{\overline{pr}} - \frac{'\overline{pr}}{\overline{pr}} \right) = \\ &= \sum qv_{2009} \cdot P_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008}} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{43.858}{49.351} \right) \right] = \\ &= 49.938 \cdot (0,121751 - 0,1113047) = +521,667 \text{ lei} \end{aligned} \quad (43)$$

2.2.1. The influence of the inflation:

$$\begin{aligned} \Delta_p^\alpha &= CA_{2009} \cdot \left(\frac{''\overline{pr}}{\overline{pr}} - \frac{'\overline{pr}}{\overline{pr}} \right) = \\ &= \sum qv_{2009} \cdot P_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008} \cdot Ip} \right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot P_{2008}} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.858}{49.351 \cdot 1,303} \right) - \left(1 - \frac{43.858}{49.351} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.858}{64.304,353} \right) - \left(1 - \frac{43.858}{49.351} \right) \right] = \\ &= 49.938 \cdot (0,3179622 - 0,1113047) = +10.320,0622 \text{ lei} \end{aligned} \quad (44)$$

2.2.1. The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_p^{p-\alpha} &= CA_{2009} \cdot \left(\frac{''\overline{pr}}{\overline{pr}} - \frac{'\overline{pr}}{\overline{pr}} \right) = \\ &= \sum qv_{2009} \cdot P_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot P_{2008} \cdot Ip} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{43.858}{49.351 \cdot 1,303} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{43.858}{64.304,353} \right) \right] = \\ &= 49.938 \cdot (0,121751 - 0,3179622) = -9.798,3949 \text{ lei} \end{aligned} \quad (45)$$

1.3. The influence of the unit cost:

$$\begin{aligned} \Delta_p^c &= CA_{2009} \cdot (\overline{pr}_{2009} - \overline{pr}) = \\ &= \sum qv_{2009} \cdot p_{2009} \cdot \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) \right] = \\ &= 49.938 \cdot \left[\left(1 - \frac{43.548}{49.938} \right) - \left(1 - \frac{43.858}{49.938} \right) \right] = \\ &= 49.938 \cdot (0,1279587 - 0,121751) = +310 \text{ lei} \end{aligned} \quad (46)$$

For verification we have the relationship:

$$\begin{aligned} \Delta P &= \Delta_p^{CA} + \Delta_p^{\overline{pr}} \\ 527 &= 129,132374 + 396,8672736 \end{aligned} \quad (47)$$

An increase of the profit corresponding to turnover influences positively the operational result, the current result, the gross result and the net result of the period.

The increase of the profit corresponding to turnover based on the nominal values with 1.250 lei and respectively with 527 lei based on the values compared, in 2009 in comparison with 2008, has been determined by the increase in turnover based on the nominal values with 900 lei and respectively with 527 lei based on the values compared.

Also, the profit corresponding to turnover has been influenced negatively by the average profit at 1 leu turnover with -392 based on the nominal values and respectively with + 396 based on values compared.

III. ANALYSIS OF THE COMMERCIAL PROFIT RATE

The commercial profit rate measures the efficiency of the commercial activity, the profit rate makes the connection between the profit and the turnover. The more the profit that is obtained at 1 leu turnover is bigger the more the activity of the company is efficient. This rate is influenced by the accounting policies but also by the accounting practices like: the policy of constituting the provisions, methods of evaluating stocks, methods of depreciating the assets, the methodology of determining the deductible expenses [7].

The quality of the management of the company is validated through the appreciation if its products on the market, situation highlighted through turnover.

The ration between the result obtained and turnover is represented by the commercial profit rate

For the factor analysis we will use the following pattern:

$$\overline{Rc} = \frac{P}{CA} \cdot 100 = \frac{\sum qv \cdot p - \sum qv \cdot c}{\sum qv \cdot p} \cdot 100 = \left(1 - \frac{\sum qv \cdot c}{\sum qv \cdot p} \right) \cdot 100 \quad (48)$$

The factorial system corresponding to the commercial profit rate can be represented schematically as:

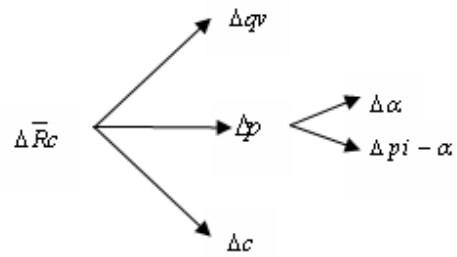


Figure no. 2
The factorial system corresponding to the commercial profit rate

The change in the commercial profit rate leads to the following results:

$$\overline{Rc}_{2008} = \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}} \right) \cdot 100 = \left(1 - \frac{26.400}{30.000} \right) \cdot 100 = +12\% \quad (49)$$

$$\overline{Rc}_{2009} = \left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) \cdot 100 = \left(1 - \frac{31.400}{36.000} \right) \cdot 100 = +12,78\% \quad (50)$$

The factor analysis based on nominal values leads to the following results:

$$\begin{aligned} \Delta \overline{Rc} &= \overline{Rc}_{2009} - \overline{Rc}_{2008} = \\ &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}} \right) \right] \cdot 100 = \\ &= 12,78 - 12 = +0,78\% \end{aligned} \quad (51)$$

1. The influence of the sold production structure:

$$\begin{aligned} \Delta_{\overline{Rc}}^g &= \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}} \right) \cdot 100 - \overline{Rc}_{2008} = \\ &= \left(1 - \frac{33.660}{37.875} \right) \cdot 100 - 12\% = 11,13 - 12 = -0,87\% \end{aligned} \quad (52)$$

2. The influence of the selling price:

$$\begin{aligned} \Delta_{\overline{Rc}}^p &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{33.600}{45.000} \right) - \left(1 - \frac{33.600}{37.875} \right) \right] \cdot 100 = \\ &= 25 - 11,13 = +13,87\% \end{aligned} \quad (53)$$

2.1. The influence of the inflation:

$$\begin{aligned} \Delta_{\overline{Rc}}^\alpha &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008} \cdot Ip} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{33.600}{37.875 \cdot 1,303} \right) - \left(1 - \frac{33.600}{37.875} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{33.600}{49.351,125} \right) - \left(1 - \frac{33.600}{37.875} \right) \right] \cdot 100 = \\ &= 31,92 - 11,13 = +20,79\% \end{aligned} \quad (54)$$

2.2. The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_{Rc}^{p-\alpha} &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008} \cdot Ip} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{33.600}{45.000} \right) - \left(1 - \frac{33.600}{37.875 \cdot 1,303} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{33.600}{45.000} \right) - \left(1 - \frac{33.600}{49.351,125} \right) \right] \cdot 100 = \\ &= 25 - 31,92 = -6,92\% \end{aligned} \tag{55}$$

3. Influence of the unit cost:

$$\begin{aligned} \Delta_{Rc}^c &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{39.250}{45.000} \right) - \left(1 - \frac{33.660}{45.000} \right) \right] \cdot 100 = \\ &= 12,78 - 25,2 = -12,42\% \end{aligned} \tag{56}$$

The factor analysis based on the values of comparable monetary units leads to the following results:

$$\bar{Rc}_{2008} = \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}} \right) \cdot 100 = \left(1 - \frac{42.998}{48.862} \right) \cdot 100 = +12\% \tag{57}$$

$$\bar{Rc}_{2009} = \left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) \cdot 100 = \left(1 - \frac{49.938}{43.548} \right) \cdot 100 = +12,78\% \tag{58}$$

$$\begin{aligned} \Delta \bar{Rc} &= \bar{Rc}_{2009} - \bar{Rc}_{2008} = \\ &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot p_{2008}} \right) \right] \cdot 100 = \\ &= 12,78 - 12 = +0,78\% \end{aligned} \tag{59}$$

1. Influence of the sold production structure:

$$\begin{aligned} \Delta_{Rc}^g &= \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}} \right) \cdot 100 - \bar{Rc}_{2008} = \\ &= \left(1 - \frac{43.858}{49.351} \right) \cdot 100 - 12\% = 11,13 - 12 = -0,87\% \end{aligned} \tag{60}$$

2. Influence of the selling price:

$$\begin{aligned} \Delta_{Rc}^p &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{43.858}{49.351} \right) \right] \cdot 100 = \\ &= 12,17 - 11,13 = +1,04\% \end{aligned} \tag{61}$$

2. The influence of the inflation:

$$\begin{aligned} \Delta_{Rc}^{\alpha} &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008} \cdot Ip} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008}} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{43.858}{49.351 \cdot 1,303} \right) - \left(1 - \frac{43.858}{49.351} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{43.858}{64.304,353} \right) - \left(1 - \frac{43.858}{49.351} \right) \right] \cdot 100 = \\ &= 31,80 - 11,13 = +20,67\% \end{aligned} \tag{62}$$

2.1. The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_{Rc}^{p-\alpha} &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2008} \cdot Ip} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{43.858}{49.351 \cdot 1,303} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{43.858}{49.938} \right) - \left(1 - \frac{43.858}{64.304,353} \right) \right] \cdot 100 = \\ &= 12,17 - 31,80 = -19,63\% \end{aligned} \tag{63}$$

3. Influence of the unit cost:

$$\begin{aligned} \Delta_{Rc}^c &= \left[\left(1 - \frac{\sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot p_{2009}} \right) - \left(1 - \frac{\sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot p_{2009}} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{43.548}{49.938} \right) - \left(1 - \frac{43.858}{49.938} \right) \right] \cdot 100 = 12,79 - 12,17 = +0,62\% \end{aligned} \tag{64}$$

IV. THE ANALYSIS OF THE RATE OF RETURN ON CONSUMED RESOURCES

The resources consumption is highlighted through the expenses accounts. The efficiency of these consumed resources can be judged against the obtained results, based on the rate of return on consumed resources, known also as the rate of return on cost. By definition, the rate of return on consumed resources reflects the ratio between the result corresponding to turnover and the total costs corresponding to sales.

For the purpose of its factor analysis, we will use the following pattern:

$$\bar{Rrc} = \left(\frac{\sum qv \cdot p - \sum qv \cdot c}{\sum qv \cdot c} \right) \cdot 100 = \left(\frac{\sum qv \cdot p}{\sum qv \cdot c} - 1 \right) \cdot 100 \tag{65}$$

The factorial system corresponding to the commercial profit rate can be represented schematically as:

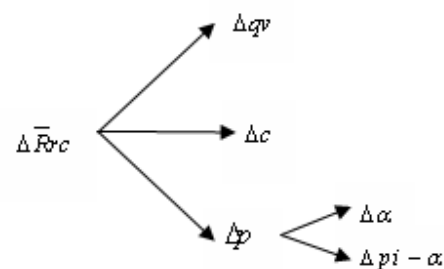


Figure no. 3

The factorial system corresponding to rate of return on the resources consumed

The change of the commercial profit rate records the following values:

$$\bar{Rrc}_{2008} = \frac{\sum qv_{2008} \cdot p_{2008} - \sum qv_{2008} \cdot c_{2008}}{\sum qv_{2008} \cdot c_{2008}} \cdot 100 = \frac{37.500 - 33.000}{33.000} \cdot 100 = +13,64\% \quad (66)$$

$$\bar{Rrc}_{2009} = \frac{\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \cdot 100 = \frac{45.000 - 39.250}{39.250} \cdot 100 = +14,65\% \quad (67)$$

$$\Delta \bar{Rrc} = \bar{Rrc}_{2009} - \bar{Rrc}_{2008} = 14,65 - 13,64 = +1,01\% \quad (68)$$

Based on the nominal values we will get the following results:

1. Influence of the sold production structure:

$$\Delta_{Rrc}^g = \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot c_{2008}} \right) \cdot 100 \right] - \bar{Rrc}_{2008} = \left(\frac{37.875 - 33.660}{33.660} \cdot 100 \right) - 13,64 = 12,52 - 13,64 = -1,12\% \quad (69)$$

2. Influence of the unit cost:

$$\Delta_{Rrc}^c = \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot c_{2008}} \right) \cdot 100 \right] = \left(\frac{37.875 - 39.250}{39.250} \cdot 100 \right) - \left(\frac{37.875 - 33.660}{33.660} \cdot 100 \right) = (-3,50) - 12,52 = -16,02\% \quad (70)$$

3. Influence of the selling price:

$$\Delta_{Rrc}^p = \left[\left(\frac{\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] = \left(\frac{45.000 - 39.250}{39.250} \cdot 100 \right) - \left(\frac{37.850 - 39.250}{39.250} \cdot 100 \right) = 14,65 - (-3,57) = +18,22\% \quad (71)$$

3.1. The influence of the inflation:

$$\Delta_{Rrc}^{\alpha} = \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} \cdot Ip - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] = \left(\frac{37.850 \cdot 1,303 - 39.250}{39.250} \cdot 100 \right) - \left(\frac{37.850 - 39.250}{39.250} \cdot 100 \right) = \left(\frac{49.318,55 - 39.250}{39.250} \cdot 100 \right) - \left(\frac{-1.400}{39.250} \cdot 100 \right) = \left(\frac{10.068,55}{39.250} \cdot 100 \right) - (-3,57) = 25,65 - (-3,57) = +29,22\% \quad (72)$$

3.2 The influence of the prices exclusively the inflation effect:

$$\Delta_{Rrc}^{p-\alpha} = \left[\left(\frac{\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} \cdot Ip - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] = \left(\frac{45.000 - 39.250}{39.250} \cdot 100 \right) - \left(\frac{37.850 \cdot 1,303 - 39.250}{39.250} \cdot 100 \right) = \left(\frac{5.750}{39.250} \cdot 100 \right) - \left(\frac{49.318,55 - 39.250}{39.250} \cdot 100 \right) = 14,65 - \left(\frac{10.068,55}{39.250} \cdot 100 \right) = 14,65 - 25,65 = +11\% \quad (73)$$

The factor analysis based on the values of constant monetary units leads to the following results:

1. The influence of the sold production structure:

$$\Delta_{Rrc}^g = \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot c_{2008}} \right) \cdot 100 \right] - \bar{Rrc}_{2008} = \left(\frac{49.351 - 43.858}{43.858} \cdot 100 \right) - 13,64 = 12,52 - 13,64 = -1,12\% \quad (74)$$

2. The influence of the unit cost:

$$\Delta_{Rrc}^c = \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2008}}{\sum qv_{2009} \cdot c_{2008}} \right) \cdot 100 \right] = \left(\frac{49.351 - 43.548}{43.548} \cdot 100 \right) - \left(\frac{49.351 - 43.858}{43.858} \cdot 100 \right) = 13,33 - 12,52 = +0,81\% \quad (75)$$

3. The influence of the selling price:

$$\Delta_{Rrc}^p = \left[\left(\frac{\sum qv_{2009} \cdot p_{2009} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] = \left(\frac{49.938 - 43.548}{43.548} \cdot 100 \right) - \left(\frac{49.351 - 43.548}{43.548} \cdot 100 \right) = 14,65 - 13,33 = +1,32\% \quad (76)$$

3.1. The influence of the inflation :

$$\Delta_{Rrc}^{\alpha} = \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} \cdot Ip - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] - \left[\left(\frac{\sum qv_{2009} \cdot p_{2008} - \sum qv_{2009} \cdot c_{2009}}{\sum qv_{2009} \cdot c_{2009}} \right) \cdot 100 \right] = \left(\frac{49.351 \cdot 1,303 - 43.548}{43.548} \cdot 100 \right) - \left(\frac{49.351 - 43.548}{43.548} \cdot 100 \right) = \left(\frac{64.304,353 - 43.548}{43.548} \cdot 100 \right) - \left(\frac{5.803}{43.548} \cdot 100 \right) = \left(\frac{20.756,353}{43.548} \cdot 100 \right) - 13,33 = 47,66 - 13,33 = +34,33\% \quad (77)$$

3.2 The influence of the prices exclusively the inflation effect:

$$\begin{aligned} \Delta_{Re}^{p-\alpha} &= \left[\left(\frac{\sum qV_{2009} \cdot P_{2009} - \sum qV_{2009} \cdot C_{2009}}{\sum qV_{2009} \cdot C_{2009}} \right) \cdot 100 \right] - \\ &= \left[\left(\frac{\sum qV_{2009} \cdot P_{2008} \cdot Ip - \sum qV_{2009} \cdot C_{2009}}{\sum qV_{2009} \cdot C_{2009}} \right) \cdot 100 \right] = \\ &= \left(\frac{49.938 - 43.548}{43.548} \cdot 100 \right) - \left(\frac{49.351 \cdot 1,303 - 43.548}{43.548} \cdot 100 \right) = \\ &= \left(\frac{6.390}{43.548} \cdot 100 \right) - \left(\frac{64.304,353 - 43.548}{43.548} \cdot 100 \right) = \\ &= 14,65 - \left(\frac{20.756,353}{43.548} \cdot 100 \right) = 14,65 - 47,66 = -33,01\% \end{aligned} \quad (78)$$

On this rate of return, the costs has a double action, influencing differently the size of the numerator and denominator. In the case of exceeding the unit costs, the numerator (representing the profit) decreases and the denominator (representing the total expenses) increases, which makes that the negative influence of this factor on the rate of return on consumed resources to be much stronger than in the case of other rates. According to the opinions of the specialty literature, the optimal level of the rate of return on consumed resources is between 9% - 15%.

V. ANALYSIS OF THE ECONOMIC RATE OF RETURN

The advantages induced by the economic rate of return on the analytical field are due to the fact that this rate is independent of financial structure, the fiscal policy of the state used when profits are taxed, and also the extraordinary.

For the analysis of the economic rate of return we suggest the following analysis model:

$$\bar{Re} = \frac{P}{At} \cdot 100 \quad (79)$$

$$At = Ai + Ac \quad (80)$$

where:

At – total assets used in the operation cycle;

Ai – annual average value of frozen assets;

Ac – average balance of circulating assets.

The factorial diagnosis of the economic rate of return is realized as follows:

➤ The change in the economic rate of return:

$$\Delta \bar{Re} = \bar{Re}_1 - \bar{Re}_0 = \left(\frac{P_1}{At_1} - \frac{P_0}{At_0} \right) \cdot 100 \quad (81)$$

➤ The influence of the component elements:

1. The influence of total assets:

$$\Delta_{Re}^{At} = \left(\frac{P_0}{At_1} - \frac{P_0}{At_0} \right) \cdot 100 \quad (82)$$

1.1. The influence of fixed assets:

$$\Delta_{Re}^{Ai} = \left(\frac{P_0}{Ai_1 + Ac_0} - \frac{P_0}{Ai_0 + Ac_0} \right) \cdot 100 \quad (83)$$

1.2. The influence of current assets:

$$\Delta_{Re}^{Ac} = \left(\frac{P_0}{Ai_1 + Ac_1} - \frac{P_0}{Ai_1 + Ac_0} \right) \cdot 100 \quad (84)$$

2. The influence of the profit:

$$\Delta_{Re}^{Pr} = \left(\frac{P_1}{At_1} - \frac{P_0}{At_1} \right) \cdot 100 \quad (85)$$

The two terms of the rate in the case of using nominal values are not comparable. Frozen assets are valued into book values (historical costs), completely different from the monetary units in which circulating assets and turnover related profit are evaluated. [11]

If we use the multiplicative pattern:

$$\bar{Re} = \left(\frac{CA}{At} \cdot \frac{P}{CA} \right) \cdot 100 \quad (86)$$

We notice that the asset rate of turnover ($\frac{CA}{At}$) is distorted by the undervaluation of total assets and the commercial rate of return ($\frac{Pr}{CA} \cdot 100$) undergoes the distortions indicated in points 2 and 3.

For economic reasons, the level of the economic rate of return has to meet the following conditions:

- It has to ensure the maintenance of the economic substance of the company, condition that is accomplished when the economic rate of return is higher than the inflation rate;
- It has to assure the remuneration of the invested capital at the level of the minimum rate of return in the economy (average interest rate) and to cover in the same time the economic and financial risk of the investors;
- The economic rate of return should ensure the usage in a favorable way of the company's leverage and it is realized only when the economic rate of return is higher than the interest rate.

VI. ANALYSIS OF THE FINANCIAL RATE OF RETURN

The financial rate of return expresses the capacity of the equity to produce benefits.

The financial rate of return established based on the nominal values of net profit and equity capital does not accurately reflect the reality because the two terms are evaluated differently. In the case of assets evaluation at the historical cost, the equity capital is undervalued, and in conditions of inflation, the net profit is distorted because one does not take into consideration the adjustments for maintaining the equity capital (reconstruction of the purchasing power of the equity capital) and other incomes or losses of the monetary position. [4]

Through the computation method, the financial rate of return highlights the following conditions:

- It is influenced by the methods of obtaining the capital, this thing making it more sensible against the leverage of the company;
- The computation of the net profit is influenced by the methods of computing the depreciations and provisions, and also by the computation methods of the deductible and nondeductible expenses from the amount taxed;

▪The financial rate of return has to be higher than the average interest rate in order to determine the attractiveness of the company's stocks on the market.

In order to exemplify this statement, we will use the following data:

Table no.3

| No. | Indicators | Sum |
|-----|--|---------|
| 1. | Equity capital at the beginning of the accounting period | 125.000 |
| 2. | Net profit at the end of the year | 31.250 |
| 3. | Annual rate of inflation | 20% |
| 4. | Financial rate of return based on nominal values | 25% |

$$\bar{R}_f = \frac{P_n}{K_p} \cdot 100 = \frac{31.250}{125.000} \cdot 100 = 25\% \quad (87)$$

If we consider inflation, then calculations are the following:

Table no.4

| No. | Indicators | Sum |
|-----|---|--------|
| 1. | Net nominal profit | 31.250 |
| 2. | Adjustment for the reconstruction of the purchasing power of the equity capital (125.000 · 20%) = 25.000) | 25.000 |
| 3. | Net real profit (1-2) | 6.250 |
| 4. | Real financial rate of return | |

$$\bar{R}_f = \frac{P_n}{K_p} \cdot 100 = \frac{6.250}{125.000 + 25.000} \cdot 100 = \frac{6.250}{150.000} \cdot 100 = 4,17\% \quad (88)$$

The 25% rate of return of the equity capital is established as if the inflation rate is zero. In conditions of inflation, the numerator decreases and the denominator increases with the same value (adjustment in order to maintain the financial capital).

From those mentioned above regarding the financial rate of return we can have the following meanings:

▪It expresses the shareholders interests on short term by cashing in dividends, and on long term by reinvesting the profit that assures the increase of the value of the shares and implicitly the increase of the possibilities of growing dividends in the next period;

▪It measures the yield of owner's equity, otherwise said, of the financial investments of the shareholders capital;

▪It measures the company's capacity of producing net profit through owner's capital used in the company's activity.

The system corresponding to the commercial rate of return can be represented schematically as:

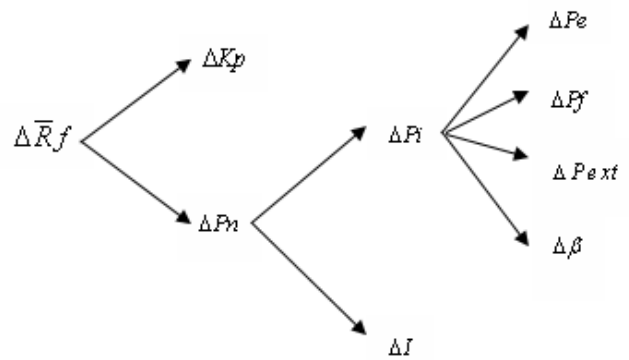


Figure no. 4

The factorial system corresponding to the financial rate of return

where: Kp – permanent capital; Pn – net profit; Pi – taxed profit; I – tax income; Pe – operational profit; Pf – financial profit; Pext – extraordinary profit; β -corrections of the tax profit.

If we do a diagnosis analysis of factorial type of the financial rate of return, we would take into consideration the following influences [6]:

➤The change in the financial rate of return:

$$\Delta \bar{R}_f = \bar{R}_{f1} - \bar{R}_{f0} = \left(\frac{P_{n1}}{K_{p1}} - \frac{P_{n0}}{K_{p0}} \right) \cdot 100 \quad (89)$$

➤The measurement of the influencing factors:

1. The influence of the owner's equity:

$$\Delta \bar{R}_{kf} = \left(\frac{P_{n0}}{K_{p1}} - \frac{P_{n0}}{K_{p0}} \right) \cdot 100 \quad (90)$$

2. The influence of the net profit:

$$\Delta \bar{R}_{kf} = \left(\frac{P_{n1}}{K_{p1}} - \frac{P_{n0}}{K_{p1}} \right) \cdot 100 \quad (91)$$

from which:

2.1. The influence of the taxprofit :

$$\Delta \bar{R}_{kf} = \left(\frac{P_{i1}}{K_{p1}} - \frac{P_{i0}}{K_{p1}} \right) \cdot 100 \quad (92)$$

from which:

2.1.1. The influence of the operational profit :

$$\Delta \bar{R}_{kf} = \left(\frac{P_{e1}}{K_{p1}} - \frac{P_{e0}}{K_{p1}} \right) \cdot 100 \quad (93)$$

$$\text{where: } P_e = V_e \cdot \overline{pre} \quad \text{și } V_e = T \cdot \overline{wh} \quad (94)$$

2.1.1.1. The influence of the operational revenues :

$$\Delta \bar{R}_{kf} = \left(\frac{(V_{e1} - V_{e0}) \cdot \overline{pre}_0}{K_{p1}} \right) \cdot 100 \quad (95)$$

from which:

2.1.1.1.1. The influence of the workload:

$$\Delta \bar{R}_{kf} = \left(\frac{[(T_1 - T_0) \cdot \overline{wh}_0] \cdot \overline{pre}_0}{K_{p1}} \right) \cdot 100 \quad (96)$$

2.1.1.1.2. The influence of the labor productivity:

$$\Delta \bar{R}_{kf} = \left(\frac{[T_1 \cdot (\overline{wh}_1 - \overline{wh}_0)] \cdot \overline{pre}_0}{K_{p1}} \right) \cdot 100 \quad (97)$$

2.1.1.2. The influence of the operational average profit at 1 leu operational revenues:

$$\Delta_{Rf}^{\overline{pre}} = \left(\frac{Ve_1 \cdot (\overline{pre}_1 - \overline{pre}_0)}{Kp_1} \right) \cdot 100 \quad (98)$$

2.1.2. The influence of the financial profit:

$$\Delta_{Rf}^{Pf} = \left(\frac{Pf_1 - Pf_0}{Kp_1} \right) \cdot 100 \quad (99)$$

2.1.3 The influence of the extraordinary profit:

$$\Delta_{Rf}^{Pext} = \left(\frac{Pext_1 - Pext_0}{Kp_1} \right) \cdot 100 \quad (100)$$

2.1.4. The influence of the factor „ β ” – corrects the taxed profit according to the law (add or drop):

$$\Delta_{Rf}^{\beta} = \left(\frac{\pm(\beta_1^{(i)} - \beta_0^{(i)})}{Kp_1} \right) \cdot 100 \quad (101)$$

2.2. The influence of the tax profit:

$$\Delta_{Rf}^{I_t} = \left(\frac{-(I_1 - I_0)}{Kp_1} \right) \cdot 100 \quad (102)$$

In this situation the central zone of diagnosis can be focused on the operational profit, otherwise there can be examined the causes concerning the „ β ” factor, meaning the increases in expenses that are supported from the results, the investments in profit, with the following consequences. We do not exclude the examination of the financial and the extraordinary profit through the light of the revenues and of the company expenses taking into consideration also the inflation.

VII. CONCLUSIONS

For the commercial rate of return and the rate of return of consummated resources, if we compare the influences established based on nominal values and comparable monetary unit values, we get the following:

- the influence of sold production structure is the same because all the terms from the calculation formulas are expressed in the values of the same accounting period;
- the influences of costs and selling prices are distorted, the explanations being the same as in the case of sales related profit.

The earning or loss of the net monetary position is included, in conditions of inflation, in the profit or loss return (according to IAS 29 "Financial Reporting in Hyperinflationist Economies", par. 28) and influences the financial rate of return.

During a period of inflation, a company that records an excess of monetary debts over monetary assets records earnings from the net monetary position and reversely, to the extent in which monetary assets and debts are not connected to price level.

According to IAS 29 as well, but paragraph 27 the earning or loss from the net monetary position can be achieved as a difference resulted from retreating non-monetary assets, equity capitals and elements of the global return statement and from the adjustment of indexed assets

and debts. The earning or loss can be estimated by applying the variation of a general price index to the weighted average of the difference between the monetary assets and debts of that period. [12]

The inflation influences everything: the country's economy, the corporate activity, the population and even the accounting by distorting the financial- accounting information reported. In such circumstances, the entities can take the right decisions and resist to the inflationist impact, can assure the credibility of the accounting information provided by the financial reports. By influencing the revenues and the expenses, the inflation influences directly the financial result reported by the company.

The inflation influences all the economic elements, under evaluating their value in the financial reports. But some economic elements (assets in execution, finished products, the costs of products, the merchandise sold, revenues obtained by decreasing the planned revenues etc.) are under evaluated even in the moment of recording them in the accounting so, distorting significantly the accounting information recorded in the Balance Sheet and in the Profit and Loss Account. This, at its turn, contributes at determining mistaken economic and financial indicators.

References:

- [1] Achim Monica Violeta, Analiză economico-financiară, Ed. Risoprint, Cluj-Napoca, 2010;
- [2] Avare Ph., G. Legros, L. Ravary, P. Lemonnier, Gestione și analiză financiară, Ed. Economică, București, 2002;
- [3] Anghel Ion, Eduard Dinu, Strategia și analiza economico-financiară a firmei, Ed. ASE, București, 2007;
- [4] Boardman A.E., Greenberg D.H., Vining A.R., Weimer D.L., Analiza cost - beneficiu, concepte și practică, Ed. Arc, ediția a doua, Chișinău, 2004;
- [5] Brezeanu Petre (coordonator), Analiză financiară, Ed. Meteor Press, București, 2007;
- [6] Buglea Alexandru, Popa Ion Lala, Analiză economico-financiară, Ed. Mirton, Timișoara, 2009;
- [7] Burja Camelia, Analiză economico-financiară. Aspecte metodologice și aplicații practice, Ed. Casa Cărții de Știință, Cluj-Napoca, 2009;
- [8] Căruntu Constantin, Analiza economico-financiară a firmei. Concepte. Metode. Aplicații, Ed. Universitaria, Craiova, 2009;
- [9] Păvăloaia Willi, Păvăloaia Daniel, Analiza economico-financiară, Ed. Economica, Ed. Tehnopress, Iași, 2009;
- [10] Petcu Monica, Analiza economico-financiară a întreprinderii, Ediția a doua, Ed. Economică, București, 2009;
- [11] Petrescu Silvia, Analiză și diagnostic financiar-contabil, Ed. CECCAR, București, 2010;
- [12] Popa Ion Lala, Analiză economico-financiară. Elemente teoretice și studii de caz., Ed. Mirton, Timișoara, 2009;
- [13] Popescu Dan Dumitru, Creating value through company analysis, H'ART Publishing Science, Bucharest, 2007;

[14]Vâlceanu Gheorghe, Vasile Robu, Nicolae Georgescu, Analiza economico-financiară, Ed. Economică, București, 2005.

[15]Erich A. Helfert, Techniques of Financial Analysis - a guide to value creation, Ed. BMT, 2006;

[16]*** Standardele Internaționale de Raportare Financiară (IFRS) - norme oficiale emise la 1 ianuarie 2009, Ed. CECCAR, 2009.

[17]www.building.co.uk ;

[18] www.money.ro ;

[19] www.capital.ro ;

[20] www.oef.com ;

[21] www.wall-street.ro .