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THE TOTAL REAL CAPITAL STRUCTURE ANALYSIS IN THE PROFITS
MASS RELEVANT FOR TURNOVER

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ABSTRACT

The mechanism operator of total actual capital on profit afferent turnover in the
synthesizer manner is an important tool in assessing the economic and financial performance of
the company both internally and in the diagnostic tests performed outside.

Addressed the overall level of business, real capital - fixed and circulating - appears
as part of operating capital; with all other forms of total capital operated in the frame of
business activity, actual capital is involved in a specific circuit, arising from the operation of
producer agents in a market economic environment. The transformation of the company liquid
capital in productive real capital takes place in conditions in which the firm is presented on the
capital goods market as a buyer and actually proceed to the purchase of goods-capital needed
for production. Simultaneously, the company is presented as a buyer and the labor market,
drawing work resources required.

KEY WORDS: total capital, fixed capital, circulating capital, profit, turnover,
rentability,

In order to illustrate the total real capital structure through the technical structure
of profit related to turnover, named thus \( \frac{K_f}{K_t} \) could use the following analysis
methods:

\[
P = K_t \cdot \frac{K_f}{K_t} \cdot \frac{K_{fa}}{K_f} \cdot \frac{CA}{K_{fa}} \cdot \frac{P}{K_f} \cdot \frac{K_{fa}}{K_f} \cdot \frac{PP}{K_t} \text{ or } \frac{K_f}{K_t} \cdot \frac{K_{fa}}{K_f} \cdot \frac{CA}{K_{fa}} \cdot \frac{P}{K_f} \cdot \frac{K_{fa}}{K_f} \cdot \frac{PP}{K_t} \sum qv \cdot p
\]

\[
P = \frac{1}{100} \left( K_t \cdot \frac{K_f}{K_t} \cdot \frac{K_{fa}}{K_f} \cdot \frac{CA}{K_{fa}} \right) \cdot \overline{Rc} \text{ or } P = \frac{1}{100} \left( K_t \cdot \frac{K_f}{K_t} \cdot \frac{K_{fa}}{K_f} \sum qv \cdot p \right) \cdot \overline{Rc}
\]

consisting of :

P- the profit afferent to turnover;
Kt- the total real capital;

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Kf- the fixed capital;
\( \frac{Kf}{Kt} \) - the share of fixed capital in total real capital;
Kfa- the fixed operating capital;
\( \frac{Kfa}{Kf} \) - the share of fixed operating capital in fixed total capital;
CA- the turnover;
\( \frac{CA}{Kfa} \) - the turnover to 1 ron afferent to fixed operating capital;
P - the profit afferent to turnover;
\( \frac{p}{CA} \) - the medium price of sale;
qv- the production sold;
\( p \cdot qv \) - the turnover expressed in sale prices;
\( \overline{Rc} \) - the medium ratio of commercial rentability.

In order to illustrate this, we consider the data from next tabel:

<table>
<thead>
<tr>
<th>No. crt.</th>
<th>Indicators</th>
<th>( P_0 )</th>
<th>( P_1 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Capital</td>
<td>8.490.586</td>
<td>8.798.337</td>
</tr>
<tr>
<td>2.</td>
<td>Fixed capital</td>
<td>5.878.100</td>
<td>6.000.000</td>
</tr>
<tr>
<td>3.</td>
<td>Fixed operating capital</td>
<td>2.939.050</td>
<td>3.120.000</td>
</tr>
<tr>
<td>4.</td>
<td>Turnover</td>
<td>23.512.376</td>
<td>29.382.540</td>
</tr>
<tr>
<td>5.</td>
<td>Profit afferent to turnover</td>
<td>2.685.126</td>
<td>4.750.000</td>
</tr>
<tr>
<td>6.</td>
<td>Rate of commercial profitability (%)</td>
<td>11.42</td>
<td>16.17</td>
</tr>
</tbody>
</table>

Accordingly to the mentioned pattern, it is operating with multiple variables on total real capital and it is understood that through average profit on 1 ron turnover is surprises synthesized aspects of using both fixed, circulating capital and labor (reflected in costs and prices sale).

In these conditions means that in the mass of profit, appropriate to modification, are found these influences:

1. The influence of total capital (fixed and circulating):
\[
\left(Kt_1 - Kt_0\right) \frac{Kf_0}{Kt_0} \frac{Kfa_0}{Kf_0} \frac{CA_0}{CA_0} \frac{P_0}{P_0} = \\
= \left(8.798.337 - 8.490.586\right) \frac{5.878.100}{8.490.586} \frac{2.939.050}{5.878.100} \frac{23.512.376}{2.939.050} \frac{2.685.126}{23.512.376} = \\
= 307.751 \cdot 0.6923 \cdot 0.5 \cdot 8 \cdot 0.1142 = +97.323.989 \text{ ron} \tag{3}
\]

2. The influence of fixed capital share in total real fixed capital (technical structure of capital):
3. The influence of share operating fixed capital in total fixed capital (technological structure of fixed capital):

\[
K_{t_1} \left( \frac{K_{f_1}}{K_{t_1}} - \frac{K_{f_{a_1}}}{K_{t_1}} \right) \left( \frac{K_{f_{a_1}}}{K_{t_1}} - \frac{P_{o}}{C_{A_{o}}} \right) =
\]

\[
= 8.798.337 \cdot \left( \frac{6.000.000}{8.798.337} - \frac{5.878.100}{8.490.586} \right) \left( \frac{5.878.100}{8.490.586} - \frac{2.939.050}{2.939.050} \right) = 8.798.337 \cdot (-0.0005) \cdot (-1) = 8.798.337 \cdot 0.0005 = 0.0439\text{ ron}
\]

4. The influence of turnover to 1 ron operating fixed capital (efficiency of fixed capital):

\[
K_{t_1} \left( \frac{K_{f_1}}{K_{t_1}} - \frac{K_{f_{a_1}}}{K_{t_1}} \right) \left( \frac{K_{f_{a_1}}}{K_{t_1}} - \frac{P_{o}}{C_{A_{o}}} \right) =
\]

\[
= 8.798.337 \cdot 0.6819 \cdot \left( \frac{3.120.000}{6.000.000} - \frac{2.939.050}{5.878.100} \right) \left( \frac{2.939.050}{5.878.100} - \frac{2.685.126}{2.531.237} \right) = 8.798.337 \cdot 0.6819 \cdot (-0.0328) \cdot (-0.0167) = 8.798.337 \cdot 0.6819 \cdot 0.0005 = 0.0037\text{ ron}
\]

5. The influence of medium profit to 1 ron turnover:

\[
K_{t_1} \left( \frac{K_{f_1}}{K_{t_1}} - \frac{K_{f_{a_1}}}{K_{t_1}} \right) \left( \frac{K_{f_{a_1}}}{K_{t_1}} - \frac{P_{o}}{C_{A_{o}}} \right) =
\]

\[
= 8.798.337 \cdot 0.6819 \cdot \left( \frac{3.120.000}{6.000.000} - \frac{4.750.000}{6.000.000} \right) \left( \frac{4.750.000}{6.000.000} - \frac{2.685.126}{2.531.237} \right) = 8.798.337 \cdot 0.6819 \cdot (-0.0379) \cdot (-0.0022) = 8.798.337 \cdot 0.6819 \cdot 0.00008 = 0.00007\text{ ron}
\]

Diagnosis based on the pattern used illustrates the following issues of phenomena:

- increase total capital in the previous period showed a positive influence on profits afferent to the turnover;
- technical composition of capital adversely affect profits for the turnover;
- increasing technological composition of fixed capital (the share of fixed capital in total fixed capital asset) is a positive contribution on profits for the turnover;
- turnover to 1 ron fixed capital asset reflects its efficiency as one and can be an important determinant of income growth for the turnover;
- increase profits at 1 ron turnover contribute to increased company profits.

The second model highlights the commercial rate of return. Factorial explanation is similar to the above one and is based on the following influences:

1. Influence of total capital (fixed and circulating):
2. Influence of fixed capital share in total real capital (technical structure of capital):

\[
\frac{1}{100} \left[ \left( K_{t} - K_{t_0} \right) \frac{K_{f_0}}{K_{t_0}} \frac{K_{f_0}}{K_{f_0}} \frac{C_{A_0}}{K_{f_0}} \right] R_{c_0} = \\
= \frac{1}{100} \left[ \left( 8.798.337 - 8.490.586 \right) \frac{5.878.100}{8.490.586} \frac{2.939.050}{2.939.050} \frac{23.512.376}{2.939.050} \right] 11.42 = \\
= \frac{1}{100} \left( 307.751 \cdot 0.6923 \cdot 0.5 \cdot 8 \right) 11.42 = +97.323.989 \text{ ron}
\]  

(8)

3. Influence of operating fixed capital in total fixed capital (technological structure of fixed capital):

\[
\frac{1}{100} \left[ K_{t_0} \frac{K_{f_0}}{K_{t_0}} \frac{K_{f_0}}{K_{f_0}} \frac{C_{A_0}}{K_{f_0}} \right] R_{c_0} = \\
= \frac{1}{100} \left[ 8.798.337 \cdot 6.000.000 \frac{5.878.100}{8.490.586} \frac{2.939.050}{2.939.050} \frac{23.512.376}{2.939.050} \right] 11.42 = \\
= \frac{1}{100} \left( 8.798.337 \cdot (0.6819 - 0.6923) \cdot 0.5 \cdot 8 \right) 11.42 = \\
= \frac{1}{100} \left( 8.798.337 \cdot (-0.0104) \cdot 0.5 \cdot 8 \right) 11.42 = -41.798.436 \text{ ron}
\]  

(9)

4. Influence of turnover to 1 ron operating fixed (efficiency of fixed capital):

\[
\frac{1}{100} \left[ K_{t_0} \frac{K_{f_0}}{K_{t_0}} \frac{K_{f_0}}{K_{f_0}} \frac{C_{A_0}}{K_{f_0}} \right] R_{c_0} = \\
= \frac{1}{100} \left[ 8.798.337 \cdot 6.000.000 \frac{5.878.100}{8.490.586} \frac{2.939.050}{2.939.050} \frac{23.512.376}{2.939.050} \right] 11.42 = \\
= \frac{1}{100} \left( 8.798.337 \cdot 0.6819 \cdot (0.52 - 0.5) \right) 11.42 = \\
= \frac{1}{100} \left( 8.798.337 \cdot 0.6819 \cdot 0.02 \cdot 8 \right) 11.42 = +109.624.435 \text{ ron}
\]  

(10)

5. Influence of turnover to 1 ron operating fixed (efficiency of fixed capital):

\[
\frac{1}{100} \left[ K_{t_0} \frac{K_{f_0}}{K_{t_0}} \frac{K_{f_0}}{K_{f_0}} \frac{C_{A_0}}{K_{f_0}} \right] R_{c_0} = \\
= \frac{1}{100} \left[ 8.798.337 \cdot 6.000.000 \frac{5.878.100}{8.490.586} \frac{2.939.050}{2.939.050} \frac{23.512.376}{2.939.050} \right] 11.42 = \\
= \frac{1}{100} \left( 8.798.337 \cdot 0.6819 \cdot (0.52 - 0.5) \cdot (9.4175 - 8) \right) 11.42 = \\
= \frac{1}{100} \left( 8.798.337 \cdot 0.6819 \cdot 0.52 \cdot 1.4175 \right) 11.42 = +505.026.071 \text{ ron}
\]  

(11)
5. Influence of economic rate of return:

\[
\Delta P = \frac{1}{100} \left[ K_{t_l} \cdot K_{f_l} \cdot K_{fa} \cdot \left( \frac{R_c - R_{a}}{K_{fa}} \right) \right] = \frac{1}{100} \left[ 8.798.337 \cdot 0.6819 \cdot 3.120.000 - 29.382.540 \cdot 16.17 - 11.42 \right] = \frac{1}{100} \left[ 8.798.337 \cdot 0.6819 \cdot 0.52 \cdot 9.4175 \cdot 4.75 \right] = +1.395.577.199 \text{ ron}
\]

In order to facilitate the image through the synthesis of factors above mentioned on the profit mass afferent to turnover, we present the following schedule:

**Schedule no. 1**

Synthesizing the influence of factors on profits afferent to turnover

\[\Delta K_l = +97.323.989 \text{ ron}\]

\[\Delta \frac{K_f}{K_l} = -41.798.436 \text{ ron}\]

\[\Delta K_{fa} = +109.624.435 \text{ ron}\]

\[\Delta \frac{CA}{K_{fa}} = +505.026.071 \text{ ron}\]

\[\Delta \frac{P}{CA} = +1.395.577.199 \text{ ron}\]

Influence of total capital with plus sign does not mean unconditional a positive status in the sense that its volume has increased the amount of profit by about one hundred thousand ron. Here we have to take into account some internal issues: The first is the total capital structure of two components: fixed and circulating capital.

Logical, the second factor \(\Delta \frac{K_f}{K_l}\) illustrates actually the de fapt și inequalities

\[\frac{K_{f_l}}{K_{l_l}}, \frac{K_{f_u}}{K_{l_u}}, \text{ respectively } \frac{K_{c_l}}{K_{l_l}}, \frac{K_{c_u}}{K_{l_u}}.\]
Or to increase working capital (real circulating assets) can not be assigned the same conditioning relationship as the fixed profit. Conversely, increasing the share of working capital can mean a slow rotation speed of the circulating assets and thus a negative influence on the mass of profit (in comparable conditions of the two types of capital in value terms).

Obviously, that does not automatically mean a negative state as long as turnover dynamics ahead on the components of working capital assets, respectively $I_{Ca} > I_{ke}$ (index of turnover is higher then the circulating asset capital).

Related to the structure itself of fixed capital illustrated by the share of processing capital $\frac{Kfa}{Kf}$ respectively the technological structure of the first, it reflects a positive share, thus $\frac{Kfa}{Kf} > \frac{Kfa_0}{Kf_0}$ fact illustrated also in increasing the profit mass.

In the management company can be observed the favorable trend of investment policy (putting into service of new fixed operating assets). The same effect can be observed the influence of turnover growth to 1 ron fixed capital asset, increase its efficiency characterized on the basis of turnover. In fact between the technological composition of capital and total fixed capital efficiency is a parabolic correlation type such as $y = a + b \cdot x + c \cdot x^2$.

**consisting of:**

- $y$ – efficiency of fixed capital characterized on the basis of turnover;
- $x$ – the share of fixed operating capital in total fixed capital.

References


[4]. **Ciobanu Anamaria**, *Analysis of economy performances*, ASE Publishing House, Bucharest, 2006;