

SELF-FINANCING CAPACITY ANALYSIS OF ROMANIAN COMPANIES. CASE STUDY: THE AUTOMOTIVE INDUSTRY*

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Abstract: This paper is a study on the self-financing capacity of the Romanian companies. We selected four companies operating in automotive industry, for which self-financing capacity and several relevant financial ratios were calculated. The study covered the period 2007 - 2010, a period that included two years of growth for Romanian economy and two years of downturn. The results were quite surprising. The level and the structure of self-financing capacity are very volatile in time, as they are subject to the influence of factors such as return on sales, financial policy (the level and the cost of bank loans), depreciation policy, provision policy. Another finding relates that the self-financing capacity is generally correlated with the level of financial debts. Instead, surprisingly, its value does not correlate with the gross operating surplus, although the operational activity should have a big contribution on generating monetary financial resources through the gross operating surplus.

JEL classification: G32, G39

Key words: self-financing capacity, net profit, financial debts, gross operating surplus, economic crisis, automotive industry

1. INTRODUCTION

Self-financing capacity is one of the indicators used to assess the business performance. It measures the ability of firms to generate resources for financing the activity. These resources are required to provide the company's contribution to cover the investment expenses.

Self-financing capacity (SFC) can be considered as an indicator for assessing the profitability and is of great importance for managers. It is even more important than the traditional indicators such as profit, as it expresses the total potential resources that can be used to finance the business.

Given the multiple destinations of self-financing capacity, knowing its level is important both during the boom of the economy (to reflect the extent to which a company can finance the development with own resources) but also in times of economic crisis (to reflect the resources released for repayment of loans or for financing the current activity, in case of restricted access to credit).

2. OBJECTIVES

In this article, we conducted a study on the self-financing capacity for four Romanian companies listed on the Bucharest Stock Exchange, from the automotive industry, covering the period 2007 - 2010. The period studied includes both a phase of growth and one of decline for the Romanian economy. Thus, the influences of crisis on an industry hardly affected in last years can be captured.

3. METHODOLOGY

To determine the self-financing capacity, the following formula was used:

Self-financing capacity = Net profit + Depreciations, amortizations and provisions.

The second element in the formula above includes depreciations, amortizations and provisions affecting both the operational and the financial activity.

In addition, several financial ratios that allow a more accurate assessment of the level of SFC were calculated:

- Share of net profit in SFC = Net profit / SFC;
- Share of Depreciations, amortizations and provisions in SFC = Depreciations, amortizations and provisions / SFC;
- Rate of reimbursement the financial debts = Financial debts / SFC;
- Rate of financing the investments = SFC / Investments;
- Rate of gross operating surplus = SFC / Gross operating surplus.

Investments were determined as net variation between tangible assets from current year and tangible assets in previous year (values taken from the balance sheet). Due to lack of data the gross variation of tangible assets could not be used. Also, due to the calculation method, it could not be established the variation of the investments for the first year (2007).

Gross operating surplus (GOS), also named gross operating result, reflects the monetary result a firm gains from the operating activities. This was calculated with the relationship:

GOS = Value added + Operating subsidies - Wages - Taxes.

Taxes include taxes on payroll and other taxes paid by the company, excluding VAT and income tax.

These indicators were calculated for all the four companies, namely UM Timisoara, Electroargeş, MAT Craiova and Mecanica Ceahlău.

4. LITERATURE REVIEW

In literature, self-financing capacity is discussed in detail.

Stancu I. believes that SFC "reflects the financial potential of the company's financial growth, i.e. the financial resources generated by the industrial and commercial activity of the company and after deducting all the expenses payable to a certain maturity". [11]

Niculescu M. talks about the characteristics of SFC, considering "it is a global net monetary surplus. The net feature is explained by deducting the income tax, while the global nature is due to the fact that is generated by the entire business of the company. Therefore, unlike the gross operating result, which refers only to operating activities, SFC takes into account all sides of the business activity (operational, financial, extraordinary). [...] By its size and structure, the self-financing capacity helps on maintaining the enterprise value (through its component, depreciations and provisions) and it is at the same time, a growth factor (via the component net income)." The author

also identifies the factors that influence SFC respectively the depreciation policy, the tax policy and the measures adopted by the company for increase profitability. [7]

Georgescu N. identifies the destinations of self-financing capacity: "financing the current needs, growing the working capital, total or partial financing of new investments, repayment of loans, remuneration of capital invested." The author studies as well the connection between SFC and cash flow, suggesting that the potential resources involved by SFC should be covered as well by cash resources. [4]

Petrescu S. believes that "self-financing capacity or self-financing gross margin is a significant residual balance flow obtained as difference between inflows and outflows arising from current operations leaving to the company own resources available to finance various necessities: the net income and the expenses which didn't involve payments (depreciations, provisions)." Further, the author outlines the characteristics of SFC and its destinations, as resources to finance various needs. [8]

According to Ștefea P., "self-financing capacity measures all the potential financial resources a company can use, after a financial year." [12]

Lezeu D.N. defines the self-financing capacity as "the potential cash generated by the business during the year, which can be used for self-financing, being an indicator that expresses the company's financial independence." [6]

Dragotă V. and collaborators analyzes the limits of SFC, considering that this indicator "can not reveal the situation of real collections and payments with the same clarity as a cash flow statement, but in the absence of other sources of information, it may be regarded as a possible approximation of their situation". [3]

5. RESULTS AND DISCUSSIONS

The indicators presented above were calculated for the four companies studied. For **UM Timisoara**, the data are presented in Table 1.

Table 1

INDICATORS	2007	2008	2009	2010
Net profit	170,598	-1,750,681	-810,529	-2,603,142
Depreciations, amortizations and provisions	808,269	992,856	1,434,109	1,894,172
SFC	978,867	-757,825	623,580	-708,970
Share of net profit	17.43%	231.01%	-129.98%	367.17%
Share of depreciations, amortizations and provisions	82.57%	-131.01%	229.98%	-267.17%
Financial debts	30,666,011	22,307,335	25,368,000	26,484,738
Rate of reimbursement the financial debts (years)	31.33	-29.44	40.68	-37.36
Investments	-	3,007,405	3,637,245	-510,448
Rate of financing the investments	-	-25.20%	17.14%	138.89%
GOS	3,429,707	5,619,552	374,915	-5,029,726
Rate of gross operating surplus	28.54%	-13.49%	166.33%	14.10%

** data are expressed in national currency, lei (RON)*

Self-financing capacity fluctuated for this company, as the positive results alternate with the negative ones in period studied. In 2007, SFC was 978,867 RON. Net income was 170,598 RON (17.43% share in SFC) and depreciations and provisions were 808,269 RON (82.57% share in SFC). In 2009, the company posts net loss, a negative aspect, and the share ratios have no economic significance. The same situation is found

in 2009, but this time the depreciations increase and fully cover the net loss, so SFC becomes positive. In 2010, SFC turned negative.

In 2007, the rate of reimbursement the financial debts are 31.33 years, a level appreciated as very high. Not only the company does not generate large financial resources, but it also has high debts. The situation remains similar in the next period, when although the financial debts decrease slightly against 2007, the self-financing capacity does not allow repayment of these debts.

Rate of financing the investments has significance in 2009 only, when it has a value of 17.14%. But if we consider the capital borrowed, we see that the company manages to cover only very little of its funding needs of the resources released. In 2008, the tangible assets have a positive balance of 3,007,405 lei, for which the company must find funding resources other than self-financing capacity, which is negative.

The ratio of gross operating surplus partially shows the reason of a low or negative self-financing capacity. In the first two years, GOS is positive and quite big, but the high financial loss (due to large debts) cuts the positive surplus generated by the operating activities so that SFC is either very small or negative. In 2009, the collapse of the auto market has reduced the turnover of this company by almost 50% which did not happen for the operational expenses so that GOS decreased greatly. The rate of GOS, although higher than one (166.33%), doesn't mean a positive situation, given the small value of GOS. In 2010, the situation worsens further, as GOS becomes negative, and the depreciations, although increase, fail to entirely cover the negative level of GOS.

From above, it appears that problems for UM Timisoara arise both from operating activities (especially in the last two years analyzed), and from financial activities. The bank loans generate high interests which drastically reduce the self-financing capacity and further this doesn't allow reimbursement of debts. Thus a vicious cycle is obtained generated by the company's bank loans. More, the issues related to economic crisis are added, affecting the sales and the operating results of the company.

To analyze SFC for **Electroargeş**, data from Table 2 is used.

Table 2

INDICATORS	2007	2008	2009	2010
Net profit	5,865,063	2,044,910	2,687,105	7,653,307
Depreciations, amortizations and provisions	922,261	822,353	967,760	915,575
SFC	6,787,324	2,867,263	3,654,865	8,568,882
Share of net profit	86.41%	71.32%	73.52%	89.32%
Share of depreciations, amortizations and provisions	13.59%	28.68%	26.48%	10.68%
Financial debts	8,611,759	5,785,640	2,271,092	988,882
Rate of reimbursement the financial debts (years)	1.27	2.02	0.62	0.12
Investments	-	-556,057	-600,797	-511,644
Rate of financing the investments	-	-515.64%	-608.34%	-1674.77%
GOS	2,694,338	4,275,072	5,662,878	10,347,570
Rate of gross operating surplus	251.91%	67.07%	64.54%	82.81%

** data are expressed in national currency, lei (RON)*

The size of self-financing capacity fluctuated over the period studied, decreasing very much in 2008, after that growing by 43% in 2009 and by 107% in 2010. Comparing the net profit with the level of depreciations and provisions we find that the company has a good return (even if it falls pretty much in 2008). In the first year, the share of net profit in SFC accounts for 86.41%, then it drops to 71.32% in 2008 and

then gradually increases to 73.52% in 2009 and to 89.32% in 2010. It is a favorable situation, as the net result has an overwhelming share in SFC each year analyzed, which is a favorable situation. The value of depreciation is relatively stable in the period, which is also a positive issue.

The financial debts are falling on, as they decrease from 8.6 million in 2007 to 0.9 million in 2010. The reduction is probably due to the use of self-financing capacity for repayment of bank loans. Under these circumstances, the rate of reimbursement the financial debts increases from 1.27 years in 2007 to 2.02 years in 2008, then it decreases to 0.62 years in 2009 and to 0.12 years in 2010. Even if in the first two years the ratio is higher, this is not a problem unless the loan duration is greater than the rate of reimbursement the financial debts and if the company does not take measures to increase SFC. Also, we must take into consideration that other sources to pay the debts can be used, such as equity increase or sale of assets. In our case, subsequent developments confirm that Electroarges has no problem in repaying the bank loans.

Tangible assets decrease in the period studied, so the company doesn't have to use the resources released to make investments. It is appreciated that the company managed to increase the net profit, although the tangible assets slightly diminish. In the following period, the company must pursue a growth of these assets to ensure a future development.

Gross operating surplus is high and rising in all years analyzed. The rate of GOS has a value of 252.91% in 2007, then decreased to 67.07% in 2008 and to 64.54% in 2009 and grew in 2010 up to the level of 82.13%. In 2007 the level is higher than 1 and is due to the positive value of the financial result, which increases SFC over the monetary resources released by the operational activity. In the next period, the financial result becomes negative, so it should be covered by the gross operating surplus, leading to a rate of GOS below 1. Even under these circumstances, the values obtained are found to be quite high.

For **MAT Craiova**, the data needed to analyze SFC are shown in table 3.

Self-financing capacity has a very high level in 2007 due to the sale of assets, but this operation does not have an as much influence in the coming years. For this reason, in 2008 SFC decreases to the value of 2.2 million lei. In 2009, SFC drops by 60% then increases to 1.5 million. Compared to the sales, self-financing capacity is quite small, which indicates the existence of some problems related to return.

Analyzing the structure of SFC, we see that in 2008 the net profit has a very small share, of 3.11% only, then grows to 9.91% in 2009, then decreases to 3.07% in last year. The depreciations fluctuate during the survey period, increasing by 20% in 2008 and then decrease by 60% in 2009 and increased by 75% in 2010. The oscillations of depreciations cause, in most part, the oscillations of self-financing capacity.

The low level of net profit is primarily due to reduced profitability of operating activity. Excluding the asset sales operation (that appears in all four years), the company has a low return on sales (in 2010) or negative (in 2007-2009). Moreover, the financial loss occurring each year must be covered by the operating result. We affirm that MAT Craiova has serious problems regarding the profitability of the operating activity, which affects the ability to generate financial resources for financing the business in the future.

Rate of reimbursement the financial debts is less than 1 in 2007 only, after that it becomes pretty high (over 4), even reaching the value of 9 in 2009. These levels are probably above the period of bank loans, so we can say that the company has problems

to generate cash to pay the creditors. However, debts drop in 2009 and 2010, probably by using the self-financing capacity.

Table 3

INDICATORS	2007	2008	2009	2010
Net profit	10,911,231	68,496	89,164	48,401
Depreciations, amortizations and provisions	1,779,605	2,137,185	810,764	1,526,155
SFC	12,690,836	2,205,681	899,928	1,574,556
Share of net profit	85.98%	3.11%	9.91%	3.07%
Share of depreciations, amortizations and provisions	14.02%	96.89%	90.09%	96.93%
Financial debts	9,877,854	10,779,429	8,235,274	6,370,855
Rate of reimbursement the financial debts (years)	0.78	4.89	9.15	4.05
Investments	-	-530,384	-696,737	-36,071,235
Rate of financing the investments	-	-415.86%	-129.16%	-4.37%
GOS	847,707	1,565,801	316,735	2,382,593
Rate of gross operating surplus	1497.08%	140.87%	284.13%	66.09%

** data are expressed in national currency, lei (RON)*

The net variation of tangible assets is negative each year, so it is not the question to use SFC to finance the investments. Moreover, in 2010, the tangibles decrease greatly due to the reduction in value of freehold land and constructions. We note that the company makes disinvestments in this period, which allows posting better results in the financial statements. But use of such operations cannot be seen as a long-term measure for generating profit.

The rate of gross operating surplus has a very high value in 2007 (almost 1500%) caused by the sale of assets. High levels are achieved in 2008 and 2009 (140.87% and 284.13%) caused also by the sale of assets. Instead, in 2010, the rate drops to 66.09%, which is a more realistic level for this company.

The data used to analyze the self-financing capacity for the company **Mecanica Ceahlău** are listed in table 4.

Self-financing capacity has the maximum value in 2007 (4.39 million RON), then decreases by 18% in 2008. Although the decrease is not large, the changes occurring in the structure are quite important. In the first year the net profit accounts for 51.60% share, a level considered to be quite small. In 2008, the net result is negative, but the depreciations and provisions increased from 2.1 to 8.7 million RON. Net loss is due both to operating activities (operating result turns negative) and to financial activities (financial loss increases).

In 2009, the decline in operating activity is increasing, resulting in decreased sales and increased operating loss. At the same time, the financial loss slightly reduces, but the net loss increases by 52.81% against previous year. The depreciations and provisions slightly drop and SFC fall down to 18,192 RON.

In 2010, turnover increases, operating result turns positive, while financial loss reduces. All these led to a positive net result. Meanwhile, the depreciations and provisions significantly diminished so that SFC became 3.6 million (61.70% share of net profit). Regarding the structure, the company has reasonable values only in 2007 and 2010, while in 2008 and 2009 the situation is quite risky.

Financial debts reach 9.8 million in 2007, which resulted in the rate of reimbursement the debts of 2.25 years, which is not a very high level. In 2008, this rate

increases to 3.4 years, while SFC decreases and financial debts increase. In 2010, the rate drops to 2.31 years. Except 2009 (when the value is atypical), we can say that this ratio remains within reasonable limits.

Table 4

INDICATORS	2007	2008	2009	2010
Net profit	2,267,031	-5,143,735	-7,859,981	2,222,540
Depreciations, amortizations and provisions	2,126,087	8,758,435	7,878,173	1,379,845
SFC	4,393,118	3,614,700	18,192	3,602,385
Share of net profit	51.60%	-142.30%	-43205.70%	61.70%
Share of depreciations, amortizations and provisions	48.40%	242.30%	43305.70%	38.30%
Financial debts	9,866,791	12,303,427	11,895,058	8,304,942
Rate of reimbursement the financial debts (years)	2.25	3.40	653.86	2.31
Investments	-	-4,070,421	-6,326,875	-417,357
Rate of financing the investments	-	-88.80%	-0.29%	-863.14%
GOS	4,504,446	8,450,235	2,925,281	5,166,722
Rate of gross operating surplus	97.53%	42.78%	0.62%	69.72%

* data are expressed in national currency, lei (RON)

The net variation of tangible assets is negative in each year so the company doesn't have to use the monetary resources generated to finance the investments.

Gross operating surplus fluctuates quite a lot, especially on account of depreciations and provisions. In 2007 it is 4.5 million, after that it grows by 87% (to 8.4 million), falls by 66% in 2009 (to 2.9 million) and increases in the last year to 5.1 million (+76%).

GOS and SFC evolved differently which resulted in a big fluctuation of the rate of GOS. In 2007, the rate was 97.53%, which means that a large proportion of the monetary resources generated by the operating activities were finally found within SFC. In 2008, the rate dropped to 42.78% and in 2009 to 0.62%. The last level is atypical and is due to circumstantial factors as the rate should be well above 50%. In 2010, the rate of gross operating surplus becomes 69.72%, a level considered as quite realistic.

5. CONCLUSIONS

Self-financing capacity is one of the key indicators for assessing the potential of a firm to generate monetary resources for the development of the business. Its level is very volatile, as it is influenced by many factors, belonging both to operational and financial activities. The level and the dynamics of self-financing capacity are important to be known by the company's management, in order to draw the investment strategy and the financial policy of the company and to optimize the cost of funding.

In this article, an analysis of self-financing capacity and of related financial ratios for four Romanian companies running in automotive industry was carried out. All the four companies are listed on the Bucharest Stock Exchange. The automotive industry was selected as this industry was among the most affected by the economic crisis occurred in the last years.

After carrying out the study, the following conclusions could be drawn:

- Self-financing capacity is quite volatile over time, being subjected to a multitude of factors of influence, each with more or less impact;

- The structure of self-financing capacity, established depending on sources of origin (i.e. the net income and the depreciations and provisions), is very different both from one year to another and from one firm to another;
- The factors with the biggest influence on the level and evolution of SFC are: return on sales, financial policy (level and cost of bank loans), depreciation policy, provision policy;
- A multitude of correlations between indicators from Profit and Loss Account must be taken into consideration when appreciating the level and the dynamics of SFC;
- Generally, the rate of reimbursement the financial debts don't go beyond 3-4 years. This value is not always a problem, even if it exceeds the duration of bank loans;
- The rate of reimbursement the financial debts signalizes to the managers the discordances occurred between the loan period and the financial resources generated by the business. Thus, managers can adopt appropriate measures either to increase the financial resources released from the activity, or to search additional funding;
- The net variation of tangible assets was generally negative for the companies, so these firms did not need monetary resources to finance the investment activity but most of the times this was the source of generating financial resources to increase SFC;
- Although, in theory, gross operating result correlates with the evolution of self-financing capacity, we could not find such a direct correlation in the case of the four companies studied. The values obtained were often either very large (more than 100%) or very small, which is an unusual situation in practice;
- We could not establish a direct correlation between the economic crisis and the indicators of performance.

We appreciate that, given the difficulties the auto industry was facing during the economic crisis, this study may be useful to identify the resources and the opportunities of the companies in this area to recover once the economy will start growing.

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