MODELS OF COMPANY'S SOLVENCY ANALYSIS

Bătrâncea Maria

"Bogdan Vodă" University, Cluj–Napoca, telephone no.0744636333, email: batrancea_maria@yahoo.com

Popa Anamaria

"Bogdan Vodă" University, Cluj–Napoca, telephone no.0749542991, email: anyiap@gmai.com

Ardelean Victor

"Babeş–Bolyai" University, telephone no.0264418653, email victor.ardelean@btrl.ro

Moscviciov Andrei,

"Babeş–Bolyai" University, telephone no. 0264418653, email: andreim@anvico.ro

Abstract. In the paper the authors show the different models of analyzing the company's solvency, taking into account many ratios with different importance.

Key words: general stability, financial solvency, reimbursing capacity

1. Introduction

The status of financial solvability is multi-criteria approached by local specialists and from abroad.

The International Accounting Standards mention the fact that solvency refers to cash availability for a greater period of time during which the due time financial engagements ought to be covered[33].

In our opinion, solvency has to be analyzed from the point of view of its function and the time horizon it implies. That is why we believe that solvability expresses the capacity of an economic agent of reimbursing on due time (larger then 1 year) the current rates towards banks and other financial institutions.

At the same time, we believe that solvability is a state of financial equilibrium measuring the value of the capital, as compared to the patrimony's size.

2. Method and Results

Solvency can be shown through many models. They are presented below.

- The analysis of general stability

The indicator of general stability (ISG) shows the degree in which the total assets of the company are able to cover the total debts of the company. This indicator shows the degree in which debts can be covered using assets.

$$ISG = \frac{Total\,asset}{Total\,debt}$$

The minimum level acceptable is of 1.66 (even if it should be at least 2.00). Under this level, the company faces the danger of payment incapacity. The optimum level is 3.00.

The general solvency report (RSG) indicates the amount of the net accounting asset in total asset:

$$RSG = \frac{Net\ Accounting\ Asset}{Total\,asset}$$

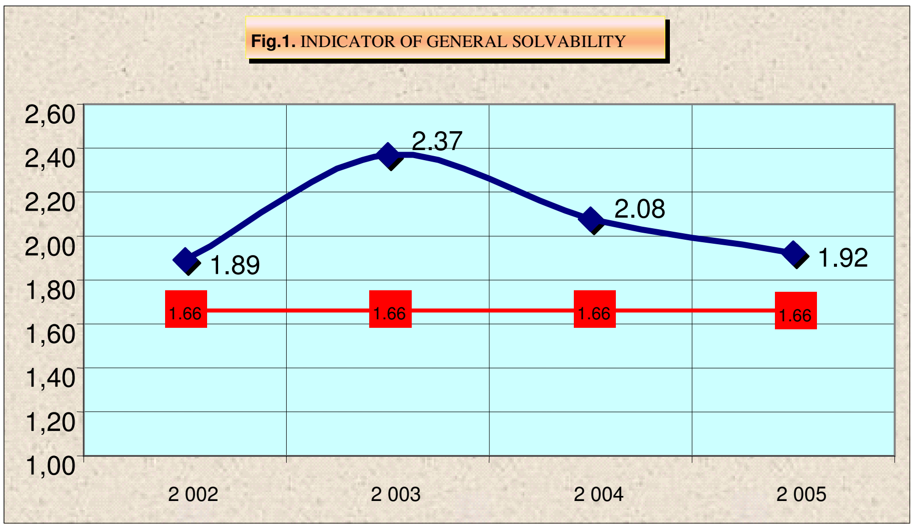
The minimum level acceptable is of 35%, but the optimum one is of at least 50%.

Indicator	2 002	2 003	2 004	2 005	Simbol
Total Asset	183 763 008	213 169 364	289 944 108	305 777 818	At
Total Liability	97 217 073	89 964 477	139 336 362	159 570 651	Dt

[33] *O.M.F.P. no. 1752/2005 – Q work.*

Net Accounting Asset	86 545 935	123 204 887	150 607 746	146 207 167	Anc
Indicator of General Sovency	1.89	2.37	2.08	1.92	Lsg = At/Dt
Growth Indicator	100%	125%	88%	92%	Iclsg = lsgn/lsgo
Variation of the indicator	0.00	25%	-12%	-8%	dlsg = (Δlsg)/lsgo
Minimum value acceptable	1.66	1.66	1.66	1.66	Min
General solvency report	47.10%	57.80%	51.94%	47.81%	Rsg=Anc/At
Minimum value acceptable	35.00%	35.00%	35.00%	35.00%	Min

Table 1 - General Solvency at SC AMPELUM SA



During the entire analyzed period, the level of the general solvability indicator is over the normal limit, even if slightly descending during 2003-2005. The descending tendency of the indicator is due to the more rapid growth rhythm of total debts, as compared to total assets. Nevertheless, from this point of view SC AMPELUM SA is safe during the entire period of analysis, a fact that means that it is able to cover all its debts basing on assets. The same conclusion results from the analysis of general solvability report.

- The analysis of financial solvability

The indicator of financial solvability (ISF) shows the degree in which the total assets of the company are able to cover total financial debts.

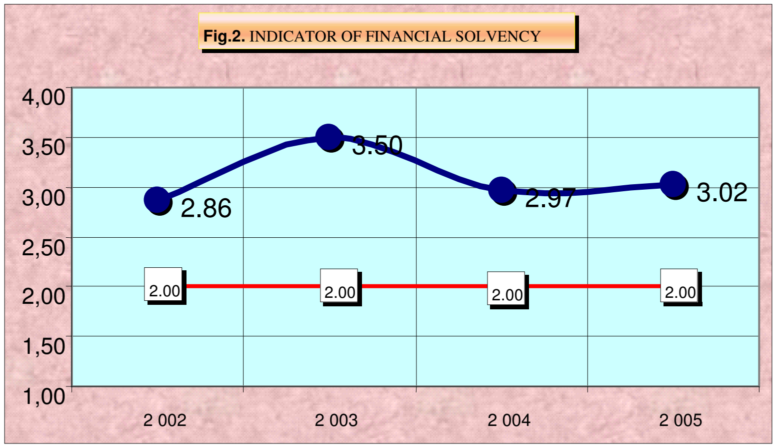
$$ISF = \frac{Total\ asset}{Total\ financial\ debt}$$

The minimum level acceptable is of 2.00. Under this level the company faces payment incapacity.

Indicator	**2 002**	**2 003**	**2 004**	**2 005**	Simbol
Total Assets	183 763 008	213 169 364	289 944 108	305 777 818	At =Ai+Ac
Total Financial Liabilities	64 325 931	60 831 920	97 621 346	101 417 082	Dft = Dtml+Cbts
Financial	2.86	3.50	2.97	3.02	IsF = At/Dft

Solvency					
Minimum value acceptable	2.00	2.00	2.00	2.00	Min

Table 2 - Financial solvability with SC AMPELUM SA



During the entered period analyzed, the value of the indicator is over the average limit, even if in 2004, as compared to the previous year, the value decreased. The descending tendency of the indicator is explained by the more rapid growth of financial debts, as compared to total assets. However, from this point of view, SC AMPELUM SA is safe during the entire period of analysis, a fact that shows the capacity of the company of covering all its financial debts basing on assets.

– The analysis of debt reimbursing capacity

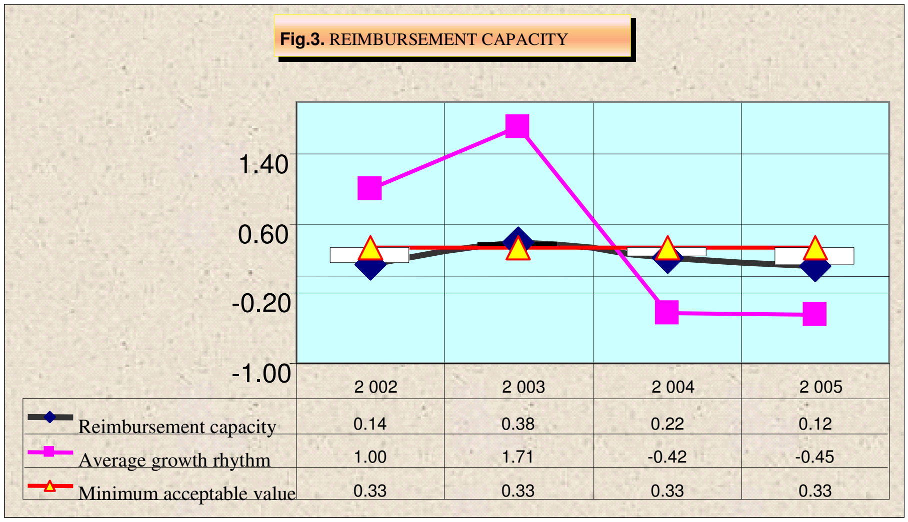
Debt reimbursing capacity (CRD) shows the degree in which the potential sources of self financing resulting from the activity of the company can cover total debts.

$$CRD = \frac{Self\ \ financing\ debt}{Total\ debt}$$

The minimum level acceptable is of 0.33 (corresponding to the covering of debts in a period of 3 years). If the level is under 0.33, the company faces payment incapacity and the optimum level is 1.00.

Indicator	2 002	2 003	2 004	2 005	Simbol
Self financing capacity	13 383 951	34 284 540	30 191 651	18 975 448	Caf
Total debts	97 217 073	89 964 477	139 336 362	159 570 651	Dt
Reimbursement capacity	0.14	0.38	0.22	0.12	Crd = Caf/Dt
Growth indicator	100%	271%	58%	55%	IcCrd = Crdn/Crdo
Variation of the indicator	100%	171%	-42%	-45%	dvlCrd = (ΔCrd)/Crdo
Average growth rhythm	1.00	1.71	-0.42	-0.45	Rmc
Minimum acceptable value	0.33	0.33	0.33	0.33	Min

Table 3 - The Capacity of Reimbursing Debts at SC AMPELUM SA



In 2003 the value of the indicator was over the minimum level; as compared to the previous year it increased by 171%. The tendency of the indicator is descending. From this point of view, SC AMPELUM SA has an acceptable financial security during the analyzed period.

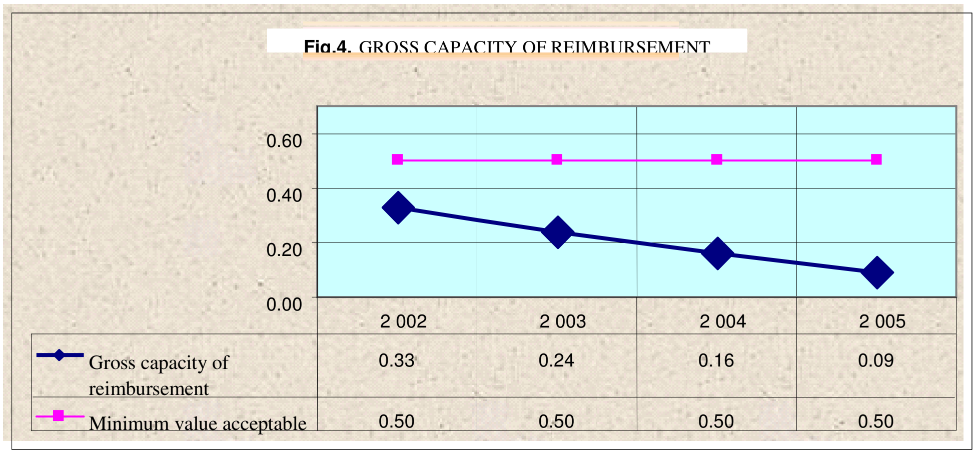
The gross capacity of reimbursing debts (CBRD) shows the degree in which the potential sources of self financing resulting from the operational activity of the company are able to cover the total debts of the company.

$$CBRD = \frac{Gross\ surplus\ \ from\ operational\ activities}{Total\ debts}$$

The minimum acceptable level is 0.50 (corresponding to covering debts in a 2 year period), under this level the company faces payment incapacity. The optimum level is 1.00.

Indicator	2 002	2 003	2 004	2 005	Simbol
Gross surplus from operational activities	32 451 335	51 338 829	45 515 107	28 734 234	Ebe
Total liabilities	97 217 073	213 169 364	289 944 108	305 777 818	Dt
Gross capacity of reimbursement	0.33	0.24	0.16	0.09	Crd = Caf/Dt
Minimum value acceptable	0.50	0.50	0.50	0.50	IcCrd = Crdn/Crdo

Table 4 - Gross Capacity of Reimbursing Debts at SC AMPELUM SA



For the entire period analyzed, the value of the indicator is under the minimum value acceptable. As compared to the previous year, it shows a tendency of constand decrease. Ther general tendency of the indicator is descending. From this point of view, the company is not safe as far as its payment capacity is concerned.

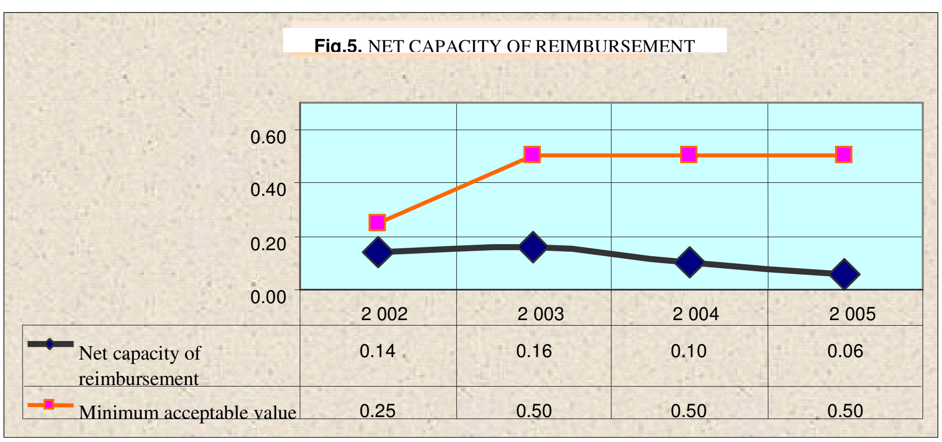
b) Net capacity of reimbursing debts (CNRD) shows the degree in which net self financing is able to cover the total debts of the company. It indicates a report between own sources and borrowed ones.

$$CNRD = \frac{Net\ self\ \ financing}{Total\ debts}$$

The minimum acceptable level is of 0.25 (corresponding to covering debts in a 4 year perios); under this level the company faces payment incapacity. The optimum level is 1.00.

Indicator	2 002	2 003	2 004	2 005	Simbol
Net self financing	13 383 951	34 284 540	30 191 651	18 975 448	Afn
Total liabilities	97 217 073	213 169 364	289 944 108	305 777 818	Dt
Net capacity of reimbursement	0.14	0.16	0.10	0.06	Cnrd = Afn/Dt
Minimum acceptable value	0.25	0.50	0.50	0.50	Min

Table 5 - Net Capacity of Reimbursing Debts



During the entire analyzed period, the value of the indicator was under the average limit. During the last year, the value of the indicator significantly decreased, as compared to the preceding year. The general tendency is of continuous decrease. From this point of view the company is in a state of financial instability.

– The analysis of financial expenses requirements

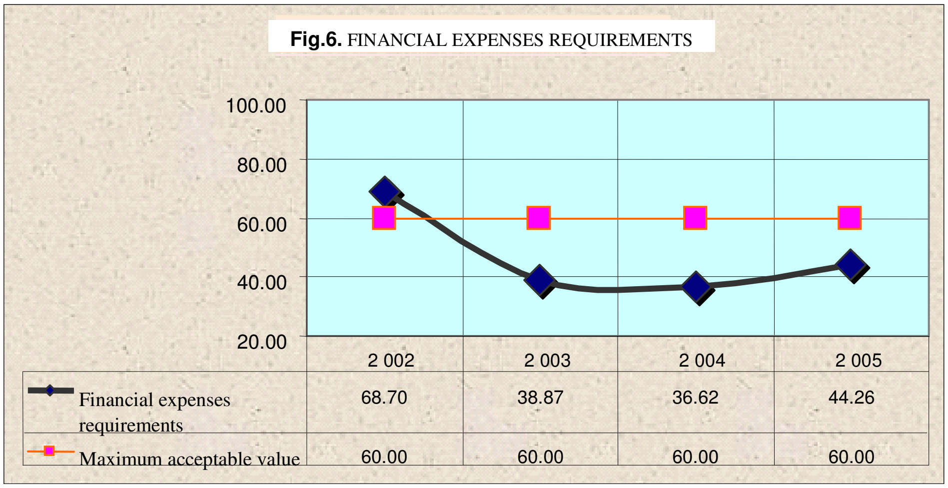
The ratio of financial expenses requirements (RPCF) shows the degree in which financial expenses consume cash from the gross accumulations of the operational activity.

$$RPCF = \frac{Financial\ expenses}{Gross\ surplus\ from\ exploitation}$$

The maximum level acceptable is of 60%; over this level the company faces the danger of negative cash.

Indicator	2 002	2 003	2 004	2 005	Simbol
Financial expenses	22 293 955	19 954 458	16 668 688	12 717 525	Chf
Gross surplus from exploitation	32 451 335	51 338 829	45 515 107	28 734 234	Ebe
Financial expenses requirements	68.70	38.87	36.62	44.26	Rpcf = Chf/Ebe
Maximum acceptable value	60.00	60.00	60.00	60.00	Max

Table 6 - The Ratio of Financial Expenses Requirements



During the first year, the value of the indicator was within normal limits, but it increased, as compared to the previous year. The indicator has a general descending tendency, both basing on the decrease of the financial debts, which generate expenses with interests, as well as basing on the decrease of the surplus from operational activities. Nevertheless, from this point of view the company is not safe during the analyzed period.

3. Conclusions

Taking into account the above said, we may draw the conclusion that the solvability SC AMPELUM SA is adequate. The leverage level of the company does not generate significant risks with continuing the activity. However, we noticed that there is a tendency of depreciation of the solvability indicators in the last part of the time interval analyzed.

Bibliography

1. McTaggart, James M., Peter W. Kontes, and Michael C. Mankins - *The Value Imperative: Managing for Superior Shareholder Returns.* New York: The Free Press, 1994
2. McTaggart, James M., Peter W. Kontes, and Michel C. Mankins - *The Value Imperative: Managing for Superior Shareholder Returns.* New York: The Free Press, 2004
3. Porter, Michel E. - Competitive Advantage: Creating and Sustaining Superior Performance. New York: The Free Press, 1985
4. Rappaport, Alfred - *Creating Shareholder Value,* New York: The Free Press, 1999
5. Stewart, B. Bennett - *The Quest for Value.* New York: Harper Business, 1990