# APPRECIATION ON THE DEBT RATIO OF SOME COMPANIES OF IASI COUNTY*

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**Abstract**

*The debt ratio of companies is a largely used ratio in the financial analysis; the simplest way to obtain information on the debt ratio is to determine the debt rate in total balance. According to official documents, debts are actual obligations to third parties that occurred further to past events, that will materialize in future releases of money and may be evaluated credibly. Yet in Romania, numerous companies (especially limited companies) are financed by loans made by the associates. From an accounting point of view, this financing is debts - yet from an economic point of view there are doubts regarding this classification (paying them back is not as compulsory as paying back a bank credit). In a lot of 128 companies of Iaşi county (for the financial year 2005), we found sufficient evidence to show that associates' financing is significant as to the effect on the debt degree.*

**Key words:** debt ratio, equity capital, sums owed to associated, risk, caution

## 1 Introduction

The characterization of the activity of a company by financial analysis indicators is useful to decision makers of companies. Besides this individual analysis of the status of companies, a grouping of various units of this type may be interesting in order to draw conclusions on the current status of some businesses by simple indicators, easy to calculate and to interpret by persons without a special accounting or systematic financial training. We have to say that the analysis in this study has a quite restricted scope compared to more complete research studies, such as the works published by two Belgian authors (Colot, O. and Croquet, M., 2004 and 2005) that make a comprehensive review of the studies made in company debt and state a series of assumptions that they are trying to confirm or to deny by empirical studies. Compared to the seven assumptions retained by Colot and Croquet (the size of the company influences the debt level, the number of the research team members influence debt positively, administrator's participation in the company capital has a negative influence on the debt ratio, administrator's age has a negative influence on the debt ratio, the company's age influences the debt ratio, the structure of the stockholders influences the debt ratio and the family nature of the management influences negatively the debt ratio), in this study we undertake only to calculate the debt ratio and to see if there is a link between them and the amount of the company's outcome. Concomitantly, it is interesting to see if there is any relationship between company debt and its sizes or between debt and the main business area. Our analysis concerns 128 companies of Iaşi county (about 1% of the total companies registered in this county),the data of which were made available to us. At the same time, the analysis of this text does not undertake to resort to statistical or econometric tools by which

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to determine the correlation between the studied variables in numbers; we are content for the time being with narrative comments on the results ascertained having observed the elements calculated and that may have anything to do with the company debt.

## 2 Gross debt and its relation to the book outcome; debts in relation to associates

The gross debt of the companies of the lot, calculated as a relation between total debts and the total assets in a wide scale of values, starting from no less than 0.03% to 6.06. In table no.1 we have a group of companies of the lot according to their debt ratios. The limit of 2/3 or 0.66 is retained generally by banks in appreciating the quality of the debt and we find it quite frequent in financial analysis works.

*Table no. 1 - Companies grouped depending on their debt ratio*

| Value range | Number of companies | Percent of companies out the total lot | Gross mean debt | Number of companies with profits | Number of companies with debts to associates | Companies with debts to associates |
|---|---|---|---|---|---|---|
| From 0 and 2/3 | 47 | 36,72% | 0,41 | 45 | 14 | 29,79% |
| From 2/3 to 1 | 56 | 43,75% | 0,85 | 55 | 35 | 62,50% |
| Over 1 | 25 | 19,53% | 1,78 | 3 | 17 | 68,00% |
| **Total** | **128** | **100,00%** | **0,87** | **103** | **66** | **51,56%** |

Besides the grouping of the companies depending on their debt, we also tracked the type of outcome obtained by every company (profit or loss). Thus, at a first glance we see that from the companies with a debt less than 1, only three had a negative accounting outcome, all the others concluded the 2005 financial year with a greater or lower profit. Yet most of the companies with a supraunitary debt had losses (only three out of 25 had profits which were very low, close to 0); for four of these companies, the loss of the financial year exceeds the total assets on 31 December 2005. We may draw from this a quite simple conclusion: the existence of a supraunitary debt almost always leads to the occurrence of an accounting loss. This is not surprising as a supraunitary debt results from total debts that exceed the assets, that is the organization at stake will probably get into insolvency. At a first glance, we may get concerned about the rate of this type of companies in the total companies analyzed: 19.53% - almost a company out of five has serious difficulties in paying its debts out of the resources generated from their current activity. At a more detailed analysis, we see that for 66 out of the 128 companies that make up the lot (that is more than a half), an important part of the debts are to the associates (explicit creditor balance of the account *445 Debts to associates* without considering any loan made by associates recorded in another debt account, for instance *462 Various creditors*, as sometimes happens). Such a balance position is left to debts further to stricter accounting regulations after 1 January 2003. Indeed, up to this date, some companies that were financed by loans from associates recorded these resources in the equity capital account *108 Entrepreneur's account* even if its initial mission was entirely different. The immediate obvious result was the lowering of the total debts as absolute value and as percentage to the benefit of the equity capital. It seems that such a classification was accepted by some banks when analyzing the credit files of the company. From an economic viewpoint and from the viewpoint of the financial analysis, besides the legal and patrimonial aspects, the solution of considering the credits from the individual associates a sort of quasi-own resources is an acceptable one, at the extent to which the associate will not consider necessarily a certain deadline or a certain interest in his relation to his own company and will not start procedures to redeem such a debt. After 01

January 2003, the Romanian companies can no longer use the account *108 Entrepreneur's account* because in the OMFP 306/2002, continued by OMFP 1752/2005, this account does not appear any more. The shift to OMFP 306/2002 had, among others, this consequence too – the increase of the apparent debt ratio of the company when it borrows from associates.

Getting back to our lot, we see that 68% of the companies with a supraunitary debt (17 out of 25) benefit from loans from associates compared to 29.79% of the companies with a debt ratio lower than 2/3; at the same time, companies with a debt degree between 2/3 and 1 resort to large loans from the associates. It is clear that, as total debts raise, the number of the companies that resort to credits from associates raises too. Against this background, considering the above appreciation according to which debts to associates (it is only about those of the account 455 *Sums owed to associates*) are actually a kind of own resources (even if we do not have the certainty they are also permanent resources), we undertake to determine a debt degree that would ignore these less special debts. For the companies of the lot, the classification in these three intervals above (number of companies with a debt ratio comprised between the chosen limits) should be remade and the situation presented in table no.2 results.

*Table no. 2 - Number of companies and their percent depending on the debt ratio with and without considering the debts to associates*

| **Debt ratio range** | **Companies with total debts minus the balance of the account 455** | **Percent of companies after deducing the balance of the account 455** | **Mean debt ratio** | **Compa-nies, consi-dering the total debts** | **Percent of companies before deducing the balance of the account 455** |
|---|---|---|---|---|---|
| From 0 to 2/3 | 71 | 55,47% | 0,40 | 47 | 36,72% |
| From 2/3 to 1 | 45 | 35,16% | 0,83 | 56 | 43,75% |
| Over 1 | 12 | 9,38% | 1,46 | 25 | 19,53% |
| **Total** | **128** | **100%** | **0,65** | **128** | **100%** |

We see that the situation of the companies analyzed from the viewpoint of the debt ratio, is much more favorable after deducing from the total debts the resources coming from associates as loan. Therefore, all in all, the companies with a debt ratio under 2/3 have the largest percent, while the percent of companies with supraunitary debt gets lower, from 19.53% to 9.38%. At the same time, the mean debt ratio decreases as a whole while it changes per interval, and, without being spectacular at the first two intervals, it shows a significant decrease with the companies somewhat condemned of the last category.

### 3 Debt and business area

The relation between the business area and the debt is one of the basic ideas of the financial analysis; the activity field may be considered a global and synthetic indicator of the risk related to the main activity. The distribution per debt ratios and business area of the companies in the lot is presented in table no. 3.

*Table no. 3 - Distribution of companies per debt ratio and business area*

| **Debt ratio**<br>**Business area** | **Up to 2/3** | **2/3 – 1.00** | **Over 1.00** |
|---|---|---|---|
| 1. Commerce | 41.51% | 47.17% | 11.32% |

| | | | |
|---|---|---|---|
| 2. Services | 70.73% | 24.39% | 4.88% |
| 3. Production | 58.82% | 29.42% | 11.76% |

As to the extremes and the mean per interval, these are specified in table no.4:

*Table no. 4 - Mean and extreme debt ratio per business areas*

| Business area | Lowest debt ratio | Highest debt ratio | Mean debt ratio |
|---|---|---|---|
| Trade | 0,12 | 3,43 | 0,79 |
| Services | 0,03 | 1,03 | 0,51 |
| Production | 0,05 | 1,59 | 0,61 |

These data show quite clearly that the companies having the biggest debts are the ones dealing with trade. Their mean debt is 0.79, much more than the mean of the other two sectors. The explanation of this fact is that the administrators of the trade companies get into debts relying on future constant and quick receipts, characteristic to their business. This argument may not be claimed by the companies dealing with production and services, where administrators are generally very cautious. The best debt situation is found in service companies where less than 30% exceed the debt ratio of 2/3 when the mean debt ratio is 0.5 l. The need for financial resources specific to production is showed by considerable debt ratios (mean of 0.61) without exaggerating too much: under 2/3 are almost all 60% production companies. It is true that the most numerous exaggerations (supraunitary debt) are found in the productive sector, not very far from the commercial sector. To see better the debt effects on sectors, in table no.5 we may put face to face the mean of the debt ratio and the mean of the relation between profit and total asset (the latter being a kind of return on business) and the mean financial return per each category.

*Table no. 5 - Mean debt ratios and economic and financial returns per business areas*

| Business area | Mean debt ratio | Mean return on business (result/asset total) | Mean financial return (outcome/equity capitals plus sums owed to associates) |
|---|---|---|---|
| Trade | 0.79 | 0.04 | 0.59 |
| Services | 0.51 | 0.03 | 0.76 |
| Production | 0.61 | -0.03 | -2.08 |

From the viewpoint of return on business, it is confirmed to a certain extent the assumption that taking chances (in this case, only in terms of debt) bring important hopes of gains: sector in most debts has in average the best outcomes. Anyway, this latter analysis is not very significant, considering the fact that the return on business in trade and services are quite low. Production has averagely a negative return (important losses), even if the mean debt ratio is not that high. Colot and Croquet reached the following conclusion: they saw that there is not significant relationship between the debt ratio and the return on assets business statistically speaking. As to the financial return (outcome in relation to equity capital adjusted by adding sums owed to associates – to ensure the coherence of the comparison), this is exceptional for trade and services, very probably due to the low sizes of the equity capitals of several companies of the lot. For companies dealing with trade, another explanation of their very good return (a mean of 0.59) may be provided by the classical financial analysis that tells us that the lever effect leads to better financial returns in case of company debting, provided that the return on investment should be higher than the debt cost.

## 4 Accounting prudence and the debt ratio

In case of the companies with debts, we can see that their exposure to risks should lead to taking into account the consequences of accounting prudence by presenting provisions for risks or ascertaining the depreciation of some assets. From the data presented in the table no. 6, we see that in the lot of companies that we studied, these accounting procedures are very rarely used.

*Table no. 6 - Provisions and adjustments for depreciation in relation to the debt ratio*

| | **Number of companies that made risk and expense provisions** | **Percent of companies that made provisions** | **Number of companies that made depreciation provisions** | **Percent of companies that noticed reversible depreciations** |
|---|---|---|---|---|
| From 0 to 2/3 | 2 | 4.26% | 4 | 8.51% |
| From 2/3 to 1.00 | 1 | 2.13% | 4 | 7.14% |
| Over 1 | 0 | 0.00% | 1 | 4.00% |

The little frequent use of the mechanisms by which reversible depreciations and/or probable debts are ascertained cannot be blamed to the absence of depreciation or risks generating probable debts, it may rather be explained by an incomplete assimilation of these mechanisms in the accounting practice of the area of the companies or by the fact that the fiscal recognition of these expenses with depreciation and with provisions for risks is quite limited. However, accountants are not the first responsible for the lack of provisions and adjustments, the persons dealing with inventory lists are. To see better who admits/who does not admit the risks by the above accounting procedures, in table no. 7 we show that there is a link between the size of the companies and the use of these procedures (the categories of companies depending on sizes are defined in table no.7).

*Table no. 7 - Provisions and adjustments for depreciation in relation to the size of the asset*

| **Category** | **Number of companies that made risk and expense provisions** | **Percent of companies that made provisions** | **Number of companies that made depreciation provisions** | **Percent of companies that noticed reversible depreciations** |
|---|---|---|---|---|
| 1 | 0 | 0.00% | 0 | 0.00% |
| 2 | 0 | 0.00% | 0 | 0.00% |
| 3 | 0 | 0.00% | 0 | 0.00% |
| 4 | 0 | 0.00% | 0 | 0.00% |
| 5 | 3 | 7.69% | 9 | 23.08% |

In table no. 7 we see that only the large companies (more than 1,000,000 lei total asset) take into account the accounting consequences of prudence in terms of adjustment and provisions. Probably in these companies the accounting department is more numerous and has skilled staff in accounting components, the supervision of provisions being a current task of specialized staff. We are repeating an explanation aforesaid: the very limited use of these instruments may also be in keeping with the existing inventory procedures: it is known that depreciations and probable debts depend largely on the way to determine the inventory values of assets or in which probable debts are estimated. Or these tasks do not devolve upon the persons that introduce in books the results of the inventories made, but upon those who effectively deal with the inventory listing. In this case, in the companies where there is no pressure from the auditors, the accounting procedures do not always lead to obtaining the best information for the external users of the company.

## 5 Conclusions

At the extent to which we may generalize the results of the study made on a lot of 128 companies of Iaşi county, we see that their debt ratio is one quite important: more than 60% companies have a gross debt ratio that exceeds the limit of 2/3, sometimes close to 20% of the total number have a gross debt ratio of more than 1, which dooms them, at a first glance, to insolvency. To complete this analysis, in order to obtain indicators that are more representative for the situation of the companies in the lot, we identified among debts the amounts that such companies owe to their own associated (found in the creditor balance of the account 455 *Sums owed to associates*) and we considered that these are a kind of own resources more than sure obligations. After adding these sums to the equity capitals, the situation of the companies changed, meaning that only 45% of the total number exceed the debt ratio of 23 and only little more than 9% remain with a supraunitary debt ratio. If we consider the classification of the companies on three large categories of activities (commerce, services and production), we see that the companies with the highest debts are those operating in the trade area and the best situation is found for companies operating in the services area. As to the return on business and the financial return per categories of activities, it is hard to determine a direct relation between them and the debt ratio. There is no linearly link between the size of the company and the debt ratio: nevertheless we see that most companies with a supraunitary debt ratio belong to the category of those with total assets from 10,000 lei to 100,000 lei. Finally, even if the high debt ratio may be considered an important ratio with regard to the risk the company is submitted to, we see there is not a problem of continuing the activity of the company, which makes that in very few cases the books records cases of adjustments for depreciation or provisions.

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