THE INSOLVENCY PHENOMENON AND THE NON PERFORMING LOANS

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Abstract
The number of bankruptcies increases by 50% in the period 2008-2011, at over 20,000 cases. Most bankruptcies are in the sector of trade and services, where falling demand and increased financial blockage cause serious financial problems. This article presents comparatively, the evolution of the number of bankruptcies, total and by main industry. Also it develops an econometric model to determine the effects of nonperforming loans in RON and foreign currency on the number of bankruptcies.

Key words: Financial crisis, bankruptcy, arrears

JEL Classification: G11, G33

1. Introduction
The high costs, poor liquidity and poor strategies are the main causes that lead to insolvency of companies. Many managers have “drunk the liquor of success” in recent years, when their businesses have registered spectacular growth, and now they do not know how to cope with the financial crisis.

Many of the companies in Romania are not well prepared the realistic plans in place to combat the financial crisis, which is the probable cause why they likely go bankrupt. The biggest problem facing businesses in Europe and, implicitly, in our country, is the high costs, 39% of bankruptcies this year are caused by this (Coface, 2012).

Other common reasons for which businesses enter in financial distress are insufficient liquidity (38%), inadequate reaction towards the crisis management (34%), conflicts at management level (20%), crisis in industry (17%) and problems with taxation (4%). Even if we are in full financial crisis, only 15% of companies have developed a strategy for “sustainable restructuring”.

In terms of methodology, the study proposes an analysis of insolvency proceedings at national level, annual and per branch of activity. Also, the paper offers an econometric perspective on insolvency status, based on analysis of the influence of arrears on loans in lei and foreign currencies over the number of insolvent firms.

2. The evolution of insolvency phenomenon in 2008-2011 period
The insolvency procedure is normally a tool by which economic environment is healing, but in conditions of deep economic crisis, this tool should be used wisely because many companies will disappear and the chances of recovery effects will be increasingly smaller (Turcu, 2010).

In 2008-2011, the insolvency procedure, regulated by Law 85/2006, had an application increasingly greater as the number of bankruptcies increased significantly compared with previous period, reaching a total of over 14,000 insolvent firms/year.

The insolvency growth has been driven with the desire of creditors to recover as fast as the claims, such as insolvency procedure is one of the fastest legal instruments to request a claim against debtors. With the advent of the economic crisis, the insolvency procedure was only a mean of ascertaining a situation; actually that of helplessness that the Romanian companies to pay its debts in increasingly larger (Piperea, 2008).

More and more companies have used the insolvency proceedings and cause borrowers to respond and pay debts, but with the effects of economic crisis, most companies have not managed the transaction settlement and entered into insolvency proceedings.

The period 2008-2011 had a marked evolution in the number of bankruptcies in Romania, especially after the establishment of economic crisis, many lenders have misused the insolvency procedure, which is open to current economic conditions much too easily (BNR, 2012).
In 2008 there were open over 14,000 cases of insolvency, but in 2009-2011 their number were over 20,000 which lead to large economic imbalances, the most affected sectors were trade, construction, real estate, agriculture. The main cause of this situation is the blocking lending, the most companies use as the main source of financing bank loans (Coface, 2012).

Although the total number of existing insolvencies at the end of 2011 show only a slight increase (+2.7%) compared to the situation at the end of 2007 (14,104 firms in insolvency), the number of new cases opened strictly during the period 2008-2011 (10,636 cases) of registered an increase, by 66% compared to the previous year (when the new files were opened 6415).

The distribution, by field of activity, of the number of bankruptcies in this period shows a change in the Top 5, which prefigures the sectors in which “shock wave” of financial crisis was felt first time, effects that will certainly be confirmed by the top of bankruptcies in 2012 (table no.1).

<table>
<thead>
<tr>
<th>Areas with the highest rate of bankruptcy in 2008-2011 period</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>24,53</td>
</tr>
<tr>
<td>Wholesale and Distribution</td>
<td>20,24</td>
</tr>
<tr>
<td>Construction</td>
<td>11,50</td>
</tr>
<tr>
<td>Transport</td>
<td>5,60</td>
</tr>
<tr>
<td>Manufacture of wood and wood products</td>
<td>5,48</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>5,40</td>
</tr>
</tbody>
</table>

Although the first two positions are situated, as in previous years, the trade companies, it is notable the castle between wholesale and retail trade (before the second position in the ranking in 2007). Also we mention the rising of the construction sector was third and into the top 5 of transport and furniture industry, insolvencies number of these areas surpassing the one in agriculture and food industry, sectors at the end of 2007 were among the top 5 as share of total bankruptcies.

The most secure areas, with a share of total insolvency below 1%, are still the energy industry, quarrying, telecommunications and financial intermediation. The energy and extractive industries can not be compared with an area such as trade, where market access is easy, and the number of economic agents and competition is very high.

The number of areas with a low rate of insolvencies is expected to reduce significantly in the next period, the first target being those areas in which economic and financial situation has deteriorated substantially in the period 2008-2011, and the true effects of crisis will be really felt during this year (metallurgical industry, machinery, IT).
The insolvency and bankruptcy phenomenon declined in 2011. The number of new companies entered into insolvency or bankruptcy in 2011 felt by about 5 percent compared to 2010 (nearly 23,500), but remains significantly above the level of 2009 (about 32 percent higher).

In the first half of 2012, there was a revival of insolvency phenomenon (increase of 21 percent compared to the same period last year). There are three challenges to financial stability arising from these companies: (i) debt to the banking sector, (ii) the payment discipline and (iii) debts by trading partners.

The debt of insolvent or bankrupt firms to the banking sector is relatively important. The bank loans to such firms is 17.2 billion lei (about 14.4 percent of loans non-banking companies, July 2012). Over 58 percent of the volume of these loans is in currency (10.1 billion). The companies in insolvency generates 66 percent of loans of non-financial firms, overdue more than 90 days. The predominant primary collateral required to insolvent firms is immovable asset (49.5 percent of the loans to these companies), while the volume of loans they have, among others, real estate guarantee amounts to 74.8 percent.

The companies in insolvency or bankruptcy process influences significantly the payment discipline in the whole economy. The major payment incidents generated by these companies in 2011, amounted to 57.7 percent of all major payment incidents caused by non-financial companies (down from 75.3 percent in 2010). In the first half of 2012 these companies recorded incidents of major payments worth about 1 billion Ron, representing 41 percent of the total related incidents to major payments generated by non-financial companies during this period (and down from 60 percent SI/2011).

The arrears by trading partners, generated by insolvent firms, are significant important, the big recovery time explaining in part the claims lower ability to honor its obligations. The debts to suppliers caused by insolvent companies amounted to about 28.3 billion lei at the end of 2011 (representing 28 percent of total debts to suppliers caused by non-financial companies in December 2011). These record due to a high volume of claims (about 11 billion in December 2011), while the recovery period of annualized claims is 295 days, compared with 100 days by average economy. The trade payables from balance sheets are worth 18.5 billion (47.4 percent of the total debt of non-financial business, December 2010), at a turnover of 19.4 billion Ron in 2011.

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The reorganization is a rare procedure used because the debtor must recognize the state of insolvency and to express their intent to reorganize the business. This happens quite difficult to Romanian companies, their managers not easily recognize that they are in the state of insolvency, trying to save them, rather than resort to the supervision of an expert, reaching finally to open insolvency proceedings. It should be noted that the chances of success in a plan of reorganization are very small, only 1% of cases successfully finish the reorganization plan.

### 3. Effects of non-performing loans on the number of insolvencies

The loans arrears contracted by the population and companies in the period increased by 3.44 billion RON, up from 6.24 billion RON. Meanwhile, the unemployment rate advanced to 4.4% by the end of last year to 6.6%. If the IMF forecasts come true, and the vacancy rate of the labor force reached 8.9% at the end, then the amount of arrears could reach 10 billion RON.

The share overdue balance employed by population and businesses increased from 2.97% to 3.12% in July to August, with more than two times higher compared to same level recorded at the end of last year 1.41 %. The value of credits arrears raise after at 6.24 mil. RON, with 3,443 billion RON after registered level in December. Meanwhile, the number of employees lowers in the first seven months of the year from 4.74 million people, to 4.51 mil. and the unemployment rate advanced to 4.4%, to end 2008, to 6.6% in late August.

The RON arrears loans have much greater amounts toward to the level of arrears loans in Euros, but the advance is much faster for the delays in payment appropriations in the euro, which have tripled in these period.

Thus, the current arrears in total amounts due on loans in national currency increased by about 3.5 times to 1.23% in late September. In October 2008, their level was 0.35%.
Given these realities, we build an econometric model to study what was the effect, during the period 2007-2011, on the number of bankruptcies of arrears the currency and arrears in RON (figure no.2).

![Nonperforming loans (Ron and euro)](image1)

**Source:** National Bank of Romania Monthly bulletin, December 2012, Section Credit Risk Indicators

The number of bankruptcies in the period 2007-2011 are presented in the following figure (figure no.3):

![The evolution of insolvency phenomenon (monthly)](image2)


The type of econometric model is multi-factorial; the equation is as follows:

\[ Y_t = b_0 + b_1 x_{1t} + b_2 x_{2t} + e_t \]  \hspace{1cm} (1)

where

- \( Y_t \): number of bankruptcies
- \( X_1 \): non-performing loans RON
- \( X_2 \): non-performing loans euro
- \( e_t \): random variable

The estimation of parameters for this model is done with least squares:

\[ F(b_1, b_2) = \min \sum (y - b_1 x_1 - b_2 x_2)^2 \]  \hspace{1cm} (2)

Minimum of this function is given by calculating the partial derivatives with respect to model parameters:

\[ \frac{dF(b_1, b_2)}{db_1} = 0 \quad \frac{dF(b_1, b_2)}{db_2} = 0 \]  \hspace{1cm} (3)
Using statistical program EViews we get:

<table>
<thead>
<tr>
<th>variable</th>
<th>coefficient</th>
<th>Std error</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-performing loans lei</td>
<td>0.000225</td>
<td>4.97E-05</td>
<td>0.0001</td>
</tr>
<tr>
<td>non-performing loans euro</td>
<td>0.003817</td>
<td>0.00959</td>
<td>0.0006</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.79999</td>
<td></td>
<td>915.2800</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.791219</td>
<td></td>
<td>389.2088</td>
</tr>
<tr>
<td>Sum squared residual</td>
<td>727416.2</td>
<td></td>
<td>13.37377</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-163.9532</td>
<td></td>
<td>0.857076</td>
</tr>
</tbody>
</table>

The coefficients b1 and b2 of non-performing loans in local currency and foreign currencies are positive which shows that between the number of bankruptcies and the arrears is a direct connection. But what is most important is that the non-performing loans rate in currency is higher (0.003817) than the coefficient arrears in RON (0.000225).

4. Conclusion

The explanations for the number of bankruptcies increased by 50% are multiple.

First, the bad payers are grouped on the massive loans in Ron or foreign currency offered without any guarantees. Typically, these loans were low and were used for personal needs: purchase electronics, furniture and other products. Without any pressure from creditors, more people “forget” to meet obligations under the contract. In the case when a person does not make any guarantee, is tempted to delay payment on loans. In conditions in which they put the house as collateral, cannot afford to play.

On the other hand, the depreciation of the economy, restricting the production, growing unemployment have brought customers into impossibility of payment, and then to start the procedure of bankruptcy.

Besides the economic crisis and fiscal measures inadequate, the worsening of the situation also has other causes. The banks no longer finance the real economy and thus, the companies have entered into a generalized blockage. Because of lack of money liquid, the firms were forced to restrict their activities and give up the investment, while government sources restricted investments. The consequences of such behavior have not left expectations: income employees have reduced the number of redundancies has experienced spectacular growth and labor market contracted severely. In this way, the companies are no longer able to repay loans accessed, and people do not succeed to pay monthly installments. Both flat tax and enforcement of the debtor companies will erode strong business, are all prospects as arrears on loans of any kind to grow uncontrolled.

5. References