Institut für Höhere Studien (IHS), Wien
Institute for Advanced Studies, Vienna

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Abstract

The paper provides a framework for understanding why in Romania, like in any other Central and Eastern European country, before starting the process of enterprise restructuring, it is necessary to reform the financial sector. It also provides statistical evidence for understanding why the reform of the financial system could accelerate the process of enterprise restructuring.

The data collected from 256 state-owned enterprises relate the real bank borrowing to the profits of the enterprises, the real stock of inter-enterprise arrears and the size of the enterprises. For studying whether good or bad SOEs receive in a different way bank loans, the determinants of state firms borrowing in Romania are analyzed for each of the three years the analysis is concerned, testing the hypothesis that the market-oriented reform of the banking system in Romania generated a better allocation of bank credit to state-owned enterprises.

The current sample of 256 SOEs will be then split into subsamples, on the basis of the profit margin per employee in each enterprise. The regression run for the data related to bank borrowing in the enterprises which are part of these subsamples will try to answer the question whether banks take into consideration the profitability of enterprises in their decision to allocate credit. The regressions will be run for each year and some conclusions will be inferred from the differences in the values and in the significance of the coefficients associated with the variables in the regression. Considered to be important in the allocation of bank credit are the bank arrears, inter-enterprise arrears and the size of enterprises. At the end of this paper some policy tools will be suggested for improving the allocation of bank borrowing to state firms.

Keywords

restructuring, financial restructuring, bank lending in transition.

JEL-Classifications

P34, L33, P31

"Nulla ignoraza mai con tanta guerra mi fè disideroso di sapere, se la memoria mia in ciò non erra, quanta parìemi allor, pensando, avere; nè par la fretta dimandare er' oso, nè per me lì potea cosa vedere: così m'andava timido e pensoso."

"Never did ignorance so strive in me making me eager to know, if my memory does not err, than I felt it do then in my thought, nor, for our haste, did I dare ask nor could of myself see anything there. So I went on timid and thoughtful."

Dante Aligheri, The Divine Comedy, Purgatorio, Canto XX

Comments
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1. Statement of the Problem

1. 1. Introduction

Enterprise restructuring in all Central and Eastern Europe (CEE) face similar problems. The only major difference which may be encountered is the time extent under which different policy tools are used by policy-makers. The similarities come from the way in which SOEs were funding their activities and, moreover, from the centralized planning system that was implemented and was effective for years in all CEE countries.

This paper will focus on the effect of banking system reform on the process of enterprise restructuring. The main analysis of this paper supports the author's opinion that the banking system has to be reformed before starting the lengthy and difficult process of enterprise restructuring. Although it is generally thought that the most important actor in enterprise restructuring is the Government, it seems more realistic to assume that the banking system, for which enterprise restructuring process generates greater revenue would be thus more interested in the issues related to enterprise restructuring than the Government.

This paper will answer the question whether the pattern of bank lending has been recently changed or not. In an economy which works properly the amount of bank lending is influenced more by the profit of the enterprises and less by the other variables (size, employment, etc.).

Discussed in many papers are the issues of recapitalization of banks and the conditions which have to be imposed on banks upon recapitalization in order for such a policy tool to be effective. The Romanian Banking System is facing now a considerable decapitalization. This comes as a result of inflationary pressure on the banking system, and, moreover, from the nonperformant allocation of credit.

The solution for the financial side of economic restructuring could not solve all the issues related to state sector enterprises restructuring in Romania. However, this financial restructuring could trigger restructuring from different other perspectives, the most important being the restructuring of the production and of the profit allocation. Enterprise restructuring in CEE involves adjustments in legislation and, moreover, it involves an institutional adjustment, which, in terms of the time extent under which the adjustment occurs, it could be longer than the duration of the financial restructuring process. Therefore, the solutions to the problems of inefficient allocation of bank credit and to the looseness of the budget constraints which are currently imposed on SOEs are not supposed to solve thoroughly the whole issues related to enterprise restructuring. This paper will provide only comments and suggestions related to the financial side of enterprise restructuring, with some points related to the legal framework which has to be developed before banks could act as "agents of change".

1.2 The Banking System and its Influence on Enterprise Restructuring

We collected data in Romania from the Private Ownership Fund No. 3 in Brasov. Data are related to bank borrowing and the subsidies received by state enterprises. These are the major sources of external funding for state enterprises, with bank loans representing the largest part of funding. This is mostly determined by the agreement signed in 1992 between the Romanian Government and the International Monetary Fund. One of the requirements of the initial agreement signed in 1991 with IMF was a cut for all the subsidies to SOEs, in order for the Romanian Government to receive further loans from IMF. The structural adjustment loans were supposed to become available only upon the Romanian Government compliance with the IMF requirements. As a result of this, the major source of funds for the SOEs remaining is the bank loans. Although the Central Bank issued very strict norms for the commercial banks regarding the allocation of bank lending, there are, however, a lot of ways for the commercial banks to avoid applying the Central Bank's regulations. This happens mostly for those commercial banks which are financing the so-called "white elephants", SOEs which are too big to fail and which could not survive without banks financing their wage payments and production.

As a consequence of the cut for all subsidies, in the last two years bank borrowing became the major source of external funding for SOEs. Until 1992 the major source of funding for SOEs consisted of subsidies. The situation changed in 1993, when, due to the pressures from the IMF, the subsidies were removed almost totally. In the SOE's reported balance sheets after 1992 the subsidies became insignificant compared to the amount of bank borrowing. The main responsibility for promoting financial enterprise restructuring shifted then to the banks.

1.3 Allocation of Bank Lending in Romania

All the commercial banks in Romania developed their own mechanisms for control and incentives, so, in principle, all lending procedures should be based on the analysis of the borrower's profitability. The largest part of the commercial banks are controlled by the state because in most part of the commercial banks the state is the major shareholder. This basically means that all the lending procedures are controlled by the state, or, rather, by the Government. Due to this, it is not unusual to see enterprises financing wage payments on a regular basis with bank loans, without these loans to be repaid. In fact, as our data analysis will show, bank credit can replace the subsidies formerly received by enterprises. Moreover, as many enterprises are decapitalizing by paying workers the most part of their surpluses, they will need bank loans to finance production and payments. This behavior triggers recurrent need for bank loans, considering that no change in behavior it is made by banks and SOEs. The state sector is still the major borrower in Romania. Although the private sector accounts for an important share of GDP (35 % in 1993), the private sector is still accounting for only a small part of total bank borrowing.

1.4 Short Chronology of Credit in Romania

Before 1989, the financial system served only as a channel for subsidies to enterprises. All enterprises were state-owned, and the allocation of funds to one enterprise or another was made often upon the Communist Party leaders' whim.. The monolithical National Bank had control over the flow of funds, according to a five year plan. The only bank which had some of the prerogatives of a commercial bank was the Bank for Foreign Trade, mostly due to the fact that it worked with foreign banks. The other banks (the Investment Bank for instance) were only the final link in the money channel created between the National Bank and enterprises. The main source of funds was the Savings Bank (CEC), which had a monopolistic position, being the only institution to offer interest for savings. It would be redundant to say that the interest rates at that time were very low, due to this monopolistic position the Savings Bank had on the savings market. The money accumulated in the Savings Bank was channeled by the National Bank to enterprises. Some of these funds were financing the investments which were supposed to be done according to the five years plan. The financing of investments was carried out through the Investment Bank. In many cases the funds were used only for wage payments or for buying raw materials, without the obligation for enterprises to repay the loans. As argued by Perotti (see Perotti, 1994) enterprises did not have any incentive to repay loans, as future credit was independent of past repayment.

In 1991, the reform program initiated by the Government included the reform of the banking system, by the enactment of the Banking Law (Law 33/1991) and the Central Bank Law (Law 34/1991). Several new commercial banks were established as joint stock companies, some of them only by incorporating the old ones (for instance, the Bank for Foreign Trade and the Bank for Investments). The Governor of the National Bank of Romania, Mugur Isarescu, argued that "for maintaining banks in sound financial condition, most bank losses were written off in 1990, and new banks began with relatively clean portfolios" (Isarescu, 1991). He further developed the idea that the newly established banks need to be strongly supervised by the National Bank. On the basis of our evidence from the enterprises' balance sheets, it seems that this did not happen. The requirements of the Central Bank seem not to be respected by all the banks, especially by those owned by the state. The anecdotal evidence shows since 1991 an increasing involvement of the state in the banking industry. Amongst the privately owned banks established after 1991, only a small part is yet privately owned. A very interesting pattern of state intervention in the banking industry has been followed. The control over the newly established banks had turned to the state, through enterprises which are state owned. For instance, one of the largest private bank in Romania, Dacia Felix Bank, after being founded in 1991 as a private bank, without any involvement of the state, became in 1994 a bank controlled by the state. Most of Dacia Felix Bank shares of stock are currently held by the state. This is carried out through the involvement of some large SOEs which had established a relationship with the bank based on a history of bad loans.

There are two important remarks here: first, the access to bank loans became in this way easier for the loss making enterprises which are sufficiently large to have a lot of bargaining power. Having this bargaining power, large SOE could demand the acquisition of shares of stock in the commercial banks controlled by the state. Secondly, most part of bank credit is being thus mostly allocated to those enterprises which have control over the banks as shareholders. In fact, what happened in this strange process of vertical integration is that the subsidies formerly received by state owned enterprises were channeled to the banks, and this way large SOEs became bank shareholders. This may be an explanation for the poor credit allocation in Romania. Without the banks always having incentives for performance and profitability, most part of the bank credit becomes a casual method for financing state owned enterprises losses. The lack of efficiency in bank lending allocation is therefore in many cases determined by the pattern of state intervention in the banking system and by the structure of bank ownership.

1.5. The Inter-Enterprise Arrears (IEA)

Another cause of the difficulties encountered in the reform program launched in 1991 by the Romanian Government is the growth in the stock of inter-enterprise arrears. Romania experienced a generalized clean up at the end of 1991 in inter-enterprise arrears, through a global compensation scheme (GCS). Focusing on inter-enterprise arrears, Calvo and Coricelli argue that the Romanian cleanup of the inter-enterprise arrears, not supported by macroeconomic policy and microeconomic incentives is an example of the lack of efficacy of any of this kind of policy. This could be also the case of an unconditional cleanup of the bank arrears, since both inter-enterprise arrears and bank arrears are substitutes for enterprises' liquidity. The behavior of state enterprises is consequently influenced by both of the arrears above. There is a chain effect in both inter-enterprise and bank arrears, which is determined by the recurrent need for sources of financing for enterprises.

As argued by Calvo and Coricelli for the case of inter-enterprise arrears, bank arrears are not necessarily determined only by the impossibility of state firms to comply to with their contractual obligations (i.e. the compliance with the terms and the clauses of the credit contracts), but it may be the case that SOEs can not comply with their contractual obligation because other enterprises have failed to do so. The clean up process at the end of 1991 has been an example of a policy tool which was used without the policy makers' anticipation of the consequences. The amount of inter-enterprise arrears after the global compensation increased steadily, although not reaching the same amount as before the cleanup. There is a great degree of similarity between the two kinds of arrears. They are both sources of funds for SOEs and they are very much the same with the subsidies received by SOEs, since both seem to act as open-ended subsidies in an economy which could not enforce hard budget constraints for state firms. The role of inter-enterprise arrears is basically the same as the role of bank arrears in obstructing the process of financial reform of the state firms. Calvo and Coricelli show in their analysis that out of 1,692 state industrial state firms that 1,445 displayed arrears in payments to suppliers, and this seems very much alike to the case of bank arrears. However, most net arrears were concentrated in a handful of firms (Calvo and Coricelli, p. 204) and this is a valid either for bank arrears. Moreover, they argue that even if "loss making enterprises are important recipients of net arrears, they do not play a crucial role in the whole chain of arrears" (idem). The solution for both the inter-enterprise and bank arrears problem seem to be the same (i.e. the imposition of harder and enforceable budget constraints). Later in this paper it will be studied the dependence between bank and inter-enterprise arrears and the influence of the inter-enterprise arrears on the process of bank credit allocation will be examined.

However, inter-enterprise arrears could not be reduced with a straightforward intervention of the Government, and the attempt to clean-up these arrears has proven to be unsuccessful. In the case of bank arrears, the problem could be tackled by harder credit condition imposed by the banks. Once a solution is found for reducing the amount of bank arrears, it seems very probable that the amount of IEA will be drastically reduced.

2. Comparative Analysis

2.1. Data Description

To study the impact of the banking system reform on enterprise restructuring requires complete data from banks regarding the amount of bad loans and the credit policy, which, at this time, is hardly possible within the banks policy regarding the secret of operations. The only alternative is to find data related to bank borrowing and arrears from the SOE's yearly balance sheets. All the data are collected from the balance sheets of some 300 enterprises in the "Transylvania" III Private Ownership Fund's portfolio.

The Private Ownership Funds have been established by law in 1992. After the Privatization Law was enacted (Law 18/1992), the institutions which had the prerogatives of interim management of SOEs, for their share of 30% of each SOE, were the Private Ownership Funds(POFs). There are five such POFs, which have 30% of the shares of stock in each state enterprise, on a regional basis. The Private Ownership Fund from which the data were collected is the POF 3 in Brasov.

The data contain information about the profits of SOEs, about employment, bank arrears, inter-enterprise arrears and bank borrowing. The enterprises in the sample are randomly selected from about 1000 enterprises in the Private Ownership Fund's 3 portfolio, distributed geographically all around Romania and from different branches. Data contain observations related to the same enterprises from 1991, 1992 and 1993. All the data are expressed in terms of 1991 constant Lei, the data from 1992 and 1993 being deflated with the yearly producer price index (PPI).

The current sample of 265 enterprises has been selected from the initial sample consisting of 315 enterprises on the basis of completeness of data, all the observations with missing variables were removed from the sample.

2.2. Question to be Investigated

This paper will focus on the allocation of bank credit to State Owned Enterprises (SOEs). Our regression analysis confirms the ex ante author's expectation that one of the causes for the wrong functioning of the Romanian economy is the way the credit is allocated between different kinds of enterprises, and the profitability considerations which are not taken into account by banks when allocating credit to SOEs. The test takes into account the determinants of state sector enterprises borrowing. Considered to be influential in the allocation of bank credit to state enterprises are the size of the enterprises (for which the yearly amount of sales could stay as a proxy), the enterprises' scaled banking and inter-enterprise arrears and the scaled profit.

The second part of the paper will focus on the distribution of credit amongst different categories of enterprises, on the basis of their productivity. The sample will be split in two subsamples, corresponding to the upper and the lower tail of the productivity distribution. The productivity is measured as the ratio between the firm's net profit and amount of yearly sales. The allocation of bank lending will be studied for the two categories of enterprises above and some conclusions and possible policy tools will be inferred from the analysis.

Important as well in the analysis is the dynamic of bank borrowing. Using differences from year to year in the variables entering the first regression equation, the dependence between differences from year to year in scaled bank borrowing, size, scaled inter-enterprise arrears and scaled bank arrears will be studied. The regressions will test the initial hypothesis that there is a positive change over time in the pattern of bank credit allocation. Unfortunately, observations are available only for the period from 1990 to 1993, therefore the conclusions inferred would not be powerful enough.

3. Motivation and Question

3.1. Question and Methodology

Pinto and van Wijnbergen collected and analyzed Polish data regarding bank borrowing (see Pinto and van Wijnbergen, 1994). They suggest that in order to enforce credible budget constraints for SOEs a necessary condition is to use both micro and macroeconomic policy tools in an adequate way. The allocation of credit should be done, in the case of a "healthy" economy, on the basis of SOEs profitability, otherwise the financing process could generate important macroeconomic distortions (inflation) and not less important microeconomic distortions (lack of incentives for both SOEs and banks).

In their analysis, a good performance of state industries is an end to open-ended credit and subsidies. Commercial Banks can exercise governance over state firms by withholding funds to poor performers. It was also the case of Poland, where open-ended subsidies allowed enterprises not to undertake any steps toward restructuring, but unlike Romanian banks, their Polish counterparts, as shown by the conclusions Pinto and van Wijnbergen reached in their paper, were playing a considerable role in corporate governance. Their analyses show a break down of the negative link between the SOEs profitability and the access to new credit after the banking reforms in Poland. While we ask a similar question, we could not replicate the regressions run by Pinto and van Wijnbergen in their paper, the reason is that the reported profits of state firms are not accurate in Romania. The splitting of the sample done by Pinto and Wijnbergen on the basis of profit before tax and profit after tax could not be suitable for inferring powerful conclusions for the Romanian state firms sample. Scaling of profits with the total amount of sales for each enterprise could reduce the importance of this inaccurate profit reporting.

For Romania, the analysis of fund allocation to the state sector was a problem until the subsidies were removed almost totally, at the demand of the International Monetary Fund, in order for the Romanian Government to receive the Structural Adjustment Loans. This analysis was a problem merely because the amount of subsidies the state firms were receiving was not made public, or at least, it is very probable that the published figures were distorted.

This paper shows that the same order of importance should be given to the allocation of bank credit to enterprises on the basis of profitability as to removing the subsidies. Rather than continuing to finance loss making enterprises, or, in fact, continuing to finance wage payments in SOEs that have no perspectives for achieving a state of profitability, a tough credit policy should be implemented. This will lead to a shrinking of both bad bank credit and inter-firms trade credit.

We first run a general regression to determine the variables which are significant in the allocation of bank credit. The regression model upon which the regression is run is presented below:

$$\mathbf{BB\_EMP_{It}} = \alpha + \beta_1 \cdot \mathbf{BAREM_{It}} + \beta_2 \cdot \mathbf{SALES_{It}} + \beta_3 \cdot \mathbf{IEAREM_{It}} + \beta_4\, \mathbf{PROEM_{It}} + \varepsilon_{It}$$

where the dependent variable is the stock of bank borrowing divided by employment, and the independent variables are:

BAREMit are the bank arrears divided by employment for each year;

SALESit are the total sales for each of the three years;

IEAREMit are the inter-enterprise arrears divided by employment

PROEMit are the profit margins over employment.

Our null hypothesis, as a result of market-oriented reform, is that the variables above show an improvement of the profitability basis on which credit is allocated . A good credit policy should concentrate on good enterprises. We are referring to those enterprises which have higher profits and a lower level of arrears. If the Romanian economy has changed direction, the collected stock of both inter-enterprise arrears and bank arrears should be negatively correlated with the amount of bank lending. In addition, the political situation in Romania suggests that there are some other variables which influence the allocation of bank credit, like the size, and implicitly the bargaining power of enterprises. The major concern of the Romanian Government seems to be concentrated now on issues related to unemployment and inflation. Often Governmental officials are saying that maintaining the "social peace" is the most important duty of the Government and, according to this major goal of the Government, any measures taken in order to liquidate poor performing enterprises would generate unemployment. Therefore, the liquidation of poor performing SOEs is not considered consistent with the major goals of the Government, and, hence, any liquidation procedures are not initiated.

Presented in Table 1 are the results of the regression run for the bank lending scaled by the number of employees, the independent variables being the stock of both inter-enterprise arrears and bank arrears, scaled by the number of employees, the net profit of each firm and the size of the enterprises, for which the amount of annual sales may stay as a proxy.

Table 1:

Year	Variable	B	SE B	T Statistic
1991	IEAREM91	.243818	.082506	2.955
	SALES91	-4.17407E-05	9.35532E-05	-.446
	PROEM91	.908116	.208291	4.360
	BAREM91	-.008044	.108920	-.074
	Constant	77.852736	18.021036	4.320
	R Square = .14695 F = 9.73280			
1992	IEAREM92	-.101220	.499621	-.203
	SALES92	3.313486E-04	2.01570E-04	1.644
	PROEM92	.798123	.213700	3.735
	BAREM92	.333710	.577190	.578
	Constant	67.838315	13.521918	5.017
	R Square = .09208 F = 5.73020			
1993	IEAREM93	.128517	.081681	1.573
	SALES93	1.112097E-04	2.77559E-05	4.007
	PROEM93	-.045532	.030025	-1.516
	BAREM93	.726104	.157750	4.603
	Constant	55.148901	15.910678	3.466
	R Square = .14569 F = 10.95693			

Some comments on the results of the regressions above:

For the variable SALES, the coefficients show an increasing correlation between the size of the enterprises and the amount of bank credit received. In 1991 the coefficient is negative, though insignificant, but it increases in value in 1992 and 1993, becoming highly significant in 1993. This suggests that the bargaining power determined by the size of the enterprises is used as a substitute for the enterprises' profitability for having access to bank loans.

For the coefficient associated with the rescaled bank arrears we find the same pattern as for the size. This definitely shows a worsening of the criteria used by the banks in allocating credit.

An important indicator, the profit ability of enterprises, does influence in a significant way the bank lending. Shockingly, the coefficients for the rescaled profits of enterprises are decreasing sharply since 1991. This is a strong evidence towards rejecting the null hypothesis of significant improvement in the efficiency of bank credit allocation. However, a possibility for explaining the negative statistical evidence above is that the profit for the enterprises which are part of the sample is taken into account only for the profitable firms (firms whose profits are greater than zero, the ones with losses are considered as having zero profits). This is a problem of lack of accuracy in the data set which is caused by the Romanian accounting system (there are two different figures for profits and losses in the Romanian accounting system). This leads to a bias in the analysis of the bank lending as a function of enterprises' profitability because the inferior tail of the profit distribution is simply put to zero. However, this inconvenience in the set of data will be tackled later, when the sample will be split in sub-samples, on the basis of enterprises' profitability. Nevertheless, the number of enterprises which are reporting losses is not very large. The number of enterprises which are making losses in all the three years does not exceed 5% of the total number of enterprises in the sample. In Calvo and Coricelli (1994) the number of enterprises which are making losses is not large as well, so this is more evidence which supports what was brought by the current data set.

The next question to be analyzed is the distribution of bank credit amongst different kinds of SOEs. There is necessary to split the initial sample into three sub-samples, based on the productivity of the enterprises. The differentiation across enterprises could have been done based on the profitability of enterprises, as it was done by Pinto and Wijnbergen (1994, p. 4). Since there are serious concerns about the accuracy of profit reporting in the Romanian enterprises' balance sheets, the initial sample will be split in three subsamples. The variable used for splitting the sample is the profit margin of the enterprise over the total amount of sales; this is, in fact, a measure of the productivity of enterprises. The first category of firms in the sample are those firms that are in the upper tail in the distribution of profit per sales. Each subsample is constructed using the yearly distribution of profit divided by the number of employees for each SOE. The upper tail of the distribution comprise enterprises which are in the top 25% distribution of profit per employee, the lower tail include enterprises situated in the bottom 25% of the same distribution.

The sampling variable does not give an insight into the size of the SOEs, but it provides important information on the way in which enterprises' resources are utilized in order to achieve profits. The allocation of bank credit is examined for the two tails of the profit margin over employment distribution and for the whole sample in all the three years.

The regressions are run for each year. The regression model is:

$$\mathbf{BB\_EMP}_{it} = \alpha + \beta_1 \cdot \mathbf{BAREM}_{it} + \beta_2 \cdot \mathbf{SALES}_{it} + \beta_3 \cdot \mathbf{IEAREM}_{it} + \varepsilon_{it}$$

where:

BB_EMPit is the bank borrowing divided by employment for each year;

BAREMit are the bank arrears divided by employment for each year;

SALESit are the total sales for each of the three years;

IEAREMit are the inter-enterprise arrears divided by employment.

Once the sample is split according to profitability, the regressions run for the two subsamples should give an insight of whether soft budget constraints are still operating, even though the subsidies were removed almost totally at the end of 1992. As stated in the introduction, reformed banks should give enterprises an incentive for restructuring and should make firms operating in an environment with harder budget constraints. The former role of the banks was to channel the subsidies to the state-owned sector (see Brainard 1993), which determined the accumulation of past bad loans. As in Perotti (1993), the effect of accumulated bad loans may cause a bias against the financing of profitable firms. The hypothesis will be studied in all the three years, and the results show that actually the situation is worsening rather than improving. The causes of the excess lending to the state owned sector, and especially to the loss making enterprises are mostly political, as the size effect suggests. We will discuss some other possible causes later in this paper.

In a successful financial transition to a market economy there should be expected an improvement in the allocation of bank lending as banks develop incentive based norms for lending. Having the subsidies removed, the major source for state-owned sector financing remained the bank loans. This is an improvement if loans are allocated only to those enterprises which could tackle the banks' required rate of return to capital, i.e. those SOEs which are profitable enough to afford both high rates of return and high cost of capital.

3.2. The Case of Good Firms

For the top 25% of the enterprises, in the decreasing order of profit margin over employment in 1991, 1992 and 1993, the results of the regressions are presented in table No. 2:

Table 2:

Year	Variable	B	SE B	T Statistic
1991	IEAREM91	-.008206	.215652	-.038
	SALES91	-9.87821E-04	.001813	-.545
	BAREM91	.068570	.225185	.305
	Constant	279.070305	62.059074	4.497
	R Square = .00815 F statistic = .14508			
1992	IEAREM92	-.042578	.681938	-.062
	SALES92	4.298012E-04	3.52407E-04	1.220
	BAREM92	-29.748707	21.233498	-1.401
	Constant	149.149028	40.796720	3.656
	R Square = .04585 F = .83292			
1993	IEAREM93	.066465	.130705	.509
	SALES93	7.520216E-05	5.11680E-05	1.470
	BAREM93	-3.292976	13.182344	-.250
	Constant	95.734386	47.706424	2.007
	R Square = .04717			

The coefficients associated with the variables in the regression not show a large significance of the variables as determinants of bank borrowing. This suggest that for the set of enterprises which are profit making the allocation is based mostly on their profitability. This means that, in the case of good enterprises, banks act as a source of financial discipline. However, most SOEs which are struggling for survival are still receiving loans which hardly could be repaid. This may create a free rider problem. Good enterprises do not have incentives to do better, since no hard budget constraints are applied in their case. For loss making enterprises it is shown by the evidence we have that the budget constraint under which they are operating is loose, so there is no possibility to have a hard budget constraint imposed only on the good enterprises. This is the reason why this free rider problem may arise in the case of good enterprises. Overall, there does not seem to be a size effect in the allocation of bank credit for good enterprises, and it seems that for this set of enterprises banks do act as agents of change, unless they do not need to act this way. Another explanation could be that good firms, not struggling for existence as bad firms do, are less likely to receive bank credit for wage payments and other expenses related to the working capital for the simple reason that they do not need this.

In 1990, the correlation between the size of the firms and the amount of bank credit received by enterprises was negative; by 1993 this correlation became positive. This is a sign that the bargaining power of big and unprofitable enterprises became more important in time. The other variables show no drastic change in the determinants of state sector borrowing. Summing up, there may be the size of enterprises which is important in the process of allocating bank credit to firms which are in the top tail of the profit per employee distribution, but as a conclusion there are no other variables taken into account in the regression model which are significantly influencing the allocation of bank borrowing to good firms.

3.3. The Case of Bad Enterprises

For the lower part of the profit over employment distribution in the whole sample of enterprises, the results of the regression are presented in the table below:

Table 3:

Year	Variable	B	SE B	T Statistic
1991	IEAREM91	.184477	.070448	2.619
	SALES91	4.861554E-06	6.07028E-05	.9365
	BAREM91	.701031	.131990	5.311
	Constant	33.739493	14.039689	2.403
	R Square = .48379 F = 16.55700			
1992	IEAREM92	96.953953	28.579049	3.392
	SALES92	.004706	.002249	2.092
	BAREM92	-1.332031	.977483	-1.363
	Constant	78.285355	35.835234	2.185
	R Square = .23201 F = 5.53851			
1993	IEAREM93	.047524	.215169	.221
	SALES93	8.209530E-05	3.73880E-05	2.196
	BAREM93	1.256099	.115500	10.875
	Constant	23.098423	16.830705	1.372
	R Square = .64810 F = 44.20110			

Some of our earlier considerations are reinforced by the results of the regressions run for the loss making enterprises. The size of SOEs becomes very important for the allocation of bank lending to bad enterprises from the state sector. The coefficients associated with the volume of sales, highly correlated with the size of enterprises, indicate an increasing role of the size of enterprises in the banks' decision to allocate credit. Moreover, unlike the allocation of credit to good enterprises, the allocation of credit to loss making enterprises is highly correlated with the amount of bad debt enterprises have accumulated. Both the coefficients associated with inter-enterprise arrears and bank arrears show a high correlation of the arrears with the amount of bank borrowing per employee received by bad enterprises. The **t** statistic for the variable BAREMP 1991 is 5.3, whereas in 1993 the same statistic becomes higher than 10. In 1992 the importance of bank arrears in the process of bank credit allocation seems not to be significant, but the results for the other years suggest that the more bank arrears an enterprise has, the more bank credit is allocated by banks to that enterprise.

This suggest the undermining influence which a small number of large loss making enterprises have on the credibility of hard budget constraints reinforced by the Government. For banks, in many of the cases, the accumulation of bad debt to large enterprises attracts cheaper credit from the Central Bank; without any incentives for the banks to tighten credit conditions, the situation could even deteriorate. To show this, it would be useful to run the same regressions as above for time series, meaning that the focus will be put on the changes which occurred during the period which is studied. The results of the regression are presented in the table No. 4. The dependent variable is the difference between the rescaled (using employment) bank borrowing, the independent variables are the difference in the size of each enterprise, the difference between the scaled interenterprise arrears and the scaled bank arrears (the variable used for rescaling is the employment in each enterprise).

Table 4:

Years	**Variable**	**Estimate**	**Standard error**	**t statistic**
1991-1992	DIFBAE21	-,105216	,096425	-1,091
	DIFS21	7,01095E-05	8,2554E-05	,849
	DIFIEE21	,044411	,068954	,644
	Constant	-37,947118	14,912813	-2,545
1992-1993	DIFBAE32	,451379	,149060	3,028
	DIFIEE32	-,241248	,074240	-3,250
	DIFS32	3,80628E-05	2,8990E-05	1,313
	Constant	,399376	14,964356	,027

Looking at the results of the regression, one could see that the changes occurred between 1991 and 1992 in the scaled bank borrowing for enterprises are not highly correlated with the difference in the other variables (difference in size, in scaled bank arrears and scaled inter-enterprise arrears). The situation changes for the period between 1992 and 1993. As the difference in the scaled bank arrears increases, the difference in the volume of bank borrowing scaled by the employment in each enterprise increases too, the t statistic associated with the variable **DIFBAE** being high (3.028). This means that an increase in the scaled bank arrears is very likely to trigger an increase in scaled bank borrowing. The situation deteriorated in the period from 1992 to 1993 comparing with the difference between the years before. Fortunately, there is still a sign of progress: the coefficient associated with the difference in scaled interenterprise arrears is negative, showing with a high significance that an increase in the volume of inter-enterprise arrears determines a decrease in the bank credit received by enterprises. This does not necessarily mean that the banks' credit policy follow an improvement pattern, it rather says that in the decision to allocate bank credit, banks became more cautious when lending to SOEs which have significant inter-enterprise arrears. The counterpart to this improvement is that the banking arrears are still not significant for the banks, so, overall, there can not be inferred any positive change in the banks' lending policy.

Some policy tools for improving the situation existing at the level of loss making enterprises will be presented in the conclusions to this paper, but, however, one should be cautious when drawing any policy conclusions, since they could prove to be not useful, or even dangerous.

The transition from a passive financial system, whose role was solely concentrated on allocating subsidies to enterprises on the basis of some arbitrary criteria, involves the continuation of the past lack of incentives of enterprises to repay any of inter enterprise or bank arrears. No mechanisms for takeovers or sales of enterprises have been developed during the last five years in Romania, so, as it is suggested by Perotti (1994, p. 73), the ability of creditors to enforce the repayment of the loans, or even more, to obtain control over the assets of the state firms is reduced. Moreover, the newly created commercial banks could be owned by the state sector firms themselves, or the ones which are not owned by these firms may easily collude with them to reduce financial discipline (Perotti, 1994, p. 73), since generally, banks are not sufficiently distinct from their borrowers. Like in the case of the inter enterprise arrears in Russia, analyzed by Ickes and Ryterman (see Ickes and Ryterman, 1993), both the accumulation of inter-enterprise arrears and the distorted allocation of bank credit to state sector enterprises are a consequence of "inconsistencies in the economic reform program combined with underdevelopment of the financial system". The main problem to be discussed here is how to avoid this distortion in the bank credit allocation. This comes to discuss first the order of seniority for claimants related to SOEs and the possible policy tools to be used.

4. Policy Tools and Solutions to the Problem

4.1. Considerations on the Order of Seniority for Claimants Related to SOEs

The order seniority for the claimants related to SOEs debts has on the first place, as presented by van Wijnbergen (1994, p. 8) the Government with the tax and social security claimants; coming on the second place is the banking system, with its Commercial Banks; on the third place are the other enterprises, with the claimants related to inter-enterprise arrears, and on the last place are the equity holders, in the case of Romania, the State Ownership Fund (SOF) and the Private Ownership Funds(POFs).

This order of seniority is not necessarily the order in which the actors in the process of enterprise restructuring should be treated as engines of change; however, it affects the banks' incentives to undertake activities related to enterprise restructuring.

Wijnbergen (1994) argues that the banking system is the main "agent of change" in enterprise restructuring. He further argues that the development of an incentive framework and of a legal environment where the major creditor for the SOEs could take the lead in initiating restructuring and in designing a new capital structure. However, the commercial banks in Romania are mostly owned by the State, in many other cases the most important shareholder in the commercial banks are state owned enterprises. This creates further problems in elaborating the incentive framework discussed above. Thus, there should be a change in the capital structure of the banks prior to developing this framework. One of the solutions could be the privatization of the major commercial banks, under a close supervision of the Central Bank. This would eliminate the possible collusion between banks and state sector firms (both of them being owned by the State, after all) and would create the premises for the development of an incentive framework.

4.2. The Role of the State

All the imperfections in the allocation of bank credit in Romania are mostly determined by the role of the state and its intervention of the state in the banking system. First, the legal system, even though, as claimed by officials, has a very comprehensive system of laws regarding the banking system, there are serious flaws in all these laws. First, it is permitted for SOEs to be shareholders in banks which had accumulated an important stock of bad loans in these SOEs. This leads to a hold up problem, banks being held up to act as profit maximizing agents by those SOEs which are stockholders of the bank. This happens because no actions toward selling of assets or liquidation could be taken by banks, mostly because they could not act against their shareholders. Regarding the tax claimants, they do not seem to be very important, or at least the data published by the Romanian Government show no important stocks of tax arrears. The only way in which the state could do something for improving the situation is to develop a system of laws which does not allow enterprises to hold shares of stock in banks.

One could argue that there is no choice for banks, since the inflation causes a rapid decapitalization of them and, therefore, with or without will, they are in a position to accept SOEs offers for buying shares of stock. The answer for the problem encountered above is simple: most of the funds used by SOEs for buying shares of stock in banks are coming from the formerly received subsidies. As argued by Wijnbergen and others, it would be more appropriate for the state to use funds for recapitalizing the banks, instead of continuing to subsidize state sector firms. This will have a double impact: banks will be more likely to act as profit maximizing agents and, furthermore, they will take action against those SOEs which have considerable amounts of bad loans. Nevertheless, this will create a framework in which the hold up problem will not exist anymore. Issuing new shares of stock, banks will not be in a position not to take actions against bad debtors, since the share of SOEs' participation in the banks will shrink. Potential buyers of the shares of stock in banks could be private agents or foreign investors. If this proves to be an unfeasible solution because of the lack of interest of foreign investors in Romanian banks or because of the private agents' lack of funds, then the recapitalization of banks using funds coming from the Government is the only solution, which seems to be a possible and reasonable one.

4.3 Solutions to the Problem

The Government's control attributions should be related to the enforcement of the incentive based legal framework. A problem with creating the incentive based legal framework is that banks do not possess the expertise to undertake actions in enterprise restructuring, but, as Wijnbergen argues (Wijnbergen, p. 24) there are no other agents who are better. There may be a solution in privatizing the banks, however, as Begg and Portes (Begg, and Portes, 1993, p. 7) argue, a cause of the inadequate credit control by the banks is not only the fact that they are state owned and still maintain their relationships with SOEs. Changing the owner of a bank will not elude a further problem: the expected value of a debtor's assets are less than the cost of enforcing bankruptcy or because there is an option value in waiting, or, even worse, because taking actions against creditors may signal that the bank has non-performing loans and would determine a run on the bank.

The legal framework is in principle already established in Romania, but unfortunately the possibility of enforcing this legal framework is limited, mainly because of the political interests involved in the banking system and because of the de facto Central Bank dependence on the Government. A policy tool to avoid this limitation is to give the Central Bank more prerogatives in enforcing its norms, and, moreover, to ensure the Central Bank complete independence. There were cases recently when the Central Bank took actions against some commercial banks which neglected its norms, suggesting that it would be possible to enforce such kind of regulations in the case of all the banks. However, if the independence of the Central

Bank is not ensured, then the Government could compel the Central Bank not to apply its regulation for all the commercial banks.

5. Conclusions

Summing up, the conclusion of the analysis developed above is that the reform of the banking system is a necessary but not sufficient condition for strengthening the financial discipline. A good solution for doing so may be the privatization of the banks, but, however, there are enough concerns about privatizing enterprises, which imply that there are even larger concerns about privatizing banks, since the capital required to start the privatization of the banking sector does hardly exist at this moment in Romania. As presented in the possible solutions, there may be the foreign capital able to provide the funds for privatizing and recapitalizing the banks. However, if this is not a feasible solution, then the only alternative is to recapitalize the banks using Governmental funds, this being something which happened in some other CEE countries (Poland, for example). This paper shows that the credit allocation has mostly deteriorated in Romania in the period between 1991-1993, the credit being directed mostly to large and unprofitable state owned enterprises. Although there are some improvements for lending to profitable firms, the only solution for the bad debt crisis, as well as for the inter-enterprise debt problem, is the imposition of harder budget constraints on state owned enterprises. The agents of change for imposing these harder budget constraints could be the banks, but their role would be hindered unless a legal framework provides them with the tools for imposing financial discipline on state sector enterprises. Once a solution is found for the problem of non-performant allocation of bank credit, then it is the author's opinion that a solution will be found for the inter-enterprise arrears problem. Once banks impose financial discipline on SOEs, the likelihood of increasing the stock of both banking and inter-enterprise arrears will be considerably lowered.

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