Credit Risks in Banking of the Countries in Transitional Phase and possible Ways of Their Reduction in Croatian Banking System

Stjepan Stjepanek and Branko Matić

Osijek City, Member of the City Government, Head of Financial Department, J. J. Strossmayer University of Osijek, Faculty of Economics

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Summary

Practically, there is no human activity without being connected with some form of risk.
A complexity of the activity is in a close connection with the risk level and, as a rule, the greater complexity leads to a greater risk.
The importance of risk is stressed to a large extent in some sectors, such as financial institutions, especially banks.
Risk is not a unique category. The most represented type of risk in credit is a credit risk.
It is possible to divide factors of risk emergence and defining, their reduction and control, into following: organizational, cognitive, and technical.
A time gap between decision-making and investment influences the size of a credit risk. The length of credit structure influences the risk.
The cognition of debtor's debt servicing potential, methods of coverage credit risk and indicators of credit risk growth are prime movers in risk management.
The optimization of risk has its positive effect on the total economic efficiency, prevents negative allocation of resources into marginal and unprofitable programs.
At the same time, the credit risk size depends on total macroeconomic moves and institutional conditions.
Internationalization of financial and credit courses, as a general tendency, especially influences countries in transition.

Key words: Credit, credit risk, credit rating, transition, banking, macroeconomic stability, institutionalization, internationalization.

I. INTRODUCTION

The risk of credit financing has been for many years the main point in business banks and in the whole economic system. The percentage of debt accumulation of economic subjects is getting bigger and bigger, there are less and less possibilities for banks to give credits and the risk is constantly increasing.

When we talk about the risks in banking then we, first of all, think of credit risks. According to the Dictionary of banking and financing "credit risk is a specific type of risk, which occurs at investing money in financial marketing and securities. There is a danger that the invested money will not be returned or that it will not be returned completely, or in other words that it will not be payed back according to the planned dynamics. This risk does not exist when we talk about investing in treasury stocks or when we talk about banks deposits - the debt repayment is guaranteed by the Statel". In bank business there is also a risk of liquidity, which is as important as credit risk. According to the above mentioned Dictionary "risk of liquidity is a specific type of risk, which occurs by investing money into financial marketing and securities."
There is a warning that it will not be possible for securities to be transformed into bank note in a certain time and in accordance with a certain price. Generally speaking, the risk of liquidity does not mean that any non-bank note forms of property will be transformed into bank notes in a certain period of time without loss.\(^3\)

The business policy of banks and credit analysis should take into consideration main subjects that form risk, but also the estimation of risk and the methods of decreasing and immunising the risk. In this work we shall present main subjects of risk and approaches of banks how to avoid and how to immunise the risk. We should start from the basic thesis that the insolvency of the debtor is a direct approximaty of credit risk. There is a key question of precise estimation of debtor's ability to repay (by credit) the obligations in terms regulated by contract. Total credit risks of banks are connected with numerous committees - each of them has its own specific working conditions, position on the market, but there are also many characteristics that distinguish them. The analysis of credit risks is always very complex analysis of all conditions, terms and characteristics of credit market and single debtors.

According to the bank theory there are six main types of risks, which are connected with the credit policy of banks:\(^4\):

1. credit risk or risk of repayment
2. interest risk
3. portfolio risk
4. operative risk
5. credit delicvency and
6. trade union risk

The most important is credit risk and it is more than necessary to take a special care of it. Interest and portfolio risk are almost of the same importance and they can cause big loss. All other risks are of not so great importance since they are more dependent on the quality and activities of the bank. Previously mentioned risks are mostly not in the control of banks. Operative risk occurs because of the insufficient flow of information, because of very poor operational coordination, insufficient degree of monitoring, ineffective communication among certain departments in the bank and so on.

From our point of view, the best definition of risk was given by V. Leko and N. Mates in the Dictionary of banking and financing. According to them the risk in business financing is a danger, there is an uncertainty that the expected results will be realized. In distinction from the uncertainty the risk is technically defined as a knowledge of current situation in which there are, as a consequence of some decision, numerous results known to the person, who made the decision. The risk represents the possibility of uncertainty quantification by making business decisions. The risk is quantified by implementation of theoretical distributions, a normal one, and by implementation of sensitive analysis and/or the method of simulation. The risk can be calculated into the business costs because of the possibility of quantification.\(^5\)

Credit delicvency is related to illegal actions of certain subjects in the bank. These actions are possible in the circumstances of not very precisely determined credit policy and because of insufficient internal control.

Trade union risk occurs, when there are more banks involved in crediting of certain businesses. The best possible organisational form of control and avoidance and immunisation of risk should be organized/implemented in each bank.

## II. RISK TYPES IN BANKING

Organizational forms of bank, which have under their authority the control of risk, depend on the size of bank. In one smaller bank the control of credit risk may be done by the bank mamager and in the middle-sized bank several people are involved in that control. In big banks the control of credit risk is done by institutes, usually organized within the bank, and sometimes by specialized institutes for determination of credit capability.

Control and immunisation of the credit risk are the main tasks of each business policy in a certain bank. The most efficient method how to avoid the risk is to evaluate the credit ability of the applicant for credit.

The evaluation of credit risk of banks is connected with the method "5C", which determines the application of five indicators of debtor's capability to repay the basic and interest liabilities in the terms of contract. Five basic indicators are the following:

- capacity or capacity of repayment
- character or wish to repay
- capital or debtor's property
- collateral or insurance
- conditions in certain circumstances

First letters of these indicators, according to the anglosaxon terminology, ("C") and the number of indicators gave to this method its specific name "5C". The above mentioned indicators represent only rough indicators or possible factors of credit risk- most important among them are the capacity of payment, mainly based on the liquidity and solvency of the debtor in the up-coming period or in the period of receiving the credit. The capability to repay the credit is connected with the capability of the firm to run into debts in the bank.

After the determination of the capability of running into debts and repaying, the bank will apply the
mechanism of choice, or in other words, the selection of debtors. The main source of forming satisfactory capability of repaying debts (and running into debts) is expected accumulation of incomes and yields of the firm. Financial and total economic results of business from the current period of time present rough indication of the expected forms of profit.

The analysis of balance is also very important for the estimation of the capacity of credit repayment. According to such analysis future cash flow projections can be made and they are the basis for formation of the satisfactory repayment potential of the debtor. The bank can evaluate the marketing and trade characteristics of the debtor, the degree of operational effectiveness, stability of the tax structure and additional indicators important for forming satisfactory repayment potential of the debtor. The degree of current debt is of great importance, as well as the realistic estimation of changes that can occur in conditions and performances after credit approval. For each company there is a debt limit - if the limit is to be extended there is a serious question of repayment potential and of possibility to perform other financial functions in their normal way.

The character of the debtor is estimated in accordance with the previous experiences dealing with its regular credit and other financial obligations. Appropriate banks, which have data of the most important credit markets and debtors, have very important role in this procedure.

Integral data on regular, current credit obligations, payment on time or not and some cases of financial delinquency can give the elements necessary for making the mosaic of debtor's character. We cannot really talk of more precise indicators of credit risk than these are; everything is actually based on gathered information and subjective estimations of the bank. Debtor's character, based on the business integrity and its capability to fulfill all obligations from the contract, is evaluated. It is necessary to point out that this element of the credit risk is mostly connected with the credit financing of citizens and not so much with firms.

In credit financing of firms the main source of information is a balance of the firm and real indicators of the capability of the firm to cover its obligations - in that way, this element can be treated as residual. Some banks, in developed countries, put this element on the top of the scale (indicators of credit risk). They point out that the debtors with negative character performances should not be given "even a penny of the credit". Or in other words, the credit can be given only to some persons. If we take into consideration the character of the firm, all these data are not crucial - the capability to repay credit obligations is based on complex business moments, such as flexibility of productive and business structure, adaptability to marketing changes, capability to cover costs and so on. Because of all these facts, we should not implement the rule that there is an equivalency between the debtor's character and credit capability.

The capital of firms is the third indicator of credit risk. The capital of firm covers permanently invested means of the founders and shareholders and sometimes longlasting credits. Invested means of founders and shareholders have a special quality that can be seen in their permanent connection with the firm; in other words, there is no institute for repayment of means and residual position of shareholders in the case of liquidation of firm. These are the qualities that are used at evaluation of the firm - debtor characteristics, developing dimension and the size of credit risk. There is a general rule that bigger level of permanent capital in total means resources of debtors presents the indicator of lower credit risk of the bank.

The agregat of permanent capital is the indicator of "financial health" of the debtor in the up-coming period. It is partly covered with the credit period. Bigger part of the permanent capital is a guarantee of the capability to repay the credit, even if there is a liquidation of the firm - debtor. Permanently invested capital is a global indicator of the financial strength of the debtor and it is a base for repayment potential of the firm. The amount of the net capital is connected with the firm owners and shareholders - the risks of investments are proportionally the biggest.

The category of formerly defined capital is used very often at creditors and as an indicator of the amount of money that is approved as a credit to the firm. Alternatively speaking, the banks evaluate the size and the quality of the credit assets and according to these data it is possible to have a look at the business strategy and policy of the firm. The dymension of the ownership of some parts of active and functional structure should be pointed out. The credit cannot be given to the firms, which do not have a satisfactory amount of their own means, or in other words of permanent capital.

The manufacturing company should a dominate part of their own capital connect with the manufacturing capacity, machines and equipment with a high degree of technological inovations and for manufacturing efficiency.

Trade companies connect most of their capital with the supplies and business premises.

Total assets or parts of it is for a bank a kind of credit insurance, in some special circumstances when the company does not have a satisfactory level of repayment capacity and/or when there is a bankrupcty. In the classification of debtors, the bank will put on the top of the list those who form sufficient proportion between the profit and repayment
The words risk and insecurity refer to the fact that the profitability of the investment may be quite different from the prognosis that were made in the time of making decisions dealing with the investments of free financial means. In most cases, business will not be disturbed if the results are more favourable than unfavourably prognosed financial results. There is no need to make a distinction between the words risk and insecurity; they can be used in both ways. If we want to work on the problem of the risk and insecurity in the more suitable way we shall present more precise definition. The risk will be defined as a dispersion of the possibility of event distribution, whose values were predicted; insecurity is the insufficiency of trust referring to the correct evaluation of the possible distribution.

III. ROLE AND IMPORTANCE OF REAL SECURITY IN REDUCTION OF CREDIT RISKS

Besides the creation of satisfactory profit as a basis for credit repayment, the debtor may use additional export of necessary repayment potential. It is a selling of parts of assets - capital assets and supplies, as well as alternative credit resources. These resources are defined in banking praxis as derived, because they require additional costs, certain time period and appropriate risk. It can be concluded that the credit risk of the bank can be acceptable in the circumstances of the satisfactory proportion between the permanent and own capital and of the satisfactory ability of the company to create a real profit, or in other words the repayment potential. In such circumstances there is a satisfactory or even improved financial power of the company - it is a reliable indicator of a good credit ability. On the other hand, there are companies with the minimal or zero proportion of their own and permanent capital or with the insufficient propulsive power to credit the profit, when there is not satisfactory financial power and inadequate credit ability of the company. The debtors with the minimal or zero proportion of their own capital are considered to be the companies of high risk, because they do not have anything to lose, they can only gain something by formal taking of the risk. Crediting of unprofitable business can bring a high degree of risk. Deterioration of business performances and erosion of capital represent indicators of increased credit risk and decreased credit ability of the company.

Mortgages and other pledges represent the method of covering estimated credit risk at debtors with quite poor profit and capital performances. Under some conditions, we can talk here about crediting of the company with a lower credit ability and/or debtors, who are not reliable or known to the bank. Crediting of bank (with pledges) is practiced when there is an estimation that the profit and capital positions of debtors will be weakened in the following period. In both cases the banks want to (on basis of the mortgage and pledge) make limits of possible losses or they want to cover credit claims through marketing realization of the mortgage and pledge.

IV. MONITORING THE DEBTOR AND LIMITS RESULTING FROM IT

According to the bank theory the limitation of bank losses is conditioned by the speed of detonation of debtor's business performances and by the ability of bank to monitor the changes of financial positions of the debtors.

Credit risk will be zero in the conditions of the continual monitoring of the financial positions of debtors and possibilities to withdraw the credit at any time. The bank will withdraw the credit when there is a danger that the property value of the debtor falls under the value of the approved loan.
At current level a constant monitoring of the business technology of the banks is not possible due to the high operating costs or the limited inflow of reliable information. Therefore banks resort to the mechanism of mortgage credits and pledge. Immovable subject matters of mortgages, and securities, gold and other precious stone of pledge. Basic conditions for the applications of this credit mechanism and insurance from credit risk are favorable forms of property as well as their liquidity in the market. These values are based on expected yields and on use of the pledged goods.

In general, the property value of the companies with worsened business performance and reduced profitability rate declines. Banks that grant credits to such companies accept relatively high risk rate also in the conditions of pledge. This limit is very often defined at the level of 20%. The higher the costs of defining future value of mortgaged property and higher fluctuation risk rate or decline in future value of mortgaged property, the banks will demand higher limit value of the mortgaged property in relation to the amount of the credit. It is somehow easier to estimate future value of the securities, but it is more difficult to estimate forms of other company property or future investments that might be seen as warranty of debt servicing for granted credits. Investment loans face many complex problems for it is necessary to foresee the income flow, expenditures and net cash increment. A positive margin between the length of the operating investment length or property in relation to the level of the loan must be defined, mortgaged property that can be easily sold must be also ensured the value of which can be simply and easily controlled, the expected time of solvent resources inflow should be defined as well as the possibility of rephrasing of the debt servicing forms for the credit commitments in case of decline of the position or the value of mortgaged property of the debtor.

Changes of macrosystem economic conditions might influence the debt servicing of credit commitments of debtors, but it is important that these changes are outside control of the frame of banks and companies. Credit risk can be rather high in the period of unforeseen or unwanted changes in general economic and financial performance or institutional conditions. Real foreseeing of the expected changes in economic and institutional business conditions of economic subject and banks in this area is rather important method of margin control of credit risk.

The longer the period for payment of granted loans it is more important to be able to foresee these changes in order to be able to limit the levels of credit risks. Banks should use methods and approaches necessary for foreseeing of future changes in economic and institutional conditions, limitation of uncertainty and production factors for unwanted loses.

Changes in economic conditions can be of different terms of payment, intensity and effects, which presents rather complex problem for the precise defining between expected changes and the risk.

Different banks in different periods must constantly adjust their methods and estimation approaches of possible risk because of the application of greater economic environment.

V. CONCLUSION

Banking pays special importance to foreseeing of the recession period in the economy in case of financial solvency deterioration of the debtor and increases the limit of credit risks of banks. The foreseeing of time frames of economic phase recession and adjustment of methods and criteria for credit approval present starting point for the suppression of unacceptably high risk. It is very important of banks to estimate tehnological, market and business trends of branch or sector in the frame of which the debtor operates so that the branch and individual capacity of the company could be estimated.

A reliable credit policy by means of the received key information and the use of the received information constantly tries to suppress proportions of possible credit risks and thus prevents the allocation of the scarred resources into marginal, unprofitable and risk manufacturing program. The need for the collection of precise date is especially stressed and very cautious credit policy by new debtors, fast growing companies, debtors with no well established internal financial planning and the company control in the framework of new branches and sectors. There are possibilities of forming above average risk and loss in the above mentioned conditions and therefore banks should conduct tougher controls and monitoring mechanism for restriction of the size and proportion of the credit risk. In this case special attention should be directed towards reexamination of the amount of credit, purpose of credit, debt servicing plan and balance position of the bank in the conditions of debtor delinquency.

Banking policy of foreseeing and restriction of credit risk is of greater analytical and practical importance:

- it restricts the amounts of possible losses of banking and economic resources
- it improves selective and allocative function of the total system
• banks establish mechanisms for early warning of the companies against approaching zones of business risk.

Protecting their business systems, banks at the same time perform essential functions for protection of economy and its efficient functioning. By implementing the mechanism for early warning against approaching business risk, it is possible to reorientate business program of debtors on time, their improvement and credit rating.

To companies with declining performance these systems of warning might be of great importance with the aim of timely and adequate reorientation and choice of new business strategy.

Companies with downturn in economy should be under special bank observation with the aim of suppression of credit risk and suggesting the best possible solutions for the improvement of their business positions. There are four possible approaches in solving their business difficulties:

• volume increase or change of managing structure
• application of business management
• annexation or taking over from the part of solvent company
• sale of real property

A good company would like to avoid the risk as much as possible for the risk in credit raising is an important factor for its further business operation. Therefore any estimation of credit rating of the company should consist of the following five factors relevant to creditor:

• debtor's characteristics
• debtor's capacity
• debtor's capital
• connotations of business operation
• insurance of return of financial means

This estimation is important both for companies and for the creditor. However, according to Z. Ivanovic in practice “we have been practically trying to define as reliable as possible the diagnosis of the actual financial position of the company. In order to be able to get these reliable answers, the financial analysis procedure should find answers to the following questions: Is the debtor capable of meeting his obligations or does he intend to do so? What are his real claims and the liquidity stocks? Does the company achieve a satisfactory profitability rate with regard to volume of sale or with regard to engaged business assets? Define the volume of sale in the company with regard to engaged business assets - satisfactory, optimal or inadequate? Define to which extent can the limit of profitability rate of the company be reduced in order not to threaten its capability of paying the immediate liabilities. How much would be the value of some positions of capital assets reduced, and which is the marginal value of the assets under which the bank in case of bankruptcy of the company the bank would pay for the loss on the basis of the invested capital? And finally, what is the financial stability of the debtor?”

Since the 1970s new trends of changes have been introduced such as structure changes, market and technological conditions of functioning of economic and financial organizations. While estimating the volume of credit risk and the strategy choice in setting limits to bank losses, two groups of changes of general conditions of financial and economic subjects functioning are the most decisive:

• short-term changes of important elements and the basis of functioning of credit and financial market
• long-term changes of important elements and the basis of functioning of credit and financial market

Short-term elements make high inflation rate, high nominal and real interest rate and big fluctuations of interest rate and foreign exchange rate.

Long-term elements or structure changes make technological revolution on financial markets, internationalization of financial and credit flows, deregulation and systematic grow of indebtedness of economic subjects. The above mentioned conditions important changes in defining of mobilization costs and the placement of resources, changes in balance structure, rentability, solvency and credit rating of the market subjects. Banks should apply more complex and precise methods of analysis and restriction against credit risk and losses.

The new concept of restrictions of risk and losses has led to the following strategic approaches:

1. stressing of the quality instead of the property volume, assets and placing (escape to quality)
2. adjustment of forms, types of credit and other credit risk
3. price compensation of the foreseen credit risk
4. tougher selection and ranking of debtors
5. application of monitoring, audit and supervising
6. forming of special reserves for the coverage of the anticipated losses.

As a general result of the new strategy of control and restrictions of credit risk, the improvement of allocation bank function should be achieved as well as constant restructuring of economy, improvement of the quality of debts, stability and bank solvency, cost reduction of credit resources, strengthen of financial power of the banks and commitments, reduction of volume of losses and
reduction of volume of the credit delinquency. All that might positively affect the macroeconomic improvement of investment, accumulative and in international proportions comparative performances of the country.

The procedures of the banks in trying to avoid credit risk are very different from bank to bank. The seriousness of the problem imposes very serious demand in the administration of any bank.

On the basis of the collected data on potential debtors bank divide them in many categories depending on their risk level.

It is difficult for credit applicants in credit groups 5 and 6 to be granted a credit at any bank. The only way out would be to have a real coverage for credit with adequate share of private property.

A credit risk possible to be accepted from the bank’s point of view can be defined in a range from zero risk (maximum outputs for the bank) up to the maximally acceptable.

According to Chris Sermon if a credit risk should be defined, it is necessary to:

1. identify credit risk
2. to implement the activity in order to minimize the risk
3. estimate the risk
4. ensure its coverage

In order to be able to follow and control the risk, it is necessary to have reliable information. The basic information should be obtained in the company itself, but the outside source of information should not be neglected.

**Classification of the clients according to their risk level**

<table>
<thead>
<tr>
<th>Risk Group</th>
<th>Points total</th>
<th>Estimation of the client</th>
<th>Procedure and strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-5</td>
<td>An excellent client in non-risky branch activity, continuity of business operation without losses longer than 5 years</td>
<td>A client can be offered a product price without risk premium. He can be offered free consulting and protection from competition</td>
</tr>
<tr>
<td>2</td>
<td>5-20</td>
<td>Solid client, continuity in business operation without loss longer than 3 years</td>
<td>He can be offered a product price max. up to 20% of the risk premium, trying to keep him as a partner, offer him a free consulting</td>
</tr>
<tr>
<td>3</td>
<td>20-50</td>
<td>Average client, in the middle risk branch activity, without loss for the past two years</td>
<td>Ensure constant monitoring of his business operations, in the product price some 50% of risk premium can be included</td>
</tr>
<tr>
<td>4</td>
<td>50-75</td>
<td>An average client, with profit for the past two years, noticed several negative indicators of work and business results, no program or vision for the new development, management crisis possible</td>
<td>Ensure consulting, constant monitoring of his business operations, engage an auditor for the annual and semi annual reports, in the product price include some 75% of premium risk</td>
</tr>
<tr>
<td>5</td>
<td>75-100</td>
<td>Noted the whole range of weakness, possible financial instability with the possibility of inability to pay, possible serious management crisis</td>
<td>Recommendation of a constant advisor, intensive inspection of business operations and reports, in the product price include a maximum premium risk</td>
</tr>
<tr>
<td>6</td>
<td>+ 100</td>
<td>A client with threatening bankruptcy</td>
<td>Constant advisor and auditor necessary for the complete business transactions, it is difficult to control risk, the application of the highest rate of risk premium</td>
</tr>
</tbody>
</table>
According to Jakovcic, credit risk arises at the moment of credit approval and it can show up in following forms:

- liquidity risk
- interest rate risk
- currency change risk
- market risk

Despite the strict application of the credit methodology that is based on the exact procedure with elements for the clients' ranking according to the risk group, it is not possible to remove all dangers with regard risk such as:

- running after growth
- opportunity costs by financial means
- good credit should not necessarily be a good job

The stated reasons for not approving credit Jakovcic calls a "blind vision danger".

Ivan Tarle points out that good and healthy credit risk management demands the establishment of written credit principles and written credit policy. Thus the operational consistency and adherence to unique healthy practice turns into a general rule and reliable guideline for any credit decision.

Any business operation, including banking, is followed by a risk in operation.

The most important activity of any business bank is its credit activity, accordingly the risk which appears in the credit sphere deserves special attention. All of the authors who write about the banking agree upon the following that a credit risk is present in any credit approval. It is not possible to avoid credit risk, but it is necessary to undertake all the necessary activities and measures in order to reduce it and what is more control it.

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