Series: Economics and Organization Vol. 5, No 3, 2008, pp. 273 - 280

# ANALYSIS OF THE CREDITWORTHINESS OF BANK LOAN APPLICANTS

UDC 336.717.5

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Abstract. The current article presents a model of creditworthiness analysis of bank loan applicants. The author emphasizes the possibility of using accounting information when analyzing the creditworthiness of loan applicants. The essence, prerequisites and the factors that influence creditworthiness are defined. The creditworthiness analysis is based on preliminary research into the factors and the prerequisites that can influence the repayment of the credit in due course. The credit analysis is defined as a process of establishing the current creditworthiness of loan applicants and forecasting the trends in its development. Top priority goals and stages in the bank credit analysis are determined.

**Key Words**: Creditworthiness, creditworthiness analysis.

#### 1. ESSENCE, PREREQUISITES AND FACTORS INFLUENCING CREDITWORTHINESS

The notion "creditworthiness" can be defined as a presumed ability to meet agreed deadlines related to repaying the credit and the interest accrued without affecting the vitality of the borrower, i.e. the repayment process should be based on the income received in the process of the borrower's usual activity, without affecting adversely his financial situation, his financial results as well as other business entities.

An important point in conducting the credit activity is the thorough analysis of the business activity and the income received in this business activity is taken as a fulcrum. It is necessary that a number of conditions be observed, namely:

- The credit extended as an absolute value should meet the real needs of the borrower;
- The credit period should correspond exactly to the circulation speed of the resources for the securing of which it has been extended;
- The profitability of the borrower's business activity should entirely cover the credit amount, the interest rate, the charges and the risks, calculated in the credit analysis.

Received December 28, 2008

The analysis of the creditworthiness involves preliminary study of the factors and prerequisites which can affect adversely the duly repayment of the credit<sup>1</sup>. It is of high importance that bank specialists demonstrate competence and conscientiousness. Banks have at their disposal various ways for choosing suitable borrowers to be financed and for exercising control over the special purpose of the credit resources and their expedient and efficient spending.

The in-depth study of the financial situation of the loan applicant does not harm the good relations between him and the bank. Establishing firm grounds for the credit relations is seen as an inherent characteristic element of the credit activity. The study of the financial situation, which is carried out by qualified and experienced bank experts, may disclose a number of shortcomings which until that moment have been unknown to the administrative and managerial staff and in this way the study can turn out to be extremely useful for the loan applicant too.

If the commercial bank does not have staff that is well qualified and capable of carrying out a comprehensive and systematic economic analysis of the financial stability and creditworthiness of the potential borrowers, it is advisable that they use the services of a specialized company. This conclusion stems from the significance of the analysis of the creditworthiness, which is of utmost importance in taking decisions concerning the credit that has been applied for and is of great importance to the credit institution. For instance, in Great Britain 'Jordans' company provides information services and publishes information about business studies that have been done in specific industries and geographic regions. This corpus of information includes financial data about more than 90,000 enterprises, functioning on the territory of the United Kingdom. The information system FAME /Financial Analysis Made Easy/ relies on sources of additional financial information which allows the evaluation and the financial analysis of the individual enterprises using various methods. The access to this corpus of information is extremely easy and can be made via personal computer or by using the "Select" service, which can be obtained on a disk or as a hard copy. ICC has even more diverse information in this field. Its database provides information about 700,000 enterprises and the information for 170,000 out of them is detailed. Similar services are provided by IBCA, Dun & Bradstreet etc.

The need for checking the creditworthiness of companies arises when:

- establishing credit relationship for the first time;
- special reasons occur, for example when the amount of the credit has to be increased;
- monitoring regularly the absorption of the credit and the results from it / current control over the expedient absorption of the credit resources/, which is essential in order to prevent difficulties resulting from worsening creditworthiness and adopting adequate measures. If control is initiated when the credit repayment is already endangered and it concerns only the identification of this danger, this can be described as highly ineffective and unproductive bank control.

To that aim we should point out that creditworthiness check is needed with financially stable loan applicants in order to secure the foundation for outlining measures for preventing unfavourable trends from the moment they appear. Ascertaining the fact that repayment of the extended credit is not regular is not sufficient. It is necessary to study

<sup>&</sup>lt;sup>1</sup> Stoyanov, St., Credit Risk Analysis and Information Supply, S. 2008, p. 43

carefully its spending in order to rule out the possibility that the credit resources are not spent as designated but are channeled into new investments and activities, which the credit bank has not studied and therefore could be very risky.

In western European bank literature the prerequisites for creditworthiness are divided into personal and financial.

Personal prerequisites are - the will to work and demonstrate enterprise along with audacity in decision-making and ability to respond quickly and adequately to the changing economic environment. The ability to evaluate correctly the business opportunities that arise and the initiative to choose new goals and ways of achieving them is of great importance. To the personal creditworthiness prerequisites belong: the ability to make an estimate when comparing incomes and expenditures for the corresponding business activity, the ability of management to stimulate for higher achievements and to implement effective management, profound knowledge of the industry and the market and the specific risks involved in this activity, sufficient experience in solving financial issues and in managing credit resources.

The data about the financial and economic situation of the loan applicant are defined as financial creditworthiness prerequisites. These include forecasts about expected development of the industry and the role that the enterprise plays in it, a study whether the loan can be repaid in accordance with the terms and using revenue from the activity of the business entity. In order to do this, the credit bank requires all documents and data related to the borrower's accountability.

When analyzing creditworthiness, along with the required prerequisites for creditworthiness it is necessary to carry out a comprehensive study of the factors that determine it. It is believed that creditworthiness depends on several major factors: the borrower's efficiency, his reputation, his capacity for profit making, the value of his assets, the state of the economic situation, his profitability, etc. In order to conduct a thorough study of the above mentioned, it is necessary to use a number of indicators for the credit analysis.

Firstly, the commercial bank determines the efficiency of its client. Some legal aspects of the future deal belong here: studying the Articles of Association of the loan applicant, his rights over his assets, the advantage over other creditors in the event of bankruptcy etc. It is necessary that matters related to real efficiency be studied in depth. Any oversight hides the risk of incurring losses for the bank.

The client's reputation is of great importance when taking a decision for extending a credit. The process of establishing reputation is a long one. During the assessment process one can use information referring to repayment of previous loans. It is widely accepted that if the client was accurate then there is good reason to expect that he will be accurate in this deal too.

Profitability is also of importance when assessing creditworthiness. The profits made are the main source used to repay the extended loan. A borrower's profitability is based on a number of circumstances – prices of output; production costs; product quality; advertising quality; location; existing competitive enterprises; availability of raw materials for production, as well as their price rate; qualification, professional and other qualities of staff; management competence and others.

The assets, owned by the borrower, are an important factor in analyzing creditworthiness. This property is seen as a possibility to secure the debt. It is important to know whether the borrower has state-of-the-art equipment, new machinery and if he is involved

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in commercial activity, whether the shops and warehouses are modern, how much stock they have etc. The availability of enough assets, which can be used to secure the credit, lowers the credit risk, but banks have to try and find borrowers who can repay the funds they have received out of the income they get from their running activity.

Creditworthiness is directly influenced by the state of the economic situation. The respective borrower can be perfectly assessed in terms of his reputation, profitability and assets and yet credit extension might turn out to be inexpedient because of the unfavourable economic situation. It is necessary to estimate the position that the loan applicant has in his industry in terms of competition, technology, production demand etc.

Every credit deal has its specific characteristic features and the importance of the individual factors can be estimated in different ways. When granting a credit, one should estimate its repayment relying not only on a static picture of the financial situation of the loan applicant, but also relying on analyses and forecasts for its development. This can be achieved by observing the profit made over the latest accounting period and then proceed with preparing forecasts for the financial results through analyzing the most important visible internal and external influences. This look into the future does not claim absolute accuracy, but it determines the development trends and this is the basis that the credit bank needs.

In the conditions of market economy, the analysis of the business activity is considerably simplified on a micro level since the synthesizing indicator "profit" has been adopted and its study is sufficiently indicative of the tendencies in the activity of the enterprise and its results.

An additional factor playing part in analyzing creditworthiness is the borrower's current profitability. His profitability on depositing the credit application is of importance only as a facilitating starting point for getting the accurate assessment. We have often seen companies with slender or no profit at all, using the loan they have received, activate and put together their resources and their production capacity and thus turn into highly efficient economic entities. At the same time, profitable companies, which receive loans under conditions that they cannot meet, can worsen their financial situation to a degree, endangering the repayment of the loan. Borrower's liquidity indicators are also considered when taking a decision to extend a loan. The profitable companies are usually also liquid, but this cannot be taken for granted, especially in a situation with a high rate of investment

Valuable information about the financial state of the loan applicants can be achieved through analyzing the movement in their bank accounts. It is possible to follow the progress of the economic activity with their help, the changes in the turnover volume, the regularity of payments to their partners, to financial institutions etc. This is facilitated by making a card-index catalogue – depositors and borrowers. These catalogues contain information about the assets in the clients' accounts, about outstanding payments, repayment of past credits, drawn overdrafts etc. This is information about the bank's real clients, but this catalogue may contain information about potential clients, clients who have applied for a loan in the past, but their applications have been rejected, or about clients that the bank has tried to attract as depositors. The data in the catalogue is duly expanded and updated. The client catalogue contains information about the analytical features, which characterize the personality of the debtor, his sector or industry belonging, his local or foreign origin, etc. These are the so-called general analytical characteristics. The relation

between the analytical system and the client catalogue is carried out through the borrower's client number, included in the account's analytical structure.

### 2. STAGES OF THE CREDIT ANALYSIS

The credit analysis can be defined as a process of determining the current creditworthiness of the loan applicant and forecasting the tendencies in its future development. This process is connected with the financial and accounting analysis of the current and future activity and the financial situation of the loan applicant in the specific economic environment and the expected changes in the forthcoming periods. The priority of the credit analysis is to determine the following:

- 1. The managerial qualities of the loan applicant;
- 2. His ability to regularly repay the loan, the interest accrued and charges by using his current revenue from his business activity at present and in the future:
- 3. The amount of his capital and the possibility to use it to secure the borrowing of the commercial bank-creditor in the event of risky situations;
- The influence of micro and macro environment over the business activity of the company during the current period and in the future and respectively over his ability to service the bank loan;
- 5. Specific risk situations which can affect the borrower's money inflow and consequently result in problems with the repayment of the loan;
- 6. The correspondence between the extended credit and the real need for it;
- 7. The correspondence between the term of credit and the circulation speed of the funds for the raising of which it was extended.

The credit inspector can work out a correct stand during the decision-taking process about the credit applied for on the basis of a comprehensive credit analysis. The information gathered during the credit analysis is of great significance to the accurate structuring of the credit, which would contribute to lowering the credit risk. This information can also be used if the need arises for restructuring the extended credit in such a way that it brings higher profits to the borrower from utilizing the resources and respectively the profitability of the bank-creditor.

The stages of the credit analysis are as follows:

- 1. Collecting and analyzing information about the company applying for a loan and formulating indicators about its financial situation;
- 2. Collecting and analyzing information about the credit event;
- 3. Assessing the credit risk;
- 4. Checking the reliability of the information, provided by the company applying for a loan;
- 5. Preparing an analysis of the credit risk;
- 6. Taking a decision;
- 7. Setting the credit terms.

At the first stage of the credit analysis – collecting and analyzing information about the borrowing company and formulating a number of indicators about its financial situation – the credit bank requires the borrower's annual financial reports on the current and

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past accounting periods as well as all other accounting documents, which it finds necessary.

On the basis of the collected information an analysis of the current results is carried out, comparisons with the results from the activity during previous accounting periods are made using the comparative analysis, and the tendencies in the future development of the activity of the loan applicant are outlined on the basis of the prognosis analysis. The formulation of specific analytical indicators is of great importance at this stage. The essence of the latter lies in reducing the great number of items in the annual financial reports to several important ones, which bear significant information about the financial situation of the loan applicant during the current accounting period. With the help of these indicators the credit inspector identifies the negative points that may require more thorough and indepth analysis.

At the second stage of the credit analysis – collecting and analyzing information about the credit undertaking – the credit bank accumulates information about the amount and the aim of the requested loan along with the sources for its repayment. This information plays a vital role in monitoring whether the amount of the requested loan corresponds to the real financial needs of the loan applicant, if the period corresponds to the circulation speed of the funds for which it was granted, if the repayment sources are sufficient, and what is the state and value of the security, if such is provided for. At this stage it is very important for the credit bank to collect information about the behaviour of the company applying for credit during previous credit periods etc.

At the stage when the credit risk is evaluated it is important to provide a clear and substantiated assessment of the general political and economic risk in the country, the risk at micro level for the industry where the company performs, as well as the specific risk related to the specific loan applicant and his ability to adapt to the changes in the economic environment.

The analysis of the cash flow is of great importance to the credit risk evaluation. The amount of the credit resource that is actually needed is determined with the help of this analysis. As it was already stated, for the company to perform effectively, it is very important that the extended loan should correspond exactly to the cash resource needed. Its insufficiency or excess leads to lowering the profitability of the credited undertaking and respectively to a number of unfavourable effects on the financial situation of the borrower and his capacity to service the credit in accordance with the negotiated terms.

When checking the reliability of the information provided by the loan applicant, it is of primary importance that the credit inspector should carry out cross-checks, which will give a clear idea about the company's equipment, the professional qualification of the administrative and managerial staff, the type and quality of the production, the quality of service, the general social climate in the company, and the working conditions. The checks on-site are also very useful at the stage when the control over the expedient absorption of the extended credit is exercised. The check of the reliability of the provided information can be made with the help of specific research into the contracts that the company has signed and thus its activity in the specific field will be assessed. It is also advisable that further information be acquired from other banks, which have already worked with the current loan applicant. The audit reports about the financial situation of the company and the recommendations in them are of great importance to this check.

The stage when the credit risk evaluation is prepared involves both an assessment of the reliability of the loan applicant and of the general economic risk for the period as well as a number of forecasts for the tendencies in their future development. From this analysis one can get a clear idea about the assessment of the credited undertaking, the correspondence between the amount of the required loan and the results from the cash flow analysis about the real need for credit resources and its capacity to generate income. An evaluation should be made of the credit security or guarantee.

The analysis of the credit risk is a prerequisite for taking an adequate credit decision and setting the credit terms. Therefore, if the decision is to approve and accept the credit, the credit bank carefully determines the type of credit, its maturity and the terms for repayment of the principal, the interest rates and the charges. It is extremely important that these conditions meet the needs and the credit risk. It might happen that the conditions of the commercial bank turn out to be unacceptable for the loan applicant. That is why it is recommended to work out trade-offs, which will satisfy both parties to the credit deal. Once the credit has been agreed, the next step is preparing the paperwork and its actual extension.

### 3. ACCOUNTING INFORMATION AND CREDITWORTHINESS ANALYSIS

From the presented model of creditworthiness analysis of bank loan applicants and the study of its main stages we come to the conclusion that the prerequisite for precision and accurate credit risk assessment in the credit analysis is the reliability and the sufficient trustworthiness of the collected economic information about the property and the financial situation of the loan applicants. The accounting information has the highest relative share in the total value of this information. This finding, however, is not sufficient. It is necessary to point out the range of the needed and sufficient accounting information for the needs of the credit analysis. The minimal required number of accounting reports, presented by the loan applicants is as follows:

- accounting balance sheet:
- profit and loss account;
- statement of liability on previous credits and their servicing;
- statement of changes in equity;
- statement of cash flow;
- audit reports on the company's financial situation.

To these accounting documents we can add comparative reports on a number of balancing positions of the loan applicant. It is recommended that these comparative reports show the respective balancing positions in absolute and value terms. Along these lines a comparative report on positions from the profit and loss account will be useful, as well as a detailed analysis of the financial situation of the credit applicant and the tendencies in its development over the latest accounting periods.

A conclusion can be drawn that the accounting information used in the credit analysis in the Bulgarian bank practice does not differ in principle from the adopted international standards.

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The credit analysis can be defined as a coordinated process whose end result is granting permission for the requested credit and defining terms which are adequate to the specific credit undertaking. Therefore, the idea and the aim of the credit analysis consist in providing sufficient information about the credit undertaking and its risk level and the adoption of adequate measures for protection against credit risk. Whether or not protective measures are needed becomes clear from the credit analysis that discloses the specific risks in the activity of the loan applicant.

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# ANALIZA KREDITNE SPOSOBNOSTI TRAŽILACA BANKARSKOG ZAJMA

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Ovaj članak izlaže model analize kreditne sposobnosti tražilaca bankarskog zajma. Autor ističe mogućnost korišćenja računovodstvene informacije pri analiziranju kreditne sposobnosti zajmotražilaca. Ovde su definisani suština, preduslovi i faktori koji utiču kreditnu sposobnost. Analiza kreditne sposobnosti je zasnovana na preliminarnom istraživanju faktora i preduslova koji mogu da utiču na isplaćivanje kredita tokom vremena. Analiza kredita se definiše kao proces ustanovljenja trenutne kreditne sposobnosti zajmotražilaca i predviđanja trendova u njenom razvoju. Utvrđeni su prioritetni ciljevi i etape u analizi bankarskog kredita.

Ključne reči: kreditna sposobnost, analiza kreditne sposobnosti.