

UDC: 336.774.3(497.11) ; 659.231:336.717.061 JEL: H27, F10, G14 ID: 207706380  
ORIGINAL SCIENTIFIC PAPER

# The Conceptual Model of the Credit Information Exchange System in Global Terms

Simović Vladimir<sup>1</sup>, Institute of Economic Sciences, Belgrade, Serbia  
Ranković Marko, SAS, Belgrade, Serbia

**ABSTRACT** – *In current conditions, there are few rare initiatives regarding credit information exchange outside national borders. All of them have significant disadvantages and can only be applied on a limited number of countries. This paper proposes conceptual model of a credit bureau in global terms which successfully solves the aforementioned problems and enables efficient credit information exchange in global terms. Our results point to the fact that efficient credit information exchange in global terms is preconditioned by an adequate model of national credit bureau, international standards of credit reporting and unique identification of natural persons and legal entities. The basis of the conceptual model of a system for credit information exchange in global terms is a national credit bureau model which is organized in a manner which enables simple information exchange and distribution of accurate and reliable data to its users. A variation of such model is commercially used by the banking sector in Serbia.*

**KEY WORDS:** *credit information exchange, international standards, credit bureau, model*

## Introduction

The contemporary business environment in which creditors exchange information about credit line users, features the existence of a large number of credit bureau models and the lack of standardization of their business processes. These circumstances cause limitations in business operations of credit bureaus, which questions the basic purpose of their existence.

One of the main indicators of a credit bureau's capability to efficiently exchange credit information and build a reputation of a respectable institution is related to the data accuracy in its database and in its credit reports, respectively. The research conducted in various countries refers to the fact that information which comes from credit bureaus contains a significant percentage of errors. The research conducted in the USA in 2004 by the National association of State PIRGs (2004) shows that there is 78% of errors in the credit reports of the largest national bureaus. An independent study was conducted in Germany in 2009 (Korczak et al, 2009) which showed that there is 45% of errors in the reports of the largest national credit bureau Schufa. The research conducted in Serbia on a sample of the national credit bureau (Simovic et al, unpublished paper) showed that the reports of this institution contain 38% of errors. Among the mentioned economies, the lowest percentage of materially

---

<sup>1</sup> Zmaj Jovina 12, Belgrade, Serbia, e-mail: vladimir.simovic@ien.bg.ac.rs



significant errors is present in the Serbian credit bureau reports (approximately 5% compared to the USA where it is 25% and Germany, where it is approximately 35%).

The standardization of credit bureau business processes at the national-economy level represents the basic assumption of the credit information exchange process in global terms. If the final objective is the improvement of the credit information exchange process in global terms, we deem that it is essential to define standards to which the existing credit bureaus will adapt, and which will be the guiding point for newly created credit bureaus while establishing their business operations. When establishing the standards, the starting point should be the best practices of credit bureaus in the world, their advantages and limitations which should be minimized by necessary improvements. The initiatives for defining credit report standards must originate and be implemented by an institution which operates globally. We suggest that the World Bank should be the initiator of this project, having in mind the significance and great experience of this institution, regarding the initiatives for national credit bureau development in developing countries.

The starting point of this paper is the fact that there is a clearly defined need for credit information exchange in global terms but to this very day neither a commercial solution nor a conceptual proposal has been made which would efficiently satisfy the mentioned need and solve the problem of credit information exchange in global terms.

The aim of this paper is to propose the model for credit information exchange in global terms which would successfully overcome the limitations of the rare initiatives currently operating internationally and which would make the process of credit information exchange efficient. Methodology used are qualitative methods.

The basis for the successful process of credit information exchange in global terms consists of a reliable credit information exchange system at the national-economy level. For that reason, before we define the conceptual proposal of the credit information exchange model in global terms, we will present the national model assumptions.

## **Literature review**

Credit bureau and its characteristics are analysed by different authors in economic literature.

Jappelli et al. (2002) pointed out the fact that implementation of the credit bureau in a national economy lead to credit market development and decrease of credit risk.

Djankov et al. (2007) show that the effectiveness of different systems for the exchange of credit information varies between countries, depending on the degree of economic development.

Luoto, et al. (2004) identify three possible levels of exchanging information between credit institutions. The lowest level means there is no exchange of information. In these circumstances, financial institutions exclusively possess information about users of their own services. The next level means the exchange of negative information between creditors; they share information about the unsettled payments and debts of their clients. The most sophisticated level of information exchange between financial institutions is the exchange of both positive and negative information on the credit activity of their service users.



International Finance Corporation (2006), in its survey made in Argentina and Brazil, indicated that the exchange of positive and negative information between creditors, concerning credit activities of the debtors, lead to decrease in rate of unsettled financial obligations under credits by 22% (e.g. Argentina), and 45% (e.g. Brazil), compared to situation when only negative information were exchanged between creditors.

A small number of authors deals with the subject of credit information exchange in global terms. One of the authors (Jentzsch, 2007) presents two models of credit information exchange outside national borders. They are direct and indirect approach models. As it will be discussed later, these models have significant conceptual and functional limitations which makes it difficult to use them extensively.

It is worth mentioning that the Association of Consumer Credit Information Suppliers (ACCIS) is working for the establishment of a network of credit bureaus across Europe under a project called the 'Key Factor System', which would ideally provide lenders with access to cross-border records through their national credit bureau (Ferretti, 2008).

### **Proposed model of the credit bureau information exchange system at the national-economy level**

Model of the credit bureau information exchange system at the national-economy level can be organized in various ways. Of all the active credit bureau business models in global terms, the model which we discuss below displays the best performance with regard to the accuracy of data in its database [3] and also has the highest application potential within the global credit bureau model. This model is used commercially by the credit bureau in Serbia (Simovic et al, 2011).

This model emphasizes two key aspects of the credit information exchange:

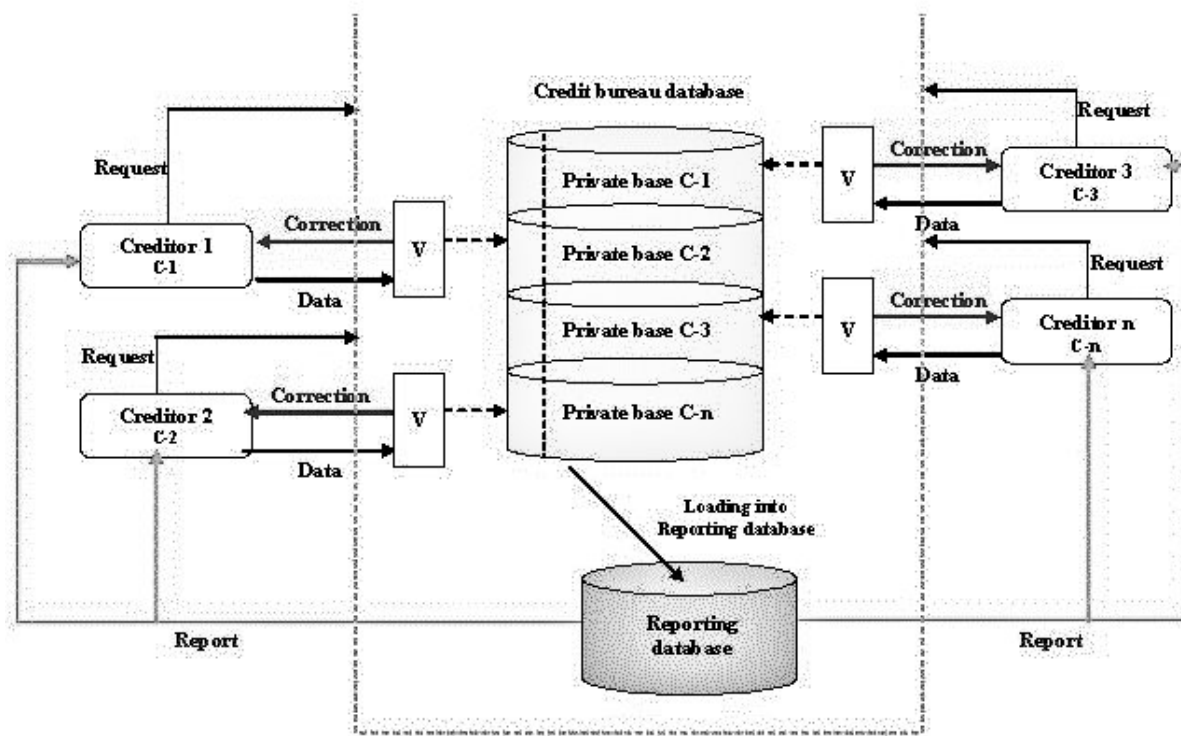
1. The method of gathering credit information from creditors and other institutions
2. The method of matching credit information and generating credit reports

Creditors forward credit information to the credit bureau in standard format (e.g. XML). The procedure for credit information forwarding to the credit bureau by creditors is automated and based on taking relevant data from the production database of creditors, formatting and forwarding information. If this process is not automated because of the technological limitations of the creditor, the credit bureau can supply the creditors with the tools in a form of an application in which it is necessary to enter information in a prescribed format. The promptness of information in the credit bureau database will depend on whether the process of forwarding credit information from creditors is automated or manual. If this process is manual, daily update of credit information in the credit bureau database could not be expected (because of the significant loss of time and the need to hire staff for these jobs.)

Information, which creditors forward to the credit bureau in one of the alternative ways, goes through the validation process which checks for logic and syntax errors. The information which does not meet the XML schema specification and the requirements related to syntax and logic validity, is rejected by the credit bureau and returned to creditors for correction (it is shown with red arrows in Figure 1). In this phase, it is of key importance to monitor the corrections made by creditors, which requires the formation of a specific

department in the credit bureau. The data which meets the prescribed validation requirements is put in the private bases which every creditor has within the credit bureau database (it is shown with black broken arrows in Figure 1). That ends the process of forwarding credit information by creditors.

Figure 1. Proposed credit bureau model at the national-economy level



Source. Authors

When any of the creditors or other institutions which are a part of credit bureau operations sends a request to the credit bureau (it is shown with blue arrows in Figure 1) in order to obtain a credit report for a specified natural person or legal entity, a search of all creditor's private databases is performed, based on a unique identifier. An important assumption of this process, related to the privacy protection, is the fact that the credit bureau can access the private databases of creditors based only on a written consent of the natural person or legal entity for whom the credit report is generated.

All the credit information related to a specified natural person or legal entity (identified by using a unique identifier) is loaded in the reporting database of the credit bureau and a unique credit report is generated. The credit report is distributed to the creditor that sent the request to the credit bureau (it is shown with green arrows in Figure 1).

The participation of creditors and other institutions in the credit bureau operations must be regulated by law. The state interests, which consist of achieving numerous positive effects by implementing the national system for credit information exchange, must be above single interests of credit bureau founders, creditors and other institutions participating in the operations of the national credit bureau.



The sources of credit information must be extensive. All institutions, which possess data that could be significant for financial accountability and discipline assessment of individuals or legal entities, must be a part of credit bureau operations. Currently, these institutions are banks, leasing companies, state funds, ministries, credit-card companies, pension funds, insurance companies, mobile phone operators, trade associations, law courts, tax authorities, utility companies, etc. The wider the circle of organizations forwarding credit information about credit lines users, the more realistic is to assess the risk for each applicant while making credit decisions. The larger source of credit information will make the bureau's coverage ratio at least about 80% in the period of 3 to 6 years since the beginning of credit bureau operations.

The information accuracy in the reports of the credit bureau optimal model is conditioned by the existence of a unique identifier and application of data validation rules. The said accuracy should be periodically checked by independent analyses, which should indicate possible issues and contribute to the further quality and accuracy improvement of data (the implementation of new validation rules, the improvement of data update, etc.)

The minimum information necessary to obtain and keep in the data base of the credit bureau includes:

- Information about natural persons and legal entities
- Positive and negative information regarding the financial behaviour of the aforementioned user groups
- Historical information for the period of at least 3 years

Having in mind the fact that the issue of privacy and privacy protection represents a significant assumption of credit bureau operations (which is differently regulated by legislation in international terms), additional attention must be paid while creating a optimal model proposal for a credit information exchange system .

An efficient solution regarding privacy is possible thanks to the unique technical basis of this model. Namely, every creditor gathers and stores credit information about its service users in its private database kept in the credit bureau database. Practically speaking, that means that only the creditor has access and the right to use the credit information (this does not affect the privacy of the user). The credit bureau does not have access to the data in private databases of creditors, nor can it have unauthorized access. The only circumstance under which the credit bureau accesses confidential credit information of credit line users, which are in the private databases of creditors, is when the credit report is generated. The written consent of the user is the condition for the credit bureau to submit a request, which is based on a unique identifier, for gathering all the credit information about the user from various private databases of creditors and generating a single credit report. By signing the consent, the user agrees that the credit bureau can gather information about him/her and form a single credit report which will be used by a certain creditor to make a credit decision.

This solution regarding privacy and access to confidential credit information is far more efficient and applicable in global terms than the mechanisms applied by the existing credit information exchange systems in which a credit bureau gathers credit information and has access to it and can even correct it at any moment. This manner of gathering credit information leaves possibility for misuse (selling information to marketing companies, theft of information, etc.)





The aforementioned conceptual proposal of the credit bureau model at the national-economy level has its limitations (which is confirmed by the fact that there are errors in credit bureau reports in Serbia based on this model of credit information exchange). The said limitations can be simply removed by improving the rules of logical and syntax data validation and improving the system for identification of natural persons and legal entities.

What gives a comparative advantage to this model in comparison to others currently in use is the fact that the percentage of materially significant errors in reports of credit bureaus applying this model is considerably lower than in the business models of other credit bureaus existing in global terms. Furthermore, from the organizational point of view this credit bureau model is far simpler for implementation since, unlike other models, it uses the organizational infrastructure of banks and other creditors, which eliminates additional expenditure for its implementation.

### **Adapting the existing credit bureau business models to the conceptual proposal**

Experiences of developed and developing countries show that very often there are several private credit bureaus at the national-economy level (in some cases from 3 to 4). The economic logic behind this form of organizing credit information exchange activities at the national economy level is the fact that creditors often do not possess all the information regarding risk for a single applicant for a credit line and his/her financial discipline in different areas (debt settlement for a line of credit, utility companies debt settlement, mobile phone operators debt settlement, failed complaints based on various grounds related to financial obligations, personal bankruptcies, etc.) In some economies (e.g. Japan) the attempt to solve this problem was made by implementing the national system for credit information exchange among credit bureaus, but this attempt has not given the expected results because of the fact that the data from different credit bureaus have different format, that it is very difficult to collect credit information about one applicant (which can be found in the databases of a larger number of credit bureaus), that duplicate credit files appear, that certain credit bureaus are not involved in the operations of the national system, etc.

In the countries where the national credit information exchange system among credit bureaus does not exist (the USA and Great Britain), the issue of having insight into the overall financial status of a single applicant for a credit line is resolved by creditors taking all credit reports about the applicant from all credit bureaus. That increases the expenditures for creditors (paying the fee for the credit report) or for credit line applicants, which depends on the pricing policy of credit bureaus. Furthermore, there is a possibility for credit information inconsistency which comes from different credit bureaus, but is related to a single applicant (different information about a single applicant from different credit bureau databases, which is based on the same grounds,). For the credit decision-makers (creditors), this manner of organizing credit information distribution brings increased error risk in credit bureau reports, because of the different credit information gathering method which is applied by each of them. The best manner to illustrate this example is in the USA where there is 78% of errors in various credit bureau reports.

The national system for credit information exchange should be single. In other words, it is necessary that a national economy has only one credit bureau in order to justify its purpose.



Only at the level of one credit bureau it is possible to do timely corrections and provide consistency and compatibility of data which are in its database.

Individuals who do not agree with this standpoint would ask: „What should be done if we have large national markets with a considerable number of potential credit line users and creditors?“ The answer is simple - the credit bureau should involve all potential creditors in its operations. Offices of creditors involved in the credit bureau operations should also function as the offices of the credit bureau (where credit line users can receive information, solve complaints, etc.).

With the formation of a single national credit bureau, it is possible to gather, process, collect, and store credit information and generate credit reports that will allow creditors to make optimal credit decisions.

The problem with the standpoint of organizing the process of gathering and distribution of credit information at the national-economy level is the fact that there are several credit bureaus in a large number of national economies. According to our opinion, this problem can be solved by the regulatory policy of these countries' governments. The policy would cover the obligations regarding unification and standardization of gathering, processing and storing credit information and generating credit reports of the mentioned credit bureaus. Every economy's national interest is banking sector stability and its basic assumption is the optimal allocation of resources of banks and other creditors working in the banking sector, which is prerequisite for a reliable system of credit reporting. Furthermore, the national interest of every economy is the controlled expansion of credit activity (which benefits from credit information exchange), but also the increase in users' financial discipline in a large number of fields.

When fixed and accepted credit information exchange standards exist at the national-economy level (which are in accordance with international standards), solving the issue of a large number of national credit bureaus could be regulated in one of these alternative ways:

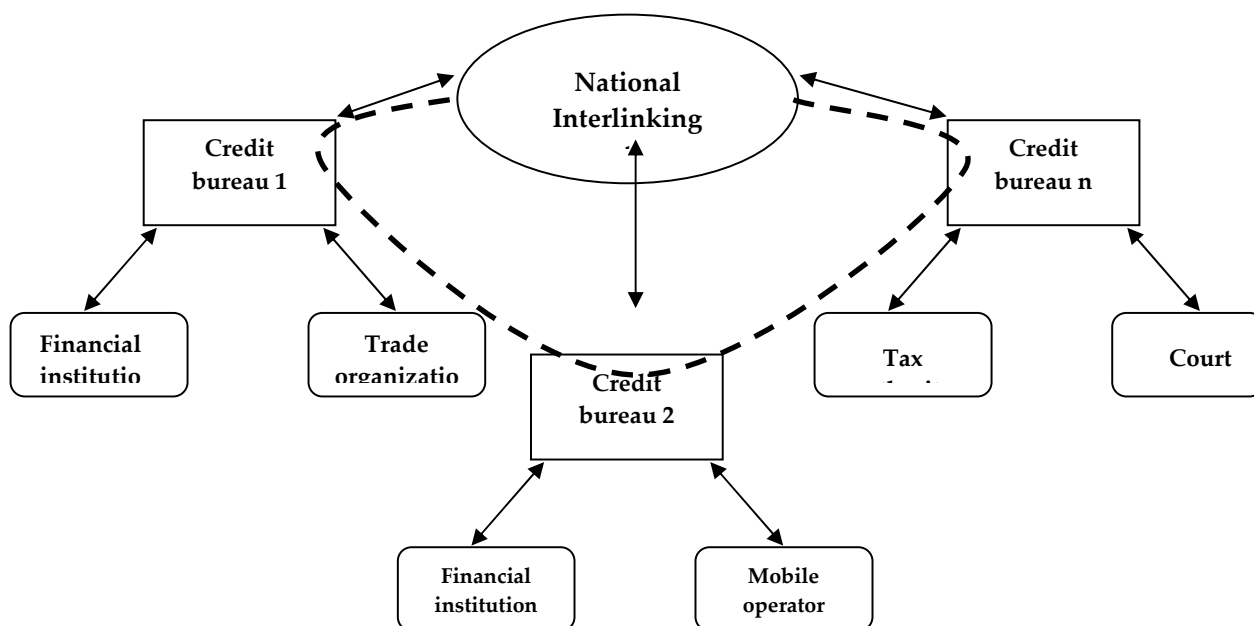
1. If we have credit bureaus which cover the same market segments at the national level (based on the industry and geographical area), it is necessary to conduct the market re-segmentation from a spatial point of view, and determine segments (in the same kind of industry) which certain bureaus will focus on (this option is for geographically large national economies). We deem that, if national economies with a large number of bureaus would go through a process of credit reporting standardization, it would be irrational for them to have a larger number of credit bureaus which cover the same market segments. That would unnecessarily duplicate credit information and increase the probability of error and duplicate credit files.
2. At the national-economy level, the market could be segmented according to industries of interest for gathering information about financial accountability of users (banking and leasing companies market, mobile phone operators market, the market of relevant information, which come from the public sources, for assessing the applicant's credit standing for a credit line, etc.) Given that, every credit bureau could focus on one or more segments.

By conducting market segmentation at the national level (whether from the geographical aspect or the aspect of industry) we would avoid data overlap and eliminate the appearance of duplicate credit files of a single user, which come from more credit bureaus.

The following issue which should be solved is the manner of generating single credit reports (single user reports which contain all the relevant information about his/her financial discipline and accountability in servicing financial obligations). The mitigating circumstance is the previously conducted standardization of credit reporting, but the limiting factor is establishing the national interlinking system which would gather information from a large number of credit bureaus and generate a single credit report. Figure 2. shows the national interlinking system.

The state should make it obligatory for all the credit bureaus operating within its borders to be a part of this system in order to achieve successful functioning of the interlinking system. Credit bureaus are not obligated to forward credit information to the interlinking system. It is only important that this system can receive credit information about a natural person or legal entity existing in all the credit bureaus' databases based on the request of a creditor or other institution using credit information and with the given authorization of the credit bureau involved in the system.

Figure 2. Model of the interlinking system for national economies with a large number of credit bureaus



Source: Authors

Therefore, the generating process of a single credit report which contains all the relevant financial information about a natural person or legal entity is conducted as follows. An institution which forwards certain credit information to a credit bureau, forwards the request for a single credit report to the mentioned credit bureau. The authorized credit bureau formats the request so that it is understandable to the interlinking system, approves and forwards it to the interlinking system. According to the received approved instruction, this





system accesses databases of all credit bureaus in the system and, based on the unique identifier for natural persons (personal number, social security number, ID card number, etc.) or legal entity (tax ID number, registry code), collects information related to the mentioned persons and generates a single credit report.

Having in mind that each credit bureau in the system gathers credit and other financial information about a certain market segment, that eliminates the possibility of duplicate information about a natural person or legal entity. The critical point of this model is the unique identifier for natural persons and legal entities, which should enable collecting all the information regarding an entity found in databases of different credit bureaus and enable generating of a single credit report.

The interlinking system could have the control function besides the operative function, in order to increase the efficiency of the system for credit and other financial information exchange at the national-economy level. The function features are as follows. All the requests for correction of data which are in credit bureaus' databases are forwarded to the interlinking system which monitors the correction and that increases the efficiency of credit bureau operations.

### **A conceptual model of the credit information exchange system in global terms**

The aforementioned standardization process for credit information exchange and the proposal for the optimal model of a credit bureau at a national level represent a good methodological framework for defining key assumptions of the credit information exchange system which would operate in global terms .

The question which should be answered is whether it is necessary to exchange credit information in global terms. The answer to the question is affirmative and the reasons for that are numerous. The principal cause of the increased need for credit information exchange is the increased mobility of people and capital. Furthermore, creditors which operate in one market are more and more inclined to track natural persons and legal entities debts abroad in order to accurately assess their financial position.

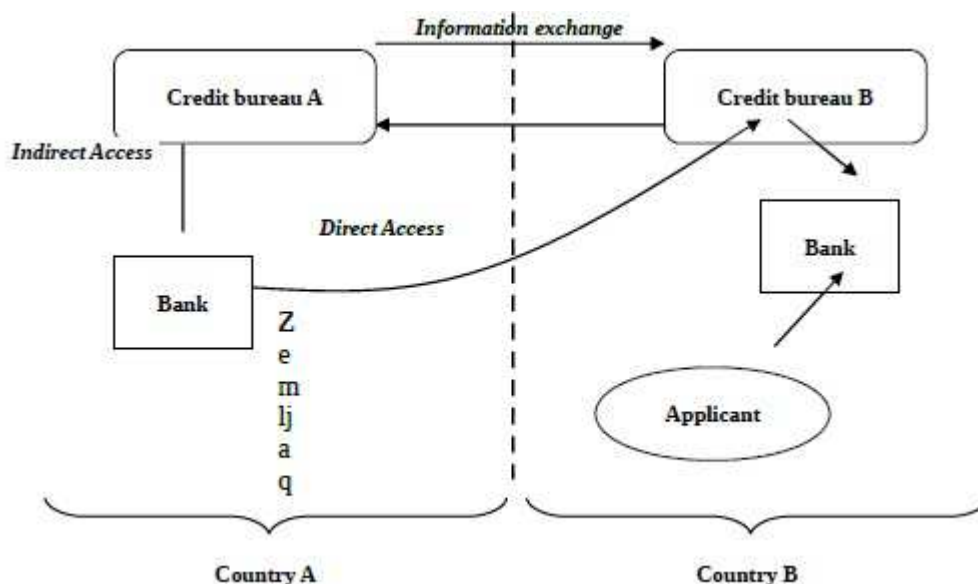
Attempts to define a model which could enable credit information exchange outside national borders are rare and isolated in existing circumstances. One of the authors who deals with this subject is Jentzsch (2007). This author points to the fact that, in contemporary terms, the development of credit information exchange occurs with acquisitions and mergers by leading world credit agencies (Equifax, Experian, Creditinfo), thanks to which they spread their network to a larger number of countries or through partnerships with national credit bureaus (Schufa, BKR). It is a fact that this approach improves credit information exchange but only between credit bureaus of countries in which subsidiaries of these major systems operate. The other significant shortcoming of this credit information exchange approach is the fact that the aforementioned major systems have limitations (a great percentage of errors in their credit reports, problems with collecting credit information about clients, etc.). That brings out the question of the purpose of the credit information exchange process outside national borders, which is based on the business model with apparent limitations.

The aforementioned author suggests two alternative models related to credit information exchange among credit bureaus in several national economies. The first is the direct approach model based on contracts among credit bureaus from more countries (the indirect model approach). Figure 3. shows how both models function.

The direct model approach shows that the creditor in country A is directly linked with the credit bureau in country B. In this model of credit information exchange outside national borders, taking part in credit bureau operations is based on the principle of reciprocity. It means that the creditor in country A is obligated to forward its credit information to the credit bureau in country B.

The indirect approach model implies that the creditor in country A addresses the credit bureau in its parent country with the request for the credit report of the applicant in country B. The credit bureau in country A, which signed a contract with the credit bureau from country B, forwards the request to the credit bureau in country B. The credit bureau in country B forwards the credit report to the credit bureau in country A, which forwards it to the creditor in country A.

Figure 3. Models of cross-border credit information exchange



Source: Jentzsch, N, *Do we need a European Directive for Credit Reporting*, CDSifo DICE Report, vol.5, issue 2, 2007.

Both suggested models for credit information exchange outside national borders have considerable limitations which restricts their intensive use. The key limitations of the direct approach model are:

1. This model may solve the problem of the applicant who is active in a small number of countries (2, mostly 3). If it is necessary to gather credit information about the applicant who has financial obligations under credit lines in a large number of countries, this model could not be applied. In such circumstances it would be necessary that all creditors from all countries have direct access to credit bureaus which operate on the territories of these countries. Furthermore, one



more question remains unsolved: how will the creditor which gathers credit information about the applicant know in which countries the applicant is active? It is assumed that the applicant himself would give that information to the creditor, which stimulates information asymmetry (instead of eliminating it).

2. If this model were based on the assumption (the only possible) that, while assessing the applicant's credit standing for a credit line, the creditor used credit reports from all credit bureaus involved in the model, the expenditure of acquiring these reports would be enormous. The additional problem is related to the analysis of the information present in the credit reports of various credit bureaus (the issue of data format, data kind, the degree of comprehensiveness, the creditor involved in information interpretation should hire additional staff, etc.) The aforementioned expenditures would increase the price of creditor's services and make credit lines to costly for applicants.

The key limitations of the indirect approach model are as follows:

1. As it is presented in the direct approach model, one of the key limitations is the lack of information on the applicants financial obligations in different national economies under various credit lines (information asymmetry). In this model, the additional problem is the fact that, if such information exists, the credit bureaus of the national economy where the creditor operates must have a bilateral agreement with the credit bureau of the country in which the applicant has financial obligations under one or more credit lines.
2. Expenditures for acquiring credit reports from a large number of credit bureaus.
3. If standards for credit information exchange do not exist, the issues could be different credit information formats, different level of detail in information presented in credit bureau reports, different kind of data, (positive and negative) etc.

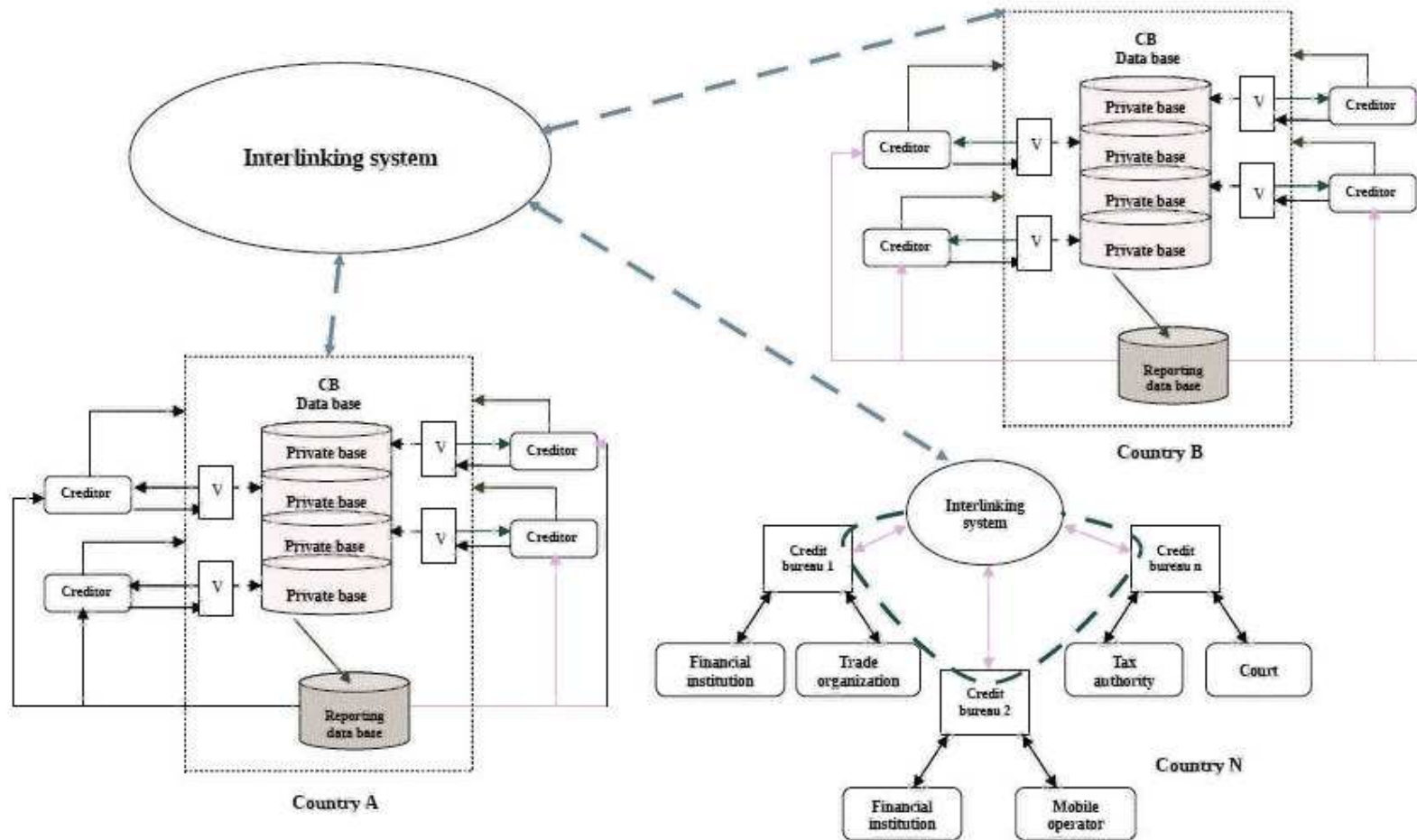
This brings us to the conclusion that the direct and indirect approach models, proposed by Jentzsch, can be applied in a limited number of countries. Having that in mind, the basic purpose of these models is lost. The aforementioned limitations of these models make it difficult for creditors to obtain reliable information regarding the applicant's financial accountability.

As a result, we will present a model of credit information exchange system in global terms which efficiently solves the mentioned issues (Figure 4)

Hypothetically speaking, the credit bureau model operating in global terms would be very simple if all, or most, national economies implemented the proposed national model of the system for credit information exchange, assuming that the standards for credit information exchange were defined by a respectable international institution (World Bank or other institution).

Figure 4. represents the proposal of the conceptual model of the credit bureau which would operate in global terms. As it can be seen, the basic assumption of this model is the implemented models of the credit information exchange system at the national level.

Figure 4. The conceptual model of the credit information exchange system in global terms



Source: Authors



With this model, even the national economies with a large number of credit bureaus whose operations are in accordance with the proposal made earlier, can be involved in the credit information exchange system in global terms.

Gathering credit information from creditors, within the model, is conducted in the manner and rate explained in the part related to the optimal model of credit bureaus at the national level. The creditors forward credit information only to national credit bureaus, whose databases store that information.

It is necessary for the system to have interlinking mechanism whose task is to, based on the creditors request from any country which is the part of the system, forward the request to credit bureaus of all other countries in the system. The interlinking mechanism does not have a database at its disposal, but only the function to direct creditors' requests to credit bureaus of all countries that are part of the model.

Two operations take place when the creditor in country A forwards the request for a credit report to the national credit bureau. Based on the unique identifier, the national credit bureau collects all information regarding the applicant in question, which exists in the database and loads it in the reporting base. Concurrently, the national credit bureau forwards the request to the interlinking mechanism (only it has access to the databases of all national credit bureaus in the system) which further forwards the request to databases of all other national credit bureaus involved in the model. Based on the unique identifier (which must be unique for all the countries in the model) all credit information about the applicant in the databases of national credit bureaus are collected and, using the interlinking system, are directed to the reporting base of the credit bureau of the national economy A. According to the information in the reporting base of the credit bureau in the national economy A, a single credit report is generated. The report contains information about the applicants' credit activity within national borders, as well as abroad (if such activities occurred).

The proposed model of the credit information exchange system in global terms efficiently solves the problems identified in models which Jentzsch (2007) mentioned:

- The issue of information asymmetry is solved since the model offers simple gathering of credit information related to a single applicant and from all national economies in which he is active (the condition is that the economies are in the system).
- Additional expenditures issue is solved by using a single credit report for assessing the applicant's financial position.
- The issue regarding data format, data comprehensiveness and data kind is solved by standardization at the national level.

One of the circumstances, which is favorable for organizing credit information exchange in global terms in proposed manner, is the information technology advancement. This simplifies and lowers the cost of creating the necessary infrastructure for involving domestic creditors in the national credit bureau system and connecting national credit bureaus in global terms.

Having in mind all these aforementioned facts, we can suggest that the two basic assumptions for successful implementation of the credit bureau model operating in global terms are:





- Standardization involving data format, validation rules (adapted to the local economy), data import into databases of national credit bureaus, credit information collecting, and scope and kind of credit information which is the subject of a credit report.
- Unification of unique identifiers in global terms. The unique identifier is essential for successful collecting credit information and generating reliable credit reports. We could overcome the issue of the non-existing universally applied unique identifier for private and legal persons by defining the standards for unique identifiers for the mentioned categories of credit line users.

If this solution is not possible in global terms, having in mind the limitation regarding standardization and the need to involve a large number of national economies with implemented national credit bureaus, we deem that it is applicable in regional terms, such as the European Union. The strong need for integration at EU level in different fields (the example of forming a single payments market with SEPA initiative) brings us to the conclusion that, in the field of credit information exchange, it is necessary to define common standards and implement solutions which will enable EU creditors to assess risk of every applicant's credit line and enable optimal resources allocation.

## **Conclusion**

This paper points out that it is necessary to form the model of the national system which has a high degree of business performances in order to establish the optimal model of the system for credit information exchange in global terms. Based on characteristics of the model of the credit bureau in Serbia, the proposal for the model of the national system for credit information exchange is formed. It is suggested that the key assumptions of the national model of the credit bureau are the methodologies of gathering and collecting credit information which originates from various sources.

We pointed out that standardization of credit reporting, which should be initiated and implemented by an international institution, plays the key role in establishing the model of the national and global credit bureau respectively. Additionally, unification of the system for identifying private persons and legal entities, as well as the determination of regulatory authorities to regulate operations of such a system has a significant role.

It is suggested that the existing models of credit bureaus currently operating in global terms could adapt to the conceptual proposal by modifying their business operations according to standards of credit reporting, even if there is a large number of credit bureaus at the national-economy level.

By assuming that the international standards of credit reporting are adopted, that private and legal persons unique identification exists, according to the said standards, and that there is political will for establishing the efficient credit information exchange system in global terms, the paper defines the conceptual proposal of the model for the credit information exchange system in global terms. It is a very simple model based on the interlinking system. It can efficiently overcome the limitations of the systems for credit information exchange outside national borders, which are currently in use.



## References

- Djankov, S. McLiesh, C, Shleifer, A, Private credit in 129 countries, *Journal of financial economics*, 84, 2007: 299-329.
- Ferretti, F. *The law and consumer credit information in the European Community – The regulation of credit information systems*, Routledge-Cavendish, 2008.
- International Finance Corporation, (2006) *Credit bureau Knowledge Guide*, World Bank Group, Washington DC, USA
- Jappelli, T, Pagano, M, Information sharing, Lending and Defaults: Cross country evidence, *Journal of banking and finance*, 26 (10), 2002. 2017-2045.
- Jentsch, N, Do we need a European Directive for Credit Reporting, CDSifo DICE Report, vol.5, issue 2, 2007, pp. 48-54.
- Korczak, K., Wilken, M., *Verbraucherinformation Scoring*, GP Forschungsgruppe, Institut für Grundlagen-und Programmforschung, Munchen, Juni 2009
- Luoto,J, McIntosh, C, Wydick, B, *Credit Information Systems in Less-Developed Countries Recent History and a Test*, *Economic Development and Cultural Change* 55, 2004: 313-334
- National Association of state PIRGs, *Mistakes do happen: A look at errors in consumer credit reports*, June, 2004.
- Simovic, V, Vasković, V, Ranković, M, Malinić, S, *The accuracy of the information presented in credit bureau reports: Research and comparative analysis*, unpublished paper
- Simović, V, Vasković, V, Poznanovic, D, *Performance evaluation of the Serbian credit bureau model*, *African journal of business management*, vol.5(11), 2011. pp 4594-460.

## Konceptualni model za razmenu kreditnih informacija u globalnim okvirima

**REZIME** – U trenutnim okolnostima, postoji svega nekoliko inicijativa za razmenu kreditnih informacija van nacionalnih granica. Sve one imaju značajnih nedostataka i mogu se primeniti samo na ograničenom broju zemalja. U ovom radu je predložen konceptulni model kreditnog biroa koji bi funkcionisao u globalnim okvirima i koji na efikasan način rešava pomenute probleme i omogućava efikasnu razmenu kreditnih informacija u svetskim razmerama. Rezultati predstavljeni u ovom radu ukazuju na činjenicu da je efikasna razmena kreditnih informacija u globalnim okvirima uslovljena modelom nacionalnog kreditnog biroa, adekvatnim međunarodnim standardima za razmenu kreditnih informacija i jedinstvenim identifikatorom za fizička lica i privredne subjekte. Osnova konceptualnog modela kreditnog biroa u svetskim razmerama je adekvatan model nacionalnog kreditnog biroa koji omogućava jednostavnu razmenu i distribuciju tačnih i pouzdanih kreditnih informacija korisnicima. Varijanta takvog modela kreditnog biroa je u komercijalnoj upotrebi u Srbiji.



**KLJUČNE REČI:** *razmena kreditnih informacija, međunarodni standardi, kreditni biro, model*

*Article history:* Received: 13 July 2013  
Accepted: 18 July 2013