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# **Banking system in Romania and implementation of electronic payment**

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## **Abstract**

Romania's banking system is a two-tier system, including the National Bank and credit institutions. This system was introduced in December 1990, the first step of the banking reform. The legislative framework governing the banking system comprises: Law on National Bank of Romania - Law no. 312 of 28 June 2004 Ordinance on credit institutions and capital adequacy - Government Emergency Ordinance no. 99 of 6 December 2006; Law for the approval of Government Emergency Ordinance no. 99 of 6 December 2006 - Law no. 227 of 4 July 2007. On the Romanian market also operates non-bank financial institutions such as mutual assistance funds, pawnshops, financial leasing companies, credit companies for individuals, micro-finance companies, mortgage companies, companies offering factoring operations, finance companies specializing in commercial transactions, and others.

**Keywords:** banking system, electronic payment

**National Bank of Romania (NBR)**, established in 1880, the central bank. Independent public corporation with headquarters in Bucharest, Romania's National Bank is the only institution authorized to issue currency in the form of banknotes and coins as legal tender in Romania. According to Law no. 312/2004 on the Statute of the NBR, the NBR's main tasks are: development and implementation of monetary policy and exchange rate policy; licensing, regulation and prudential supervision of credit institutions, promote and oversee the smooth operation of payment systems for ensuring financial stability; issue banknotes and coins as legal tender in Romania; Exchange arrangements and supervise its observance; Romania's international reserve management.

Deposit Guarantee Fund in the banking system was established in 1996, the Government Ordinance no. 39/1996, being constituted as a legal entity of public law. The main objective of the Fund is a money back guarantee deposits in credit institutions by individuals, legal persons or entities without legal personality, under the conditions and limits set by the Law on the Fund and as special administrator activity, or as interim manager liquidator of the credit institutions, if his appointment in one of these qualities. Since the establishment of the Deposit Guarantee Fund in the banking system, representatives of the Romanian Association of Banks have played an active role in the development and implementation of regulations on deposit guarantee and the mechanism of the payout to depositors in the event of bankruptcy banks. ARB is represented by the President and Secretary General of the Board of Trustees of the Fund guarantee deposits in the banking system.

## **Credit Bureau**

Founded on the initiative of the banking community in Romania, Credit Bureau is a joint stock company, which has 24 banks as founding members. Currently, the credit bureau has 27 banks as shareholders. Became operational in August 2004, Credit Bureau currently manages positive and negative data, from banking and non-bank sources. The purpose of the Credit Bureau was to provide truthful information to participants in the banking system, updated and consistent units for individuals who have taken loans from banks or financial companies, have

bought a lease to have been insured against risk of default by an insurance company. The activity of the credit bureau include: Collection / data processing portfolio of clients - individuals of participants; Participants provided information and analysis to identify and quantify credit risk, increased credit quality, reduce risk of fraud and protection of creditors; Establish uniform criteria for assessing the customer (scoring); Banking and financial consultants.

### **TransFond**

As a result of special efforts made both by the central bank and the banking community for a structural reform of payment and settlement systems in Romania, Romania currently has a modern payment system, the existing European Union. Electronic Payment System Operator in Romania is TransFonD - Society Funds Transfer and Settlement, a private company founded by the banking community in Romania, with shareholders National Bank of Romania (33.33%) and 25 commercial banks (66.67% ). Main activity of TransFonD is to provide clearing and settlement services to non-cash payments in local currency, for institutions, National Bank, Treasury and other financial institutions.

The main tasks of TransFond are: administration and operation of SENT (automated clearing house); technical management and operation ReGIS (gross settlement system in real time), as mandated by the National Bank of Romania; technical operation of the system SAFIR (the storage and settlement of securities transactions); Providing support for participants in the three systems.

Romanian Banking Institute is mainly focused on professional development, training and specialization of banking staff in accordance with the requirements of credit institutions and the National Bank of Romania, in cooperation with the Romanian Association of Banks and programs approved by the Board of Directors.

Relationship and collaboration with the Romanian Association of Banks of the Romanian Banking Institute is performed by the position ARB founding member and member of the Board.

In recent years, cooperation with the Romanian Banking Institute has increased by direct contact with specialists of the institute permanent representatives of the specialized committees of the Romanian Association of Banks, which will debate the current issues on each segment of banking activity, and resulting in need to organize courses, seminars, workshops have been organized by the Romanian Banking Institute Banking system employees.

### **Payment Incident Bureau**

Established in 1997 the National Bank, Central Payment Incident is a mediation center that manages information specific incidents of payment instruments (checks, bills, promissory notes), both in terms of banking (in the drawing discovered account), and from a social perspective (lost / stolen / damaged).

Incident Information to the Central Payments are made electronically, using the Interbank Communication Network linking all central banks' central bank with power.

Established in 2000 under the National Bank of Romania, CCR is a specialized structure in the collection, storage and centralize information on the exposure of credit institutions in the Romanian banking system to those borrowers who received loans and / or commitments

whose rate cumulatively exceed the reporting threshold or delays in payments, as well as information on card frauds produced by the owners.

Users of the information in the database CIB are reporting entities - credit institutions and mortgage companies - National Bank of Romania.

Credit risk information exchange is done electronically through the Interbank Communication Network.

## **ROMCARD**

ROMCARD is a limited company, founded in 1994 by the five largest banks in Romania, with the object of processing credit card transactions.

ROMCARD provide services on bank card transactions, including field work authorization card transactions, database administration, national and international switching, settlement and card transaction processing, security solution for accepting and issuing banks for e-commerce.

ROMCARD processing system is carried out and certified by international standards.

Streamlining and simplification of reporting credit institutions by the National Bank of Romania Project to streamline and simplify the reporting system, developed by the National Bank of Romania and the Romanian Banks Association, started in late 2004 with objectives, milestones, activities and organizational framework of the project. Project coordination is provided by the National Bank of Romania.

The primary objective of this project is to ensure optimum data and information necessary for performing his duties by the central bank. Objectives are derived a set of basic indicators that each credit institution will have to report to the National Bank of Romania and making a database of basic indicators, as the sole source for obtaining aggregated indicators underlying rationale and implementation policies. Infrastructure project will be the computer system for reporting to the National Bank of Romania.

Data and information submitted by reporting entities will be structured as primary indicators, which will be determined in a unique way of reporting entities, as required by National Bank of Romania. Primary indicator is a basic concept, process or phenomenon associated with a financial - banking. Each indicator is associated with metadata to describe the existing system, eliminating redundancy, data validation and addition of new indicators. Primary indicators will be transmitted electronically to the Central Bank, using a single reporting channel. Based on the primary indicators transmitted by reporting entities will be calculated - the central bank - aggregate indicators.

Existing system will eliminate redundancies in the current reporting system and will mean achieving a centralized database, support for decision making performance. Credit institutions will have access to their primary indicators and aggregate information as the banking system. Flexible system allows adding new message types to meet new reporting requirements and the modification of existing messages, depending on changes in current reporting requirements. The introduction of new indicators or modify existing ones will be made but only with opinion mixed methodology, after a preliminary analysis of requirements, to avoid redundancies and duplication.

Stage of project is as follows:

In the analysis phase, completed in September 2005, were established optimal information requirements of departments reporting the central bank manages as object of activity in conjunction with current and future requirements in the regulations - application of International Financial Reporting Standards (IFRS) new Basel II Capital Accord, the European Union integration. These requirements have been integrated - at the primary indicators - the principle of uniqueness indicator.

A key activity during the analysis phase was to evaluate the current system of reporting and

indicators, in terms of information requirements and proposals optimal credit institutions, eliminating outdated indicators and the reporting and introducing redundancy and - where appropriate - new indicators.

He developed an important activity reports documenting the knowledge systems implemented in the central banks of France, Belgium, Netherlands, Spain, Italy and Germany. Have been reviewed and revised legal acts issued by the National Bank of Romania in accordance with relevant Community rules and requirements for credit institutions. Completion of the analysis phase has resulted in the development of reports list, the list of indicators, reporting schedules and records indicators.

The design phase has been developed a logical model of the database structure from the primary and secondary indicators, process models based on process requirements set out in the analysis phase, was designed computer system architecture and were developed applications.

It was developed in conjunction with approved credit and Norma NBR on the transmission through the primary indicators Reporting System on National Bank of Romania.

For complete information on project status and continuous exchange of views with experts credit institutions have been held since March this year a series of seminars on architecture of the new reporting system, the implications and challenges of the new reporting system and simulation of reports - practical exercise.

Starting September, pilot tests were conducted with a limited number of banks, followed by all banks in the system tests.

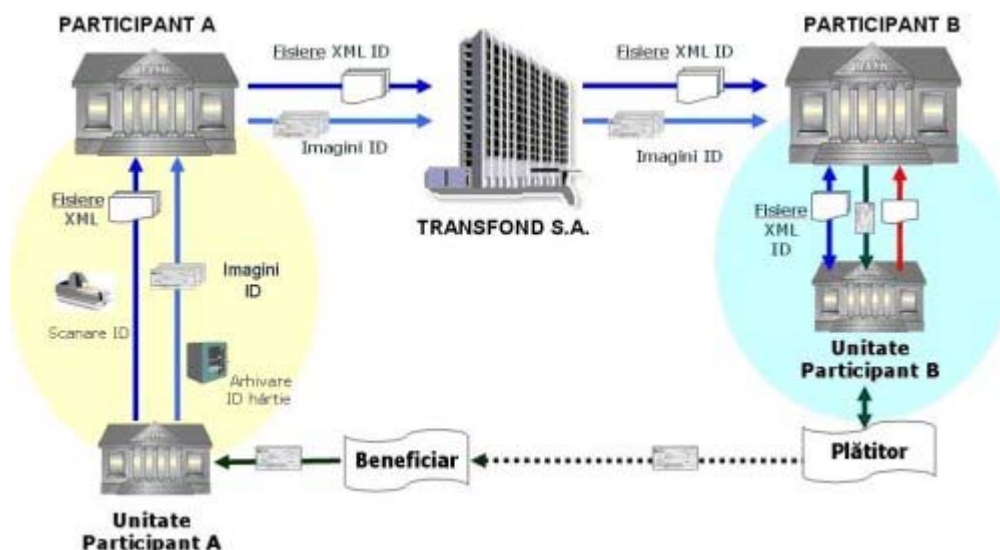


Fig. 1. Electronic Payment System Developments

Implementing Electronic Payment System, a project that lasted two and a half years, was completed in 2005 and involved the efforts of the banking community in Romania, Romanian National Bank, Treasury, Funds Transfer Society and Settlement- TransFonD, as operator of the funds transfer system in Romania.

Starting from the second quarter of 2005 came into operation Electronic Payment System components: large-value payment system ReGIS SENT automated clearing house system and sapphire securities registration and settlement issued by the Ministry of Finance. Entry into service of new electronic payment system has led to better risk management and liquidity, increase business effectiveness and efficiency of payments and the security level of interbank transactions.

Payment infrastructure in Romania has been steadily replaced almost entirely, as follows: In April 2005, came into operation ReGIS for large-value payments, the processing and settlement on a gross basis in real time, owned and operated by the National Bank of Romania. ReGIS processed safely and with minimal risk of settlement of high value or urgent payments, which represent over 90 percent of all funds handled by payment and settlement systems in Romania.

in May 2005, entered into service SENT, automated clearing house, which took over the processing of all interbank payment orders. The system, owned and operated by TransFonD automatically processes retail payments. They remained just outside the debit instruments, that checks, drafts and promissory notes. As an authorized agent of the National Bank of Romania, TransFonD done through the 42 branches, manual clearing of payment instruments and settlement of paper flow in the net positions ReGIS.

the third component of the system - the system for processing securities transactions, SAFIR - went into operation in October 2005. SAFIR, the registration system and settlement of transactions in securities issued by the Ministry of Finance and managed by the central bank as its agent, is owned and operated by the National Bank of Romania. Number and value of transactions processed by the system are still low, but the system is significant in that it provides support to the other two systems of interbank payments, the collateral management for settlement.

It should be noted that the implementation of Electronic Payment System created the possibility of integrated processing of payments from the originator to the beneficiary and thus generated a process of reforming the payment systems of credit institutions by automating the processing of payments and termination of agreements between a technical of participants.

Some developments of the system are considered by the banking community, as follows:

Automation SENT processing of debit instruments - checks, bills, promissory notes, Using SWIFTNet network and system services SENT Implementing a new help-desk applications,

Automation in certificates of deposit issued by National Bank of Romania, SaFIR, Depository, settlement and processing operations in government securities in the benchmark SaFIR, Secondary market by creating an electronic trading platform, Collateral management, The indirect holdings, cross-border connections Project on automating the processing of debt instruments - checks, bills, promissory notes - the system's objectives SENT total elimination of paper flow by using digital image interchange, clearing and settlement through the automated electronic messages.

The solution initially proposed as a definitive solution PHARE project involves immobilization and dematerialization of debit instrument to drive the bank where the beneficiary is first presented for collection. Dematerialization is the capture and transfer all information contained on the physical instrument, with its scan in a standardized electronic message that is sent to the beneficiary bank and then to drive SENT payer's bank for checking and clearing. Electronic message processing is done on a similar procedure to that used direct debit instructions SENT. E-mail, secured electronic signature has the same legal value as the physical instrument. The solution provides automated processing, integrated processing creates the possibility of such tools and provide a reduced processing time. To be applied to such a solution is necessary to amend the legislative framework on checks, bills of exchange and promissory notes, which requires the presentation of the physical instrument for payment. Given the current restrictions of the legal framework, a solution was proposed in two stages. The first is the movement of paper debt instruments at central level in parallel with electronic messages, accompanied optional scan physical support. Thus email has probative

value with the physical instrument, with payment to be made based solely on his presentation. In stage two, after changing the legal framework would be implemented final solution for digital image exchange processing of debt instruments.

### **Processing solution to debt instruments instead of digital images** (Source: TransFonD)

After numerous meetings and debates in the banking community, the Romanian Association of Banks has made a proposal in two stages:

In a first stage, immediately applicable, to centralize the physical exchange TransFonD debt instruments and settlement shall be made SENT using direct debit interchange mechanism and XML message formats adapted for each payment instrument in hand. This solution was approved by the National Bank, which drafted a regulation, analyzed within the banking community.

In the second stage, based on studies to be conducted by a joint team composed of experts from the Romanian Banking Association, the National Bank of Romania and TransFonD could decide on legal amendments and that the investments required for processing circuit and debt instruments to make a modernized and efficient manner, or possibly even the solution to the total or partial use of the check payments between companies, the model applied by countries in the region (eg Poland).

Another project high-interest credit institutions since the start of the new system is the use of SWIFTNet services network and transfer files SENT. SWIFTNet Bulk Payments solution, which will exchange the files representing the low-value payments through the SWIFTNet network using FileAct services, provides a secure platform for the exchange of payments representing lots of files in any format. Current users of the solution are clearing houses, banks and corporations correspondent.

Adopting this solution enables reuse investment in SWIFTNet infrastructure for sharing files and retail payments can mean a substantial reduction in cost per message for credit generated by the increasing volume of messages sent via SWIFTNet, as well as operating costs and infrastructure maintenance. SWIFTNet enables connection to all potential players involved: corporations, banks, clearing houses, standardize transaction end-to-end integrated processing and increasing.

### **Conclusions**

Evolution of the banking system, taken together, can not be detached from the general situation of national economy, its fluctuations, both at micro and macro.

Thus, specific transformations of the transition period, inflationary economic environment, banking legislation and the nature of managerial problems recorded at certain banking companies have contributed to maintaining a low level of financial intermediation, mainly due to the following phenomena:

Maintaining a high level of risks in lending, due to the economic environment and low inflation since the economic agents to adapt to the demands of the market economy, which led to incomplete commitment by banks to increase the resources economic.

Saving-the intensification of Romanian economy, together with its inability to absorb resources, not as respected equality between savings and investments, the rule of development.

Failure-recovery in the savings credit and availability of selected banks, the intermediary role of which is partially materialized Domestic and international money market developments in the last period of time characterized by high volatility of interest rates and exchange rates, coupled with increasing competition, reducing the volume of assets and profit margins, due to credit institutions in the Romanian sector of the realization stimulated a prudent management of banking assets and liabilities in order to reduce variability in net interest income with major impact on the financial performance of the bank.

Maintaining solvency is one of the fundamental objectives of bank performance diagnosis, because the smooth functioning of banking institutions, and lack of liquidity or the inability of buying it equates failure of a bank.

For bankers, bank liquidity is breathing.

Lack of liquidity can significantly affect the current activity, resulting in significant financial costs and image. If the bank has an adequate level of own funds to finance a significant proportion of bank assets, meeting the liquidity is not a difficult problem because an adequate level of own funds generated large profits are made by those banks be of sufficient quality to generate credits that certainly due to incoming flows. Position and reputation of banks in the banking system profitability measured by past and future influence on bank liabilities and assets management.

Bank profitability can be appreciated only by static analysis, conducted with the financial statements of the bank's financial performance, but by analyzing the maturity profile of assets and liabilities, the latter highlighting the mismatch due to sudden change of the bank's balance sheet structure .

Evolution of the banking system can not be detached from the general situation of national economy, its fluctuations both macroeconomic and microeconomic level.

Electronic Payment System aligns the Romanian banking sector to European standards in terms of settlement payments, the main benefit is the significant reduction in the duration of settlement, but only for financial institutions that have a modern information infrastructure, proven practices, in some banks in Romania, where the computer system is not developed enough, the introduction of electronic payment system led to a slowdown even settlements. In recent years, Romania's banking sector engagement exhibit increasingly higher lending activity, with an explosion of funding for population. Banking companies increasingly diversify its portfolio and enter the population segments and categories of firms less concerned. In this respect, 2005 and 2006 were dominated by transactions in the retail market, services market where banks have diversified greatly, leading to lower costs.

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