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## **CHANGES IN OPERATIONAL RISK MANAGEMENT IN POLISH CO-OPERATIVE BANKS**

### **1. Situation in the sector of Polish co-operative banks in 2008**

The share of the co-operative bank sector in 2008 in the balance sheet total of the bank sector in Poland amounted to 5.4%, in credit for the nonfinancial sector to 5.4%, in credit for households to 6.8%, in deposits of the non-financial sector to 8.4%, in deposits of households to 11% and in the net result to about 6.5%. A good financial condition of the sector manifests itself in the average solvency ratio of 13.2%, and the participation of credits in danger from the non-financial sector at the level of 2.8%. With reference to the indicator of credits in danger its about 1.5% better than the same indicator of commercial banks.

At the end of 2008 579 co-operative banks conducted operational activity. Besides Krakowski Bank Spółdzielczy SA which function on its own, the rest is associated in 3 associating banks – Bank Polskiej Spółdzielczości SA (BPS SA), Gospodarczy Bank Wielkopolski SA (GBW SA) and Mazowiecki Bank Regionalny SA (MBR SA). The financial situation of co-operative banks in Poland is shown in Table 1.

### **2. OR management system in the requirements of national supervisor**

Preparations for implementing Basel II requirements<sup>1</sup> at banks included three basic directions of action:

- 1) adapting the organizational structure for Basel II requirements,
- 2) working out internal procedures of the risk management,
- 3) adapting eligible IT tools.

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<sup>1</sup> Basel II: International Convergence of Capital Measurement and Capital Standards. A Revised Framework, Basel, June 2004.

Table 1. Some basic financial data of co-operative banks in Poland (million zloty)

| Item                                                    | 03/2007 | 06/2007 | 09/2009 | 12/2009 | 03/2008 | 06/2008 | 09/2008 | 12/2008 |
|---------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>BALANCE</b>                                          |         |         |         |         |         |         |         |         |
| Balance sheet total                                     | 45110   | 45283   | 47468   | 48 925  | 51 818  | 53 102  | 54 599  | 56527   |
| Credit and deposits according to the face value         |         |         |         |         |         |         |         |         |
| Credit for the non-financial sector, in it:             | 24004   | 26184   | 27353   | 27851   | 29042   | 30907   | 32111   | 32064   |
| for enterprises                                         | 4685    | 5112    | 5423    | 5528    | 5984    | 6434    | 6775    | 6791    |
| for households                                          | 19223   | 20960   | 21790   | 22158   | 22887   | 24292   | 25137   | 25061   |
| Deposits of the nonfinancial sector, in it:             | 33178   | 32584   | 33650   | 36718   | 37077   | 37736   | 38293   | 41529   |
| from enterprises                                        | 2708    | 2687    | 2908    | 3455    | 2979    | 3070    | 3304    | 3712    |
| from households                                         | 29456   | 28762   | 29553   | 32122   | 32895   | 33367   | 33597   | 36513   |
| <b>FUNDS AND THE CAPITAL ACCURACY</b>                   |         |         |         |         |         |         |         |         |
| Equity                                                  | 3952    | 4248    | 4336    | 4460    | 4751    | 5084    | 5190    | 5182    |
| Total capital requirement                               | 2266    | 2410    | 2524    | 2584    | 2787    | 2946    | 3053    | 3144    |
| for operational risk                                    | x       | x       | x       | x       | 411     | 413     | 414     | 425     |
| Solvency ratio (%)                                      | 14.0    | 14.1    | 13.7    | 13.8    | 13.6    | 13.8    | 13.6    | 13.2    |
| <b>FINANCIAL RESULT AND THE EFFECTIVENESS OF ACTION</b> |         |         |         |         |         |         |         |         |
| Result of bank activity                                 | 691     | 1422    | 2203    | 3008    | 838     | 1741    | 2692    | 3651    |
| Costs of action of banks                                | 424     | 897     | 1381    | 1943    | 483     | 1030    | 1590    | 2239    |
| Gross financial result                                  | 217     | 424     | 673     | 860     | 301     | 599     | 923     | 1149    |
| Net financial result                                    | 179     | 344     | 544     | 686     | 248     | 488     | 750     | 915     |
| C/I (%)                                                 | 66.2    | 67.9    | 67.5    | 69.2    | 62.3    | 63.5    | 63.4    | 65.7    |
| ROE (%)                                                 | 19.2    | 17.8    | 18.4    | 17.2    | 22.9    | 21.8    | 21.7    | 19.6    |

Source: data of the Office of Committee of Financial Supervision (KNF), <http://www.knf.gov.pl/>.

**Organizational structure.** In accordance with the New Capital Accord the co-operative bank should adapt its internal structure for new requirements. In the resolutions of the Polish Committee on Banking Supervision published in 2007<sup>2</sup> there was an entire number of detailed kinds of risk which should be managed by a bank. It means that a bank should have written regulations which include procedures, methods and models of risk management, as well as, tasks of the subjects involved in the process of risk management. Every kind of risk should be supervised by an appointed member of the board.

Separating the function of risk management from operational activity should be obtained by establishing the following levels of risk management:

- 1) supervisory – supervisory board,
- 2) decision-making – board of directors of the bank,
- 3) consultative – opinion-forming position/teams, so as the Credit Committee and the Committee of Risks Management,

<sup>2</sup> Resolution 4/2007 of Polish Committee on Banking Supervision of 13 March 2007.

4) control – risk management team that collects, analyses and presents data concerning every identified risk. The team also creates internal limits and procedures. This level contains the position of the internal audit that delivers to the board of directors and a supervisory board the information about the correctness of functioning of Bank's Risks Management System.

5) executive – bank employees, whose activity is generating risk (all bank clerks).

**Risk management procedures.** Naming basic, crucial for the bank kinds of risks and adapting the organizational structure for correct managing these risks is an essential element of the realization of Basel II requirements. This action should be expressed in internal, written regulations of the bank. A base for such regulations is formed by assuming the new organizational structure and approving Organizational Rules Book. A document named "Strategy of the risk management" also should be worked out and approved by the supervisory board. Committee of Risks Management requires its own written regulations. Next one should work out or modify individual manuals of risk management.

**IT for risk management.** Implementing requirements of the New Capital Accord at the co-operative bank is connected with the significant growth of reporting duties. IT tools should be adapted for changing needs in this scope. Changes in bank IT took place in three basic directions:

- the development of resources and the functionality of the FRS systems, exploited at the bank for the purpose of adapting it for changing reporting needs,
- the implementation or the alteration of programmes supporting risks management (operational risk, liquidity risk, interest rate risk, personnel risk etc.),
- increasing the safety of computer systems (the operational risk, the continuity of action in crisis) and providing its compliance with the internal and external regulations.

Basic changes in the exploited FRS system of the bank resulted from the change of regulations in the scope of:

1) compulsory reporting – a changed layout of reports containing accounting data is required. These reports are being handed over to the SIS portal (information system of Polish Committee on Banking Supervision) via the associating bank in the form of FINREP and COREP reports. In order to limit the operational risk connected with the possibility of mistakes, restrictions of work and the time-consuming tasks, and the service charges, which are behind it, the FRS system should provide the automatic way of generating reporting data;

2) calculating capital requirements from the individual kinds of the risk. The system should enable the division of credit exhibitions into classes and automatically assign appropriate weights of the risk to them;

3) reduction of the credit risk. The system should enable to grant right parameters to credit exhibitions, for which the techniques of the credit risk reduction were used, and to assign an appropriate weights of the risk to them;

4) setting and monitoring the limits of the concentration. It especially concerns the concentration from the title of one kind of collateral or the supplier of collaterals;

5) risk management of mortgage protected credit exhibitions. The system should enable to register the value of collaterals not only considering the reduction of compulsory reserves, but enumerating the LTV indicator as well;

6) providing the continuity of action.

According to the regulations of the Committee on Banking Supervision banks are obliged to implement the principles of monitoring the operational risk loss what in practice is understood as the duty of having the base of operating losses. At the same time co-operative banks should inspect used risk management systems of any individual kinds of the risk and their conformity to external and internal regulations.

Basic changes which should be made in risk management systems under the Basel II requirements are:

1) the reconstruction of data generators providing data to the compulsory reporting FINREP and COREP system – implementing changes should enable an automatic report generation,

2) adding the set of parameters, on the basis of whom the bank could qualify credit exhibitions for appropriate classes, to assign appropriate weights of the risk to them,

3) equipping computer systems with procedures that generate listings based on above mentioned parameters and procedures processing these data for the capital requirement assigning.

Organizational action is a consecutive stage of adapting bank computer systems for Basel II requirements inside the bank, i.e.:

- motivating all staff for supplementing data into the system (e.g. collaterals, their value, evaluations, techniques of the risk reduction, etc.),
- validity check of input data – supervision of data integrity,
- supervision of currently supplementing required data and information,
- generating reports – e.g. using “data warehouse”,
- in-service training,
- supplement all the bank regulations with the patterns of reports generated by computer systems.

A very important aspect of adapting computer systems for Basel II requirements lays in their safety and continuity of action. There should be clear written procedures of proceedings, an area of responsibility and the emergency plans of behaviour in crisis situation.

**Strategy of managing the operating risk.** The process of operational risk management should be enclosed in basic formalized document “Strategy of operational risk management.” Goals, essential rules and the set of guidelines concerning operational risk management is covered by this regulation. It is a basis for the

elaboration of detailed regulations, procedures, schedules used in the operational risk management process. In the scope of the operational risk the strategic goals are:

- 1) achieving the highest possible standards of operational risk management,
- 2) holding the safety of the bank and its sources on the acceptable level.

Operational goals are the expansion of strategic goals of the bank. In the scope of the operational risk these objectives include:

- 1) implementing the effective operational risk management process, appropriate to the current profile of the risk,
- 2) implementing effective monitoring systems and the internal audit systems,
- 3) implementing the continuity of action plan in case of emergency.

Both long-term and operating objectives of the bank can be carried out by the support of back-office. The supporting goals with a long-term character are:

- 1) providing the appropriate level of competence of participating staff in the process of managing the operational risk,
- 2) constructing the optimal structures of the risk management and security systems,
- 3) supporting implementation and improvement of the technical and technological infrastructure used in operational risk management process.

The operational goals that extend supporting goals are:

- 1) raising the awareness of the operational risk on all levels of managing,
- 2) improving the knowledge and abilities of the staff involved in the process of managing the operational risk,
- 3) carrying out essential structural changes,
- 4) adapting functionality of security systems for the level and the profile of the generated risk,
- 5) improving techniques of the measurement of the risk,
- 6) building/acquiring computer programmes supporting the risk management.

### **3. Example of the Operational Risk management system**

The realization of all Basel II requirements in the scope of managing the operational risk constitutes a considerable challenge for the co-operative bank. A lack of the well-educated, experienced staff who could work out and implement the OR management system on its own is a basic weakness of a small bank. The change of the organizational structure by implementing the positions responsible for the risk management (like OR manager) requires that some of the bank employees have to be moved from previous places of employment. In case of a small bank (and co-operative banks are rather small) it is relatively difficult. Co-operative banks find it difficult to recruit experienced staff who could assure the high quality level of managing the operational risk. A further complication is the fact that the OR managers and audit staff as well should not make other activity.

The next obstacle in implementing Basel II regulations into the co-operative bank is low awareness of employees who are responsible for reporting the operational events that influence the size of the operational risk. Trainings carried in this field concentrate on explaining the idea and kinds of the operational risk, but it is necessary to explain the staff that they constitute the basic element of the risk management system. Without their strong support the process of collecting information about operational events that generate the operational risk is exceptionally difficult.

Another important element of operational risk management process that is quite difficult to establish is a computer system that supports the process on the stage of collecting and registering operational events, as well as the analysis of reporting the operational risk. Computer systems functioning so far at co-operative banks had above all transaction and financial-accounting character. At present bank computer systems have to support also an area of the compulsory reporting, calculating capital requirements and monitoring risk indicators. Supplying such a system by the associating bank is only the first step on the road to the full computer aiding because here also supporting of the maintenance of such a system is required.

At the co-operative bank, in which the author participated in the process of the implementation of the OR management system, there was one computer system running,<sup>3</sup> however, it did not fulfil hope pinned in it. This system, supplied by the associating bank (BPS SA), let inventorying and reporting operational events and assessing operational losses. A too complicated attempt at inventorying operational events belongs to its crucial flaws. Over 2 thousand of such situations are by default inserted into its database, what in case of the small co-operative bank leads to a problem in correct assigning the real event to the position on the list. A lack of correctly identified activity processes in this bank was an additional problem. Therefore the board of directors decided to acquire the business processes management system (BPM) with the operational risk management module – ADONISrisk.<sup>4</sup>

The implementation of the system based on BPM idea allows to solve the recalled problems. Thanks to the BPM philosophy all activities in a bank could be identified and it is possible for the staff to describe the possibility and the size of the threat influencing the level of bank OR. Every employee, obliged to report the operational events, is aware at what stage of the process and how his activity has the influence on the general level of the operational risk in the bank.

Implementing the ADONISrisk system at the co-operative bank, allows to state two more features of solutions of this type which are essential for the co-operative bank.

First, the BPM based system superbly supports the AZRO system that runs in a bank. OR manager thanks to the knowledge of all processes of the bank that were modelled in the ADONISrisk system can quickly assign the operational event to the determined category in the AZRO system.

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<sup>3</sup> AZRO system is developed by BSB Sp. z o.o., [www.bsb.pl](http://www.bsb.pl).

<sup>4</sup> ADONISrisk is a product of BOC Information Technologies Consulting, [www.boc-eu.com](http://www.boc-eu.com).

Second feature, important from a point of view of the co-operative bank, is knowledge gathered in BPM based system. Co-operative banks, with the low number of staff, usually have limited possibilities of dynamic recruiting experienced employees for the OR management and every single time when OR manager leaves the bank it causes temporary disruption to the entire system of the risk management. Thanks to the knowledge included in BPM systems this period is relatively short.