Do Cooperative Banks Really Serve Agricultural Sector in Poland?

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DO COOPERATIVE BANKS REALLY SERVE AGRICULTURAL SECTOR IN POLAND?

Abstract
The aim of the paper is to assess the potential of cooperative banks for serving agricultural sector in Poland and to identify the areas with the most development potential. We discuss the transformation process in the cooperative banking system under market economy, and in particular investigate importance of cooperative banks for farms’ financing on the basis of our survey of banks. Moreover, the role of cooperative banks in transmission of Government policy supporting farm sector in Poland is discussed. We find that despite growing competition from the commercial banking sector, farms and rural households in Poland are still of major importance for the cooperative banks in Poland.

Key words: cooperative banks, agricultural sector, Poland

JEL classification: G21, O18, Q14

1. Introduction
Agriculture is vital for rural economic development and an important source of business for rural financial institutions in Poland. In 2002 this sector employed about 16% of the national workforce but accounted for relatively low share of GDP at 2.7%. Agricultural and rural development can be seen as synonymous in Poland. Cooperative banks may be recommended as means to strengthen this process.

The survey carried out in 2002 by the Central Statistical Office of Poland identifies 1956 thousand of farms with the size above 1 ha, out of which 99.9% privately owned. Only less than half of them exceeded 5 hectares. Therefore, the natural question arises: are cooperative banks interested in extending credit to small farmers?

The paper discusses cooperative banks’ role in supporting economic development in rural Poland via serving farmers and rural households, identifies the banks’ strengths and weaknesses, and finally gives some recommendations for cooperative banks to further strengthen their participation in rural community economic development. The paper is organised as follows. Section 2 describes methodology used by authors. The mission of the cooperative banks is presented in section 3. Section 4 describes the cooperative banking sector in Poland on national basis, its development and performance in the economic transition period. Section 5 presents results of analysis using individual bank financial statements data and questionnaires answered by banks’ senior staff.

2. Data and methodology
This paper makes use of micro- and macro- data on cooperative banks in Poland. Macroeconomic analysis of the sector is based on reports of the National Bank of Poland (NBP) and General Inspectorate of Banking Supervision (GINB), Agency for Restructuring and Modernisation of Agriculture (ARiMR) – leading government institution supporting actions aimed at accelerating structural changes in agriculture and rural areas.

As the foundation for microeconomic analysis we applied records extracted from authors’ database obtained from the unbalanced panel of co-operative banks, i.e., 1552 observations for the period of 1995-2002. Every observation corresponds to one year. Data collected at the bank level, i.e. balance sheet, profit and loss statement items (1995-2002) and questionnaires (1997-1999) answered by senior members of banks’ staff (banks’ presidents) were initial sources. Banks in survey are located in all 16 regions (voivodships) of Poland. In the investigation, almost same banks appeared every year, except if they disappeared or merged or did not provide with the financial statements. In the study, banks’ financial performance analysis in terms of a focus on lending, portfolio quality and profitability (financial ratios) was applied. Descriptive analysis of the data provided summary statistics that were complemented by correlation coefficients and regression analysis. Stepwise regression was performed to identify factors determining agricultural loans share of banks total assets.

The broad questions addressed by the study are:
1. Do cooperative banks operate with a distinct rural focus and take an interest in rural financial markets? Has the viability objective drawn the cooperative banks away from their original focus on serving rural clients, mainly farmers?
2. Do they play an important role in terms of credit supplied to and deposits taken from farmers compared to their other customers and banking activities (ex. providing funding for farmers versus investing in securities)?

3. Do farmers as creditors have access to banks’ funds? Do cooperative banks consider it risky to lend to farms, especially small ones, because of the economic uncertainties and lack of collateral?

4. Are cooperative banks assigned responsibility for the outreach of government sponsored lending schemes intended for farmers?

3. The mission of the cooperative banks versus reality

Cooperative banks have their roots in agriculture and rural life. Over 100 years ago, credit cooperatives were established in rural agricultural communities in Europe to provide farmers with credit. Credit cooperatives were especially successful in Germany, which is surprising given Germany’s highly developed banking system (Guinnane, 2001). Poland’s cooperative banks were organized in 1861 and have survived two world wars, although until 1990 their services were very limited.

By definition, cooperative banks “are organizations of and for people, not capital. Their central objectives are to improve the economic position of members, whether individuals or enterprises, denied access to other banking institutions owing to their inability to offer sufficiently sound collateral; to facilitate the continual recycling of cooperative capital into cooperative enterprise; and to attract and manage capital obtained from outside the cooperative sector for use by individual cooperatives” (UN, 1996).

As the classical definition has it, the mission of a cooperative bank is to meet demand of its customers-owners for financial services. In Poland, the mission of cooperative banks is the activity for the benefit of their members: local self-governments, farmers, small entrepreneurs, and support for the development of region where they operate. Contemporary practice has modified that mission statement to the effect that cooperative banks are regarded as financial intermediaries that – in terms of the regulatory framework as well as their organization, shareholding structure and business interests – are interrelated with other institutions of the financial services market (Szambelanczyk and Lawrynowicz, 2004).

Cooperative banks in both industrialized and developing countries play a key role by channelling external funds to individual cooperative enterprises. Credit unions are the most prevalent type of cooperative in the U.S.; more than 12% of the nation’s population are members. The credit unions function both for savings and for loans. Also in Europe cooperative or mutualist banks hold a leading position in banking. The European Association of Cooperative Banks estimated the total number of cooperative customers at 106 million, their members at 37 million and the number of banking agencies at 51 thousand in 2002. The average ‘deposits’ market share stood at 20%, with peaks of up to 55% in certain countries. The balance sheet total exceeded 2800 billion euros (Guider, 2004).

According to modern economists, the success of credit cooperatives results from two features of cooperatives: they can capitalize on superior information about borrowers and they can impose inexpensive but effective sanctions on defaulting borrowers. These characteristics permit cooperatives to lend to individuals that conventional banks would not want as customers and to tailor loan terms more closely to borrower’s needs (Guinnane, 2001).

In Poland, in 2003 there were 600 cooperative banks. Two of them (Spółdzielczy Bank Rozwoju Samopomoc Chłopska and Krakowski Bank Spółdzielczy in Cracow) operated independently, while the remaining 598 were affiliated with 3 structures. The affiliating banks are Mazowiecki Regional Bank (Mazowiecki Bank Regionalny S.A.), Banking Cooperative Group (Gospodarczy Bank Wielkopolski S.A.) and Bank of Polish Cooperative Movement (Bank Polskiej Spółdzielczości S.A.), which associated 78, 157 and 363 banks respectively (NBP, 2004). Cooperative banks associate about 2.65 million members (mainly farmers and small-scale producers), and serve above 10 million customers. Consolidated balance sheet for the sector amounted for 5.45 billion euros in 2003 (NBP, 2004). Due to Poland’s entry into the EU, and in particular to farmers applying for direct payments, the number of customer accounts operated by the cooperative banks rose in 2004 by 7.6% to 6671 thousand while those of the commercial banks grew by 1.3% to 39914 thousand (NBP 2004a).

In Poland, the rural and agriculture are no longer the ‘priority sectors’ for lending activities of
cooperative banks. With the initiation of reforms in the early 1990s, profitability became the major guiding principle for them. Cooperative banks have over time become universal banks offering their customers the entire range of financial products, services and means of payments, regardless of their geographical location. They are characterised by optional but not mandatory membership for their customers.

According to authors of this paper, cooperative banks in Poland have lost their basic function as cooperative financial institutions. They have to rethink their ideology and mission. They should be natural partner for local society. It results not only from cooperative banks placing in rural environment but also from their experience in agriculture financial assistance and established position in local environment. Cooperative banks should offer their members and customers not only a very wide range of modern banking services, but also a set of values – such as the spirit of solidarity and responsibility – that differ them from other banks. They should combine business viability with the belief they should contribute positively to their communities. This vision is justified by general evidence that rural individuals, enterprises and farmers have limited access to formal financial services. Suitable financial products and services are scarce, as are sustainable institutions to deliver them. This situation results from: high transaction costs associated with small transactions, highly segmented markets, and the provision of services to dispersed rural populations involved in risky economic activities; legacies of macroeconomic mismanagement that undermine finance (Fries).

4. Macroeconomic analysis of the cooperative banking sector in Poland

4.1. Transformation process in the cooperative banking sector

A highly concentrated state banking monopoly was a typical feature of Poland’s economy in the communist period. The monopoly was composed of the National Bank of Poland (NBP), the Commercial Bank (BH), the Polish Savings Office (PKO) and about 1600 small regional and specialized cooperative banks that jointly formed the Bank of Food Economy (BGZ).

Banking was the first segment of the Polish financial market to undergo thorough transformation. Major changes in the structure of the banking system occurred in 1989 with the passage of both the Banking Act and the National Bank of Poland Act, the laws that govern the operations conducted by banks today. These new legal regulations gave the Polish banking sector a two-tier structure consisting of the central bank and commercial banks.

The cooperative banking sector, due to its fragmentation and poor situation was the area that required the greatest restructuring. This sector, like whole banking market, has undergone significant changes, moving away from state-controlled structures to relatively free-market systems. Legal control of the cooperative banks ended when Poland’s centralized government fell in 1990.

Until The Act on Changes in the Organisation and Operation of the Cooperative Movement of 20 January 1990 came into effect, the cooperative banks were obliged to conduct business as affiliates of BGZ that was their central organisational and financial entity. BGZ with regard to the cooperative banks was taken a responsible position vested to central cooperative unions (along with the Act on the Cooperative Law) and held powers of banking supervision. Following the law of 20 January 1990, BGZ lost its competence as sui generis central cooperative union but it continued to exist as a central bank for rural banks. According to Decree of President of the NBP of September 1992, all cooperative banks had to affiliate to one of the newly established regional banks or to BGZ. This procedure was designed primarily at improving the safety of the cooperative banks’ operations by including them in the common system of assistance mechanisms in regional associations. Over the years 1991-1993, cooperative banks established three affiliating banks: Gospodarczy Bank Wielkopolski SA (GBW) in Poznan, Bank Unii Gospodarczej SA (BUG) in Warsaw and Gospodarczy Bank Poludniowo-Zachodni SA (GBPW) in Wroclaw. As of the end of 1993, rehabilitation procedures were started in about 680 cooperative banks. Further restructuring actions were initiated by the NBP. They covered financial or technical assistance and structural reconstruction of the sector. Principal forms of financial assistance included: low-interest loans from the NBP supporting the amalgamation of cooperative banks; discharging the necessity for cooperative banks undergoing the rehabilitation process from holding the required reserves; loans from the Bank Guarantee Fund (since 1995), tax exemption in 1995 and 1996, restructuring bonds to purchase bad loans and cooperative loans (NBP, 2001).

This support resulted in a continuing reduction in the number of failing cooperative banks whereas the number of bank mergers was gradually increasing.
The Act on the Restructuring of Cooperative Banks and of Bank Gospodarki Zywlnosciowej of June 1994 (Dz.U., 1994) enabled the establishment of the three-tier structure of the cooperative banking sector, comprising cooperative banks, regional banks and the national bank at the top of this system. As of the end of 1997 all nine regional banks specified in the Act were established. In addition, two affiliating banks, i.e. BUG SA and GBPZ SA were operating outside the three-tier structure while GBW SA in 1995 adopted the status of a regional bank. Cooperative banks were obligated to affiliate to one, geographically appropriate, regional bank. BGZ was transformed into a joint-stock company to execute the functions of the national-level bank. This change, on the one hand improved the effectiveness of the cooperative banking sector, and on the other – caused a few negative consequences (such as setting up too many rather weak regional banks, and the division of the sector).

The Act on the Restructuring had limited effect on the improving operational efficiency of the sector. The system of mutual guarantees (one of the main assumptions of the Act) has shown partial effect on the consolidation of regional affiliations of the cooperative banks. The main barrier was the reluctance of larger and stronger banks to take over the responsibilities for the liabilities of smaller and weaker banks. Therefore, legislators were seeking another way to improve the cooperative banking sector performance. Bank mergers seemed to be the only method of achieving this objective in the short-run period. Amalgamations were necessary since commercial banks were pursuing a retail-oriented strategy that was traditionally dominated by the cooperative banks. In January 2001, a new law regulating the cooperative banking – the Act on the Operations of Cooperative Banks, their Affiliation, and Affiliating Banks (Dz.U. 7.12.2000, amended 27.06.2003) was implemented. It set up a two-tier structure and placed affiliative obligations on the cooperative banks with own funds below 5 million euros. Those banks have been required to select an affiliating bank and have been allowed to change affiliation.

A particularly significant characteristic of Polish cooperative banking is the existence of mutual support mechanisms. In the case of cooperative banks being members of Regional Bank Associations, legally-binding cross-guarantee systems have been put in place, whereby any bank that runs into financial problems can count on the support of other member banks in the same association. Higher-level banks are forced to support base-level banks by performing for them such operations that the latter banks cannot perform on their own. An example of such operation would be the re-investing of cash surplus. Banks of higher levels act as intermediaries in re-allocating cash surplus from cooperative banks that are running a surplus to those which are in the deficit, i.e. from those that collect insufficient amount of deposits to cover the demand for credit, and are not constrained by regulations (Szambelanczyk and Lawrynowicz, 2004).

4.2. Consolidation process

Consolidation has been an important characteristic of the European cooperative banking sector over recent years. A large number of mergers and acquisitions, mainly among small local cooperative banks, have led to a significant decrease in the number of banks in many countries. Similarly, the Polish banking market has been undergoing constant consolidation since the mid-nineties. The total number of banks dropped by 62% between 1993 and 2003, due mainly to the structural change in the cooperative sector. Between 1995 and 2003 there were 97 cooperative bank failures. In this period, the total number of cooperative banks in country declined by over a thousand (i.e. by 64%). This reduction in the number of the banks at an annual rate of 5.6% was almost entirely due to mergers and acquisitions within the sector. The mergers were enforced by mentioned Act on the Operations of Cooperative Banks that introduced changes in the level of required capital for cooperative banks and specified the minimum amount of own funds on the sum of the euro equivalent of 300 thousand euro by 31 December 2001, of 500 thousand euro by 31 December 2005 and of 1 million euro by 31 December 2010 respectively. The tendency towards higher concentration will probably continue in the near future, although at a somewhat slower rate. New regional banks in Poland were instrumental in consolidating and modernizing hundreds of rural cooperative banks through training and the dissemination of standard practices in the area of financial analysis.

4.3. Network of cooperative banks in Poland

In several European countries credit cooperatives are frequently organised in networks, although with a varying degree of collaboration in the different countries. To give an example, in Germany most banks (especially the vast majority of small banks) belong to either the cooperative sector (in the
1990s about 70% of all banks) or the savings banks sector (almost 20%) (Ehrmann et al., 2001).

In Poland, they also have set up network. Almost 91% of all banks belong to cooperative sector (NBP, 2003). As mentioned before, cooperative banks in Poland are today organized around two-tier structure (local and regional). In 2003 local cooperative banks operated through a network of 2550 branches, sub-branches and customer service offices (Table 1), whereas commercial banks through 9100 counterparts correspondingly (NBP, 2004). It means that cooperative banks run one in five local bank outlets in the country. The rising number of bank branches and banking staff sets us cooperative banks apart from commercial banks in Poland. With the initiation of reforms in the early 1990s, the Polish cooperative banking sector saw a shift in approach. Banks were allowed to expand their operations throughout the country while profitability became the major guiding principle. The cooperative banks remained local units in the sense that the geographical area in which they extend services is typically limited.

The operating territory of cooperative banks in Poland has been laid down under The Act on the Operations of Cooperative Banks. According to this law, the cooperative bank is legally entitled to operate on the administrative district (powiat) where it is based and also on those administrative districts where it had its subsidiaries on the implementation day. Moreover, the cooperative bank which possesses own funds higher than equivalent of 1 million euro, but lower than the equivalent of 5 million euro is entitled to operate on the territory of province (voivodship), where it is based and also on the territory of administrative districts where it has subsidiaries. When the bank’s own funds are in the amount equal or higher than the equivalent of 5 million euros it can operate on the territory of whole Poland.

4.4. Current position and performance of the cooperative banking sector in Poland

Market position of the cooperative banks in Poland is relatively low when compared with the West European countries. Since 2001 some improvements have been observed, among others due to the consolidation process. What role do cooperative banks play now in Polish banking sector? Their share in the total assets of the banking sector was amounted for merely 5.3% in 2003. These banks’ proportion of the sector’s total capital reached 5.4%; of total lending 7.1%, and of deposits taken from non-financial customers 6.6% respectively – levels highest since 1995 (Table 1).

Table 1. Cooperative sector as compared to the banking sector in Poland, 1995-2003

<table>
<thead>
<tr>
<th>Cooperative banks</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of banks</td>
<td>1510</td>
<td>1295</td>
<td>781</td>
<td>642</td>
<td>605</td>
<td>600</td>
</tr>
<tr>
<td>Offices (head, branch and others)</td>
<td>na.</td>
<td>2550</td>
<td>2619</td>
<td>2878</td>
<td>3046</td>
<td>3151</td>
</tr>
<tr>
<td>Employment</td>
<td>25132</td>
<td>25110</td>
<td>26403</td>
<td>26875</td>
<td>27161</td>
<td></td>
</tr>
</tbody>
</table>

As % of total banking sector:

| Equity capital 2% | 5.9     | 4.7     | 5.1     | 5.0     | 4.3     | 4.2     |
| Total assets     | 4.8     | 4.5     | 4.2     | 4.5     | 5.0     | 5.3     |
| Loans (less provisions) 3% | 5.5     | 5.5     | 5.1     | 5.8     | 6.5     | 7.1     |
| Deposits from non-financial customers | 5.5     | 5.2     | 5.0     | 5.6     | 6.2     | 6.6     |
| Total capital funds 4% | 5.4     | 4.8     | 4.4     | 4.6     | 4.8     | 5.4     |

Performance ratios 5%

| ROE 6% (%) | 30.8/34.1 | 18.0/12.9 | 19.4/12.1 | 18.2/5.8 | 12.3/6.2 |
| ROA 7% (%) | 2.0/2.1   | 1.4/1.0   | 1.6/1.0   | 1.6/0.5  | 1.2/0.5  |
| Interest margin 8% (%) | 9.5/5.6  | 7.4/4.2  | 8.0/3.7  | 6.7/3.4 | 5.6/3.1 |
| Cost/Income Ratio 9% (%) | 71.8/55.6 | 74.2/65.2 | 69.5/62.4 | 70.4/63.5 | 75.2/68.6 |

1 In equivalent of full-time posts; December 31; 2 Equity registered at state banks owned by members of cooperative banks; 3 Loans and advances (excluding purchased debt and funds distributed under guarantees and endorsements) less specific provisions; 4 Total core and supplementary capital, prior to regulatory deductions; 5 First number for cooperative banks, the second for banking sector; 6 Ratio of net earnings to average capital funds; 7 Ratio of net earnings to average total assets less interest due on irregular claims; 8 Ratio of interest earnings to average total assets less interest due on irregular claims. 9 Ratio of operating costs (operations and amortisation) to banking net earnings.

When employment in commercial banks has been falling, personnel numbers at cooperative banks have grown during the 1995-2003. The cooperative banks noted relatively high returns; in 2003 the average ROE at those banks was at 12.3%, and ROA at 1.2% – figures that far exceeded those of commercial banks. Banks with higher return on equity were more likely than others to make loans. However, the cooperative banks operate less efficiently, with an average cost/income ratio of 75.2%.

The high growth of business development of cooperative banks in last years resulted mainly from higher loans to the non-financial sector, including mainly preferential loans for agriculture-related purposes (NBP 2004). Nevertheless, the figures show that the cooperative banks play only a minor role in Polish banking system despite the fact that both the number of branches and the number of employees in this sector increased during the past years, whereas they dropped in the commercial banks.

4.5. The lending and deposit activities of the sector

Proportion of loans and securities in total assets and proportion of deposits in total liabilities and capital in banking sector in Poland are presented in Table 2. In the cooperative banks, borrowings by non-financial customers over the 1995-2003 constituted relatively higher portion of their total assets when comparing with total banking sector. A relatively small was part of their liquidity (5-10% of total assets) invested in the money markets, particularly in government securities and bonds. Despite falling real interest rates, the extent to which this strategy is conducted almost unchanged. Since 1998 deposits from non-financial customers have exceeded 70% of total liabilities and capital of the cooperative banks.

Table 2. Proportion of loans and securities in total assets and proportion of deposits in total liabilities and capital in banking sector in Poland, 1995-2003

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<thead>
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<tbody>
<tr>
<td>Loans to non-financial customers in total assets (%)</td>
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<tr>
<td>Cooperative banks</td>
<td>34.1</td>
<td>45.0</td>
<td>45.6</td>
<td>43.3</td>
<td>49.9</td>
<td>53.2</td>
<td>49.8</td>
<td>52.0</td>
<td>55.7</td>
</tr>
<tr>
<td>Total banking sector</td>
<td>29.6</td>
<td>34.2</td>
<td>37.7</td>
<td>37.5</td>
<td>41.5</td>
<td>41.1</td>
<td>39.5</td>
<td>40.3</td>
<td>41.2</td>
</tr>
<tr>
<td>Securities in total assets (%)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Cooperative banks</td>
<td>5.0</td>
<td>8.0</td>
<td>10.3</td>
<td>8.5</td>
<td>8.0</td>
<td>7.2</td>
<td>5.0</td>
<td>5.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Total banking sector</td>
<td>31.0</td>
<td>31.4</td>
<td>26.6</td>
<td>26.9</td>
<td>23.8</td>
<td>22.2</td>
<td>20.4</td>
<td>22.6</td>
<td>23.3</td>
</tr>
<tr>
<td>Deposits from non-financial customers in total liabilities &amp; capital (%)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperative banks</td>
<td>65.3</td>
<td>67.4</td>
<td>67.4</td>
<td>71.2</td>
<td>72.1</td>
<td>73.3</td>
<td>74.8</td>
<td>74.2</td>
<td>77.5</td>
</tr>
<tr>
<td>Total banking sector</td>
<td>57.0</td>
<td>56.6</td>
<td>58.3</td>
<td>58.8</td>
<td>60.8</td>
<td>59.3</td>
<td>61.1</td>
<td>59.7</td>
<td>59.1</td>
</tr>
</tbody>
</table>


The cooperative banking system is a crucial channel for credit in rural areas. Before 1990 credit to the farming sector in Poland was channelled by BGZ. This bank allocated funds to state and collective farms, which operated under soft budget constraints, whereas credit to individual farms was provided by cooperative banks that were under BGZ control.

Authors, on the basis of data of the ARiMR, found out that the involvement of cooperative banks in state sponsored loans lending to agriculture is very high. Over the period 1995-2003, the cooperative banking sector distributed to agriculture on average 60% of total value of working capital preferential credits and 67% of investment preferential credits. Correspondingly, taking into account the number of these credits, they constituted higher proportion of 94% and 84%. The preferential credits are explained in detail in the section 5.2.

5. Cooperative banks and the agricultural sector: survey-based analysis results

The coverage of final sample of the cooperative banks is summarized in Table 3. It is apparent from the table that majority of the banks are located in rural and urban-rural communes (gminas) where they have dominant position. Due to the consolidation processes, the percentage of the banks owing funds above 1 million euro was continuously growing.
Table 3. Key indicators of the cooperative banks in survey

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<tbody>
<tr>
<td>Number of banks</td>
<td>178</td>
<td>410</td>
<td>387</td>
<td>152</td>
<td>152</td>
<td>124</td>
<td>104</td>
<td>44</td>
<td>1551</td>
</tr>
<tr>
<td>By location (%)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Rural</td>
<td>36.5</td>
<td>43.7</td>
<td>40.6</td>
<td>34.9</td>
<td>35.5</td>
<td>21.8</td>
<td>22.1</td>
<td>15.9</td>
<td>36.4</td>
</tr>
<tr>
<td>Urban-rural</td>
<td>36.5</td>
<td>32.9</td>
<td>33.3</td>
<td>36.2</td>
<td>36.2</td>
<td>40.3</td>
<td>42.3</td>
<td>47.7</td>
<td>35.7</td>
</tr>
<tr>
<td>By own funds</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>( \leq 300 )</td>
<td>86.5</td>
<td>82.9</td>
<td>77.0</td>
<td>60.5</td>
<td>43.4</td>
<td>5.6</td>
<td>9.6</td>
<td>0.0</td>
<td>62.3</td>
</tr>
<tr>
<td>(300-500)</td>
<td>7.3</td>
<td>10.7</td>
<td>10.8</td>
<td>20.4</td>
<td>27.0</td>
<td>26.7</td>
<td>17.3</td>
<td>9.1</td>
<td>14.6</td>
</tr>
<tr>
<td>(500-1000)</td>
<td>5.1</td>
<td>4.9</td>
<td>9.6</td>
<td>14.5</td>
<td>23.7</td>
<td>37.1</td>
<td>27.9</td>
<td>29.5</td>
<td>13.7</td>
</tr>
<tr>
<td>&gt; 1000</td>
<td>1.1</td>
<td>1.5</td>
<td>2.6</td>
<td>4.6</td>
<td>5.9</td>
<td>30.6</td>
<td>45.2</td>
<td>61.4</td>
<td>9.4</td>
</tr>
</tbody>
</table>

\(^1\) regulatory capital in ’000 euros
Source: Authors’ own research.

5.1. Loans to agricultural sector

Several studies covering the second half of the transition decade in Poland have provided evidence that the restricted credit access took the form of credit rationing – farmers were credit rationed, that is to say they were denied, totally or partially, from credit when applying in banks (Petrick et al., 2000; World Bank, 2001; Latruffe, 2004; Danilowska, 2004).

The structure of loan amounts granted by sampled cooperative banks during the review period indicates that the loans were mainly extended to individual farms and households (Table 4) which should imply that they adjust lending in response to general economic situation of the rural. Nevertheless, the trends for the analysed period show little decline in loans to individual farmers in terms of their portion of loan portfolios in the sample banks. Loans to individual entrepreneurs were on the third rank in order of importance. Loans to self-government comprised a slight, but increasing portion of the banks’ loan portfolios. The proportion of irregular claims (substandard, doubtful, loss, unpaid interest on irregular loans) remained relatively high at average level of 7.4%, and was increasing in last years.

Table 4. Cooperative banks’ loan portfolio composition as a percentage of gross loans, 1996-2002

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% of gross PLN amount</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1. Non-financial customers</td>
<td>99.81</td>
<td>99.91</td>
<td>99.30</td>
<td>98.71</td>
<td>98.52</td>
<td>98.05</td>
<td>96.02</td>
<td>98.70</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular loans (claims)</td>
<td>92.58</td>
<td>94.86</td>
<td>92.68</td>
<td>92.28</td>
<td>92.29</td>
<td>90.83</td>
<td>86.32</td>
<td>91.29</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual farmers</td>
<td>42.32</td>
<td>45.06</td>
<td>40.35</td>
<td>39.36</td>
<td>36.37</td>
<td>37.89</td>
<td>31.97</td>
<td>38.90</td>
</tr>
<tr>
<td>Households</td>
<td>21.21</td>
<td>21.87</td>
<td>23.71</td>
<td>25.61</td>
<td>23.19</td>
<td>23.69</td>
<td>23.58</td>
<td>23.09</td>
</tr>
<tr>
<td>Individual entrepreneurs</td>
<td>18.25</td>
<td>17.90</td>
<td>19.05</td>
<td>18.49</td>
<td>19.14</td>
<td>19.75</td>
<td>15.44</td>
<td>18.33</td>
</tr>
<tr>
<td>Private-owned enterprises and corporations</td>
<td>6.71</td>
<td>6.88</td>
<td>7.11</td>
<td>7.70</td>
<td>10.38</td>
<td>7.10</td>
<td>14.77</td>
<td>8.47</td>
</tr>
<tr>
<td>State-owned enterprises and cooperatives</td>
<td>0.41</td>
<td>0.22</td>
<td>0.30</td>
<td>0.25</td>
<td>0.35</td>
<td>0.20</td>
<td>0.11</td>
<td>0.26</td>
</tr>
<tr>
<td>Irregular loans (claims)</td>
<td>7.24</td>
<td>5.05</td>
<td>6.62</td>
<td>6.43</td>
<td>6.23</td>
<td>7.22</td>
<td>9.70</td>
<td>7.40</td>
</tr>
<tr>
<td>2. General government</td>
<td>0.19</td>
<td>0.09</td>
<td>0.70</td>
<td>1.29</td>
<td>1.48</td>
<td>1.95</td>
<td>3.98</td>
<td>1.30</td>
</tr>
<tr>
<td>Central government</td>
<td>0.12</td>
<td>0.01</td>
<td>0.04</td>
<td>0.09</td>
<td>0.10</td>
<td>0.08</td>
<td>0.25</td>
<td>0.08</td>
</tr>
<tr>
<td>Local self-governments</td>
<td>0.06</td>
<td>0.08</td>
<td>0.66</td>
<td>1.19</td>
<td>1.34</td>
<td>1.75</td>
<td>3.22</td>
<td>1.14</td>
</tr>
</tbody>
</table>

Source: Authors’ own research.

Cooperative banks in Poland are evidently agricultural banks because they have more than 25%
of their loans in farm production.

Figure 1 shows the distribution of the sampled banks according to share of agricultural loans in total loans granted in the period 1997-1999. The key conclusion emerging from this figure is that generally there was only a slight shift away from servicing credit financing needs of agricultural sector. According to the answers of the banks senior staff, in 1999 more than half of their loan portfolio (52%) was in agricultural loans, whereas in 1997 this share was at 59%.

![Figure 1. Distribution of the cooperative banks by farm loans share of total loan amounts, 1997-1999](image)

Source: Authors’ own research.

Our research shows that loans to farmers had the greatest importance (measured by the ratio of those loans to bank net assets) in cooperative banks operating in rural areas (33.7), with own funds below 300 thousand euros (28.4%), located in typically agricultural voivodships: podlaskie (42.1%), wielkopolskie (34.5%), warminsko-mazurskie (35.4%), kujawsko-pomorskie (33.6%) and lubelskie (33.4%). The highest agricultural loan amounts were noted in the regions with high levels of employment in agriculture, and where crop yields per 1 ha were the highest.

Agricultural advances in total banks assets were hypothesized as being determined by several macroeconomic factors. Results of a multiple regression analysis with agricultural credit percentage of total banks assets as a criterion variable are presented in Table 5. The regression analysis was stepwise. Only variables significantly increasing multiple R were included. There is evidence that farm size adds to the predictability of agricultural loans allocated by the cooperative banks. Table 6 presents tests results for the model which clearly indicate that it is appropriate.

Agricultural loans as a percentage of total banks assets are positively influenced by size of farms but negatively affected by general macroeconomic development (GDP per capita), employment in industry and population density. Farm loans were positively correlated (r = 0.56) with interest revenues of the cooperative banks but much difference is observed between banks when type of their location is considered. There is evidence of a marked degree of correlation (r = 0.75) for rural located banks, and moderate degree of correlation both for urban-rural (r = 0.57) and urban (r = 0.41) located banks.
Table 5. The influence of selected variables on agricultural loans to total bank assets indicator in the sampled cooperative banks in Poland, 1995-2002 (summary of stepwise multiple regression)

<table>
<thead>
<tr>
<th>Model</th>
<th>Estimated values</th>
<th>Standard error</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>60.9998</td>
<td>9.0008</td>
<td>6.78</td>
<td>0.0000</td>
</tr>
<tr>
<td>GDP in PLN per capita ($x_1$)</td>
<td>-0.0012</td>
<td>0.0002</td>
<td>-6.52</td>
<td>0.0000</td>
</tr>
<tr>
<td>Employment in industry¹ ($x_2$)</td>
<td>-0.5251</td>
<td>0.2117</td>
<td>-2.48</td>
<td>0.0136</td>
</tr>
<tr>
<td>Inhabitants per km² ($x_3$)</td>
<td>-0.0290</td>
<td>0.0115</td>
<td>-2.5263</td>
<td>0.0120</td>
</tr>
<tr>
<td>Size of farms - ha UAA ($x_4$)</td>
<td>0.5324</td>
<td>0.2259</td>
<td>2.3568</td>
<td>0.0190</td>
</tr>
</tbody>
</table>

¹ Employment in mining, manufacturing and energy as a percentage of total employment

Source: Authors’ own research.

Table 6. Summary of significance testing for the regression model (Analysis of variance)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>Degrees of Freedom</th>
<th>Mean square</th>
<th>F-ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>33075.8</td>
<td>4</td>
<td>8268.96</td>
<td>38.37</td>
<td>0.0000</td>
</tr>
<tr>
<td>Residual</td>
<td>73049.6</td>
<td>339</td>
<td>215.49</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Total</td>
<td>106125.0</td>
<td>343</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

\[ R^2 = 31.17\% \]

The estimating equation: \[ y = -0.0012 \times x_1 - 0.5251 \times x_2 - 0.0290 \times x_3 + 0.5324 \times x_4 + 60.9998 \]

Source: Authors’ own research.

5.2 Preferential credits for farmers

Inadequately designed intervention of public authorities is a main feature of a traditional paradigm of financing agriculture and rural areas. It often consists in allowing cheap borrowings through the network of specialist financial institutions. In Poland, many years of experience proved that the strategy of ‘injecting’ funds to agriculture was inefficient, and gradually turned to be a compensation and redistribution instrument (Kulawik, 1999, 2004).

The studies for developing countries indicate that government-programmed credit has tended to reward inefficient producers. Government directed and allocated credit programs dictate in fine detail how, and for what, credit is to be extended. Loans often are not collected but rolled over, or forgiven by the government. These programs stifle the assessment of credit risk and repayment capacity, the development of strong bank regulatory bodies, and the use of technology and techniques in extending commercial credit for operational efficiency (Von Pischke, 1991).

In Poland, cooperative banks channel preferential credits to farmers via lines of credits extended by the Agency for Restructuring and Modernization of Agriculture. These credits are financed with banks’ own funds at their own risk in accordance with the banking law. Under the subsidised loans programme the Government (ARMA) supports a part of the interest rate, and thus the effective interest rate for farmers is below commercial rate. These loans are intended to finance both working and fixed capital purchases, farm land purchases as well as to support young farmers.

Based on the analysis of preferential credits provided by investigated cooperative banks in 1997-1999, their share of total agricultural credit portfolio was accounted respectively for 71.4%; 68.3%, and 67.7% (Figure 2). The highest percentage of the banks recorded preferential credits at 71-80% and 81-90% of total agricultural loans.

Analysis of preferential credits in relation to total loans allowed to farmers shows that this ratio was on average highest in central and eastern part of Poland (70%), opposing to the south of Poland where it was the lowest (62%). Rural banks reported the highest ratio (71%) whereas for urban-rural banks it was the lowest (64%).
An important issue is short-term versus long-term debt. The lenders' willingness to provide long-term contracts depends directly on the durability and suitability of the underlying assets and collateral (Hart and Moore, 1994). The use of short-term debt provides the lender with the opportunity to observe the borrower, thereby minimizing the adverse project selection problem, before the renewal of the debt contract. The use of short-term funds increases the lenders' liquidity (Swinnen and Gow, 1997).

Our research indicates that over 1997-1999 investment preferential loans of total value of agricultural preferential loans given by the cooperative banks were almost unchanged, remaining in 1999 at 43.5% compared with 44.2% in 1998 and 44.7% in 1997. Taking a three year average it was the highest for banks operating in rural gminas (49%). Lower demand for loans for fixed capital formation compared to demand for loans on working capital resulted mainly from low profitability of agricultural production.

Future of the preferential credit itself and its allocation in Poland will depend on the Government policies, but at present preferential lending should be noted as important source of interest revenues for the cooperative banks amounted to 10.5% in 2002 compared to 11.7% in 1995 (10.5% on average in 1995-2002). The cooperative banks' awareness of granting preferential agricultural loans was considerable. Generally, in period from 1997 to 1999 they consumed 97% of interest rate subsidies being subject to the limits established by the ARiMR. Drawdown of budgetary expenditures on interest rate subsidies would worsen future financial situation of those banks. Additionally, the agriculture sector is a big market that can help reduce banks' risk.

5.3 Agricultural loans distribution by size of farm

As it was previously noted, there is statistically significant positive relationship between agricultural loans granted by the cooperative banks and size of farm holdings in Poland.

The share of selected size groups of agricultural holdings in total agricultural loans granted by the cooperative banks ranged from less than 2.5% for the biggest farms to 27.7% for farms with area from

Figure 2. Distribution of the cooperative banks by preferential credits share of total agricultural loan amounts, 1997-1999

Source: Authors' own research.
6 to 11 ha (Figure 3). The agricultural loans to farms with area below 11 ha comprised a half of total value of agricultural loans. This results among others from high fragmentation of agricultural holdings in Poland. Nevertheless, this statistics suggests that the cooperative banks in Poland disburse loans mainly to small farmers and may be considered as small-farm-friendly banks.

![Graph](image_url)

Figure 3. Share of farms by size in total amounts of agricultural credits granted by cooperative banks, 1997-1999
Source: Authors’ own research.

5.4 Are farmers credible borrowers?

According to Swinnen and Gow (1997) lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consumer. Our study’s findings do not provide proof for this observation. Our results show that of total agricultural loans distributed by sampled cooperative banks irregular loans valued merely at 1.56%; while substandard claims – at 0.61%, doubtful claims – at 0.31% and loss claims – at 0.64%. This means that farmers were credible borrowers. This assumption is confirmed by the senior managers of the cooperative banks in Poland who judged creditworthiness of bank borrowers by their type. Figure 4 presents the rank of borrowers according to the level of their credibility. In the lenders perception farmers are the top credible borrowers (64% respondents). Other relatively often mentioned bank borrower categories include households (55%) and local governments (54%). The least reliable were identified as state entities and cooperatives.

In spite of unfavourable economic conditions of agricultural production farmers generally paid both loan instalments and interest on time and almost in full. According to previous research by Siudek (2003) the highest creditworthiness measured by ability to comply with debt repayment in the cooperative banks was in the case of farmers, households and self-government entitles.

Farmers were considered as well-disciplined type of borrowers and cooperative banks entertain close relationships with them. Additionally, they took loans of relatively small amount to be able to pay it back. More than half of agricultural loans represented short-term loans for the purchase of operating capital.
Rating agencies recognize that historically, cooperative banks have a relatively low risk profile, which can be accounted for by their close relationship with their customers and a customer base largely made up of ‘family accounts’ and private individuals. This has resulted in a level of doubtful and actionable debts that is apparently much lower than the norm in banks for other establishments.

5.5. Other services of cooperative banks to farmers

Except loans, the main services of the cooperative banks for farmers include savings and current accounts. It is estimated that currently 80% of farmers have accounts in cooperative banks (Hykawy, 2005). Tendencies in farm loans and deposits were different. Over the period 1996-2002 the depositors of the cooperative banks were mainly local households (67.3%). Loans to agricultural holdings over the period dropped in bank loan portfolios, at the same time farm deposits remained relatively stable in terms of their portion of total deposits. There was big difference between farm loans shares of total loans and farm deposits share of total deposits. The latter percentage ranged from 4.1% in 1999 to 6.1% in 2001, and was at 5.3% on average in 1996-2002. Farmers use every bit of money, so this leaves them with little reserve. Current deposits amounted to 60% of total farm deposits.

Our study results as well as Siudek findings (2005) show that as many as 71% of cooperative banks in Poland did not offer any financial advisory for their customers. Those services have been executed mainly by banks whose own funds were the highest (above 1 million euros), that were located in urban gminas and whose main customers were private businesses: companies and individual entrepreneurs. These results indirectly led to the conclusion that cooperative banks did not supply farmers with the full range of services. At present they provide new services to farmers helping them to fill out applications for the EU direct payments.

5.6. Problems and prospects of the cooperative banks in Poland

The main problems the cooperative banks in Poland face are: the reduction of banks’ operating costs, arranging for the inevitable fall in the interest-rate margin and finding new profitable sections on the market. It is apparent from the analysis that cooperative banks have taken an interest in rural financial markets and, in terms of credit supplied in rural areas have a quite good stake. As a result of the rule of refunding the investment costs under the EU programs implemented with the support from structural funds and the necessity to bring in own contribution, a demand for cooperative bank loans should rise.
Strengths and weaknesses; opportunities and threats of the surveyed banks were identified mainly on the basis of their presidents’ perception. The cooperative bank’s strengths come in the form of local market understanding, good image of the banks in addition to quick and simple bank’s procedures. Weaknesses include: high operational costs, low level of own funds, and too narrow range of offered bank products and services. Much more diversification of bank products and services, and redistribution of funds from the European Union addressed to agriculture and rural development may occur as opportunities for the cooperative banks. As the main threats the banks have taken unfavourable overall condition of the agriculture in Poland and rising competition from the commercial banking sector.

Conclusion
Transition to a market economy in Poland and banking sector reforms in early 1990s influenced the cooperative banks through competitive environment. Between 1993 and 2003 more than 1000 of them disappeared from the banking market. Despite good geographical coverage, the share of the cooperative banking system in overall bank business is rather low. Cooperative banks operate as universal banks but with a distinct rural focus. The findings of empirical research done by authors show that farmers and households continue to be of considerable importance in money transfers generated by Polish cooperative banks.

However, there is now lower dependence on agriculture compared to the mid-nineties. During 1996-2002 there was observed fall of farmers lending in cooperative banks’ portfolios and the stagnation of farmers savings. Nevertheless, it is apparent from the research that cooperative banks have taken an interest in rural financial markets in terms of credit supplied to individual farms including small ones, to rural households and individual entrepreneurs. Cooperative banks play relatively minor role in financing state budget and local self-governments, placing relatively small proportion of their assets in securities. The role of the government in cooperative banking markets is an important in Poland. These banks are used primarily as a distribution system for government subsidies to interest rates on loans to agricultural holdings.

Finally, cooperative banks may be recognized as vital channels for supplying loans to agricultural holdings and rural households and have been assigned the primary responsibility for the outreach of the EU support intended for farmers. These banks are able to take advantage of Polish accession to the European Union to obtain profits related both to the provision of services to farmers and to an increase in the number of newly opened personal accounts due to procedural requirements related to direct payments system. Good economic situation in the cooperative banking sector should translate into its further development, an extension of the offer for clients and an access to new products.

References

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