
Support for Farmers' Cooperatives

Country Report Poland

Piotr Matczak



The 2011-2012 project „Support for Farmers’ Cooperatives“ is commissioned and funded by the European Commission, DG Agriculture and Rural Development.

Contract Number: 30-CE-0395921/00-42.

The project is managed by Wageningen UR’s Agricultural Economics Research Institute LEI and Wageningen University. Project managers: Krijn J. Poppe and Jos Bijman.

Other members of the consortium are:

- Pellervo Economic Research PTT, Finland: Perttu Pyykkönen
- University of Helsinki, Finland: Petri Ollila
- Agricultural Economics Research Institute, Greece: Constantine Iliopoulos
- Justus Liebig University Giessen, Germany: Rainer Kühl
- Humboldt University Berlin, Germany: Konrad Hagedorn, Markus Hanisch and Renate Judis
- HIVA Katholieke Universiteit Leuven, Belgium: Caroline Gijssels
- Rotterdam School of Management, Erasmus University, The Netherlands: George Hendrikse and Tony Hak

How to cite this report:

Matczak, P. (2012). Support for Farmers’ Cooperatives; Country Report Poland. Wageningen: Wageningen UR.

Disclaimer:

This study, financed by the European Commission, was carried out by a consortium under the management of LEI Wageningen UR. The conclusions and recommendations presented in this report are the sole responsibility of the research consortium and do not necessarily reflect the opinion of the Commission or anticipate its future policies.

Support for Farmers' Cooperatives

Country Report Poland

Piotr Matczak

Adam Mickiewicz University and Polish Academy of Sciences, Poland

November 2012

Corresponding author:

Piotr Matczak
Institute of Sociology, Adam Mickiewicz University
Szamarzewskiego str. 89c
60-568 Poznań
Poland
E-mail: matczak@amu.edu.pl

Preface and acknowledgements

In order to foster the competitiveness of the food supply chain, the European Commission is committed to promote and facilitate the restructuring and consolidation of the agricultural sector by encouraging the creation of voluntary agricultural producer organisations. To support the policy making process DG Agriculture and Rural Development has launched a large study, “Support for Farmers’ Cooperatives (SFC)”, that will provide insights on successful cooperatives and producer organisations as well as on effective support measures for these organisations. These insights can be used by farmers themselves, in setting up and strengthening their collective organisation, and by the European Commission in its effort to encourage the creation of agricultural producer organisations in the EU.

Within the framework of the SFC project this country report on the evolution of agricultural cooperatives in Poland has been written.

Data collection for this report has been done in the summer of 2011.

In addition to this report, the project has delivered 26 other country reports, 8 sector reports, 33 case studies, 6 EU synthesis reports, a report on cluster analysis, a study on the development of agricultural cooperatives in other OECD countries, and a final report.

The Country Report The Poland is one of the country reports that have been coordinated by Konrad Hagedorn and Renate Judis, Humboldt Universität zu Berlin. The following figure shows the five regional coordinators of the “Support for Farmers’ Cooperatives” project.

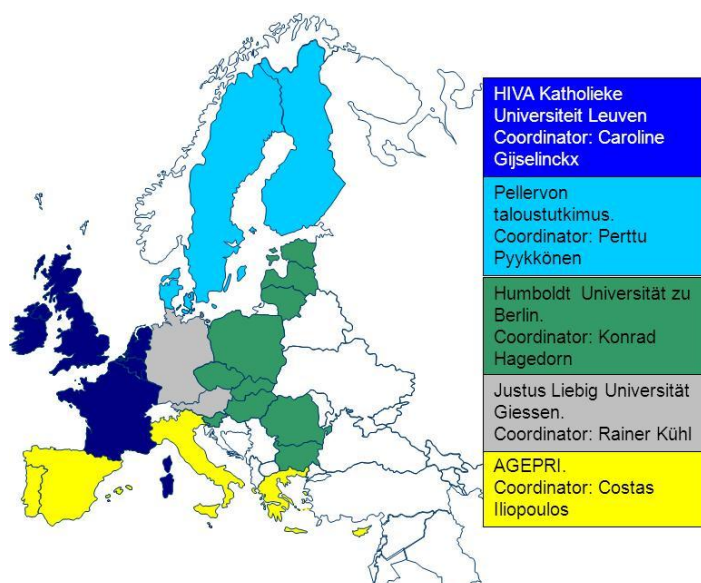


Table of contents

1. Introduction	6
1.1 Objective of the study	6
1.2 Analytical framework	6
1.3 Definition of the cooperative	7
1.4 Method of data collection	7
1.5 Period under study	7
2 Facts and figures on agriculture	8
2.1 Share of agriculture in the economy	8
2.2 Agricultural output per sector	8
2.3 Development in the number of farms	9
2.4 Size of farms	10
2.5 Age of farmers: distribution of farms to age classes	10
2.6 Specialisation of farm production	11
2.7 Economic indicators of farms	12
3 Evolution, position and performance of cooperatives	14
3.1 Types of cooperatives	14
3.2 Cooperatives in sectors	18
3.3 Market share of farmers' cooperatives in the food chain	28
3.4 List of top 50 largest farmers' cooperatives	29
3.5 List of top 5 largest farmers' cooperatives per sector	30
3.6 Transnational cooperatives	32
4 Description of the evolution and position of individual cooperatives	33
4.1 Data gathering per cooperative	33
4.2 Position in the food chain	33
4.3 Internal Governance	35
4.4 Performance of the cooperatives	35
5 Sector analysis	37
5.1 Introduction	37
5.2 Cereals	37
5.3 Sugar	38
5.4 Fruits and vegetables	40
5.5 Dairy	41
5.6 Pig meat	42
5.7 Sheep meat	44
6 Overview of policy measures	45
6.1 Regulatory framework	45
6.2 Policy measures	45
6.3 Other legal issues	53
7 Assessment of developments and role of policy measures	54
7.1 Explaining the performance of cooperatives	54
7.2 Effects of policy measures on the competitive position of cooperatives	57
REFERENCES	59

1. Introduction

1.2 Objective of the study

The imbalances in bargaining power between the contracting parties in the food supply chain have drawn much attention, also from policy makers. The European Commission is committed to facilitate the restructuring of the sector by encouraging the creation of voluntary agricultural producer organisations. DG Agriculture and Rural Development has launched a large study, “Support for Farmers' Cooperatives”, that will provide the background knowledge that will help farmers organise themselves in cooperatives as a tool to consolidate their market orientation and so generate a solid market income. In the framework of this study, this report provides the relevant knowledge from Poland.

In this context, the specific objectives of the project, and this country report, are the following:

First, to provide a comprehensive description of the current level of development of cooperatives and other forms of producer organisations in Poland. The description presented in this report will pay special attention to the following drivers and constraints for the development of cooperatives:

- Economic and fiscal incentives or disincentives and other public support measures at regional and national;
- Legal aspects, including those related to competition law and tax law;
- Historical, cultural and sociologically relevant aspects;
- The relationship between cooperatives/POs and the actors of the food chain;
- Internal governance of the cooperatives/POs.

Second, identify laws and regulations that enable or constrain cooperative development and third, to identify specific support measures and initiatives which have proved to be effective and efficient for promoting cooperatives and other forms of producer organisations in the agricultural sector in Poland.

1.3 Analytical framework

There are at least three main factors that determine the success of cooperatives in current food chains. These factors relate to (a) position in the food supply chain, (b) internal governance, and (c) the institutional environment. The position of the cooperative in the food supply chain refers to the competitiveness of the cooperative vis-à-vis its customers, such as processors, wholesalers and retailers. The internal governance refers to its decision-making processes, the role of the different governing bodies, and the allocation of control rights to the management (and the agency problems that goes with delegation of decision rights). The institutional environment refers to the social, cultural, political and legal context in which the cooperative is operating, and which may have a supporting or constraining effect on the performance of the cooperative. Those three factors constitute the three building blocks of the analytical framework applied in this study (Figure 1).

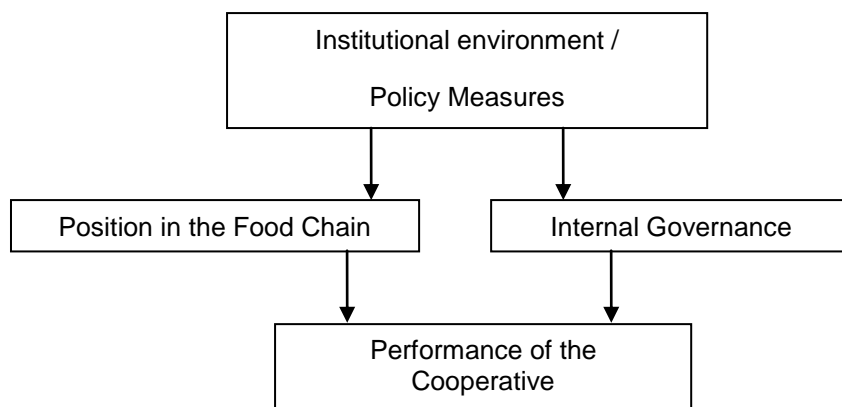


Figure 1. The core concepts of the study and their interrelatedness

1.4 Definition of the cooperative

In this study on cooperatives and policy measures we have used the following definition of cooperatives and Producer Organisations (POs). A cooperative/PO is an enterprise characterized by user-ownership, user-control and user-benefit:

- It is user-owned because the users of the services of the cooperative/PO also own the cooperative organisation; ownership means that the users are the main providers of the equity capital in the organisation;
- It is user-controlled because the users of the services of the cooperative/PO are also the ones that decide on the strategies and policies of the organisation;
- It is for user-benefit, because all the benefits of the cooperative are distributed to its users on the basis of their use; thus, individual benefit is in proportion to individual use.

This definition of cooperatives and POs (from now on shortened in the text as cooperatives) includes cooperatives of cooperatives and associations of producer organisation (often called federated or secondary cooperatives). In Poland producer groups (PG) have been introduced by the law on producers groups in 2000. A producer group can take a form of a cooperative, an union, a limited liability company, or – an association. Thus, the notion of a producer group has the widest meaning, roughly the same as a producer organisation.

1.5 Method of data collection

Multiple sources of information have been used, such as databases, interviews, corporate documents, academic and trade journal articles. The databases used are Amadeus, FADN, Eurostat and a database from DG Agri on the producer organisations in the fruit and vegetable sector. Also data provided by Copa-Cogeca has been used. In addition, information on individual cooperatives has been collected by studying annual reports, other corporate publications and websites. Interviews have been conducted with representatives of national associations of cooperatives, managers and board members of individual cooperatives, and academic or professional experts on cooperatives.

1.6 Period under study

This report covers the period from 2000 to 2010 and presents the most up-to-date information. This refers to both the factual data that has been collected and the literature that has been reviewed.

2 Facts and figures on agriculture

2.1 Share of agriculture in the economy

A study of farmers' cooperatives can best start at the farmers' side, in agriculture. In the period of 2004-2007, the share of agriculture in Poland was 4-5% of GDP (Figure 2).

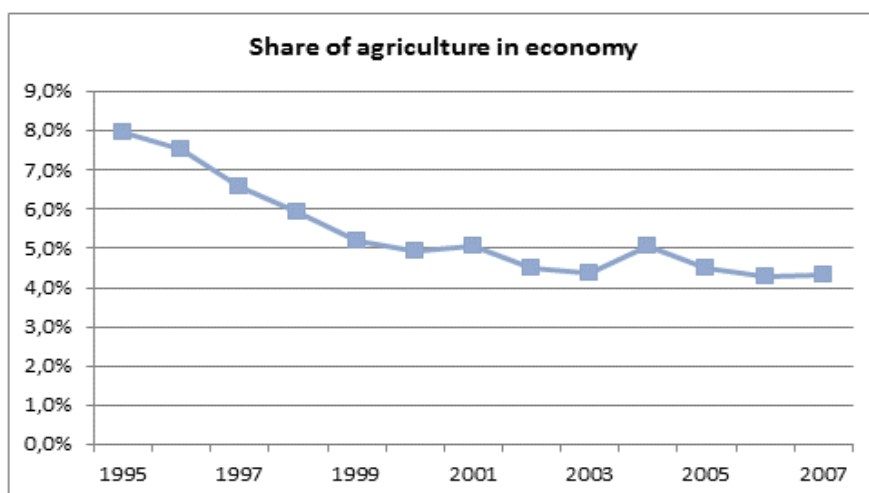


Figure 2. Share of agriculture in GDP. Source: Eurostat Nat. Accounts

Poland has a strong agricultural heritage. At the time of the EU accession in 2004, Poland had the third highest proportion of cultivated areas in Europe. During the communism in Poland, unlike in other countries under the regime, substantial part of farms remained private; this influenced the specificity of the Polish agricultural sector even after the transition period (Psyk-Piotrowska 1999). Despite the fact that Polish agriculture has a large impact in socio-economic terms, the relative income from this sector is not high. After the transition period, in the 1990s, the relative importance of agriculture decreased from 11.8% in 1989 to 4.2% in 2005, while it later stabilised. At the same time, a high (17% in 2005, 15% in 2007) proportion of population was employed in the agricultural sector, thus agriculture is one of the least productive sectors in Poland (Czyżewski and Matuszczak 2009).

2.2 Agricultural output per sector

Within agriculture several sectors exist. Figure 3 provides information on the main sectors in Poland.

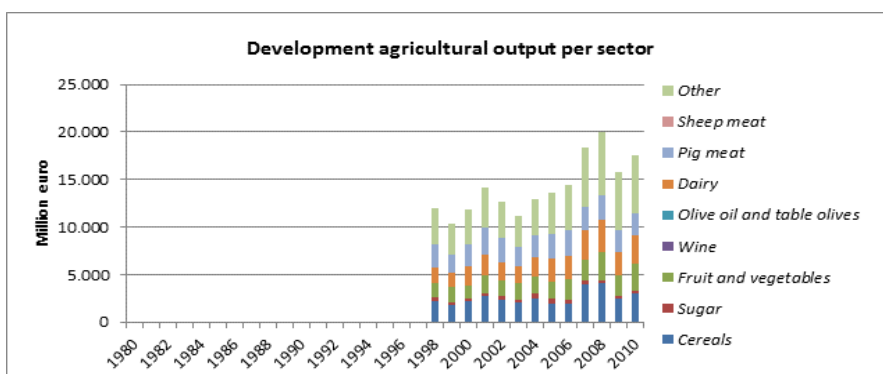


Figure 3. Development of the different sectors in agriculture, value of production at producer prices, in millions of Euro. Source: Agriculture Economic Accounts, Eurostat

Four sectors of Polish agriculture have significant production. These are cereals, pig meat, fruit and vegetables, and dairy. Sheep and goats were never important sectors and declined to a marginal position after 1990. The sugar sector has similarly declined. Wine and olive are not produced due to climate reasons, although recently there are attempts to start wine production.

The trends in the output per sector in years 2001-2009 are presented in the Figure 4 below.

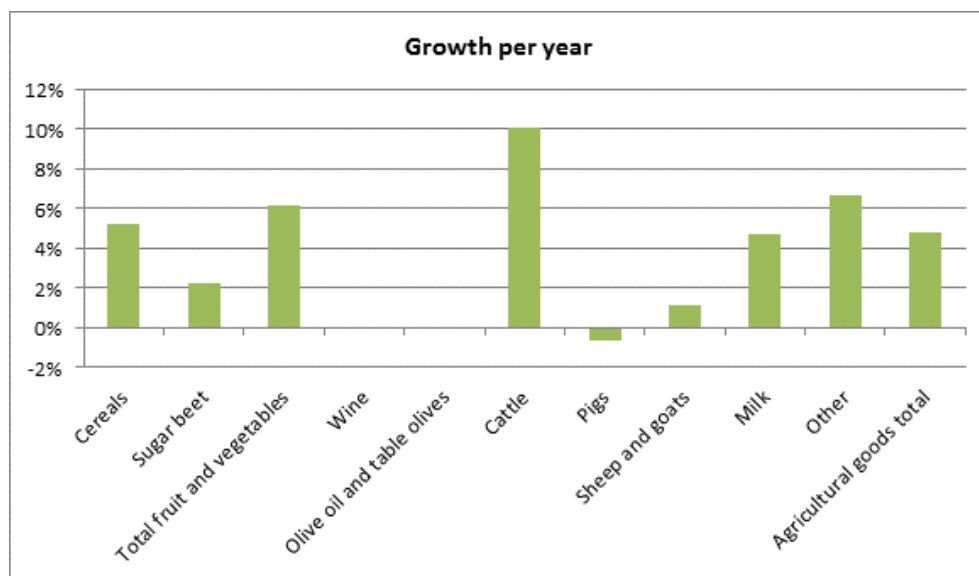


Figure 4. Trend in output per sector "2001" - "2009".

Source: Economic Accounts of Agriculture, Eurostat.

In the period of 2001-2009, there was a general growth in agricultural production. Only pig production declined, which was due to very unstable market prices in that period.

2.3 Development in the number of farms

The number of farms in Poland is given in Table 1.

Table 1. Number of farms

Year	Cereals	Sugar	Vegetables (strawberries excluded)	Dairy	Sheep meat	Pig meat	Total
2002	1 665 227	100 627	616 704	874 580	17 806	759 478	2 003 695

Source: Główny Urząd Statystyczny (2005).

Due to the historical development, there had always been a large number of farms in Poland. During communism, the collectivisation in Poland succeeded only partially, and in 1980 there were almost 2.4 million farms, although only for around 20% of farmers their farm was a main source of livelihood. After 1990, despite growing specialisation and increase of average farm size, still the number of farms has been large. In some sectors, like in dairy, the modernisation led to concentration of the farms – less and larger farms appeared with better economic capacities.

2.4 Size of farms

Polish farms differ greatly in size - from small ones, part-time job farms to large units. Figure 5 shows the distribution of farms per size class, measured in European Size Units (ESU). Although the size of the Polish farms is very diverse, generally in Poland, there is a high proportion of small-size farms. This is a result of the historic development. It was strengthened during the communist era when small farms could be private. After 1990 (the transition period) the largest farms were the previously state owned ones. There has been a growing number of big farms over the last 20 years.

There are regional differences concerning farm size. For instance in 2010 in Malopolska Region, the average farm size was 3.85 ha, while in Zachodniopomorskie Region - 30.3 ha. The general tendency is, however, a slow decrease of small farms and a slow increase in largest farms (between 2002- 2010 the number of 1-5 ha farms decreased by 22.7%, while the number of the largest (>50 ha) farms increased by 28.8% (data from Central Statistical Office – GUS).

This heterogeneity and the relatively large amount of economically weak farms results in socio-economic difficulties. At the same time, the mosaic landscape which still prevails is favourable for sustaining biodiversity in rural areas.

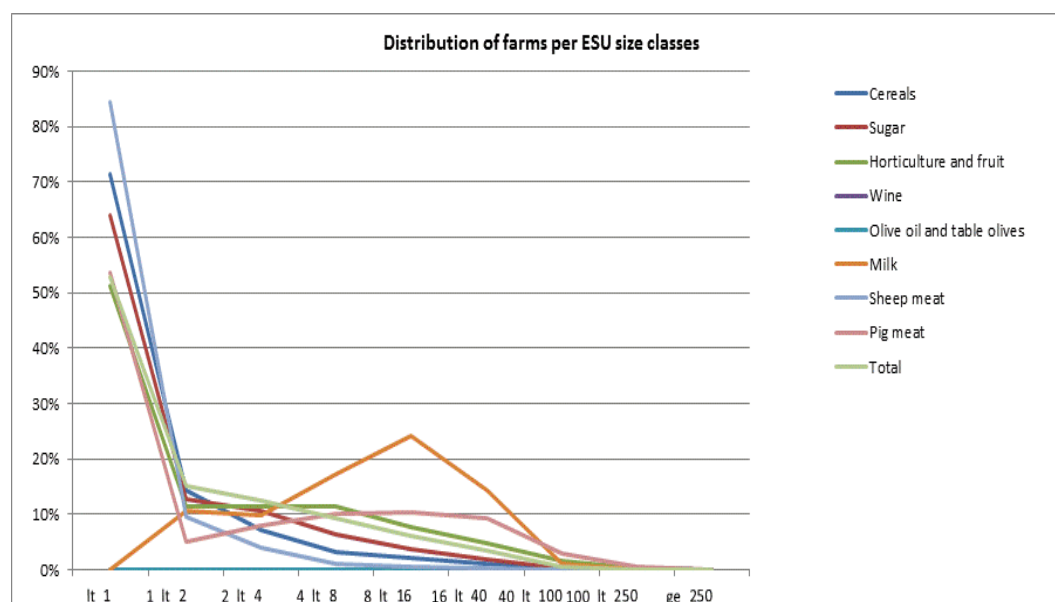


Figure 5. Number of farms per size class, measured in ESU, per specialist type of farming.
Source: Eurostat, Farm Structure Survey.

2.5 Age of farmers: distribution of farms to age classes

The age of farmers differs. Compared with other European countries, Polish farmers are relatively young. Nevertheless, aging is a significant and growing problem in the Polish countryside.

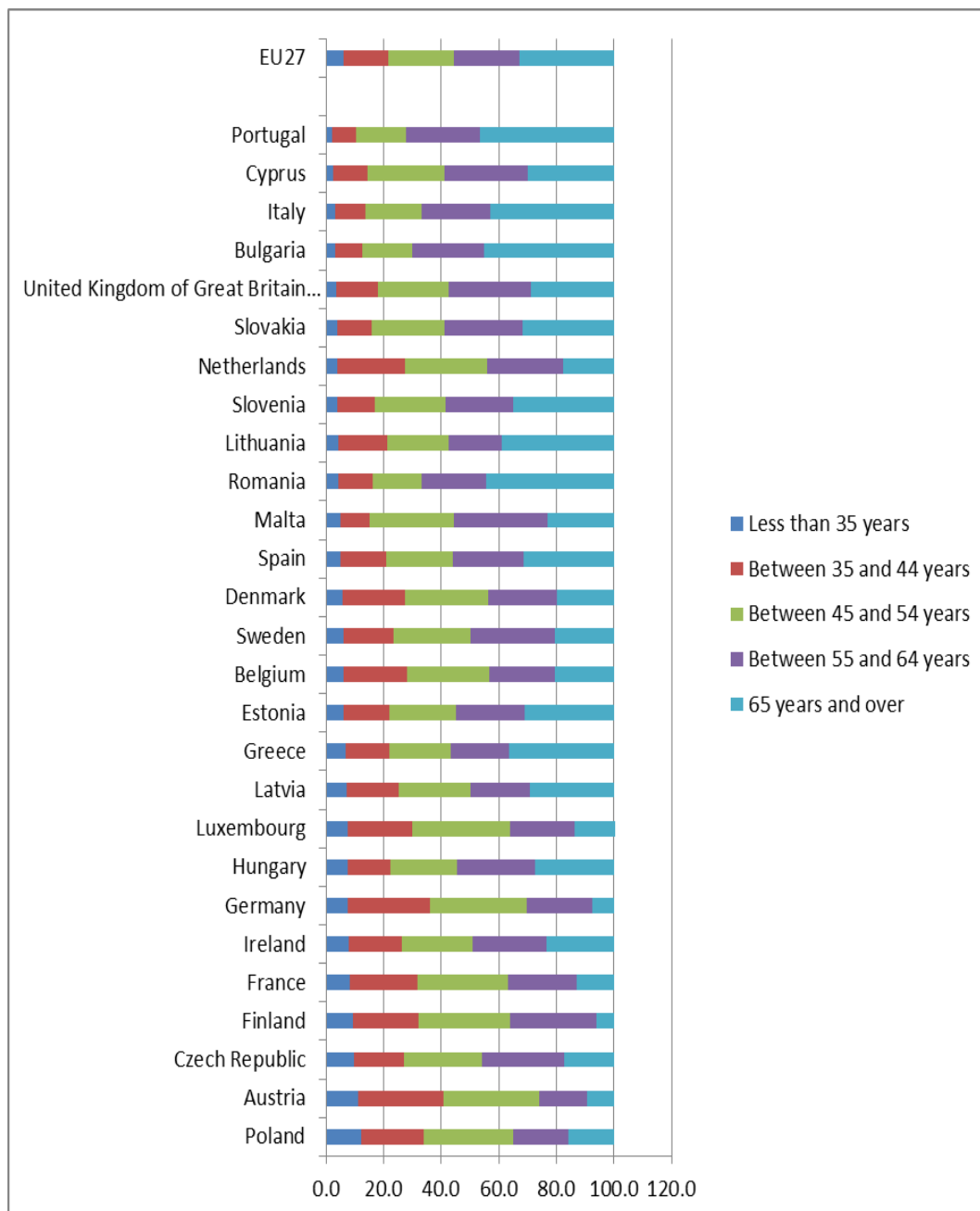


Figure 6. Percentage of farmers per age class, per Member State and EU27, 2007 (ranked with countries with the lowest percentage of young farmers on top). Source: Eurostat, Farm Structure Survey.

2.6 Specialisation of farm production

Cooperatives might not only have member-farmers with different farm sizes and of different age. Farms also have a different composition of their production and therefore their input. This is even true for specialist farms, where e.g. some so-called specialist dairy farmers also have beef or sheep or sell hay. In addition to that a lot of mixed (non-specialized) farms exist. The heterogeneity of farming in terms of specialisation can be estimated by calculating the share that specialized farms have in the total production. This is what Figure 7 (split in 7A for plant production and 7B for animal production) shows.

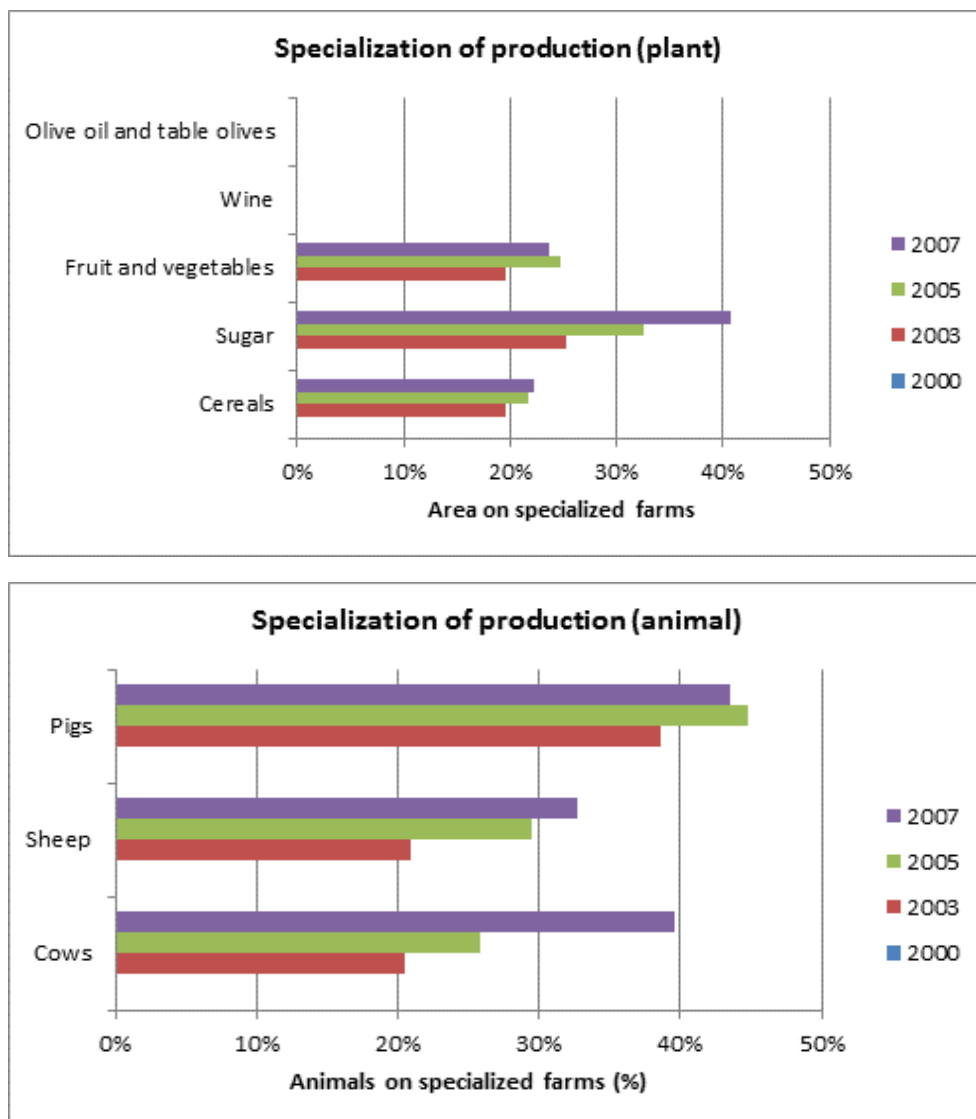


Figure 7 A & B. Heterogeneity in farm production: the share of specialist farm types in total production. Source: Economic Accounts of Agriculture, Eurostat.

There is a specialisation trend in Polish agriculture. However, it is argued that the development after 1990 is dual. Partially, there is growing number of bigger, specialised farms and - at the same time - the number of subsistence farms has also increased.

2.7 Economic indicators of farms

The description of agriculture is concluded with some economic indicators (Table 2). These indicators focus on the net value added and income from farming for farmers, as well as the level of their investment. Some of this investment might be in equity of the cooperatives, but far the most will be in farm assets.

Table 2. Economic indicators for farms

Economic indicators average per farm (2006-2008)

	Cereals	Sugar	Fruit and vegetables	Dairy	Pig meat	Sheep meat
Economic size - ESU	11.83	10.17	12.23	12.50	18.17	6.30
Total labour input - AWU	1.42	2.06	2.52	1.82	1.72	1.85
Total Utilised Agricultural Area (ha)	44.1	22.0	6.1	20.4	15.0	21.5
Total output €	32 667	30 257	40 923	29 145	64 379	20 827
Farm Net Value Added €	14 290	14 499	15 878	14 263	15 406	12 481
Farm Net Income €	10 956	11 161	11 036	13 036	13 391	9 373
Total assets €	118 640	93 489	114 422	112 127	120 841	99 150
Net worth €	98 019	82 752	94 358	100 239	103 438	94 347
Gross Investment €	6 824	4 817	7 546	7 064	4 737	2 626
Net Investment €	1 733	48	616	2 952	-77	-765
Total subsidies - excl. on investm. €	9 153	5 182	1 140	4 685	3 608	6 093
Farms represented	43 593	79 037	56 060	69 813	48 063	12 820

note: less than 3 years available

Source: DG Agri, FADN.

Taking into account most of the economic indicators, Polish farms score, on average, significantly below the average for EU15 farms. Approximately 80% of Polish agricultural holdings are very small ones in terms of ESU. They are up to 4 ESU. There are significant differences between sectors, however.

3 Evolution, position and performance of cooperatives

3.1 Types of cooperatives

Cooperatives in Poland, similarly to other European countries started at the end of nineteenth century, following patterns established by Schulze and Raiffeisen. In those days, the country's today's territory was annexed by Prussian, Austrian and Russian empires. The present regional differences in development and structure of agricultural production and cooperatives development have their origin in these territorial divides and the resulting differences of the legal structures, trade directions, etc. In the Western part of today's Poland, agriculture and agricultural services were relatively well developed in the nineteenth century. The first cooperatives were production ones, playing also a role in agricultural education. The first dairy cooperatives and banking cooperatives were also established there. In the South-East of Poland, agriculture was fragmented with less developed services. First cooperatives appeared in the credit sector and later in the dairy sector. In Central-East Poland, it was necessary to obtain permission for starting a cooperative from St. Petersburg (this part was annexed by Russia). Here, the consumer cooperatives movement was established (*Spółdzielnie Spożywców Społem*) and was particularly strong. After the First World War, the re-established Polish parliament accepted the law on the cooperatives in 1920. Between the first and second World Wars, cooperatives flourished, mostly credit ones (more than a million members), dairy (430 000 members), production, service, and commercial ones, also housing cooperatives. Later, the German occupation during the Second World War suspended normal functioning of the cooperative system. The war caused tremendous losses of cooperative assets. Also many members died. However, the patterns and structures of the cooperatives could be retained, at least partially. After the Second World War, the whole cooperative sector came under communist state control. Cooperatives were used by the communist regime as a collectivisation tool. It was especially applied in the rural areas, where newly established (with the support and enforcement – sometimes violent) cooperatives were to change “the backward, capitalist countryside” into the new, communist, and modern society. The most violent methods were abandoned after some years, and cooperatives started to work more similarly to the cooperative tradition. Also members of cooperatives, active before the Second World War, started to be involved, and a kind of cooperative rebirth could be observed in the mid-1950s. In the housing sector, the state failed to deliver the new houses, and in 1950s the task was handed over to the cooperative sector, which started to dominate in Polish cities then.

In the countryside, several types of cooperatives operated after the end of the Second World War. There were “production” cooperatives established from state owned land, and granted cheap loans, etc. They employed local inhabitants who often had little experience in running their own farms. These cooperatives hardly resemble voluntarily organisations established for the interest of their members. Instead, they were rather close to enterprises established by the external force. Another type of cooperatives was the cooperative network Peasant Mutual Aid (*Samopomoc Chłopska*). Started in 1948, it became the general network operating in the rural areas countrywide. These cooperatives were multifunctional, operating as consumer cooperatives, but also performing other functions. Similarly, in the urban areas, a monopoly of handling was given to cooperative “*Społem*” (Coop). In the 1970s, there was another wave of collectivisation, and new cooperatives were established. These were mostly set up on land taken over from old farmers in exchange for pensions.

During the communist era, each cooperative sector was clearly defined, separately for the rural and urban areas. Cooperatives had monopolistic positions for their services. As a result, cooperatives flourished. By the end of the 1980s, there were more than 8000 cooperatives registered with about 8 million members producing about 10% of the GDP. With respect to some activities, the cooperatives played even a larger role. For instance, their share in distributing

products was nearly 100%, while in savings and crediting the cooperatives's market share was 25%. Therefore, cooperatives had an important role in the economy. Cooperatives had a safe position, but on the other hand, they lost independency, being tools of the communist regime. Another problem was that in most of the cases the member – cooperative relations were simply weak and formal. In reality, members lost the feeling of being involved. Still the cooperatives were the most liberal forms of organisations in the communist economy – all the time they remained self-governmental institutions.

Generally, the cooperative sector in the communist era was strongly influenced by the state, although it mostly operated according to the cooperative principles. Cheap loans, subsidies, etc. were important measures of the state interventions, making cooperatives highly dependant on the state as well as on the changes of the state policies. Despite the fact that the cooperative sector existed during the communist regime, it had a qualitatively different form compared with the West and it meant a break in the cooperative tradition.

At the end of communism, in 1990, agricultural cooperatives in Poland operated on 662 thousand hectares. They had 155 000 employees that mostly were their members. About half a million people were dependent on cooperatives. On a greater scope, the cooperatives were marginal. In 1991, they covered only 3.5% of the arable land. The change of the political and economic system opened the possibilities of cooperatives' transformation. New legislation of 1990 liquidated the central and regional cooperative associations. The cooperative sector was basically left for spontaneous adjustments. Introduction of the free market caused huge changes. Apart from the economic difficulties, cooperatives experienced organisational problems, connected with the fact that they were treated as a part of the obsolete, communist regime. Most of the largest cooperatives were liquidated; others lost their members and collapsed. Those ones that survived mostly changed their profile from classical producer cooperatives towards mainly a commercial or a service profile (for example the consumer cooperative "Społem"). 40% of the cooperatives failed after the collapse of the communist regime.

Table 3. Changes in the number in cooperatives In Poland (without cooperatives under liquidation process)

	1989	2000	2007	2009
Total cooperatives	15236	10461	9311	
Agro- (rural) cooperatives	8133	4741	3840	2941
Samopomoc Chłopska	1912	1648	1385	1311
Dairy	323	238	188	165
Garden and bee- keepers	140	128	106	87
Agricultural production type	2089	1024	840	760
Farmer's circles	2006	1063	731	618
Cooperative banks	1663	640	590	

Source: National Cooperative Council database

After 1990 many of the cooperatives managed to change their structure in order to survive on the market while other – partially encouraged by the government – changed into a company type or collapsed.

Cooperatives currently have a bad image among the population as having obsolete structures, being not able to produce profits comparable with other economic entities, and entailing relatively high cost of labour. Indeed, some of the cooperatives show a negative financial balance – 18% of them declared so in 2005. This shows that many of Polish cooperatives have limited ability in tackling difficulties.

At the end of 1980s, in agriculture, the position of cooperatives in Poland was similar to that in Western European countries (although the context was different). Cooperatives purchased around 60% of agriculture production. After 1990 there was a significant decrease and currently only in the dairy sector it has remained about 70%. In other sectors it has fallen below 10% of the market.

Along with the declining share in the market, cooperatives lost their reputation. There were few and weak attempts to sustain the role of the cooperative in the agriculture. The main initiative was supported by the European Commission and the World Bank conducted in 1990-2000 aimed at working out a strategy for cooperatives in Poland. It has not produced significant results.

Since the weak position of producers in the food chain became a growing problem, the establishment of producer groups (PG) was enhanced as solution from 2000 onwards. PGs can have the form of a cooperative (indeed almost 30% have), but the very name was avoided taking into account the bad image of cooperatives.

Nevertheless, a clearly formulated governmental policy on cooperatives is missing. So far there was no document formulating the status of cooperatives and its relations towards to the government. As a consequence, there is an unstable legislative environment for cooperatives. Also European funds are seldom used by cooperatives, relatively small amount of these funds is available and if so, there is a lack of knowledge how to use them.

Regional differences

In Poland, three regions can be distinguished (Western, Central Eastern, and South Eastern). They differ in terms of average size of a farm, type of agricultural production but also, for instance, in terms of election results. The regions also vary in their numbers of cooperatives. Five times more producer groups appeared in the North West than in South Eastern part of Poland. The distribution of cooperatives is not even either. The number of cooperatives is highly correlated to indicators of economic development. The more developed a region is the more cooperatives developed (Nałęcz and Konieczna-Sałamatin 2008).

In Poland, 15 main types of cooperatives are distinguished. These are the following:

1. *Consumer cooperatives' chain ("Spółem")*. Originally, it was a consumers' coop network, since 1990 it has rather turned into a workers' cooperative with membership consisting almost only of the employees. It is one of the oldest cooperative networks in Poland, with tradition of more than 140 years. During the communist time, it was the main cooperative supplying urban areas. Still, it has the image of good quality at local products selling points, though the competition of large international chains is hard.

2. *Community based cooperatives "Peasant Mutual Aid" (Samopomoc Chłopska)*. They were established just after the end of the Second World War. Their scope of operations was basically restricted to one community (gmina), although after some time they could operate at a larger scale covering several communities. These cooperatives supplied people living in a community with goods and services, breeding materials, goods collecting services, etc. They basically deliver most services necessary for a community. After the transition, their role became less important although they have still a huge potential in Poland.

3. *Dairy cooperatives*. They have a long-standing tradition. After the Second World War, they were nationalised in 1948. However, after Stalin's death in 1953 the regime partially retreated the most violent enforcements. Also the nationalised cooperatives were allowed to change back into cooperatives and regained some independence. In the 1980s, milk production and consumption in Poland was very high. Milk consumption was subsidized. Milk production was

extremely dispersed, based on small producers keeping only few cows. After 1990, the sector changed its shape. Introducing high quality standards for producers led to a radical decrease of producers while the average size of the remaining producers increased. Cooperatives restructured their operations significantly, and currently, cooperatives in the sector constitute 70% of the market which is the biggest success among cooperatives in Poland.

4. *Horticultural and beekeeping cooperatives.* Horticultural and beekeepers' cooperatives played major role in the sector until 1989. They had 3200 shops, 1300 selling points, 1500 purchasing points. Cooperatives purchased 60% of fruits and 65% of vegetables. They had a share of 35% in the trade and of 40% in fruit and vegetable processing. In the period of 1990-1991, the central association of cooperatives was liquidated, and the assets were privatised. Currently, there are 90 cooperatives in the sector and their role is marginal. They only supply fruits and vegetables for local markets without processing. Recently there is tendency to transform them into producer groups.

5. *Agricultural production cooperatives (RSP - Rolnicze Spółdzielnie Produkcyjne).* Agricultural production cooperatives were established after the Second World War. They managed common land. Currently there are about 800 of them with 40 000 members. The average size of the farms is 350 hectares employing, on average, 60 people. Most of these cooperatives are situated in the South West and the Northern regions of Poland. Their business is mainly animal husbandry: pig (about 400 000) and cattle (about 60 000). A total of 70% of the cooperatives, that are active in plants growing, produce cereals and 30% of them industrial oily seeds. Some of these cooperatives have multiple activities (services, secondary production, etc). Some of them are specialized, but many are multifunctional, including, processing and services (agricultural and also financial, book keeping, computers). In 2004, 60% of their income was production, 10% processing, 10% trade, 20% services (machinery, construction, timber). Their role in the overall market is marginal and their future uncertain.

6. *Farmer circles' cooperatives (SKR – Spółdzielnie Kolek Rolniczych).* Farmer circles' cooperatives do exist since 1970s. They are based on farmers' circles, which had a long tradition of self aid. In 1988, there were almost two thousand of them. After 1990, their number and role suddenly decreased. Their role was basically to provide agricultural machinery services and supply of production means. They still supply about 22-25% of agricultural services. They are also present in trade and production.

7. *Bank cooperatives.* First bank cooperatives were established in the middle of the nineteenth century based on the Raiffeisen model. Between 1918 and 1939, there were 3400 bank cooperatives in Poland. After the Second World War, they survived and offered credits to farmers. In 1975 the system was centralised and practically nationalised. Currently their role in supply the credit to farmers is significant. However, their position is difficult vis-à-vis the strong non-cooperative banking sector. In 2008, there were 579 bank cooperatives with 2.5 million members.

8. *Credit and savings cooperatives.* Credit and savings cooperatives are formally nonbanking cooperatives. They have existed since 1992. In 2007, there were 68 cooperatives keeping 1631 operation centres in 563 towns. These cooperatives have a certain role in rural areas but they are not significant in terms of credit for agricultural production.

9. *Housing cooperatives.* Large part of Polish housing system is managed by cooperatives. They also constitute a substantial part of the whole cooperative sector. However, they mainly operate in cities and towns.

10. *Blind and handicapped people's cooperatives.* These cooperatives are a special organisational form for employment of blind and handicapped people. These cooperatives are not present in rural areas.

11. *Handcraft and artistic cooperatives "Cepelia"*. Cepelia is a folk and artistic handicraft cooperatives network. It is present in the rural areas and has connections with rural folk, but its economic role is insignificant.

12. *Craft cooperatives*. Some craft business is organised in cooperatives. They operate mostly in urban areas.

13. *Social cooperatives*. Social cooperatives appeared over last years as a form of tackling unemployment and other social problems.

14. *Worker cooperatives*. Worker cooperatives operate in different sectors. In this form the membership and the employment are combined. They do not have a significant role in rural areas.

15. *Producer groups cooperatives*. Producer groups, is a new form of organisation of agricultural producers. In 2000, the law on producer groups was passed. Initially few producers groups were established, but after 2004 (the accession to EU) their number is growing. They can operate under different business types: cooperatives, limited liability companies, associations and unions. Currently, about 30% of the about nine hundred existing producer groups are of the cooperative type.

3.2 Cooperatives in sectors

Generally in Poland, cooperatives have a significant (in fact - dominant) position only in the dairy sector. They represent more than 70% of the dairy market in Poland. There is a slow concentration process in the market - the biggest cooperatives have taken over smaller ones. In other sectors, the role of cooperatives is much smaller. In crop production, the share of cooperatives is around 6-7%. Mostly, agricultural production cooperatives (RSP) are specialised in the crop production.

An interesting case is the fruit and vegetables sector (horticultural and bee keepers – according to Polish categorisation), where cooperatives had been strong till 1990, then - rapidly - almost entirely collapsed. Since 2000, the sector has recovered in the form of producer groups which now represent around 10-12% of the production.

The situation is similar in pig meat production. Over the last ten years, producer groups have been established in this sector and now cooperatives in terms of PGs represent about 7% of the market. For the rest of the sectors the role of cooperatives is marginal.

With the exception of the dairy sector, which is dominated by cooperatives and stable, all other sectors show great dynamics as the establishing producer groups exert a big influence by changing the composition of the markets. Below, the situation of the sectors is presented taking into account the role of cooperatives and producer groups.

Cereals

In Poland, there are more than 350 000 farms growing cereals and oil seeds on more than 10 ha. Despite of this, Poland had to import crops over the last 20 years. The smaller farms do not sell on the market. Large, systematic delivery of cereals is problematic due to very fragmented production. About 70% agricultural production cooperatives are specialised in crops. There are 232 producer groups specialised in cereals; however, in some regions the producer groups do not constitute a high proportion of producers (Warmińsko-Mazurskie, Podlaskie, Lubelskie regions). In Wielkopolskie region, the crop produced by producer groups is used for pig farming. The older ones of these groups, from the times before the EU accession, have more than 10 members, while the newly established ones have less, mostly 5-6 members.

Sugar

There are only few sugar beet cooperatives. The number of registered producer groups has also been small. Due to the high level of regulation of the sugar market, there is little incentive for establishing a cooperative or a producer group in this sector. Instead, there are 45 regional unions of sugar beet producers, representing 60 000 sugar beet producers. The main functions of the Unions are: representing producers and their interest, supervising the work of the commissions working at the sugar plants, control of purchasing process. The National Union of sugar beet producers represents the regional unions. Unions are regulated by the law on sector-vocational organisations of farmers of Oct. 8th, 1982.

Pig meat

In 2007, about 700 000 farms kept pigs, however, only about 75 000 had more than 50 animals. RSPs keep 400 000 pigs. By 2009, a total of 107 producer groups specialising in pig production were registered, 90 of them had registered after 2004.

In 2009, the average size of such a group was 20 farms. 51% of these producer groups were registered in the Wielkopolska Region, where the pig meat production market is dominated by the organised producer groups. Another 14% of the producer groups were registered in the Kujawsko-Pomorski Region. In the rest of the country, pig farms are less organised – the registered amount of producer groups is much under the needs. In this sector most of producer groups choose the form of cooperative.

Similarly to sugar beet producers, pig producers are organized in unions. There are 24 regional unions as well as the Polish Union of Pig Breeders and Producers (POLSUS).

Sheep meat

This is a marginal sector in Poland. There are only 2 producer groups registered for sheep products. One chose the form of cooperative and one of an association. Both consisted of 49 producers (in 2007). The future development of sheep production is uncertain since there is no tradition of mutton consumption in Poland. Perspective further organisation of producer groups depends of the development of the sector as a niche.

There are some regional unions and associations of sheep (and goats) producers but their position is much weaker than that of sugar beet and pig producers.

Beef

Poland has a potential for beef meat production. There are about 30 000 farms with herds of more than 25 animals. After the EU accession the relative price of beef increased (compared to the pork price), which made this sector more profitable. However, beef producers organisation is at a low level. Altogether there were 14 producer groups registered till 2009. This is only a few percent of the overall production. There are some attempts to cooperate with the much better organised dairy producers in order to develop the level of beef producers' organisation in Poland.

In 2002, the Polish Union of Breeders and Producers of Beef was established. It mainly represents the sector in the relations to the Polish government.

Fruits and vegetables

In Poland, this sector is called horticultural and beekeepers sector. Till the transition period, the cooperatives were the main actors on the market. In 1990, the assets of the National Horticultural and Beekeepers Cooperatives Union were transferred to a company "HORTEX". The importance of cooperatives in this sector declined rapidly. Currently, there are about 90 cooperatives in the sector. They still they have an important function on the local markets as

they purchase production from the farmers, and, in the last years, they started slowly to regain their position. There are about 150 producer groups in the sector.

Dairy

The dairy market has been well organized, traditionally within cooperatives and during the last years also through producer groups. The cooperatives are strong, well organized and there is a consolidation process in the sector.

Also, producer groups have been formed. Till 2009, 26 producer groups did register representing 2634 farms. Of them, 17 groups started after 2004. Most of the dairy producer groups are located in the western part of Poland. A recent tendency is the transformation of the RSPs into producer groups. They are typically a group of 5-6 producers.

Table 4. Producer groups of the dairy sector in regions

Region	Number of dairy Producer Groups
Wielkopolskie	7
Kujawsko-pomorskie	4
Mazowieckie	4
Lubuskie	3
Pomorskie	3
Zachodnio-pomorskie	2
Podlaskie	2
Opolskie	1
Total	26

Source: Krajowa Rada Spółdzielcza (2010)

The Dairy sector is considered modernised and strong enough to operate in the highly competitive market. The cooperatives dominate the wholesale of milk in Poland, and practically, have a monopolistic position in processing.

Potatoes

A total of 14 producer groups specializing in potato production were registered till 2009. Most of these are registered as Limited Liability Company. A specificity of this type of production is that most of these producers already had contracts (e.g. with chips producing companies). Altogether, the number of the potato producers that is registered in producer groups is very small.

Main functions of the cooperative

There are many functions of the cooperatives. The main ones include:

- Joint production (production cooperative);
- Joint nature conservation (environmental cooperative);
- Providing farm inputs (supply cooperative);
- Providing credit (credit cooperative);
- Providing insurance (insurance cooperative);
- Providing farm machinery services (machinery cooperative);
- Providing temporary labour (farm help cooperatives);
- Providing starting material (plant or animal breeding cooperative);
- Providing water (irrigation cooperative);
- Processing farm products (processing cooperative);
- Marketing farmer products (marketing cooperative).

Concerning the functions presented above, it can be generally stated that they are unequally developed among Polish agricultural cooperatives. Some of the functions are well represented within cooperatives, while others are less significant. A special case is the dairy sector. The functions are presented below.

Currently, as the result of the restructuring process after 1990, joint production is the main function of Polish agricultural cooperatives. Except for the dairy sector, which is vertically integrated, this is true for all other sectors where production has the overwhelming dominance compared with other functions. The dominance of production function increased after 1990, since the supply function (previously carried especially by Samopomoc Chlopska), machinery provision (carried by SKR), and processing (in the horticulture and bee keepers sector) significantly decreased.

There has not yet been joint nature conservation in the form of an established environmental cooperative.

Providing farm inputs (supply cooperative) was traditionally the main function of community-based cooperatives of Peasant's Mutual Aid (Samopomoc Chlopska). However, the network's scale of operation decreased significantly after 1990. Moreover, nowadays its activity is less focused on supply and purchase. Now only about 20% of these cooperatives deals with supplying farms with agricultural materials and buying their products.

Credits for farmers are partially provided by bank cooperatives. In Poland in the field of finances, there are two cooperative structures: credit unions and bank cooperatives. These cooperatives are particularly present in rural areas. In 2010, these cooperatives had 1856 chambers (in 598 towns) and more than 1.9 million members. They target small businesses, which is often not very attractive for other banks. Nevertheless, their market share is small – about 4.5%

Mutual insurance societies were reintroduced in 1990, one of them is closely connected to bank cooperatives, but they have only 0.3% of the whole insurance market.

Providing farm machinery services was a function performed by farmer circles' cooperatives (SKR) till 1990. First farmers' circles were organized in the XIX.th century. Apart from serving machinery they offered education activities and some processing, e.g. in the dairy or the fruit sector (e.g. Tymbark cooperative). During the communist era, the circles gained important functions. At the beginning, most of the machinery belonged to the farmers' circles. However, soon these tractors and combine harvesters were given to local governmental cooperatives (Samopomoc Chlopska). Thus farmers' circles by the end of the communist period were in a difficult situation. After 1990, the number of these cooperatives decreased and operations of the rest of them were also reduced. In 2008, there were 652 such circles, this branch of farmers' organisation showed the highest decline after the transition period (the number of SKRs decreased by 67%). One major reason was that farmers did not believe in this form of cooperation any more, the machines were difficult to sustain when there were many owners dealing with them. Nevertheless, they still provide mechanical services – owing heavy machines needed for agricultural cultivation, especially on the field of harvesting. Apart from this, they often enter into other business – owing petrol stations or offering maintenance services. More than 3 thousands of combine harvesters belong to this form of cooperatives.

Providing temporary labour in agriculture was a function of farmers' circles and farmer circles' cooperatives. The function was never strong and diminished after 1990. It was partially connected with distrust to the cooperatives. As a result, informal exchange of labour was utilized (in fact, it has always played an important role).

Providing starting material (plant or animal breeding cooperatives) was an important task of community-based cooperatives (Peasant's Mutual Aid, SCh). After 1990, this function significantly declined. Currently, horticultural and bee keepers cooperatives and producer groups deal with this task.

Providing water (irrigation) is a service rendered by irrigation groups, in a current form established in Poland in accordance with the Water Law of 2001. Irrigation and melioration systems were built earlier; the equipment is the property of the territorial government. In 2008, 413 564 ha were irrigated in Poland; 27% of this land is managed with the help from the central governmental budget. Irrigation and melioration associations are non-profit associations that were organised to deal with the existing melioration – irrigation system. These associations can get subsidies from the governmental budget or from the regional governments. All members are paying a fee and are obliged to help in certain services.

Table 5. Melioration - irrigation associations in Poland

	2000	2005	2006	2007	2008
Number of irrigation – meliorization associations	2749	2450	2430	2380	2298
Area of meliorised – irrigated fields (thousand ha)	4880	4507	4442	4352	4590
% of land meliorised by associations	73	68	69	68	72
Mean area meliorised – irrigated by an association (ha)	1775	1840	1828	1829	1997
% of the area where associations run conservation of the system	50	47	46	45	44

Source: Michna 2010.

There is a decreasing tendency in the scale of melioration and irrigation works. At the same time, the average area managed per one association is increasing. Another important task of the associations is the conservation and management of the existing melioration and irrigation system. Currently, conservation works are only done on 45% of the meliorated areas. The reason for this is complicated. The costs for these measures shall be covered equally by the members and by subsidies. However, according to the water law, the irrigation associations are not a “company”. This and other legislative restrictions lead to the situation that certain support sources from EU, and also from the territorial government, are not available for irrigation – melioration associations. The situation of the irrigation system is considered difficult since, after 1990, the previously centralized system basically collapsed (by the lack of financing), and still budget shortage is the main problem.

Processing farm products by the cooperative is common in the dairy sector while in other sectors it is much less developed than in Western Europe. In the horticultural and beekeeper cooperatives processing was well-developed but it collapsed at the beginning of the 1990s. Also community-based cooperatives (SCh) and agricultural production cooperatives (RSP) partially did processing. Especially bakery and meat products can be good examples of local traditional products. These are often labelled as local high-quality products. However, the scale of this function is restricted. There are some attempts to develop the processing function, but it is at an infant stage. For instance, there has been the first case when a pig meat producer group took over a meat processing company.

Mature marketing function can only be observed in the dairy sector. In other sectors and types of cooperatives it is much weaker. Consumer cooperatives (Społem) used to be linked to producers. After 1990, those bonds were transformed into shop chains without vertical integration (despite some attempts).

In Poland, there are more than 1.5 million farms. Since 2000, there has been the legal base to form agricultural producer groups. However till 2009, only 2% of farmers belong to any organised groups, like cooperatives or companies or other producer associations. The low

organisation rate among farmers is one of the major problems in Polish agriculture. As a result, farmers sell their products to resellers, and the farmers' position is weak. The intermediate resellers prefer buying from individual farmers rather than from organised groups since it gives them a stronger bargaining position. Foreign investors and resellers show sometimes more willingness to cooperate with producer groups since they have the knowhow of cooperation in their mother countries, and they rely on long-term and stable cooperation.

Diversity of functions and products of Polish cooperatives

During the communist time, a large part of agricultural cooperatives in Poland were multiple products cooperatives. This has remained, with some exceptions. Generally, in Polish agriculture the traditional diversification of production as a measure to tackle risks (market instability, weather risk) is still present.

The specialisation tendency is most obvious in the dairy sector which is integrated and specialized. Also in the other sectors, there are cases of high specialisation, such as pig meat cooperatives as well as fruits and vegetables cooperatives can be highly specialised. For instance, the Lazur cooperative is specialized in moulded cheese production and, besides, it also runs a hotel.

With the view to the different types of producer organizations, the level of diversity varies. Agricultural production cooperatives (RSP) mostly produce multiple products (crops, vegetables, cattle and dairy, in various proportions), although they often have one main product. Farmer circles' cooperatives (SKR) supply machinery services but also provide other services; they can run petrol stations, etc. Apart from this, to a lesser extent, some SKR deal also with secondary production and handling. Diversification of production/services has been adopted by cooperatives as a strategy to cope with unstable market situation and unfavourable policies after 1990.

Producer groups established after 2000 are typically specialized in a single product or a certain product type.

Concerning consumer cooperatives, there exist two main networks in Poland. Originally, the cooperative network "Coop - Społem" retailed goods in the urban areas, while the Peasant's Mutual Aid network covered the rural territories. Their primary functions were retailing and supplying, but both of them had multiple activities. SCHs covered a wide range of functions as suppliers of farm inputs, starting materials, and other goods and services needed by households for everyday use and for local communities. For example, they ran bakeries, mills, etc. Currently, SCHs' scope of activities has narrowed down, but still these cooperatives are important parts of the rural Poland.

In case of consumer cooperatives "Społem", originally, the main operations were sales and handling. But these cooperatives have expanded their operations lastingly. In 2009, there were more than 4 thousands of shops, 175 storage halls, 210 restaurants, bars, etc. in this network. More than 300 cooperatives deal with processing and food production. They also run 7 hotels and 23 resorts.

Social activities

Many of cooperatives in Poland have social and other functions beside economic ones. The multipurpose character of cooperatives was in fact presumed as a part of the cooperative spirit. According to Polish law, cooperatives can deal with social issues and educational or cultural issues to benefit their members or their surrounding environment. In case of blind and handicapped people's cooperatives and social cooperatives, non-economic activities are important part of the cooperatives' life.

Generally, non-economic activities were more important for agricultural cooperatives than for urban ones. That was especially important during the communist era. For instance, Peasants Mutual Aid coopeatives (SCh) were community-based cooperatives and played partially a role of local government. Similarly, peasants' circles and SKR had a strong educational task, organising social and political life. They were also responsible for housing and fulfilled tasks similar to the extension service. They cooperated with farmer wives' associations and voluntary fire brigades and, in fact, constituted civil society structures (with all caveats connected with the fact that it is not an adequate category describing the circumstances in the communist era). After 1990, non-economic activities diminished but they are still present in the cooperatives' life.

A research study on the cooperative sector showed that cooperatives have an important function for the local communities - 70% of the cooperatives provide goods and services to the local people, 40% of them dominate the local markets. Also, a high proportion (40%) of cooperatives promotes local cultural educational and sports activities, and 25% provides possibilities for internships or organises workshops. 13% of the money that is supposed to increase the income of the members is given via social benefits (Nałęcz, Konieczna-Sałamatina 2008).

During the last 20 years, cooperatives have played an important role in Poland. This sector with nearly 9 thousands cooperatives and app. 400 000 employees is an important part of the Polish economy. In general, the income of people working in cooperatives is lower than the country average but higher than in the private sector. Moreover, this sector provides jobs at a higher proportion to handicapped or retired people or persons of lower education who have difficulties in finding a job elsewhere.

Table 6. The share of cooperative types in employment (%)

Type of a cooperative	Share of employment
Housing cooperatives	25%
Consumer cooperative "Społem"	16.8%
Community based cooperatives "Samopomoc Chłopska"	13.7%
Handicapped people's	10%
Dairy cooperatives	8.5%
Banking cooperatives	8.5%
Building service cooperatives	7.8%

Source: Raport o spoldzielczosci polskiej (2010)

Political activities

During the communist era, the leaders of cooperatives were often important figures in political life. Their importance has become smaller but still remained. Some members of parliament (MPs) are connected with the cooperative sector. The general mood of the cooperatives' activists is pessimistic. They feel left alone, without political support. At the same time, several attempts to pass a new law on cooperatives, considered as undermining the existing form of cooperatives, were rejected.

Position and function of the cooperatives in the food chain

During the communist era, cooperatives had a profound role in all elements of the food chain in most of the sectors. Fundamental restructuring of cooperatives resulting from the change of the economic system, brought substantial changes, mainly reducing the presence of the cooperatives to one or two elements in the food chain.

Providing a market by cooperatives (e.g. auction cooperative) hardly exists in Poland. There is an auction system for fish organized in Ustka at the Baltic Sea, but it is basically established by regional and local governments with some participation of fishermen. However it is not organized as a cooperative.

Collective bargaining as an important role of cooperatives is strongly present in several sectors, e.g. in the meat (pig, beef, mutton) and the fruits and vegetables sectors.

Moreover, certain role in bargaining is played by sectors' unions. The unions are strong in the pig meat and the beef meat sectors. They act on national and regional levels and are involved in bargaining at both levels. Also in sugar industry, unions are important. There are 45 regional unions of sugar beet producers and the national union. The role of cooperatives in this sector is marginal but the unions are strong and incorporated in the bargaining system.

In some sectors, cooperatives collect farm produce e.g. horticultural and beekeeper cooperatives and cooperatives of the Peasants Mutual Aid. This type of activity is most developed in the dairy sector. In this sector, both primary and secondary processing is done by cooperatives. However, this is exceptional for the dairy sector. In the other sectors, cooperatives do only at a minor extent engage in primary or secondary processing.

Some cooperatives produce private label products, especially for big retailing companies (e.g. milk). However except the dairy sector, only few cooperatives sell their own branded products. Some cooperatives have their own retailing chain (e.g. Agrofirma Witkowo, Suchowola, Stare Bogaczowice).

Wholesaling is weak in the cooperative sector. The Peasants Mutual Aid operated partially in wholesaling, but this has decreased. There are two cooperative retailing chains: SCh, and Społem networks. Their operations declined - from vertically integrated consumer cooperatives to mere retailing chains competing with other retailing chains.

Cooperatives in terms of types of members

In Poland virtually all cooperatives are primary ones. There are, however, federated structures of a specific character.

During the communist regime, cooperatives were basically incorporated to the state and became a tool of centralised governance. Regional and national structures were established which were relatively strong. They acted as a representation of sector interests and, by function, as a part of central government. After the collapse of communism in 1990, these national and regional associations were liquidated. A year later, under certain conditions, it was allowed again to recall these associations. Later, in 1994 legislation towards associations became less strict; however, the policies after 1990 were based on distrust towards cooperatives and especially towards central structures of cooperatives.

The organisational structures of cooperatives operate on the regional and on the national level. Their shape and scope of interest depend on the sector, historical development and other factors. They typically have a form of union or association. Their main role is lobbying, education, bargain, etc. Unions are established based on a law on vocational organisations, while associations are regulated by the law on associations (as a part of a civil society).

Auditing unions are another type of an organisation representing cooperatives. For some years there have been auditing associations at country level, generally in all the sectors. However, these associations differed in size and in competence. By the end of 2008, only 30% of the cooperatives were members of such associations with differences between the sectors from 20% to 60%. The most active, and powerful one is the auditing union of dairy sector. It actively

lobbies for a better position of the sector. For instance, there was a nation-wide information campaign organized for promoting the milk consumption.

Altogether, in 2009, there were 61 auditing unions registered with the National Council of Cooperatives, from this 17 were national and 44 regional ones. They were established by cooperatives in order to represent their interests. However, only about half of the cooperatives have been connected to the auditing unions, for the rest the auditing body is the National Council of Cooperatives (although, there is a lack of legal basis for the National Council to do this). Apart from these organisations, there are 29 other associations among cooperatives.

The National Cooperatives Council (KRS) was established in 1920 to represent cooperatives towards to the government, to monitor the legislative aspects and to deal with auditing rights of the cooperatives' associations. After 1990, this body remained but with major changes. From that time, the National Council of Cooperatives has lost all the rights to control cooperatives. As a result – all conflicts of cooperatives have to be solved through the court – which is criticized. One of the main tasks of the National Cooperatives Council is lobbying and representing the cooperatives in the dialogue with the government. The most important lobbying activity is the participation in the legislative process with the aim to create a positive environment for cooperatives. The legal basis for cooperatives is the Cooperative Law of 16th April 1982. This law was amended more than 30 times, but still is far from being perfect. In some sectors (banking, housing cooperatives), there are additional strict regulations, sometimes several laws to apply, etc. After the transition period, the first congress of cooperatives in 1995 stated that the Cooperative Law is not sufficient. There have been 3 versions of a new law prepared so far, but it was never accepted and implemented (twice the Polish President refused to sign the law - in 1993 and 2001, and once the Parliament did not accept it - in 2008).

Geographical scope of the membership in cooperatives

Most of the cooperatives in Poland are local and regional ones – members are located within a municipality or county. There are no cooperatives at a national level, and no transnational ones in Poland. There are cooperatives trading with farmers from other countries.

There are cooperatives of wider geographical scope, as one specialised in organic food. Members of this cooperative are geographically dispersed within more than a hundred kilometres.

Financial/ownership structure of cooperatives.

In terms of financial and ownership structure, Polish cooperatives are traditional and participation cooperatives. The lack of other forms can be explained by the path of historic development. During the communist era, in the economy of shortage, the whole economy was centrally regulated, so equity capital was not available on a competitive market. After the collapse of the communism, the general strategy among cooperatives in agriculture was to search for a survival strategy under unstable and unfriendly conditions. Eventually, it led to the dissolution of many cooperatives. It was a form of privatisation of remaining assets instead of active search for growth and development. As a result, if there was a need for capital the cooperatives rather changed their structure, for example, into Limited Liability Company. No efforts were made towards establishing subsidiaries structures, proportional tradable share co-operative or PLC co-operative.

Legal form of cooperatives

In Poland, there are cooperatives in a strict sense as well as registered producer groups (these organisational forms are the focus of this study). The latter can choose the following legal form (Table 6):

- association
- cooperative
- partnership
- Limited Liability Company (Ltd, BV, SARL., GmbH, SL, etc.)
- Corporation (Plc., NV, AG, SA, etc.)
- other form.

Table 6. Possible legal forms of the producer groups

Characteristic	Association	Union	LLC	Cooperative
Legal foundation	Act from 7th April 1989 <i>Association Law</i>	Act from 8th October 1982 <i>Social and Vocational Farmer Organizations</i>	Act from 15th September 2000a <i>Commercial Companies Law</i>	Act from 16th September 1982 <i>Cooperative Law</i>
Purpose	Social	Social and vocational, but can also be economic	Any	Economic, but can also be social
Area of operation	no limitations	Poland	no limitations	no limitations
Members	People, or legal entities only as supportive members	People	People or legal entities	People or legal entities
Minimal number of members	At least 15 people	At least 10 persons, at least 8 of whom run a farm	1 and more	At least 10 people or 3 legal entities, for agricultural production cooperatives at least 5 people
Form of members' financial contribution	Membership fees	Membership fees	Share	Share
Minimal financial contribution per member			At least one share with minimal value 50 PLN (=13 EUR)	At least one share, its value defined by the general assembly
Participation in decision making	Equal for all members	Equal for all members	Based on number of shares	Equal for all
Participation in accumulated capital	Equal for all members	Equal for all members	Based on number of shares	Based on number of shares
Member liability	no liability	no liability	Based on number of shares	Based on number of shares

Source: Banaszak (2008)

The Law on Producer Groups of 2000, aimed at enhancing cooperation among producers, was liberal about the legal form of cooperation. As a result the forms varied and evolved over time. At the beginning, after the law was introduced, producer groups were relatively often taking the form of an association. It was easy to start up a business but uncomfortable to carry it on. After some years the popularity of the association declined. Currently, the limited liability company is the most popular form followed by cooperatives (Table 7). The popularity of the form of the limited liability company is connected with the fact that it matches the conditions of establishing a subsidized producer group. Over the last years, a cooperative form is more often chosen. It can be attributed to the promotion, training and seminars provided by the National Cooperative Council.

Table 7 Number of registered producer group in different legal forms

Legal form of agricultural producer groups	Number of organisations in 2009
Limited Liability Company	315
Cooperative	136
Union	48
Association	10

Source: Krajowa Rada Spółdzielcza (2010).

3.3 Market share of farmers' cooperatives in the food chain

Data on the cooperatives' market share in sectors is not available in Poland. Some current estimates based on experts judgements and literature is presented in Table 8.

Table 8 Market Share of Cooperatives

	"2010"		Comments
Sector	Estimated number of members	Market Share (%)	
Cereals	232 producer groups; most of about 800 RSP (70% of them specialise in crops)	6-7%	Cereals production is mainly a specialty of RSP.
Sugar	Few producer groups	marginal	There are few producer groups specialised in sugar beet production. There are also multiply products cooperatives producing sugar beet as one of the production (especially by RSP). The market is highly regulated, and current situation give disincentives for establishing cooperatives. Moreover, during the communist time, all the sugar plants were nationalised. It left little space for integration of sugar sector. Other impact was the pressure for privatisation.
Pig meat	107 producer groups	7%	The prospect for cooperation in pig meat sector is assessed optimistically. Number of producer groups is growing. There first attempts of vertical integration.
Sheep meat	About 50 producers, two cooperatives	Marginal	There was a dramatic decline in the number of sheep in Poland after 1990. Currently, this is a very narrow sector, with some attempts aimed at specific market
Fruit and vegetables	90 cooperatives, 150 producer groups, 20 other producers organizations	10-12%	After a sudden decline of the sector after 1990 it seems to consolidate. There are new producer groups.

Olive oil and table olives		not present	
Dairy	25 producers groups	70-74%	The most integrated sector.
Wine		not present	

Sources: Estimations done by experts, based on information from auditing unions, and data from literature.

3.4 List of top 50 largest farmers' cooperatives

There are no consistent data allowing for preparation of ranking of the largest Polish cooperatives. Cooperatives send financial reports to the National Cooperatives Council. However, not all do them, since it is not obligatory and it involves costs. Also membership in auditing unions is not obligatory. The list presented in the Table 9 is based on the Amadeus database. In many cases data for particular years were missing, that's why the weighted average was used of both revenues and assets.

Table 9. The 50 largest farmers' cooperatives in the food chain of Poland

Company name	City	NACE Rev.2, primary code description
MLEKPOL Spółdzielnia Mleczarska	Grajewo	Operation of dairies and cheese making
Spółdzielnia Mleczarska MLEKOVITA	Wysokie Mazowieckie	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska w Łowiczu	Łowicz	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Piątница Poduchowna	Operation of dairies and cheese making
Spółdzielcza Mleczarnia SPOMLEK	Radzyń Podlaski	Operation of dairies and cheese making
Spółdzielnia Mleczarska w Gostyniu	Gostyń	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Krasnystaw	Operation of dairies and cheese making
Rolnicza Spółdzielnia Mleczarska ROLMLECZ	Radom	Operation of dairies and cheese making
Mazowiecka Spółdzielnia Mleczarska OSTROWIA	Ostrów Mazowiecka	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Radomsko	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Koło	Operation of dairies and cheese making
Spółdzielnia Mleczarska Ostrołęka	Ostrołęka	Operation of dairies and cheese making
ROTR Spółdzielnia Mleczarska	Rypin	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Włoszczowa	Operation of dairies and cheese making
Moniecka Spółdzielnia Mleczarska	Mońki	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Sierpc	Operation of dairies and cheese making
Obrzańska Spółdzielnia Mleczarska	Kościan	Operation of dairies and cheese making
Spółdzielnia Piekarsko-Ciastkarska	Warszawa	Manufacture of bread; manufacture of fresh pastry goods and cakes
Okręgowa Spółdzielnia Mleczarska	Giżycko	Operation of dairies and cheese making
Spółdzielnia Mleczarska Ryki	Ryki	Operation of dairies and cheese making
Spółdzielnia Pracy MUSZYNIANKA	Krynica-Zdrój	Manufacture of soft drinks; production of mineral waters and other bottled waters
SOMLEK Spółdzielnia Mleczarska	Sokołka	Operation of dairies and cheese making
KURPIE Spółdzielnia Mleczarska	Baranowo	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska GARWOLIN	Wola Rębkowska	Operation of dairies and cheese making

JOGO Łódzka Spółdzielnia Mleczarska	Łódź	Operation of dairies and cheese making
Spółdzielnia Mleczarska MAZOWSZE	Chorzele	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Końskie	Operation of dairies and cheese making
SPOŁEM Warszawska Spółdzielnia Spożywców Żoliborz	Warszawa	Manufacture of bread; manufacture of fresh pastry goods and cakes
Okręgowa Spółdzielnia Mleczarska	Czarnków	Operation of dairies and cheese making
SUDOWIA Spółdzielnia Mleczarska	Suwałki	Operation of dairies and cheese making
Spółdzielnia Mleczarska Polmlek Maćkowy	Gdańsk	Operation of dairies and cheese making
WART - MILK Okręgowa Spółdzielnia Mleczarska	Sieradz	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Kalisz	Operation of dairies and cheese making
SPOŁEM Wytwórcza Spółdzielnia Pracy	Kielce	Manufacture of other food products nec
JANA Średzka Spółdzielnia Mleczarska	Środa Wielkopolska	Operation of dairies and cheese making
Rzeszowska Spółdzielnia Mleczarska RESMLECZ	Trzebnisko	Operation of dairies and cheese making
ZORINA Spółdzielnia Mleczarska	Kutno	Operation of dairies and cheese making
BIOMLEK Spółdzielnia Mleczarska	Chełm	Operation of dairies and cheese making
JURAJSKA Spółdzielnia Pracy	Myszków	Manufacture of soft drinks; production of mineral waters and other bottled waters
Okręgowa Spółdzielnia Mleczarska	Jasienica Rosielna	Operation of dairies and cheese making
Spółdzielnia Dostawców Mleka w Wieluniu	Wieluń	Wholesale of dairy products, eggs and edible oils and fats
BIELMLEK Spółdzielnia Mleczarska	Bielsk Podlaski	Manufacture of dairy products
Okręgowa Spółdzielnia Mleczarska	Hajnówka	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska w Sanoku	Sanok	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska W Kosowie Lackim	Kosów Lacki	Operation of dairies and cheese making
CUIAVIA Okręgowa Spółdzielnia Mleczarska	Inowrocław	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Opole Lubelskie	Operation of dairies and cheese making
Spółdzielcza Agrofirma Szczekociny	Szczekociny	Manufacture of fruit and vegetable juice
Okręgowa Spółdzielnia Mleczarska	Nowy Dwór Gdański	Operation of dairies and cheese making
Okręgowa Spółdzielnia Mleczarska	Siedlce	Operation of dairies and cheese making

Based on the Amadeus database.

The dominance of dairy sector in the list is a consequence of the fact that it is the only integrated cooperative sector in Poland. Among the 50 biggest cooperatives, there are only few from other sectors. It may be the evidence for the specific development of cooperatives in Poland.

3.5 List of top 5 largest farmers' cooperatives per sector

The lists of top five largest farmers' cooperatives presented below (Table 10) are based on various data sources. There is no data source allowing for comparison of the cooperatives in different sectors. There is no COGECA database on Poland. The Ministry of Agriculture and the Agency for Modernisation and Restructuration of Agriculture were consulted but they did not have data on cooperatives containing their size.

In dairy sector the list is based on the data available in the Amadeus database. It is consistent with data collected by the auditing union of the sector. Sheep production is a specific case because there are only two cooperatives in Poland (both are producer groups at the same time).

Among sugar beet producers, there are few producer groups. They are listed on the lists of producer groups. Also there are other cooperatives, especially RSP producing sugar beet. For the RSP, the biggest were detected through the area of sugar beet cultivation (data is collected by the Institute of Agricultural and Food Economics). Experts were also consulted.

In the cereals sector, it is also difficult to make a ranking. Experts were consulted and various data bases used. Agrofirma Witkowo is the biggest producer (it is the exceptionally big cooperative, the leader in terms of pig meat and cereals production). Other cooperatives were taken on the base of data from the Institute of Agricultural and Food Economics area of production.

Most of fruits and vegetables cooperatives (horticulture and beekeeping) are in the auditing union. However, the union does not have precise information on the production scales. Moreover, the financial reports were mostly not available. As a result, the only consistent source is the list of producer groups. It was used for preparing the ranking in the sector.

In the pig production sector, there are producer groups and cooperatives. Again, there are no consistent data on their size. In experts' opinion, the biggest cooperative is Agrofirma Witkowo. Moreover, measurements are difficult since the Pig Producers' Union comprises all types of producers (mostly companies and individual producers), and financial data on particular cooperatives are not easily available. Data from the Institute of Agricultural and Food Economics was used for this sector.

In most of the sectors experts were consulted: from University of Life Sciences in Poznan and in Warsaw; journalists specialising in agriculture; an MP with great knowledge in the cooperative sector; experts from private companies. Furthermore, an intensive websearch was made. Auditing unions, sector unions and associations of producers in the sectors were consulted. Substantial help was provided by the National Cooperative Council.

In Poland olives are not cultivated. Wine production can be neglected. These sectors are not included.

Table 10. Most important cooperatives in the sectors

Sector		Name of Cooperative
Cereals	1	Agrofirma Witkowo (Cooperative)
	2	Karolew z o.o. (Producer Group)
	3	Adorol (Cooperative)
	4	RSP Wydrowice (Cooperative)
	5	RSP Jedność (Cooperative)
Sugar	1	RSP Zwycięstwo Rudno (Cooperative)
	2	RSP Dzierzkowice (Cooperative)
	3	RSP "Rostkowice" (Cooperative)
	4	RSP "Niechanowo" (Cooperative)
	5	"Zalesie" (cooperative)
Fruit and vegetables	1	"Mularski" Sp. z o.o.
	2	Agrofirma Szczekociny (Cooperative)
	3	Hajduk Sp.z.o.o. Producer Group
	4	"Agrochamp" Sp. z o.o. Producer Group
	5	Grzybek Łosicki (Cooperative)

Dairy	1	Mlekpól (Cooperative)
	2	Mlekowita (Cooperative)
	3	Łowicz (Cooperative)
	4	Piątnica (Cooperative)
	5	Spomlek (Cooperative)
Sheep meat	1	Gazdowie (cooperative, producer group)
	2	Ovis (cooperative, producer group)
Pig meat	1	Agrofirma Witkowo (Cooperative)
	2	Sorol Tucz sp. z o.o. (Limited Liability Company)
	3	RSP Bądkowo (Agricultural Production Cooperative)
	4	RSP Rzecko (Agricultural Production Cooperative)
	5	Stowarzyszenie Producentów Rolnych „Zagroda” (Agricultural Producers Association)

Source: Author's own data, based on Amadeus database, experts' opinion

3.6 Transnational cooperatives

Many cooperatives are active internationally. In most cases the foreign activities of cooperatives are limited to marketing, trade and sales. Usually they buy agricultural products from farmers or supply inputs to them. However, there is a growing group of cooperatives that do business with farmers in other EU Member States. These cooperatives are called international cooperatives. They can be marketing cooperatives that buy from farmers in different countries or they could be supply cooperatives that sell inputs to farmers in different countries. One particular group of international cooperatives is the so-called transnational cooperatives. These cooperatives do not just contract with farmers to buy their products or to sell them inputs; they actually have a membership relationship with those supplying or purchasing farmers. In sum, a transnational cooperative has members in more than one country. Table 11 below presents the foreign international cooperatives active in Poland. These are cooperatives from other EU Member States that have come to Poland to trade with farmers. In Poland there are some foreign cooperatives that created a company – these firms are registered as limited liability companies, not as cooperatives.

Table 11. Foreign cooperatives in Poland

Name of the Cooperative	Mother country	Sector(s) involved in:
Internationals		
DLG	Denmark	It owns a LLC company producing premixes, concentrates and complete feed.
Danish Crown	Denmark	Meat processing. They own share of the Sokolow SA – a large meat processing company.
Hk Scan	Finland	
TiCan	Denmark	Meat processing. It owns ZM Nove – a meat processing company.
Transnationals		

Source: Author's own data

There are few Polish cooperatives detected, trading with farms from other countries, but no cooperatives were found acting as transnational cooperatives.

4 Description of the evolution and position of individual cooperatives

4.1 Data gathering per cooperative

Methods of choosing the five biggest cooperatives in each of the sector are presented in chapter 2.2.4 above. Collecting data on particular cooperatives chosen for each sector was difficult (which was expected). Collecting data about business is always difficult but in the case of Poland (similarly to other post-communist countries) an additional factor is reluctance and distrust of the business sector towards providing data, based on a long experience during communist time, when it was basically a part of policy.

For the biggest cooperatives, financial reports are available, since they report to the Cooperative Monitor. They deliver printed and electronic versions. However, for only few of the chosen cooperatives financial reports were available from this source. As a result it was obtained within interviews.

Interviews were the main source of the information, other sources had a supplementary character. In order to overcome cooperatives' distrust, letters were sent (both scanned, electronic version and paper ones) to the cooperatives' directors signed by the president of National Cooperative Council. The letter explained the research and asked for cooperation. It worked in most of the cases. However, some of the cooperatives did not react (the secretaries could not get an answer from the directors) and in some cases the interviews were postponed. Few cooperatives refused to provide their data. Missing cases were replaced by the cooperatives next in the ranking. It was, however, time consuming. Finally, data on 26 cooperatives/producer groups were collected (out of 27 – there are 6 sectors present in Poland, but in cases of sheep – there are only two cooperatives). There are missing case is in fruits and agriculture sector. Several cooperatives/producer groups in the sector were contacted. There were several postponing cases.

Interviews were done by phone. Due to the time constraints (and the size of our country) personal visits were not possible. In one case, a personal visit was suggested by a cooperative but they finally agreed for a phone interview. In all cases, questions were sent by email before the interview was conducted.

4.2 Position in the food chain

Position of cooperatives in food chain depends on the sector. In the dairy sector, they definitely have the strongest position. Dairy cooperatives cover production, collection of production, wholesaling, and marketing. Cooperatives managed to promote brands, which are dominating the milk market. The coverage of the market chain stages varies among cooperatives, but generally the vertical integration is very strong (compared with other sectors in Poland).

In the sugar sector, the position of cooperatives is marginal. The sector is highly regulated and there is little incentive for establishing cooperatives in the sector. The few producer groups that have been established are most possibly subsidies driven. Private producers dominate the sector. Coordinative and bargaining role have been taken by the unions and the committees established by the sugar refineries. They seem to have the strong position, and vertical integration with a significant role of cooperatives is unlikely.

In the fruits and vegetables sector, after the collapse at the beginning of 1990s, there has been a slow trend for integration. Still production dominates but, as the producers develop, they invest in storage and processing. In the sector, producer groups were relatively often established and

they invest in storage and processing. The market share of the cooperatives/producer groups has not been high so far but there can be observed a growing tendency.

In cereals production, the contribution of cooperatives is small – few percent of the market. Producers mostly sell the production for primary and secondary processing, although in some cases they also do processing by their own.

The sheep sector is marginal and two existing cooperatives try to find a niche. One of them, operating in the mountains, has the strategy to produce final products as local and regional registered food.

In the pig meat sector, the situation is similar to the fruits and vegetables sector. Currently, the cooperatives' market share is small, but there were new producer groups established attempting for vertical integration. Some groups already do primary processing, and there are attempts for secondary integration and also for marketing and retailing. Often pig producer groups also produce crops as input of production. Extending the presence in the food chain is regarded as a support measure in the very unstable market.

One measure is particularly directed towards strengthening the position of cooperatives and producer groups in the food chain. The cooperatives/PG that buy shares in processing companies can get subsidies.

Institutional environment

Generally speaking the current situation of the cooperatives in the food chain is affected by two big factors, changing profoundly the economic, political and social circumstances. The first was the collapse of communism and the change of the socio-political system starting in 1990. The second factor, less important compared with the first one, was Poland's EU accession in 2004. The system change of 1990 is called "the shock treatment" and did also affect the agricultural cooperatives. In terms of the cooperatives' position in the food chain, the result of the change was shrinkage and marginalisation. Within few years the share in the operations declined from 60% to a few percent only, with huge variation among sectors, however.

The weak position of the agricultural producers as a result of the change of the socio-economic system, and perspective of the EU accession induced attempts to restrengthen the cooperatives in agriculture. The Law on Producer Groups of 2000 intended to encourage agricultural producers to cooperate. The law that was introduced before EU accession aimed at preparing Polish producers for the expected competition on the European market. During the first years following implementation of this law, the results were poor. After 2004 some new measures were introduced in order to support establishing new producer groups and to support the already existing cooperatives.

The position of cooperatives has been weak not only because of the institutional collapse after 1990 but also because of the negative connotations. Despite rich traditions of cooperatives in the rural areas, after the fifty years of communism, it is popularly treated as a means of subordination used for the farmers. In contrast, for the cooperative members the important feature of cooperatives was the security of jobs and the provision of additional services.

When the first attempts appeared in the 1980s to make cooperatives independent units (they were mostly parts of bigger conglomerates), members were often against these efforts since they thought the state-provided jobs (as they understood it) were safer. Using the name of producer groups (instead of cooperative) in the new legislation was apparently a method to avoid the "bad image". The willingness to cooperate among agricultural producers is a problematic issue. The promotion of producer groups as well as organisational, educational and financial support brought some good results. However, looking at the agricultural sector as a whole, the changes seem to be small.

Moreover, experts argue that mostly new groups are subsidies driven, and the sustainability of the groups is doubtful in the long run. Indeed, this issue was even raised by the interviewed leaders of the groups. Most of the new groups are small consisting of 5-10 people, in many cases linked by family ties. It supports the assumption that establishing a producer group is in many cases a passive strategy of taking an opportunity to consume the subsidies, followed by the “let’s wait and see what’s next” approach. Nonetheless, the situation differs among the sectors. Cooperatives in the dairy sector are consolidated. The fruits and vegetables sector and the pig meat sector seem to have certain potential for the growing role of cooperatives, while in other sectors the level of uncertainty is higher.

Another context is the wider socio-economic change in Polish agriculture (and countryside). There are currently between 1-2 million farms in Poland (the exact number depends on the definition and the method of calculation), out of which 200-300 thousand are considered to be economically viable (depending also on the future direction of Poland’s and the EU agriculture policies). Thus, from a broader perspective, cooperation is only one factor within the manifold and serious changes the Polish agricultural sector faces at present. And, being rather one of the medium or small scale methods to deal with the future of Polish agriculture, it does not seem to provide an answer for its big questions.

4.3 Internal Governance

According to experts, there are many shortcomings of internal governance in cooperatives. Basically, they can be attributed to the past (before 1990) habits that have remained. In many cooperatives, there are no young people among the board members/management staff. The corporate culture prevails which is a survival one but not entrepreneurial one. “Severe” decisions are avoided. Mierzwa presents a study showing that in 2000, several cooperatives operating in the Lower Silesia region had warning indicators, but they mostly ignored them. As a result, in 2010, they were already out of the market.

Although, statutes contain typically provisions limiting the number of terms in office for the board of directors, internal recruitment is the common practice. It sustains the habitual management. This seems to be different in newly established producer groups, where external managers prevail.

According to experts, for the newly established producer groups the cooperative organisational form is not the first choice. The main perceived disadvantage is the decision-making process, considered as complicated and time consuming. A limited liability company offers a more “clear-cut” decision-making process in this respect.

Also, cooperative form is perceived as involving many “social obligations”, i.e. providing social benefits for the members, which is considered as unnecessary burden.

Internal governance varies significantly between the sectors. The big dairy cooperatives combine cooperative form with the management style typical for the big business.

Generally, it can be hypothesized that the leadership is very important for both the operations and the development of the cooperatives.

4.4 Performance of the cooperatives

The performance of the cooperatives varies depending on the type and sector. In the dairy sector, cooperatives are consolidated, the process of concentration – merging of cooperatives - is ongoing. There are new producer groups but they do not play an important role. The sector is based on the old-established cooperatives. The sector has a competitive potential. Moreover, the dairy market is relatively stable, which is also accounted to its good organisation.

Another distinct category is the agricultural production cooperatives (RSP). Their future is considered as uncertain, since they represent the closest form to the soviet kolkhozes and there is no potential for growth. They are generally multi-production units. However, some of them have been successful through specialisation. Another function which was mentioned in the interviews is the social one. They are regarded as job providers for people otherwise having no chance in the labour market. In this way, these cooperatives are *de facto* having the role of social cooperatives.

5 Sector analysis

5.1 Introduction

In this chapter, we discuss the development trends in the six sectors that are present in Poland (olives and wine sectors are not relevant in the country). We report on trends in the markets, important changes in (agricultural) policy and we try to link this to the strategies and performance of the investor-owned firms and cooperatives in the sector. The focus is on period of 2000 – 2010.

Poland entered the EU in 2004, but started preparations earlier. For example, the Law on Producer Groups was enforced in 2000. The EU accession was the moment of implementation of the EU standards in agricultural policy. On the one hand, this was a challenge, since in many respects Polish agriculture required modernisation, investments, etc. in order to become competitive in the common market. On the other hand, access to the EU agricultural market has opened up export opportunities.

5.2 Cereals

Cereal production is a very important part of Polish agriculture, but the production is very fragmented, with about 350 000 farms growing cereals. It is roughly estimated that 6-7% of crops is produced by cooperatives. They occupy bulk product place in the market chain. Most (about 70% of the whole number of 800) of agricultural production cooperatives (RSP) deal with growing crops. They are relatively important since there is lack of capacity of large volume, good quality crops' delivery. However, due to the image connected to their historic origins (they were established during the communist times as the collectivisation effort) their future development is uncertain. Their internal governance is considered as conservative. More than 200 producer groups have been established, specialised in cereals production. Their role is growing, but remains marginal. However there is still space for large producers able to secure a stable production of high quality cereals on the cereal market.

Production of cereals in the period 2000-2010 varied, with declines and increases reaching 10% from year to year. There were also variations in terms of yields and area of cultivation. It involved changes in prices. Information on production and other characteristics are presented in Tables 12 and 13 below.

Table 12. Main features of cereal market in Poland

Years	2004/2005	2005/2006	2006/2007	2007/2008
Yield (t/ha)	3.55	3,25	2.62	3.26
Production (thousand tonnes)	29,561	26,846	21,714	27,114
% of self supplying ability	114.0	100.2	80.3	103.6

Sources: Central Statistical Office, Institute of Agricultural and Food Economics, National Federation of Crops Producers

Table 13. Cereal production characteristics in Poland

CEREALS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Procurement price (euro/dt)	10.9	10.9	9.6	10.1	10.3	8.0	10.4	16.7	14.5	10.1
Market prices (euro/dt)	14.0	13.9	12.4	13.3	14.8	11.4	12.8	19.0	20.7	14.3
Harvested (1000 tonnes)	5585	6740	6719	5848	7409	6732	5444	6786	6916	7457
Area sown (thousand ha)	8814	8820	8294	8163	8377	8329	8381	8353	8599	8583

Sources: Central Statistical Office, Institute of Agricultural and Food Economics, National Federation of Crops Producers

The EU accession (2004) changed the fundamentals of the market. The accession involved liberalization of the market introducing the EU agricultural policies. The domestic market prices started to be determined by international prices and by the exchange rate of PLN versus euro and US dollar. In 2004 however, a significant increase in supplies was recorded for all grains. In 2005, there was a decline in production, the cereal cropping area and yields decreased (by over 10%). Drought in 2006 caused a further decrease in cereal production. In 2007, facing high prices due to a poor season, Poland and other member states convinced the European Commission to stabilize the market. In 2009 prices went down, but in 2010 prices started to rise again.

Poland differs from traditional EU export markets. Transport costs are high and exchange rates after the EU accession made the Polish market difficult. At the same time, growing exports of cereal processed products was noticed (malt, bread and pasta). The milling industry became stronger after the EU accession. Growth was observed in the production of cakes, fresh bread, grits, flakes, wheat flour and pasta.

The export and import of cereals and cereal products varied in the period 2000-2010. The EU accession introduced Poland to the common market, but agriculture has come under the EU intervention measures. Polish agriculture was prepared for the EU accession in this respect. The Agricultural Market Agency opened the procurement program for the cereal producers in 1999 (it was modified in 2002). With the access of Poland to EU, the EU intervention system on the cereal market was introduced. Intervention prices were set for certain cereal crops (rye was excluded). Since 2005, the grain quality standards for intervention procurement were introduced, and since 2006, controlling of the toxin-content of the grain has been mandatory. In 2007, the intervention process was realised on the internal market of the EU. This policy was kept through 2008 and – with some modification - in 2009.

Weather conditions influence the level of crop production: the droughts in 2000, 2003 and 2006 caused the decrease of crops production in Poland.

5.3 Sugar

The sugar market in Poland was highly regulated already before the EU accession. Since 2002, the supervision and control of the market was done by the Agricultural Market Agency. The agency collected sugar fees from the producers of sugar, provided subsidies for the sugar and isoglucose export, supervised export and controlled prices and sales on the domestic market. In 2003, it banned the sale of sugar onto domestic market at prices below the intervention prices.

In 2004, due to the EU accession, the intervention activity of the Agricultural Market Agency was adjusted to the EU regulations. After the EU accession, the reforms of the sugar regime were introduced: production quota were reduced, non-quota sugar exports were banned, minimum procurement prices of sugar beet were cut.

Generally, with the EU accession, and implementation of the sugar quota system, the sugar sector changed. The sugar growing area became smaller: from 300 thousand in 2001 to 190 thousand hectares in 2009 (Table 15). The number of farms producing sugar beet decreased from 100 thousand in 2000 to 50 thousand in 2009 and in two regions in Poland, sugar beet growing was completely given up. At the same time, the average plantation size increased. The overall sugar production decreased by 38%. The sugar beet prices also fell after the EU accession (Table 14).

Sugar refineries were privatised. In 2001, 32 sugar refineries were owned by foreign investors, while the State Treasury owned 44. In 2002, the National Sugar Company was established as joint-stock company of the State Treasury. It is a holding group gathering 26 sugar refineries. In 2008, the restructuring process in the sugar industry was accelerated. As a result, 19 sugar refineries processed sugar beet into sugar. There are 4 groups operating sugar refineries in Poland, 3 of them being owned by German sugar producers, one by Polish. As a general tendency, the sugar beet growing structure became more concentrated with higher efficiency. The sector is organized around the sugar plants. Farmers have contracts with sugar factories and are provided with production input, such as seeds, etc.

The weather conditions influence the sugar beet production. In 2001 and 2002, there weather was unfavourable for sugar beet production, and the sugar content was low. In 2010, floods in Poland, exceptionally moisturous soils also influenced negatively the sugar beet production.

Cooperatives are marginal in sugar sector. There are few sugar beet production cooperatives. Small number of producer groups was registered after 2004. The marginal role of cooperatives in the sector is due to the legacy. During the communist times sugar plants were nationalised, and after 1990 – they became privatised. There was little chance for vertical integration. Production of sugar beet is fragmented, with some 40 thousands producers. As a result producers are organised in unions. The growth of the number of cooperatives and their move towards vertical integration are unlikely.

Table 14. Main features of sugar beet market in Poland

SUGAR	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Procurement price (sugar beet euro/dt)	2.5	2.8	2.8	3.1	4.7	4.4	3.2	2.7	2.6	2.9
Market price (white cristal sugar euro/kg)	0.74	0.63	0.57	0.54	0.79	0.78	0.78	0.75	0.68	0.78
Crops (crops of sugar beet/ thousand t)	13134	11364	13434	11740	12730	11731	11475	12682	8715	10849
Import (mln euro)	64.6		83.6			131.7		192.7	205.1	323.4
Export (mln euro)	166.0		141.6			329.7		318.2	345.8	337.7
Area sown/ population (thousand ha)	333.1	317.5	303	286.3	297.3	286.2	262	247.4	187.5	

Source: The National Sugar Beet Producer's Association, Central Statistical Office

Table 15. Sugar beet growing in Poland

	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Sugar beet producers	76 000	70 600	62 500	59 000	41 000	39 984
Sugar beet growing area (ha)	280 000	270 000	236 000	220 000	176 400	191 196
Contract area per farm (ha)	3.68	3.82	3.78	3.73	4.3	4.8
Sugar beet yield (t/ha)	45.0	45.0	48.4	58.40	48.4	56.7
Sugar beet production (th. t)	12 600	12 150	11 471	12 848	8 542	10852

Source: The National Sugar Beet Producer's Association, Central Statistical Office

5.4 Fruits and vegetables

Polish horticultural production in the enlarged EU-25 accounts for 8% and for about 60% of the new member countries' production. In the EU-25, Poland is the largest producer of cherries, berry crops, cabbage, carrots, strawberries and apples. Poland is also a leading producer of frozen fruits, concentrated fruit juices and frozen vegetables. At the same time, Poland's role is marginal in the case of table fruits, fresh vegetables (except onions) and processed products. Generally, the consumption of horticultural products in Poland is smaller as compared to the average level of the EU countries. The share of fruits and vegetables within the overall agro-export products in Poland is 20-25%. Apart from the EU countries, an important export destination is the republics of the former USSR.

Since the EU accession, Polish fruits and vegetables producers have to follow the quality standards imposed for fresh products. Facing the very weak position of producers in processing and marketing, the Ministry of Agriculture introduced the Law on Producer Groups. Although it applies to the overall agricultural sector, it has been particularly important for the fruits and vegetables sector. The producers have also the opportunity to take advantage of payments (tomato processing) and export refunds (mainly for apples and tomatoes). Over the last ten years, there has been a consolidation process in the sector, especially after EU accession.

The role of cooperatives is small, as a consequence of the rapid collapse of the cooperatives in the sector after 1990. Currently there are about 90 cooperatives, about 150 producers groups and 20 other organisations. About 10-12% of fruits and vegetables are produced by cooperative sector. There is a potential for growth of in the number of cooperatives and their growth. After 2004 there is a consolidation, which can be attributed to the law on producers groups, and the incentives. Several producers groups are dynamic, export oriented.

In the years 2000-2010, the production and prices of fruits and vegetables fluctuated due to weather impacts and influence of other conditions (Tables 15 and 16). For fruit and vegetable sector joining to the European Union in 2004 was not as important as for the other sectors, since the European trade was liberalized in 2001. As a result, the export of Polish fruit and vegetables did not change very much with the accession. However, demand on the European market has influenced the situation of Polish producers.

The EU accession did not have a major influence on the domestic market of horticultural products as only little use was made of EU support measures. In contrast, Russia's ban on Polish exports

imposed in November 2005 had high influence on the sector. In 2007, May frost caused a slump in fruit production to the lowest level in the decade. As a result, both domestic and export prices remained high. The production increased significantly during 2008 and 2009 caused a boost in consumption by about 10%. In 2010, a disturbance in demand-supply relations caused a decrease in export prices for nearly all fruits, vegetables and processed products. Export revenues also decreased by 17%.

Table 15. Main features of the vegetable market in Poland

VEGETABLES	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Crops (mln tons)	5.5	5.2	3.9	4.4	4.9	4.8	4.4	5.0	4.4	4.8
Import (mln euro)	122.3		143.4			212.3		353.2	366.5	404.0
Export (mln euro)	196.3		284.7			503.6		644.3	654.0	691.2
Area sown (thousand ha)	247.7	240	171.3	198.4	207.8	222.0	223.4	217.1	197.8	206.5

Source: Agricultural market reports, Institute of Agricultural and Food Economics, Central Statistical Office

Table 16. Main features of the fruit market in Poland

FRUIT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Berry fruit (thousand tons)	409.4	523.4	414.5	433.3	502.0	499.9	505.4	430.8	553.2	546.3
Tree fruit (tons)	1837.1	2889.9	2603.5	2875.5	3018.9	2421.6	2705.6	1263.1	3287.5	3099.9
Import	464.2		509.9			694.2		885.7	908.8	870.0
Export	347.7		352.5			466		599.2	615.2	722.1
Area sown (thousand ha)	269.1	272.0	264.4	250.7	267.6	248.7	247.3	276.7	270.1	272.0

Source: Agricultural market reports, Institute of Agricultural and Food Economics, Central Statistical Office

5.5 Dairy

The dairy sector is the only one dominated by cooperatives. It is relatively stable and competitive. Cooperatives are responsible 70-74% of the sector's production. Sector is integrated vertically, with the main brands owned by cooperatives. The strong position of cooperatives is a result of the whole sector restructuring which started in 1980 and even earlier, with the help of the state. Over the last years, the number of cooperatives has decreased, as the concentration process is observed. The biggest cooperatives are similar to normal business corporation in other business sectors.

In the dairy sector, quality standards were introduced before the EU accession. As a consequence of the system of quality requirements introduced in 2000, low-efficient milk cows as well as small, not economically efficient farms disappeared. In 2001, the number of both milk cows and milk production declined by about 10% and was accompanied by a decline in domestic demand. In 2002, however milk production and milk deliveries to dairy plants increased by 6.7% to over 7 billion litres. In 2003, there was a growth of dairy industry production covering the domestic demand. With the EU accession in 2004, the EU quality grades certification system was introduced. After the accession, the sector was integrated into the system of intervention

measures. The access to the common market resulted in a significant increase in the export of Polish dairy products (Table 17). It improved the financial standing of dairy industry. The industry adjusted the production profile according to changing demand for dairy products on both domestic and foreign markets. The production of hard cheese, butter, cream and milk for processing increased, production of milk for consumption and cottage cheese remained unchanged, while yoghurt production declined. Over the subsequent years, the decrease in milk consumption continued. In 2006, the number of dairy cows declined, while milk efficiency per cow increased. Average procurement prices were still among the lowest in the EU.

In 2008, milk production in Poland increased by over 2.7% as a result of the increase in the number of cows and their productivity. However, the number of milk suppliers decreased from 201 thousands to 194 thousands within one year. The Agricultural Market Agency implemented measures launched by the EU in view of the growing global crisis: intervention buying-in of butter and skimmed milk powder (SMP) and re-instated export refunds for skimmed and whole milk powder, butter and hard cheese. The Agricultural Market Agency carried out other interventions: export restitutions to dairy products, intervention buying-in of butter, providing subsidies for consumption of milk and dairy products in education institutions, delivery of food surplus to the poorest population of the European Union and promotion of milk consumption and its processing. However, the economic crisis started to be visible in 2009. For the first time after accession, the results in the dairy sector's foreign trade got worse.

In the period of 2000-2010, the consumer preferences showed further changes: The consumption of milk, cream and milk drinks (except of yoghurts) decreased, while the cheese consumption increased. The change was accommodated by the industry.

Table 17. Main features of the dairy market in Poland

DAIRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Procurement price (euro/liter)	0.20	0.20	0.18	0.18	0.22	0.23	0.23	0.27	0.26	0.23
Market price (euro/liter)	0.24	0.26	0,26	0.26	0.27	0.33	0.33	0.36	0,42	0.43
Production (mln. liters)	11543	11538	11527	11546	11478	11576	116334	11744	12063	12085
Export (milk and cream in thousands of tons)	88.3		107.7			358		270.7	358.2	411.6
Cow population (thousands of milk cows)	2982	2930	2935	2816	2730	2755	2637	2677	2697	2585

Source: Agricultural market reports, Institute of Agricultural and Food Economics, Central Statistical Office.

5.6 Pig meat

Cooperatives role in the pig meat market is small, it is responsible for about 7% of production. However, there are producers groups established in this sector. It is - beside the fruits and vegetables one - assessed as the most promising for cooperatives development. There are more than 100 producers group established after 2004. There are some attempts of vertical integration. However, cooperatives and producers groups are mostly present in the meat production, and only exceptionally present at the higher levels of the food chain.

In the period 2000-2011, the pig market has been fragile, with a slightly greater stability after the EU accession. In 2000, meat and livestock prices gradually decreased in production and supplies. Subsequently, meat prices increased and consumption declined. Meat imports remained low. In 2001, the production of pork meat was by 10.8% lower than the year before and further declined due to low profitability of livestock (Table 18). As supplies declined, prices went up and, in 2002, the production of pork again started to increase, partially because of the BSE disease that decreased beef consumption. The year 2003 brought increasing demand for poultry but, paralelly, the situation on the pork market worsened. In order to hamper the decline in swine prices, intervention procurement was made (about 100 000 tons). In 2003, pork exports reached a record level with 250 thousand tons. Export refunds within the WTO commitments had a considerable impact here. In 2004, pork exports significantly declined reflecting growing prices, limited opportunities of export refunds and sales of intervention stocks. In the second half of 2004, the prices of pork in Poland were higher than in the EU, which hampered exports and triggered imports.

The EU accession enforced restructuring of the sector in order to adjust to the veterinary and sanitary standards. Livestock and meet prices in 2004 increased, at the retail levels which limited demand. By the end of 2005, a breakdown in swine production of 10.4% was a major change on the meat market. The upward trend in production and supplies in 2006 pushed pork prices down. Pork consumption rose by 2 kg. In 2007, the pork production was raised by 9%. However, the conditions of raising pigs were exceptionally unfavourable. Pig prices were low while pig supply was high, whereas cereal prices were record high as the harvest of the previous year had been poor. As a result, in July 2007, the pig numbers declined in relation to the previous year, this process influenced individual farms more than companies. Due to the decline in production, average pork prices in the second half of 2008 increased by 15%. In 2009, the economic and financial situation of the entire meat industry deteriorated. By 2010, as result of rising hog livestock prices and falling prices of cereals and feeds, the profitability of pig fattening improved again. The pig population increased by about 5.1% compared with the year before.

Since 2000, there has been a process of industrialisation and adjustment to the veterinary standards of the EU in the meat industry. Industrial slaughters showed a rising tendency. A remarkable increase in investment and a significant improvement of financial results were recorded in 2002-2003. In 2004, a further increase in commercial slaughters as well as in the level of investment was observed. The number of companies entitled to trade on the EU market grew as well.

Table 18. Main features of the pig meat market in Poland

PIG MEAT	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Procurement price (euro/kg livestock)	0.92	1.09	0.89	0.80	1.05	0.96	0.89	0.87	1.00	1.14
Market price (euro/kg livestock)	0.9	1.06	0.91	0.79	1.00	0.98	0.90	0.90	1.02	1.13
Production (thousand tons of livestock slaughter)	2500.8	2418.5	2600.6	2832.5	2537.9	2540	2776.1	2775.7	2482.9	2201.8
Population (mln. livestock)	15.4	16.0	17.4	16.8	15.8	16.8	16.6	15.4	12.3	12.3

Source: Agricultural market reports, Institute of Agricultural and Food Economics

5.7 Sheep meat

The sheep meat sector in Poland is marginal. There was a dramatic decline of sheep in Poland after 1990. The livestock numbers decreased by 93%: from 4.16 million in 1990 to 0.32 million in 2004. After 2002, the sector started to stabilize and exhibited some growth, but in 2008-2009 it declined again (Table 19). There is very little demand for sheep meat in Poland, and the producers struggle in a non-integrated market. The price for sheep meat is relatively high and not competitive with ostrich meat and other niche meat types. There is no specific policy on the sheep sector in Poland. There is also little demand for sheep leather and wool. There are few cooperatives in Poland, with almost not importance.

Table 19. Main features of the sheep meat market in Poland

SHEEP AND GOATS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production (tons of slaughter livestock)	6507	6165	5437	5762	5764	5063	5131	5084	5491	5010
Population (thousand livestock, no data about goats 2000-2003)	292.3	295.2	300.9	303.6	457.7	430.2	405.2	433	382.1	319.5

Source: Agricultural market reports, Institute of Agricultural and Food Economics

6 Overview of policy measures

6.1 Regulatory framework

The performance of cooperatives (including producer organisations) is influenced by the regulatory framework in a country. This framework is multi-level: EU regulations, national laws and –in some countries- even regional policies influence the way cooperatives can operate. In this chapter we look especially at the regulatory framework that influences the competitive position of the cooperative versus the investor-owned firm (IOF) or the competitive position of the cooperative versus other players in the food chain (e.g. the retail sector).

These competitive positions are influenced within the regulatory framework by much more than the law that establishes the rules for running a cooperative (business organisation law). Well known other examples include agricultural policy (e.g. the EU's common market organisation that deals with producer organisations in the fruit and vegetables sector), fiscal policies (at the level of the cooperative and the way returns on investments in cooperatives are taxed at farm level) and competition policies. There are different types of policy measures in the regulatory framework (McDonnell and Elmore (1987) – table 20 below).

Table 20. Main features of the sheep meat market in Poland

POLICY MEASURE TYPE	DEFINITION
Mandates	Rules governing the actions of individuals and agencies
Inducements	Transfer money to individuals in return for certain actions
Capacity Building	Spending of time and money for the purpose of investment in material, intellectual, or human resources (this includes research, speeches, extension, etc.)
System Changing	Transfer official authority (rather than money) among individuals and agencies in order to alter the system by which public goods and services are delivered

The objective of this project / report is to identify support measures that have proved to be useful to support farmers' cooperatives. In section 5.2 the relevant policy measures and their potential impact in Poland are identified. In section 5.3 a number of other legal issues are addressed.

6.2 Policy measures

The table below identifies the policy measures that influence the competitive position of the cooperative versus the investor-owned firm (IOF) or the competitive position of the cooperative versus other players in the food chain (e.g. the retail sector).

In Poland, the basic Law on Cooperatives was enforced on 16th September 1982. There were, of course, several amendments. However, after the collapse of communism in 1990, there was a need for new legislative background for cooperatives. There were several proposals, so far not accepted - twice President of Poland, once the Parliament refused it. This situation causes disadvantage for the whole cooperative sector compared to investor-owned sectors.

After 2000, the main focus was on Producer Groups that appeared as a form of producer organisations. Apart from cooperatives, associations, unions and limited liability companies could also apply for this status. Policy measures mainly focused on PGs. There were several attempts to make PGs more attractive, easier to establish. Nevertheless, the organisation level among farmers has been low.

Part of the legislative changes is connected to the implementation of EU policies (quotas, etc.) into Polish legislation system.

Table 21. Description of Policy Measures

Name of Policy Measure	Type of Policy Measure	Objective of the Policy Measure	Target of the Policy Measure	Expert comment on effects on development of the cooperative
Official name of the policy measures (In English)	1. Mandate e.g. 1.1. Cooperative legislation/ incorporation law e.g. 1.2 Market regulation and competition policies 2. Inducement e.g. 2.1 Financial and other incentives 3. Capacity Building e.g. 3.1 Technical assistance 4. System Changing 5. Other	1. Correction of market or regulatory failures 2. Attainment of equity or social goals	1. Specific to cooperatives 2. Specific to an agricultural sub-sector 3. Applicable to business in general	Description of how the policy measure affects development of cooperatives, by reasoning through the building blocks: - Position in the food chain - Internal governance - Institutional environment of the cooperative
Law on agro-producer groups and their unions, of 15.09.2000 (Journal of Law of October, 20, 2000, No 88, item 983). The law was amended in 2004 and in 2006.	4	1	1	The law did not create a new legal cooperation type in the legal sense, but defined necessary conditions (for cooperating farmers) to be eligible for application for public subsidies. The conditions are the following: farmers have to establish a legal entity, using any of the existing forms: associations, cooperatives, unions, or limited liability companies. The law defined that producer groups could be set up by physical persons – producers of specified agricultural products or products' group. Each PG has functions on the basis of a statute of establishment agreement, while any member can not have more than 20% vote in the general assembly. Moreover, 50% of the PG's revenue has to come from the sales of the output, produced by members. Originally the producer groups could be created by a minimum of 10

				<p>members. The list of products was specified in a decree of the Minister of Agriculture and Rural Development published on July 4th, 2003. Registered Producer Groups could receive aid from the national budget. The aid was calculated as a percentage of the documented annual income generated from the sales of products of group members. In the subsequent five years from the date of creating a group the aid amount to 5%, 4%, 3%, 2% and 1% of the sales value (with an upper limitation).</p> <p>The law settled the legal basis for revitalising the cooperation among agricultural producers. It aimed at strengthening the producers' position in the market, thus having an impact on their position in the food chain, and ideally would create possibility of excluding the resellers from the food chain. At the same time – institutional environment changed as well – since not only the form of “cooperative” was accepted as a form of a producer group. Internal governance was also impacted by setting a limit of maximal vote of a member in the assembly.</p> <p>The law also allows forming associations of producer groups – however for this there are no financial help mentioned. There are no such associations established yet.</p> <p>When the law was introduced it was to help to set up producer groups. However, by the beginning of 2004 only 65 groups were registered. That's why later other measures were introduced.</p>
Change of the cooperative law of July 25th,	1.	1.	1	The change of the law on cooperatives simplified establishment of producers groups. The main change was

2008.				<p>the decrease of minimal number of member to form a cooperative: from 10 to 5 (as the minimum number of forming a PG). Moreover, some organizational requirements were simplified. For producer groups having a form of a cooperative and for production cooperatives having not more than 10 members, it was not obligatory to constitute a supervisory board (unless a statute states otherwise). In case of absence of a supervisory board its competences are transferred to general assembly.</p> <p>This policy made establishment and running a producer group easier. It had an impact on the internal governance of the cooperatives.</p>
Amendment of the law on agro-producer groups of June 18th, 2004.	1.1.	1.	1.	<p>The possibility to set up a producer group was open for legal persons carrying farming activity. It allowed agricultural production cooperatives (RSP) to form producer groups. This measure had an impact on the position of existing cooperatives, allowing them to apply for subsidies.</p>
Ministerial Decree by the Minister of Agriculture and Rural Development issued of April 20th, 2007 on specific conditions of financial help within the framework of "Producer groups" action covered by the Rural Development Programme	1.1.	1.	1	<p>Based on the decree producer groups can obtain financial subsidies, within the schemes supported by EU funds. The help is dedicated to registered producer groups, in any form - also having a form of a company.</p> <p>The subsidies enhance existing cooperatives to change their status into a producer group. The subsidies help to stabilise the situation of some production cooperatives, thus this legislation can have an impact on the PG's position in the food chain. This changes the internal governance and the institutional environment of the cooperatives as well.</p>

2007-2013 Amended April 9th, 2008, and Nov. 10th 2010.				
Modifying conditions of financial support for PG. Act of 3rd February 2005	2	1	2	Modification of minimum number of the group to get subsidy (50 for tobacco, 7 for hops, and 5 for all other types of production), lowered the necessary proportion of production in sales, and excluded associations from this type of funding. The subsidies are managed by the Agency for Restructuring and Modernisation of Agriculture. This policy changes the firm's position in the food change, and also can have an impact on the internal governance, and institutional background of the cooperative via enhancing (and making it easier) creating the PG's.
Amendment of the Producer Group's Law of Dec 15 th , 2006	1.2.	1	1	Producer groups can get income tax reduction for selling the products that they are registered for. Moreover, they are free of property tax for the buildings that are connected to production of the goods the group is registered for. This legislation improves the situation of the producer groups, providing enhancement to start an organised group. However, both of these reductions in reality can be assessed as secondary important for PGs – most of newly established producer groups have no buildings yet, and the main reason for starting a group is common purchase and common bargaining when selling the products.
Amendment of the Producer Group's Law of Dec 15 th ,	1	1	1	Lowering the minimum amount of production for starting a PG. This was done according to the region (in some region lower than in others). This policy

2006				aimed at encouraging medium and small sized farms to start a producer group. Thus, their position in the food chain was supposed to change. However, till now most producer groups have been registered in the regions where farms are bigger (e.g. in Wielkopolska and in Kujawsko-pomorskie regions).
Introduction of sugar production policy, after the EU accession, 2004 (The Agency for Modernisation and Restructuring of Agriculture is responsible for these measures).	4	1	2	Sugar quotas are strictly divided among the sugar plants. There are legal conditions stated – there should be an agreement signed by sugar plants and sugar beet producers (to be signed in December). There is an agreement on the area planted – guaranteed conditions for farmers to buy the products. This way the sugar market is regulated, thus forming cooperatives does not help in the market relations.
Introduction of milk quota in the Polish market, after the EU accession (2004).	1.2.	1	2	Introduction of milk quota enforced some dairy cooperatives to limit their production. This regulation might have but not necessarily have an impact on the dairy sector (in terms of position in the food chain and the institutional environment).
Law of April 27th 2006 on social cooperatives.	4	2.	1	Some social cooperatives' operations cover agricultural production. They can obtain subsidies for starting and also for running such a cooperative. This policy effects the institutional environment. Some existing agricultural production cooperatives have social functions and the law can have certain significance for them.
Law of July 22nd 2006 on European cooperatives.	4	2.	1	It introduces a possibility to set up a cooperative by members from more than one country. Such a cooperative may operate in the agricultural sector. This policy changes the institutional environment and may have

				impact on the internal governance of cooperatives. Nevertheless, no such cooperative appeared in Poland by now.
Possibility to obtain help by producer group and dairy cooperatives from programs focused on processing: "Increasing value added", within Rural Development Programme 2007-2013, First Pillar	2	1.	2	The position of many cooperatives in the food chain is weak. Obtaining financial help by producer groups and cooperatives enables them to develop presence in the wider range of the food chain and strengthens the position of cooperatives in the market. Food processing is of particular importance.
Ministerial Decree by the Minister of Agriculture and Rural Development issued on, December 16 th , 2008 on conditions for fruit and vegetable producers to create a preliminary producer group	1.1.	1	2.	Similarly to the EU regulations, legal or physical persons (already existing ones) can apply in Poland in the fruit and vegetable sector for getting the status of a producer group in 2 steps: 1) the preliminary status and 2) the official status of a producer group. In this ministerial decree, the special conditions for this are given (in accordance to EU legislation). This decree enables fruit and vegetable producers to create a producer group and sets the conditions for it. Thus, it changes the institutional environment of the cooperatives and strengthens the position of cooperatives in the food chain.

Subsidies, financed by EU funds for purchasing machineries by farmers and legal entities (for instance, companies) within Rural Development Programme 2007-2013, First Pillar.	2	2.	3	The subsidy is dedicated mainly to individual farmers. It helps to modernise their farms. However, the possibility to obtain EU sponsored subsidies for purchasing machineries entailed self-reliance of farmers instead of buying services offered by Farmer Circles' Cooperatives (SKR). Farmer Circles' Cooperatives cannot use these resources because the resources are dedicated to producing units while few SKR carry production activities. At the same time, the machineries of Farmer Circles' Cooperatives are often outdated which additionally undermines their position. Thus, this legislation makes their position worse.
EC agreement for increase of milk quota (2008)	1.2.	1.	2	The quota increase entailed bigger amounts of milk production and consequently bigger overall production by the dairy sector. It changes the situation in the food chain.
Amendment of the Polish Commercial Companies Code Law of January 8th 2009, which decrease minimal seed capital of a limited liability company tenfold from 12 thousand Euro to 1,2 thousand Euro.	2	1	3	The decrease of the funding capital level made limited liability companies more popular as form of new business compared with cooperatives. Previously, a relatively large amount of money required to set up a LLC was a disadvantage and in some cases could discourage farmers to choose this form for establishing a producer group. This change can influence the institutional environment in favour of LLC to start a producer group by farmers. It also influences the internal governance structure, which varies between the different company forms.
Government decree of October 12th 2010 changing	2.	1	1	A new type of help was introduced. The purchase of shares of the companies engaged in processing of agricultural products by

some duties of Agency for Restructuring and Modernisation of Agriculture.				producer groups can be subsidized. It is aimed at strengthening the position of producer groups in the food chain.
Promotion of establishing producer groups – project realised within the framework of Rural Development Programme 2007-2013	3.1.	1	1	A package of workshops, meetings and training aimed at promoting establishment of producer groups. During 2005-2008, 16 thousand farmers participated in the activities. During this time, more than 150 new producers groups were established, thus the measure had probably an impact on the institutional environment of the cooperatives. Nearly 80% of the existing GPs started after 2004, this is partially the result of this educational promotion campaign.
Enhancing competitiveness of farms through cooperation of farmers project realised within the framework of Rural Development Programme 2007-2013	3.1.	1	1	Training program for about 4000 farmers during 2010-2012. Such workshops in a longer term can strengthen the position of the cooperatives and producer groups in the food chain.

6.3 Other legal issues

The description of the legal aspects of cooperatives and producer groups in Poland is presented in a separated file.

7 Assessment of developments and role of policy measures

This chapter provides a concluding assessment on the developments of cooperatives in Poland. In chapter 2 the basic statistics on agriculture and farmers' cooperatives were provided. In chapter 3 data on individual cooperatives were reported, especially concerning their internal governance, their position in the food chain and the institutional environment in which they operate.

This led to some first impressions in section 3.5 on the performance of cooperatives in Poland in relation to their internal governance, institutional environment and position in the food chain.

In chapter 4, the data gathering and analysis was broadened by looking at the differences between the sectors and the influence of sectoral issues on the performance of the cooperatives. Chapter 5 presented in greater detail how the regulatory framework influences the competitive position of the cooperatives in the food chain and vis-à-vis the investor-owned firms.

This final chapter assesses the (performance) developments of cooperatives. Section 6.1 focuses on the explanation of the performance of cooperatives in terms of their internal governance, their position in the food chain (including sector specificities) and the institutional environment (including the regulatory framework). In section 6.2, an assessment is given on which policy measures in Poland seem to benefit cooperatives and which ones have a constraining influence.

7.1 Explaining the performance of cooperatives

For explaining of the current situation and the performance of agricultural cooperatives in Poland, different times scales of institutions' influence must be taken into account. Incentives provided by the recent (last 5-10 years) policy measures operate in institutional conditions which are the result of longer term transformations. At the general level, the most important factor has been the instability of the macro rules. During the last 60 years, the institutional environment has changed profoundly in several turns. In the period of the second world war, the most fundamental rights were liquidated: property rights, market operations, contracting, etc. It devastated the physical and human resources, but also broke the stability of the institutional conditions. Then, after the war, the communist regime allowed cooperatives to operate and even encouraged them, using a cooperative model as tool to fight against the capitalism (as based on private property and free market). After some years, the regime practically liquidated cooperatives by nationalisation, and after 1956, allowed for restoration in a specific form, as entities closely tied and depended to the state. The agricultural cooperatives developed to the level similar to many other countries, reaching a share of about 60% of the agricultural market coverage. In 1990, the collapse of communism and the beginning of the transformation process brought about the next shock for cooperatives, causing deep crisis and decline of the cooperative sector. The latter was the result of 1) the inability of cooperatives to compete on the market, 2) selective measures introduced by the new regime to cut off cooperatives' links with the network of the communist system, and 3) the dramatic weakness in terms of financial and human capital in comparison with the Western business entering the country. Then, after 15 years, the EU accession introduced the rules connected with market regulations, subsidies, etc. These shifts of the institutional conditions led to uncertainty which prevents current development of cooperation in the Polish agriculture.

The collapse of cooperatives after 1990 can be partially attributed to weaknesses of structural disincentives for opportunistic behaviour. After 1990, cooperatives leaders often took a free-riding strategy. Facing an uncertain future of the business they opted for the liquidation of their cooperative instead of searching for ways of staying in business, which was beneficial to their immediate private interests. Liquidating involved division of assets among members, but leaders initiating and realizing the process had a privileged position. The liquidation strategy became

feasible due to the legal possibility to divide unallocated equity capital. This legal option has been criticized by Polish cooperative activists as undermining the cooperative principles.

The liquidation of many cooperatives after 1990 (about half of them disappeared) has also consequences in terms of property rights. After 1990, a lot of farmers lost their property they had possessed as members of the collective farms. The legal system does not secure the existence of cooperatives. It discourages to establish new cooperatives, since input of a member could be finally divided in the liquidation process.

Since 1990, the beginning of the economic transformation, cooperatives have generally been treated like any other economic entities. There are hardly any specific regulations on cooperatives in terms of taxation and competition laws. This has been criticized by cooperatives' activists who emphasize that cooperatives have social functions and provide non-economic social goods which should be legally secured and enhanced. Such changes in the law have not been introduced so far, but since 2000, the role and position of cooperation and cooperatives has been legally recognized. The Law on Producer Groups introduced in 2000 was to enhance the cooperation of agricultural producers in Poland. The law was apparently an element of preparations of Polish agriculture to the expected EU accession. The very low level of cooperation in Polish agriculture, compared with the countries of EU15, was recognized by the Polish governments as a disadvantage. During the first 5 years of its existence, the law worked poorly. Few new producer groups were set up which could partly be attributed to the lack of economic incentives. The law aimed at strengthening cooperation among agricultural producers, but not necessarily in the form of cooperatives. Other forms were included in addition to cooperatives: associations, unions and limited liability companies. This was connected with the bad reputation cooperatives had among the population, as they had been a part of the enforced collectivisation of Polish agriculture during the communist times. As a matter of fact, about one third of the newly established producer groups chose the form of cooperative, while the limited liability company was more popular.

After the EU accession in 2004, more subsidies and financial schemes were introduced, supplementing the general provisions of the Law on Producer Groups. As a result, more new groups appeared. However, the overall results could be assessed as less than modest. Moreover, the sustainability of many newly established producer groups is uncertain as they are strongly subsidies driven – in the opinion of experts. With the exception of the dairy sector, cooperation – in any form -in the rest of the Polish agricultural sector has been marginal and progress small. In order to reach significant progress in cooperation in agriculture, substantial resources should be invested in terms of economic incentives and organisational knowhow. Distrust towards the stability of the rules required for a long-term cooperation that have developed over the last 60 years, is an important factor which cannot be overcome easily and quickly.

Against this background, the success story of the Polish dairy sector is intriguing. The cooperative sector did not lose its share, it has competitive power, and, currently, undergoes concentration in a similar way like the cooperative sectors in the EU15 countries. There is no clear explanation of this “miracle” in the literature. Several factors are suggested: First, the specificity of the dairy sector which requires cooperation more than in other sectors. Moreover, the tradition of cooperatives in the sector has been long and rich. Secondly, relatively good level of development (in terms of technology and sanitary standards) due to the sector's strong position at the end of the communist era, and substantial investment. Thirdly, the massive invasion of foreign investors was difficult because of size of the country, transportation costs, etc. A more unambiguous explanation would involve analysis a unique set of conditions and links between them.

Position in the food chain

The position of cooperatives in the food chain changed profoundly after 1990 (except for the dairy sector). The decline in number of cooperatives was accompanied by disintegration within the food chain. Processing and retailing was taken over by investor-owned firms, often by foreign companies. Links with retailing cooperatives disappeared (consumers cooperatives shrank to retailing only), and position of middlemen, processing, and retailing grew against the producers. It was a complex but quick process. The trade links within the post-socialist countries broke, cooperatives had little knowhow and little capital to compete with the expansion of the investor-owned companies. As a result, cooperatives were restricted to focus on production. This trend applied to all sectors, except the dairy one. A special case of rapid disintegration was the cooperative fruits and vegetables sector (horticulture and beekeeping) which within short time collapsed completely.

The current state of the cooperatives has been the direct result of the change after 1990. Data gathered for this study on the biggest cooperatives in the sectors show that, concerning the functions, production and processing/marketing dominate. At the same time, providing farm machinery, credit and insurance, water supply/irrigation and soil and nature conservation was marginal or non-existing. Providing machinery was a function of the farmer circles' cooperatives (SKR) during the communist era. Their role declined significantly.

In terms of position of cooperatives and producer groups in the food chain, it can generally be said that the position has been weak - with the exception of the dairy sector where the cooperatives are present at several levels of the food chain. In other sectors, cooperatives cover fewer positions in the food chain. Generally, collecting farm products and wholesaling are most often covered by cooperatives, while providing a market, secondary processing, and integration of supplying inputs and processing/marketing of farm products are weakly represented elements of the chain.

Recently, there have been some signs of vertical integration. It applies particularly to the pig meat and the fruit and vegetables sectors. A slow process of consolidation has been observed in both sectors. First cases have been observed of taking over meat processing companies by producer groups. The same applies to the fruits and vegetables sector. Although the scale of the changes is marginal, it could be a beginning of a wider process.

Internal governance

Internal governance is a problematic issue in the context of the performance of cooperatives in Poland. It is criticized by experts as passive, with slow decision making, and overrepresentation of the aged bosses who have little marketing drive. The investigations into the internal governance revealed certain traditional - or old fashioned - approaches still to exist within the cooperatives/producer groups. The directors have still predominantly been recruited among the members of the cooperatives, and hired managers are exceptions. The same applies for the supervisory boards. The capital is entirely provided by members.

For newly established producer groups, the leadership is a crucial element both for setting up a group and for its sustainability. Underestimation of leadership in terms of both work input and payment claims is a crucial factor that can lead to the collapse of a producer group. Often, leaders' activities are taken for a voluntary social activity instead for a business occupation.

The development of the cooperative sector in agriculture shows difficulties. As a possible reason experts point to the producers that often consider a cooperative form of business as uncomfortable. While in the EU15 countries, the democratic internal organisation of cooperatives is regarded to be an advantage, in Poland the self-governance structure is considered too complicated, resulting in less efficient decision-making. This is one of the reasons why the limited liability company form is chosen more often compared with the cooperative form when registering a new producer group.

7.2 Effects of policy measures on the competitive position of cooperatives

Several measures were introduced after 1990 in order to strengthen the cooperation in Polish agriculture. The period 1990-2000 can be considered as the decomposition era. In this time, about half of the agricultural cooperatives disappeared, with virtually no new ones established and with hardly any effort to support the cooperative sector (except a marginal program sponsored by the World Bank). In fact, the collapse was supposed to be a necessary part of the transformative adjustment of the economy to the market conditions. Then in 2000, the Law on Producer Groups marked the new approach. The measures were initiated in order to strengthen the cooperation among agricultural producers. The law did not bring about any substantial change. It rather clarified possibilities legally existing earlier, establishing a system for further application of more direct measures. Indeed, in the years 2000-2005, the results of the law were marginal, as there were no real financial incentives.

The existing data for 2005 showed that the tax reduction and special funding were very small in among cooperatives (Tables 22 and 23).

Table 22. Proportion of tax reduction in the general income of some Agricultural cooperative types (in 2005)

Cooperative type	Proportion of tax reduction in the income of cooperatives (%)
Agricultural Production Cooperatives (RSP)	3.85
Farmers' Circles type cooperatives (SKR)	1.04
Farmers' Mutual Aid type cooperatives (SCh)	0.28
Diary	0.37
Horticultural and bee keeping cooperatives	0.76

Source: Nalecz and Konieczna-Salamatim (2008). Data include those cooperatives that sent financial report.

Table 23. Proportion of the subsidies in the general income of the cooperatives

Cooperative type	Proportion of subsidies in the income (%)
Agricultural Production Cooperatives (SPR)	3.29
Farmers' Circles type cooperatives (SKR)	0.35
Farmers' Mutual Aid type cooperatives (SCh)	0
Diary	0.28
Horticultural and bee keeping cooperatives	1.29

Source: Nalecz and Konieczna-Salamatim (2008). Data include those cooperatives that sent financial report.

For 2005, the business position of the agricultural cooperatives was rather difficult – one in forth having a negative balance (with the exception of dairy sector where the situation was better (Table 24).

Table 24. Net balance of different types of cooperatives in 2005

Cooperative type	negative (%)	0 (%)	profitable (%)
Agricultural Production Cooperatives (RSP)	22	0	78
Farmer's Circle type cooperatives (SKR)	23	4	73
Farmers' Mutual Aid type cooperatives (SCh)	26	9	65
Diary	8	0	92
Horticultural and bee keeping cooperatives	35	3	62

Source: Nalecz and Konieczna-Salamatin (2008). Data include those cooperatives that sent financial report.

After the EU accession in 2004, the establishment of the producer groups accelerated along with more direct financial aid. It started especially after 2007 when support to producer groups was included into the Rural Development Programme. Within the programme, 140 million euro has been allocated for the years 2007-13 for producer groups' support. Measures which were applied consisted of financial aid, some tax reductions, information and educational support. As a result, more than 500 new groups were established (in accordance with the plans). There are some weaknesses of the development. Firstly, the groups are smaller than expected. Many of them comprise 5 members, which is the minimum level. Moreover, the minimum level was decreased to 5 facing difficulties of establishing bigger groups. Secondly, most groups are established by the economically strongest producers. This is contrary to the idea of helping the smaller and weaker players in the agricultural market. Thirdly, despite of the results of the introduced measures, the cooperation among agricultural producers in Poland has remained to be marginal reaching only a few percent of the overall number of producers (not counting subsistence farms). Taking into account the development trends, cooperative business forms in most sectors will not reach a substantial share in the market (20-25%) within next 10 years.

The obstacles for strengthening the position of cooperatives/producer groups are complex. The most important are the following two: a) lack of economic knowledge and trust in other potential partners, as a part of the past experience; b) lack of necessary funds for starting a producer group and for gaining a substantial position in the food chain (for existing cooperatives/producer groups).

Altogether, the influence of the policies applied after 2000 has been small. This has been a result of relatively small-scaled policies but also of the social and economic conditions that have been unfavourable for cooperatives. Several fundamental changes and discontinuities of the institutional environment created distrust and reservation of producers towards cooperation.

REFERENCES

- Adamski, M., Guzewicz W., Kulawik J., Osuch D., Zdzieborska M. (2009). Rolnicze spółdzielnie produkcyjne w 2008 roku - najlepsza setka [Agricultural Production Cooperatives in 2008 – best 100], Tęcza Polska 12/2009, Warszawa.
- Adamski, M., Pawłowska-Tyszko, J. Zdzieborska, M (2010). Rolnicze spółdzielnie produkcyjne w 2009 roku – najlepsza setka [Agricultural Production Cooperatives in 2009 – best 100] IERiGŻ-PIB 22 (5054) 437-530.
- Banaszak, I. (2008). Success and Failure of Cooperation in Agricultural Markets Evidence from Producer Groups in Poland, Institutional Change in Agriculture and Natural Resources 31. Shaker Verlag.
- Boguta, W, Gumkowski, Z., Martynowski, M., Norbert, G., Olejnik, M., Piechowski, A., Straczewski, J., Tchórzewski, H., Wasilewska, S., Zijewska, K. (2008). Perspektywy rozwoju grup producentów rolnych do roku 2013 [Perspectives of Producer's group development till 1013] Conference materials 27-28 May 2008, Miedzeszyn – Warszawa
- Boguta, W. (ed.), (2008) Organizacja i funkcjonowanie grup producentów rolnych [Organisation and functioning of Agricultural Producer Groups] – Educational material Publisher: KRS Warsaw
- Brodziński M., (2009). Dylematy spółdzielczości jako składnika kapitału społecznego wsi [Dilemmas of cooperatives as an element of social capital in countryside] , Zeszyty Naukowe ALMAMER, nr 55, Warszawa.
- Brodziński, M., G. (2010). Spółdzielnie, ich członkowie i samorządy: jako kapitał warunkujący przezwyciężenie kryzysu i odbudowę spółdzielczości wiejskiej w Polsce [Cooperatives, their members and local governments as capital helping to overcome the crisis and to rebuild cooperatives in rural Poland] , ALMAMER Wyższa Szkoła Ekonomiczna.
- Brodziński, M. G., (1999). Dylematy rozwoju spółdzielczości w Polsce [Dilemmas of cooperatives development in Poland], Spółdzielczy Instytut Badawczy, Fundacja Rozwój SGGW.
- Brodziński, M. G., (2005). Spółdzielczość obsługująca wieś i rolnictwo w okresie przekształceń ustrojowych [Cooperatives serving rural areas and agriculture in the systems transition], Wyższa Szkoła Ekonomiczna.
- Central Statistical Office (2005). Gospodarstwa rolne – grupy obszarowe a kierunki produkcji 2002 [Farms - areas groups and production 2002], Warszawa.
- Czyżewski, A. and Matuszczak, A. (2009). The competitiveness of agricultural economy aims in Poland in the view of proportion and dynamics of budgetary expenditures in a long horizon, Management, 13(2): 340-351.
- Czyżewski, A. and Stępień, S. (2010). Wspólna polityka rolna racją stanu Polski [Common Agricultural Policy from the Polish perspective] Biuletyn Informacyjny 9-10 (232): 48-65.
- Drożdż, J. (2011). Analiza ekonomiczno-finansowa wybranych branż przemysłu spożywczego w latach 2003-2009 [Economical and financial analysis of chosen sectors of food industry] IRBRiGŻ-PIB Studia i Monografie 151.
- Dzun W., (2009). Spółdzielnie produkcji rolnej w procesie przemian systemowych [Agriculture production cooperatives in the system transition period], Zagadnienia Ekonomiki Rolnej, nr 4.
- Dzun, W. Józwiak, W. (2008). Farms in Poland Before and After the EU Accession, in: Farms in Central and Eastern Europe – Today and Tomorrow, Institute of Agricultural and Food Economics National Research Institute.
- Kowalski, A. , Rembisz, W. (2010). Wspólna Polityka Rolna a rynki rolne w Polsce [Common Agricultural Policy and Agricultural market in Poland], Biuletyn Informacyjny 9-10 (232): 22-48.
- Lemanowicz, M., Krukowska A. (2009). Comparisons of qualitative and quantitative issues in the fruit supply industries in The Netherlands, Poland, Greece, and Spain, Journal of Horticultural Science & Biotechnology (ISAFRUIT Special Issue):13–17.
- Martynowski, M. (2010). (ed.) Organizowanie się gospodarce polskich rolników po 1990 roku [Economic self-organization of Polish farmers after 1990] Educational material of KRS.
- McDonnell, L. M., Elmore R. F. (1987). Getting the Job Done: Alternative Policy Instruments, Educational Evaluation and Policy Analysis, 9(2): 133-152.
- Michna, W. (2010). Organizacje wiejskie i rolnicze oraz ich rola w rozwoju obywatelskiej demokracji i krajowej gospodarki [Rural and agricultural organisation and its meaning in the civil development, in the democracy and in the national economics], Warszawa: IERiGŻ-PIB.
- Mierzwa D., (2005). W poszukiwaniu nowego modelu spółdzielczości rolniczej [In search of New model of agricultural cooperative], ARW, Wrocław.
- Mierzwa, D. (2010). Przedsiębiorstwo spółdzielcze: tradycja i przyszłość [Cooperative enterprise – tradition and future] Wydawnictwo UP Wrocław : 172-231.

- Nałęcz, S., Konieczna-Sałamatin, J. (2008). Polska spółdzielczość na progu XXI wieku: Zasoby oraz wybrane funkcje społeczno - ekonomiczne [Polish cooperatives at the beginning of the XXI century. Resources and chosen economic functions.], *Spółdzielczy Kwartalnik Naukowy*, 24 (1):9-53.
- Piechowski, A. (1999). Non-Co-operative Co-operatives new fields for Co-operative and Quasi –Co-operative Activity in Poland, *Review of International Co-operation* 92 (1): 41-49.
- Psyk-Piotrowska E. (1999). State-owned and Co-operative Farms in Poland during the Transformaiton Process, In : Starosta, P., Kovach, I., Gorlach, K. (Eds) *Rural societies under communism and beyond* :151-173.
- Raport o spółdzielczości polskiej (2010) [Report on the Polish cooperative sector] Warszawa styczeń 2010.
- Rembisz, W. Perspektywy interwencji na rynkach rolnych [Perspectives of intervention on the Agricultural markets in Poland] *Biuletyn Informacyjny* 9-10. (232): 85-100.
- Rokicki T. (2009). Przemiany w gospodarstwach owczarskich w Polsce, *Roczniki Nauk Rolniczych, Seria G, T.* 96. z. 3: 265 -72.
- Ryś-Jurek, R. (2008). The economic strength of Polish individual farms in the European Union in the year 2004, *J. Agribus. Rural Dev.* 4(10): 95-108.
- Skawińska E. (1997). Spółdzielczość wiejska w warunkach integracji produktów żywnościowych Polski i wspólnot europejskich [Rural cooperatives in the situation of integration of Polish food production with the EU].
- Stanko, S. (2010). Perspektywy produkcji rolniczej w Polsce [Perspectives of agricultural production in Poland] *Buletyn Informacyjny* 9-10. (232): 65-85.
- Tomczak P., (2010). Rolnicze spółdzielnie produkcyjne na Dolnym Śląsku po 1989 roku [Agricultural production cooperatives in Lower Silesia after 1989], Wrocław: Uniwersytet Wrocławski.
- Zegar J.S. (ed.) (2009). Sytuacja ekonomiczna olskiego rolnictwa po akcesji do Unii Europejskiej [Economic situation of Polish Agriculture after the accession to EU] *Institute of Agricultural and Food Economics*.
- Zegar, J. S. (2009). Kwestia koncentracji ziemi w polskim rolnictwie indywidualnym [The problem of land concentration in the individual farm sector of Polish agriculture] *Roczniki Nauk Rolniczych, G.T.* 96.(4): 256-266.