

MARIA ZUBA-CISZEWSKA

<https://orcid.org/0000-0002-5543-1620>

Faculty of Social Sciences, John Paul II Catholic University of Lublin

ANETA SUCHOŃ

<https://orcid.org/0000-0002-5410-7853>

Faculty of Law and Administration, Adam Mickiewicz University in Poznań

MIROŚLAW URBANEK

<https://orcid.org/0000-0001-9545-6921>

Faculty of Social Sciences, John Paul II Catholic University of Lublin

ECONOMIC, LEGAL AND SOCIAL CONDITIONS
FOR THE DEVELOPMENT OF DAIRY COOPERATIVES
IN POLAND: HISTORICAL IMPLICATIONS
AND CONTEMPORARY ASSESSMENT FROM FARMERS*

Zarys treści: Celem artykułu była ocena ewolucji rozwoju spółdzielni mleczarskich w Polsce na przestrzeni ostatnich 150 lat z uwzględnieniem sytuacji ekonomicznej i wpływu regulacji prawnych oraz ocena wyników badań empirycznych dotyczących funkcjonowania spółdzielni mleczarskich według ich członków (korzyści z członkostwa, szanse i zagrożenia rozwoju). Mimo wieloletniej tradycji i doświadczenia we współpracy spółdzielni mleczarskich z rolnikami, okres gospodarki centralnie planowanej i transformacja gospodarcza przyniosły wiele zmian. Wejście Polski do UE zwiększyło możliwości rozwoju spółdzielni mleczarskich. Spółdzielnie mają wysoki udział w skupie mleka i sprzedaży produktów mleczarskich. Poprawiła się współpraca z rolnikami. Wciąż jednak istnieją obszary, które wymagają udoskonalenia w duchu realnej idei spółdzielczej, ponieważ dotyczą podstawowych korzyści ekonomicznych członkostwa i zasad funkcjonowania spółdzielni.

The content outline: The aim of the article was to assess the development process of dairy cooperatives in Poland over the last 150 years, with the economic situation and the impact of legal regulations taken into account, and to assess empirical research findings on how dairy cooperatives operate according to their members (benefits of membership, development opportunities and threats). Despite the long tradition and experience in cooperation between

dairies and farmers, the period of the centrally planned economy and economic transformation brought many changes. Poland's EU accession has improved their development opportunities. The cooperatives have a high share in the milk purchase and dairy product sale. The cooperation with farmers has improved. However, there are still areas that need to be improved in the real spirit of the cooperative idea because they concern the basic economic benefits of membership and the principles of function of coops.

Słowa kluczowe: spółdzielnia mleczarska, uwarunkowania rozwoju, historia gospodarcza, członkowie spółdzielni, rolnik

Keywords: dairy cooperative, conditions of development, economic history, members of the cooperatives, farmer

Introduction

The basis of agricultural cooperatives is the opportunities for farmers to obtain various benefits from membership. It is still commonly used in Europe and appears to be the natural environment for agricultural producers to organise their joint business activities. Dairy cooperatives are significant players in the market.¹ Poland increased the production of cow's milk and is the fifth largest cow milk producer in the EU. In 2019, among the 163 dairies (with more than ten employees), 96 were cooperatives whose share in the purchase of milk was 67%. In the production of cow milk, 220,000 farms are involved.²

Some Polish dairy cooperatives are 100 years old, and it is a tradition of many agricultural families that run agricultural farms to be co-op members.³ Dairy cooperatives were, next to agricultural, commercial and financial entities, the first rural cooperatives set up in the partitioned Polish lands in the nineteenth century.⁴ In the next century, they dealt with all food chain (purchase, processing and trade of milk and

¹ M. Hanisch, M. Müller, J. Rommel, *Support for Farmers' Cooperatives: Sector Report Dairy*, Wageningen, 2012, p. 15; G. Van der Sangen, *Support for Farmers' Cooperatives: EU synthesis and comparative analysis report – legal aspects*, Wageningen, 2012, p. 44.

² K. Ziętek-Kwaśniewska, M. Zuba-Ciszewska, J. Nucińska, "Technical Efficiency of Cooperative and Non-Cooperative Dairies in Poland: Toward the First Link of the Supply Chain", *Agriculture*, 12, 2022, no. 52, pp. 3, 5.

³ A. Piechowski, *Spółdzielcze stulatki. Rzecz o wiekowych polskich spółdzielniach*, Warszawa, 2008, p. 10.

⁴ F. Stefczyk, *Początki i ogólne warunki rozwoju spółdzielczości w Polsce*, Kraków, 1925, pp. 7–9.

its products), as one of only a few in food industries. Dairy cooperatives were established and operated based on the principles and cooperative values not to maximise profit but to achieve its members' common good (benefits). The specificity of the Polish dairy industry, from its founding until the present date, thus, is its form of cooperative activity, which has become the cornerstone of the modern dairy industry. Polish dairy cooperatives grew from the initiatives of peasants wherein the purpose of the agricultural cooperative movement was to serve their interests, as it enabled small farmers to obtain a secure income from the sale of milk.⁵ It should be emphasised that they are entities whose operation depends on their members. They agree to establish a cooperative, decide on its functioning and define the development directions. The organisation conducts activities for and in the interest of its members to meet their economic and social needs. Their objective is, among other things, to secure work or negotiate the exchange, the sale of goods and services between the co-op and its members by concluding membership agreements that are as favourable as possible for the establishment. Moreover, in the case of processing co-ops, their members also obtain income from their profit.

Forming the initial thesis, one should say that the development of dairy cooperatives in Poland was influenced by not only factors related to the production of milk, but also economic factors and legal factors associated with the development of cooperative legislation. The changes related to the socialist system, the collectivisation of agriculture, the political transformation, and Polish membership in the EU were also very important. At the same time, an organised cooperative entity ensures the achievement of the assumed goals only if this is done in conjunction with the activities of their members. The primary feature of a cooperative is precisely the idea of cooperation between members. This analysis of the external and internal factors will allow for a reliable assessment of the functioning of dairy co-ops.

Taking into account the fact that cooperatives dominate the Polish milk market and considering the legal, economic and social way in which agricultural cooperative associations were established, together with the fact that the mode of their operation has been changing over the years, the first aim of the article is to assess the evolution of milk cooperatives, with the economic situation and the impact of legal regulations taken into account. As part of the considerations, an attempt will be made to determine the factors influencing the development direction. The second goal, resulting from the fact that a dairy cooperative

⁵ *Mleczarstwo w Polsce*, Bydgoszcz, 2011, pp. 2–3.

is made up of farmers and milk producers, is the assessment based on the surveys responded to by the members of dairy co-ops on the functioning of their enterprisers (the benefits of membership, opportunities and threats to the development of the cooperative, implementation of the rights and obligations of cooperative members).

Methodology

The study used the analysis of the historical and contemporary literature in the field of cooperatives and statistical methods. The primary research method to analyse legal aspects is a dogmatic analysis of legal texts. To learn farmers' opinions about membership in a cooperative and the possibility of developing this form of enterprise, we used the research survey undertaken in the Lubelskie Voivodeship in Poland in December 2019 and January 2020. The interviews were attended by 170 farmers involved in the production of cow's milk, members of one of ten dairy cooperatives in the area. The questions were close-ended, including a Likert scale. The first part of the survey collected farmers' demographic data and the farms' economic characteristics. The second part concerned benefits from membership in the dairy cooperative and its activities, as well as the assessment of opportunities and barriers in developing a dairy cooperative. The third part of the questions sought to assess the rights of a farmer being a member of a dairy cooperative and compliance with the obligations of a dairy co-op member. The questionnaire was prepared in cooperation with academics, and its readability was tested via a pilot survey with a group of twenty people. Data were analysed both descriptively with frequency distribution analysis and correlation analysis. Among the surveyed farmers, 89.2% of the respondents were men, and 10.8% were women.

Tough beginnings of the cooperative movement

Poland was under partition for 123 years, and it was not until after the First World War in 1918 that it regained its independence. Rural cooperatives developed most strongly in the Prussian part of the partitioned Polish territories.⁶ They were a response to the progressive

⁶ A. Suchoń, "Cooperatives as an instrument of the development of agriculture and rural areas in Poland", in: *Genossenschaften im Fokus einer neuen Wirtschaftspolitik*, ed. J. Brazda, M. Dellinger, D. Rößl, Wien, 2013, pp. 1335–1353.

Germanization, discrimination against Poles of all social strata in every area of life, anti-Catholic legislation and colonisation of lands held by the Prussian gentry, including through expropriation. The second reason was the previous long-term community work in the rural environment of this area. Indeed, as early as 1835, regional agricultural landowners' associations were established that discussed land management's modernisation, inviting talented peasant farmers to their meetings. However, due to the low level of education among the peasants, the work related to establishing and running the cooperative rested on landowners and Catholic priests who enjoyed the authority and trust of the Polish population. The establishment of dairy cooperatives by Poles encountered an issue with access to loans, which German institutions were unwilling to grant, and, in the territories subject to German colonisation, Polish access to membership in cooperatives was limited.⁷ That is why the first Polish cooperative associating Polish members was not established until 1882 at Pawłówek (seven years earlier, such a coop was established in the former Polish territories, but it was a German one). In addition, dairy production was less important than beef cattle breeding because meat prices in Germany were high, which granted farmers the profitable and easy sale of these animals.⁸ Despite the extensive obstacles, before 1914, 29 Polish dairy cooperatives were already in existence in this part of Poland.⁹

In the Austrian partition (Galicia), the economic situation of the rural population was very bad, and farms were small. This was due to the financial shortage causing the sale of land and forests and the sale of mortgage bonds abroad. Other contributors to the dire situation were malnutrition and hunger, causing 55,000 of deaths yearly (1.5 million people died from starvation within 27 years). A further effect was social scarcity – the lack of social capital based on numerous educated and independent citizens.¹⁰ By the turn of the twentieth century, up to 0.5 million Poles emigrated from Galicia and the Kingdom of Poland.¹¹ Due to this territory's generally unsound economic-social situation, the emerging dairy cooperatives were small, poorly equipped in technology

⁷ *Rolnik-Spółdzielca*, 4, 30 Oct. 1927, no. 22, p. 85.

⁸ *Stosunki rolnicze Rzeczypospolitej Polskiej*, vol. 1: *Wytwórczość*, ed. S. Królikowski, Warszawa, 1925, p. 113.

⁹ M.G. Brodziński, *Oblicza polskiej spółdzielczości rolniczej: Geneza – rozwój – przyszłość*, Warszawa, 2014, pp. 34–40.

¹⁰ S.A. Szczepanowski, *Nędza Galicji w cyfrach i program energicznego rozwoju gospodarstwa krajowego*, Lwów, 1888, pp. 53–58.

¹¹ W. Grabski, *Materiały w sprawie włościańskiej*, vol. 3, Warszawa–Kraków, 1919, pp. 74, 83–85.

and operated mainly locally within a single municipality. The first dairy cooperative in Galicia was not established until 1896 at Królówka, but in 1913 their number increased to 73 with 142,000 members.¹²

In the Russian partition, the cooperative movement developed quite late due to the general civilisational and economic backwardness of the region (including the late abolition of serfdom and enfranchisement of peasants), as well as the policy of the partitioning state, which, striving for complete unification with the Russian Empire, rendered it impossible for Polish society to self-organise. In 1903, the first dairy cooperative in these lands was established at Deszno. By 1913, the number of dairy cooperatives increased to 143 and the number of their members to 8,900. Initially, these were manorial dairies and then peasant dairy cooperatives.¹³

After the Great War, the situation of all the Polish people, including the rural population, was difficult. Polish lands were heavily damaged. Moreover, the policy of the partitioning powers during the First World War resulted in the limitation or even liquidation of the economic operations of rural social organisations. Thus, dairy cooperatives limited their activities due to the decreased number of dairy cows. After Poland regained independence in 1918, the cooperative movement became the driving force for social and economic changes and the unification of the Polish territories rejoined after 123 years of partitions. In the cooperative movement, hope was placed on the collaboration of various social classes (landowners, clergy, middle class, rural people) to bring about national rebirth and the social improvement of the rural people. At the same time, it was pointed out that peasants should become involved in cooperatives and be aware of their rights and obligations as principal proprietors in rural areas.¹⁴

Dairy farms were concentrated around large cities and industrial centres, and along railroad mainlines. However, irregular raw material supplies did not allow the proper use of the processing installations. An additional obstacle in the development of the dairy industry after the war was the introduction of maximum price and food supply legislation. Small farms were the leading supplier of dairies (77%), and landed estates held a smaller share (23%).¹⁵ Dairy cooperatives paid

¹² M.G. Brodziński, *Oblicza polskiej spółdzielczości...*, pp. 42–43.

¹³ *Ibid.*, pp. 45–48; A. Zarzycki, *Z mlecznej krainy. Spółdzielnia mleczarska w Gosztyniu. 1889–2004*, Poznań, 2005, p. 32.

¹⁴ W. Grabski, *op. cit.*, p. 156.

¹⁵ Z. Jarochoński, “Sprawozdanie z działalności Instytutu i Szkoły Mleczarstwa WIR za rok 1921”, in: *Rocznik Wielkopolskiej Izby Rolniczej w Poznaniu na rok 1922*, ed. W. Dykier, Poznań, 1922, pp. 87–99; *Stosunki rolnicze...*, vol. 1, pp. 113–114, 259–260.

a higher price for milk than manor or private dairies.¹⁶ Over time, more and more dairies included in their payment method for milk the fat percentage, which was important from the point of view of the quality of dairy products. Additionally, according to the provisions of the law of 1932, at least 3% fat was required from consumer-grade milk. Cooperative dairies processed different volumes of milk, but they held most of the large dairies compared to private or manor dairies.¹⁷

The legal principles of the establishment and operation of cooperatives in the nineteenth century in the Polish lands were determined by the partitioning states' legislation and the development directions of cooperatives imposed by the socio-economic situation in those states.¹⁸ Undoubtedly, its fastest development took place in Wielkopolska, where the level of economic growth was relatively high, and the more modern social structure than in the other two partitions, with a middle class starting to emerge, initiating the ideas of 'organic work'.¹⁹ On 1 May 1889, the Law on Economic and Purchasing Cooperatives (*Gesetz betreffend die Erwerbs- und Wirtschaftsgenossenschaften*, GenG) was enacted in the Second Reich (Germany),²⁰ which was valid and binding also in the Polish lands under the Prussian partition. The interesting thing is that except for organisational changes, the status of controlling associations and the merging process of cooperatives, this legal act in its general form is still in force in Germany (of course, it has been amended a few times in the meantime).²¹ Milk cooperatives were governed by general rules that regulated how the cooperatives were established and how they operated. The case was similar under the Austrian partition.

¹⁶ K. Celichowski, T. Dziama, *Statystyka mleczarstwa w Wielkopolsce i spis mleczarń za rok 1926*, Poznań, 1927, pp. 9–14.

¹⁷ *Statystyka mleczarstwa w Wielkopolsce i spis mleczarń za lata 1931 i 1932*, Poznań, 1934, pp. 19–23.

¹⁸ A. Suchoń, *Legal aspects of the organisation and operation of agricultural cooperatives in Poland*, Poznań, 2019, p. 33.

¹⁹ A. Suchoń, "Cooperatives as an instrument"..., pp. 1335–1353.

²⁰ *Gesetz betreffend die Erwerbs- und Wirtschaftsgenossenschaften* (GenG; Law on the commercial and economic cooperatives), 1 May 1889, *Reichsgesetzblatt*, RGBl. 1889, no. 11, pp. 55–93.

²¹ E.g. *Gesetz zur Einführung der Europäischen Genossenschaft und zur Änderung Genossenschaftsrechts* (Law introducing the European Cooperative Society and amending the Cooperative Law), BGBl. I 2006, no. 39, pp. 1911–1957. Last amendment was made on 10 July 2022: *Gesetz zur Einführung virtueller Hauptversammlungen von Aktiengesellschaften und Änderung genossenschafts- sowie insolvenz- und restrukturierungsrechtlicher Vorschriften* (Law introducing virtual general meetings of stock corporations and changing Cooperatives Law as well as insolvency and restructuring regulations), BGBl. 2022, no. 27, pp. 1166–1173.

In Austria, cooperative regulations were laid down in the Cooperative Act of 1873.²² The act has been amended a few times and considers the current economic and social context.

The growth of cooperatives in the reborn state

The development of cooperatives after World War I was influenced by favourable legislation and the fact that despite significant war losses, cooperative associations still had experienced staff of activists and employees. Moreover, people in Poland supported this form of management, for in 1921, out of 27.2 million inhabitants, 10% were members of a cooperative. Cooperative audit unions also played an important supervisory, coordinating, training and educational role. The cooperative movement of that period respected the principles and values of cooperatives, i.e. acted in the interests of its members through solidarity and self-help, distribution of profit in proportion to the amount of the member's transactions with coop, the principles of its internal democracy, combining social and educational actions with economic activity. Furthermore, the movement respected the principles of political neutrality, although there were different ideological currents, e.g. agrarianism or Christian solidarity. Polish cooperatives also participated in the International Cooperative Alliance (ICA) work. Financial institutions, including cooperatives, supported agricultural coops. Indeed, the dairy cooperative movement was the only cooperative sector in which this form of management held a dominant market position. Between 1924 and 1937, the number of dairy cooperatives increased from 156 to 1408, and their members increased from 23,000 to 626,000.²³

Dairy cooperatives processed milk solely from their members, who could only be dairy cow owners. Smaller cooperatives mostly allocated their profits to the resource fund, accumulating funds for development. With the increase in milk supply, it was necessary to build new plants with better technical equipment. Hence, cooperatives took out loans guaranteed by farmers. Unfortunately, the problem with their repayment appeared as a result of the economic crisis of the 1930s, which resulted in the collapse of the commodity market and money turnover,

²² Erwerbs- und Wirtschaftsgenossenschaften, 9 April 1873, RGBl. no. 70/1873 as amended.

²³ M.G. Brodziński, *Oblicza polskiej spółdzielczości...*, pp. 56–59; D. Mierzwa, *W poszukiwaniu nowego modelu spółdzielczości rolniczej*, Wrocław, 2005, p. 90.

including the decline in food consumption. Every third dairy cooperative did not manage to survive these turbulent times. The decrease in the turnover of dairy cooperatives resulted in a drop in prices paid to farmers and the growth of short-term loans that the dairies were forced to take from farmers. It was also a time of rationalising the dairy cooperatives' network, merging smaller into bigger ones to achieve better technical equipment. The maintenance of the basic group of suppliers throughout the crisis proved, however, the success of the cooperative form in the milk market.

After overcoming the effects of the crisis, the dairy cooperatives formed the second strongest industry after savings and loan cooperatives, the so-called Stefczyk's Credit Unions which were modelled on the German Raiffeisen credit unions and were initiated by Franciszek Stefczyk. Usually, where there were dairy cooperatives (and their range covered half of the municipalities in the country), there were also Stefczyk's Credit Unions supporting farmers in purchasing dairy cows through low-interest loans. Often the same people worked in the self-government of both types of cooperatives, usually older farmers or landowners who were recognised for their management abilities. Zygmunt Chmielewski, for example, was a pioneer of dairy cooperatives, an engineer and eventually the deputy minister of agriculture. He was well known for his collaboration with the economist Franciszek Stefczyk in his endeavours to enhance the overall effectiveness of Poland's agricultural sector. Between 1934 and 1938, the number of dairy cooperatives increased by 34% (to 1,241) and the number of their members by 130% (to 600,000). In Poland at this time, 11% of farms belonged to these dairies. The dairy industry was, therefore, becoming an increasingly important branch of the agri-food industry, supplying its products not only to the internal market but also for export. It meant an increase in farmers' income and their standard of living.²⁴

Soon after Poland regained independence following World War I, the works on the Act on Cooperatives began. There were well-functioning cooperatives in Polish lands but under the partitions they operated under three different legal systems.²⁵ On 29 October 1920, Act on Cooperatives was enacted.²⁶ At that time, the act was a highly modern

²⁴ Z. Chyra-Rolicz, *Z tradycji polskiej spółdzielczości II Rzeczypospolitej*, Warszawa–Poznań, 1992, pp. 40–41, 56, 76–77; T. Janczyk, *Spółdzielczość w Polsce Ludowej*, Warszawa, 1980, p. 88.

²⁵ A. Jedliński, "Ustawa z 1920 roku na tle ówczesnych regulacji europejskich", *Biuletyn Instytutu Stefczyka*, 5, 2010, pp. 21–26.

²⁶ *Journal of Laws of the Republic of Poland*, 1920, no. 111, item 733, as amended.

and progressive law. It was a sort of constitution of cooperativeness in Poland, based on broad experience gained while under partitions (especially under the Austrian and German ones where the conditions were favourable to develop that form of activity). According to the Act of 1920, a cooperative was an association with an unlimited number of people, with variable capital and personal composition, aimed at increasing the earnings per household of its members by running a joint enterprise. In carrying out these economic tasks, a cooperative also had to seek to improve the cultural level of its members. The general provisions on cooperatives regulated the operations of milk cooperatives.

The premature collapse of the real idea of cooperatives

Under the Nazi-German occupation during World War II, Polish cooperatives were utterly liquidated in the territories annexed to the Reich. In the General Government, the cooperatives were left as an apparatus for economic circulation. Over 65% of all industrial plants were destroyed. Almost 467,000 farms were damaged in the rural areas, i.e. 22% of their total number. The fallow lands after the war accounted for over 39% of the arable land, while the number of livestock decreased from 56% to 79%.²⁷ The period after the war was extremely difficult for the cooperatives, as it was for the entire economy. However, 685 out of 728 destroyed milk processing plants, mainly cooperative-owned, were rebuilt. Immediately after the war, the cooperative movement, still based on the pre-war cadre of activists and pre-war principles, made a huge contribution to the economy.²⁸

However, the state authorities began to subject cooperatives to the destructive mechanism of highly centralised planning and management changed the objectives of cooperatives and violated their principles. Their pluralism and authenticity decreased, and so did their economic efficiency and membership functions were weakened because the associated benefits were no longer there.²⁹ Thus, cooperatives ceased to be classic enterprises with their spirit of entrepreneurship, risk and commercial activity. In the Polish People's Republic (PRL), cooperatives

²⁷ *1939–1945 Pro Memoria*, ed. J. Witkowski, H. Dmochowska, Warszawa, 2015, pp. 14, 23, 28–32, 35, 39.

²⁸ K. Boczar, *Spółdzielczość. Problematyka społeczna i ekonomiczna*, Warszawa, 1986, pp. 218–219.

²⁹ A. Piekara, *Samorządność, samorząd, rozwój*, Warszawa, 2000, pp. 38–39.

were the dominant form for structural transformations of the rural areas towards a socialist economy. As the authorities included these in the centrally planned economy, the cooperative movement lost its independence and was nationalised. Unfortunately, the expected benefits were not achieved due to the distortions of the cooperative movement, political and economic pressures, insufficient equipping of agricultural cooperatives with means of production and inadequate state aid.³⁰ During this time, they received production and service tasks and funds for their implementation as determined by the central authority. The level of almost all prices and margins, wages, rents, transport tariffs, and interest on loans were all determined administratively.³¹

Diametrical changes in the running of farms occurred after the Decree of the Polish Committee of National Liberation on conducting agricultural reform of 6 September 1944 came into force.³² A significant area of rural land was passed by law into state ownership. In the following years, state farms and agricultural production cooperatives were vital in the country. It should be emphasised that after World War II, individual farms continued to operate in Poland. However, the chances for development were limited (such units could not exceed the area indicated in the regulations). Still, their conduct had a positive impact on the activities of dairy cooperatives. Apart from the small farms of natural persons, agricultural activity, including milk production, was also carried out by state-owned farms and agricultural production cooperatives.

Only after 1956, when the policy of accelerated collectivisation of agriculture was discontinued, were dairy cooperatives invigorated. There were 661 active dairy cooperatives, with some 692,000 members. Moreover, concentration processes took place throughout the dairy cooperatives, triggered by technical and technological progress, as well as by increased milk production and purchases by the dairy industry. Between 1945 and 1989, milk production increased from over 3 to 16 billion litres, and the share of industry in milk purchase was advanced from 6% to over 71%. At the same time, due to economy of shortages, farms faced difficulties in purchasing means for agricultural production, machinery and equipment. The profitability of milk production also decreased, when compared to other types of production. In 1988,

³⁰ B. Brzozowski, *Spółdzielczość wiejska. Wybrane zagadnienia*, Kraków, 2003, pp. 26–27.

³¹ S. Dyka, “Spółdzielczość wiejska”, in: *Encyklopedia agrobiznesu*, ed. A. Woś, Warszawa, 1998, p. 841.

³² *Journal of Laws of the Republic of Poland*, 1945, no. 3, item 13, as amended. See also W. Góra, *Reforma rolna PKWN*, Warszawa, 1969, pp. 15 ff.

there were 323 operating dairy cooperatives, with 1.2 million members, i.e. 86% of all milk producers. Thanks to 10,000 collection centres, the cooperatives' share in the purchase was 100%, and the supply of dairy products increased due to growing internal demand and export opportunities. However, the problem was that almost all of purchased milk (80%) came from 1.13 million very small farms (1 to 10 cows).³³

The dairy cooperative movement, as one of only a few food industries operating in the Poland of this time, dealt with all food chain (the purchase, processing and trade of milk and its products). Cooperatives also conducted, due to the governmental tasks, activities to increase milk production and improve its quality by providing milk suppliers with young, genetically high-value dairy cattle, seeds of fodder plants, technical means, veterinary care for dairy cattle and farmers training (in cattle feeding, milking, milk storage, etc.). Cooperatives signed long-term contracts for milk supply with farmers having developed farm organisation projects.³⁴ Hence, the coop movement popularised agricultural and social progress in rural areas.

After World War II, on 21 May 1948, three laws were passed to supplement the Act on Cooperatives: the Law on the Central Cooperative Union and the Centres of Cooperatives,³⁵ the Law on the State-Cooperative Centres,³⁶ and the Law on State-Cooperative enterprises.³⁷ On 20 December 1949, the Act of 29 October 1920 on Cooperatives was amended (uniform text announced by the President of the State Economic Planning Committee on 20 May 1950). Article 1 of the Act read as follows: "a co-operative shall be regarded as an association with an unlimited number of members and variable personal composition conducting jointly economic activity within the framework of the national economic plan for the improvement of the level of the economic and cultural life of its members and for the benefit of the People's State".³⁸ The literature stresses that this provision violated all the basic principles under which cooperatives operate and distorted the essence of these enterprises and the movement itself, forcing them into the system of the socialist planned economy.³⁹ The fact that cooperatives and cooperative movement were to serve to build a new economic and political

³³ M.G. Brodziński, *Oblicza polskiej spółdzielczości...*, pp. 114–131.

³⁴ T. Janczyk, op. cit., pp. 163–164.

³⁵ *Journal of Laws of the Republic of Poland*, 1948, no. 30, item 199.

³⁶ *Ibid.*, item 200.

³⁷ *Ibid.*, item 201.

³⁸ *Journal of Laws of the Republic of Poland*, 1950, no. 25, item 232.

³⁹ H. Cioch, *Zarys prawa spółdzielczego*, Warszawa, 2007, p. 19.

system is confirmed by the reference made to them in the Constitution of 1952.⁴⁰ Article 11 stresses that the PRL supports the development of various forms of the cooperative movement in towns and cities and in the countryside, supports it in fulfilling its tasks and provides particular care and protection for their cooperative ownership as social property.

On 17 February 1961, the Act on Cooperatives and their associations was adopted.⁴¹ In Article 1, it was stated that the cooperative is a voluntary and self-governing association with an unlimited number of members and a variable share fund; it aims to conduct economic activity within the framework of the national economic plan, as well as a social and educational activity for the permanent improvement of the financial and cultural wellbeing and social awareness of its members and the benefit of the PRL.⁴² Under the Act, cooperatives of a specific type associate to form their own central and other cooperative associations. The primary representation of the cooperative movement in Poland was the Supreme Cooperative Council. Those cooperatives which, because of their type, had no appropriate central connection, were to form part of an association designated by the General Council, provided that the latter did not assume the function of the central association for them. The economic activity of cooperatives was to be carried out in a planned manner based on economic and financial plans. These plans were to be drawn up according to the guidelines set by the competent central association and the national councils and were to be consistent with the planned indicators of tasks for cooperatives.

Another legislative act on cooperatives was the Cooperative Law of 16 September 1982.⁴³ With many amendments, it is still in force. In its original version, the cooperative was defined as a voluntary and self-governing association with an unlimited number of members and a variable share fund, which conducts economic activity guided by the needs of its members and the assumptions set out in the central and territorial socio-economic plans, as well as social and educational activity for the permanent improvement of the financial and cultural standard of living and social awareness of its members, and for the benefit of the PRL. Another provision specified that although a cooperative operates independently, the local and state administration authorities may issue legal regulations and decisions binding on the cooperative on the

⁴⁰ *Journal of Laws of the Republic of Poland*, 1952, no. 33, item 232, as amended.

⁴¹ *Journal of Laws of the Republic of Poland*, 1961, no. 12, item 61.

⁴² A. Suchoń, *Prawna koncepcja spółdzielni rolniczych*, Poznań, 2016, p. 148.

⁴³ *Journal of Laws of the Republic of Poland*, 1982, no. 30, item 210.

basis of and within the scope of authorisations provided for in statutory regulations.⁴⁴

Difficult return to the true spirit of the idea of cooperatives in the new economy

The marketisation of the Polish economy in 1989 altered the organisation and activities of the cooperatives. Initially, it was intended to keep to the cooperative approach and build upon its achievements.⁴⁵

However, the cooperative sector collapsed once confronted with the market economy (hyperinflation, high credit interest rates, competition, falling revenues, rising costs, etc.). After the experiences of the previous period, there was no trust in this movement within the society, and people forgot the long history and achievements of cooperatives in the country.⁴⁶ In addition, the movement lost state support. Adopting the Act of 20 January 1990, introducing changes in the organisation and operation of cooperatives, harmed the development of cooperatives.⁴⁷ By liquidating hitherto existing cooperative unions and prohibiting the establishment of new ones, the state withdrew union and organisational support, economic and legal counselling, professional auditing, and the useful role of its own press and centres of personnel improvement. This led to numerous errors in the activities of the cooperatives, resulting in limiting their functioning, losses and the necessity to sell off property.⁴⁸ Within a few years, due to liquidations and bankruptcies, the number of agricultural cooperatives fell by over a thousand to just 7,000. This was due to the low share of their own funds and from financing the cooperatives' operations while holding high debt levels. As a result of the stagnation in the 1980s, cooperatives had outdated machinery and did not have the funds required to modernise, while some were overinvested. Many managers, being lost in this new Polish reality, took no action to correct the situation. The low income of the rural population also influenced the deterioration of the financial

⁴⁴ A. Suchoń, *Prawna koncepcja spółdzielni...*, p. 149.

⁴⁵ K. Boczar, T. Szelażek, F. Wala, *Spółdzielczość wiejska w okresie przelomu*, Warszawa, 1993, pp. 23–25.

⁴⁶ A. Piekara, *op. cit.*, p. 49.

⁴⁷ *Journal of Laws of the Republic of Poland*, 1990, no. 6, item 36, as amended; A. Zalewski, *Gospodarka mleczarska a rynek*, Warszawa, 1995, p. 58.

⁴⁸ K. Boczar, T. Szelażek, F. Wala, *op. cit.*, p. 26.

condition of the cooperatives.⁴⁹ There was a disintegration of the internal functional bonds – between members, employees and the cooperative, and the external ones – between individual cooperatives. In addition, some co-operatives were transformed into companies controlled by narrow groups of members by raising participation share to a level most members could not meet. The crisis of the cooperative movement also resulted from the plunder of collective property.⁵⁰

In the early 1990s, dairy cooperatives began to have issues with selling their products on the market. This was due to the abolition of state subsidies for products produced by dairies, which resulted in an increase in dairy prices and a decrease in demand. Inflation and loan interest rates rose, unemployment rose, and real incomes fell. The result of all these colliding factors was that cooperatives were forced to limit the purchase of milk from their members. Therefore, in 1990–1995, the number of milk-producing farms decreased by more than 28% (to 1.31 million).⁵¹ Members of cooperatives faced a decline in the profitability of milk production, especially in relation to other types of production. Subsidies to the prices of means of production were abolished, and there was no guarantee of milk purchase. The abolishment of subsidies, decrease in the use of processing capacity, issues with access to raw material, and lack of own capital for the modernisation of the obsolete machine park, coupled with the difficult macroeconomic situation, contributed to a significant deterioration of the economic results of dairy cooperatives for several years in a row, and the consequent liquidation of many of them. Between 1990 and 1995, the number of dairy cooperatives dropped from 348 to 303, their share of the number of dairies fell to 90%, and their share in the purchase of milk declined to 86%.⁵²

Since the late 1990s, the surviving dairies have been modernising their milk purchasing system. This endeavour resulted in farmers receiving on the loans from the cooperative to purchase milk cooling

⁴⁹ M.G. Brodziński, *Spółdzielczość obsługująca wieś i rolnictwo w okresie przekształceń ustrojowych*, Warszawa, 2005, pp. 120–122.

⁵⁰ E. Skawińska, *Spółdzielczość wiejska w warunkach integracji rynku produktów żywnościowych Polski i wspólnot europejskich*, Toruń, 1997, pp. 23–25.

⁵¹ M. Zuba-Ciszewska, “Structural changes in the milk production sector and food security – the case of Poland”, *Annals of the Polish Association of Agricultural and Agribusiness Economists*, 21, 2019, no. 2, pp. 318–327.

⁵² M. Zuba-Ciszewska, “Structural changes in the dairy industry and their impact on the efficiency of dairies – a Polish example”, *Proceedings of the International Scientific Conference Economic Sciences for Agribusiness and Rural Economy*, 2, 2018, pp. 116–123.

and milking equipment and receiving milking hygiene consultancy and cooperation with veterinarians. Farmers could also receive higher prices for the extra-class milk admitted to trading on the single European market, the intent of which was to encourage them to improve the quality of the supplied raw material. This last initiative was important from the perspective of Poland's EU accession.⁵³ There was also a rationalisation of production and processing structures due to the positive effects of concentration,⁵⁴ such as increased export opportunities. Despite the growing volume of exports, particularly dynamic since 2004 (by 85%, to 4.6 billion litres in the 2019 milk balance sheet), domestic consumption is still the primary market for the milk produced. Therefore, since 2004, there has been an almost systematic increase in the production of cow's milk.

Still, milk production was limited until 2015 by the EU milk quota system. Although it was supposed to guarantee milk producers adequate income,⁵⁵ its liquidation was welcomed because milk quotas made it difficult to use the production and processing potential, as well as the cost and price advantages of Polish farms and dairies. The continuous increase in milk production has been influenced by the systematic improvement of the milk yield of Poland's dairy cow herd (by over 50%, to 6,348 litres p.a. in 2019), despite a decrease in their number (by over 21%, to 2.2 million head). The increase in milk yield was affected by, apart from the improvement of breeding technology (including the genetic potential of animals and the improvement of the quality of nutrition), the growing scale of milk production. Today the average size of a herd of dairy cows (over 10 heads) is almost four times that of 1990.⁵⁶ Medium and large farms, in particular, have increased the number of cows in order to take advantage of the economic effects of scale. The increase in the scale of milk production volumes, in turn, improves the competitiveness of, not only milk production, but also processing. It also has impact on the improvement of milk marketability. In 2019, sales to the dairy industry accounted for 84% of the entire milk production volume, i.e. 30 p.p. more than in 1991. This results from the restructuring and modernisation of the national milk production and

⁵³ *Rozwój rynku mleczarskiego i zmiany jego funkcjonowania w latach 1990–2005*, ed. J. Seremak-Bulge, Warszawa, 2005, p. 69.

⁵⁴ M. Sznajder, *Ekonomia mleczarstwa*, Poznań, 1999, pp. 172–175.

⁵⁵ M. Gornowicz, *Polskie mleczarstwo w aspekcie konkurencyjności na jednolitym rynku UE*, Olsztyn, 2003, pp. 90–102.

⁵⁶ P. Szajner, "Produkcja mleka", *Rynek mleka*, 58, 2020, pp. 7–13; M. Zuba-Ciszewska, "Structural changes in the milk production" ..., pp. 318–327.

processing sector that was carried out practically from the onset of the transformation of the economy.⁵⁷

While in 1990, the cooperatives were the only institutions in the milk market, in 2005, their share in the number of dairies dropped to 81%, and their share in milk purchase fell to 75% due to the decline in the number of cooperatives. After Poland joined the EU, this decline in the share of the cooperative sector in the number of dairies continued due to the liquidation of cooperatives, their mergers, and new companies, frequently with foreign capital, entering the market. In 2019, 163 companies employing at least ten people were involved in milk processing and cheese production, 96 of which were dairy cooperatives, and their share in milk purchase was 67%. There were 70% fewer cooperatives than in 1990. Only 118,000 of 220,000 farms, milk producers, provide milk to dairies, 95% of which are family farms, mostly small. Dairy cooperatives are currently also the main entities supplying dairy products to the domestic market. There are cooperative dairy plants in each of the regions of the country. Most of them offer a wide range of dairy products, including innovative products such as organic or lactose-free. However, their specialisation is also increasing, and, while almost every third offers no more than four types of products, it is mainly the cooperative plants that provide the assortment that is basic for many consumers. Cooperatives also continue to improve their technical and economic efficiency.⁵⁸

Dairy cooperatives, as agricultural organisations, take over certain activities related to the farming activity conducted by their members, i.e. producers. The aim is to collect milk from the members and support the cattle farms run by the members. The legislation lacks a definition of dairy co-operatives. The statutes, therefore, determine the scope of activity. These are entities that usually deal with collecting and processing milk.⁵⁹ In addition, certain dairy cooperatives also regularly work to develop the breeding and rearing of their dairy cattle, increase milk production and quality, combat livestock diseases and promote hygiene and prevention, and support the organisation of holdings specialising

⁵⁷ J. Sarnecki, *Przetwórstwo i rynek mleka w Polsce w ujęciu przestrzennym*, Warszawa, 2004, p. 102.

⁵⁸ M. Zuba-Ciszewska, "Structural changes in the dairy industry"..., pp. 116–123; M. Zuba-Ciszewska, "Rola spółdzielni w zapewnieniu dostępności żywności w Polsce – na przykładzie produktów mleczarskich", *Więś i Rolnictwo*, 1, 2020, no. 186, pp. 93–119.

⁵⁹ A. Suchoń, "The participation and significance of cooperatives in food supply chains – selected legal issues", in: *Food Security, Food Safety, Food Quality*, ed. I. Härtel, R. Budzinowski, Oxford, 2016, pp. 233–243.

in the production and supply of milk. Such measures positively impact the development of agricultural holdings of milk producers and the milk market.⁶⁰

Dairy cooperatives, which also process milk, allow producers to participate in the next stage of the food chain, i.e. earn income not only from the sale of milk but also from the surplus on the balance sheet of their processing activities. Milk cooperative statutes often specify that the membership can be granted to natural persons of legal age with full capacity for legal acts, who deal with cattle breeding and milk production and delivery, and to cooperative employees that do not deal with cattle breeding. Moreover, the membership can also be granted to legal persons dealing with milk cattle breeding or running other activities connected with carrying out cooperative tasks laid down in the statute. A member must pay an enrolment fee and contribute declared shares according to the statutory provisions. Additionally, members make a contract farming agreement (or milk delivery agreement) with a cooperative for a period of a few years under which the members undertake to produce and supply a specific amount of agricultural products of a specific type. The cooperative, in turn, is obliged to collect the products on the agreed date, pay an agreed price and perform specified additional obligations if its indicated by an agreement or the regulations.⁶¹

All coop members share equal rights and obligations. These rights may be divided into non-property and property rights.⁶² Non-property rights include, first of all, the right to participate in a general meeting or a meeting of a member group; electing and being elected to the cooperative's authorities (management board, supervisory board); receiving a copy of the statutes and rules, becoming acquainted with resolutions of these authorities, minutes of their meetings or requiring the competent authorities to consider applications concerning cooperatives' activities. Property rights are abstract and become concrete due to further events during the membership relationship. An example is a balance surplus. Apart from that, every cooperative member can file a claim to have a resolution adopted by the general meeting of members

⁶⁰ A. Suchoń, "Agricultural cooperatives and producer organizations in Poland", *CEDR Journal of Rural Law*, 2, 2015, pp. 25–37.

⁶¹ A. Suchoń, "The legal rules for associations of agricultural producers in Poland", in: *The Legal and Economic Aspects of Associations of Agricultural Producers in Selected Countries of the World*, ed. A. Suchoń, Poznań, 2020, pp. 133–156.

⁶² S. Grzybowski, *Prawo spółdzielcze w systemie porządku prawnego*, Warszawa, 1976, p. 120; J. Ignatowicz, "System ochrony praw członków spółdzielni", *Spółdzielczy Kwartalnik Naukowy*, 2, 1987, pp. 36–40.

of a cooperative revoked. Nevertheless, only an excluded or written-off member has the right to appeal against the resolution to have a member excluded or written off.⁶³

The rights and obligations of milk cooperative members can be divided into those arising under cooperative law and those connected with supplying dairies with milk and breeding milk cattle. It refers to the proper feeding of animals, including the high-quality production of feed which serves as the basis for cattle feeding, to providing suitable places for cattle breeding and animal health care. A cooperative provides assistance in cattle breeding. Milk producers are obliged to fulfil the requirements listed in the regulations of the Minister of Agriculture and Rural Development.

Since a cooperative operates for and in the interest of its members to satisfy their economic or social needs, it is worth referring to the opinion of cooperative members. It is worth highlighting that some agricultural producers give up their membership, e.g. when someone offers them higher milk prices. Such actions are often ill-considered and are not beneficial for agricultural producers in the long run. It should be emphasised that membership in a cooperative is associated with several rights and – importantly – they can affect its activities. The statutes of some cooperatives state that members are co-managers of the cooperative.

Research results of members of dairy cooperatives

In the research group, the average sale of milk was characterised by a very high differentiation, further confirming the resulting variation. In 2019, the average sale of milk to the cooperative was 197,130 litres (Table 1). The growing potential of the surveyed farms was also indicated by the estimated value of their productive assets – which was significantly diversified in the studied group. Its average value was over PLN 1,014,000. These values indicate that the group of researched farms was similar to the average of farms engaged in milk production according to the results of the European FADN system for collecting accounting data from farms.⁶⁴

⁶³ T. Misiuk, *Sądowa ochrona praw członków spółdzielni*, Warszawa, 1979, p. 15.

⁶⁴ J. Pawłowska-Tyszko, D. Osuch, R. Płonka, *Wyniki Standardowe 2019 uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN*, part 1: *Wyniki Standardowe*, Warszawa, 2020, p. 52.

The average number of shares in the cooperative held was over 6. However, the minimum number of shares amounted to 1 share and the maximum 40.

Table 1. Characteristics of the surveyed farms in 2019

Years		(1)	(2)	(3)
		Milk sales volume (in thousand litres)	Value of a farm's production assets (in PLN thousand)	Number of shares in a dairy cooperative
N	Valid	163	116	147
	Missing	7	54	23
Mean		197.1	1014.9	6.4
Median		160.0	902.5	5.0
S		143.8	660.7	5.6
Vs (%)		73.0	65.1	87.8
Minimum		10.5	220.0	1
Maximum		929.0	4280.0	40
Quartiles	25	100.0	560.0	5
	50	160.0	902.5	5
	75	250.0	1219.5	6

Source: own study.

More than half of the milk producers positively assessed the majority of the benefits from their belonging to a dairy cooperative (Table 2). Such advantages can be divided into several groups. These include those related to the production and purchase of milk (growth of the farm due to milk production, organisation and conditions of milk collection, timely payment for milk, checking and controlling the quality of the raw material). Another group of benefits is related to the support of the cooperative in milk production (financial assistance and advice connected with the purchase of cows, financial aid in the purchase of agricultural production means, low-interest rate loans from the cooperative, training for milk producers and providing industry information, assistance in assessing the utility of dairy cattle for the respective farm, veterinary care, the possibility of purchasing production resources from the cooperative, servicing of cowshed equipment, help in maintaining good sanitary and hygienic conditions in cowsheds). The third group of benefits relates to the functioning of the cooperative (the level of assets and its growth, its employees, their knowledge and competencies, including the management board, security and development opportunities of the

cooperative). The last group of benefits results from the general characteristics of membership in cooperatives, such as receiving information about the activities of the cooperative, year-round relationships with members of the enterprise's management board and its employees, and satisfaction with the membership. The smallest number of farmers indicated as benefits the milk price, share in the distribution of profits, assistance in calculating the profitability of milk production on the farm, individual consultancy in the preparation of cow nutrition programs, help in filling in documents for the authorities, conditions for participation in the coop's management.

Table 2. Rating level of benefits from membership in the dairy cooperative and its activities (in %)

The benefits of membership	(1)	(2)	(3)	(4)	(5)	(6)
	absent	very weak	weak	fairly good	good	very good
1. organisation and conditions of milk collection	1.2	1.2	3.6	7.2	32.3	54.5
2. price paid for milk	0.6	10.8	39.5	23.4	20.4	5.4
3. timely payment for milk	0	0.6	0	2.4	17.9	79.2
4. financial assistance and advice on the purchase of cows	13.8	3.8	6.3	15.1	38.4	22.6
5. financial assistance in the purchase of materials for agricultural production	10.8	3.2	8.3	14.7	40.8	22.3
6. the possibility of obtaining a low-interest loan from a cooperative	11.2	1.9	9.3	17.4	41.0	19.3
7. share in the distribution of profits	27.4	8.3	20.4	16.6	19.1	8.3
8. assistance in conducting the assessment of the performance of dairy cattle on the farm	0.6	0.6	11.7	16.0	27.0	44.2
9. organisation and subjects of training sessions for milk producers	4.8	1.2	6.0	24.7	44.6	18.7
10. providing veterinary care for herds of dairy cows by the cooperative	30.3	3.6	12.1	9.1	22.4	22.4
11. assistance in calculating the profitability of milk production on the farm	38.7	6.1	20.9	19.0	11.7	3.7
12. individual consultancy in the preparation of cow nutrition programs	30.3	6.8	18.5	20.4	19.8	4.3
13. providing dairy farmers with information about innovative industry solutions and new products available on the market	14.0	7.9	15.2	26.2	30.5	6.1
14. assistance in completing documents for state agencies	45.1	9.2	14.6	14.6	13.4	3.1

The benefits of membership	(1)	(2)	(3)	(4)	(5)	(6)
	absent	very weak	weak	fairly good	good	very good
15. help in maintaining good sanitary and hygienic condition in cowsheds, and thus – good quality milk	19.4	5.5	8.5	13.9	35.8	17.0
16. possibility of purchasing complete feed, concentrates, premixes, mineral additives, silage additives, silage foil, fertilisers, washing agents or technical measures from the cooperative, on the basis of deduction of their price from the payment for the collected milk	5.7	0.6	8.2	12.0	24.1	49.4
17. testing and controlling of the quality of the raw material, as well as the timely return of laboratory information on the properties of milk from the farm	0.0	3.0	0.6	17.6	29.1	49.7
18. offering by cooperative for milk producers servicing of milking and cooling equipment	25.2	3.7	9.8	10.4	20.9	30.1
19. safety and the possibility of farm growth due to milk production	8.2	5.1	15.2	34.8	27.2	9.5
20. information received from the cooperative about its activities	4.2	2.4	12.7	29.7	36.4	14.6
21. year-round relationships with members of the cooperative's management board and its employees	3.7	4.3	15.3	31.9	32.5	12.3
22. conditions for participation in the management of the cooperative	19.6	14.6	17.1	27.9	15.8	5.1
23. contentment and satisfaction with the membership in the cooperative economic organisation	10.0	6.9	10.0	30.6	30.6	11.9
24. the level of production assets of the cooperative	1.9	3.8	8.2	19.5	44.0	22.6
25. the possibility of increasing the assets of the cooperative	4.4	3.2	9.5	21.5	45.6	15.8
26. the number of people in employment in the cooperative	11.0	5.2	9.7	27.7	37.4	9.0
27. skills and competences of the members of the management board of the cooperative	4.3	3.7	8.0	31.5	35.2	17.3
28. skills and competences of people employed in the cooperative	2.5	1.9	7.5	23.1	51.3	13.8
29. safety and development opportunities of the cooperative	1.9	1.3	7.6	20.1	55.4	13.8

Source: own study.

There are statistically significant correlations between assessments of the level of benefits resulting from membership in a dairy cooperative (Table 3) and its activities and the level of milk sales and the number of shares held in the said dairy cooperative. The more milk the farm supplies to cooperatives, the less positive its assessments of the system of profit distribution in cooperatives and the size of employment in the cooperative are. However, such farms are also speaking more positively about technical assistance from the cooperative.

Table 3. The statistically significant correlations between the assessments of the level of benefits from membership in a dairy cooperative and the level of milk sales and the number of shares held in a dairy cooperative

The benefits from membership	(1)	(2)
	The level of milk sales	Number of shares held
1. share in the distribution of profits	-0.17*	
2. assistance in conducting the assessment of the performance of dairy cattle on the farm	0.24**	
3. providing veterinary care for herds of dairy cows by the cooperative	0.18*	
4. assistance in completing documents for various state agencies		-0.17*
5. offering by cooperative for milk producers servicing of milking and cooling equipment	0.18*	
6. the number of people in employment in the cooperative	-0.17*	

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Source: own study.

Half of the polled farmers perceive that the opportunity for the development of the dairy cooperative (Table 4) they belong to lies in factors related to the production of milk (close cooperation of the dairy with farmers and increasing milk purchase) and dairy products (broadening the product range, including the attractive, innovative, specialised products, product promotion, new markets for sale). The next group of factors relates to the operation of dairies (increasing the production capacity and capital of dairies, improving infrastructure) and creating logistics based on a cooperative form (such as a retail network, holding or logistics group). The smallest number of farmers consider the increased share fund (52.2%) and the value of one share in the cooperative (43.2%) as an opportunity.

Table 4. Assessment of opportunities in the development of a dairy cooperative (in %)

Factor in the development of a dairy cooperative	(1)	(2)	(3)	(4)	(5)	(6)
	not exist	least important	not important	quite important	important	very important
1. creation of a cooperative holding company	5.1	3.9	7.1	28.9	30.1	25.0
2. creation of a cooperative logistics group	7.1	2.6	7.1	24.5	34.2	24.5
3. creating a cooperative retail network	5.1	1.9	3.8	16.5	38.6	34.2
4. large scale promotion of dairy products	1.9	0.6	1.9	15.1	38.4	42.1
5. innovativeness of dairy products	1.3	1.3	3.8	19.0	43.0	31.7
6. specialisation of dairy products	0.6	2.5	3.2	23.4	41.8	28.5
7. attractiveness of dairy products	0	0.6	1.9	9.3	42.9	45.3
8. increasing the range of products	1.2	5.0	9.3	18.6	35.4	30.4
9. increase of production capacity	1.2	5.6	9.9	26.5	32.1	24.7
10. improvement of dairy infrastructure	4.4	6.9	11.9	24.4	31.9	20.6
11. purchase of modern milk collection tanks	9.3	16.9	17.5	23.1	20.0	13.1
12. new, larger product markets	0	0	0	6.8	21.0	72.2
13. closer cooperation with milk suppliers	1.3	5.1	7.1	23.1	36.5	26.9
14. increasing milk purchases	1.9	6.2	5.6	20.5	46.0	19.9
15. increasing the capital of the cooperative	3.1	5.0	15.5	25.5	38.5	12.4
16. increasing the equity fund	12.6	13.2	22.0	22.0	23.9	6.3
17. increase in the value of one share in the cooperative	19.4	18.1	19.4	20.0	18.1	5.2

Source: own study.

There are statistically significant correlations (Table 5) between some factors constituting chances for the development of a dairy cooperative and the level of milk sales, the estimated value of production

assets and the number of shares held in the dairy cooperative. Farms with a higher level of sales demonstrate a higher level of acceptance for such activities as the creation of a cooperative holding, joint logistics group, a retail network, large-scale promotion of dairy products, innovativeness of manufactured products, and their attractiveness. These correlations are positive and, albeit low, are still statistically significant. The value of production assets correlates with the belief that creating a cooperative retail network is necessary – correlation at the level of 0.14 (positive, weak, statistically significant at the level of 0.05). The farm feature in the form of the number of shares of a dairy cooperative coexists with the opinion that the following form development opportunities: large-scale promotion of dairy products (0.20; $p = 0.01$), specialisation of manufactured products (0.18; $p = 0.05$) and their attractiveness (0.16; $p = 0.05$).

Table 5. The statistically significant correlations between the factors constituting a chance for the development of a dairy cooperative and the level of milk sales, the number of shares held in a dairy cooperative and the estimated value of a farm's production assets

Factor in the development of a dairy cooperative	(1)	(2)	(3)
	The level of milk sales	Value of a farm's production assets	Number of shares held
1. creation of a cooperative holding company	0.15*		
2. creation of a cooperative logistics group	0.14*		
3. creating a cooperative retail network	0.19**	0.14*	
4. large scale promotion of dairy products	0.20**		0.20**
5. innovativeness of dairy products	0.22**		
6. specialisation of dairy products			0.18*
7. attractiveness of dairy products	0.19**		0.16*

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Source: own study.

At the same time, farmers indicated several important (at least for half of them) barriers to the development of cooperatives (Table 6). The first group of factors concerns the production of milk and relations with producers (lack of an adequate amount of raw material, no significant benefits for cooperative members, and insufficient activities

supporting farmers). The second group of essential barriers is related to dairy products (small assortment, unattractive, non-innovative, poorly recognisable products, poor promotion, and sales exclusively on the local market). The third group of limitations concerns the functioning of cooperatives (small capital, condition of machines, production capacity, poor infrastructure). The ultimate group involves the general situation in the economy (low income of the population shaping the low demand and consumption of dairy products) and the milk market (fierce competition between dairies, lack of a cooperative holding company in the region). A small cooperative share fund, the value of a share (both too low and too high), the lack of specialists in the dairy or insufficient specialisation of manufactured products were all indicated as less significant.

Table 6. Assessment of barriers to the development of a dairy cooperative (in %)

Barriers to the development of cooperatives	(1)	(2)	(3)	(4)	(5)	(6)
	not exist	least important	not important	quite important	important	very important
1. lack of adequate quantities of milk	26.0	7.0	3.8	24.1	30.4	8.9
2. no significant benefits for members of the cooperative	15.3	10.2	10.8	28.7	27.4	7.6
3. insufficient support measures for farmers by dairies	16.9	13.1	18.8	25.0	23.1	3.1
4. small range of dairy products	8.8	15.6	11.9	27.5	24.4	11.9
5. low innovation of dairy products	12.8	20.5	12.2	28.2	19.2	7.1
6. small amount of attractive products	15.0	17.5	8.8	25.0	25.6	8.1
7. low brand recognition of products	23.3	14.5	11.3	16.4	20.1	14.5
8. insufficient specialisation of dairy products	22.7	21.4	16.2	16.2	16.9	6.5
9. small capital	20.5	10.3	15.4	27.6	21.8	4.5
10. small share fund	18.8	16.2	22.7	23.4	14.9	3.9
11. too low value of one share	22.8	18.1	16.1	24.8	16.1	2.0
12. too high value of one share	26.9	17.5	19.5	21.5	8.7	6.0
13. condition of machines and devices	14.7	14.7	8.3	18.0	20.5	23.7

Barriers to the development of cooperatives	(1)	(2)	(3)	(4)	(5)	(6)
	not exist	least important	not important	quite important	important	very important
14. scale of production capacity	13.5	16.0	5.1	18.0	25.6	21.8
15. poor infrastructure	21.8	16.0	10.3	19.9	24.4	7.7
16. lack of adequate numbers of specialists	25.5	13.4	12.7	19.8	21.7	7.0
17. sales on the local market	8.1	10.6	8.8	16.3	32.5	23.7
18. inadequate instruments for the promotion of dairy products	15.5	7.7	9.7	27.1	25.8	14.2
19. fierce competition between dairies on the milk market	1.9	1.9	1.9	14.5	27.7	52.2
20. lack of a cooperative holding in the region	7.4	6.1	15.5	24.3	27.0	19.6
21. low consumption of dairy products	2.6	0.6	3.8	17.2	35.0	40.8
22. low income in the society affecting the consumption of dairy products	1.3	1.3	1.3	17.1	37.5	41.5

Source: own study.

There are statistically significant correlations (Table 7) between some factors constituting barriers to the development of a dairy cooperative and the level of milk sales, the estimated value of production assets and the number of shares held in the dairy cooperative. Farms with higher volumes of milk sold also point to the increasing weight functions of barriers related to such factors as a small range of manufactured products, a small number of attractive products and low consumption of dairy products in Poland. The correlation between these characteristics is weak, positive, but statistically significant. There is also a statistically significant, positive correlation between the value of production assets and the development barrier in the form of inadequate instruments for promoting dairy products. Moreover, the correlation between the number of shares held and the barrier resulting from the insufficient specialisation of manufactured products is statistically significant. With the growing number of shares held, higher weights are assigned to this barrier to developing a cooperative.

Table 7. The statistically significant correlations between some factors constituting barriers to the development of a dairy cooperative and the level of milk sales, the estimated value of production assets and the number of shares held in the dairy cooperative

Factors constituting barriers to the development	(1)	(2)	(3)
	The level of sales of milk	Value of a farm's production assets	Number of shares held
1. small range of dairy products	0.15*		
2. small amount of attractive products	0.2**		
3. insufficient specialisation of dairy products			0.18**
4. inadequate instruments for products promotion		0.15*	
5. low consumption of dairy products in Poland	0.13*		

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Source: own study.

It should be noted that a large number of cooperative members do not actively exercise their rights (Table 8). Indeed, almost 60% of the surveyed farms did not have a share in the balance surplus of the dairy cooperative. A similar number did not receive copies of the cooperative's statute, regulations, resolutions, minutes, and financial statements.

Table 8. Assessment of exercising the rights of a farm being a member of a dairy cooperative (in %)

Rights of a member of a dairy cooperative	(1)	(2)
	Yes	No
1. participate in the meeting of the membership group, representatives, and general meeting	66.7	33.3
2. electing and being elected to the authorities of cooperatives	61.0	39.0
3. demand that the competent authorities of the cooperative consider matters	55.1	44.9
4. receive copies of the statute, regulations, resolutions, minutes and financial statements of the cooperative	41.1	58.9
5. share in the balance surplus of the dairy cooperative	40.9	59.1
6. the right to benefits of the cooperative specified in the statute	65.8	34.2

Source: own study.

The surveyed farms did, however, fulfil their obligations to almost 100% (Table 9). In covering possible losses of a cooperative up to the amount of declared shares, however, 24.2% of all respondents indicated that they do not respect this obligation.

Table 9. Assessment of compliance with the obligations of a dairy cooperative member (in %)

Obligations of a dairy cooperative member	(1)	(2)
	Yes	No
1. compliance with statutes, regulations and resolutions of the cooperatives	99.4	0.6
2. compliance with the quality requirements specified in the regulations of the cooperative and the Polish Standard for milk for purchase	99.4	0.6
3. the payment of the entry fee and declared participation	96.9	3.1
4. covering possible losses of a cooperative up to the amount of declared shares	75.8	24.2
5. caring for the development of the cooperative, respecting its authority and employees, and property, carrying out the statutory tasks of the cooperative	99.4	0.6

Source: own study.

Conclusions

The above considerations have confirmed that the milk cooperatives have a rich history on Polish lands and are an effective tool for developing agriculture and rural areas. As early as the nineteenth century, a number of such entities were established, and the legal provisions regulating the procedure for setting them up and the way they operated under partitions were adopted. In 1920, the Polish legislator enacted an Act on Cooperatives which was one of the most progressive in Europe.⁶⁵ The period of socialism, however, adversely impacted the cooperative movement. Although it has been thirty years since the political transformation, the negative consequences of socialism can still be noticed in Poland and other post-socialist countries.⁶⁶ Those consequences include a negative attitude towards cooperatives shared by numerous residents of cities and rural areas, including agricultural producers.⁶⁷ It should be emphasised that dairy cooperatives functioned and developed, and

⁶⁵ A. Suchoń, "Cooperatives as an instrument"..., pp. 1335–1353.

⁶⁶ J. Bijman et al., *Support for Farmers' Cooperatives: Executive Summary*, Wageningen, 2012, p. 7; C. Gijssels, M. Bussels, "Farmers' cooperatives in Europe: Social and historical determinants of cooperative membership in agriculture", *Annals of Public and Cooperative Economics*, 85, 2014, no. 4, pp. 509–530.

⁶⁷ J. Chloupkova, G.L.H. Svendsen, G.T. Svendsen, "Building and destroying social capital: The case of cooperative movements in Denmark and Poland", *Agriculture and Human Values*, 20, 2003, no. 3, pp. 241–252.

are still developing, mainly due to the popularity of milk production by farmers. After World War II there were still many private farms, which had a positive impact on the activities of dairy cooperatives. Farmers created cooperatives and contributed to their development. Milk production, often continued on farms by successive generations of farmers, is one of the basic factors of continuity, durability and good financial condition of dairy cooperatives. Undoubtedly, there are fewer of these entities today than there were in the 20th century. However, it is not the number, but the influence of the cooperatives on the Polish, European and even global market that proves the importance of dairy cooperatives.

The dairy cooperatives had to go a long way and made a lot of effort, also on the part of farmers, to be cleansed of the distortions of real socialism by restoring their independence, true democracy and market efficiency. Most of the dairy cooperatives have become effective, enterprising and efficient in operation and modernly managed.

Since Poland acceded to the European Union, changes in the dairy sector have been made.⁶⁸ As both purchasing and processing entities, the dairy cooperatives are obliged to run their activity in compliance with the regulations governing the EU milk market and food regulations.⁶⁹ Resource base restructuring and the modernisation processes of Poland's dairy industry influenced the dairy sector's development.⁷⁰ Poland has become the fifth largest milk producer in the EU⁷¹ and is one of the countries that are self-sufficient in dairy products and also large exporter of these products.⁷² Poland's dairies generate an increasing proportion of their sales from exports. Indeed, during the last few years, the value of exports of dairy products amounted to over EUR 2.2 billion, over 70% of which was to the EU countries. Mlekovita, the largest dairy cooperative, dating back to 1928, is the largest Polish manufacturer and exporter of food. Over the last 20 years, the cooperative's revenues increased more than 16 times, topping EUR 1.2 billion in 2020, 35% of which came from exports to 167 countries worldwide. In this cooperative, milk is delivered to 21 production plants from 15,000 farmers. The development of the dairy sector in Poland is resulted i.a. the

⁶⁸ M. Zuba-Ciszewska, "Structural changes in the dairy industry"..., pp. 116–123.

⁶⁹ A. Suchoń, *Prawna koncepcja spółdzielni...*, p. 369.

⁷⁰ G. Szczubelek, "Competitiveness of the Polish Dairy Industry in the EU Market", *Olsztyn Economic Journal*, 14, 2019, no. 4, pp. 383–395.

⁷¹ P. Szajner, op. cit., pp. 7–13.

⁷² P. Bórawski et al., "Factors shaping cow's milk production in the EU", *Sustainability*, 12, 2020, no. 420, p. 12.

cooperation of dairies with farmers and the economic support of farmers by dairies,⁷³ most of which are cooperatives. The empirical research we conducted demonstrates that farmers see many benefits of participating in this form of dairy enterprise. Among the main benefits are those related to the production and purchase of milk, the support of cooperatives in milk production, the functioning of the milk cooperatives and the general characteristics of membership in cooperatives. The farmers also perceive many opportunities for developing dairy cooperatives, those related to the production of milk, dairy products, the operation of dairies and creating logistics based on a cooperative form. At the same time, most of these groups of factors were considered potential barriers to the development of cooperatives. There are still areas of cooperation that need to be improved in the real spirit of the cooperative idea, because concern the basic economic benefits of membership and the principles of function of this form of management. Therefore, it is an area of the cooperative's activity which, despite the passage of years, has not yet been fully improved. This is important because, in order to stand out from other enterprises on the market, cooperatives should respect their traditional values, such as collaboration with their members.

Bibliography (selected)

- Boczar K., *Spółdzielczość. Problematyka społeczna i ekonomiczna*, Warszawa, 1986.
- Boczar K., T. Szelażek, F. Wala, *Spółdzielczość wiejska w okresie przełomu*, Warszawa, 1993.
- Bórawski P., A. Pawlewicz, A. Parzonko, J. Harper, L. Holden, "Factors shaping cow's milk production in the EU", *Sustainability*, 12, 2020, no. 1, 15 pp.
- Brodziński M.G., *Spółdzielczość obsługująca wieś i rolnictwo w okresie kształceń ustrojowych*, Warszawa, 2005.
- Brodziński M.G., *Oblicza polskiej spółdzielczości rolniczej. Geneza – rozwój – przyszłość*, Warszawa, 2014.
- Brzozowski B., *Spółdzielczość wiejska. Wybrane zagadnienia*, Kraków, 2003.

⁷³ L. Dries et al., "Farmers, vertical coordination, and the restructuring of dairy supply chains in Central and Eastern Europe", *World development*, 37, 2009, no. 11, pp. 1742–1758; L. Dries, J.F. Swinnen, "Foreign direct investment, vertical integration, and local suppliers: Evidence from the Polish dairy sector", *World Development*, 32, 2004, no. 9, pp. 1525–1544; J. Falkowski, A. Malak-Rawlikowska, D. Milczarek-Andrzejewska, "Dairy supply chain restructuring and its impact on farmers' revenues in Poland", paper presented at the 12th Congress of the European Association of Agricultural Economists, Ghent, 26–29 August 2008.

- Celichowski K., T. Dziama, *Statystyka mleczarstwa w Wielkopolsce i spis mleczarń za rok 1926*, Poznań, 1927.
- Chyra-Rolicz Z., *Z tradycji polskiej spółdzielczości II Rzeczypospolitej*, Warszawa–Poznań, 1992.
- Cioch H., *Zarys prawa spółdzielczego*, Warszawa, 2007.
- Dyka S., “Spółdzielczość wiejska”, in: *Encyklopedia agrobiznesu*, ed. A. Woś, Warszawa, 1998, p. 841.
- Falkowski J., A. Malak-Rawlikowska, D. Milczarek-Andrzejewska, *Dairy supply chain restructuring and its impact on farmers’ revenues in Poland*, paper presented at the 12th Congress of the European Association of Agricultural Economists, Ghent, 26–29 August 2008.
- Gornowicz M., *Polskie mleczarstwo w aspekcie konkurencyjności na jednolitym rynku UE*, Olsztyn, 2003.
- Grabski W., *Materiały w sprawie włościańskiej*, vol. 3, Warszawa–Kraków, 1919.
- Grzybowski S., *Prawo spółdzielcze w systemie porządku prawnego*, Warszawa, 1976.
- Ignatowicz J., “System ochrony praw członków spółdzielni”, *Spółdzielczy Kwartalnik Naukowy*, 2, 1987, pp. 36–40.
- Janczyk T., *Spółdzielczość w Polsce Ludowej*, Warszawa, 1980.
- Jarochoński Z., “Sprawozdanie z działalności Instytutu i szkoły mleczarstwa WIR za rok 1921”, in: *Rocznik Wielkopolskiej Izby Rolniczej w Poznaniu na rok 1922*, ed. W. Dykier, Poznań, 1922, pp. 87–99.
- Jedliński A., “Ustawa z 1920 roku na tle ówczesnych regulacji europejskich”, *Biuletyn Instytutu Stefczyka*, 5, 2010, pp. 21–26.
- Mierzwa D., *W poszukiwaniu nowego modelu spółdzielczości rolniczej*, Wrocław, 2005.
- Misiuk T., *Sądowa ochrona praw członków spółdzielni*, Warszawa, 1979.
- Piechowski A., *Spółdzielcze stulatki. Rzecz o wiekowych polskich spółdzielniach*, Warszawa, 2008.
- Piekara A., *Samorządność, samorząd, rozwój*, Warszawa, 2000.
- Pietrzykowski K., “Charakter prawny stosunku członkostwa w spółdzielni”, in: *Prawo rzeczowe. System prawa prywatnego*, vol. 4, ed. E. Gniewek, Warszawa, 2012, pp. 328–350.
- Rozwój rynku mleczarskiego i zmiany jego funkcjonowania w latach 1990–2005*, ed. J. Seremak-Bulge, Warszawa, 2005.
- Sarnecki J., *Przetwórstwo i rynek mleka w Polsce w ujęciu przestrzennym*, Warszawa, 2004.
- Skawińska E., *Spółdzielczość wiejska w warunkach integracji rynku produktów żywnościowych Polski i wspólnot europejskich*, Toruń, 1997.
- Stefczyk F., *Początki i ogólne warunki rozwoju spółdzielczości w Polsce*, Kraków, 1925.
- Stosunki rolnicze Rzeczypospolitej Polskiej*, vol. 1: *Wytwórczość*, ed. S. Królikowski, Warszawa, 1925.
- Suchoń A., “Cooperatives as an instrument of the development of agriculture and rural areas in Poland”, in: *Genossenschaften im Fokus einer*

- neuen Wirtschaftspolitik*, ed. J. Brazda, M. Dellinger, D. Rößl, Wien, 2013, pp. 1335–1353.
- Suchoń A., “Agricultural cooperatives and producer organisations in Poland”, *CEDR Journal of Rural Law*, 2, 2015, pp. 25–37.
- Suchoń A., *Prawna koncepcja spółdzielni rolniczych*, Poznań, 2016.
- Suchoń A., “The participation and significance of cooperatives in food supply chains – selected legal issues”, in: *Food Security, Food Safety, Food Quality*, ed. I. Härtel, R. Budzinowski, Baden-Baden, 2016, pp. 233–243.
- Suchoń A., *Legal aspects of the organisation and operation of agricultural co-operatives in Poland*, Poznań, 2019.
- Suchoń A., “The legal rules for associations of agricultural producers in Poland”, in: *The legal and economic aspects of associations of agricultural producers in selected countries of the world*, ed. A. Suchoń, Poznań, 2020, pp. 133–156.
- Szajner P., “Produkcja mleka”, *Rynek mleka*, 58, 2020, pp. 7–13.
- Szczepanowski S.A., *Nędza Galicyi w cyfrach i program energicznego rozwoju gospodarstwa krajowego*, Lwów, 1888.
- Szczubelek G., “Competitiveness of the Polish Dairy Industry in the EU Market”, *Olsztyn Economic Journal*, 14, 2019, no. 4, pp. 383–395.
- Sznajder M., *Ekonomia mleczarstwa*, Poznań, 1999.
- Statystyka mleczarstwa w Wielkopolsce i spis mleczarń za lata 1931 i 1932*, Poznań, 1934.
- Zalewski A., *Gospodarka mleczarska a rynek*, Warszawa, 1995.
- Zarzycki A., *Z mlecznej krainy. Spółdzielnia mleczarska w Gostyniu. 1889–2004*, Poznań, 2005.
- Ziemiński Z., “O metodzie analizowania stosunku prawnego”, *Państwo i Prawo*, 2, 1967, pp. 1–20.
- Ziętek-Kwaśniewska K., M. Zuba-Ciszewska, J. Nucińska, “Technical Efficiency of Cooperative and Non-Cooperative Dairies in Poland: Toward the First Link of the Supply Chain”, *Agriculture*, 12, 2022, no. 52.
- Zuba-Ciszewska M., “Structural changes in the dairy industry and their impact on the efficiency of dairies – a Polish example”, *Proceedings of the International Scientific Conference Economic Sciences for Agribusiness and Rural Economy*, 2, 2018, pp. 116–123.
- Zuba-Ciszewska M., “Structural changes in the milk production sector and food security – the case of Poland”, *Annals of the Polish Association of Agricultural and Agribusiness Economists*, 21, 2019, no. 2, pp. 318–327.
- Zuba-Ciszewska M., “Rola spółdzielni w zapewnieniu dostępności żywności w Polsce – na przykładzie produktów mleczarskich”, *Więś i Rolnictwo*, 1, 2020, no. 186, pp. 93–119.

Maria Zuba-Ciszewska
Aneta Suchoń
Mirosław Urbanek

Economic, legal and social conditions for the development
of dairy cooperatives in Poland: Historical implications and contemporary
assessment from farmers

(Summary)

The article has two aims: to assess the development process of dairy cooperatives in Poland over the last 150 years, with the economic situation and the impact of legal regulations taken into account, and to assess empirical research findings on how dairy cooperatives operate according to their members (benefits of membership, development opportunities and threats). Despite the long tradition and experience in cooperation between dairies and farmers, the centrally planned economy and economic transformation period left a bad mark on cooperatives. Poland's EU accession has improved their development opportunities. The cooperatives have a high share in milk purchases and dairy product sales.

The farmers see many benefits of participating in this type of dairy enterprise. Among the main benefits are those related to the production and purchase of milk, the support of cooperatives in milk production, the functioning of the milk cooperatives and the general characteristics of membership in cooperatives. The farmers also perceive many opportunities for developing dairy cooperatives, those related to the production of milk, dairy products, the operation of dairies and creating logistics based on a cooperative form. At the same time, most of these factors were considered potential barriers to developing cooperatives. There are still areas of cooperation that need to be improved in the real spirit of the cooperative idea because they concern the primary economic benefits of membership and the principles of function of coops.

Maria Zuba-Ciszewska – dr, autorka kilkudziesięciu publikacji naukowych z zakresu ekonomicznych zagadnień ze sfery agrobiznesu, spółdzielczości rolniczej, rynku mleka. Jej prace naukowe wielokrotnie nagradzono w konkursach Krajowej Rady Spółdzielczej. Redaktor tematyczny działu ekonomia i finanse w „Przeglądzie Prawno-Ekonomicznym”.

Maria Zuba-Ciszewska – PhD, author of a few dozen of scientific publications on economic issues in the field of agribusiness, agricultural cooperatives, and the milk market. Her scientific works have been repeatedly awarded in competitions of the National Cooperative Council. Subject editor of the economics and finance section of the *Legal and Economic Review*.

E-mail: maria.zuba@kul.pl

Aneta Suchoń – dr hab., prof. UAM; jej zainteresowania naukowe koncentrują się nie tylko na prawie rolnym, ale także prawie spółdzielczym, gospodarce nieruchomościami, prawie cywilnym, prawie ochrony środowiska, prawie żywnościowym. Ma bogaty dorobek naukowy. Jest laureatką wielu nagród za publikacje naukowe. Aktywnie uczestniczy w konferencjach polskich i zagranicznych oraz szkoleniach.

Aneta Suchoń – PhD with habilitation, Adam Mickiewicz University professor; her scientific interests focus on agricultural and cooperative law, real estate management, civil law, environmental law, and food law. She has a rich academic output and won many awards for scholarly publications. She actively participates in Polish and foreign conferences and training courses.

E-mail: suchon@amu.edu.pl

Mirosław Urbanek – dr, jego główne zainteresowania naukowo-badawcze koncentrują się na problematyce zarządzania ryzykiem, ubezpieczeniach, zamówieniach publicznych, rachunkowości zarządczej oraz zarządzaniu strategicznego, przede wszystkim na zastosowaniu metod wielowymiarowej analizy statystycznej i modeli ekonometrycznych do analizy zjawisk ekonomicznych i finansowych.

Mirosław Urbanek – PhD, his main research interests focus on risk management, insurance, public procurement, management accounting and strategic management, primarily on the application of multivariate statistical analysis methods and econometric models to the analysis of economic and financial phenomena.

E-mail: miroslaw.urbanek@kul.lublin.pl

* Finansowanie badań: grant KUL 1/6-20-19-05-2-9964 / Research funding: grant from the KUL 1/6-20-19-05-2-9964.