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STATE AND PERSPECTIVES FOR WHOLEFOOD MARKET DEVELOPMENT AMID THE GLOBAL ECONOMIC CRISIS

Abstract

Assessment is made of wholefood market development in the European countries. Proceeding from the dynamics of the development of ecologically clean food market in Poland and in some European countries (Liechtenstein, Switzerland, Austria and Germany), the author ascertains its dynamic increase. In this context, the determination of the perspectives for the development of wholefood market in Poland against the backdrop of a global financial crisis is the live issue.

Key words:

Market of wholefood stuffs, ecologically clean farms, certification of wholefood stuffs, distribution channels of wholefood stuffs.

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Introduction

Lately the researches of the developed countries pay attention to studying of the ecologically clean farms development. As for now, the ratio of wholefood stuffs in the turnover of consuming goods is rather low (up to 5 %) [23, 25], though it is tended to grow (from 10 to 20 % annually) [18, 6–11]. The ratio of some stuffs is higher on the market, like, for example, the market of carrot in Switzerland reaches up to 20 %, milk – 12 %, meat – 4 %, while all other fresh products make 7 % in average [24]. Dynamic growth of wholefood market is motivated by the consumers' search for safe food, produced with no chemical ingredients, and made on the territory with low rate of pollution.

The question arises, how the sector of wholefood market, that is rapidly increasing, has been functioning against the backdrop of actual global economic crisis.

This paper will provide a try to answer this question.

The objective of this research is to study the state and perspectives for the development of ecologically clean foodstuffs market in Poland and in some European countries. Within the frames of the formulated main objective the following goals have been selected:

- Identification of peculiarities of the wholefood market ;
- Determination of the state and perspectives for the development of ecologically clean food market in Poland against the background of some European countries amid the global economic crisis;
- Opinion of a certain group of wholefood market participants as for economic crisis.

The choice of analyzed countries was targeted. In addition to Poland, three more European countries were selected, where agriculture takes an important place.

The significance of ecologically clean agriculture in certain countries is determined on the basis of two indicators, i.e. ratio of ecologically friendly farms and ratio of environmentally clean space. Additionally to the selected analyzed countries, the fifth country, namely, Germany was researched, since its close proximity was taken into account, likewise the scope of wholefood market which is the largest in Europe. The indexes of the selected countries were mainly taken from annual reports, respective legal acts, and special literature. Also, these figures were supplemented with the information mainly received through Internet-surveys among the officers of Ministries (BLW[1] in Vaduz, BMLFUW[2] in Vienna,

[1] Agricultural Administration (LWA) in Vaduz.

BMVEL[3] in Bonn, BLW[4] in Berlin, ALSV[5] in Kur, MLUR[6] in Potsdam, and MUNLV in Dusseldorf), with certification units (GfDS[7] in Goettingen, IMO[8] in Weinfelden**,** bioinspection in Frik, Agricontrol), in centres of agricultural consulting, in Research Centres (FIBL[9] in Frik**,** KBA[10] in Mauren **,** in associations of producers and others (Bio Suisse in Bazel, Naturland in Grafelfing, SOEL[11] in Bad Derckham, IFOAM[12] in Bonn, EcoConnect[13] in Dresden, Verein Bionetz in Bazel). The benchmarking study of the compiled in that way information was carried out. The data respective the system of control, certification and monitoring economies and ecologic processing businesses, as well as concerning the scope of wholefood market, consumers who buy clean food, prices and promotion, specifically green labeling and branding, and regulation in this area that are in effect on the territory of the selected countries and throughout the EU, as a whole. The additional information was compiled by means of direct individual questionnaire of Polish eco-friendly food producers. The research was made in May 2009 and pertained to the effects of economic crisis on functioning of eco-clean farms.

The peculiarity of wholefood market consists in the following:

- Mode of wholefood stuffs production and their green labeling;
- Control over production process;
- Wholefood price as against the price for similar traditional food stuffs;
- Distribution channel for wholefood stuffs;
- Scope and expansion of wholefood market.

The mode of wholefood stuffs production is determined by the Resolution № 834/2007 of 28 June 2007 of the Council on ecologically clean production and green labeling of eco-clean products (Official News № 189 of 20.07.2007, p. 1).

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[2] Ministry of Agriculture and Forestry, Environment and Water Economy (BMLFUW) in Vienna.
[3] Ministry of Consumer Safety, Food Staffs and Agriculture (BMVEL) in Bonn.
[4] Agricultural Administration (BLW) in Bern.
[5] Administration in Agriculture, Improvement of Structure and Measurement (ALSV) in Kur.
[6] Ministry of Agriculture, Environmental Protection and Brandenburg Placement of Production (MLUR) in Potsdam.
[7] Ministry of Environmental Protection, Agriculture and Consumer Safety (MUBLV) in Dusseldorf.
[8] Association for Natural Resource Protection (GfRS) in Goettingen.
[9] Institute of Market Ecology (IMO) in Weinfelden.
[10] KBA in Mauren.
[11] SOEL in Bad Derckham.
[12] Fund of Ecology and Agriculture (SOEL) in Bad Derckham.
[13] EkoConnect in Dresden.

Ecologically clean products are characterized by the following:

- contain components of agricultural origin manufactured through clean technologies;
- can not be processed with the ionizing radiation;
- are produced with non – genetically modified organisms and/or any other products of that origin;
- are produced with the use of limited additives and substances which accompany technological processes.

According to actual regulation [19, 15–17] labeling of clean food stuffs involve the below:

- identification number of certified unit;
- European Union logo respectively packed food stuff;
- indication of crude food stuff place of production («EU agricultural farm», agricultural farm beyond the EU», «EU agricultural farm/ beyond the EU»).

Ecologically clean food is manufactured in clean agricultural farms. Agricultural farms aiming at manufacturing of ecologically clean product should proceed two or three year period of transition to that mode of production, as well as evaluate the way of functioning with account for respective production practice. The control over agricultural farms in Poland is carried out through certification entities, which, in their turn, are under supervision of inspection over trade quality of live-stock products (IJHARS). The control system also functions in other researched European countries. It is worth noting, that the countries differ specifically in their organizational structure. It consists in the fact, that in Germany and Austria the private certification entities are monitored by several regional institutions, while in Poland and Switzerland there exists a single central inspection. In 2007 Europe numbered 213 209 ecologically clean farms, and the ecologically clean acreage made 7 758 526 hectares [15, p. 1].

Lichtenstein rates the first in Europe in a portion of eco-friendly farms. These are primarily the dairy products manufacturing farms, and 30 hectares of them are located in the mountains.

In Switzerland, rating the second, most of the farms, i.e. 59 % are located in the mountains, 21 % are in the highlands and only 20 % are in the lowland. The average size of an eco-friendly farm here makes 17.20 hectares. The bioleader in Switzerland is Canton Graubunden, where the portion of environmentally clean farms makes 50 % [24].

The third place takes Austria. The biggest farms occupy the territory from 10 to 20 hectares that is about 36 %, while three thirds constitute the farms with 20 hectares of acreage. Most of the farms are located on the lands of Zalzburg [4].

In Germany 52 % of eco-friendly lands are permanent greenlands, 44 % – arable and the rest are special lands [23, 12]. The largest areas of ecologically clean arable lands are in Bavaria, Brandenburg and Mecklenburg – Vorpommern. The greatest number of ecologically clean farms is situated in Mecklenburg – Vorpommern, Brandenburg and Baden-Wurtemberg [12, 1]. As the Ministry of Agriculture (BMELN) informs, in spite of the crisis, further growth of a number of environmentally clean farms increased by 6.1 %, and their acreage – by 5 % [14, 1].

In Poland the ecologically clean farms and these in transition, made 15206 (as for 2008). As against the previous year a number of agricultural workers increased by 28 %, or 3336 people, in 2009 that figure was 11887. According to the GISIPAR report, Malopolskie, Podkarpackie, Lubelskie and Mazowieckie wojewodztwo have the largest number of them. These four voivodeships locate 47 % of all controlled farms in Poland [16, 1]. Table 1 shows detailed indices concerning the number of farms in above mentioned countries.

Table 1

Ecologically clean farms in Europe in 2009

Country	Number of farms	Percentage of farms, %*	Acreage of land, hectare	Ratio of agricultural land, %
Lichtenstein	39	28	1 048	29,68
Austria	19 997	9,30	372 026	13,36
Switzerland	6 199	10,20	116 641	11,00
Germany	18 703	Knowledge gap	865 336	5,11
Poland	11 887	0,07	285 878	1,85

Source: Organic Agricultural Land Worldwide 2005-2007, FiBL, IFOAM, SOEL 2007–2009 http://www.organic-world.net/fileadmin/documents/data-sheets-public/1-1-global-development-by-country-ha-percent-ex5.xls.

Note: * – 2001 figures. The World of Organic Agriculture – Statistics and Future Prospects 2003.

As it follows from our research made in 2009, from among the Polish ecologic agricultural workers 60 % of its respondents feel effects of financial crisis manifested in production costs growth, in particular, in fuel, electric energy, increase of credit interest, and decrease of price for agro-food.

Having computed the turnover of wholefood per capita in the country, it turned out that the Swiss in 2000 spent in average 373 zloty that is from the view

of expenditures on wholefood they rated the second after Denmark in Europe, while the Austrians spent much lesser i. e. 192 zloty (rating the third). With respect to 2002, it is observed that the expenditures for ecologically clean feedstuff in Switzerland grew, and made 414 zloty per capita. The latest indices show that the expenditures of the Poles are significantly lesser, specifically for certified agro-food. The Poles spend from 56 to 86 times lesser that the people of the researched European countries (see table 2).

Table 2

Scope of wholefood market in Poland and in the selected European countries in 2008

Country	Turnover (mln.euro)	Turnover per capita (euro)	Ratio of wholefood	Ratio of wholefood consumers
Lichtenstein	3	86	–	–
Austria	530	64	5,4	72
Switzerland	1,44**	–	–	73*
Germany	4 600	56	–	74
Poland	20	1	0,16	20

Source: Zahlen, Daten, Fakten: Die Bio-Branche 2008, BOELW, Berlin 2008, E. Klingbacher, A. Pohl, Okologischer Ladnbau in Oesterreich 2008, «Wholefood market» Sixty Two International Consultants www.sixtytwo.biz/pl/_organicfood1-pl.htm. Bio-Lebenmittel in Oesterreich. Ergebnis einer repraesentativen Konsumentenbefragung. Markant Market Research. Presseaussendung, 2002, p. 2 , Richter T.: Black Box Biokonsum. Konsumententrends, -profile und –einstellung, FiBL, Frick 2003, p. 10, Kuehnert H. i in.: Nachfrage nach Oeko-Lebensmitteln – Veraenderungen durch BSE? BIOGUM – Forschumgsbericht/BIOGUM-Research Papier FG Landwirtschaft 1/2002 Universitaet Hamburg, Żakowska-Biemans S.: Socio-economic profile of wholefood consumers». SERiA, Warszawa-Poznań-Koszalin 2008, t. V, z. 1, pp.. 223–227. Zahlen und Daten Biolandbau, Biolandbau in der Schwaeiz, in Europa und weltweit, www.bioaktuell.ch.

Note: * – share of households;

** – in Swiss franks, bln., 2008 figures.

Proceeding from the analysis of volume changes of wholefood turnover in Germany for the past nine years, we can observe that the clean foodstuffs are tended to grow (see table 3). Though in 2008 the turnover volume grew by 9 % as against the previous year, nevertheless, it was the least for the last five years. That slowed down growth could probably signify a certain character of economic crisis.

Table 3

Wholefood turnover volume in Germany in 2000–2008

Year	Turnover, mln.euro	Ratio of changes, %
2000	2,1	–
2001	2.7	28,5
2002	3.0	11,1
2003	3,1	3,3
2004	3,5	12,9
2005	3,9	11,4
2006	4,6	18,0
2007	5,3	15,2
2008	5,8	9,4

Source: Deutschland: Hamm, Uniwersitaet Kassel, ZMP http://de.statista.com.

Wholefood is sold through traditional stores in the researched countries (for example, supermarkets including special departments, special shops in the farm, on local market or fair, or through the system of delivery).

In Lichtenstein, Switzerland and Austria ecologically clean foodstuffs are mainly sold through traditional distribution channels. In Switzerland, for example, that share makes 69 % and implies the sale through traditional trade nets, mainly Coop and Migros, constituting 75 % of wholefood turnover in this country. In Austria wholefood trading is carried out mostly through dominating Bill Merkur net and SPAR-Gruppe [18, 6–11]. In Germany sales prevails through distribution channels, 45 % – through special stores, and 17 % makes a direct sale. The latter is well organized in Lichtenstein, while in Switzerland and Austria that index is of lesser meaning. Thus, in Switzerland that ratio makes 7 %, and in Austria - 15 % [27, 73–93; 1, 23–28]. Nevertheless, it is worth noting, that direct sales of certain foodstuffs is so far an important channel of distribution. The farm is the main supplier and producer of ecologically clean meat, processed meat, fruit and vegetable for 38–40 % of Austrian households, who declare the wholefood consuming [1, 23-28].

In Poland the dominant form of wholefood sale is just the direct sale, that is, directly in the farm, on local market, fair, either through the client delivery system. In addition, there are about one hundred special stores of so called natural foodstuff, which make the assortment attested by local organizations which certify ecologically clean agro-food [2, 25]. Some wholefood stuffs are available in certain trade nets.

The wholefood producers can set higher prices for their products as against these established by traditional farms, though it is observed that the prices for ecologically clean foodstuff are often similar to these for traditional ones. The price growth for wholefood is mainly caused, in the consumers' opinions by the increase of labor cost for its production, lesser production scope,

shorter pull-dates and lesser access to the ecologically clean foodstuff on the market. It is worth noting, that the consumers associable higher prices with better quality of the stuffs [8, 4]. The Polish producers of clean agro-food as against their counterparts from other countries set the highest prices for all groups of foodstuff, which is conditioned by poorly developed demand and distribution channels, in particular, sales through traditional channels of distribution [2, 25].

The price differentiation for wholefood and traditional food is formulated in different ways depending upon the product type. For the researched period the greatest difference in prices on the level of producers was observed for potato. Thus, in Germany that difference made 300 %, and in Austria – 280 %. It is caused by the fact, that the price for potato, specifically in 2000 was pegged to very low price, while the price for ecologically clean potato was preserved for several years on approximate level [4, 64–67]. The lest difference in producers' price is observed for milk (Germany – 10 %, Switzerland – 10–12 %, Austria – 18 %). Primarily, it follows from the fact that the demand for that product and its supply greatly differed [25, 66].

It follows from the previous researches that had been carried out in ecologically clean farms in eastern Polish provinces that the producers of wholefood established prices by 12 % higher than the prices for traditionally produced foodstuffs [20, 154]. Similar conclusions in her researches were made by S. Zakowska-Biemans [25, 110], who showed that the price for wholefood exceeded those for traditional food by 10–30 %. Other Polish researches indicated that difference as the following: for potato – 90 %, carrot – 51 %, wheat flour – 99 %, and milk – 15 % [21, 220].

Specific attention deserves the fact, that in certain Polish regions (e. g. in Kujawsko-Pomorske voivodeship) the cooperating producers of agro-food jointly establish prices for ecologically clean food stuffs [13].

From the producer's point of view, the price difference formation in the subsequent stages of distribution channels is also very important. It influences the final price and without any doubt affects the demand for the stuff. The price differentiation on consumer level is very great and in different countries fluctuates for different food stuffs from 10 % (for milk in Switzerland) to 150 % (for fruits in Germany) [5, 31–38].

While comparing the price difference on the level of a producer and that of a consumer, we can identify the difference in similar groups of products. With respect to grain, the difference on a producer level is more often greater (Germany – 134 %, Austria – 100 %) than on consumer level (Germany – 86 %, Austria – 20–30 %). It is explained by the fact, that the raw cost in case of such product as bread, makes small share in general cost of production. Quite different is the situation with fresh fruits and vegetables. In general, the price difference on consumer level is greater (for example, in Germany it is 50 % on producer level, while on consumer level – from 20 % to 150 %), since primarily it follows that these stuffs are imported and therefore, more expensive [5, 31–38]. In addition, the ratio with respect to fruit and vegetable is rather higher as against

other produce. In particular, it was conditioned by high marks-up, specifically in retail sales, where the distribution costs are related to short pull-dates and trade risks [10, 76–81]. In Poland the average price difference for vegetable fluctuated within the limits from over 30 % and to over 170 %, the greatest – for beetroots (172.4 %, and the least – for parsley (32.7 %) [11, 6–8]. The price for ecologically clean apples was 71 % higher, at the same time, for imported fruit – averagely by 118 % (for lemons – by 138 %) [10, 76–81].

It follows from the researches carried out by German scientists in 2001 that 80 % of respondents admit higher prices for wholefood. So, 50 % of consumers agree to have higher price by 10 % for ecologically clean food. Only from 3 % to 10 % of consumers admit 50 % of price difference [9]. Further researches in Germany showed that the consumers are very vulnerable for various deviations in the wholefood production and do not accept excessively high price. As a result of the researches made in Germany in June 2008 (Institut fuer Demoskopie Allenbach) when nitrogen and hormones were found in ecologically clean fodder, only 32 % of respondents accepted higher prices. According to other German researches, in spite of market environment, consumers agree only up to 20 % of higher prices [22]. German benchmarking study showed that the number of people for whom higher prices were the main obstacle for purchasing wholefood lessened (decline by 6 %) [17]. At the same time, Polish consumers as against Germans rather more rare accept higher prices [26, 223–227]. Investigations made in Poland showed that 42.6 % of consumers tend to accept higher prices for ecologically clean agro-food. Nevertheless, a great many of authors regard that the acceptance of higher prices for wholefood is closely connected with familiarization of the consumers with the production practices and assuring them on really dietic and healthy values of ecologically clean food.

Thus, evaluating the state and perspectives for the wholefood market development in Poland at the background of the selected European countries, we can note the following:

1. The market of certified ecologically clean foodstuffs has been in the process of formation and is much lesser than in the researched European countries. The Lichtenstein people spend the most for wholefood, specifically by 86 times more than the Poles. Lesser concern in this country probably proceeds from the absence of news on green labeling, quality of traditional foodstuffs, realization of healthy food value, and consuming capacities of Polish consumers.

2. Share of environmentally clean farms and environmentally pristine areas in Poland as against the researched countries is lesser which must be conditioned by greater technological and legal requirements towards clean agricultural production, in particular, restrictions in use of synthetic production means, later adoption of local legislation principles, and lesser demand on the side of Polish consumers.

Table 4

Benchmarking prices for wholefood and traditional foodstuffs in the researched European countries (%)

Country/ year	Price difference on the level of producers					Price difference on the level of consumers				
	vegetable	grain	milk	potato	fruit	vegetable	grain	milk	potato	fruit
Switzerland										
1998	30–70	40	10–12	50	40–45	40–80	40–50	10	50	50–60
2000	–	–	–	–	–	–	–	–	–	–
Austria										
1998	–	100	20–30	100–120	–	–	20–30	25–30	50–100	–
2000	–	170	18	280	–	–	–	27	34	–
Germany										
1998	50	100	15	200	50	20–100	20-150	25–80	50–100	20–150
2000	–	134	10	300	–	–	86	56	147	–

Source: Author's researches on the basis of: Hamm U., Michalsen J., Halpin D. 2002. [W:] Żakowska-Biemans S., Gutkowska K.: Rynek żywności ekologicznej w Polsce i w krajach Unii Europejskiej. Wyd. SGGW, Warszawa 2003; Hamm U., Michelsen J.: Die Vermarktung von Oekolebensmitteln. Oekologie und Landbau, nr 1(113)/2000, pp. 31–38.

Dynamics of changes of eco-friendly farms number and volume of clean agro-food turnover in the selected European countries enables to corroborate the growth tending, though, it is worth noting that in Germany, for example, that process slowed down, and that could be resulted by global economic crisis. Taking into consideration the price level for wholefood, the consuming of ecologically clean food will probably come to a certain stop.

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