GLOBAL DETERMINANTS OF THE AGRICULTURE DEVELOPMENT IN POLAND

Dr hab. Adam Sadowski, prof. UwB Dr hab. Renata Przygodzka, prof. UwB Faculty of Economic and Management University of Bialystok

The study presents basic dilemmas and challenges related to the specification of macroeconomic determinants conditioning the development of agriculture and rural areas in Poland in the nearest future. Globalization of the developmental processes leads to the fact that the directions of agricultural development in individual countries are more and more affected by global phenomena. However, the microeconomic policy dominant at the given moment is also very important for determination of developmental directions.

Globalisation, agriculture development, macroeconomic determinants, Poland

Introduction. Polish agriculture has been undergoing very dynamic economic and political transformations over the last twenty years: beginning with the system transformation processes, through European integration, to the phenomenon of globalization overlapping those processes. But despite considerable dynamics occurring in those phenomena over the recent years, it must be remembered that changes in agriculture are usually long-term and closely related to the pace of economic development of the country and the world.

Generally, agricultural changes in Poland and all over the world are subject to transformations involving two processes: lowering the absolute number of farms and polarization of their structure. Still, the characteristic features of developmental processes are their susceptibility to global phenomena, which was noticeable as early as centuries ago, when local events influenced the processes of change in faraway places. Therefore, the discussion regarding a long-term strategy of development of agriculture and rural areas necessitates the recognition of such phenomena and appropriate choice of developmental objectives, as well as the answer to the questions concerning: the model of agriculture, competitiveness and agricultural structures.

In this study, the analysis of two main spheres influencing the development of agriculture was carried out. Firstly, the basis for developmental processes is formed by political conditions, whose impact has been particularly visible over the last decades. But global phenomena are equally important for the directions of agricultural development. It is macroeconomic processes that determine the directions of agricultural development to a great extent, irrespective of the actions of individual countries.

Political determinants. The discussion concerning the role of the state in economy has been intensifying in the recent years, and the contemporary world economics usually rejects the thesis that markets are perfect, thus confirming the need of interventions. Perfect competition proves to be insufficient for effective allocation, and the private sector manifests considerable limitations in effectively satisfying certain social needs. Intervention of the state is always desirable when imperfections of the market become visible; that leads to an increasing role of the state in economy.

Such an understanding of economic policy results in formulating development strategies as well as the policy of long-term development of agriculture and rural areas in Poland, based on those strategies. So agricultural policy is an example of active influence of the state on agriculture and rural areas, serving the purpose of realization of economic, social and environmental objectives. Through agricultural policy, impact is made on agricultural producers and funds are redistributed between farmers and entrepreneurs (Kowalski 2005).

The external effect of economic policy understood that way is programmes devoted to agriculture and rural areas, which stimulate the occurrence of changes in production structures, improvement of competitiveness, environmental protection and multifunctional development of rural areas. They are the basic instrument which support the process of modernizing agriculture and rural areas. It must be remembered, however, that the scope of state's interference in the economy always results in controversies [8].

Looking for the main reasons for interventions in the modern world agriculture, J.E. Stiglitz [6] first of all indicates the high risk level in agricultural activity and ineffective prevention of that risk. Still, it must be remembered that intervention is not always the best way of solving the problem of unreliable market. There occur effects of the taken actions which are hard to predict, and supporting certain interest groups or limited access to the market lead to the appearance of the groups of winners and losers.

The idea of sustainable development of agriculture is implemented in the European Union in the form of so-called European model of agriculture, based on multifunctionality and stability (sustainability). That model is expected to serve various functions, i.e.:

create food that is safe and high quality;

protect biodiversity and landscape features;

preserve the attractiveness and liveliness of rural areas;

provide farmers with satisfactory and stable income;

preserve the cultural heritage of rural areas;

manufacture products able to compete successfully on the global market;

make appropriate contribution to solving the food security problem;

deter the degradation of natural environment on the global scale.

It is worth noting that the objectives enumerated above are contradictory in many spheres. Besides, there is a contradiction between such a model of agriculture (multifunctionality and sustainability) and the course of economic processes [9]. Nowadays, farmers are subject to greater and greater pressure from the market to increase productivity (including both the scale of production and higher specialization) all the time, which reduces the possibility to serve non-market functions included in the model of European agriculture. The pressure to increase productivity, in turn, causes a threat to the development of a number of regions, since the contemporary market promotes concentration of farming in regions with the most favourable conditions and withdrawing it from regions where the conditions are less favourable.

At the moment, competitiveness is the greatest challenge in the sphere of economy. In the situation of overproduction, market forces (especially of the global market) inevitably lead to the growing competition and drive agriculture in the above-mentioned direction towards further concentration, specialization and intensification of production. Lack of competitive skills inevitably results in relatively going back. Politics should take into account the fact that the market values the utility goods purchased by consumers but does not value public goods which are not subject to market appraisal. However, the developmental delay of Polish agriculture for historical reasons, noticeable when compared to the industrial model, reduces its competitive skills. This is going to lead to impossibility to take up competitive challenges in the nearest years.

Polish agriculture encounters a significant dilemma of the choice of production direction: to produce mass goods at relatively cheap prices or to produce niche goods. When producing mass goods, Polish farmers must meet the challenges of competition with farmers from highly developed countries and countries whose natural and economic conditions are more favourable for agriculture. When producing niche goods (organic food, local products based on traditional technologies), competition seems to be much easier, but still it is not going to be an easy way to earning big money. The factors resulting in possible increase in competitiveness of Polish products of that type can be the high quality of products, their taste, ecological origin and a strong brand. Realistically, however, we have to expect a mixed model in the foreseeable future, with the tendency for agriculture to get industrialized.

The basic issue about to determine the direction of development in the nearest years will be a drive to change the agricultural structure. The fragmented agricultural structure (characteristic of Polish agriculture) usually results in a small scale of production and lower competitiveness, which translates into low income from farming. This, in turn, determines a low investment potential of farms. On the other hand, the influence of concentration on sustainable development of rural areas is definitely negative from the environmental and social point of view.

Global determinants. Poland is about to choose the direction of development and although it is definitely not going to abandon the uniform communal market, it will surely have to take into account the processes occurring in the world economy to a greater extent. It is so because globalization changes the principles of market activity. Therefore, future

macroeconomic determinants of development of Polish agriculture will depend on the level of openness of the European Union's policy to global problems. Poland, as a member of the European Union, has committed itself to observe the union treaties and their stipulations. That is why the threats resulting from globalization processes also apply to us. The following things are crucial for the development of Polish agriculture within the nearest years:

increase in prices of agricultural raw materials;

increase in biofuel production;

global increase of food demand;

increasing influence of transnational corporations;

increasing protectionism of individual countries and supranational organizations;

progressing liberalization of goods exchange regarding food;

duration of the current economic crisis and a growing number of national conflicts (even in the sphere of integration groups) resulting from the crisis.

The increase in prices of agricultural raw materials is mostly connected with speculation factors. The period since the beginning of the financial crisis has been characterised by rapid fluctuations of prices of agricultural raw materials. Initially, in the years 2007/2008, the greatest rise in prices within 30 years had occurred, followed by their rapid drop. Then, there was another rise in 2010/2011 and another drop. Unfortunately, those fluctuations mostly resulted from economic issues caused by speculative actions of individuals as well as transnational corporations. Other factors influencing the increase in prices of agricultural raw materials include:

increasing world population;

production of biofuels;

protectionist activities of individual countries or groups of countries;

liberalization of goods exchange;

dynamic development of developing countries and changes in the model of consumption;

reduction of the surface area of arable land;

water deficit in many places in the world.

Unfortunately, higher prices did not translate into higher income of farmers, since the prices were taken over by a number of companies in the food chain.

The increase in biofuel production is preferred in strategic programmes of agriculture development of many countries. The main goals of producing biofuels are limitation of carbon dioxide emitted to the atmosphere and pressure on the price of oil. However, more and more often it is recognized that the pressure on lowering oil prices is not so strong, as production of biofuels only satisfies 3-5 per cent of the world demand for liquid fuels. This has been confirmed by recent events, when surges in prices of oil occurred despite increasing production of biofuels at the same time. The emission of carbon dioxide was not reduced either.

Sadly, an increase of biofuel production leads to numerous perturbations on the food market. According to the latest studies, currently

biofuels (bioethanol and biodiesel) are accountable for 30 per cent of the increase in food prices all over the world. In the years 2006-2011, bioethanol production grew from 58.1 to 105 billion litres, which means it nearly doubled. As for the production of biodiesel, in the same period it increased from 5.7 to approximately 18.1 million tons [5] the increase was threefold.

About 90 per cent of the world biofuel production is concentrated in the USA, Brazil and in the EU-27. It should be noticed, however, that the share of those countries is going to decrease, as more and more biofuels are produced in China, Malaysia or Indonesia. Besides, a specific specialization occurs within their production, which also affects local farming. In the USA and Brazil, bioethanol constitutes about 90 per cent of biofuel production, and in the EU-27, biodiesel is the key biofuel product.

The basic raw materials for manufacture of biofuels are mainly cereals (in the USA, particularly maize), sugar cane (Brazil) and rape (the EU): raw materials which have so far been processed and consumed by people or used as forage in animal production. Further development of the biofuel market may, unfortunately, result in limitation of food availability [4]. It is anticipated that the share of arable land used for biofuel production all over the world will rise from 1 per cent in 2004 to 2.5 - 4.2 per cent in 2030. Even more land is going to be used for production of raw materials for biofuel manufacture in the EU, where in 2020 about 15 per cent of farmlands are going to be devoted to that. This is going to translate into a dramatic decrease of the acreage used for cultivating consumable agricultural raw materials, which will definitely result in further global increase in food prices.

Additionally, in most countries (with the exception of Brazil), production of biofuels without support (subsidizing) is unprofitable. Prices of the raw materials are estimated to constitute approximately 55-70 per cent of production costs of biofuels. Hence, biofuels evoke more and more doubts. However, no symptoms of change of this direction of strategic actions are noticeable.

The global increase of food demand results to a great extent from the increase of income and population, as well as changes in dietary behaviours in developing countries. Dynamic development of countries with high numbers of residents, such as China, India, Brazil, Russia, Mexico, a number of African countries and a number of countries in the South-East Asia, causes a growing food demand.

Quick economic growth of the developing countries results in those societies getting richer. In China, Brazil and India, the speed of economic growth over the last twenty years has been a few per cent every year. Such a high growth has translated into improvement of the society's wealth, and at the same time, into an increase of dietary needs of bigger and bigger groups of people. And it did not only refer to quantity changes but also to changes in the structure of consumption. Along with people getting richer, their preferences are evolving towards consuming greater amounts of goods with high protein content and highly processed goods – instead of cereal products. It is followed by the development of animal breeding and increase of forage crop (mainly cereal) production [7].

Although the above-mentioned group of developing countries has greatly contributed to the global increase of food demand, this did not result from the growth of consumption alone. It must also be remembered that it is the developing countries that generate a considerable population growth, which also translates into the increase of demand for food [1].

The growing impact of transnational corporations – first of all commercial and production ones – operating in the area of food economy, manifests itself among others in controlling and determination of prices. Big transnational corporations have vast possibilities of manipulation with prices of raw materials and farming produce by means of exchange operations and currency exchange rate manipulation. The most modern corporations have great benefits from the sales of their products on the basis of concessions. The solutions which increase food production by means of using agricultural chemicals are particularly criticized, mainly because of dangers to people's and animals' health and degradation of the natural environment. There are also some reservations concerning GMO.

Polish food producers more and more often encounter competition of transnational corporations on the relatively open market. The huge and still growing potential / capacity of transnational corporations results from having such key resources as modern technologies and huge mobile capital as well as commonly known brands of products and well-developed distribution networks, which allow for an easy access to markets. The political strength of transnational corporations is also growing through increasing their impact on state governments and international non-governmental organizations.

protectionism individual The growing of countries and supranational organizations is usually applied in order to ensure food security for their citizens, since availability of food all over the world has been gaining strategic importance recently. One noticeable effect of the rebirth of protectionist tendencies was an increase in the number and means of interventions in the world. Among various tariff and non-tariff barriers to trade, the most often used were: introduction of export restrictions or bans on food importation, subsidizing prices, raising taxes, attempts to control prices of strategic raw materials, quotas and licences, unclear legal regulations, protective and anti-dumping proceedings, rules of standardization, certification and technical norms. So far, barriers have mainly been used by highly developed countries (e.g. the USA, countries of the EU and OECD). They manifested themselves among others in subsidies for agriculture and protectionist practices. In the latest years, developing countries have also begun to use such actions. There, protectionism usually refers to the use of export customs introduced so as to limit rising of food prices on the internal market. For example, export restrictions concerning cereal have been used by its the countries exporting it so far: Russia, Ukraine, Argentina and Serbia. What is more, export of cereal is also restricted by China, Brazil, Indonesia, Vietnam, Cambodia and Egypt.

An important aspect of the contemporary protectionism is the use of high food regimes. On the one hand, it is an attempt to protect their own consumers from the danger of introducing to the market products contaminated with various chemicals harmful for a human. On the other hand, it is often a means of eliminating competitors from the local markets.

Such actions destabilize the world food trade, contributing to growth and instability of prices of agricultural raw materials, which in turn leads to upsetting the global food security. Yet, it also means the growing pressure on local increase of food production, mentioned before.

The progressing liberalization of goods exchange regarding food is related to the growth of the world food trade. That liberalization causes many dangers for our farming, as the union agriculture is not able to be competitive on the global market. However, it may trigger many opportunities as well. Firstly, concessions on the part of the EU regarding liberalization of its agricultural policy are bound to mean shrinking of the European agriculture, including Polish one, and increasing import of cheap food with poorly controlled quality. On the other hand, population in the countries of Western Europe, which have so far been the main recipients of Polish food products, is decreasing. Due to that, those markets may have a lower demand potential in the nearest years. As for global markets, especially Asian and African market, they are going to grow dynamically (the increase of populations and their income). Therefore, Polish food producers should concentrate on markets beyond Europe more than before.

In the case of limitation or liquidation of protective (customs) barriers in the EU, transnational corporations, main producers in industries such as tobacco, sugar, confectionery or tea and coffee processing may withdraw from Poland in favour of developing countries. That may significantly affect the lowering of Polish agricultural potential. It is so because transnational corporations aim at maximization of profits, looking for places where costs of labour, power and raw materials are lower. Furthermore, an important factor taken into consideration in such decisions is food safety and environmental protection regimes, which are lower in less developed countries.

The duration of the current economic crisis and a growing number of national conflicts even in the domain of integration groups, resulting from the crisis, is one of the most significant developmental problems nowadays. The financial crisis is still the basic phenomenon to determine the world's functioning and there are no realistic ideas of how to overcome it. The biggest world economies try to fight it but they do it separately, each with its own means, and a lack of strong global institutions which would take the lead is clearly visible. It is recognized that the pace and direction of further course of the crisis will determine the developmental possibilities of the world and European economies [2]. But it must also be noticed that prolonging crisis phenomena lead to intensification of local conflicts: foods from other countries are discredited under the pretext of protecting one's own consumers and domestic agricultural producers.

Conclusions. The above-mentioned determinants resulting from globalization processes of the world food economy may be treated as external determinants of forming the future agricultural policy in Poland. Their unquestionable influence will probably increase, which will have a destabilizing and weakening effect on the agricultural policy of the EU and Poland. It will be even more important, because the former model of European agriculture is becoming undermined globally, as the world implements other visions of agriculture. Against the background of world agriculture, European (also Polish) farming is characterized by:

lower potential of relatively small farms;

high amount of family labour;

low scale of production;

low level of specialization in multidirectional farms.

relatively high prices of land.

In the age of global economy dominated by openness, liberalism and overpowering flows of capital and goods, limiting the union economy to the group of its member states dooms it to becoming a backwater. That is why continuation of the previous policy and careful observance of changes on global markets is both a protection and a way of rescue for our agriculture.

On the basis of the presented discussion, it can be concluded that the determinants of development of Polish agriculture and rural areas is the consequence of global determinants and the macroeconomic policy. Of course, individual countries also play a role in shaping the directions which are most important for the development of particular areas of that sector.

References

1. Figiel S. Hamulczuk M. Price Volatility and Price Risk in the Agro-food Market and the Future Development of the CAP. In Proposal for CAP 2013+ and competitiveness of the food sector and rural areas / Warsaw, IERIGŻ-PIB, - 2012. - No 61.1. - p. 48-60.

2. Kowalski A. Conditions of the development and global challenges for the agrifood sector in Poland, i European Union Food Sector after the last enlargements – conclusion for the fitire CAP / Warsaw, IERiGŻ-PIB, - 2011. - No 6.1. – p. 9-29.

3. Kowalski A., Rembisz W. Rynek rolny i interwencjonizm a efektywność i sprawiedliwość społeczna [The Agricultural Market and the Interventionism but the Effectiveness and the Social Justice], / Warszawa, IERiGŻ-PIB, 2005.

4. Matyka M. Rolnictwo a odnawialne źródła energii – szanse i zagrożenia [Agriculrture but renewable energy sources - chances and threats]. [in:] Z badań nad rolnictwem społecznie zrównoważonym [From the research on socially sustainable agriculture] / Warszawa, IERIGŻ-PIB. – 2011. - Nr 3, - p. 95-119.

5. Rosiak E., Łopaciuk W., Krzemiński M. Produkcja biopaliw i jej wpływ na światowy rynek zbóż oraz roślin oleistych i tłuszczów roślinnych [The Biofuels Production and it Influence on the Global Market of Cereal Crops and Oil Plants and Vegetable Fats] / Warszawa, IERiGŻ–PIB, - 2011. - Nr 29, - p. 60, 63, 84.

6. Stiglitz J.E. Some theoretical Aspects of Agricultural Policies // The Word Bank Research Observer. – 1987. - Vol 2, No 1, January. - p. 52.

7. Takács-György K. Changes in land use in CEE Countries During the Last Decade // Annals of the Polish Association of Agricultural and Agribusiness Economists. – 2010. - Vol. XII, No 6. – p. 173-179.

8. Wigier M. (ed.) Analiza efektów realizacji polityki rolnej wobec rolnictwa i obszarów wiejskich [Analysis of the Effects of the Agrarian Policy Implementation on Agriculture and Country Areas] / Warszawa, IERiGŻ-PIB, 2011.

9. Zegar J. St. (2012): Uwarunkowania i czynniki rozwoju rolnictwa zrównoważonego we współczesnym świecie [Conditioning and factors of the balanced development of agriculture in contemporary world]. [in:] Z badań nad rolnictwem społecznie zrównoważonym [From the research on socially sustainable agriculture] / Warszawa, IERIGŻ-PIB. – 2012. - Nr 50. – p. 131-176.