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THE ECONOMIC AND SOCIAL CONDITIONS
OF THE DEVELOPMENT OF THE POLISH FOOD
ECONOMY FOLLOWING POLAND'S ACCESSION
TO THE EUROPEAN UNION

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Collective work

*Redaction
dr Marek Wigier*



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The authors are the researchers
of the Institute of Agricultural and Food Economics
– National Research Institute (IERiGŻ-PIB)

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**The Economic and Social Conditions of the Development of the Polish Food
Economy Following Poland's Accession to the European Union**

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Dear Readers,

We are pleased to present the publication containing the most important conclusions drawn from the implementation of tasks within the framework of the multi-annual programme “The Economic and Social Conditions of the Development of the Polish Food Economy Following Poland’s Accession to the European Union” in 2005. This programme was established under Resolution No 126/2004 of the Council of Ministers of 18 May 2004 and will continue to be implemented by the Institute of Agricultural Economics and Food Economics – National Research Institute (IERiGŻ-PIB) until 2009. The programme includes twenty-one tasks in seven main areas, namely:

- The Polish food economy in the first years of EU membership;*
- The impact of the EU structural funds on rural development in the first years of membership;*
- The monitoring and analysis of changes in the Polish food chain;*
- The place of Polish agriculture in the global food market;*
- Polish agricultural holdings in the first years of membership;*
- Regional diversity in agricultural development and its effect on economic and social problems of rural areas;*
- The standard gross margin account for selected agricultural products and the classification of agricultural holdings according to EU rules.*

*This study summarises research conducted by IERiGŻ-PIB employees involved in the implementation of the multi-annual programme. Complete results of this research were presented in twenty-two separate publications released in a special series of Multi-annual Programme Reports, a monthly bulletin “The Agricultural Market” and “The Land Market” analysis, published by IERiGŻ-PIB. All these studies are available, free of charge, on our website at www.ierigz.waw.pl. Furthermore, scientists employed at the Institute published synthetic results of research conducted within the framework of the multi-annual programme in a number of periodicals such as *Zagadnienia Ekonomiki Rolnej*, *Przemysł Spożywczy*, *Wspólnoty Europejskie*, *Nowe Życie Gospodarcze* and presented these results in the form of seminar and conference papers.*

We hope that our research under the multi-annual programme will contribute to a more comprehensive understanding and perception of economic and social effects of integration of the Polish food economy into the common European market and facilitate faster identification of opportunities and threats related to this process. Thus, research results and conclusions will allow to counteract any negative consequences of rural and agricultural transformation, as well as to exploit the opportunities offered to this community within the common agricultural policy.

dr Marek Wigier

Head of the Multi-annual Research Programme

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Introduction

The economic and social conditions of the development of the Polish food economy have fundamentally changed following Poland's accession to the European Union. Although the process of economic and legal adjustment had already started several years before the official date of Poland's membership in the EU, only obtaining this status implied covering the Polish food economy by all the instruments of the *acquis communautaire*, including all the rights and obligations under the common agricultural policy, as well as the regional and structural policies and the Treaty of Accession. These regulations created new economic and social quality for Poland. The adjustment to EU rules has taken a few years, and the process is still incomplete in several sectors of the food economy (such as the dairy and meat industries) and with regard to some provisions related to the environmental protection. Poland negotiated the so-called transitional periods in these areas, and only after these have expired it will be possible to consider the Polish food economy to be adjusted, at least formally, to the rules applicable in the Single European Market.

For Poland's economy, joining the EU implied the opening up of the internal market, but also access to the market of 400 million consumers, as well as to budget appropriations for agricultural and rural development several times higher than those prior to accession. The opening up of the market was followed by a temporary rise in food prices. In 2005, however, it was arrested. At the same time, there was an upswing in the domestic market, and the EU systems of agricultural market regulation contributed to price stabilisation. The food economy started to benefit from the integration into the EU. In 2005, most branches of the food industry recorded an increase in incomes, high profitability levels (some 4%) and substantial investment outlays. Agri-food trade with the EU-24 countries went up to nearly 70% of the total value of trade in agri-food products. As a result of the adoption of the new Common Customs Tariff, there were changes in the conditions of access to non-EU countries' food markets. In 2005, the competitiveness of the food economy was particularly compromised by the low level of vertical integration of agriculture with the processing industry, as well as of horizontal integration in both agriculture and the processing industry. These are, however, structural problems, which may only be resolved in a few years.

One direct consequence of integration was an increase in agricultural income. However, it was only temporary. In 2004, it was favoured by the growing volume of exports and a rise in prices for most agricultural raw materials and food products, as well as the availability of direct payments and LFA payments. In 2005, this effect diminished due to factors such as the appreciation of the zloty, the reappearance of the downward trend in agricultural prices, a slightly lower value of crop production (although compensated with growth in the value of animal production). Thus, in 2005 the level of agricultural income was roughly the same as in 2004. However, in some groups of agricultural holdings in Poland these incomes continued to be by some one-third lower than in the corresponding groups of farms in the EU-15 countries. Nevertheless, Poland's leading agricultural holdings, which account for approximately 9% of the value of market output in agriculture, performed better than farms in other EU Member States, comparable in terms of production and economic structures.

Gradual polarisation of agricultural holdings could be observed. In 2005, a group of merely 220,000 commercial farms accounted for nearly two-thirds of marketed agricultural production. At the same time, there was an increase in the number of the smallest agricultural holdings, which are almost entirely semi-subsistence farms. Off-farm employment and agricultural pensions are the main source of income for their owners. The farm structure in the Kujawsko-Pomorskie and Wielkopolskie voivodships was dominated by highly commercial agricultural holdings (some 31% of the total number of family farms), whereas in the south and east of Poland they only accounted for some 8%. The process of polarisation and regional diversification of the economic and financial situation of agricultural holdings also has social consequences. In rural areas, particularly those where state-owned farms used to operate, the unemployment level tends to be higher than in industrialised areas, their residents also suffer from much more difficult access to education, health care and culture. The results of surveys carried out under the FADN system prove that Poland needs regionally diversified structural policy towards rural areas and agriculture, targeted at particular groups of recipients.

In 2005, the good utilisation of structural funds within the framework of the PROW, SPO and SAPARD programmes favoured structural changes in rural areas and agriculture, as well as increased competitiveness of the food economy. It was, however, accompanied by organisational and administrative problems. Nevertheless, the high absorption of these appropriations indicates that prospective beneficiaries' needs are still enormous. Experience gained during the preparation and implementation of 2004-2006 structural programmes shows

that in 2007-2013, apart from the necessity to improve the very implementation process of structural measures, it will be indispensable to concentrate financial resources on investment and innovative measures and to depart from measures aimed at social protection. This may well be the last opportunity to use the EU funds to support investment in the food economy. Furthermore, priority should be given to measures fostering diversification of economic activity in agriculture, multifunctional rural development and the development of broadly defined technical and social infrastructure (access to education, health care, culture etc.). The non-farming population already accounts for over 54% of the rural population, and its share increases along with Poland's economic growth.

On accession to the EU, Poland joined one of the regional arrangements which influence global food markets. Under such conditions, the family farming model is becoming less and less competitive. There is growing pressure from world markets to reduce barriers to food trade and to limit financial support for agriculture. The concern for production quality is rising into prominence in efforts to maintain European farming. At the same time, the preservation of rural environment and cultural heritage becomes integrated into the sustainable development strategy. Faced with such challenges, the EU Member States are very likely to gain more discretion also in this field in the future.

1. The Polish food economy in the first years of EU membership

1.1. The assessment of the Polish food economy following Poland's accession to the EU

The ongoing monitoring and analysis of changes in and around agriculture and the processing industry after Poland's accession to the European Union allow to draw the following conclusions:

- ⇒ The second year of Poland's membership in the European Union witnessed the continuation of tendencies which appeared several months following accession, namely:
- The price situation in the agri-food market calmed down. After the price shock in the months preceding and immediately following Poland's accession to the EU, there was a gradual decline in prices along the food chain, i.e. agricultural prices, food producer prices and retail prices. At the end of 2005, prices approached the low level of 2002-2003, and the food economy ceased to be one of the factors pushing up inflation. The price scissors index fell from over 100% in mid-2004 to some 90% at the end of 2005;
 - The development and stabilisation of the food economy was primarily driven by exports of agri-food products. In 2005, their growth rate was nearly as high as in the first months following accession to the European Union. There was, however, a significant change in the geographical structure of Polish agri-food exports, which points to the inclusion of Poland's food economy in the development of intra-EU trade;
 - The food economy continued to be one of the major beneficiaries of integration with the EU. The positive cash flow in agriculture is of particular importance. In 2005, it was higher by PLN 9.8 billion than in 2003. Financial results of agricultural enterprises showed an improvement;
 - Profitability of the food industry remained high (some 4% of the turnover value), and profits for the first three quarters of 2005 (PLN 3.3 billion) were only lower by 3% in comparison with the corresponding period of the previous year;
 - Income growth in the food economy was widespread. Only cereal producers who applied intensive technologies and participated in ARR intervention buying-in did not benefit from integration with the EU.

⇒ The second year of EU membership witnessed a new development – an upswing in the domestic market, mostly resulting from the real wage rise which started in mid-2005 and from increased incomes of farmers, entrepreneurs and persons involved in job migration. Moreover, the effects of this upswing are already observable in the food economy as:

- the growth rate of retail sales of food and beverages has gone up,
- since May 2005, there has been a marked acceleration of the growth rate of sales in this sector (up to 8.7% from May to October 2005).

In addition to exports and the industrialisation of the processing industry, growing absorptive capacity of the domestic market has been increasingly stimulating growth in the food economy.

⇒ To a larger extent than in the first year of EU membership, the effect of integration on real development processes in Polish agriculture materialised during the second year. This impact is greater in the case of animal production than in crop production, whose changes have been primarily influenced by climatic conditions over the past two years.

Furthermore, the second year after joining the EU witnessed effects of EU market regulation systems on main agricultural markets. These are stabilised and predictable markets. The primary factor in the stabilisation of agricultural markets was Poland's opening up towards markets of the other EU Member States, as well as agricultural support schemes within the framework of the common agricultural policy.

⇒ Developments directly or indirectly attributable to integration with the EU include:

- the continuing high level of investment in the food industry, indicating the ongoing modernisation of the processing industry which enhances Poland's competitiveness in the EU market in terms of quality,
- the second year following the EU accession saw an increase, by some 20%, in the number of processing plants in sensitive sectors, licensed to trade in the common European market,
- continuing changes in the agrarian structure of agriculture, i.e. the growing number of the largest and the smallest farms,
- a modest acceleration of agricultural investment.

⇒ The performance of the food economy after Poland's accession to the European Union explicitly indicates that it was beneficial for both farmers and processors. This is also reflected in the following developments:

- the rather smooth inclusion in EU systems of agricultural regulations, the stabilisation of the domestic market and greater predictability of market performance,
 - the high degree of implementation of food safety and quality systems, improved food quality and the development of new and modified food products,
 - the good utilisation of EU appropriations for supporting rural and agricultural transformation, as well as for improved competitiveness of the whole agri-food sector,
 - entry into demanding EU markets, the overcoming of EU consumers' mistrust of flavour and health qualities of Polish food,
 - threat posed by food producers from developed EU countries less significant than expected,
 - the strengthening of Poland's position in the EU food economy and the increased share in intra-EU commodity trade.
- ⇒ However, integration into the European Union also revealed a number of problems in the Polish food economy, such as:
- the gradual strengthening of the zloty which – despite the fall in domestic prices – reduces Poland's competitive advantages over agricultural producers and food industries in other EU Member States,
 - the development of large supermarket chains undermining the food chain position not only of processing companies, but indirectly also that of farmers, which accelerates the downward trend of relative agri-food prices,
 - increased incomes of farmers and processors on account of rising prices were temporary since the downward trend of relative prices for agricultural products and food reappeared,
 - the low level of vertical integration of agriculture with the processing industry, and of horizontal integration in both agriculture and the processing industry,
 - still considerable threat, particularly in some sectors (the meat processing industry, bread production, the spirit industry) posed by competition of the black economy,
 - excessive and continuously modified EU regulation systems, environmental standards and requirements to follow uniform procedures presenting non-economic barriers to market entry.

1.2. The impact assessment of the common agricultural policy on agricultural markets

The systematic monitoring of the situation in the main markets, particularly the observation of the development of prices and turnover, allows to draw the following conclusions:

- ⇒ The most essential changes in the situation of food producers, processors, traders and consumers in Poland following accession to the European Union resulted from the mere opening up of the common market rather than from the inclusion in the common agricultural policy.
- ⇒ Psychological factors had a marked impact on the behaviour of both producers and consumers, as well as the whole trade. High hopes and even greater concerns which had been raised, especially, in the months immediately preceding accession, to some extent disturbed the demand and supply situation in certain food markets. However, they quickly began to return to normal and each market reached a new equilibrium, although in some cases it was different from the previous one.
- ⇒ The general and anticipated tendency is the alignment of prices for agricultural raw materials, foodstuffs and means of production with the EU levels. In different areas of the food economy, however, this process varies in speed.
- ⇒ As regards retail prices for food and agricultural inputs, in the nearest future price alignment will be hampered by restrictions resulting from the still low purchasing power of both consumers and producers.
- ⇒ As the “accession” effect fades, the role of particular common agricultural policy instruments will increase. In a longer-term perspective, these instruments will have a crucial impact on trends and rates of structural changes in Polish agriculture. Regrettably, in this area CAP measures are inconsistent. On the one hand, a number of CAP instruments are originally aimed at concentrating land and capital (and labour to a lesser extent) in farms viable economically and capable of providing the farmer and his family with fair income, but on the other hand, other CAP instruments such as direct payments may contribute to the preservation of existing structures.
- ⇒ The transformation of Polish agriculture will be substantially accelerated, although not to such an extent as in the case of the six EEC countries over the first two decades of existence of this organisation.

1.3. The assessment of changes in the competitiveness of Polish food producers in the common European market and in markets of third countries

Evaluations of changes in the competitiveness of Polish food producers after Poland's accession to the European Union, as well as analyses of the extent and level of subsidising agri-food exports in the dairy, sugar, cereal, starch and meat sectors allow to draw the following conclusions:

- ⇒ Poland's accession to the European Union means that on 1 May 2004 Poland became part of the common European market. Customs duties and other restrictions on trade with the remaining EU countries were lifted. Polish agri-food products may be easily exported to markets of other Member States. Furthermore, agri-food goods produced in other Member States enjoy free access to the Polish market. Owing to this full mutual opening up of markets, the fundamental problem for the Polish food economy has become the question whether the inevitable loss of a certain share of the domestic market is more than compensated with higher sales in markets of other Member States.
- ⇒ Furthermore, membership in the EU has significantly changed trading conditions between Poland and non-EU countries. On the day of obtaining membership Poland lost the possibility to pursue sovereign commercial policy and needed to terminate all trade agreements, including those providing for preferential trade. As a result, there has been a deterioration in the conditions of access to non-EU markets. Access for Polish agri-food products to the Russian market has become particularly problematic.
- ⇒ One year after Poland's accession to the EU, the production and economic performance of the agri-food sector was optimistic. It confirmed the good preparation and considerable adaptability of this sector to operate in the common market. Food producers skilfully used their competitive advantages, increased exports and improved their position in the enlarged EU. In 2004, the value of agri-food exports rose by nearly 31%. At the same time, the growth rate of imports was lower, almost 24%. In 2005, foreign trade in agri-food products continued to increase – in the first half of 2005, in comparison with the corresponding period of the previous year, exports went up nearly by 53%, and imports by almost 27%.
- ⇒ In the first year of membership, the common European market played a predominant role in Polish agri-food imports and exports. The share of EU-15 in the total turnover of Poland's foreign trade in agri-food products increased from some 51% in 2002-2003 to nearly 56% in 2004 and 54% in

the first half of 2005. At the same time, the share of EU-24 in Poland's agri-food trade rose from approximately 63% in 2002-2003 to as much as some 68% in 2004 and more than 66% in the first half of 2005.

- ⇒ All in all, Poland's inclusion in the structures of the common European market and the resulting mutual elimination of all restrictions on access to the agricultural market, as well as the need to cope with various conditions related to access to non-EU markets proved favourable for the Polish food economy. With regard to foreign trade in agri-food products, benefits derived in the first year of Poland's membership in the EU significantly exceeded expectations. Neither did the EU accession bring about excessive food imports from the EU to the Polish market. On the contrary, following 10 years of continuous deficit in agri-food trade with the EU-15 countries, 2004 and 2005 witnessed surpluses in agri-food trade, with exports and imports growing at the same time. Furthermore, Poland recorded surpluses both in the overall foreign trade in food products and in trade with the EU-24.
- ⇒ The Polish agri-food processing sector is highly competitive. Analyses covering recent months have indicated that Polish food producers enjoy considerable competitive advantages in the European Union markets and they are able to skilfully use their strengths. These advantages mostly result from Poland's lower, in comparison with other EU Member States, prices prevailing in the agri-food sector. The source of Poland's price advantages is primarily several times less expensive labour, not only of Polish farmers, but also of persons employed in the processing industry, which more than compensates for labour productivity differences, as well as lower prices for land, energy and other means of production. Price advantages concern most agricultural products and most basic products of the food industry. Considerable price advantages are also found in the case of highly processed food products.
- ⇒ Other important strengths of Polish food producers increasing the competitiveness of their offer include product qualities which stem from lower intensity of agricultural production and more widespread application of traditional formulas and processing technologies. Thus, deliveries of cheap, healthy and safe Polish food to the EU market are likely to grow further.
- ⇒ Poland's inclusion in the EU system of export subsidies ensures profitability of agri-food exports to third countries' markets, mostly to Eastern Europe, and increases the ability to compete in those markets with suppliers from other EU Member States. Polish traders manage to use EU export refunds well.

- ⇒ Furthermore, the inclusion of Polish agriculture in the common agricultural policy also offers development possibilities for the Polish food economy. This policy stabilises agricultural markets and enables processors to maintain low prices for basic raw materials. Additional growth possibilities result from the liberalisation of world agri-food trade facilitating access for Polish food producers to cheap raw materials produced in other climatic zones. The EU structural funds, particularly the part of the Sectoral Operational Programme for the “Restructuring and Modernisation of the Food Sector and Rural Development” which concerns the “Improvement in processing and marketing of agricultural products”, also provide development opportunities.
- ⇒ Competitiveness in the EU market and in world markets is not tantamount to price competition. Other crucial characteristics include quality, innovativeness and uniqueness of products and ways to reach consumers, the ability to identify and satisfy the needs of individual customers, comprehensive promotion measures, brand development and the creation of corporate image based on confidence in product quality and reliability and in customer service quality. In fact, the above-mentioned factors may determine whether Polish products are accepted by consumers from other countries.
- ⇒ Whether Polish food producers comply with quality standards depends on their narrowing the gap in the implementation of modern systems of management, marketing, logistics etc. This is of vital importance, especially as growing demand for Polish food and the resulting increase in exports raise serious concerns among Poland’s EU competitors.
- ⇒ Factors compromising development opportunities for food producers are related to:
 - the strengthening of the zloty against the euro and the dollar, which undermines the competitiveness of Polish food and increases import profitability,
 - globalisation, which contributes to the popularisation of global brands and makes national and regional brands diminish in importance,
 - the maintaining of production and sales quotas for milk, sugar, isoglucose and potato starch, limiting development possibilities in these sectors,
 - the opening up of the Polish food market for producers from other EU Member States, which may result in increased imports,
 - liberalisation of world agri-food trade, opening up the domestic and EU markets for food imports from countries characterised by low production costs.

⇒ The comparison of opportunities with threats to the development of Poland's foreign trade in agri-food products and the improvement in the competitiveness of Polish food over the next few years allows to assess that the opportunities will exceed the threats. This period is expected to witness both Poland's significant economic growth and rapid development of the Polish food industry, as well as increased agri-food exports. It will be followed by more difficult years for Polish food producers. Poland's price advantages in the EU market will then diminish and competition by food producers from non-EU countries, particularly those characterised by lower food production costs, will show an increase. The first consequences of these developments will be observable in agriculture, but they will also materialise in the food industry very soon.

2. The impact of the European Union structural funds on rural development in the first years of membership.

The general concept of rural development support from structural funds and the Cohesion Fund in 2007-2013

2.1. The analysis of the implementation and outcomes of the PROW and SOP programmes (*Program Rozwoju Obszarów Wiejskich – Rural Development Programme, Sektorowy Program Operacyjny “Restrukturyzacja i modernizacja sektora żywnościowego i rozwój obszarów wiejskich” – the Sectoral Operational Programme for the “Restructuring and modernisation of the food sector and rural development”*)

Research aimed at analysing the implementation of the PROW and SOP programmes allows to draw the following conclusions:

- ⇒ Following the EU accession, public spending and commitment appropriations for the implementation of the structural policy in Poland within the framework of the PROW and SPO programmes are several times higher than prior to accession and will total more than €5.3 billion in 2004-2006, and combined with private resources they will increase by €0.9 billion. Public expenditure has grown from €1.5 billion in 2004 to nearly €2.1 billion in 2006. In financial terms, PROW is a larger programme (€3.6 billion in 2004-2006).
- ⇒ Within the framework of PROW, the most financial resources (35%) have been allocated to support measures for agricultural holdings in less-favoured areas (LFA), followed by 24% of funds to the structural pension scheme, and

14% to support semi-subsistence farms. This means that PROW is largely aimed at social protection. LFA financial support depends on the location of the farm rather than on the investment project, the low income threshold for semi-subsistence farms (from 2 to 4 ESU) deprives this measure of its structural character. Due to easy access to LFA funds, these were practically used up by mid-December 2005.

- ⇒ PROW is characterised by a relatively high share of resources allocated for environmental protection – 17% (of which 13% for agri-environmental programmes and 4% for afforestation). This reflects the appropriate orientation of support, consistent with European tendencies. However, the afforestation programme lacks resources for training aimed at improving the economic, ecological and social functions of forests (Article 9 of Council Regulation (EC) No 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF)), no financial aid was allocated to support measures for the creation of associations of forest owners. In the Community law, afforestation is meant to serve primarily environmental protection and the preservation of the rural landscape, and in Poland – the provide additional income to the farming population. Lack of funds for afforestation by the State Forests (*Lasy Państwowe*) is a gross error (although it remains open to question whether it was possible to negotiate the EU support for the State Forests with the European Commission). Farmers show great interest in afforestation of farmland. By mid-December 2005, nearly 6,500 applications for 73% of appropriations for this measure in 2004-2006 were submitted.
- ⇒ The amount allocated to finance the structural pension scheme (24% of funds) seems insufficient to satisfy the needs (some 160,000 farmers will be from 54 to 59 years of age in 2004-2006) – it allows approximately 52,000 beneficiaries. Furthermore, the structural pension scheme is less stringent and more favourable for farmers than prior regulations (the amount of pension, the eligible age, the size of a transferred and created farm), which might cause social conflict in rural areas. In total, nearly 37,000 beneficiaries applied for 77% of budget appropriations under this measure.
- ⇒ The utilisation of support measures for the formation of producer groups is subject to major limitations such as organisational (legal form), procedural (registration in the court register), economic (sales limits) and tax barriers. In connection with the above, by mid-December 2005 as few as 41 groups benefited from financial assistance, and funds were only transferred to two groups (which accounts for merely 0.7% of appropriations entered in the budget).

- ⇒ From the very beginning, the PROW programme was characterised by major delays in the implementation of measures and effecting payments. In the case of some measures (such as support for semi-subsistence farms) the Agency for Restructuring and Modernisation of Agriculture needed even seven months from receiving the first applications to the accreditation by the Ministry of Finance. Administrative barriers in this respect were overcome the soonest in the case of support for agricultural producer groups (3 months). All measures took from 6 to 12 months from submitting the application to effecting the first payment, which caused serious discontent among beneficiaries and a slowdown in investment processes.
- ⇒ PROW is consistent with the Community regulations, but it was significantly limited since it lacks innovative measures. From the point of view of the modernisation of rural areas, these are much more important than “social” programmes. However, their implementation is complicated. As a result, PROW fosters growth in agricultural income rather than actual rural development. Thus, the strengthening of the demanding attitude among some farmers becomes a real danger.
- ⇒ SPO continues investment measures of the SAPARD programme. However, as in the case of PROW, it is characterised by major delays in the implementation of a number of measures. Consequently, as many as 50% of projects were only launched in the third quarter of 2005. Payments are delayed even more due to the fact that investment normally precedes actual payments.
- ⇒ The public finance accounts for up to 50% of the project costs under measures aimed at investment in agricultural holdings and the processing of agri-food products, and up to 100% in the start-up scheme for young farmers. The share of the EU aid in public spending is 54% in investment in agricultural holdings and 70% in investment in the food industry.
- ⇒ In financial terms, the largest SPO measures include investment in agricultural holdings (35% of appropriations for the programme) and investment in the processing and marketing of agricultural and forestry products (34% of programme funds). Under these two largest measures, maximum amounts of support for the beneficiary are sufficient or high (“Investment in agricultural holdings” – up to PLN 300,000 and “Processing” – from PLN 100,000 to 20 million), which reflects proper programming of these measures in terms of real investment costs. A major barrier to benefit from support measures are stringent eligibility criteria in “Investment in agricultural holdings” (such as work record, agricultural education). On the whole, however, both measures have been very popular. Under the measure

of “Improving the processing and marketing...”, more than 1,600 applications for a total of over 157% of the available appropriations for 2004-2006 were submitted by mid-December 2005. As many as 25,000 applications for a total of more than PLN 2.7 billion, i.e. 113% of the available appropriations, were submitted under the measure “Investment in agricultural holdings”.

- ⇒ A characteristic feature of SPO is that its funds are spread too thinly with regard to financing measures such as the so-called small infrastructure development. Such investment projects should fall within the competence of the Ministry of Regional Development or the Ministry of Infrastructure rather than the Ministry of Agriculture. Funds applied for under this measure were also used up and exceeded the available appropriations by 9%. In total, more than 3,100 applications were submitted by prospective beneficiaries.
- ⇒ The weak point of SPO is that support in the form of secured financial resources under “Land consolidation” is insufficient, with complex and unclear implementation procedures.
- ⇒ By mid-December 2005, total amounts applied for by prospective beneficiaries exhausted appropriations available under most SPO measures, which reflects great interest in investment measures among beneficiaries. Many farmers and processors set their hopes on the countryside, agriculture and rural areas. These are traders and farmers with investment capacity, production based on cutting-edge technologies and ability to cope with competition in the common European market.
- ⇒ In 2004-2006, structural policy towards rural areas and the food economy is characterised by a most accurate identification of major development problems of the Polish food economy and rural areas, well-ordered, stable and predictable scope, certainty that the objectives will be realised, a transparent structure of programme financing, a wide variety of measures and easy access to some financial resources. Undoubtedly, these are important strengths of structural measures targeted at rural areas and the food economy.
- ⇒ The weaknesses of structural policy towards rural areas and the food economy in 2004-2006 include their short-term character, the overlapping of measures and funds spread too thinly (a great number of programmes – 25), the focus on maximising the utilisation of the EU financial resources, insufficient support for the development of modern economic structures, entrepreneurship and sustainable development, the adoption of European priorities in Poland’s structural policy, significant delays in signing contracts and effecting payments, the lack of support measures for the fight against unemployment in rural areas.

2.2. The concept of rural development support from structural funds and the Cohesion Fund in 2007-2013

The assessment of the implementation of the SAPARD programme, the analysis of projects within the framework of the 2007-2013 Rural Development Plan, the National Strategic Plan (*Krajowy Plan Strategiczny*) and the evaluation of regulations governing the functioning of the European Agricultural Fund for Rural Development (EAFRD or FEADER) led to the following conclusions:

- ⇒ The support system within the framework of the SAPARD programme, i.e. the full financing of the project by the beneficiary and the reimbursement of eligible costs by the fund, was accepted by local governments, the agri-food industry, and most probably also by small entrepreneurs operating in rural areas. This is an important insight since the EU system imposes much greater financial requirements on beneficiaries than the system of preferential credits applicable in Poland in the 1990s and in the early 2000s.
- ⇒ It is hard to assess whether the financial system of the SAPARD programme was fully accepted by farmers. Undoubtedly, farmers benefited from support measures if their projects could be implemented and settled quickly. But few of them applied when projects involved greater (even if only temporary) own assets (larger construction works, including projects aimed at modernisation and adjustment to EU standards). From the point of view of long-term agricultural development, however, such projects are the most valuable ones.
- ⇒ On the launch of the SAPARD programme, farmers, entrepreneurs operating in some branches of the food economy and local governments gained access to much greater funds than in any programme implemented during the transition period. However, its duration was insufficient to assess whether it had an apparent effect on rural and agricultural development. Since the follow-up of the SAPARD programme are currently (2004-2006) and will be in the next multi-annual budget (2007-2013) programmes co-financed by the EU structural funds, it should be expected that the next few years will witness a marked development of a number of rural areas. Nevertheless, in the late 2000s the position of rural areas will primarily depend on Poland's general economic situation, as well as on appropriate regional policy.
- ⇒ Although the SAPARD programme had little impact on rural development, one of the participating groups derived significant benefits, namely entrepreneurs operating in the food economy. The adjustment of many plants in four branches of the agri-food sector – the dairy, meat, fish, fruit and vegetable industries – to EU standards is a major success of the programme. Without support under the SAPARD programme, much fewer plants would

be entitled to export their goods to the Single European Market, and the results of foreign trade in agri-food products in 2004-2005 would have been much worse.

- ⇒ Local governments, mostly well-prepared to benefit from EU financial aid, were equally successful in the utilisation of SAPARD funds. But the implementation of SAPARD measures aimed at the modernisation and restructuring of agricultural holdings left much to be desired. However, it is impossible to make agriculture a strong section of Poland's economy before agricultural holdings markedly increase their economic strength. One of the prerequisites to attain this goal is to boost crop and animal production. At the same time, support under the SAPARD programme was oriented towards the improvement in sanitary and veterinary conditions, environmental protection and animal welfare rather than the farm structure. Farmers' own resources are insufficient to resolve the problem of inadequate structures in Polish agriculture.
- ⇒ Figures for 2004 show that farmers' income situation has markedly improved following Poland's accession to the European Union. Presumably, the year 2005 saw further improvement, even though not so significant, and the next few years are also likely to witness some progress. It should be expected that improvement in the economic situation in agriculture will be accompanied by a growing number of farmers confident that a modern farm with adequate economic strength is able to ensure fair income and living standard. If such an attitude spreads in the future, there will be an increase in agricultural investment contributing to agricultural and rural development.
- ⇒ The Polish POROW, as well as similar programmes in the remaining 24 Member States, must comply with the guidelines contained in two Council documents, namely Council Regulation (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), and the "Community Strategic Guidelines". It is impossible to take account of the "Community Strategic Guidelines" since they have not as yet been adopted by the Council (Member States have only been given the draft Guidelines prepared by the Commission). As regards Regulation No 1698/2005, adopted by the Council with a huge delay (on 20 September 2005), it establishes a uniform programming framework for all Member States, with a particular focus on EU-wide problems. The three main objectives defined in Regulation No 1698/2005 are not questionable. These include: (1) improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation, (2) improving the environment and the

countryside by supporting land management, (3) improving the quality of life in rural areas and encouraging diversification of economic activity. However, the same regulation suggests that EU authorities clearly regard actions oriented towards improving the environment as the most important. Each Member State is obliged to allocate at least 25% of the EAFRD total contribution to the programme for the co-financing of projects aimed at improving the environment, and only 10% for each of the two remaining objectives. Undoubtedly, some of the “old” Member States (such as the United Kingdom) will consider such a balance between objectives to be appropriate. From the point of view of Poland, however, the two other goals are much more important, particularly improving the competitiveness. Fortunately, the Council only distributed 45% of the EU resources, and Member States are free to allocate the remaining 55% of the EAFRD contribution. Therefore, it is possible to make essential adjustments. Proposals contained in the draft version of POROW suggest that Poland’s intention is to allocate relatively significant funds for supporting competitiveness, which is unquestionably appropriate, but at the same time relatively limited resources for improving the quality of life, which needs to be revised, primarily because improving the quality of life includes the possibility to support micro-enterprises and farm diversification into non-agricultural activities.

- ⇒ The nature of POROW is determined by the allocation of the available resources to specific measures rather than by the EAFRD contribution to the main objectives. Each of the core objectives includes both measures which can be regarded as development-oriented and those which should be classified as social protection (development-oriented measures are defined as those increasing the economic strength of agricultural holdings, the rest are considered social protection). The programming of the Polish POROW should be based on the following distribution of resources (not only EU funds, but also Poland’s public resources): only as much as necessary for social measures, and as much as possible for development-oriented measures. In particular, POROW should depart from the principle of allocating funds mostly to easy programmes (typically, social programmes or programmes hardly contributing to significant improvement in the competitiveness and economic strength of Polish farms), which was evident in SAPARD and programmes implemented in 2004-2006, and concentrate funds on those measures which are the most beneficial ones in the long term (some of them may be difficult since they involve substantial organisational efforts on the part of beneficiaries and significant own resources).

- ⇒ The programming of POROW should take into account that the years 2007-2013 may well be the only period when the EU budget contribution to the modernisation and development of Polish agriculture is so substantial (some €2 billion annually). It is perhaps a unique opportunity to narrow the gap between Polish farming and agriculture in many other EU Member States.
- ⇒ The utilisation of funds for agricultural development will primarily depend on farmers' willingness to develop their farms. Obviously, in the 1990s and in the early 2000s agriculture was not very profitable, which is reflected in the low investment rate, also evident during the implementation of the SAPARD programme. Interest in programmes implemented in 2004-2006 is much greater. Furthermore, the number of serious projects undertaken by farmers has also increased. Both observations may suggest that at least some farmers are currently convinced that agricultural activities may provide fair income and be worth investing in farm development, also involving own resources. Should this improvement in the climate of opinion among farmers prove permanent, it could be useful to programme support for farmers within the framework of POROW in such a way as to primarily encourage the implementation of difficult projects, but producing lasting results and very beneficial in the long term.
- ⇒ The study also included the analysis of the following questions: 1. whether measures proposed in Council Regulation No 1698/2005, which forms the basis for the preparation of POROW, foster optimal development of Polish rural areas and agriculture, and 2. whether the design of POROW ensures rapid rural and agricultural development.
 - Question 1. The construction of Regulation No 1698/2005 and the contained Council guidelines constitute yet another proof of the concept prevailing in the EU, which is that the Community agricultural output should be basically maintained at the current level, or at least farmers should not be encouraged to increase production. Therefore, according to Community institutions, rural development should primarily involve the development of non-agricultural activities (multifunctional countryside), and investment in agriculture should contribute to improving the environment and the quality of production. Factors increasing agricultural income should include the popularisation of agri-environmental programmes where participating farmers receive payment (however, the payment often compensates only for the lost income). Thus, some owners of agricultural holdings are gradually becoming the guardians of the environment.

The quality of the environment represents a major issue in EU Member States and regions with high-intensity agriculture. The fundamental problem of Polish agriculture, however, is very different. Family farms prevailing in Poland are structurally incapable of providing sufficient income, which results from limited economic strength and the scale of production being far from optimal. Therefore, a rise in income to the level ensuring fair living standard to the farming family involves growth in production.

Thus, the development of Polish agriculture calls for measures aimed at increasing the economic strength of agricultural holdings, which cannot be achieved without expanding the scale of production. From this point of view, Regulation No 1698/2005 fails to ensure optimal development to Polish agriculture and rural areas. At the same time, however, it should be noted that this regulation, due to a selection of 37 measures (two of which were established particularly for the new Member States), enables flexible programming by individual countries and, as a result, the priorities of the Polish POROW may significantly differ from the priorities of the Council and the Commission.

- Question 2. At present, it is still too soon to answer the question whether the POROW project ensures rapid rural and agricultural development, due to the lack of financial provisions. Only the allocation of resources available to Poland for specific measures will allow to analyse whether the programme ensures rapid development or mostly represents a mechanism to transfer resources to agriculture. This will depend on the balance between support measures for projects aimed at boosting farming efficiency and measures to increase agricultural income.

3. The monitoring and analysis of change in the Polish food chain

3.1. The monitoring of economic effects of the development of quality assurance systems and of their impact on the competitiveness of the Polish food economy

The monitoring of the implementation rate of compulsory and voluntary quality management systems in selected groups and subgroups of enterprises operating in the food industry allows to draw the following conclusions:

- ⇒ Thus far, Poland has conducted no research on the implementation rate of compulsory and voluntary quality management systems in enterprises

operating in the food industry. The Chief Veterinary Inspector and the State Sanitary Inspectorate keep no central register of compulsory quality management systems implemented in enterprises in the food industry subject to supervision. Such data are only collected at the district level.

- ⇒ Enterprises operating in the food industry implement three compulsory quality management systems, i.e. good hygiene practice (GHP), good manufacturing practice (GMP) and the HACCP (Hazard Analysis Critical Control Point) system.
- ⇒ After one year of Poland's integration into the EU (as at 1 May 2005), the compulsory system of good hygiene practice was implemented and applied only in some 50% of the total number of enterprises operating in the food industry, and approximately 30% of companies were at the implementation stage. Since 20 July 2000, the implementation of the system has been a legal obligation in Poland. From 1 May 2004 to 1 May 2005, the highest implementation rate with regard to good hygiene practice was recorded in the group of small enterprises in the food industry.
- ⇒ As at 1 May 2005, the compulsory system of good manufacturing practice was implemented and applied only in some 45% of the total number of companies in the food industry, and some 30% were at the implementation stage. On 20 July 2000 the implementation of the good manufacturing practice system was introduced as a statutory obligation in Poland. From 1 May 2004 to 1 May 2005, there was a very substantial increase (by 174%) in the number of small firms in the food industry which implemented and applied the system of good manufacturing practice.
- ⇒ On 1 May 2005, i.e. one year after the obligation to implement the HACCP system was introduced, only some 26% of the total number of enterprises in the food industry implemented and applied this quality management system, and approximately 21% of firms were at the implementation stage.
- ⇒ As at 1 May 2005, good hygiene practice and good manufacturing practice were implemented and applied in 56% of medium-sized and large enterprises in the meat industry, and the HACCP system was implemented and applied in 55% of firms in this size class. Poland's accession to the EU had no significant effect on the rate of the completed and ongoing implementation of GHP, GMP and the HACCP system in this groups of companies. It partly resulted from the fact that some enterprises started adjustments to EU sanitary and veterinary standards as early as the 1990s.
- ⇒ In 2005 (as at 1 May), 68% of the total number of companies operating in the fish industry applied good hygiene practice, 66% of those applied good

manufacturing practice, and the HACCP system was implemented in 65% of firms. Poland's joining the EU had no impact on the rate of the implementation and application of good hygiene practice and good manufacturing practice in the fish industry. Annual change was some 1%, which stemmed from prior efforts by companies in the fish processing industry to adjust to sanitary and hygienic standards applicable in the European Union (mostly GHP and GMP). However, Poland's accession to the EU had a marked effect on the application rate of the HACCP system in the fish industry since the number of companies which implemented and applied this quality management system showed an increase (by 72%).

- ⇒ As at 1 May 2005, 69% of the total number of enterprises operating in the dairy industry applied good hygiene practice and good manufacturing practice, and 61% applied the HACCP system. Poland's joining the EU had no essential influence on progress in the implementation and application of good hygiene practice and good manufacturing practice in companies in the dairy industry. In 2005 (as at 1 May), the share of enterprises applying GHP and GMP only rose by 6-9% in comparison with 2004, which resulted from the fact that the implementation of the compulsory systems of quality management in this industry had started earlier, prior to 1 May 2004. At the same time, Poland's integration into the EU structures pushed up the number of dairies applying the HACCP system by 45%.
- ⇒ In 2005 (as at 1 May), approximately 38% of the total number of enterprises operating in the fruit and vegetable industry implemented and applied good hygiene practice and good manufacturing practice, and the HACCP system was applied only in 25% of firms. Poland's accession to the EU had an apparent effect on the implementation and application rates of all the three compulsory systems of quality management in the fruit and vegetable industry. During one year (from 1 May 2004 to 1 May 2005), there was a rise by some 50% in the number of firms which implemented and applied GHP and GMP and by 44% of firms applying the HACCP system. Relatively the highest growth rates were recorded in the case of small enterprises.
- ⇒ As regards the oil and fat industry, as at 1 May 2005, 58% of the total number of companies implemented and applied good hygiene practice, 47% – good manufacturing practice, and 37% of the total number of enterprises implemented and applied the HACCP system. Poland's joining the EU influenced the implementation rate of the compulsory systems of quality management in the oil and fat industry. After one year (as at 1 May), there was an increase by 69% in the number of firms applying GHP, by 64% in the case of GMP, and the number of enterprises which implemented and applied

the HACCP system went up by 55%. Particularly high growth rates were recorded in the group of small companies since the number of enterprises applying GHP, GMP and the HACCP system increased by 160%, 200% and 100% respectively. No apparent changes were observed in large enterprises.

- ⇒ In the cereal industry (as at 1 May 2005), 47% of enterprises completed the implementation of good hygiene practice, 44% of firms applied good manufacturing practice, and the HACCP system was implemented in 22% of companies. During the first year of Poland's membership in the EU, the cereal industry experienced essential changes in the implementation rate of the compulsory systems of quality management. Between 1 May 2004 and 1 May 2005, there was a rise in the number of enterprises operating in the cereal industry which implemented and applied good hygiene practice (up 102%), good manufacturing practice (up 87%) and the HACCP system (up 82%). The most substantial changes were observed in the group of large companies: the number of enterprises which implemented and applied GHP, GMP and the HACCP system jumped by 200%.
- ⇒ In the baking industry, as at 1 May 2005, good hygiene practice was implemented in 49% of firms, good manufacturing practice – in 42%, and merely 8% of companies implemented the HACCP system. Poland's accession to the EU had a major impact on the implementation rate of the compulsory systems of quality management in the baking industry. One year after Poland's joining the EU, the growth rates of enterprises which implemented and applied good hygiene practice, good manufacturing practice and the HACCP system were 246%, 259% and 478% respectively. The highest growth rates were recorded in small firms.
- ⇒ In 2005 (as at 1 May), 97% of enterprises in the sugar industry implemented good hygiene practice, 94% of sugar factories applied good manufacturing practice, and the HACCP system was implemented in 75% of firms. Poland's membership in the EU accelerated the implementation of the compulsory systems of quality management in the sugar industry. From 1 May 2004 to 1 May 2005, the number of companies operating in the sugar industry which implemented and applied GHP, GMP and the HACCP system showed an increase by 50%. Relatively the biggest changes in this area characterised the group of small enterprises.
- ⇒ As regards the confectionery industry, in 2005 (as at 1 May) 74% of firms completed the implementation of good hygiene practice, 72% applied good manufacturing practice, and the HACCP system was implemented in 39% of enterprises. Poland's accession to the European Union had relatively little effect on the implementation rate of the compulsory systems of quality

management in companies operating in the confectionery industry. Between 1 May 2004 and 1 May 2005, the number of companies in the confectionery industry which implemented and applied GHP, GMP and the HACCP system increased by 40%, 38% and 30% respectively. Relatively the greatest changes were observed in the group of small enterprises.

- ⇒ As at 1 May 2005, 32% of pasta producers implemented good hygiene practice, 30% of firms applied good manufacturing practice, and only 13% of enterprises implemented and applied the HACCP system. Poland's membership in the EU had an effect on the rate of completed and ongoing implementation of the compulsory systems of quality management in the pasta industry. Changes were primarily observed in the group of small manufacturers of pasta and similar flour products.
- ⇒ In 2005 (as at 1 May), 39% of firms processing tea and coffee completed the implementation of good hygiene practice and good manufacturing practice, and 37% of enterprises implemented the HACCP system. Poland's joining the EU structures had no apparent effect on the implementation rate of the compulsory systems of quality management in the processing of tea and coffee.
- ⇒ As regards the spirit industry, in 2005 (as at 1 May) 15% of companies implemented good hygiene practice and good manufacturing practice, whereas 11% of enterprises completed the implementation of the HACCP system. After one year of Poland's membership in the EU, vital changes were observed primarily in the group of small enterprises – an increase by 300% in the case of GHP and GMP, as well as by 200% with regard to the HACCP system.
- ⇒ In the wine industry, in 2005 (as at 1 May) 10% of firms completed the implementation of the HACCP system, 27% of companies implemented good hygiene practice and 25% applied good manufacturing practice. During the first year after EU accession, the number of enterprises in the wine industry which applied good hygiene practice and good manufacturing practice rose by 145% and 150% respectively, whereas the number of firms which applied the HACCP system only increased by 43%. Huge changes occurred in the group of small companies which recorded a growth in the number of enterprises applying GHP, GMP and the HACCP system by 400%, 500% and 250% respectively.
- ⇒ As regards the brewing industry, in 2005 (as at 1 May) 71% of firms completed the implementation of good hygiene practice and good manufacturing practice, the HACCP system was implemented in 43% of enterprises. Poland's accession to the European Union had relatively little

effect on the implementation rate of the compulsory systems of quality management in the brewing industry.

- ⇒ In 2005 (as at 1 May), 47% of firms producing mineral water and beverages completed the implementation of good hygiene practice and 44% – good manufacturing practice, whereas 26% of enterprises implemented the HACCP system. Poland's accession to the European Union had a strong influence on the implementation rate of the compulsory systems of quality management in the production of mineral water and beverages, particularly in the group of large enterprises which recorded an increase in the number of firms applying good hygiene practice and good manufacturing practice by 300%, while the number of companies applying the HACCP system went up by 250%.
- ⇒ For enterprises operating in the food industry, it is not a legal obligation to obtain a certificate confirming the compliance with the implemented quality management system or systems, but holding a certificate issued by a certifying agency primarily matters as a marketing measure.
- ⇒ In 2005, companies in the food industry showed interest mostly in obtaining a certificate for Total Quality Management, held by 188 firms, to a lesser extent – for ISO 9000 Quality Management System (19 enterprises), as well as the IFC and BRC systems (25 enterprises).
- ⇒ After Poland's accession to the European Union, there has been a significant increase in the number of companies which implemented and applied quality management systems, but the rate of completed and ongoing implementation, particularly of the compulsory systems, continues to be unsatisfactory.

3.2. The analysis of economic interrelations between particular elements of the food chain

The analysis of the process of price transmission in the milk market in the context of changes in demand and supply, production structures and the functioning of market structures, as well as the monitoring of main agricultural markets allow to draw the following conclusions:

- ⇒ In 2005, there was a deterioration in market conditions of agricultural production in comparison with 2004. The integration effect, i.e. the higher prices received by farmers, had faded away. From the beginning of 2005, downward trends in prices prevailed in the main agricultural markets. At the same time, prices for the means of production, following the jump in May 2004, continued to grow, even if more slowly. The cumulative price scissors index, indicating changes in buying-in prices and changes in prices for

agricultural inputs on December of the previous year, showed a decline below 92 points in December 2005. The situation in specific markets varies depending on supply and demand relationships. A major factor to stabilise food markets is growing foreign trade, particularly exports.

⇒ On the basis of the analysis of the milk market and economic interrelations in this market in 1990-2005, the following conclusions can be drawn:

- The change of the economic system and the effect of market forces on the dairy sector triggered adjustment processes which have turned the dairy industry, previously one of the most backward branches of the food industry, into a modern industry, capable of coping with the competition in the enlarged EU. The fundamental factor to start these processes was the market mechanism and essential changes in market conditions of production and processing of milk. Real and relative prices for dairy products went up, particularly in comparison with all food products, meat, fish and eggs, which at that time experienced a downward trend in real prices by 40-50%. There was also a rise in prices for butter, especially in relation to main substitutes such as vegetable oils and margarines.
- Growing prices for dairy products and butter have been the primary reason for the downward trend in the consumption of milk and milk products which has been observed since the early 1990s. In 1990-2004, the consumption of dairy products, in crude milk equivalent, declined by 30% to reach 174 litres per person in 2004. At the same time, the consumption of butter went down by 44%, i.e. to 4.4 kg per person. In 1990-2005, the total consumption of milk, along with milk used for butter production, decreased by 35%, i.e. from 380 to 250 litres per person. This tendency was broken in 1996-1998 when the combined consumption of milk and dairy products grew from 268 to 286 litres per person, i.e. by some 7%. The total consumption of milk in Poland dropped from 13.9 billion litres in 1990 to 9.5 billion litres in 2005, i.e. by one-third. As a result, despite the decline in production, the self-sufficiency ratio of milk production went up from some 106% by the mid-1990s to approximately 110% in 2001-2003 and 115% in 2004-2005.
- Balance in the milk market involved exports, which have been gradually gaining in importance. In 2005, exports accounted for 19% of sales in the dairy industry. As trade with the European Union was becoming liberalised, exports of dairy products were progressively increasing and exceeded €850 million in 2005. Export surplus exceeded 1.5 billion litres in crude milk equivalent of some €660 million. Imports only account for a minor proportion of domestic consumption (2-4%). The weak point of

Polish export is that Poland primarily exports low processed products or semi-finished products for further processing, which implies lower export prices. Highly processed products for direct consumption – if exported – are not recognised by foreign consumers or identified with Poland since such products, as a rule, are sold as anonymous products under brands owned by retail chains or for further processing. Poland has no brand or specific products widely recognised across Europe although several brands of dairy products are recognised across Poland. The price competitiveness of Polish exports is declining and the downward trend will continue as prices go down in the Single European Market due to the ongoing reform of the CAP. Therefore, the export surplus can be expected to gradually decline, and if domestic demand grows faster, Poland may become a net importer of milk and dairy products. The factor to speed up the loss of competitiveness and the reduction in export surplus are too low milk quotas allocated to Poland.

- Another consequence of market adjustments is an increase in milk yield by 35% in 1991-2005, a decline in the number of cows by 39% and a drop in milk production by 17%. The trends of change in the number of cows and milk yield converged with tendencies prevailing in the old and new EU Member States, but they were much faster in Poland. However, the gap between Poland and the old Member States in terms of milk yield has not narrowed. The fall in milk production was triggered by a dramatic cut in the buying-in of milk (by 46% in 1989-1994). This was accompanied by a very slow reduction in on-farm milk consumption and a rapid growth in direct sales – which alleviated the consequences of the decline in the purchases by the dairy industry. Since 1996, there has been a gradual increase in the buying-in of milk at the expense of diminishing direct sales and on-farm milk consumption, which results from growing demand for marketed commercial milk. Due to increasing opportunities to sell dairy products (primarily for export), in 1996-2005 the buying-in of milk went up by nearly 40%, i.e. to 8.6 billion litres, at the expense of reduced direct sales which dropped from more than 2 billion litres in 1999 to 470 million litres in 2005, and of on-farm milk consumption which fell by some 1 billion litres in 1996-2005. As a result, in 2005 milk sales exceeded 9 billion litres, being by 1.3 billion litres higher than 10 years before.
- The introduction of milk quotas in April 2004 had no real effect on milk production in 2004-2005, even though the quota allocated to Poland was nearly by 26% lower than the actual production level in 2003. Neither did the quota system hinder restructuring and milk production in the quota

year 2004/05, in fact, it accelerated these developments. It is likely, however, that in the near future the quota system and the rules governing transfers will hamper the desired restructuring and restrain growth in the scale of production, as well as the shift of milk production to regions characterised by more favourable natural and economic conditions. Increasing the share of commercial milk production to the EU-15 average (96%) would involve a reduction in the total milk output to approximately 9.5 billion litres, i.e. by some 18% in comparison with the production level from 2005 and to expand imports to satisfy growing demand for milk and dairy products. The only chance to maintain the current production level (some 11.8 billion litres) is on-farm milk consumption of some 2 million tonnes, of which approximately 1.5 million tonnes as subsistence production of farming families.

- The restructuring process, which has been in progress since the early 1990s, has accelerated since 1996 leading to an increased production scale. During the 15 years of 1991-2005, the number of agricultural holdings with dairy cows declined by 64%, the number of cows dropped by 43%, and the statistical dairy herd increased from 2.5 to more than 3.9 cows, i.e. by 56%. As a result, the structure of the domestic livestock showed a significant improvement accompanied by growing concentration of deliveries. It can be assessed that in 2005 some two-thirds of purchased milk was produced in agricultural holdings with a minimum of 10 cows. In 1996, the opposite was the case – the smallest farms, with 9 dairy cows or less, accounted for two-thirds of milk deliveries to dairies. As a matter of fact, the concentration process in dairy livestock and milk production was not accompanied by major changes in the agrarian structure. This indicates that improved agrarian structure is not a *sine qua non* condition for the concentration of milk production, and the past unfavourable agrarian structure was not the fundamental cause of excessive fragmentation of the rearing of dairy cattle. Furthermore, there are various factors, other than the improved agrarian structure, triggered by the market mechanism which could account for the accelerated concentration of milk production.
- The essential reasons for the accelerated process of restructuring in Poland's dairy production were increased quality requirements of dairies on the purchased milk and the preparations for integration into the EU. This process would not have been as quick and without major social shocks if not for:

- the lengthy preparations to adjust to EU food safety standards, supported by preferential credits followed by subsidies from the EU support measures, as well as by intervention measures,
 - the price policy of dairies which strongly encouraged quality and concentration of deliveries, and were gradually increasing quality requirements. This policy was accompanied by close cooperation with farmers with regard to modern organisation of milk production ensuring not only farmer's income, but also appropriate hygienic conditions and efficient milk distribution to the processing plant,
 - the incurring of a major proportion of the cost by farmers, which was primarily possible due to the fact that most dairies remained cooperatives.
- Main adjustments in dairies concerned changes in the production level and structure. To begin with, there was a reduction in the production of drinking milk, curd, cream and butter, following the decline in demand, as well as of casein and skimmed milk powder due to raw material shortage. There was an increase in the production of maturing and processed cheese, yoghurts, milk-based beverages and ice cream, which experienced growing domestic and foreign demand. Starting the production of new articles in the Polish market and assuring their high quality involved investment in new technologies or the modernisation of existing production lines, as well as in improved veterinary standards. All this allowed to modernise the production potential of the dairy industry, which was obsolete and under-utilised in the early 1990s, and currently represents average EU level in terms of technology.
 - In 1995-2005, a major factor to facilitate accelerating the necessary modernisation of the sector were preferential credits which have been gradually replaced with Community aid since 2004. The share of preferential credits in the financing of investment in the dairy industry from 1994/95 to 2005 exceeded 28%, and in 1995-2003 as much as 32%. The share of budget support in the financing of this investment in 1995-2003 ranged between 5 and 18.5%, and went up to over 41% in 2004-2005. Without this support, it would have been impossible to invest more than PLN 6.2 billion in the milk processing industry over 10 years, to modernise the dairy sector and to narrow the technological, organisational and quality gap between Poland and other EU Member States.
 - Changes in the production structures have been proceeding more slowly in the milk processing industry than in milk production. In 1995-2004, the

number of enterprises processing milk and trading in dairy products declined by one-third, including the fall in the number of dairies by one-fifth. At the same time, the production scale of an average dairy, measured by the value of sales, doubled in real terms, and measured by the volume of processed milk – increased nearly by 63% and slightly exceeded the level from 1990, whereas employment dropped by some 5%. Thus, labour productivity measured by output per person employed went up by more than 71%, and doubled when measured by the value of sales. Due to the concentration of milk processing which has occurred in Poland, the size of an average Polish dairy is similar to that of an average milk processing enterprise in the EU-15. However, the concentration of milk processing in Poland is still at the initial stage as the sector is dominated by dairies processing from 75 to 180 million litres annually, only 6 dairy enterprises process more than 180 million litres of milk a year, of which 3 companies more than 350 million litres of milk annually. The largest Polish firm is ranked only at the end of the top thirty among the largest dairy enterprises in the EU.

- Integration into the Single European Market and the CAP reform in the milk market call for accelerated modernisation and restructuring processes in order to maintain the competitive position of Poland's dairy industry. Thus far, restructuring of the raw material base and milk processing have not always been coordinated. Experience of industry leaders suggests that the modernisation of processing, increased production scale and economic strength of milk processing plants speed up the modernisation of the raw material base.
- Over the period in question, there were also significant changes in price relationships at particular levels of marketing channels. By the end of 2004, the growth rates of producer prices in all the compared periods were higher than the growth rates of prices at the level of processing, which also tended to be lower than the growth rates of retail prices for dairy products and butter. The exception was butter in 1991-1995 when its retail prices rose much more slowly than average prices for milk and dairy products at the remaining levels of marketing channels, and more slowly than retail prices for dairy products. Due to increased possibilities to sell in the European market at much higher prices, in 2004, for the first time from the early 1990s, the growth in retail prices for butter was significantly faster than in the case of dairy products. This was also the first time for the growth rate of selling prices for milk products to be higher than the growth rate of retail prices for dairy products. However, prices paid to

farmers for milk showed a particularly high increase. The situation changed in 2005 and according to general trends observed in agri-food markets the sharpest decline in prices occurred at the level of producer prices. The fall in retail prices for dairy products was much less significant and the selling price index was between the extreme values.

- The diminishing share of processing margins in the gross margin may suggest a much faster reduction in costs and efficiency improvement in processing than in milk production. Nevertheless, it may well indicate that processors are unable to cope with the dominance of traders and make them incur high costs of raw materials in the form of higher selling prices. Furthermore, the increased share of farmers in selling prices is likely to have resulted, to some extent, from support for the Polish dairy industry. This means, however, that in the nearest future the dairy industry will be in a very difficult situation due to the growing domination of trade which is being modernised and increasingly concentrated on the one hand, and owing to growing competition for raw materials on the other hand. Presumably, the trade margin, just as before, will primarily rise at the expense of the processing margin as dairies will not be capable of shifting the growing costs of sale onto suppliers.
- The analysis of price transmission indicates that the prevailing transmission trend was from buying-in prices for milk to processing prices and from producer prices to retail prices. An exceptional development was that prices for milk powder had a markedly stronger effect on buying-in prices for milk than the opposite. The transmission of long-term price relationships is much stronger between selling prices and buying-in prices than between selling prices and retail prices. The transmission of short-term price changes is much stronger from processing prices to retail prices than from buying-in prices to processing prices.
- Retail prices quickly adjusted to reach a long-term equilibrium in response to a rise in prices at a lower level of the marketing chain. Asymmetry in the price transmission mostly occurs between processing prices and retail prices, which suggests a stronger position enjoyed by retail trade. The nature of this response did not show major changes over the period in question.
- Over 1996-2005, there was a gradual alignment of buying-in prices in Poland with those prevailing in Germany, France and the Netherlands. Co-integration analyses confirm the existence of a long-term relationship between buying-in prices in Poland and those in Germany.

3.3. The analysis of the import volume and import prices of agri-food products subject to the special safeguard clause

The assessment of changes in the import volume and import prices of agri-food products subject to the special safeguard clause prior to Poland's accession to the EU allows to draw the following conclusions:

- ⇒ After Poland's joining the European Union, there has been an increase in imports of most agri-food products subject to the special safeguard clause prior to accession. This resulted not only from the elimination of customs duties on imports from the enlarged Community, but also from the application of lower tariffs on a number of articles imported from third countries. The few products which recorded a decline in imports following integration into the EU included: milk and cream, butter and other milkfats, certain vegetables (onion and rooted vegetables), apples, all cereals (except wheat), soya-bean oil, preparations of meat, beet sugar, bran and sharps.
- ⇒ There has been a rise in the share of imports in the production of most products considered sensitive. In 2005, however, imports did not account for more than 5% of the production of nearly all of these products. A significant growth in the share of imports was only recorded in the production of glucose and glucose syrup, tomato concentrate and concentrated apple juice. Nevertheless, it posed no threat to domestic production. Increased supply of these products was fully absorbed by the domestic market and higher imports of concentrated apple juice allowed (given the declining raw material base) to maintain the upward trend of exports of this product.
- ⇒ After EU accession, imports of most products considered sensitive recorded lower growth rates than exports. Export surplus only dropped in foreign trade in pigmeat and margarines, there was an increase in trade deficit in the case of starch products, dog and cat food, tomatoes, tomato concentrate, soya-bean and sunflower-seed oils, dextrans, unmanufactured tobacco, maize starch as well as wheat and rye flour. The higher growth rates of exports than those of imports of most products subject to the special safeguard clause prior to accession stemmed from lower prices in Poland (particularly at the processing level) than those prevailing in the remaining European Union Member States – especially in the “old” Community.
- ⇒ The abolition of customs duties on imports from the EU Member States, as well as high supply in the European market in the marketing year 2004/05 pushed down import prices for a great number of products deemed sensitive. Import prices were lower (from January to September 2005 in comparison with the corresponding periods of the two previous years) for products such

as cheese, wheat and rye flour, wheat, eggs for human consumption, potato starch, tomato concentrate and concentrated apple juice. At the same time, there was a rise in prices for all cut flowers, butter, yoghurt, beet sugar as well as fresh and frozen vegetables, liquid and concentrated milk, honey and maize bran. The increase in prices in 2005 (compared to the two previous years) was greater in terms of PLN per kg than in euro terms, and the fall in prices was less significant. This resulted from the strengthening of the zloty against the euro in 2005.

- ⇒ Following accession, deliveries from the EU gained in importance in the case of most products deemed sensitive, such as cereals, meat and dairy products. The share of imports from the Community only declined in the case of apples, rapeseed oil, apples and frozen fruit.
- ⇒ Imports of products considered sensitive did not bring about a fall in domestic production. Imports only supplemented domestic supply (also the raw material base for processing plants), so it was no competition for the Polish production. Access to cheaper raw materials encouraged growth in exports of many prepared foodstuffs.

4. The place of Polish agriculture in the global food market

4.1. The effects of globalisation on the development of Polish agriculture and rural areas

The analysis of globalisation-related factors having positive and negative effects on world agriculture and the resulting opportunities and threats to its development, as well as an effort to identify the place of Polish agriculture in the globalised world and within the regional arrangement of the EU, allow to draw the following conclusions:

- ⇒ The development of world agriculture has been increasingly regulated by transnational economic, political and environmental processes. Globalisation can be defined in a variety of ways. It can be seen as the process of gradual shrinking of the space-time for human activity. Others may perceive it as the process of ever-greater integration of national economies reflected in a rapid growth in international merchandise trade and capital flows. Thus, markets and production in different countries are becoming increasingly interrelated. Globalisation speeds up the long-time internationalisation of economic activity. Marginal productivity will be increasingly determined by the situation in the global market rather than by conditions prevailing in local,

national or regional markets. This situation is shaped by interest groups which also control local arrangements.

- ⇒ Capital mobility in global financial markets and modern media increase the fluctuations of production, investment, income and consumption. These fluctuations result from the very parameters of global financial markets and the performance of key economies. Capital flows can be entirely separate from trade in goods and services. As long as agriculture is protected by barriers and budget support, financial globalisation will continue to be but a component of its environment. Agriculture will not be exposed to global financial markets until international agricultural trade becomes liberalised and internal support is eliminated or at least significantly reduced. In the financial aspect, globalisation improves capital allocation and alleviates macroeconomic fluctuations. However, this positive impact on development is limited. At the same time, negative effects of financial globalisation include increased social inequality and reduces possibilities to pursue autonomous economic policy.
- ⇒ The main challenge for agriculture on a global scale continues to be the problem of providing food for the growing world population. The universal development path is technology, but it contributes to the reduced role and importance of agriculture in the traditional economic sense. At present, agriculture is being attributed new universal values described as non-trade concerns in the ongoing WTO negotiations. The two main types of world agriculture are agricultural developing countries characterised by poor economies and developed agriculture based on modern technologies supported by strong economies of industrialised countries. This generates two development strategies: the export expansion of OECD countries and efforts to retain control over internal markets by developing countries with greater access to strongly protected markets of industrialised countries. Adjustments to global changes are necessary. However, developing countries need a chance to make use of their agricultural assets. It will only be possible if they can increase their exports to markets of OECD countries since their own demand is too sluggish. Therefore, it is indispensable to reduce the protectionism as well as to support production and exports. Transnational companies with global production and distribution systems, both a result and a characteristic feature of globalisation, create a new organisational paradigm of world food trade. The formation of global markets has strengthened the significance of international agricultural trade. Its role will increase as agriculture becomes more commercialised. Structural changes in the food economy are caused by interest groups wishing to liberalise world food trade

since simple reserves to boost efficiency have been exhausted. However, the focus of economic policy is shifting away from the farmer towards the processing of agricultural raw materials and the sale of final products. Greater access to world markets for increasingly concentrated industry and transnational corporations whose share in food distribution continues to rise may not necessarily compensate agricultural producers for the loss of internal support.

- ⇒ Due to difficult access to markets of developed countries, the growth rate of agricultural exports by developing countries is lower than that of their imports. As a result, these countries are becoming net importers of agricultural products, whereas four decades ago they enjoyed, as the whole group, substantial export surplus. Only in some cases this is related to increased food consumption per person, which reflects economic growth and improved living standards.
- ⇒ Globalisation will increase the need for global arrangements in agricultural trade. New rules will be imposed by global players, i.e. the leaders of regional groups of countries and transnational corporations. On 1 May 2004, Poland joined one of such regional arrangements, the European Union. At present, the enlarged EU needs to change the rules and the operating model due to increasing international competition. The model of family farming which has been supported so far is becoming less competitive globally. Faced with the obligation to reduce support measures in the CAP and the limited possibilities to quickly cut production costs, the competitiveness of EU agriculture should be based on high quality of products rather than on low prices. However, this calls for the restructuring of the Community agricultural sector. Poland needs to find its place in this process. In the long term, the future of the Polish agri-food sector will depend on its competitiveness in world (global) markets. Nevertheless, it will be easier for Poland to achieve this goal being part of the strong regional arrangement which the EU is beyond all doubt.
- ⇒ Global climatic changes, partly a result of human activity, must be also taken into consideration when analysing the future development of world agriculture. Both economic and social costs of slowing this process down and reducing its effect will be enormous. However, it is very uncertain as to when and how global climatic changes start affecting agricultural production and food safety in the world. It is a widespread belief that this impact will be much more unfavourable in tropical regions than in the temperate zone. Agriculture plays a positive role in slowing down the adverse climatic changes. It will gain in importance, both in economic and environmental

terms. At the same time, climatic changes will have a significant influence, both positive and negative, on agriculture itself. Other factors which should be mentioned include short-term fluctuations in precipitation, vital for agricultural production, particularly in Sub-Saharan Africa and South Asia, as well as in a number of other developing regions, sea level rise, indirect effects, mostly availability of water resources, the development of pests and diseases (global warming) and increased wind speed.

4.2. Socially sustainable agriculture

Analyses of agriculture conducted on the basis of recent information allow to draw the following conclusions:

- ⇒ Although the mainstream of socio-economic thought suggests faster agricultural development on the modified industrial path, there has been an increased orientation towards alternative agriculture in the form of sustainable or socially sustainable agriculture. There is no denying significant consumer benefits from industrial agriculture (abundant supply of agri-food products) and social advantages in the form of shifting under-utilised agricultural labour to more efficient sectors, which resulted in an enormous acceleration of economic growth and development. At the same time, however, there is no denying obvious social costs (the loss of economic and cultural viability by many rural areas) and environmental damage (environmental degradation, the depletion of non-renewable resources), as well as ambiguous consequences for the farming population (reprivatisation). These adverse developments provoked search for an alternative method of agri-food production, i.e. sustainable or socially sustainable agriculture.
- ⇒ It is a widespread belief that the enormous growth in welfare over the last five decades has reduced the ability of ecosystems to play an important environmental role. There is no universal agreement on the question whether it is possible to reverse these unfavourable developments without a fundamental reorientation of the approach towards economic growth. Some believe that scientific and technological progress eliminates the environmental barrier to economic growth, if only for the fall in material intensity of useful products or the substitution of production factors. At the same time, others argue that economic growth cannot be infinite and must encounter the environmental barrier since the ecosystem (the environment) is closed (finite), and the economic system represents a subsystem of the ecosystem. This leads to the impossibility theorem. Therefore, the fundamental controversy amounts to rejecting the assumption of infinite

substitution and the lack of natural (environmental) barriers to economic growth, which should enable unlimited scientific and technological progress, and assuming that the economic system develops within the limited ecosystem.

- ⇒ The need to reduce the pressure on the environment from industrial agriculture due to the utilisation of non-renewable natural resources, soil degradation and the emission of pollutants on the one hand, and the provision of public goods (environmental, such as the landscape, as well as social and cultural ones) and of renewable raw materials on the other hand – present agriculture in a completely new light in the hierarchy of social values. The social assessment of environmental services and public goods generated by agriculture, as well as of the growing role of agriculture in producing renewable raw materials for human nutrition and satisfying needs other than nutrition, is likely to increase. Measuring the value of environmental services is of vital importance and may change the whole economic (socio-economic) account underlying decisions. It appears that the value of these services may exceed the value of services determined by the market. The issue is extremely complex, primarily due to the fact that it is neglected by the market since the market is guided by the criterion of private gain, only taking short-term interests into account. However, the valuation of environmental services needs to be guided by social interest, and long-term, bearing in mind the conservation of efficient ecosystems as a vital social goal.
- ⇒ The enormous progress observed in agriculture of developed countries in the second half of the 20th century concerned farm organisation (land and production concentration, specialisation), technologies, new plant and animal varieties, means of production of industrial origin, and undoubtedly contributed to a substantial efficiency (productivity) improvement in agriculture. Economic growth was driven by innovation which in the case of agriculture allows to overcome physical and biological (natural/environmental) constraints. The previous idea of progress, which in industrial agriculture was primarily the maximised utilisation of non-renewable resources (chemicalisation, mechanisation) in order to increase private economic gain, the declining number of farmers (concentration, specialisation), with no regard for the environment and the rights of others, is being challenged at present. The new concept of progress involves the substitution of industrial intensification with agrobiological intensification based on the laws of nature and indeed unlimited resources: solar energy and knowledge, which is not only renewable, but also positively reproduced.

- ⇒ Industrial agriculture ensures benefits (survival) to a diminishing number of agricultural holdings, moving them away from the rural community – separating farm viability from rural (economic and social) viability, as well as reducing, through the negative impact on the environment and the rural landscape, the possibility to develop alternative activities in the rural community. Obviously, sustainable agriculture favours rural viability, creating conditions for its multifunctional development. Furthermore, it generates more jobs in agricultural activities, which is of vital importance under high unemployment and the lack of alternative employment. However, this type of agriculture involves much greater knowledge than industrial agriculture.
- ⇒ The model of socially sustainable agriculture should meet economic, environmental and social requirements (threshold values) at the same time. In other words, the set of socially sustainable farms represents a subset of the whole group of agricultural holdings meeting the threshold criteria established for selected economic, environmental and social characteristics.
- ⇒ The choice of characteristics describing the sustainability level of a farm is a widely debated and controversial issue. Thus far, efforts to develop a uniform set of sustainability indicators (ecodevelopment indicators) – in terms of both the entire economy and agriculture (agricultural holdings) – have not produced a single set, and these indicators are still open to question (although a certain comprehensive set of sustainability indicators is used in the EU, OECD and in some countries). This largely results from the local character and context of agricultural activity in the environmental aspect as well as – although to a lesser extent – in the social and economic dimensions. Additional difficulties are the criteria applied in practice by institutions granting support to agricultural holdings (which is reflected in differences between usual farming practice and good farming practice) and the lack of such criteria in the social and partly economic dimensions.
- ⇒ As regards economic characteristics, income categories are considered fundamental. In microeconomic terms, this will mean the provision of satisfactory income (to a family, a holder), on the working assumption that satisfaction depends on the relation of this income to incomes of other socio-professional groups. In macroeconomic terms, it will be the volume of gross value added (GVA), gross disposable income (GDI) and the value of agricultural output, particularly commercial production.
- ⇒ As far as environmental characteristics are concerned, the most important are regarded to be those included in good farming practice, although legal and administrative criteria applicable to granting public support are also taken

into consideration (usual farming practice). Perhaps the analysis of empirical data on farms which satisfy the criteria of good farming practice will prove it useful to take a critical look at them in economic terms, thus to revise them.

- ⇒ With regard to the social dimension, characteristics considered to be crucial include the value of environmental services generated by agriculture (agricultural holdings), the utilisation of farming labour resources, the contribution to the maintaining or development of economic and social viability of rural areas and cultural values.

4.3. The possibilities to pursue national agricultural policy in Poland under the common agricultural policy

Research on the organisation of agricultural markets and regulations governing foreign trade in agri-food products allowed to draw the following conclusions concerning national freedom and discretion in the field of market regulations:

- ⇒ The European Union, at present including Poland as a Member State, is based on three main pillars: the principle of the Single European Market, the principle of preference for the Community members and the principle of financial solidarity. The task is to investigate whether EU regulations leave some areas for national discretion allowing to pursue national goals. The answer to such a question has two dimensions. The first is the very perception of national agricultural policy. The other is the question whether EU represents some sort of a common state. The political choice was made, and to some extent also national policy was defined on the day when the decision on Poland's accession to the European Union was taken. It was then recognised that the development strategy and the national interest were generally consistent with what the Community represents and offers as a regional arrangement. Beyond all doubt, it is not a form of a common state, which is reflected in problems related to efforts aimed at the preparation and adoption of the EU constitution or in the lack of a common foreign policy.
- ⇒ The CAP is one of the few Community policies which must be fully implemented in all Member States. Furthermore, it replaces national agricultural policies. It does not imply, however, that national strategies concerning the agricultural sector are no longer needed. What changes is their point of reference and the implementation method. The influence of national governments varies between CAP segments and schemes. The skilful application of EU procedures is also of importance.

- ⇒ For the sake of simplification, the CAP may be divided into three decision-making spheres:
- for almost exclusive regulation by EU institutions, i.e. the common market and foreign trade in agricultural products,
 - for national decision making (education, social policy),
 - for common decision making (and co-financing) by EU institutions and national authorities (the environmental protection, rural development, multifunctional agriculture etc.).
- ⇒ On accession to the Community in May 2004, Poland adopted the common agricultural policy of the European Union as superior to its national agricultural policy. The CAP regulates the EU agricultural sector, it is financed by the EU budget and covers all Member States of the Community. In Poland, however, as in the remaining nine countries from the recent enlargement, the CAP will be gradually implemented in the negotiated transitional period, and its full implementation is not planned until 2013. Thus, although the main instruments of the CAP were adopted by the new Member States on accession, their benefits will materialise step by step, according to the schedule, and Polish farmers will gradually become entitled to apply for particular support measures within the framework of the CAP. At the same time, however, governments in the new Member States will have certain tools, such as the possibility to utilise their own budget resources and to shift funds (“top-ups”), to exert some influence on agricultural policy during this period. Moreover, to some extent the implementation of national strategies resulted in the negotiated conditions of accession, including transitional periods, the exemption from certain mechanisms and the anticipation of some elements of the CAP reform which are or will later be implemented in the EU-15 countries. It also seems that, irrespective of the level of satisfaction with the negotiated membership conditions, Poland should change its approach from a negotiator to a member. Therefore, it is not Poland’s objective to break with Community mechanisms in order to pursue national goals, which run counter to EU aims. We only intend to seek opportunities to skilfully use EU regulations and procedures.
- ⇒ Even a few years ago, the question about the possibilities for national governments to influence the EU policy towards agricultural markets in the EU Member States would be, in fact, groundless. The EU agricultural policy towards markets and prices, as well as international agricultural trade, fell within the exclusive competence and responsibility of supranational EU institutions, and the possibilities to exert national influence were very

limited. The CAP is one of the few regulatory areas where the EU has had such extensive powers since the introduction of the common organisation of a number of agricultural markets. When a country applies for EU membership, its accession depends on the full harmonisation of national legislation with the *acquis communautaire*. This also concerns agricultural policy which becomes delegated to EU authorities, primarily the European Commission, Council and, if necessary, the European Parliament. The spheres of competence and the respective procedures were specified in the Treaty of Rome and in many subsequent detailed regulations.

- ⇒ The situation changed in June 2003 when the EU Council of Agriculture Ministers, inspired by the mid-term review of Agenda 2000, reached an agreement on the fundamental reform of the CAP. The effective implementation of rules and regulations of the new CAP became an important obligation of national governments.
- ⇒ The new EU support scheme gives Member States more discretion in the implementation of the CAP according to their own national goals. Particular segments of the system offer the following possibilities:
 - The implementation of the **single payment scheme** allows Member States to choose from various options, which affects the degree of “decoupling”, i.e. cutting the link between payments and agricultural production. The new EU Member States may also raise the national ceilings of direct payments by a maximum of 30 percentage points above the EU limit, i.e. up to 65% of the level of payments applicable in the EU in 2006. This additional aid may be used to support specific agricultural sectors. However, it must be financed by national budgets or shifted (up to 20%) from EU funds allocated to financing rural development in these countries, but only during the first three years of membership. Alternatively, a country may complement payments applicable prior to the date of accession. In any case, however, the total level of direct support may not exceed 100% of the current EU level.
 - The principle of **decoupling**. Although the principle of cutting the link between support and production has been applicable in the EU since 2005, Member States may decide to partly maintain direct aid in the previous form, i.e. linked to production, if it is likely that the introduction of the new aid forms could cause distortions in agricultural markets or the abandonment of production. Member States may then choose from various options at the national or regional level, but only under well-defined conditions and within clear limits. The possibilities are as follows:

- Retaining up to 25% of the COP component of the single farm payment (basic area payments for cereals or other arable crops) or, alternatively, up to 40% of the supplementary durum wheat aid component, in order to continue, at the above levels, the current per hectare payments, i.e. linked to production;
- A maximum of 50% of the sheep and goat aid can remain linked to production;
- For the beef sector, Member States may choose to retain up to 100% of the suckler cow premium component and up to 40% of the slaughter premium component tied to production. Alternatively, they may retain either up to 100% of the slaughter premium or up to 75% of the special male premium;
- In the dairy sector, cutting the link between payments and production will be applicable once the dairy reform has been fully implemented, i.e. from 2007. However, Member States may apply the principle of “decoupling” from 2005;
- Drying aid for cereals, aid for seeds and direct payments in outermost regions may remain outside the single farm payment system.

Furthermore, Member States can choose between three models of decoupling support from production:

- the first approach, based on individual agricultural holdings, consists in payments per hectare and provokes no redistribution of these payments among particular farms,
- in the second, regional model, payments are calculated for the whole region at flat rates,
- the third, so-called hybrid system combines the two above-mentioned methods.

Member States may also decide to retain up to 10% of direct payments unrelated to production in the national ceilings and use these resources for the purposes of encouraging specific types of farming which are important for the protection or enhancement of the environment and of improving the quality and marketing of agricultural products.

- The principle of **cross-compliance** makes eligibility for aid under CAP measures dependent on meeting a number of statutory requirements and standards, as well as on maintaining agricultural land in good condition. These requirements and conditions are specified by Member States. Cross-compliance forms an integral part of the first pillar of the CAP. This means that it is not co-financed by Member States, but it also implies

that this principle is compulsory and needs to be fully applied in all EU Member States. However, the involvement of particular partners in the implementation is of crucial importance since it requires an administrating authority.

Member States are entitled to cancel or reduce support paid to farmers who do not respect payment conditions. Therefore, even though the introduction of the principle of cross-compliance is obligatory, Member States play a vital role in its implementation.

- **Food policy.** Member States are also entitled to block imports of agri-food products on safety grounds and evidence must be provided by competent authorities. Although Member States continue to have significant decision-making powers on matters concerning food safety, these gradually erode as control and trade regulations and procedures become harmonised within the Community. However, each Member State has the right to define its own food standards.
- ⇒ Apparently, the new orientation in support for EU agriculture, giving more discretion to Member States in the decision-making process, will gain in importance in the future. The ongoing debate on the new CAP frequently concerns the “regionalisation” of certain policy measures.

5. Polish agricultural holdings in the first years of membership

5.1. The analysis of the economic performance of Polish agriculture

The performance analysis in terms of the value of output, production costs, agricultural subsidies and income in 2004, as well as the comparison with the 2003 performance and the estimated results of the 2005 economic accounts for agriculture allow to draw the following conclusions:

- ⇒ In 2004, the economic situation in agriculture allowed high income, due to the following factors:
- A substantial increase in the value of agricultural output in comparison with 2003 (by 18.9%) resulting from the rise in the volume (the physical size of production) by 7.9% and in prices by 10.2%,
 - Growth in the value of intermediate consumption by 13.1% due to an increase in the volume by 4.1% and in prices by 8.6%,

- A spectacular, nearly tenfold increase in subsidies. Two types of subsidies were taken into consideration in this assessment. The first type of subsidies includes product-based aid, such as supplementary payments, subsidies to growers of hop, tobacco and potatoes for starch. The share of this kind of subsidies in output of the sector at producer prices reached 6%, while in the value of crop production it was 12.3%. In 2003, those shares were much lower – 1.0% and 2.0% respectively. The other type of subsidies comprises payments related to “production activities of farms”, such as the single area payment, LFA (less-favoured areas) payments, aid for biological progress, plant protection, organic farming and working capital credits. In 2004, the total amount of both kinds of subsidies was nearly ten times higher than in 2003.
- ⇒ Income of agricultural entrepreneurs, representing pay for them and their families (for manual labour and management), and own capital rose by 142.2% at current prices, and the most important factor stimulating income growth was the increasing value of production. The increase in the production value accounted for +80.5% of income growth, subsidies for +59.5%, intermediate consumption for -36.1%, and other costs for -3.9%. In 1998-2003, income in current prices only grew at the rate of 0.5% annually.
- ⇒ Real agricultural entrepreneurial income, i.e. income at current prices deflated by the consumer price index calculated for farming households jumped by 132.6%, whereas over the years 1998-2003 it declined at the rate of 4.5% annually. At the same time, real income per unpaid work unit (work of entrepreneurs and their families) grew by 137.5%, while in 1998-2003 it decreased by 1.2% annually.
- ⇒ Technical and production indicators such as material intensity, energy consumption, land intensity, capital and labour intensity of production showed an improvement. It corresponds with patterns observed for these indicators in 1998-2003 due to the gradual process of the simplification of production and the replacement, related to the production scale, of machinery and means of transport with more efficient equipment, the substitution of on-farm production of fodder with manufactured feedingstuffs, the application of more efficient types of mineral fertilisers, the improvement of soil fertilisation techniques and the popularisation of more prolific plant varieties and more productive animal breeds.
- ⇒ Estimates suggest that in 2005, as compared to 2004, the increase in the value of animal production compensated for the fall in the value of crop production. Farmers who combined crop and animal production enjoyed a better economic situation since they could use cheaper cereals (also from

the 2004 stocks) as well as hay and silage for animal products. Due to the fluctuations in the exchange rate of the zloty against the euro, subsidies were slightly lower, but agricultural entrepreneurial income remained almost unchanged.

- ⇒ In the years to come, liberalisation of international agricultural trade may result in a decline in prices. Some products will be still subjects to limitations, whereas EU and national subsidies are likely to be reduced from 2013 onwards. The main factor to stabilise agricultural income will be cutting production costs – improved technical and production indicators.

5.2. The economic situation and economic activity of various groups of Polish agricultural holdings

Based on the evaluation of the economic situation in selected groups of agricultural holdings in Poland and in other EU Member States, the assessment of profitability of production factors as well as the utilisation rate of aid by farms in less-favoured areas, the following conclusions have been drawn:

- ⇒ In 2004, incomes of Polish agricultural holdings continued to be lower than incomes of the analysed EU farms by an average of 29%. This gap partly stemmed from inadequate production technology applied in Polish agricultural holdings, particularly in animal production. However, the difference between average incomes of both groups of farms showed a marked decline (by some 30 percentage points) in comparison with the situation in the previous year.
- ⇒ At the same time, it was found that slightly more than 26% of the analysed Polish agricultural holdings (accounting for 8.6% of the largest and commercial farms in Poland) performed better than EU farms. Both groups specialised in specific types of crop production (typical arable crops, vegetable and fruit growing) or combined typical crop production with rearing, on a small scale, of various animal species.
- ⇒ Should further analyses confirm the above observations, they may guide decisions concerning the specialisation of Polish farms among all EU agricultural holdings. For some time, there have been opinions that Polish agriculture should be specialised according to its distinguishing features. These characteristics primarily include relatively large agricultural land per capita in comparison with most EU countries, which favours specialisation in crop production. There is another indication pointing to such a solution, namely excess labour in Polish farms, whereas both vegetable and fruit growing are labour intensive.

- ⇒ The specialisation of Polish agricultural holdings in animal production is open to question. Whether it is successful depends on the possibility to narrow the development gap between Polish and EU farms concerning modern production technologies. However, it will be difficult to achieve as EU technology continues to improve. Agriculture in the “old” EU is seeking to remain predominant in animal production as EU agricultural activists voice opinions that it is reasonable for farms to specialise in this type of production. It will only be possible if EU agricultural holdings maintain the highest level of technology.
- ⇒ Some 53% of agricultural holdings in less-favoured areas benefited from support measures, utilising slightly more than 50% of appropriations for this purpose. Eligible farms needed to satisfy minimum agro-environmental requirements. Failure to meet these criteria by other farms in less-favoured areas reduced the total amount of budget support for agricultural holdings by slightly more than PLN 1 billion, which accounted for some 7% of Poland’s total agricultural income in 2004.
- ⇒ The reduction in the amount of support for agricultural holdings in less-favoured areas also resulted from the introduction of the principle of so-called modulation. Under this principle, only farms of 50 ha or less benefited from the full amount of support. Larger farms received less support, and agricultural land of more than 300 ha was not eligible. Only this factor reduced the amounts of aid for farms by 6-16%, depending on the type of less-favoured area (mountain areas, lowland areas – zone I and zone II, and areas affected by specific handicaps).
- ⇒ The question arises whether the principle of modulation should be applied when appropriations for supporting farms in less-favoured areas are under-utilised. Under gradual globalisation of market relations we should rather support larger and well-managed agricultural holdings since these are (and will continue to be) the main source of domestic raw materials for food production.

5.3. The adjustment processes in large agricultural holdings

The assessment of adjustments processes in large agricultural holdings, former state-owned farms, in 2004 as compared to previous years and the evaluation of adjustments in agricultural production cooperatives (APC) allow to draw the following conclusions:

- ⇒ In 2004, large agricultural holdings continued to adjust to the new conditions associated with Poland’s accession to the EU structures. Those changes

mostly concerned organisation and management, production factors and processes. This was reflected in developments such as a growing share of farms characterised by a higher degree of privatisation, which was related to a decline in their average area. In general, it indicates the elimination of intermediate management levels and the simplification of organisation structures, particularly the strengthening of labour motivation system.

- ⇒ The year 2004 witnessed the continuation of the downward trend in employment and an apparent increase in the economic labour productivity. The highest labour productivity characterised farms leased and owned (purchased), and markedly lower levels were recorded in one-man companies of the Agency and APCs. As in previous years, rather significant changes in the area of individual farms were observed in 2004. Among those changing area, most agricultural holdings experienced a reduction.
- ⇒ Despite the less favourable economic situation in 2000-2004, privatised former state-owned farms generally maintained the increased level of reproduction of fixed assets. However, APCs failed to maintain this higher level. Investment primarily concerned machinery and equipment intended to increase labour productivity. In 2004, there was a certain slowdown in investment activities. Reduced investment particularly concerned leased and owned agricultural holdings, as well as cooperatives. A significant share of these farms postponed investment projects until 2005, which was motivated by the intention to benefit from EU support funds for investment projects (SPO, PROW).
- ⇒ Large agricultural holdings continue to seek development opportunities in the reduction or discontinuation of less profitable production lines. This leads to the simplification or even the specialisation of production.
- ⇒ In 2004, agricultural processing and services clearly diminished, and agricultural production gained in importance in the economic activity of large agricultural holdings.
- ⇒ The introduction of the market economy has strengthened the role of crop production and reduced the significance of animal production. There has been an increased interest in growing more profitable commercial crops such as wheat, grain maize, rape and sugar beet. Integration into the EU has changed price relationships in favour of animal production. Farms involved in animal production have shown more interest in the production of milk, live cattle and live poultry. The production of live pigs is also likely to grow. At the same time, there is still little interest in sheep rearing.

- ⇒ Following accession to the European Union, there has been a continuation of the extensive organisation of production (a high share of cereals, limited livestock) and the intensive production at the same time (a rather substantial input of production factors per area unit). These farms are still trying to succeed in intensive production – but not all of the farms. Nearly 2% of these agricultural holdings, characterised by less fertile soil and a higher share of permanent pastures, started organic production. This is a new development related to Poland's accession to EU structures.
- ⇒ There has been a continued increase in unit productivity in crop and animal production (yield, daily animal growth, milk yield). Over time, improved technical and production performance in favour of large agricultural holdings has been observed.
- ⇒ During the first year of membership, the economic and financial situation of large farms showed a very significant improvement. Taking account of direct payments and LFA payments for 2004 in total agricultural income, the profitability ratio was 14.8% in former state-owned farms and 9.9% in APCs. Thus, the profitability ratio was approximately three times higher than in 2003. Without EU payments, production profitability would have been markedly lower since these payments accounted for more than 55% of profit for 2004 (ranging from 48.2% in purchased farms to 56.5% in leased farms). At the same time, the whole financial surplus in APCs resulted from EU payments.
- ⇒ The apparent improvement in the economic and financial situation in 2004 primarily stemmed from weather conditions which were exceptionally favourable for agriculture. Similar input of means of production led to significantly higher production of basic crops (some 39%) in these agricultural holdings.
- ⇒ The economic and financial situation was also improved by market price relationships, mostly in the case of prices for sugar beet, potatoes, partly rape, and particularly for animal products. Instead of falling, prices for sugar beet and animal products went up. As regards live pigs, this was a consequence of the pig cycle (a decrease in production), and in the case of other products – mainly integration into the EU. In 2004, the price scissors index increased to 102.2, compared to 97.5 in 2003 and merely 90.9 in 2002. In 2005, however, prices for agricultural products, particularly cereals, milk and live pigs, showed a considerable decline, whereas prices for agricultural inputs increased. As a result, from January to September 2005 the price scissors index was only 94. This may significantly deteriorate the economic

situation of large agricultural holdings in 2005 and in the following years characterised by average production.

- ⇒ Furthermore, the improved economic and financial situation in 2004 should be attributed to adjustment processes such as employment reduction, the reorientation of production and the streamlining of inputs.
- ⇒ In 2004, the most substantial improvement in the economic situation was observed in farms characterised by diversified production, and the least significant – in agricultural holdings oriented toward crop production. At the same time, the first year of Poland's membership in the EU deteriorated rather than improved the economic situation of fish farms.
- ⇒ The economic and financial situation of large agricultural holdings continued to be very diverse. In 2004, however, there was an apparent drop in the share of farms reporting losses and an increase in the number of profitable farms.
- ⇒ In 2004, 6.4% of former state-owned farms and 4.3% of APCs reported a loss. Thus, agricultural holdings running at a loss were markedly fewer than in previous years. Nevertheless, in the years to come the share of such agricultural holdings is likely to increase.
- ⇒ Research suggests that legal strengthening of lease in the long term is urgently needed. The uncertainty of pursuing economic activity provokes the need to purchase the land from the Agricultural Property Agency, which reduces financial resources of farms and strains their financial liquidity. Free financial assets should be allocated to the modernisation of those agricultural holdings, thus increasing their competitiveness. Moreover, less-favoured area payments should be modified. The modulation should be abolished or at least limited to two rates, e.g. in lowland areas to PLN 180 and 90 per ha. At the same time, these payments should cover the whole farm area regardless of its size, thus also agricultural land of more than 300 ha. It would increase the possibility to develop and compete in the market for larger farms in less-favoured areas.

6. Regional diversity in agricultural development and its effect on economic and social problems in rural areas

6.1. The factors of marginalisation and competitiveness in the socio-economic structure of Polish rural areas following EU accession

The analysis of the main trends in the social and demographic structure of the rural population, the major issues of rural development in Poland, the polarisation of the economic and social situation of agricultural holdings and

farming families, as well as the identification of problems relating to the human factor and the economic activity of the population living on farms allow to draw the following conclusions:

- ⇒ In the rural community, as in society as a whole, the social and economic position is primarily differentiated by age, gender, education and the economic status. Research has shown that both large human resources in rural areas and the relatively high share of children and youth as well as of working-age persons create the basis for and possibilities of rural development.
- ⇒ The development potential is reflected in the number of persons of non-working age per 100 persons of working age. In 2002, for 100 persons of working age in rural areas as a whole there were 72 persons of non-working age, in comparison with 55 persons in urban areas. Although presently this relation is highly unfavourable from the point of view of labour market participation in society, it suggests that in the future this factor offers development potential since the children and youth of today will be a large group of working-age persons in the near future.
- ⇒ The education level of the rural population is low. The rural community, as compared to urban areas, continues to be characterised by a lower share of persons educated at a level ensuring a successful labour market entry. It should be emphasised that a slight improvement in the education level of the rural population has been observed, which raises hopes for some narrowing of the educational gap between the urban and rural populations. In comparison with 1988, in 2002 there was a twofold increase in the share of the rural population with higher education and a significant rise in the share of persons with secondary and post-secondary education. Furthermore, the share of persons with vocational education also showed an increase. At the same time, the share of persons with primary or lower education declined. Therefore, it can be argued that every new generation in rural areas is characterised by a higher education level than the previous one.
- ⇒ The selected factors determining labour market participation of the farming population included demographic characteristics of agricultural workers (such as age and education), the farm size in terms of area and the orientation of its production. It was observed that the difficulties in the labour market were mostly faced by young people, which discourages from taking decisions on starting a family.
- ⇒ A major problem of rural areas is the still considerable excess labour in the countryside, a significant disadvantage of the rural population in the labour

market and the resulting high unemployment, both officially registered and hidden. As late as the 1990s, agricultural holdings absorbed a substantial proportion of excess labour. At present, in order to be a competitive section of the economy, agriculture needs to shed redundant workers. Thus, there are indications of tendencies to streamline employment in this sector and hire only necessary persons in agricultural holdings.

- ⇒ The economic and social activity of the rural population is limited. This is reflected in the widespread passive attitudes, which hampers the development of entrepreneurship being such a crucial factor nowadays. The above characteristics of the rural community form a significant barrier to stimulating development processes.
- ⇒ The improvement of the human factor in the countryside is adversely affected by difficult access to specialised health care institutions and insufficient growth in secondary and higher education levels.
- ⇒ The analysis of the social and economic characteristics of the rural population indicates the need for the following actions:
 - in the field of education, mostly aimed at ensuring access to schools offering better career possibilities,
 - increasing the activity of local communities to encourage multifunctional development of rural areas and agriculture, particularly to expand non-agricultural economic activities,
 - activating the community spirit in order to popularise bottom-up initiatives in taking up new economic activities,
 - the reasonable utilisation of EU funds not only directly targeted at rural areas or agriculture, but also those intended for stimulating regional development.

6.2. The extent and consequences of functional diversity of agricultural holdings across regions

Efforts to define a development strategy for agricultural holdings for some dozen years, specify the extent and consequences of functional diversity of agricultural holdings across regions and the analysis of development conditions of the Polish food economy following Poland's accession to the EU allow to draw the following conclusions:

- ⇒ The Central Western Macro-region (the Wielkopolskie and Kujawsko-Pomorskie voivodships) has 32% of highly commercial farms, i.e. capable of

reproducing the production potential and characterised by significant commercial production. Furthermore, in this Macro-region there are 26.8% of medium commercial farms, which presently continue their commercial production, but have no capability for reproducing production assets. Those agricultural holdings are on the decline. The remaining farms of the Macro-region are capable of neither significant commercial production nor reproducing production assets.

- ⇒ In the Central Eastern Macro-region farms characterised by annual commercial production of more than PLN 30,000 account for merely 14.6% of all agricultural holdings. These are the only farms capable of reproducing production assets. Some 85.4% of agricultural holdings, even those with any commercial production, have no reproduction capabilities, thus to reproduce production assets. Moreover, in this Macro-region farms with annual commercial production ranging between PLN 10,000 and 30,000 per farm account for 21.4% of agricultural holdings. This Macro-region (the Lubelskie, Podlaskie, Mazowieckie and Łódzkie voivodships) needs state intervention aimed at increasing the number of agricultural holdings with development prospects. The Central Eastern Macro-region is characterised by substantial human resources and a significant share of good soils, rich production traditions. What it needs is at least double the number of farms capable of reproducing production potential.
- ⇒ In the South-Eastern Macro-region there are only 4.3% of agricultural holdings which sell annual commercial production of more than PLN 30,000. Thus, merely 4.3% of farms are (or will be having received direct payments) capable of reproducing production potential. This puts the survival of agriculture at stake. In this Macro-region (the Świętokrzyskie, Małopolskie, Podkarpackie and Śląskie voivodships) there are 22.7% of agricultural holdings which sell annual production ranging between PLN 10,000 and 30,000 per farm. Production costs account for 45% of the value of commercial production. These farms are incapable of reproducing production assets.
- ⇒ In the South-Western Macro-region there are 17.4% of agricultural holdings capable of simple or extended reproduction. Thus, 82.6% of farms have no capabilities for reproducing production assets. In this Macro-region (the Dolnośląskie, Lubuskie and Opolskie voivodships) there are also 22.7% of farms with annual commercial production ranging between PLN 10,000 and 30,000 per farm. However, they have no development prospects since they are on the decline.

- ⇒ In the Northern Macro-region there are 26.2% of commercial farms selling commercial production of PLN 30,000. These agricultural holdings are capable of reproducing production assets. Furthermore, this Macro-region (the Zachodniopomorskie, Pomorskie and Warmińsko-Mazurskie voivodships) also has 22% of medium commercial farms characterised by commercial production of less than PLN 30,000 per farm. This group of agricultural holdings is on the decline. The Northern Macro-region is in social disintegration with relatively the most people suffering from social exclusion, i.e. living outside civilised society, with no jobs etc. In this region, hundreds of people previously working on former state-owned farms have become socially excluded.
- ⇒ Polish agriculture consists of an insufficient number of agricultural holdings with development prospects, i.e. those capable of reproducing production potential. In Poland, there are merely some 215,000 farms reproducing their production potential.
- ⇒ The state should focus on the formation of an additional group of agricultural holdings with development prospects (some 250,000 – 300,000) among the medium commercial farms which are incapable of reproducing production potential. As a result, there should be a total of some 500,000 competitive commercial farms in Poland. Otherwise Poland will fail to achieve the goal of food self-sufficiency and will gradually lose the competition with countries whose agriculture consists of agricultural holdings with development prospects. What Poland needs is a group of approximately 500,000 farms with development prospects so that there is work in agriculture for at least 2 million working-age persons for a minimum of 15 years. Poland has no possibilities to provide employment for people leaving agriculture. Efforts should be made at allocating EU support measures for the transformation of medium commercial farms into highly commercial agricultural holdings. EU aid should be redistributed in such a manner as to facilitate the strengthening of medium commercial farms.
- ⇒ Poland should prepare a programme to improve the agrarian structure with a view to privatise the land of former state-owned agricultural holdings and to create a stable agrarian structure as a result of privatisation processes. The ideological doctrine of land lease in order to maintain large size agricultural holdings is unjustified. No European country adheres to such a doctrine. It is the wrong doctrine and while held on to, Poland is losing the transnational period which allows to resolve the problem at the national level.

6.3. The role of non-agricultural activities in the formation of new structures in rural areas

The analyses aimed at describing changes in the social and economic structure of the non-peasant population, the size of the non-peasant population in 1996-2002, the economic situation and income sources of non-peasant families, research on the diversity of non-farming families across regions, social mobility of the rural population destitute of farmland and its effect on the formation of a group of persons destitute of farmland and the relation of this process to agricultural transformation, the socio-demographic structure of the rural population destitute of farmland, the level of economic activity of the rural population destitute of farmland as well as the characteristics of selected elements of the social and material situation of families with no farmland allowed to draw the following conclusions:

- ⇒ The people living outside agricultural holdings account for an ever-growing share of the rural population. Research suggests that 54% of rural families live outside farms. When describing changes in rural areas, the increasing share of people living outside farms is significant in a number of ways. To begin with, it reflects diminishing importance of agriculture in the determination of the economic situation of the rural population. Over the past dozen years, this limitation has been strengthening rather quickly.
- ⇒ Furthermore, the share of non-peasant families in rural areas varies between regions. In some areas, especially in the south-west and north of Poland, this group accounts for even three-fourths of the total number of rural families. In the east of Poland, i.e. where agricultural holdings were characterised by particularly traditional forms of family relationships, regardless of the economic status of individuals, families destitute of farmland account for nearly 50% of the rural community.
- ⇒ The economic transition played a vital role in the formation of the non-peasant population. This group also came to absorb people retiring from agriculture, which resulted from an increased interest of the rural youth in taking over farms by way of succession. Other reasons for leaving agriculture include changes in this section of the economy stemming from new macroeconomic conditions, particularly increased competition and the need to cut production costs. Due to the significant farm land fragmentation, characteristic of Polish farms, hidden unemployment in agriculture started growing very rapidly and, irrespective of the scale of the labour market imbalance, the very situation in agriculture forced the search for an alternative income source. As a result, although the group of rural families

destitute of farmland suffered from all the adverse consequences of the restructuring of the economy, the number of rural families in this category continued to increase.

- ⇒ Broken down by income source, both income-earning families and those living on pensions account for 50% of non-peasant families. Most income-earning families only had one source of income, which was reflected in generally low living conditions of those families. The break-down by principal income source has shown significant diversity across regions. In the south and north of Poland, i.e. where the population destitute of farmland included relatively young people and for many years rural development has increasingly involved off-farm employment, income-earning families accounted for relatively the highest share. The opposite was the case in the centre of Poland where, particularly during the transition period, families with no farmland absorbed a large number of retired farmers. As a consequence, the population destitute of farmland living in those areas was characterised by a relatively high share of elderly people and families whose principal income sources were pensions.
- ⇒ Although most income-earning families derived their income from paid employment, it is worth mentioning that some of them were self-employed. However, self-employment continues to be principal income source for a small percentage of the total number of income-earning families. Such a situation primarily stems from the lack of experience in running a firm since prior to the economic transition the number and status of people destitute of farmland was mostly determined by the absorptive labour market. Furthermore, difficulties resulting from capital limitations and low professional and vocational qualifications in this group also play a vital role. Research indicates that self-employment within the group of families destitute of farmland became popularised through the involvement in the processes of multifunctional rural development, already at an advanced stage. Such interrelations are exemplified by a relatively high share of self-employed families with no farmland in the South-Eastern Macro-region, which is characterised by significant farm land fragmentation and long-standing traditions of income earning among the rural population.
- ⇒ The characteristics of rural families destitute of farmland have shown that increased popularisation of non-agricultural activities is of essential importance to the socio-economic development in rural areas and that the analysed group plays a vital role in changes in farm labour resources and affects the transformation of the socio-economic structure of the countryside.

6.4. The institutional factors of the socio-economic development in rural areas

The analysis of the institutional system in the field of entrepreneurship, human capital, civic society, land use and environmental management in rural areas allows to draw the following conclusions:

- ⇒ The institutionalisation of rural areas is the formation of collective behaviour patterns for which the law as well as other formal and informal conditions (the institutional environment) are significant, but not the only determinants of their content and the way they materialise. Organisations also play a vital role – as the organisational aspect of the institutional environment and mechanisms for processes of adopting and shaping behaviours of actors participating in rural development.
- ⇒ The ongoing institutionalisation is lagging behind the processes observed in rural areas or not all efforts stimulate development.
- ⇒ The institutionalisation for rural development is largely implemented by *ad hoc* organisations established for specific tasks. However, there are few organisations to support rural development at further stages. The emphasis should be on the coordination of actions and measures in horizontal and vertical structures.
- ⇒ Rural development is primarily shaped by public organisations (governmental and local government institutions). They can gather information and have substantial knowledge of specific problems in rural areas, as well as the power to effectively influence human behaviour. All efforts by these organisations aimed at rural development are based on access to various sources of funds, essential to investment activities.
- ⇒ The EU support measures also address the issue of the institutionalisation of rural areas. A substantial proportion of this aid is targeted at the formation of the institutional basis, democracy, the market economy and civic society.
- ⇒ Major problems resulting from the functioning of the present institutional system and their consequences to rural development are found in the field of rules, organisation and mechanisms:

Problems	Consequences
<u>In the field of rules</u>	
<ul style="list-style-type: none"> • Too vague definition of the constitutional principle of sustainable development. 	<ul style="list-style-type: none"> • A number of actions and measures aimed at stimulating economic development may be treated as the breach of the constitution due to their effect on the environment.

<ul style="list-style-type: none"> • Very few regulations in the field of the formation of civic society. 	<ul style="list-style-type: none"> • Low level of social activity of the rural population, involvement is limited to situations ensuring financial benefits.
<ul style="list-style-type: none"> • The educational system for children and youth as well as the training of adults take little account of the differences between urban and rural areas. 	<ul style="list-style-type: none"> • Lack of an appropriate system of financial support taking account of different education levels, income and access to educational and training services causes a growing gap between the quality of human capital in rural and urban areas.
<ul style="list-style-type: none"> • Lack of appropriate regulations governing land ownership. 	<ul style="list-style-type: none"> • Slower changes in the land structure in agriculture and the arrangement of agricultural holdings.
<ul style="list-style-type: none"> • Lack of procedures imposing the obligation to update information on the discontinuation of activities of non-governmental organisations. 	<ul style="list-style-type: none"> • Lack of updated information on actually operating organisations, which discourages the community from involvement in their activities.
<u>In the field of organisation</u>	
<ul style="list-style-type: none"> • Excessive division of powers in the area of economic growth as well as social and environmental development in rural areas. 	<ul style="list-style-type: none"> • It results in increased costs of coordinating and controlling actions.
<ul style="list-style-type: none"> • Excessive advisory system for undertakings. 	<ul style="list-style-type: none"> • It results in a risk of a delay in the decision-making process. Delivered advice or opinions are not binding for the authority obliged to obtain them which leads to routine opinions.
<ul style="list-style-type: none"> • The system of financing local governments fails to motivate them to increased involvement in agricultural development. 	<ul style="list-style-type: none"> • In extreme cases, the rate of improvement in living conditions of the farming population is much lower.
<ul style="list-style-type: none"> • Lack of the classification of non-governmental organisations to raise the importance of organisations with significant accomplishments in the field of rural development. 	<ul style="list-style-type: none"> • A number of organisations are only established in order to exploit infrequent opportunities to implement various development projects. As a rule, their objectives are purely commercial and effects such as accelerated rural development are marginal.
<ul style="list-style-type: none"> • Limited involvement of private organisations in activities aimed at stimulating rural development. 	<ul style="list-style-type: none"> • Limited inflow of private capital.
<u>In the field of mechanisms</u>	
<ul style="list-style-type: none"> • Excessive administrative procedures related to the coordination, implementation and financing of development measures. 	<ul style="list-style-type: none"> • High administration costs and longer implementation of development measures.
<ul style="list-style-type: none"> • Inadequate system of cooperation between the private and public sectors in the field of increasing human capital. 	<ul style="list-style-type: none"> • Limited possibilities of financing education of the rural population and the lack of possibilities to include this segment in markets in goods and services.
<ul style="list-style-type: none"> • Low income of the rural population. 	<ul style="list-style-type: none"> • Limited capability for the co-financing of development projects.

- ⇒ The compatibility of the institutional environment and organisational structures largely depends on public policy. In this connection, the state should take measures to support the formation of the institutional environment contributing to the creation and strengthening of organisational structures necessary for rural development. It is important to extend the powers of the local public administration, particularly of the local government, which may result in increased competitiveness of rural areas.

6.5. Highly commercial farms in peasant agriculture

Research aimed at determining the share of highly commercial farms in peasant agriculture and their regional distribution, as well as analyses to identify factors contributing to growth in the economic strength of agricultural holdings allow to draw the following conclusions:

- ⇒ Peasant agriculture is undergoing changes, namely the formation of a highly commercial sector, characterised by technical and social efficiency comparable to the effectiveness of non-agricultural sectors, capable of competing in the domestic and international markets. The development of the category of highly commercial farms in peasant agriculture is permanent.
- ⇒ The share of highly commercial farms continues to be rather limited although in 1992-2005 it doubled, i.e. increased from slightly more than 6% to some 12%.
- ⇒ Highly commercial farms were mostly found in the group of agricultural holdings characterised by rather large area, run by relatively young men, frequently with agricultural education.
- ⇒ Despite the relatively small number, the group of highly commercial farms determines the quantity, quality and product range in the agricultural market. In 2005, highly commercial farms accounted for nearly two-thirds of the commercial output of family farming. As early as 2000, this group cultivated over 31% of agricultural land used by self-employed farmers and owned more than one-third of farmed animals characterised by relatively concentrated rearing. Furthermore, it accounted for more than 40% of machinery and equipment owned by peasant farms, not only relatively modern, but also comprehensive in use.
- ⇒ Significant disparities were found in the share of highly commercial farms across regions, embedded in historical differences between regions in terms of the level of economic development in specific parts of Poland (particularly in agriculture). These discrepancies, as well as diverse cultures and

mentalities, shaped varying production potential and had a different effect on adaptation processes in agricultural holdings. As a result, highly commercial farms were primarily found in the Central Western Macro-region. Over the entire period in question, in this area, covering the Kujawsko-Pomorskie and Wielkopolskie voivodships, the share of highly commercial farms was the highest – in 2005 they accounted for nearly 31% of the total number of family farms. At the other extreme, over the entire analysed period the share of highly commercial farms was relatively the lowest in the central eastern and south-eastern Poland. In 2005, such farms only accounted for some 8% of the total number of agricultural holdings in those areas.

- ⇒ The economic strength of a farm is affected by a number of factors, some of which are indirect ones. Crucial determinants of the capability for enhancing the economic strength were the level of farmers' education (especially agricultural education) and their investment activity, particularly measures aimed at increasing the scale and concentration of production, as well as improving quality.
- ⇒ Due to financial constraints in the investment activity, the most important prerequisite for the possibility to increase the economic strength is the improvement in farmers' skills, which should exceed traditionally perceived agricultural qualifications.
- ⇒ The trends observed in family farms indicate that further changes in peasant agriculture will involve a slow increase in the number of highly commercial farms accompanied by relatively fast concentration of production potential, particularly land, and improved farming efficiency.

6.6. The agricultural land market

The analysis of the situation in the agricultural land market in Poland, including the identification and description of factors affecting the turnover and rules governing trade in agricultural land, characteristics of parties to contracts of sale of agricultural land, the influence of the Agricultural Property Agency on the supply and demand relationships in trade in agricultural land, issues related to land prices and their fluctuations, as well as the description of rules for the functioning of agricultural land markets in selected Central and Eastern European countries and in the so-called “old” EU Member States allow to draw the following conclusions:

- ⇒ In 2004, the most distinctive feature of the agricultural land market was the price rise. This process accelerated every quarter and was definitely stronger

than in 2003. As a result, the value of agricultural land in transactions between neighbours increased by an average of 15%, and in the case of land included in the Agricultural Property Stock of the State Treasury – by 25%. The upward spiral of prices was primarily triggered by increased demand for land accompanied by low supply of agricultural land for sale. Greater interest in purchasing land mostly resulted from anticipated benefits from the ownership of agricultural property. Such a belief was based on announced changes in agricultural policy in connection with financial support within the framework of the EU common agricultural policy. It particularly concerned the announced and gradually effected direct payments on agricultural land. Such a situation made prospective land sellers reluctant to make final decisions until new conditions were known and potential benefits recalculated.

- ⇒ The increasing imbalance between demand and supply in the agricultural land market was also evident in the declining number of transactions. In 2004, in comparison with the previous year, the total number of notarial deeds concerning the sale of agricultural land went down by 9.4% to 76,000. There was a substantial fall, i.e. by 14%, in the number of private transactions, whereas trade in agricultural land involving legal persons rose by 9%. This growth mostly stemmed from intensified privatisation activities by the Agricultural Property Agency. However, the increased number of transactions had little effect on the increase in area of sold agricultural land since it went up merely by 3% compared to 2003.
- ⇒ The Agricultural System Act (*Ustawa o kształtowaniu ustroju rolnego*) mostly affected the volume of sale of land included in the Agricultural Property Stock of the State Treasury since it specified the limit per buyer (up to 500 ha) and the upper limit on family farms (300 ha). Furthermore, the implementation of measures aimed at improving the agrarian structure in family farming included in the tasks of the Agency required more tendering procedures which concerned relatively smaller agricultural land.
- ⇒ In 2004, the price index of land from the Agricultural Property Stock of the State Treasury was higher than in private transactions. However, the previous disparities in the value of land depending on the parties to a transaction remained unchanged. The average land price in private transactions was PLN 6,634, whereas in contracts concluded by the Agricultural Property Agency it was PLN 4,682, i.e. lower by 29%. These differences are permanent and primarily relate to the location of land from the Stock almost exclusively where state-owned farms operated in the past. Furthermore, the fact that the

most attractive land from the Stock has already been sold is also of importance.

- ⇒ The year 2004 witnessed growing differences in the market value of agricultural land across regions. The highest prices characterised land in the southern and central Poland where the benefit of location was accompanied by particularly low supply of land for sale.
- ⇒ Land lease was limited, 83% of agricultural land was cultivated by owners. Leases play a particularly significant role in the case of land from the Agricultural Property Stock of the State Treasury. In 2004, some 79% of land managed by the Agricultural Property Agency was used in this form. The number of lease contracts concluded by the Agency was slightly higher in 2004 than in 2003 (by 4.6%), whereas average rent increased by 40%; it was equivalent to 2.5 decitonnes of wheat in 2003, and to 3.5 decitonnes of wheat in 2004.
- ⇒ The assessment of the situation in the agricultural land market should also take into account non-commercial transactions concerning agricultural land. In Poland some 90% of agricultural holdings are transferred by way of family succession. In 2004, 57,000 notarial acts on transfer of the ownership of agricultural land were deeds of gift, which meant an increase by 5.4% compared to 2003. The number of registered inheritances and distributions of property within the family exceeded 6,000 in 2004, i.e. by 22% more than in the previous year.
- ⇒ In 2004, there was a change in the rules governing the acquisition of agricultural land by foreign nationals. As regards persons who had been leasing land for a period of 3 to 7 years continuously (depending on the voivodship where agricultural land is located), obtaining a permit for such a transaction was no longer necessary. In other cases, as in previous years, permits will be required from foreign nationals wishing to purchase agricultural land for 12 more years.
- ⇒ In 2004, 279 permits to purchase agricultural land were issued to foreign nationals, i.e. more than double the figure from 2003. There was also a corresponding increase in area (from 398 ha in 2003 to 761 ha in 2004). Moreover, in 2004 foreign nationals obtained permits to purchase stocks and shares in companies owning a total of 1,337 ha of agricultural land. On the whole, permits issued in 1990-2004 to foreign nationals to purchase agricultural land or stocks and shares in companies owning land concern 0.3% of Poland's area.

⇒ The comparison of rules governing the functioning of the agricultural land market in selected European countries suggests that rules concerning trade in agricultural land in Poland are definitely more similar to those applicable in the “old” EU Member States than in Central and Eastern European countries. In a number of countries of the former “Eastern Bloc” the reprivatisation process has not yet been completed and its forms significantly vary. In countries where the nationalisation and collectivisation of land were implemented some 80 years ago there are still no conditions for the creation of the agricultural land market and transactions concerning land are infrequent (Russia, Ukraine).

7. The standard gross margin account for selected agricultural products and the classification of agricultural holdings according to the European Union rules

This task primarily involved methodical as well as organisational and technical work. The resulting solutions will allow to effectively assess the production and economic performance of agricultural holdings and specific agricultural activities on those farms. The main conclusions which can be drawn from the implementation of the task are as follows:

- ⇒ Due to Poland’s membership in the EU, national agricultural statistics must be brought into compliance with EU standards. Efforts at updating economic parameters applicable in the Community Typology for Agricultural Holdings were aimed at improving the statistical information system. The main parameter used in the classification of farms according to EU standards is the standard gross margin – SGM. Methodical work under this task included the development of the methodology to calculate regional SGMs in 2002.
- ⇒ Based on the results of the representative farm structure survey conducted by GUS in 2005 and the 2002 regional SGMs calculated under this task, GUS will develop a classification of agricultural holdings according to EU rules.
- ⇒ Methodical work on the 2002 SGM methodology produced the following results:
 - the preparation of a list of agricultural production activities in Poland,
 - the specification of the number of SGM sets for selected activities. In Poland, those may be 4 different SGM sets, i.e. for separate regions, or one set representing average national conditions,

- the development of methodical guidelines for the system of control and data revision used in 2002 SGM account for agricultural production activities in Poland,
 - the preparation of a list of FSS (Farm Structure Survey) codes – in the context of SGM 2002 – consistent with the EU list of activities accepted by the algorithm of the Community Typology of Agricultural Holdings,
 - the development of “weight sets” for activities included in crop and livestock production with a view to aggregate production activities in Poland under FSS codes applicable in the EU,
 - the preparation of methodical guidelines for the 2002 SGM account for animal production activities under shortage of own fodder not in commercial production,
 - the development of the methodology of fodder area balance sheets according to EU guidelines, in order to take account of farms reporting fodder balance and those characterised by deficit or surplus of own fodder not in commercial production in the typology of agricultural holdings in Poland.
- ⇒ A number of methodological and IT tasks were carried out with reference to cost and income accounts for the surveyed crop and livestock production activities. The process of the collection of data on the value of production, inputs and direct costs for the nine crop and livestock production activities selected for the survey in family agricultural holdings was organised and implemented. The characteristics of organic farming and the differences from traditional agriculture were identified. The methodological differences concerning certain elements of the structure of the output value and direct costs for crop and animal production in certified organic farms were specified.
- ⇒ In recent years, there has been a growing interest of farmers in organic farming, which is reflected in the increasing number of organic farms (i.e. certified agricultural holdings or farms changing over to organic farming). In 2004, as compared to 2003, their number went up by more than 64%. Support for organic farming within the framework of the common agricultural policy and the growing consumer interest in so-called organic food contribute to the increasing number of organic farms. According to forecasts by the Ministry of Agriculture and Rural Development, the number of organic farms will rise to 15,000 in 2010.
- ⇒ Surveys were initiated for 4 organic production activities. These will provide information on the production level, costs and incomes. Furthermore, the collected data will serve as a basis for comparison with the production and economic performance under traditional methods of production.

Collaborating institutions

In 2005, the implementation of tasks under the multi-annual programme involved collaboration with a number of various units of the central and regional administration, statistical offices, national and foreign academic institutions and non-governmental organisations. Their contribution was invaluable, primarily in the field of supplying statistical data. The institutions which contributed the most included:

- ⇒ The Central Statistical Office (GUS), which provided a great amount of statistical data on the socio-economic life and infrastructure in rural areas, agriculture and the food economy in a broad sense, also information on the output of the food industry, the financial standing of enterprises, selling and retail food prices, household consumption and other data.
- ⇒ The Statistics Department of the Ministry of Justice and the Ministry of Interior and Administration, which provided information on the sale of agricultural land to foreign nationals.
- ⇒ The Ministry of Agriculture and Rural Development supplying current market data and the most important information on the implementation of agricultural policy in Poland and other EU Member States. The collaboration with the Ministry of Agriculture and Rural Development is based on mutual consultation and information exchange.
- ⇒ The Agency for Restructuring and Modernisation of Agriculture being a key partner in the field of providing information on the implementation of the PROW and SOP operational programmes and of the SAPARD programme.
- ⇒ The Agricultural Property Agency providing information on fields such as the situation in the agricultural land market, the privatisation process, the implementation of the Agricultural System Act and the development of agrarian transformation policy.
- ⇒ The Agricultural Market Agency (ARR) providing access to current information on its spending on market intervention under the CAP.
- ⇒ The Office of the Committee for European Integration providing access to EU legislation in force.
- ⇒ The Chief Veterinary Inspector providing information on standards implemented and certificates obtained by enterprises operating in the food industry subject to supervision.
- ⇒ State Sanitary Inspection.

- ⇒ The Main Inspectorate of Agricultural and Food Quality providing information on certified organic farms and selected information on enterprises operating in the food industry.
- ⇒ The Foreign Trade Information Centre supplying data on foreign trade.
- ⇒ Centres for Agricultural Advisory Services involved in the collection of data on production activities. At the same time, they serve as Accounting Offices for the accounting system of the “Polish FADN”.
- ⇒ The following producer organisations: the Food Economy Council, the “Polish Meat” Society, the Association of Private Milk Processors, the Cereal and Fodder Chamber, the Polish Refrigeration Industry Union, “The Bottling Industry” in the Polish Chamber of Commerce, the Association of Sugar Producers, the Polish Association of Margarine Producers, the Polish Spirit Industry Council, the Polish Wine and Mead Council.
- ⇒ The Office for Rural Programmes of the Cooperation Fund, Public Notary’s Offices and other non-governmental organisation, including those involved in rural development.
- ⇒ Other research centres in Poland available for consultation and ad hoc cooperation such as the Warsaw Agricultural University (SGGW), the Institute of Rural and Agricultural Development of the Polish Academy of Sciences (IRWiR PAN), the Agricultural University of Lublin, the Poznań University of Economics, the Institute of Soil Science and Plant Cultivation (IUNG), the Institute of Agricultural Construction, Mechanisation and Electrification (IBMER), the Institute for Land Reclamation and Grassland Farming (IMUZ), The Department of Management of the University of Warmia and Mazury (UWM) in Olsztyn, the University of Economics in Warsaw, the Institute of Agricultural and Food Biotechnology in Warsaw.
- ⇒ Other public organisations which supplied valuable information on the functioning of the institutional system in rural areas: the Polish Agency for Enterprise Development, Agricultural Chambers, the University of Podlasie – the Department of Agricultural Economics and Organisation.
- ⇒ Other non-governmental organisations which actively participated in fieldwork such as the Rural Development Foundation, the Foundation for the Promotion of Polish Communes, the Foundation in Support of Local Democracy, the Foundation for the Development of Polish Agriculture, the Foundation for the Development of Agricultural and Rural Development, the Foundation for Social and Economic Initiatives, the Perfect Community Foundation, the Foundation of Assistance Programmes for Agriculture, the Polish Association of Farmers, Farmer Groups and Organisations, the

Regional Development Agencies, the Cooperation Fund – the Office for Rural Programmes.

- ⇒ EUROSTAT providing information on the implementation of the CAP and structural policy in other EU Member States, the agricultural accountancy, the typology of agricultural holdings and the methodological guidelines for the calculation of regional standard gross margins.
- ⇒ Various scientific and expert institutions from EU Member States contacted by some research teams, such as the Wageningen Agricultural University in the Netherlands, the National University of Ireland, Galway, the University of Exeter, the United Kingdom, *Institut für Sectoranalyse und Politikberatung GmbH* (A.S.A), Germany, the Imperial College of London, the Federal Institute for Less-Favoured and Mountainous Areas in Vienna, the Federal Institute of Agricultural Economics in Vienna, *Universita degli Studi di Macerata*, Macerata in Italy, DATAR – France, *Institut National de la Recherche Agronomique*, France.

List of publications

A) In 2005 the series of Multi-annual Programme Reports included the following items:

1. *Stan polskiej gospodarki żywnościowej po przystąpieniu do Unii Europejskiej. Raport 1*, ed. by R. Urban, authors: Ł. Chudoba, J. Drożdż, W. Guzewicz, W. Józwiak, J. Małkowski, L. Mieszkowska, B. Nosecka, E. Rosiak, A. Staszczak, J. Świetlik, R. Urban, A. Zalewski, D. Zawadzka, M. Zdzieborska, Report no 1, IERiGŻ-PIB, Warsaw 2005.
2. *Wpływ interwencji rynkowej Unii Europejskiej na główne rynki rolne i żywnościowe w Polsce*, by S. Gburczyk, cooperation: Ł. Chudoba, W. Dzwonkowski, W. Łopaciuk, J. Mierwiński, D. Rycobel, T. Smoleński, Z. Smoleński, R. Urban, Report no 2, IERiGŻ-PIB, Warsaw 2005.
3. *Wybrane cechy społeczno-ekonomiczne ludności wiejskiej a rozwój wsi i rolnictwa*, by A. Wrzochalska, scientific editor: A. Sikorska, Report no 3, IERiGŻ-PIB, Warsaw 2005.
4. *Metodologia GSM „2002” dla typologii gospodarstw rolnych w Polsce*, by A. Skarżyńska, L. Goraj, I. Ziętek, Report no 4, IERiGŻ-PIB, Warsaw 2005.
5. *Zmiany w strukturze społeczno-ekonomicznej ludności niechłopskiej w okresie transformacji ustrojowej*, by A. Sikorska, Report no 5, IERiGŻ-PIB, Warsaw 2005.
6. *Zarządzanie gruntami rolnymi w krajach Europy Środkowo-Wschodniej*, by A. Zadura, scientific editor: A. Sikorska, Report no 6, IERiGŻ-PIB, Warsaw 2005.
7. *Sytuacja ekonomiczna i aktywność gospodarcza różnych grup polskich gospodarstw rolniczych. Wstępne wyniki badań*, ed. by W. Józwiak, authors: T. Czekaj, W. Józwiak, Z. Mirkowska, G. Niewęgłowska, Report no 7, IERiGŻ-PIB, Warsaw 2005.
8. *Identyfikacja instytucji działających na obszarach wiejskich*, by D. Kołodziejczyk, A. Wasilewski, Report no 8, IERiGŻ-PIB, Warsaw 2005.
9. *Zróżnicowanie funkcji gospodarstw rolnych w ujęciu przestrzennym*, by W. Michna, cooperation: A. Mierosławska, B. Chmielewska, D. Lidke, Report no 9, IERiGŻ-PIB, Warsaw 2005.
10. *Możliwości rozwojowe chłopskiego rolnictwa na przykładzie gospodarstw wysokotowarowych*, by B. Karwat-Woźniak, scientific editor: A. Sikorska, Report no 10, IERiGŻ-PIB, Warsaw 2005.
11. *Koncepcja badań nad rolnictwem społecznie zrównoważonym*, ed. by J. S. Zegar, authors: A. Czyżewski, Z. Floriańczyk, M. Gruda, A. Henisz-Matuszczak, S. Krasowicz, G. Niewęgłowska, D. Niezgoda, M. Staniszevska, K. Wagner, W. Wilk, J. S. Zegar, Report no 11, IERiGŻ-PIB, Warsaw 2005.

12. *Wyniki ekonomiczne polskiego rolnictwa w latach 2003-2004*, by J. Gomułka, cooperation: Z. Floriańczyk, Report no 12, IERiGŻ-PIB, Warsaw 2005.
13. *Procesy dostosowawcze w rolniczych spółdzielniach produkcyjnych*, by W. Guzewicz, A. Kagan, M. Zdzieborska, Report no 13, IERiGŻ-PIB, Warsaw 2005.
14. *SAPARD – programowanie i realizacja*, by J. Rowiński, Report no 14, IERiGŻ-PIB, Warsaw 2005.
15. *Ocena konkurencyjności polskich producentów żywności*, by I. Szczepaniak, cooperation: J. Drożdż, P. Szajner, M. Szczególska, consultation: R. Urban, J. Rowiński, Report no 15, IERiGŻ-PIB, Warsaw 2005.
16. *Import produktów rolno-spożywczych uznanych za wrażliwe*, by B. Nosecka, cooperation: A. Bugała, J. Mierwiński, Report no 16, IERiGŻ-PIB, Warsaw 2005.
17. *Wpływ procesu globalizacji na rozwój rolnictwa na świecie*, supervised by G. Dybowski, authors: J. Bański, K. Błażejczak, G. Dybowski, B. Gulbicka, T. Hunek, J. Kulawik, M. Kwasek, Report no 17, IERiGŻ-PIB, Warsaw 2005.
18. *Swoboda decyzji narodowych odnośnie rynków rolnych*, by G. Dybowski, M. Kobuszyńska, B. Wieliczko, Report no 18, IERiGŻ-PIB, Warsaw 2005.
19. *Stan polskiej gospodarki żywnościowej po przystąpieniu do Unii Europejskiej. Raport 2*, ed. by R. Urban, authors: Ł. Chudoba, J. Drożdż, W. Guzewicz, W. Józwiak, J. Małkowski, L. Mieszkowska, B. Nosecka, E. Rosiak, A. Staszczak, J. Świetlik, R. Urban, A. Zalewski, D. Zawadzka, M. Zdzieborska, Report no 19, IERiGŻ-PIB, Warsaw 2005.
20. *Systemy zarządzania jakością w przedsiębiorstwach przemysłu spożywczego (ocena stanu wdrożenia po roku integracji z Unią Europejską)*, by G. Morkis, cooperation: A. Dworska, J. Hillar, M. Karaś, K. Krygier, B. Lenart, D. Michałowska, E. Nitecka, A. Salamon, T. Zalewska, consultation: J. Seremak-Bulge, R. Urban, Report no 20, IERiGŻ-PIB, Warsaw 2005.
21. *Rozwój rynku mleczarskiego i zmiany jego funkcjonowania w latach 1990-2005*, scientific editor: J. Seremak-Bulge, authors: K. Hryszko, K. Pieniążek, J. Rembeza, J. Seremak-Bulge, P. Szajner, K. Świetlik, Report no 21, IERiGŻ-PIB, Warsaw 2005.
22. *Wsparcie sektora żywnościowego i obszarów wiejskich w latach 2004-2005*, by M. Wigier, Report no 22, IERiGŻ-PIB, Warsaw 2005.

B) Other publications:

1. *Rynek rolny – analizy, tendencje, oceny*. Monthly bulletin 2005, no 5-12.
2. *Rynek ziemi rolniczej. Stan i perspektywy*, no 8, in the series “Analizy rynkowe”, IERiGŻ-PIB, the Agricultural Property Agency, the Ministry of Agriculture and Rural Development, Warsaw 2005.