# EU AGRICULTURAL POLICY AND THE REGIONAL DIFFERENTIATION OF AGRICULTURE IN POLAND

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# Paper for the International Conference of the Regional Studies Association: "EUROPE AT THE MARGINS: EU REGIONAL POLICY, PERIPHERALITY AND RURALITY" Thursday 15<sup>th</sup> & Friday 16<sup>th</sup> April 2004 Angers, France

## Abstract

The paper addresses the "spatial" structure of agriculture in Poland whose spatial development is analysed from the beginning of the transition towards a market economy up until the country's forthcoming accession to the EU and the correlated implementation of the Common Agricultural Policy (Cap). The paper analyses the social, political and economic forces behind the process of progressive differentiation in the regional structure of agriculture which have produced the existing disparities between the dynamic farming of the central and western areas and the semi-subsistence farming in the east. The analysis also explores the linkages between the spatial evolution of agriculture and the increasing disparities in terms of regional unemployment and development. In such a framework the Cap's implementation by producing differential effects in relation to each region's agricultural structure will lead to further polarisation of the spatial structure of agriculture and may exacerbate existing disparities. Therefore, the Cap's contribution towards a balanced regional development depends upon its capacity to adapt itself to the needs of a comparatively backward agricultural system (with respect to that of the present fifteen members) and the specificity of its spatial structure. Consequently, it is of fundamental importance that sector intervention be complemented by an appropriate mix of rural development, regional and territorial policies.

**J.E.L. Classification:** Q180, R110, R200, O180.

**Key words:** Agriculture, Common Agricultural Policy, Poland, Regional disparities, Rural development.

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I would like to thank Prof Guido Fabiani for his encouragement in the preparation of this work and Prof Fabrizio De Filippis who, with infinite patience, guided and advised me in this academic work.

I would also like to thank Dr. Jorge Nùñez Ferrer of DG-ECFIN of the European Commission for his help with my research. All judgements, omissions and errors are the author's exclusive responsibility.

## **1. Introduction**

This paper sets out to analyse the origins and development of regional disparities in Polish agriculture and bring to light some possible repercussions of the extension of the Community Agricultural Policy (CAP) on the spatial organisation of the sector.

Even during the period of economic planning major disparities were already a feature of Polish agriculture. However, in the transition towards a market economy existing imbalances became more accentuated along with their regional impact and concentration. Therefore, when Polish agriculture arrived at its appointment with the European Union two different profiles emerged: one regarding the structure and performance of the various farms and the other regarding the territorial coordination of the sector. In the west there are dynamic farms whose size is comparable with those of the rest of the EU and which, by and large, are representative of farming units in these regions, while the eastern regions are primarily characterised by a myriad of small, semi - subsistence farms. The analysis of the forces that gave rise to this particular structure and preserved it over time is of considerable interest in relation to future developments in Poland's economic agrarian model in response to the application of the CAP. In terms of its regional application, the CAP will have to interact with highly differentiated agricultural situations and its effects will, in consequence, differ widely from region to region. The CAP can, therefore, make a significant impact on the overall regional structure of the economy, especially in a context of rapid change in which the development of the agricultural sector represents an important element for the development of the entire economic system.

Agricultural policy will, therefore, play an important role in accentuating the existing regional disparities in terms of pro capita income, employment and overall economic development. These disparities reflect the differential capacity to profit from the various opportunities presented by the process of European integration, and of which the CAP constitutes only one element.

Initially, therefore, we shall illustrate the structure and the peculiarities of Polish agriculture, emphasising the developments taking place in the transition towards a market economy, up until the forthcoming entry into the EU. Successively, the spatial structure of agriculture will be analysed along with its interrelations with the overall regional structure of the economy. In conclusion, some hypotheses will be proposed on the effects that the extension of the CAP will have on the development of the sector and its interaction with the equilibrated development of the rest of the economy.

## 2. The development of Polish agriculture

#### 2.1 Transition towards the market

Polish agriculture's marked resistance to change has deep historical roots. The traditional ties of Polish farmers with their land were even strong enough to resist attempts by the communists to merge the small farms into larger and more efficient collective units (Slay, 2000). Furthermore, notwithstanding the attempts to encourage migration towards the industrial sector and urban areas the rural population has remained substantially unchanged since the end of the Second World War. The government's attempts to enforce collectivised agriculture lasted from 1945 until 1955 when the party line changed and forced collectivisation was abandoned. By 1956 most of the agricultural collectives formed in this period were wound up leaving the sector in the hands of small individual farmers (Wilkin, 2001). By 1989, when the communist regime fell, basically three types of farmholding had emerged:

- a) "state companies", with a very large average size of around 7,000 hectares (accounting for 11% of the overall agricultural work force) whose incidence varied considerably by region. In the western and northern regions such holdings farmed over 40% of agricultural land while in the central and southern regions the percentage was only between 10 and 15% (Van Zyl, 1996). Furthermore, these farms enjoyed a degree of horizontal and vertical integration with the food and processing industry as well as a much higher level of mechanisation with respect to other categories of farms. In 1988 they accounted for 19% of the total agricultural output and over 50% for some cereals. State-owned companies were also the main beneficiaries of agricultural subsidies, which took the form of either price support schemes that absorbed between 3.4 and 4.8% of the GDP in the period 1986 1989 or input subsidies that on average amounted to 1.3% of GDP in the same period (Czyzewski, 2000).
- b) the "collective farms", which played a significantly smaller role. They had an average size of 3,700 hectares and employed 4.1% of the agricultural work force.
- c) the over two million "private farms", most of which family-run concerns, with an average land holding of about 6 hectares, employing 81.8% of the agricultural workforce (Hunek, 1997).

Such a high percentage of private farms initially favoured the transition towards the market economy (Macours, Swinnen, 2000). This was not only because their presence made the land privatisation process less traumatic and created a market structure in the sector but primarily because part of the market social capital that the large state farms had dissipated survived among them. Yet on the other hand, the small average size of most of the farms constituted an impediment to modernisation and sector development, even in the context of a planned economy. Polish

agriculture had remained not only less efficient than the agricultural systems of market economies but also less efficient than the collectivised agriculture in some Central and East European countries such as the German Democratic Republic, Czechoslovakia or Hungary (World Bank, 2001). At the end of the planned economy, the resistance to change that had kept the structure more or less unchanged until the 1990s came under enormous pressure for "development", in the form of international, but more specifically European community, market forces. The reaction to this pressure varied considerably depending upon the history, size and structure of the farms in question. The "transition" commenced with the liberalisation of food prices and the adoption of economic stabilisation policies to shore up the collapse of the national economy (Czyzewsky, 2000). The highly restrictive monetary and tax policies in the early 1990s produced a drastic reduction in incomes and a sharp overall decline in demand for domestic products to the advantage of more competitive imported products. A very severe economic recession ensued that paralysed the entire economy, led to the collapse of the public accounts and a consequent sudden and drastic across-theboard reduction in public spending. This development also spelt the virtual elimination of agricultural subsidies. Price support for agricultural products between 1989 and 1990, dropped from 4% of the GDP to 0.2%, and input subsidies from 1.3% to 0.3% (Slay, 2000). The end of subsidies led to the collapse of the major public companies, whose real losses emerged with the adoption of new "market" accounting systems. By 1992 government had no alternative but to initiate the privatisation process. However, the failure of the planned economy had much less effect upon the agricultural sector as a whole than it had upon other sectors and actual output only suffered a minor contraction. The reason is to be found in the various social and political factors that sustained the sector during the first phase of transition. Such factors mainly refer to the fact that the majority of the small family-run farms were privately owned and that they had a capacity to co-exist alongside the large-scale public agricultural farms. The collapse of the communist regime produced the same effect upon the large public farms as it did upon the other public "companies", and painful restructuring processes ensued. The impact upon the small farmholdings was, at least initially, only very marginal (Gorzelack, 2001). These farms were, consequently, able to continue producing and supplying indispensable foodstuffs, for which demand was, obviously, much more inelastic than the demand for products of the other sectors. In the first years of the transition (1989-1990), the output of the agricultural sector did not, therefore, undergo a decline comparable with the dramatic decline in the national product. In 1990 (see chart 1) agricultural produce accounted for over 10% of the GDP (boxed line in the chart) in the context of a dramatic contraction in the national product (-11.6% in 1990 – diamond-patterned line). Privately owned farms sustained the sector's output by intensifying their productive activities and to some extend absorbing surplus labour (line with

asterisks in the chart) expelled from the public agricultural farms but above all from other sectors of the economy, and hence providing the means of subsistence for the greater part of the population.

In the first years of the transition, agricultural income with respect to rest of the economy rose and led to a relative increase in the farmers' conditions (see chart 2). Their relative incomes increased as a result of the decline in the relative input prices and the increase in relative output prices.

Most of the agricultural sector, by being made up of small private farms, was once again insulated against the major changers experienced by the rest of the economy. However, this state of affairs led national policy makers to believe that the sector was ripe for integration with the market economy rapidly transforming the country. Therefore, with the onset of the transition process public intervention in the agricultural sector was drastically reformed: major cutbacks in public spending were made and the economy was opened up to international commerce.

Table 1 highlights not only the major reduction in public resources earmarked for agriculture (from 18.3% of the state budget in 1986-89 to 3.6% in 1990-92) but also the profound change in the structure of public expenditure. Food subsidies, which helped to sustain the demand for foodstuffs in the period before the transition, were virtually eliminated and spending was concentrated (60.9% in the period 1990-1992) on contributions to farmers' pension funds.

Furthermore, Poland in the framework of the 1989 - 1990 reforms, introduced one of the most liberal customs systems in Europe with duties on agricultural products oscillating between 5% and 25% (Czyzewsky et al., 2000).

However, it soon emerged that this agricultural policy model did not correspond to the needs of the sector. In the second part of the transition (from 1992 onwards) when the other sectors were registering a strong recovery after the initial shock (diamond-patterned line – chart 1), agriculture was unable to grow at a rate in any way comparable with that of the rest of the economy. The expected stabilisation in sector output growth did not take place and value-added per worker remained, in real terms, at pre-transition levels and, therefore, was now lower than other sectors of the economy. Agricultural incomes fell drastically in absolute terms and above all in relative terms (as indicated in chart 2), accompanied by a considerable deterioration in rural living conditions. The ongoing failure of the sector to adjust itself, especially in terms of employment (which remained more or less unchanged for the entire period - see chart 1, line with triangles) and productivity, was associated with a worsening in the ratio of agricultural input to output prices, and hence a further reduction in agricultural incomes. Consequently, the farmers who in the 1980s found themselves producing goods indispensable for the survival of the nation and reaping the benefits of a relatively solid position, were subsequently pushed out of the market; first by the increase in relative input prices and second by the emergence of new quality and crop quality standards (Tang, 2000).

Moreover, the decline in farming income and the evolution in the consumption models of the farmers themselves made it more difficult to make the investments necessary to increase productivity and competitiveness: after the disastrous experience of the first years of the 1990s when many farmers found themselves "trapped" by bank loans (the result of the dramatic fall off in the prices of their products and consequent impossibility to make interest payments) very limited recourse was made the debt market to finance investments. Another and important cause of the backwardness of the sector is the limited level of schooling of most farmers<sup>1</sup>, which impedes the introduction of new technologies, as also innovations in the biological and biotechnological fields but above all limits the chances of agricultural workers finding employment outside agriculture (Dries, Swinnen, 2002).

The implementation of policies based on the erroneous conviction that the sector could autonomously "link up" to the rest of the economy led, on the one hand, to the progressive deterioration of the relative condition of the farmers and, on the other, prevented the implementation of the reforms necessary to push through transformation and development.

The peasants' party, which played a leading role in the governing coalition party in the period 1993-1997, was the spokesman of the farmers' demand for measures to safeguard their income. The result of the pressure exercised by the farming lobbies quickly led to the reintroduction of price subsidies (guaranteed minimum prices and variable customs dues) and import quotas. Most of the previously abolished commercial tariff - and above all non-tariff - barriers were reintroduced (Hartell, Swinnen, 1998). In addition, public spending in these years (1993-1995) reverted to sustaining agricultural incomes and almost 72% of public funds were used to prop up the farmers' pension funds (table 1), hence showing itself to be more a tool of social than agricultural policy.

#### 2.2 Polish agriculture and the EU.

In the period in question, the Polish economy as a whole underwent a profound process of reorganisation. The private sector's contribution towards the GDP (shooting up from 18% in 1989 to 70% in 1999) increased and there was a major rise in non-agricultural labour in the private sector (from 14% to 61% of the workforce over the some time period) (Eiu, 2002). Another clear expression of the structural transformation of the economy is to be found in the make up of the GDP. Industrial components declined from 35% in 1992 to 27.8% in 1999, while the tertiary sector expanded continuously reaching 60% of GDP by 2000 (Eiu, 2003). This framework, which is in step with the sector trends of the other transition economies, forms the context in which we must

<sup>&</sup>lt;sup>1</sup> 43% of the Polish agricultural labour force has only received an elementary and lower-school education (against 16% in construction, 13% in industry and l'8% in the service industry) and only 33% a technical education. (Dries, Swinnen 2002).

analyse the development of the agricultural sector, which, in its present configuration, is still an important characterising element of the Polish economy.

The agricultural sector has played an important role not so much in terms of the make up of the GDP as in the process of employment and the concentration of the population in rural areas. Even if the agricultural sector contributes only 2.9% to overall GDP (2000) almost 19% of the workforce works within it (European Commission, 2002c) (see table 2). Moreover, about fourteen million persons live in rural areas that make up 93% of the national territory and of which over two thirds are farmed. If we compare these quantitative elements with the situations of the other New EU Entrants (CC-10 in table 2) as well as, more importantly, the present 15 member states of the EU (EU 15), the highly specific role played the primary sector in the Polish economy emerges clearly. Hence the historical factors mentioned earlier have contributed towards the highly particular role played by agriculture in present day Poland, including the social and political spheres (Wilkin, 2001).

As concerns the structure of the primary sector, attention should be drawn to the tendency established in recent years of a still greater polarisation in the size of the farmholdings. The number of farms with an average size of between 1 and 5 hectares has remained substantially unchanged while those of over 15 hectares have registered a considerable numerical increase at the expense of farms of between 5 and 15 hectares. Nevertheless, the principal innovative element introduced into the sector by the transition process consists in the emergence of large-scale private farms, (over 100 hectares), most of which operating on land previously used by the large public companies (Hunek, 1997). The agency concerned with the privatisation these companies (Agricultural Property Agency (APA) opted for a direct privatisation method and most of them were not broken up.<sup>2</sup> The private large-scale farms are the result of restructuring state-owned companies and today are the principal beneficiaries of a development process based on European competitive production models. The reduction in the number of employees in the large companies (over 50%) and the deployment of fresh capital and new technologies has produced an increase in productivity and a progressive vertical integration with the private industrial sector. In contrast to this category of company there is the myriad of small agricultural farms (each farming less than 5 hectares) that remain more or less inefficient, essentially orientated to self-consumption, and account for a significant percentage of total agricultural work force. Chart 3 illustrates the present characteristics of the sector's structure. It

<sup>&</sup>lt;sup>2</sup>The agency has gradually privatised 20% of publicly owned arable land. From 1992 to the end of 1999 about 4.5 million hectares passed under the control of the agency, which put around 20% onto the market, mainly in favour of new private entrepreneurs. The rest of the agricultural land acquired by Apa has been leased out in the form of long-term contracts, and only a small part has remained in the hands of public companies (European Commission, DG Agri, 2002c).

can be noted that the last-mentioned category of producer unit includes almost 60% of all farms, although representing only 19.5% of farmed land.

The size factor is also a determinant in the performance and the growth prospects of the single farms. The productivity of agricultural work, measured in terms of total value-added per working day is 4 Zloty per working day for farms of up to 1 hectare and over 200 Zloty for farms of over 30 hectares (World Bank, 2001). In addition, according to the 1996 agricultural census a mere 350 thousand farms declared that they had "good development prospects". Only 10% of farms under 5 hectares belong to this dynamic group against 50% of the units farming over 20 hectares.

We can, therefore, identify two wide categories of farms: those that represent the stagnant element of the sector (the majority) and those belonging to a slowly growing minority (about 350,000 companies) representing the dynamic part that seems able to survive and expand in a market environment (Wilkin, 2001).

The main differences between the two groups refer to: a) the demographic structure, given that the average age of farmers in the "dynamic" group is considerably lower than that of the other group; b) the level of specialisation, as the more dynamic farms tend towards a greater productive specialisation with respect to the differentiation typical of the self-consumption type of agricultural production. c) the capacity to adapt to the market which is by now an essential characteristic of large farms; d) the propensity to invest, a characteristic of larger companies; e) employees' productivity, which is 70% higher in the "dynamic" companies; f) land productivity, which is 20% higher for dynamic farms (Czyzewky et al, 2000).

The social and economic structure of the rural population is closely correlated with the foregoing polarisation of productive activity. The non-uniformity of the structural characteristics of farms in the primary sector is associated with notable differences in the socio-economic conditions of the large rural population (over 14 million). According to the scheme proposed by Wilkin (2001) the Polish rural population can today be broken down into three categories characterised by their different capacities to respond to the transformation of the sector.

The first group includes "market orientated farmers" for whom agriculture constitutes the principal source of income and who are closely influenced by market conditions and sector policies. The second group can be defined as the "multi-income farmers", which includes those who have other sources of income besides their earnings from farming and which includes small family-run farms essentially orientated to self-consumption. This group is less affected by changes in market conditions on account of the diversification of their sources of income. In conclusion, there is a percentage of the rural population which is non-agricultural and whose income does not derive from agriculture but from pensions and unemployment subsidies. This last socio-economic group, which

accounts for about 50% of the rural population, has been engrossed by the workers made redundant by the restructuration process and "conceals" a high degree of unemployment and underemployment in small-sized farms.

The analysis of the characteristics of the rural population highlights a tendency towards income differentiation on the part of those for whom agriculture is not their primary employment. The migration of this category of inhabitants from rural areas is impeded by the high costs of "regular" employment in the other sectors of the economy. Such costs are in part determined by the limited efficiency of the means of transport and communication, the lack of housing in industrial and urban areas and a pension contribution scheme (Regular Pension System – ZUS) whose contributions are, on average, are five times higher than those for farmers (who enjoy a special pensions scheme - KRUS). As concerns, instead, the rural, non-agricultural population this group mainly relies on the so-called "non-earned income", such as pensions, unemployment pay and other social benefits. Agriculture only makes a partial contribution towards their livelihood.

## 2.3 Preparatory policies for EU accession.

The characteristics of the foregoing sector, especially its non-uniform nature, enable us to understand the difficulties that any agricultural policy will encounter. The profound differences existing between the "two agricultures", in particular their limited reciprocal interrelations and the secular resistance to change of at least part of the sector, have prevented policies from being formulated that can deal with the real problems of Polish agriculture. Hitherto the interactions of economic policy, not only in sectoral but also in social, pension and labour terms, have contributed towards the "freezing" of the existing situation, particularly the unemployment "hidden" in the sector.

The evolution of the agricultural model began at the start of the 1993, with the signature of the socalled "European agreements", with which the process of convergence onto European Union standards and policies commenced.

The objective of the European agreements was the gradual creation of an area of free exchange between the applicant countries and the EU. The first step in this direction was a reduction in the commercial barriers for their respective products. The EU's concessions on behalf of the applicant countries in the field of agricultural products included the fixing of export quotas (in progressive growth) to which lower tariffs were applied, even if the applicant countries often showed themselves incapable of exploiting this type of benefit to the full on account of inadequate information and marketing and insufficient product offerings/quality standards, etc. (Buckwell et al., 1995).

The European agreements mainly changed the level of internal market protection and access to the EU market, but their impact on the choice of specific instruments for sector intervention was very limited (Hartell, Swinnen, 1998). But neither in more recent years have the size and the structure of public intervention in agriculture substantially changed. In addition, the overall level of agricultural support in Poland did not undergo radical changes (as also in Hungary unlike the other applicant countries) as it was on a comparable level to that of the EU. (Davidova, Buckwell, 2000). The resources for Krus (Agricultural Social Security Fund) continued to constitute the most important item of agricultural spending, reaching in 1998-2001 80% of all public spending in the agricultural sector. Only the remaining 20% of public resources was used for rural development projects and market actions. The agricultural budget, excluding the Krus contributions, in 2001, amounted to 2.34% of all public expenditure; with these contributions, instead, it reached 12% (European Commission, 2002c).

However, the really innovative element introduced in the pre-accession strategy and thus in the run up to entry into the EU, comprises specific instruments for support drawn up by the European Commission: the Phare programme and the two structural and agricultural instruments made available to applicant countries commencing from 2000 - respectively ISPA and SAPARD For Poland the appropriations for the three financial instruments Phare, SAPARD and ISPA, for the period 2000-2002, amounted, respectively to 398, 186.6 and 385 million euro.

In the ten-year period 1990-2000, 2534 million euro were distributed to Poland under the Phare programme. The impact on the national economy was considerable. The resources for Poland were concentrated upon priorities indicated by special reports prepared by the Commission to facilitate the progressive achievement of single objectives. In particular, in the period 2000-2002 resources were principally earmarked for the reinforcement of the institutions and administrative capacity (in the fields of public finance, transport, regional policy and statistics), the reinforcement of the internal market, the creation of infrastructures in the sectors of agriculture and fisheries (the organisations of the common market, training in the use of Cap instruments<sup>3</sup>), and economic and social cohesion.

Altogether, the impact of the Phare programme has been positive, and not least as regards the transfer of know-how, equipment and financial resources. The programme managed to develop sector strategies and implement essential institutional mechanisms for the development of companies as regards transport, the environment and agriculture. (European Commission, 2002g).

<sup>&</sup>lt;sup>3</sup> Through Phare 35 million euro were allocated for the reinforcement of the administrative capacities and structures necessary for the management of rural development programmes financed by FEOGA after accession to the EU (European Commission 2002c).

As concerns the ISPA programme the government has drawn up a strategy document for environmental and transport priorities.<sup>4</sup>

However, much time was needed before the specifically agricultural tool, the SAPARD programme was released, although the "Polish Rural Development Plan" was formally approved by the European Commission in October 2000 and the related financial agreements approved in 2001. The programme was only implemented in July 2002, after the promulgation of the Polish government's executive regulations (European Commission, 2003b). Consequently, the actual use of the community resources could not be made before the second half of 2002. The programme has two priorities: the increase in agri-foodstuff market efficiency, which accounts for 65% of the total appropriation (2656.31 million euro) and improvements in the conditions for entrepreneurial activities and the creation of new jobs, for which 26% of the resources has been earmarked. Specific intervention measures have also been associated with these two priorities: "improvement in the processing and marketing of foodstuffs" (measure 1) and "investments in agricultural companies" (measure 2), which refer to the first priority while "development of rural infrastructures" (measure 3) and the "diversification of economic activities in rural areas" (measure 4) refer to the second priority. Alongside the first and second priorities a "complementary priority" has been added (for which 9% of the available resources have been earmarked), which includes: "agri-environmental measures and reforestation" (measure 5), "Professional training" (measure 6) and "technical assistance" (measure 7) (Karaczun, 2002).

## **3.** The spatial structure of Polish agriculture

The foregoing description has regarded the specific characteristics of the sector and the development of associated policies viewed from an "aggregate" perspective. If, instead, we switch to a regional type analysis of the factors mentioned earlier we shall see that the "two agricultures" (the more dynamic agriculture of medium and large-sized companies and the semi- subsistence farming of very small holdings) do not co-exist in a homogeneous manner over the national territory but, instead, characterise two distinct groups of regions with a strong east - west polarisation.

The historical legacy of the eastern regions, which dates back to Tsarist times, thus prior to the formation of a unitary state in 1918, is a legacy of chronic economic backwardness that contrasts with the more dynamic economic history of the western regions under Prussian and Austrian

<sup>&</sup>lt;sup>4</sup> As concerns transport, the priority projects refer to the construction and upgrading of motorways, state roads and railways in the context of the Trans-European Transport Network in conformity with European standards. In the environmental field, on the other hand, the main programme priorities refer to drinking water and the treatment of wastewater and solid waste, especially in urban centres.

control. This historical and cultural legacy apart from delaying the process of economic development in the eastern regions, which have remained essentially rural, contributed towards consolidating a very strong bond between farmers and their land, which even withstood the collectivisation process and the concentration of property. The small farmholding, which resisted collectivisation, therefore, represents the prevalent form of land husbandry in the eastern regions. In the western regions of the country, on the contrary, agriculture was characterised by the large public and cooperative farms. And by virtue of better infrastructures and the improved possibilities of vertical integration with the industrial sector, these public companies become practically the only form of farmholdings in these areas. These regions were, therefore, particularly affected by the progressive privatisation of farming activities, hitherto a publicly -owned activity. More efficient farms were set up providing a new stimulus to growth in the sector. However, the eastern regions remained characterised by the prevalence of small, individual, productive units that were incapable of benefiting from the opportunities offered by the new scenario. Therefore, agriculture in these areas has remained seriously underdeveloped and the rural areas are in a corresponding state of economic decline, accompanied by growing poverty and social underdevelopment.

Regional polarisation in the agricultural sector is, in fact, correlated to a more complex regional imbalance that characterises the entire Polish economy. Chart 4 provides a comparative representation of some important comparative data on the regions. The regions are arranged on the X-axis by geographical position in a longitudinal west- east orientation. Chart 4 compares procapita income and the value-added in agriculture compared to total value-added and the number of agricultural concerns larger than 15 hectares in the various regions. The chart shows that the level of pro-capita income (continuous line - values indicated on the ordinates on the right axis) is higher than the national average (equal to 100) in the western regions and much less in the eastern regions (on the right of the chart). The highest level of pro-capita income is registered in the region of Warsaw, the capital and principal economic centre of the country. We can also note that higher levels of income go hand-in-hand with a lower value-added percentage produced in the context of the agricultural sector and that, on the contrary, this percentage value remains significantly high in the eastern regions. A still heavily agriculturally-dependant economic structure in the eastern regions is associated with the prevalence of small and very small producer units, as indicated by the small percentage of farmholdings of over 15 hectares. Instead, the majority of such types of farms are concentrated in the western regions, which while accounting for only 20% of farms produce 80% of the national agricultural output (The Economist, 2001a).

The geographical polarisation of the agrarian structure is also illustrated in the data of table 3, which reveals the average dimension of farms in the various macro-regions. The southern and

eastern regions (that correspond to the macro-regions indicated with the Roman numerals IV, V, VI and VII in table 3) are characterised by extensive farming, low soil fertility and small farmholdings. In these areas the public sector is practically absent and very few holdings exceed 15 hectares. On the other hand, agriculture in the central-western regions is fully developed and much closer to European standards. The fertility of the land is high and the size of the producer units is above the national average. (FAO, 2002). Even if in the course of the 1990s the average national size of holdings, at 7.2 hectares (against an EU average of 19 hectares) remained unchanged, regional differences became more pronounced (European Commission, 2002c).

Chart 5 shows how this structure in the agricultural sector is reflected in the regional rural population and agricultural occupation patterns. The ratio between rural population and total population (white in the chart) is much less in western regions with higher urbanisation coefficients (to the left on the chart) than in eastern regions (on the right). In a complementary manner the percentage employed in the agricultural sector (in black) in western regions is negligible but decidedly high in eastern regions. This divergence is accompanied by an apparent contradictory trend found in the official unemployment figures (in grey), which record higher levels of unemployment in the richer western regions than in the east. In point of fact, most of the unemployment in the west comprises labour made redundant during the restructuring of public industrial and agricultural companies and now seeking re-employment. In the eastern regions, on the other hand, the agricultural sector "conceals" unemployment, (which explains the high level of agricultural employment characteristic of these regions), and functions as a labour reservoir. According to the official statistics these are "employed" persons, but their contribution to production is minimal. According to the estimates of the Institute for Agricultural and Rural Development, 900,000 persons, representing 6% of the total work force, belong to this category. However, the expulsion of unemployment "hidden" in the fabric of very small farmholdings and its redeployment in other economic sectors is impeded by its regional patterning. Thus in those regions where the phenomenon is more accentuated, alongside the social security factors that as mentioned earlier militate against cross-sector movements, there is the chronic lack of alternative forms of employment.

Despite the widespread agreement on the need to rationalise the entire sector and above all to increase the size of the average farmholding, to date very little progress has been made. Similarly, few improvements have been made to rural infrastructures in the eastern regions. Urgent investments are required in communications (above all telephony) and the management of environment resources (especially water supply). The imbalance in the availability of state-owned

land has also contributed towards the spatial polarisation of agricultural structure. As already noted, most of the state-owned farms were situated in the west and north of the country and these areas recorded 80% of the transactions concerning the sale and lease of ex-public farming land, for which the lease or sale contracts were on average for 15 hectare holdings. In the other regions not only has there been a much lower number of transactions but these sales revealed a much higher degree of parcellisation: the average contracts were for 5 hectares. Thus, the availability of land previously in the hands of the state has played an important role in determining the development of the agrarian structure in the various regions, by favouring the setting up and consolidation of large farms in the central and western regions (World Bank, 2001).

Consequently, the polarisation of the structure and the performance in the agricultural sector today builds upon a progressive divergence in the levels and growth prospects between the regions. The western regions, increasingly integrated into the EU with a sustained level of modernisation and rising levels of pro-capita income are in stark contrast to the eastern and south-eastern regions with their low incomes, reduced propensity to innovation and isolation from the single market, caused by poor transport infrastructures.

This highlights jus how important the definition of a complex intervention strategy for agriculture and rural areas is; and not only for the development of the primary sector but also for the overall development of the economy. This strategy must not only include sector interventions appropriate for the differential needs of Polish agriculture but also the implementation of a correct mix of national, regional and territorial economic policies.

## 4. The growth in regional imbalances and the extension of the Common Agricultural Policy

Both the profound differences that exist between the Polish and EU agriculture and the disparities within the former as indicated above are indicators of some of the difficulties encountered in the application of CAP instruments to the problems of Polish agriculture. There is the distinct possibility that even with the application of this policy, Polish agriculture will not develop the structural features and development patterns typical of the EU 15 and, furthermore, that this policy will, rather than overcome differences, actually aggravate the non-homogeneous structural and spatial pattern of the sector. We must, therefore, carefully distinguish between the characteristics of the single components of the CAP, and attempt to understand their likely repercussions in terms of the convergence of the various regional situations upon a single development path.

#### 4.1 The market measures and direct payments

We can assume that the benefits of the market measures for the single farm will be in direct proportion to its market orientation. And this allows us to suppose that such an instrument for agricultural policy will impact principally upon the large farms in the western regions, and that the production of these undertakings will benefit from price support and export subsidies. By increasing the price of agricultural products in the domestic and export market, such measures could contribute towards increasing the profits of farms able to produce for the market and help them adapt to changed competitive conditions. However, we must bear in mind that in the case of some crops (for example, wheat) the average production cost in Polish agriculture, even in the most advanced areas, is higher than the CAP intervention price, which restricts the scope of single price support to a very limited number of crops. In other cases (e.g. beef/veal), although the domestic price is usually lower than that in the EU, the difference is almost or totally annulled when account is taken of quality differences.<sup>5</sup> In addition, full membership of the single market would subject these companies to higher levels of competition from more efficient companies in the EU 15, characterised by a more intensive use of input and, thus, a higher level of productivity. In the first phase after entry into the single market, it is, therefore, probable that the growth in competition will disadvantage the larger more market-orientated farms. Only with the passage of time can increased competitiveness contribute towards the progressive selection of the more efficient companies and constitute a further drive towards restructuring and increased productivity through staff reductions and more capitalintensive production. Another drive to innovation, for this category of farm, derives from the need to satisfy qualitative and food health standards necessary for the entry of the products into the single market (European Commission 2002c). However, if initially the "large farms" in the western areas may be disadvantaged the relatively few more market-orientated farms in the east might, on the other hand, be able to improve their relative condition by expanding their production. This opportunity would stem from the isolation of their markets and their separation from the rest of the country, (and above all from the rest of the EU), caused by significant physical and infrastructural barriers <sup>6</sup> that play a key role in determining the transport costs of goods. Hence isolation could represent an opportunity if, by being sheltered from the immediate competitive pressure, such farms were able to take full advantage of the community measures in order to implement restructuring, innovation and enlargement processes that can enable them to survive in a competitive market.

 $<sup>^{5}</sup>$  On average the greatest price difference with respect to the EU regards: sugar (-30%), rye (between -20 and -30%) and other cereals (between -20% and -35%). Instead wheat has been consistently higher than the EU average price since 1996. In meat production the differential varies around 30% due to internal factors, but part of this difference can be ascribed to quality differences, as Polish products are significantly below the European average. If we account for quality, the differential would, also in this sector, be much less, or zero (European Commission, 2002c).

<sup>&</sup>lt;sup>6</sup>The deficiencies displayed by road and rail links, especially in the east, are very serious (Oecd, 2002).

Nevertheless, the opportunities provided by this condition are crucially subordinated to the carrying out of major improvement measures in those areas along with the creation of physical and market infrastructures that are today in serious short supply and whose introduction will in large part be devolved to the rural development programmes. Membership of the single market and market strategies, therefore, produce different effects in different areas: effects whose nature will depend on the single farm's capacity to react and, in the particular case of the eastern regions, on the success of "second pillar" measures. The semi-subsistence producer units will, however, remain impervious to any "market" stimulus or benefit.

As concerns direct transfers, the single area payment scheme (SAP) introduced with the Fischler reform, is an element of novelty with respect to the present situation of the EU 15, especially as regards the incidence of payments on the different categories of producer unit. The definitive concentration of support for the producer, rather than for the product (unlike the case of coupled support), makes this an income support measure, which, as such, can also include the non-market orientated semi -subsistence producer units.<sup>7</sup> The fact that the provision of subsidies can be made without there being any productive activity and regardless of the type of crop, means that the crop specialisations that characterise agriculture in the east are not penalised. On the other hand, the lack of any incentive to grow cereals is positive, even for the large companies, which, as mentioned earlier, cannot produce at competitive costs with respect to the EU 15.

Chart 6, constructed with the same methodology as charts 4 and 5 and presenting the various regions from west (to the left of the chart) to east (on the right) on the x -axis, confirms these observations. If we consider the trend in the ratio of direct payments (calculated for each region in proportion to the AA.) to the value-added in agriculture we can see that de-coupling allows all regions to benefit from direct payments in direct proportion, more or less, to the value-added, even if the ratio is slightly higher for western areas.

Consequently, if the choice of decoupling enables farms orientated to the market to receive "nondistorting" support with respect to price signals, for the very small farmholdings the direct payment

<sup>&</sup>lt;sup>7</sup> On 27 October 2003 the Commission presented a proposal to guarantee that «the new member states (are) integrated as quickly as possible within the reformed CAP» without «any "limitation" to the negotiated accession conditions» (European Commission, 2003c, p.2).

The single area payment scheme (SAP), introduced for the EU 15 by the Fischler reform, provides that the value of the right to the benefit should be calculated on the basis of the direct payments provided to each farmer in the course of the reference period (2000–2002), but the number of rights attributed to each farmer should be equal to the average number of hectares of his farm, which, in the course of the reference period, gave him entitlement to direct payments. As there are no "historical" statistics for new member states for calculating such rights, the Commission laid down the obligation to apply, with appropriate adjustments, the regional option as laid down in the horizontal regulations. Consequently, uniform rights per hectare will be applied within a given region, obtained by breaking down the national budget on the basis of "objective criteria" between the various regions, and then dividing the regional budget by the region's AA. The amount of direct payments in the pre-accession period can represent an "objective criterion" for the allocation. New member states will also be allowed to implement partial de-coupling by applying the same rules applied to the EU 15 in the framework of the regional option (European Commission, 2003c).

system constitutes an out-and-out land rent. Such a rent has a very strong impact on Poland's still unconsolidated agrarian structure (above all if we consider its size in terms of purchasing power, which in the eastern regions is considerably higher than in the western regions.<sup>8</sup>). In the eastern and southern regions the introduction of subsidies may actually contribute towards "freezing" the existing situation, as regards both excess manpower and the size of the producer units. The combination of an income subsidy for semi- subsistence farmholdings and the pension structure discussed earlier, can promote the "freezing" of manpower in family holdings, by increasing the reserve salaries of workers vis à vis a labour market in which there are no (alternative) types of employment and who exhibit a very low propensity to interregional mobility. The allocation of subsidies to a farmholding, moreover, leads to an increase in the value of the land, favouring the present fragmented structure and further impeding the transfer and thus the concentration of land property, which already suffers from the lack of larger units with any capacity to aggregate other units. In the light of the conditions of backwardness and poverty that characterise these regions and their rural population, it can be presumed (as demonstrated by simulations in Orlowski, 2002) that a consistent percentage of incremental income derived from the subsidy will be earmarked for consumption, especially of primary goods. This trend will certainly produce positive demand side effects in these regions but at the cost of penalising sector investments; for which, in the absence of market-orientated production, incentives cannot be expected to be forthcoming.

On the other hand, it is reasonable to expect that the increase in income from subsidies can induce the larger farms not only to make investments for modernisation and higher levels of productivity but also to expand their average size through the acquisition of smaller holdings sold by farmers anxious to "anticipate their land rent" and dedicate themselves to other activities which, in the more dynamic context of central -western areas, offer alternative sources of income.

After an initial period of additional "adjustment" of the larger farms situated in the western regions, the measures making up the "first pillar", by being structured not only for **h**e "accompanying" period but also for the full application of the new CAP, risk favouring the present polarisation process of the agrarian structure without contributing to a productive use of the work force "frozen" in agriculture in the eastern regions.

<sup>&</sup>lt;sup>8</sup> For example in the Malopolskie region, in the eastern part of the country, a farmer's average disposable income is 1164 Euro per annum. Direct payment in Poland for 2005 amounts to around 42 Euro per hectare per year. In view of the fact that the average size of the agricultural farm in the region is 3.7 hectares, we can calculate the ratio of subsidies to disposable income, which in our example, would represent about a 15% increase.

#### 4.2 Rural development policies

In this scenario "second pillar" policies acquire great importance insofar as they can perform a "redistributive" function in the spatial sense of CAP benefits by directing resources to the most disadvantaged areas in terms of their capacity to exploit first pillar measures and in terms of the overall development of the agricultural sector. In this context the rural development actions represent a fundamental prerequisite for the homogeneous distribution of the benefits of the single market and community intervention measures. The accession treaty envisages a special scheme for rural development interventions based on the Temporary Rural Development Instrument (TRDI). This instrument financed by the EAGGF, is intended as a support for "accompanying measures" (agri-environmental measures, anticipated pensions, reforestation and compensation payments in favour of disadvantaged areas and areas subject to environmental constraints) and for some specific development measures (farms practising semi-subsistence agriculture in phase of restructuring, producers' associations, satisfaction of community requisites, technical assistance and complements to direct payments). Through the FEOGA Orientation sector, some "LEADER type" measures will then be financed. In addition, Poland, as also some new member states, will be able to benefit from some of the existing measures for the EU 15, which may be included in the rural development programming (RDP) documents<sup>9</sup> drawn up by the national governments (European Commission 2003a).

Table 4, which illustrates the forecasts for each cost category for Poland and overall expenditure for all the new member states, illustrates not only that a conspicuous percentage of the overall spending is earmarked for Poland, (48.3% in 2004, 47% in 2005, 47.5% in 2006), but also that the sums of the resources for the two "pillars" of the CAP tend to balance each other<sup>10</sup> (in the case of Poland the "second pillar" measures constitute, in the 2006 forecasts, 46.3% of total spending). The emphasis placed by the Copenhagen agreements upon the role of rural development measures appears to be confirmed, at least in principle, by the financial budget<sup>11</sup> for the agricultural modernisation process of new member states. However, the possibility that the resources allocated produce concrete benefits for rural areas depends on the actual capacity to use them and on the suitability of the instruments with respect to real needs. Poland, with the serious situation of under-development that

<sup>&</sup>lt;sup>9</sup> Only the agri-environmental measures are compulsory .

<sup>&</sup>lt;sup>10</sup>In this respect, it is necessary to note that for the period 2004-2006 up to 20% of the resources destined for rural development will be used for direct top-up payments. This use will remain bound to the 20% co- financing obligation and cannot, in any case, exceed a given percentage (15% in 2004, 10% in 2005, 5% in 2006) of the direct payments covered by community financing (Swinnen, 2003).

<sup>&</sup>lt;sup>11</sup>On the other hand, a similar development was already in progress in the EU 15. The relative weight of the three cost categories (market intervention, direct payments and rural development policies) has undergone considerable change in the course of time: direct payments passed from less than 10% of total CAP spending 1991 to almost 60% in 1997, market measures declined from 90% to less than 40% in the same time period while the "second pillar" has acquired a certain importance with Agenda 2000 and is expected to reach 10% of spending in 2006 (Swinnen, 2003).

characterise some of its regions, raises the problem of the adequacy of the intervention measures at present available for the development of rural communities because they were designed for more structurally developed situations such as those found in the EU 15. As we have seen, the rural development programmes proposed to the new member states are aimed at restructuring and modernising farms in order to make them sufficiently productive to survive in a market context (first priority axis of the SAPARD programme for Poland). However, the approach that the Commission would like to apply in Poland, especially as regards semi-subsistence farms, does not exactly correspond to the main problems of the most backward areas of the country, which, instead, refer to infrastructural deficiencies, services and the quality of life in rural areas. In addition, the "bottom-up" approach adopted for the management of rural development funds, which tends to favour areas presenting a series of idea and proposals, will inevitably penalize the less efficient administrations whose planning and innovative culture is more limited; and more often than not, such administrations coincide with most disadvantaged areas.

The danger, therefore, is that the configuration and arrangements for making resources available for rural development will, paradoxically, facilitate the less deserving areas simply because they exhibit a better receptive capacity, which in its turn is the result of their possessing characteristics similar to the EU 15. Such a system, therefore, would benefit those areas that can already take full advantage of other measures, leaving the real problems of the rural areas unresolved in the east and south of the country.

An evaluation of the effectiveness of these measures, and, above all, a first verification of their capacity to address the most backward areas in an effective manner can only be undertaken after a couple of years. In this regard a useful evaluative element could be represented by the trend in the activities financed by the SAPARD programme, which has anticipated the operating and procedural arrangements for access to the CAP and on whose basis the TRDI was instituted. Even if there are notable delays in the implementation of the programme in Poland, which represent a further complication for making an overall evaluation even for this first form of intervention, some of the critical elements mentioned earlier can already be discerned in its initial operating phases. Thus both farmers and other potential beneficiaries of the programme have complained about the need to satisfy the very stringent and highly bureaucratic requisites requested for financing, and mentioned the problem of having to compile the necessary documentation, for which the Polish government has fixed very complicated procedures with respect to the other countries (European Commission, 2003b). In addition, the arrangements for the provision of the financing (at the conclusion of the project and then only to cover eligible expenditure) constitute a considerable obstacle for obtaining the involvement of the financially weakest beneficiaries. Only a very small number of the subjects

that would like to benefit from the programme are actually able to obtain financial support from SAPARD (Dwyer et al., 2003). In the case of the professional training for farmers, for example, only a small number of operators will be able to benefit from the measures outlined in the programme on account of the complicated admission procedure. In addition, as many non-governmental organisations and operators have pointed out, the difficulties of "access" to financing prevent the programme from contributing towards sustainable agricultural development and help conserve its present structure. The larger farms with the highest incomes mainly benefit from the resources made available and these, directly or indirectly, contribute towards intensifying production (Karaczun, 2002). In conclusion, on account of the programme's approach, insufficient account is taken of the regional features of Polish agriculture. The more backward regions require a more active form of support if they are to be able to take advantage of the aid provided. (Dwyer et al., 2003).

Even if some simplifications have been made to the procedures, in course of application, (European Commission, 2003a) a first evaluation of the experiences of SAPARD in Poland, shows that it is necessary to dedicate special attention to "second pillar" design, because if this is to be effectively implemented it will have to be carefully tailored to the particular social, structural and spatial characteristics of Polish agriculture.

#### **5.** Conclusions

The analysis of the spatial impact of the extension of the CAP reveals some tendencies that could be usefully taken into account in designing the agrarian policy measures for Poland. A strong polarisation of the spatial structure of the agricultural sector has been noted, the result of various historical and political factors, which was consolidated during the years of the planned economy. However, the polarisation became more accentuated with the transition towards a market economy and has been accompanied by a regional divergence that penalises the economy as a whole. The effects of the CAP are expected to be differentiated in relation to the structure and size of the single producer units. Consequently, the CAP will magnify the regional structural differences, determined by the differential concentration of the productive structures. Therefore, the CAP, by virtue of its "non spatial neutrality" runs the risk of performing a "pro-cycle" type of action, by contributing towards the existing regional imbalances within the agricultural sector and in income and economic development patterns.

On the basis of the foregoing analysis, the need to pay special attention to rural development measures clearly emerges, as such measures could help correct - at least partially - this kind of distortion by offering new opportunities to the more disadvantaged rural areas.

As concerns "second pillar" policies the case of Poland highlights the problem of the flexibility of the rural development measures. Given the "spatial" characteristics of the agricultural sector, Poland's capacity to find alternative employment for surplus agricultural manpower is very limited by the present development conditions and thus it is «reasonable to suppose that rural development policies (...) should be strongly characterised by agricultural support measures. This development runs contrary to the aims that such policies should have in the more developed European countries» (De Filippis, Storti, 2002, p.43). Aims that are now being translated into the proposed creation of a "Single fund for rural development".<sup>12</sup> The definition of a measure tailored to meet the needs of the more backward regions will largely determine the possibility of offering such regions the opportunity of being able to benefit from the integration process. This benefit should translate itself into the progressive development of the sector, above all through the creation of infrastructures and improvements in the living conditions in rural areas. In any case, this process cannot be divorced from the question of the progressive release of the work force frozen in the sector. An approach based on the development of the agricultural sector should allow a process of gradual adjustment to take place whose executive phases would be geared to the gradual retirement of the present work force, while simultaneously creating opportunities for the productive utilisation of the work force either inside the sector or in alternative forms of employment. In this respect, it would be necessary to define an overall socio-economic strategy for the development of rural areas that addresses the sector and territorial problems in a coordinated yet autonomous manner, and is characterised by a territorial vision able to stimulate incentive schemes for local development in which agriculture would be one of the many dynamic factors considered.

The measures referring to national reform policies should be included in the framework of this strategy (especially those referring to the pension and educational systems and the tax system applied to land sales) as well as infrastructural development projects financed by structural and cohesion funds (in particular those referring to transport and communications).

The actual capacity to take advantage of community resources (of which Poland is, at least on paper, an important beneficiary) and make effective use of them, especially in agriculture, will have a notable influence on the future political organisation of the country and on its role in the European Union. Even if 77% of the Poles were in favour of entry to the European Union in the June 2003 referendum, numerous perplexities regarding the actual costs and benefits of accession still remain: «obtaining and rapidly spending the financing risks becoming, for the government and the public opinion, the yardstick of "success" of the country in Europe» (The Economist, 2003). Therefore, if

<sup>&</sup>lt;sup>12</sup>In the course of the Second European Conference on Rural Development (Salzburg 12-14 November 2003), promoted by the European Commission –DG Agri, the idea of bringing the resources earmarked to rural areas together in one single instrument was proposed.

the government shows itself to be unable to use the funds "potentially" made available to the country effectively (and quickly) or if, in the worst hypothesis, Poland were to find itself a net contributor to the community budget, discontent in the rural world and among euro sceptics would mount and offer added ammunition, in the run up to the 2005 elections, to the populist and nationalistic forces opposed to the process of European integration.

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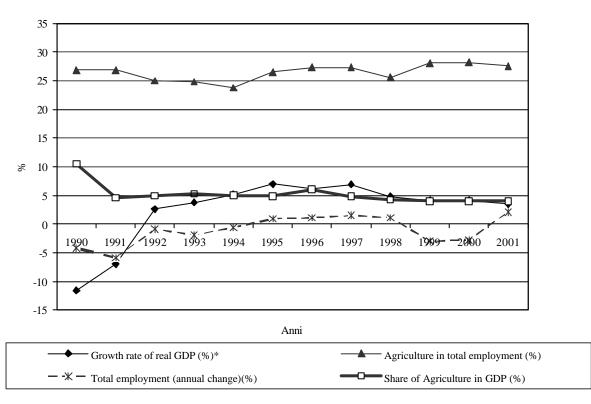
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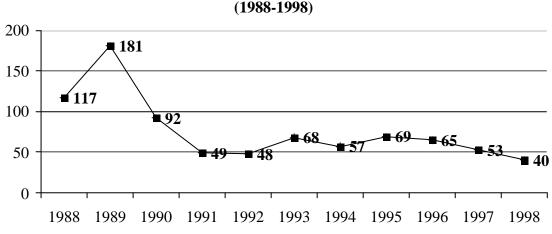


Agriculture in Poland (1990-2001)

\*EBRD data

Source: calculations on OECD and EBRD data





Agricultural incomes compared to average wages (=100) (1988-1998)

Source: calculations on GUS (Polska Statystyca Publiczna – Polish Official Statistics) data.

# Tab.1 – Allocation of agricultural public expenditure, (1986-1995) (average %)

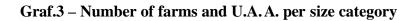
|  | 1986 - 1989 | 1990 - 1992 | 1993-1995 |
|--|-------------|-------------|-----------|
| Price and agricultural income support                                | 6,6         | 7,1         | 4,0       |
| Input subsidies  | 14,7        | 8,9         | 8,3       |
| General services for agriculture                                     | 10,8        | 16,1        | 11,7      |
| Consumer subsidies   | 50,8        | 2,6         | 0,1       |
| Social expenditure (Pension funds)                                   | 12,8        | 60,9        | 71,6      |
| Training   | 4,4         | 4,0         | 4,1       |
| Total expenditure on agriculture                                     | 100         | 100         | 100       |
| % expenditure on agriculture / total public expenditure              | 20,9        | 9,1         | 9,5       |
| % expenditure on agriculture/total public expend. excl pension funds | 18,3        | 3,6         | 2,7       |

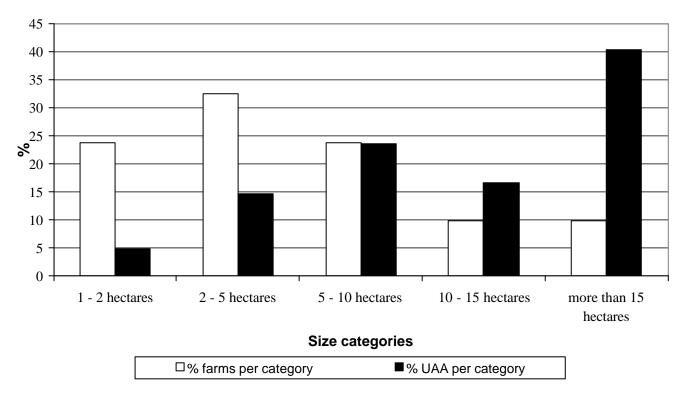
Source: Czyzewsky et al. (2000)

|        | U.A.A.       |            |             | Agricultural A.V. |          |             | Agricultural employment <sup>(1)</sup> |            |             |
|--------|--------------|------------|-------------|-------------------|----------|-------------|--|------------|-------------|
|        | Ha<br>('000) | %<br>Total | %<br>Poland | Euro<br>(mil.)    | %<br>GDP | %<br>Poland | ('000)                                 | %<br>Total | %<br>Poland |
| Poland | 18.397       | 58,8       | -           | 4.984             | 3,3      | -           | 2.698                                  | 18,8       | -           |
| CC-10  | 38.620       | 52,3       | 47,6        | 12.083            | 3,8      | 41,2        | 3.747                                  | 14,3       | 72          |
| CC-12  | 58.993       | 54,2       | 31,2        | 18.320            | 5,0      | 27,2        | 8.950                                  | 22,1       | 30,1        |
| UE-15  | 130.004      | 40,2       | 14,1        | 167.544           | 2,0      | 3           | 7.129                                  | 4,3        | 39          |
| UE-25  | 168.624      | 42,5       | 10,9        | 179.627           | 2,1      | 2,8         | 10.876                                 | 5,7        | 24,8        |
| UE-27  | 188.997      | 44,0       | 9,6         | 185.864           | 2,2      | 2,7         | 16.079                                 | 7,9        | 17          |

Tab.2 – The role of agriculture, 2000

(1) Including forestry, hunting and fishing Fonti: Eurostat, EC DG Ecfin, Oecd, Faostat, EC DG Agri data

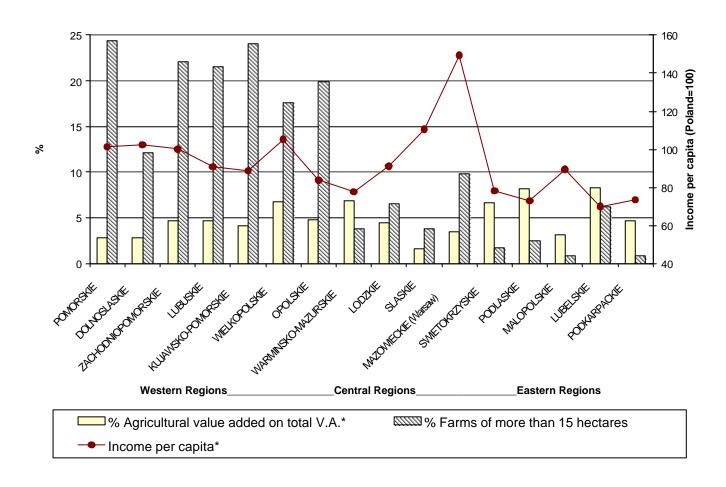




Number of farms and UAA per size category

Source: DG Agri (2002) e Fdpa (Foundation for the Development of Polish Agriculture) (2002) data.

# Graf. 4 – Per capita income, agricultural value added, farms of more than 15 hectares in 2001



Income per capita, agricultural value added, farms of more than 15 hectares (2001)

#### \* data 1999

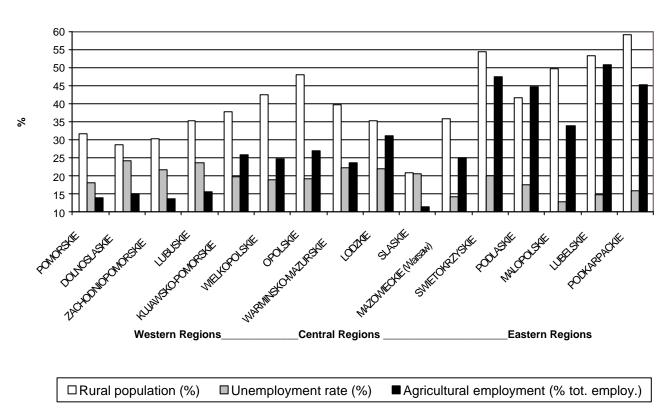
Source: Eurostat, Gus, Parr (Polish Agency for Regional Development) and Fdpa (2002) data

# Tab.3 – Average size of farms

| Maana nagiona          | Average size of individual farms (ha) |  |  |  |  |
|------------------------|---------------------------------------|--|--|--|--|
| Macro-regions          | Data 1993- 1997                       |  |  |  |  |
| Poland                 | 7.2                                   |  |  |  |  |
| I Metropolitan         | 7.0                                   |  |  |  |  |
| II North - Eastern     | 12.3                                  |  |  |  |  |
| III Northern           | 14.4                                  |  |  |  |  |
| IV Southern            | 4.5                                   |  |  |  |  |
| V South - Eastern      | 3.7                                   |  |  |  |  |
| VI Central - Eastern   | 6.2                                   |  |  |  |  |
| VII Central            | 6.8                                   |  |  |  |  |
| VIII Central - Western | 9.9                                   |  |  |  |  |
| IX South – Western     | 9.6                                   |  |  |  |  |

Source: FAO (2002)

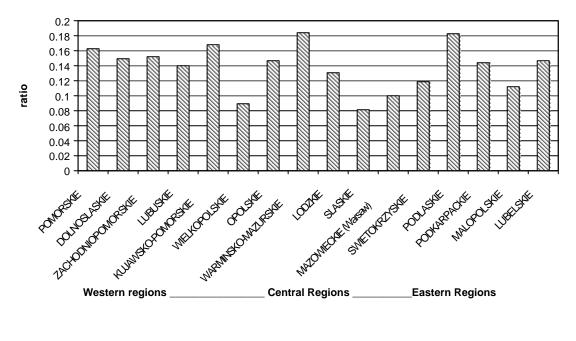
# Graf. 5 – Unemployment rate, rural population and agricultural employment in Polish regions, 2001



Unemployment rate, rural population and agricultural employment in Polish regions (2001)

Source: Eurostat, Gus, Parr and Fdpa (2002) data





Direct payments in each region (2005)

S direct payments / V.A. of agriculture

Source GUS, FDPA and EC DG AGRI data.

|      | <u>Total dire</u> | Total direct payments |         | <u>Market support</u> |         | <u>Rural development</u> |  |
|------|-------------------|-----------------------|---------|-----------------------|---------|--------------------------|--|
|      | Polonia           | Tot. CC-10            | Polonia | Tot. CC-10            | Polonia | Tot. CC-10               |  |
| 2004 |                   |                       | 135,2   | 327                   | 781,2   | 1.570                    |  |
| 2005 | 557               | 1.211                 | 349,8   | 822                   | 853,6   | 1.715                    |  |
| 2006 | 675               | 1.464                 | 376,5   | 858                   | 908,2   | 1.825                    |  |

# Tab.4 – Estimated expenditure in New Member States 2004-2006. (Mil. euros, 1999 prices)

Source: European Commission (2002f)