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The envisaged accession of Poland to the EC and its implications for the common agricultural policy of the EC

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Kiel Working Paper No. 684
The Envisaged Accession of Poland to the EC and its Implications
for the Common Agricultural Policy of the EC*

by
Hugo Dicke

April 1995



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I. Introduction.....	2
II. The Starting Economic Position of Poland	4
III. Agricultural Outlook for Poland (Status Quo Scenario).....	8
IV. Comparative Cost Advantages of Agriculture in Poland and Specialisation in Trade.....	9
1. Introductory Remarks.....	9
2. Natural Comparative Advantages and the Structure of the Economy	11
3. Comparative Advantage of Poland vis à vis competing CEECs	15
4. Poland's Export Potential in Agriculture	15
V. Institutional Impediments to Polish Exports	18
1. The GATT 94	18
2. The Common Agricultural Policy	20
VI. Accession of Poland to the EC and the Need for Adjustment in the EC.....	22
1. Overall Implications for the EC	22
2. Basic Options for the Reform of the CAP by the Year 2000	23
3. Economic and Financial Implications of an Enlargement.....	26
3.1 Assumptions Underlying the Model Calculations.....	26
3.2 Implications of Poland's Accession with the CAP Unchanged.....	28
3.3 Implications of Poland's Accession with the CAP Dismantled.....	28
VII. Summary.....	29
VIII. Tables	30
IX. Footnotes.....	34
X. References	

I. Introduction

The European Council had again put the issue of the enlargement of the European Union (EU) to East Europe on the agenda of its summit in Essen in December 1994. The conclusions of the European Council in Copenhagen and Corfu were confirmed that the associated states of Central and Eastern Europe can become members of the European Union if they desire so and as soon as they are able to fulfil the necessary conditions. While the desire of Poland to become member of the EU is obvious - it has already applied for membership - it is less obvious what the necessary conditions are that Poland must be able to fulfil before its application is accepted by the EU. A pre-accession strategy was decided on by the European Council in Essen which may unveil necessary conditions. That strategy was maintained to be tailored to the needs of the countries with which Europe Agreements were already concluded. It shall nevertheless be applied also to those countries, with which Europe Agreements are to be concluded in the future. The Baltic States and Slovene were named in this context. The strategy is being politically implemented by the creation of "structured relations" between the Institutions of the EU and the associated states, which are among the Visegrad countries, Bulgaria and Romania.

The outcome of the Essen summit must be disappointing to Poland which strives after membership for some time and is adopting its laws and institutions according to the requirements provided by the Europe Agreement between the EC and Poland set in force on February 1, 1994. This agreement provided Poland already with a complete program for the preparation for membership and encouraged Poland's expectations to become member of the EU by the year 2000. The agreement established an association similar to the former associations between the EC and countries like Portugal, Spain, Greece, UK, Ireland or Denmark, being member countries of the EU for some time. Association is recognised as a pre-membership. Its objective is to tighten the economic, political and institutional ties between the Community and the applicants for membership. The Europe Agreement between the EC and Poland, for instance, provides for a regular political dialogue, co-operation in numerous economic and cultural fields, an approximation of polish laws to community law, and, last but not least, the establishment of a free trade area within up to ten years. Trade with textiles, clothing products, agricultural products and food are not covered fully by the free trade agreement. These so-called sensitive products more or less remain the objective of the EU's and Poland's national trade policies.

Exemptions from free trade have all associations in common the Community has established since its first association with the UK in 1954. And its common knowledge that these exemptions had several negative consequences not only for the economies but also for politics and had been based on non-economic considerations.

Regarding the various negative consequences of sensitive sectors for the relations between the EC and Poland one is of a political nature: Disputes on unfair trade practices - which in fact are abound in these sectors - will not stop and do not exactly help to tighten the political ties between the Community and Poland. A major economic effect of sensitive sectors is that the structure of specialisation both in Poland and the EU can not fully adjust to what the theory of comparative advantage would suggest under conditions of free trade. Poland cannot specialise in labour and land intensive and the EC - and within the EC foremost Germany - in human capital and technology intensive lines of production. Due to the trade distortions gains from trade are kept below their potential level. Poland has to bear losses in terms of income and employment mostly in rural areas and in labour intensive industries while the EC - and within the EC mainly Germany - has to relinquish job gains in the manufacturing and service sector.

It is not arguable that it was the EC and not Poland which demanded agriculture and other sectors to be exempted from the free trade arrangement of the Europe Agreement. The member states of the EC, France in particular, wanted the West European farmers to be shielded against the suppliers from Poland and other Central and East European Countries (CEEC). The political rationale behind the EC position can be seen in the desire to buy time for the adjustment of EC's policies and its structure of production. Fears are widespread that the envisaged need of adjustment dwarfs the adjustment need of any other former enlargement of the EC. The reason for this is foremost the economic structure and development of the applicant countries, which differ significantly from the EC and former applicants. The divergencies between the EC and Poland are most visible with respect to wages, productivity and prices of immobile factors of production. They are far more pronounced than in earlier accessions. To some extent the divergencies are the out-come of different policy approaches. The EC's support of agriculture is far higher than the support granted to agriculture in Poland. In this respect one could also say the EC itself is politically not yet able to fulfil the necessary conditions for an enlargement by Central and East European countries and needs a comprehensive strategy to prepare itself for the enlargement.

The European Council may have arrived at a similar conclusion. At its Essen summit the European Council called on the Commission to submit a study of the effects of enlargement in the context of the Union's current policies and of the means of developing relations in the agricultural sector.

This paper dwells on the implications of an accession of Poland to the EC for the EC's agriculture markets, budget, and Common Agricultural Policy (CAP). An attempt will be made to propose a strategy appropriate to lower the adjustment costs of the East enlargement and to speed up the integration of Poland and other CEEC standing in queue for membership.

The paper is organised as follows:

Chapter II focuses on the economic divergencies between Poland and the EC, namely the resource endowment, the overall productivity, and the composition of trade of Poland and examines the current state of agriculture in Poland.

The third chapter assesses production and export capacities up to the year 2000, given the status quo ante 1990 will change gradually (status quo scenario);

In the fourth chapter the comparative (cost) advantage of the agricultural sector as a whole in relation to the non-agricultural sector is considered; the potential development of Poland's agricultural export under free trade conditions is examined; the analysis will allow for alternative assumptions about the degree of integration of Poland.

Chapter V describes the institutional impediments to Polish exports. The final chapter investigates into the effects of the accession of Poland to the EC. These effects are assessed for different options with regard to a reform of the Common Agricultural Policy and also allows for the policy changes induced by the implementation of the outcome of the Uruguay Round in the framework of the GATT.

II. The Starting Economic Position of Poland

This section will focus on the resource endowments, the productivity and the composition of current trade.

The first aspect of the economic potential of Poland is simply the size of the country's market measured by the number of consumers. Poland has a population of about 39

Million. The market seems larger than, say, the integrated markets of Belgium, Netherlands and Luxembourg, where 16 Mill. people live. However, due to the lower productivity and income, the size of the Polish market is smaller in economic terms. According to various estimates of GDP the per capita income in Poland is less than US \$ 5,000 in 1994. This is less than 40 per cent of the average per capita income in the EU (US \$ 17,000). Poland showed stronger economic growth than EU member states in the last two years (1993 and 1994) and it is forecasted to grow faster in the near future. Thus, it is likely that the income gap between Poland and the EU will narrow gradually towards 50 percent by the year 2000. To keep its growth path Poland has to take care of its macroeconomics stability which is jeopardised by inflation and budget deficits which are too high compared to necessities of a growth oriented economic policy.

The agricultural sector and food industry contributed to the overall economic growth mainly by stabilising effects on labour and goods markets. The agricultural sector absorbs approximately 27 % of Poland's labour force. The migration from agriculture has been slowed down or even came to a half in the 1990's (OECD, 1994) That indicates favourable income and job opportunities in agriculture compared to other sectors during the transformation process.

Poland is covering an area of 323 250 km² of which approximately 188 000 km² is agricultural land. Compared to German and EC standards land is more abundant in Poland. The ratio of land to inhabitants in Poland amounts to 8400 m² and of agricultural land to 4870 m², and in Germany the respective ratios are 4400 m² and 2100 m². Poland's per capita endowment of arable land is two-times higher than the EC's. As the arable land base is larger than the land base of the EC so the land based production per capita would be higher than in the EC, if all other factors determining production were equal. The actual production depends on the techniques of production, productive knowledge and the human capital base, and, at last, on the endowment of land and the fertility of the soil. The soil in Poland is less fertile than the soil in West Europe, as light soils predominate in Poland and more land is presumably seriously ecologically endangered.

In the past (before 1990), food production per capita was high by world standards. Poland had a production per capita of cereals, meat, milk which was above the global average, yet below West European average. Production of vegetables per capita was low by world standards, but higher than in West Germany. Fruit production was lower

than the global average. Since 1990 live stock production has declined while crop production kept its pre-1990 level - bar from 1992 when extreme drought prevailed.

Productivity of agricultural labour is low by West European standards and so is productivity of labour in the manufacturing industry and the service sector. As to the low productivity of labour in agriculture this is commonly attributed to a factor specific to Polish agriculture, namely, the pre-dominance of small farms in the ownership of land. Poland had not collectivised its farm sector after World War II but, on the contrary, had reduced the concentration of land ownership. There are about 2.1 million farms with 1 hectare or more land. The average size of private farms with 1 or more hectare is only 6.3 hectares. There were state-owned farms too. They operated approximately 24 percent of Poland's arable land and are currently being split up and privatised (H. Dicke, J. Misala, 1993). Exports of agricultural goods and food represented about 11 percent of total Polish exports and imports of food and agricultural goods made up 10.5 percent of total imports in 1993. In recent years the regional structure of trade has changed significantly. Trade with the EC increased while trade with CEECs decreased.

Before 1990, the command system of the Council of Mutual Economic Assistance, CMEA in short, and of each of its member states tied the member states and the regions within the states to a centrally planned interregional and inter-industry division of labour. The central bodies provided for the economic interactions among and within the member states of the CMEA. Trade intensities which were measured as trade in percent of GDP were rather high (R. Langhammer, 1991).

The political interference with the orientation of trade flows and resource allocation met with difficulties when trading partners were located outside the CMEA. In the 1980s more than 50 per cent of the total trade of the East European trading area was intra-regional trade, 30 per cent of total exports went to developed countries, around 15 per cent to the EC. As of 1987 Poland like other CEECs tried to shift its exports away from the Eastern European trading area to developing and developed countries. Not unsurprisingly, these efforts yielded different results, depending on the character of the goods. The CEECs were quite successful in directing raw materials and food exports to developed countries. On the average, the share of agricultural and food exports to developed countries in total food exports increased significantly (GATT, 1990). In 1993, 58 percent of Polish exports of food and agricultural goods were directed to the EC and 57 percent of Polish imports were from the EC (SAEPR, 1994).

In contrast to the large size of the Central and Eastern European trading area, its involvement in the world market was rather small. The share of CEEC in world merchandise trade was below 11 per cent in 1989, with the Soviet Union alone holding a share of 5 per cent and Poland 0,6 per cent, which is low by USA or West European standards. In the world market for agricultural and food products the picture was slightly different. CEEC's share in world agricultural imports was around 12 percent, and Poland's share was 0.8 per cent. In world agricultural exports, however, East Europe held a small share of just 5.2 percent, and Poland had one of 0.7 percent. In few product categories only CEECs played a major role on the global agricultural export market. For instance Poland's shares in world exports were similar to or exceeded those of, say, France for meat, prepared and preserved, and potatoes.

As to the composition of merchandise exports of Poland it seems noteworthy that it had a share of agricultural goods in the total export basket which matched the US's or Western Europe's share (12 per cent) before transformation started. Only Hungary had a share which was higher than Poland's or any other CEEC (22 percent).

The capability of a country to compete with foreign suppliers of agricultural and food products as measured by the Concept of Revealed Comparative Advantage (RCA) was high in the case of Poland before and after 1990. Also Hungary, Bulgaria, and Romania had a comparative advantage in agriculture (under the rules of a centrally planned economy). The assumption that those economies were able to compete successfully on Western markets for resource-intensive goods but not on markets for more sophisticated products was supported by several studies (B. Heitger, K Schrader, E. Bode, 1991).

Productivity in general and productivity of agriculture in particular was high by world standards but low by Western European standards. The low productivity compared to Western standards, resulted in lower per capita income compared to Western countries. Surprisingly, consumers in East Europe had access to very large quantities of food (at low relative prices). According to FAO statistics Poles consumed less meat and vegetables but significantly more grain, potatoes and sugar than West Europeans; the difference in meat consumption was rather small.

The ante-1990 production and consumption patterns depicted above were mainly determined by both a hierarchy directing centralised economic planning and central economic agents reacting in a country specific organisational structure of agricultural and food production. The organisation of agribusiness (agriculture plus forward and

backward industries specialised in supplying agriculture and in processing agricultural commodities) differed between Poland and the EC. Although in Poland private farms predominated, state run farms disposed of large amounts of land and labour, machinery and fertiliser. On average agriculture in Poland used labour and fertiliser per km² intensively compared even with Western standards (FAO, 1990).

III. Agricultural Outlook for Poland (Status Quo Scenario)

The transformation of the institutional setting in Poland towards the economic order of a market economy is going on for five years now and is not yet completed. The economy is responding - after a short-term slump - in a positive and dynamic way. Growth rates are high by EC standards for the last two years. The structure and level of consumption and production, as well as productivity and real income, are changing gradually and so does the composition of exports and imports. Trends in trade which prevailed in the ante-reform area are changing in accordance with the emerging patterns of production and consumption structures. In which direction past trends will change further depends not only on the utilisation of comparative cost advantages in an competitive international environment of full-fledged market economies but also on Poland's access to the world market.

Any assessment of production capacities, domestic consumption and net exports in the year 2000 - when accession to the EC is going to take place - is extremely speculative in its nature. A rather conservative approach rests on the assumption that past trends will last because structural factors built up during the old regime will not vanish over night and are of influence for the future. Productivity gaps in agriculture and food processing between the East and the West, for instance, are an indicator of structural divergencies which will diminish only gradually in the wake of Poland's transformation into a market economy.

Conventional approaches for projecting future production, consumption and net exports, which are based on econometrically estimated elasticity and coefficients, are not applicable in this context. Projections could be based, in principle, on the past performance of major agricultural sectors. Adjustments could be made according to the experts' more or less arbitrary judgement concerning responses to production and consumption within the emerging price patterns. Projections of this kind have been made and their outcomes will be briefly described. In the available projections, past trends were derived from the data base which is compiled by the US Department of Agriculture (USDA).¹ Export and import projections reflect projected supply (=

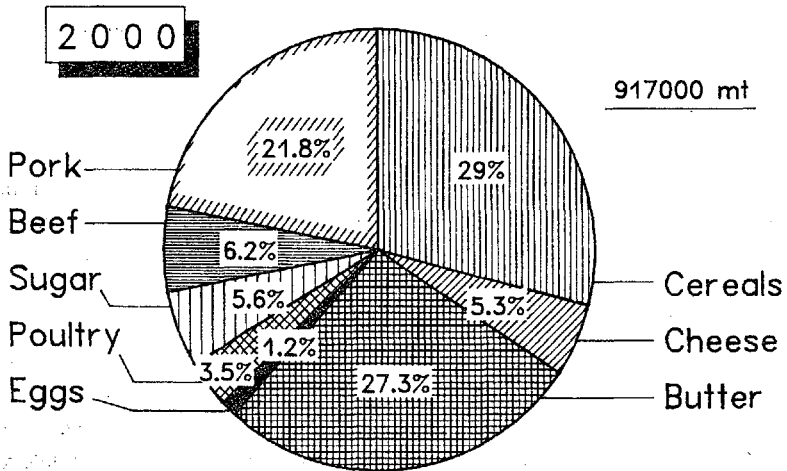
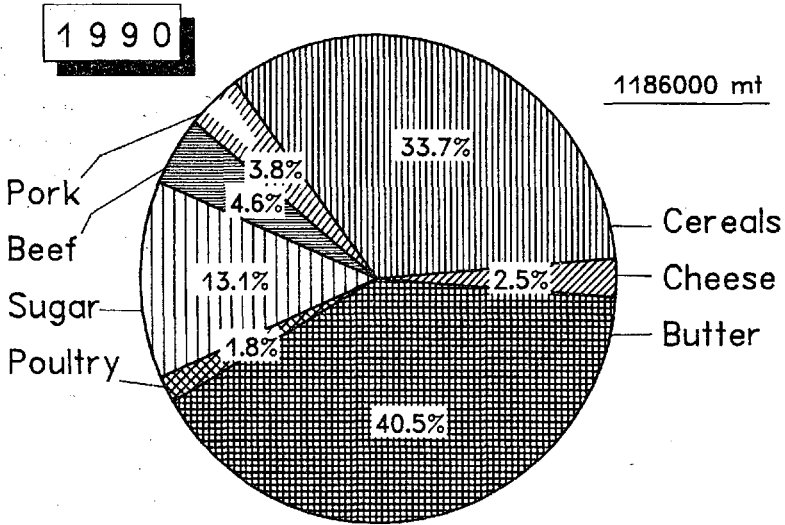
production and changes of stocks) and consumption, which balance each year. Yields and land use are projected on the basis of the past and on the assumption that land productivity grows. It is not intended here to list all the underlying assumptions, the procedure and outcome of the available projections sector by sector. In general, the projected trends do not differ markedly from those of previous periods. The projections of domestic food consumption are based on the expectation that income will grow by a rate of 3 percent during the 1992-2000 period, that relative food prices will change only slightly, that population will increase slowly (according to World bank projections) and that the size of land used for agriculture remains stable and agriculture's productivity is not going to change much compared to the 1980s; projected grain use patterns mirror patterns observed during the 1980s. The outcome of such a projection is exposed in graph 1.

The World Bank report on Poland (1992) renders some explanations for the relative sluggish growth of Poland's exports in the years to come: relatively high production costs, slow improvements of the quality of processed food, competition from the EC and limited access to the EC markets. One has to mention here that competition (from highly subsidised) EC goods and limited access to the EC markets are impediments to growth which all East European countries have to cope with. On the other hand, high production costs may mirror distorted exchange rates, what could be corrected, and improvements of the quality of processed food could be speeded up.

IV. Comparative Cost Advantages of Agriculture in Poland and Specialisation in Trade

1. Introductory Remarks

The trade scenario described above was basically derived from past trends. From the viewpoint of classical trade theory, this scenario is not convincing, because it seems to be in contrast to the basic tenets of the utilisation of comparative advantages in production and trade. Poland - like other East European countries - has more natural resources and less capital than, say, Germany or the Netherlands, both being net-exporters of a couple of agricultural commodities. Therefore, the hypothesis seems to be plausible that Poland will become net exporter of agricultural products, nonfarm raw materials or resource-intensive commodities and increase its export in contrast to what extensions of past trends might suggest. Thus, it would seem to be worthwhile to

Graph 1 - Projections¹ of Polish Food Exports

¹ Based on the assumption of past trends continuing

analyse this hypothesis in greater detail. In the following, this will be done in three steps:

- by assessing the natural advantages and disadvantages of the agricultural sectors of Poland in relation to the non-agricultural sector and in comparison with Western countries,
- by assessing the comparative advantages of Poland in relation to world market prices and in relation to EC prices and
- by assessing possible complementarities in EC and Poland's agriculture and the scope for mutual specialisation and intrasectoral trade.

2. Natural Comparative Advantages and the Structure of the Economy

To be sure, Poland is less productive in agriculture and food processing than the West, but Poland is also less productive in manufacturing industries; in other words, Poland has an absolute disadvantage in the production of all tradable goods but that does not mean Poland has not a comparative advantage in one or more industries. The comparative advantages or disadvantages of agricultural and non-agricultural sectors can be calculated roughly using national account statistics and national employment statistics, whereby the contribution of agriculture to the GDP per agricultural worker is defined as agricultural labour productivity and the contribution of non-agriculture to the GDP per non-agricultural worker as non-agricultural labour productivity. The relation between agricultural labour productivity and non-agricultural labour productivity is defined as the relative labour productivity of agriculture. The calculation of Poland's relative labour productivity of agriculture results in a coefficient of between 0.9 and 1.1 (Table 1). This indicates that the relative labour productivities of agriculture is significantly higher in Poland than in West Germany or in the United States where the coefficient is 0.4 and 0.7 respectively. Consequently, it can be concluded that in a world with more liberalised international trade in agricultural goods, Poland will become a net exporter of agricultural goods and food because it brings its comparative cost advantages into play.

The differences between the agriculture's relative labour productivities in the East and in the West are rather large, and therefore the statement "comparative advantage of Poland" will hold also if various inaccuracies in the statistics are taken into account. Inaccuracies are probably caused by various redistribution measures applied by the former Communist regime and do not disappear overnight. Agriculture and food

processing have been affected negatively by various redistribution measures, which favoured the non-agricultural sectors, whereas the opposite policy outcome can be observed in Western Europe and in North America.

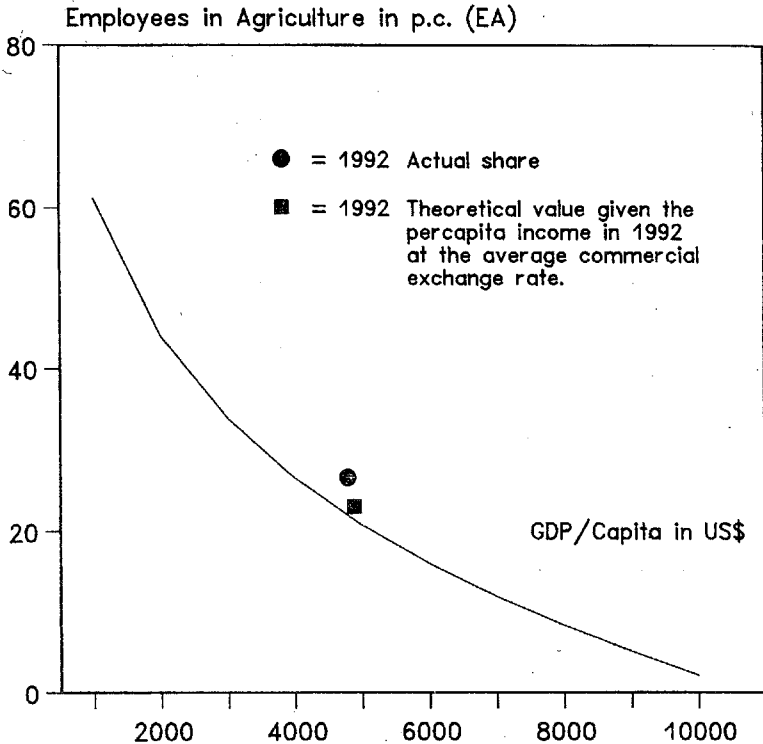
After World War II, in Central and Eastern Europe labour was shifted from agriculture to industry and other sectors by means of a command-type centralised planning systems that could enforce labour discipline and a policy of high investment. The basic pattern of economic policy was determined by the goal of rapid industrial development. Investment in the human and physical capital stock in agriculture and in rural housing and rural infrastructure was relatively neglected mostly in the Soviet Union, but also in other countries of the CMEA (IMF, World Bank, EBRD, 1991).

It is often argued that the agricultural sectors of the CEEC are characterised by an allocation of too much labour. This argument implies, that not enough labour is allocated to the non-agricultural sector. In the following it is shown that the argument is most probably not valid:

- Migration of agricultural workers' to urban areas has continued during the past twenty years partly due to the ongoing mechanisation of agricultural production processes and partly due to lower income opportunities and bad living conditions in rural areas. The share of agricultural workers in total employment has declined in Poland as also in other Eastern European countries.
- Shortages of labour were widespread in the CEEC at harvest time. The problem was solved by sending "volunteers" from the army or from other organisations to the farms.

Compared to Western Europe and other developed regions, agriculture's shares in the total labour forces is high in Poland (27 per cent in 1993). However, this per se does not mean a misallocation of labour. Labour is available at quite low wages while non-labour inputs are expensive. As international cross-sectional analyses suggest, the more highly developed a country is, taking its relative per capita income as an indicator, the smaller the share of agriculture is in total employment and the smaller is the contribution of agriculture to the gross domestic product. Taking the figures of per capita income in Poland and inserting them into equations obtained by international cross-sectional analyses it turns out that in recent years the share of agricultural labour in the total labour force of Poland fits well into the normal pattern (see graph 2) and that here is only a small difference between the actual and the 'normal' structure of employment. In so far Poland's employment structure may not represent the typical

Graph 2 – Share of Agriculture in Total Employment

Poland

Equation: $EA = 228.21 + 0.0004GDP - 24.3 \ln GDP$ $R = 0.85$; $F = 59.3$; $N = 205$
 (17.12) (4.03) (-13.36)
 (Pool of country data for 1965 and 1985)

Source: Heitger, Schrader and Bode. 1991; Own estimates.

structure of CEEC, where the central planners depressed agricultural employment below the "normal level" both by their investment policy but also by their price policies which abated value added in agriculture. Calculations performed in the eighties showing the structure of national income by sector of origin of product at current prices and at three variants of factor cost indicated that also Poland had a depressed agricultural labour force. Taking factor prices into account calculations exposed a lower share of industry and a largely offsetting higher share of agriculture as compared to these shares based on actual prices (Alton, 1988): The share of industry declined from 51 per cent to 27 or 28 per cent. Thus, statistics undervalued the relative importance of agriculture's and food processing output. A third result of the former policies which is to consider is the high inefficiency in the use of materials and energy.

The main causes for the low productivities of materials and energy inputs in Poland were among distorted prices non-appropriate technologies and distorted incentive structures responding in an increase of materials and energy productivities in agriculture. Consequently, the competitiveness of Poland's agricultural sector will presumably increase from its politically depressed level.

From the expected changes of the relative market prices and the incentive structure the following rearrangements in the structure of agriculture could be expected:

- Farmers will tend to specialise more in labour-intensive lines of production and reduce the use of materials and energy.
- Managers of larger farms will reduce capital and energy input by reducing capital-intensive production lines.

In the transition to a market economy, the restructuring of agricultural production will depend to a large extent on the subsector-wise comparative cost relations in the food processing industries. Those food processing industries which are characterised by a high labour-capital ratio and by an intensive use of agricultural raw materials will have comparative advantages compared to other subsectors in the food industry. In this context it should also be mentioned that large food processing plants which serve urban areas or export markets usually have more difficulties in replacing capital for labour.

One can assume that the factor intensities which were estimated for the German food processing industry (H. Dicke, 1977) in the early 1970s will not be much different in

Poland in the 1990s. Thus, the following food processing industries are the ones that appear best suited to export food at least to low- and medium-income countries:

- slaughter-houses and meat processing,
- vegetable and fruit processing,
- starch production,
- oil-mills and margarine factories,
- dairy products,
- wheat-based food processing mills,
- sugar refineries,
- beverages.

The comparative advantage is presumably highest in meat (fresh, chilled, frozen, or preserved, or as sausages) and is lowest in beverages. This assessment results from a comparison between Poland and Western countries. Poland will have to compete, however, with other transforming countries in Central and East Europe. Poland's export performance on Western markets depends largely on its competitiveness vis à vis its neighbouring countries in Central and East Europe.

3. Comparative Advantage of Poland vis à vis competing CEECs

With regard to the different endowments with human and physical capital and arable land of the CEEC, it can be expected that the pattern of specialisation in foreign trade with agricultural goods and processed food, will differ among countries. Russia, Belorussia and the Ukraine will probably be competitive in exporting unprocessed agricultural commodities and will tend to import processed foods (see table 2), while Central European countries will become competitive exporters of processed agricultural products and importers of high-protein feed, seed, breeding cattle and sophisticated processed food (see table 3).

4. Poland's Export Potential in Agriculture

An increase of agricultural exports is welcomed because it contributes to the expansion of agricultural production and living standards in the rural areas of Poland. Agriculture

is likely to play a pivotal role in the overall growth process since also its starting economic conditions in the transition process are more favourable than in the manufacturing sector:

- the abundance and quality of land as one of the most important factors of agricultural production is not altered by external and internal liberalisation,
- physical and human capital in agriculture is more useful for market production than in industry, because the gap between modern methods of production and marketing and the actual methods in CEEC is smaller in agriculture than in industry,
- the potential for improvements in material and energy intensity is higher in agriculture,
- farms and food processing enterprises generally require less time and investment to alter the structure of production,
- the private sector in agriculture is already significantly more developed.

China's reform experience can also serve as an example in support of the hypothesis that agriculture will be the growth locomotive in the CEEC.

All in all, the transformation of Poland will most probably result in a positive supply shock which stimulates production in agriculture and the food industry. The rise of production, in turn, will lead to an activation of the farm trade balance.

Any assessment of the quantitative effects of the supply shock must necessarily be highly speculative. Neither are the magnitude of the exogenous variables and the coefficients of supply to relative price and incentive changes known nor are the income and price elasticity of demand known. In the first place the supply shock will result in less waste of output and less waste of agricultural and non-agricultural input, and in higher productivity in the second place.

The following model calculations are based on the three assumptions: (1) during the period 1990-2000 the total productivity of crop production will increase by 10 per cent, (2) the allocation of land to agriculture in terms of hectares will remain the same, (3) feed productivity in live-stock production will increase (among other things the conversion rate for grain in live-stock production is expected to be in the range of 4-5 tons of grain per 1 ton of meat in the year 2000).

To understand the results of the model calculations more readily land can be conceived of in terms of efficiency units. Thus land is defined here in terms of efficiency units as the mathematical product of land in terms of physical units (ha) multiplied by the change of land productivity ($T = 1.10$) during the period 1990-2000. Because we assume no changes in the input of land in terms of physical units², in the year 2000 the utilisation of land in terms of efficiency units will be 10 per cent higher than it was 10 years ago. Using this approach the following scenario arises:

Poland will have at its disposal up to 1.8 Mill. ha. additional arable land in terms of efficiency units; the other Central and Eastern European countries could have at their disposal additional arable land, again in terms of efficiency units in the amount of 31.7 Mill. ha. Poland like any other CEEC will tend to reduce its imports of land intensive agricultural goods, mainly grain, and to expand exports of agricultural goods in which it has a comparative cost advantage. In terms of grain the additional production would amount to 6.6 Mill. tons in Poland.

The changes in crop production in Poland and other CEEC would have a strong impact on foreign trade. The currently negative agricultural trade balance of the CEEC could turn positive. Instead of importing millions of tons of grain, vegetable oil, and oil seed, the region could export millions of tons of grain or other land intensive products. The production surplus of Central and Eastern Europe available for export could amount to approximately 25 Mill. tons of grain or an equivalent amount of grain substitutes, e.g. meat, eggs, oil seed, sugar beet.

Domestic demand responses to both lower per capita income and higher relative food prices will also affect trade balances. Due to high relative food prices households will reduce their demand for relatively expensive meat, meat products (including sausages) and eggs in favour of relatively cheap vegetables (like potatoes), cereal-based products (bread, etc.) or fish. Consumption patterns in Western European market economies at an earlier stage in their development can be useful in predicting the changes in the demand structure in CEEC. In 1967/68 the per capita consumption of meat in the EC amounted to 65 kg, 70 per cent of the 1990 level, while per capita income amounted to 56 per cent of the level in 1990. If, in an optimistic scenario, income levels in Central and East Europe reached the EC level of the mid-1960s by 2000, the per capita consumption of meat, assuming equal attitudes of consumers, would be 15 per cent below the current level. This reduction in domestic meat consumption could alter meat trade balances or trade balances for grain due to saving the grain feed.

The reduction of meat consumption alone could bring about the following changes in the trade balance of CEEC: The net imports of meat could vanish, the export potential for grain could improve by 11 million tons, and meat exports could increase in the range of 1.5 million tons by 2000.

The consumption effect due to changing relative prices and income will add to the supply effect and further improve the agricultural trade balances of the CEEC. The model calculations suggest that export earnings of Poland and savings by substituting imported agricultural goods for domestically produced goods - could increase. How strong the trade balance of Poland will improve depends on its competitive position vis a vis other CEEC and its access opportunities to foreign markets.

An increase of export earnings would strengthen the import capacity of Poland and of other Central and East European countries alike. The import demand for agricultural products, incorporating special know-how, for instance, breeding cattle and seed, or food with a Western image of high quality would rise, and even stronger imports of investment goods, in particular, land machinery, food processing machinery, distribution (storage, transportation, etc.) equipment and equipment for the ailing mining and manufacturing sector. As a matter of fact, a surge in exports of investment goods from the EC will contribute significantly to better income and employment opportunities in the EC's manufacturing sector.

V. Institutional Impediments to Polish Exports

1. The GATT 94

The period 1995-2000 will be characterised by a liberalisation of international agricultural trade on the basis of the Uruguay Round Accord set in force in 1994, the reform of the Common Agricultural Policy of the EC, the ongoing transformation of Central and East European Countries to market economies, and the evolution of Poland's agricultural policy.

The GATT 1994 (Gupta, 1994) comprises an Agreement on Agriculture by which members declare

- to establish "... a basis for initiating a process of reform of trade in agriculture ...",
- "... to establish a fair and market-oriented agricultural trading system ..."

- "... to provide for substantial progressive reductions in agricultural support and protection sustained over an agreed period of time, resulting in correcting and preventing restrictions and distortions in world agricultural markets", and
- to achieve "... specific binding commitments in each of the following areas: market access; domestic support; export competition".

In Part XII, Article 20, the members recognise "... that the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform is an ongoing process ..."and agree"... that negotiations for continuing the process will be initiated ...". Major elements of the commitments of the EC are:

- measures of domestic support like, for instance, quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing, voluntary export restraints, and similar border measures, other than ordinary customs duties, are required to be converted into ordinary customs duties; direct payments under production-limiting programmes shall not be subject to the commitment to reduce domestic support³ - and, thus, are not required to be converted into customs duties - if such payments are based on fixed area and yields, or such payments are made on 85 per cent or less of the base level of production, or livestock payments are made on a fixed number of head.
- customs duties - after conversion - shall be reduced by 36 percent up to the year 2000;
- budgetary outlays for export subsidies of different kind shall not be greater than 64 per cent of the 1986-1990 base period levels at the end of the implementation period of the GATT Accord (2000);
- export quantities benefiting from export subsidies shall not be greater than 79 per cent of the 1986-1990 base period levels at the end of the implementation period;
- member countries of the GATT are granted access opportunities to import market equal to a minimum share of 3 per cent of imports in domestic consumption; imports under minimum access commitments shall be allowed to rise up to 5 per cent of domestic consumption by the conclusion of the implementation period.

Although the Agreement on Agriculture of the GATT 94 incorporates some special safeguard provisions (Article 5) and allows for the protection of agricultural markets well above protection levels for industrial goods one cannot say but that the outcome

of the Uruguay Round in the framework of GATT has substantially brought down barriers to trade in agricultural goods. Nevertheless, import barriers and subsidisation of exports in agricultural markets of the EC, US or Japan remain and result in depressed world market prices, distorted trade flows, and instabilities.

Under conditions of free trade, with prices determined by the marginal producer - and not by Finance Ministers of developed countries still providing subsidies for the export of surplus production of agricultural commodities - the world market prices for agricultural goods would be much higher than the actual prices. Several studies have shown that the introduction of a free trade regime in agriculture would result in higher prices, the projected increase being in the range of 10 to 40 percent, higher trade volume and greater stability. Poland would have a greater chance to be among the intra-marginal suppliers of some agricultural goods and food and could become a net-exporter of various crops, meat, eggs and dairy products. Agricultural imports could be confined to high-protein feed components, tropical products and a few highly processed speciality foods.

Trade between Poland, the EC and third countries is also subject to economic obstacles. In the OECD area, income elasticities of the demand of Western households for agricultural goods in general and for goods from Poland and other CEEC in particular can be considered low. Most Eastern export goods are imperfect substitutes to exports from traditional agricultural export countries like the US, Canada, Australia or New Zealand. Due to a scarcity of knowledge, skills or techniques to fulfil Western requirements in respect of the quality of goods or export marketing Polish exporters have to sell at cheaper prices. Apart from these economic factors, a rapid growth in the export of CEEC is not likely to occur due to the protective trade measures of Western countries which GATT 94 still allows.

2. The Common Agricultural Policy

International agricultural trade will be distorted by border measures and product-specific domestic support as well as non-product-specific domestic support of the farm sector all of which have a depressing and destabilising effect on the world market and, thus, on Polish exports. In the EC, for instance, major agricultural products will remain subject to border measures which shield the farm sector against import competition. On the export side the EC's common agricultural policy will assist farmers in selling their produce on international markets by granting them export subsidies which bridge the gap between internal market prices and prices that can be

obtained on export markets. To be sure, the total amount of EC's outlays for export subsidies is fixed by the GATT 94, but it nevertheless remains considerably.

It is hard to imagine that without further dismantling of agricultural policies of the EC and other trading partners private farmers and food processors in Poland or else where in Central and East Europe could take market shares away from suppliers in the EC or in North America either on foreign markets nor on their domestic markets (in the case of no import protection). In fact, studies of Polish agriculture revealed that Polish suppliers of agricultural goods would not be able to compete on world markets given actual world market prices (A. Kwieciński, 1994). Poland has introduced a policy regime similar the EC's. Border measures help to decouple domestic prices from the prices on international markets. These border measures comprise custom duties for most products, even variable levies and export subsidies. The tariff rates range between 18 and 35 percent and are above tariff rates for manufactured goods (Dicke, Misala 1993). Without protection against subsidised exports from the EC or other countries private farmers and food processing enterprises would hardly be able to thrive in Poland. Existing state farms, co-operatives and small farms would go bankrupt and agricultural workers who became unemployed would leave rural areas in search of better income opportunities in urban areas, including urban areas in the EC. Poland has introduced border measure in order to put a brake on surging imports from EC sources and it also started to support exports of agricultural goods by subsidies on few occasions. Nevertheless, agricultural support in Poland as measured by producer subsidy equivalents is far lower than in the EC (A. Kwieciński, 1994) and will remain lower for one simple reason: Poland's agricultural sector is too large and overall productivity and income too low to be capable to support agriculture in the same way as the EC.

If Poland could accede to the EC and could charge EC prices for its products, its agricultural sector would be highly competitive vis à vis EC producers, which may have some policy-makers in Central and Eastern Europe in mind when they demand access to the EC and why some West European politicians are reluctant to give into these demands. Given the current excess production capacity in the EC, additional supply from new entrants into the EC would result in an increase of the production overhang of the EC. Since the commitments made in the GATT 94 limit the opportunity to expand exports or to reduce imports the EC has to embark on production-limiting programmes. Those programmes could comprise the reduction of support prices, input subsidies or production quotas. Each programme would result in losses of the incomes of farmers in the EC. It is quite probable that the EC will be

inclined to avoid these income losses by introducing a scheme of compensatory direct payments. This in turn would harm the EC taxpayers via higher outlays of the EC's budget. These possible effects of an enlargement of the EC by Poland and other CEEC may explain why the EC demanded to exempt the sensitive products from the free trade regime in the framework of the Europe Agreement and why EC member states did not yet embark on an accession strategy for Poland but on a pre-accession strategy only as the Essen summit in 1994 approved once more.

VI. Accession of Poland to the EC and the Need for Adjustment in the EC

1. Overall Implications for the EC

An enlargement of the EC by Poland and other Central European countries will have effects on consumers, producers and state budgets of the member states of the EC and of the acceding states. These effects will differ from the association's effects. While the effects of the association centre on welfare gains due to the establishment of a free trade zone the enlargement has above all budgetary consequences and distributive effect. The enlargement would affect:

- the structural and social funds of the EC,
- consumer and producer rents mostly in the acceding countries due to the adoption of regulated agricultural prices and
- the funding of agricultural policies by the European Agricultural Guidance and Guarantee Fund (EAGGF); changes of the surplus of agricultural production and the extending of support programmes to the new EC member states would create additional needs for funds..

There are several studies available which focus on these effects of an East enlargement of the EC. They differ with respect to the numbers but not to the qualification of the enlargement effect. In general the available studies arrive at the conclusion that expenditures on the structural funds, the cohesion funds and the EAGGF would increase significantly while the contribution of the new member states to the EC's budget would be rather small. Thus, the old members of the EC would have to contribute more to the financing of the EC budget.

With regard to agriculture, the economic and financial effects of the enlargement will mainly depend on the feature of the common agricultural policy (CAP) in the year

2000. The economic status of agriculture as well as the agriculture policy in the countries joining the EC bulk large too. Neither the competitiveness of Polish agriculture and the feature of the Polish economic and agricultural policies nor the conditions of the EC's agriculture remain unchanged over the next five years. Yet, what change exactly will happen can hardly be foreseen. Changes of the CAP took place during the last years and it is most probably that further changes will occur in the late 1990s. It may well be that those changes reflect the perceived need for policies to adjust to the challenges of an East enlargement.

2. Basic Options for the Reform of the CAP by the Year 2000

The EC authorities have various options for reforms of the CAP with various economic, financial, and social effects. Two options only are chosen and described shortly and then they are evaluated with regard to their respective economic and financial effects. Option I is to render the status quo scenario with the CAP largely keeping its present features and Option II describing the first best scenario with a CAP completely dismantled of support measures distorting production and trade.

Option I:

The Common Agricultural Policy (CAP) is going to be changed either in order to abide by the obligations of GATT 94 or in response to internal requirements of the EC. Most of the commitments of the GATT 94 have already been implemented in advance by the reform of the CAP in 1992. Major elements of the 1992 reform are the following:

- the reduction of support prices for grain and beef and the reduction of deficiency payments in the oilseed sector;
- the introduction of a scheme of direct payments which replaces the price support and is to compensate for income losses caused by the reduction of support in the sectors of grain, protein plants, and beef; the rearrangement of direct payments for producers of oilseeds introduced in 1991; the direct payments are linked to past areas planted, past yields or past heads of cattle and are partly combined with the requirement to set aside land, to constrain production or to farm extensively.
- the introduction of a new set - aside - land programme, support for reforestation, and incentives for the retirement of farmers;

- the tightening of quantitative restrictions of production for milk, the reduction of intervention prices and the continuation of production quotas for sugar, sheep and goats.

The direct income payments that are granted to the producers of grain, oilseeds and beef seem to be more than just a compensation of producers for the withdrawal of price support during the transition to lower support levels. For instance, there is no restriction as to the duration of the programmes. The duration of the payments may exceed the transition period to full structural adjustment. Even the size of the payments is not fixed, but is going to be raised in order to defend the relative income position of farmers. The EC's direct payments can be classified as a permanent part of a re-structured package of support measures. This package may be superior to the price support measures because it strengthens the role of market signals and, thereby, reduces the distortions of production and consumption. However, it has one consequence which has to be considered very carefully: the scheme of direct payments will have to be extended to all countries joining the EC because the scheme belongs to the *acquis communautaire* like other support measures or policies. The introduction of the schemes of direct income payments to farmers in Poland will have distortive effects not much different to those of the introduction of price support or other support measures.

Option II

It is assumed that support measures like price support, production subsidies, production quotas or direct payments in the form of permanent income support are abolished in all fields of agricultural production. Budget expenditures connected with the current support regime would be saved and in addition consumers could save on food expenditures.⁴ Farmers could be compensated by one-off payments. The compensation scheme would be based on historical criteria (value added, gross production, factors of production employed); these criteria would not involve distortions of decisions on production and investment in the agricultural sector. The complete withdrawal of support would negatively affect mostly farm asset value and farmers' human capital and to a minor extent current incomes. There is a controversy whether the devaluation of physical and human capital is to be compensated by the EC's taxpayers at all, while capital owners in other sectors of the economy may experience a similar fall in the market values of their capital caused by market processes without getting any compensation from the government. The losses in agriculture are caused, however, by government action, namely the withdrawal of

support. As far as the objectives underlying the assistance to agriculture over a long period have been derived from an implicit "social contract" between farmers and the rest of the society the dissolution of such a contract would involve an unduly hardship for farmers which deserves compensation.⁵ The administrative procedures for making compensation payments to the farmers would be left to the member states. The funding would be provided by the EC budget. The payments needed to compensate factor owners fully for the losses induced by the fall in prices and the reduction of production subsidies could fall over time, because labour and capital could find alternative employment in other sectors. The loss in land rent, however, would be permanent if the payments were stopped at the end of the land owner's lives or his retirement. If value added were taken as a compensation criterion, the loss of value added could be calculated on the basis of past average value added per hectare, which amounted approximately to 900 ECU/ha in past years. Value added at world market prices plus a tariff rate of, say, 10 per cent would supposedly be in the range of up to 400 ECU/ha. The difference of 500 ECU/ha would have to be compensated; the total transfer to farmers which would have to be paid out of the EC agricultural funds would amount to 64 Billion ECU at the beginning and decline steadily over a period of, say, 10 to 15 years. Then the program will expire. This sum is well above the 35 billion ECU of the agricultural guarantee funds of the EC in 1992 but also well below the total cost of the present system to EC taxpayers and consumers. The payments could be made either by instalments or by tradeable interest-paying bonds. The solution of the compensation issue hardly affects the economic gains of the dismantling of the GAP which are made up of the saving of the total cost of the present agricultural support regime totalling 135.5 Bill. US\$ in 1993 according to recent estimates of the OECD (1994). A compensation of farmers would mean that less than 50 percent of the savings would be distributed among the farmers during the adjustment period. After the abolishment of support measures world market prices would rise and determine the price level - plus a tariff rate of up to 10 per cent in the beginning in the EC and the acceding countries. Price levels in the EC and - after accession - in the new member countries of the EC would be the same

3. Economic and Financial Implications of an Enlargement

3.1 Assumptions Underlying the Model Calculations

The two policy options would affect consumers, producers, taxpayers of the EC, and third countries in different ways. The different effects, which are to be analysed and quantitatively assessed below, depend on different assumptions. The most crucial assumptions which have to be made for the evaluation of the respective policy reform are as follows:

- The per capita income of Poland is supposed to be close to 50 per cent of the per capita income in the EC. In view of the present income gap - according to recent estimates per capita incomes in Poland is approximately 30 per cent of the EC countries - this assumption implies that growth rates in Poland will stay above of the EC for some years to come.
- As the EC is supposed to be not inclined to change its CAP - beyond the reform steps required by GATT 94 - Poland has increasingly to adopt elements of the CAP in order to be prepared for the date of accession. This means an increase of tariffs slapped on agricultural imports, increase of consumer and producer prices, slowing down of structural change in agriculture and reduced competitiveness of Polish agriculture vis a vis EC producers (compared to scenario II); consumer prices for cereal food and pig meat would rise less than for sugar, beef and real meat, and milk.

It is quite obvious that profits for agricultural producers and the food processing industry in Poland would rise markedly, leading to an expansion of investment, production and employment in these sectors. Yet, food consumption would decline and production would exceed consumption. Agricultural and food exports into the EC would expand and exports to third countries would fall. The EC's and the new entrants' agricultural and food imports from countries outside the common market would be replaced by domestic products. Since EC prices for major agricultural products are guaranteed by various interventions, the replacement of EC agricultural products by exports from Poland would be rather small. The amount of supply (domestic-production-cum-imports) exceeding domestic consumption in the EC would increase and the disposal of this surplus would be financed by the EC. Exports from third countries - among them are CEEC which have to stay outside of the EC - would be diverted and world market prices depressed. The share of the EC budget absorbed by agricultural subsidies would increase.

The cost to the EC taxpayers (if the current agricultural support regime as described in Option I were extended to Poland) depends (i) on the production surplus in Poland caused by the introduction of EC prices and (ii) Polish exports being diverted from third countries to EC member states. The size of the surplus of Poland results from an increase in production and a decrease in consumption brought about by an increase of prices. The surplus is estimated in a simple way: changes of production and consumption are calculated on the basis of predicted changes of (real) prices and of the elasticity of demand and supply. It is assumed that the price elasticity of demand for cereals, oil seeds and potatoes are 0,0, for sugar -0.1, meat -0.4 and for milk -0.2. The price elasticity of supply is assumed to be 0.6 for vegetable produce and 0.4 for animal produce.⁶ The data for past consumption and production have to be taken from statistics for the years 1989 and 1990.⁷ As to the price changes that are concomitant to the EC it is assumed that they occur in one year, the year of the accession, when has - so goes the assumption - to adopt the EC prices in one step. These assumptions make it possible to estimate the effects on production and consumption of cereals, sugar, milk and meat compared to 1990 levels. The results of these estimates are shown in Table 3. The difference between the hypothetical production and consumption is the hypothetical surplus which has to be "bought" by the EC and disposed of on the world market. The costs of market interventions were estimated in a simple way. Product-wise unit expenditures (UE) of the EC guarantee funds were calculated

$$UE_i = \frac{EX_i}{SU_i},$$

where:

EX = expenditures of the EC guarantee funds in million ECU by 2000
(total = 50 billion ECU)

SU = surplus (X - M + change of stocks) in metric tonnes

i = product item (cereals, meat, sugar, milk).

The EC's agricultural guarantee funds totalled approximately 35 billion ECU in 1992. The funds are likely to expand to not more than 50 billion ECU during the 1990s, because the obligation of GATT 94 and internal constraints will put a brake on further increases of funds. The increase will be caused by higher nominal producer prices or direct payments in the EC. The funds will be matched by a similar increase of the

nominal GDP. That means that the funds in relation the GDP does not differ much from present levels.

The amount of UE for different product categories is shown in Table 4. In the case of oil seeds, intervention expenditures were related to the amount of produce. The expenditures per ton, UE, were used in connection with the hypothetical surplus production to estimate the total financial costs to the EC budget. These estimates are shown in Table 4.

3.2 Implications of Poland's Accession with the CAP Unchanged

Since grain, oil-seed and meat prices are rather close to world market prices, consumers in Poland will face only a moderate increase in the prices of these goods. However, prices for those products still subject to EC price interventions - e.g. milk, sugar - will rise drastically in Central Europe. Costs to EC taxpayers will rise considerably because the the scheme of compensatory direct payments for farmers of grain, oilseeds, and beef will have to be extended to Poland. One can suppose that Polish farmers will anticipate the direct payment regime and adapt the organisational structure in a way which would enable them to receive the maximum benefit. The payments per hectare of land used for cereals production depend on regional yields per hectare, a unit payment rate per ton and regional base areas utilised for production. Since the implementation of the CAP reform the EC has changed the minimum prices for cereals, the unit payment rates per ton and the size of the regional base areas and it will change the elements of the compensatory payments more than one time by the year 2000. Here the assumption is made that the compensatory payments per hectare land used for the production of cereals in Poland will amount to 253 ECU for grain and 384 ECU for oil seeds. Furthermore it is assumed that the base area for grain and oil seeds production in Poland will correspond to the amount of land used in 1989/90. The direct payments to the farmers in the three Central European countries would sum up to 2.1 billion ECU for grain and 0.17 billion ECU for oil seeds (Table 4). Adding to these expenditures the financial costs of intervention in the other agricultural markets, one arrives at a total of around 19 billion ECU which has to be raised by EC's taxpayers after the accession of Poland to the EC. An accession of Hungary, Slovak Republic and Tzech Republic would mean additional financial costs of 20.4 Bill ECU.

3.3 Implications of Poland's Accession with the CAP Dismantled

The totally dismantling of agricultural support affecting production, consumption and trade would benefit consumers in the EC and lessen the financial burden for the EC's

taxpayers irrespective of whether farmers will be compensated for their losses caused by the withdrawal of support or not. EC's agricultural budget could be reduced markedly from its present level by the end of the 2010. Since direct income payments are designed as compensation for those losses incurred by the present owners of primary factors of production in the EC which are caused by the dismantling of support they are one off payments which accrue to farmers of the old member states only. Those payments do not belong to the *acquis committaire* and, therefore, there will be no justifications for demands of the new entrants to the EC to include their farmers into the direct payment scheme. There would be no need to separate Polish agricultural prices from world market prices by border measurers in the pre-accession phase. They could stay close to world market prices which would be in the interest of Polish consumers.

Apart from these favourable budget effects Scenario II appears to be superior to Scenario I with regard to the costs to consumers and to trade distortion effects. Scenario II allows consumer prices to be close to world market prices and does not significantly distort trade specialisation among countries within and outside Europe.

VII. Summary

Poland's membership of the European Union has now become a matter of when rather than if. When Poland can become member of the EU depends on whether it is able to fulfil the necessary conditions - so the European Council has declared on its Essen summit in December 1994. Is the enlargement a matter which only affects Poland and other applicant countries but must not bother the member states of the EU? The answer on this question is that the accession of Poland and other Central and East European Countries would have significant implications for the EC's sensitive sectors, in particular, for its agricultural market, and common agricultural policy, and for the EC's budget. The budget effects of the accession of Poland to the EC are assessed to amount to 19 Billion ECU given the common agricultural policy remains unchanged by the year 2000, the year Poland could accede to the EU at the earliest. In view of the size of the adjustment needs of the EC's agricultural sector the EC member states would be well advised to design a pre-enlargement strategy tailored to the needs of the EC. Such a strategy should consist of a set of measures by which an increase of the financial burden of the CAP for the EC's tax payers, and welfare losses for consumers of Poland and other acceding countries, and trade deteriorating effects on third countries could be avoided.

VIII. Tables**Table 1: Patterns of Specialisation in Foreign Trade of Agricultural Products and Foods in Eastern Europe by the Year 2000**

Country/Region	Rank regarding abundance of capital	Rank regarding abundance of land	Exportable (highly competitive domestic production)	Importables (highly competitive foreign supply)
Russia	1	1	cereals, cattle, wool	meat, fresh, processed; fruit and vegetables; processed fruit and vegetables; wheat-based foods; dairy products; vegetable oil
Belorussia	3	2	cereals; cattle; starch;	as above
Ukraine	2	3	cereals; cattle; cotton; vegetable oil; processed fruit and vegetables;	selected dairy products; seed; breeding cattle;
Bulgaria	8	4	meat, fresh and prep. ^a ; eggs dried; cheese;	high protein feed; seed; breeding cattle; processed foods;
Romania	9	5	meat, fresh and prep.;	as above
Hungary	5	6	meat, fresh and prep.; eggs dried, processed and unprocessed fruit and vegetables;	as above
Yugoslavia	6	7	meat, fresh and prep.; eggs dried;	as above
Poland	7	8	meat, fresh and prep.; starch;	as above
CSFR	4	9	meat, fresh and prep.; eggs dried;	as above

^aIncluding sausages

Source: Own inquiry.

Table 2: Relative Labour Productivity of Agriculture in Selected Countries, 1987

Country	Relative labour Productivity Π^a	Relative labour Productivity Π^b
Bulgaria	1.03	1.24
CSFR	1.28	1.68
Hungary	1.32	1.28
Poland	0.90	1.10
Romania	1.04	1.32
Yugoslavia	0.65	n.a.
Central and Eastern Europe	0.94	n.a.
United States	0.67	-
West Germany	0.44	-
<p>^a Agricultural labour productivity (GDP/employee) divided by the economy's labour productivity: GDP (GDP/employee) at realised prices.</p>		
<p>^b Agricultural labour productivity relating to manufacturing's productivity; GDP at factor cost.</p>		

Source: US Congress, 1989; Alton, 1988; own calculations.

Table 3: Balance of Production, Consumption and Trade for Poland Before and After Accession to the EC

	1000 ha	1989		After 2000 ^a			Net Balance 1000 mt
		Pro- duction 1000 mt	Net Balance 1000 mt	Con- sumption 1000 mt	Produc- tion 1000 mt	Con- sumption 1000 mt	
Total Meat							
Poland	14759	2903	-20	2923	3251	2572	679
EC		32390	1400	30990			
Cereals							
Poland	8377	26957	-2835	29792	31809	29792	2017
EC	35187	164000	27400	136600			
Oil Seed							
Poland	604	1598	-1227	2825	1886	2825	-939
EC	5014	11451	-15313	26764			
Potatoes							
Poland	1858	34390	791	33599	40580	33599	6981
EC	1399	38868	-1829	40697			
Sugar (Raw Equivalent)							
Poland	14759	1865	-19	1884	2201	1827	374
EC		14273	3002	11271			
Cow Milk							
Poland	14759	16404	0	16404	18372	15420	2952
EC		98950	14080	84870			

^aThe elasticities and price increments used in the estimated values for production and consumption in the year 2000 are the following:
Supply elasticity of vegetable products: 0.6 Price increment: 30 per cent
Supply elasticity of animal products: 0.4 Price increment: 30 per cent
Demand elasticity of vegetable products: Price increment: 50 per cent
cereals, oil seeds and potatoes: 0; sugar: 0.1
Demand elasticity of animal products: Price increment: 30 per cent
meat: -0.4; milk: -0.2

Source: Own estimations based on FAO, USDA and Agrarwirtschaft Statistics.

**Table 4: Additional Intervention Cost Caused by the East Enlargement of the EC
(Million ECU at Current Prices)**

Product Item	EC Intervention Costs				Intervention Cost of Central European Countries Joining the EC ^b (in million ECU)		
	UE ^a	Expenditure per ha land used	Per ton produced	Total expenditures million ECU	Poland	Slovak and Tzech Republic	Hungary
Meat	6471		279	9060	6665	4063	5506
Cereals	328	256	54	9000	2139 ^c	533 ^c	710 ^c
Sugar	1494	179	315	4500	1261	256	499
Cow Milk	781		111	10500	3075	1350	575
Oil Seed		398	174	2000	165 ^d	68 ^d	48 ^d
Item 1-4				35060	13305	6270	7338
Other Products: (wine, Tobacco, Fruits, vege-tables etc.)				15000	5832	3064	3778
All Products				50060	19137	9334	11116

^aUE: Intervention expenditures per unit (tons) of surplus.
^bComputed on the basis of UE and estimated surplus according to Table 3.
^cComputed on the basis of payments amounting to 253 ECU/ha.
^dComputed on the basis of payments amounting to 384 ECU/ha.

Source: Own estimates.

IX. Footnotes

- ¹ This bank is more useful than the FAO data in this context, because it presents exports, imports, production, stocks, etc., in a more consistent form and for more items. A comparison between the USDA data bank and the FAO reveals differences. At the moment, there is no reasonable criterion for determining which data bank is more reliable.
- ² Experts predict a decline of the amount of land used for agriculture from 18.7 million hectares to 16.9 - 18.2 million by the year 2000 because a deterioration of the input/output price ratio in agriculture (Kwiecinski, 1994).
- ³ Article 6, paragraphs 3,4,5 of the Agreement on Agriculture.
- ⁴ The precise quantitative effects of the CAP on state budgets and consumers are subject to controversies. In one study, the costs to consumers have been estimated to amount to 1.3 per cent of gross domestic product and costs to taxpayers in the EC to 1.0 per cent; total costs to consumers and taxpayers amount to 2.3 per cent of GDP (Bureau of Agricultural Economics, 1985). In a recent study the OECD estimated the overall cost of agricultural support at 135.5 Billion US\$ in 1993, of which 59 Billion US\$ was born by the tax payers. The percentage of total agricultural support costs in GDP (6449 Bill.) amounted to 2.0 percent and that of financial costs to 0.9 per cent. (OECD, 1994).
- ⁵ For a discussion of this issue see: OECD (1994b),
- ⁶ The range of estimates of the long-term price elasticities of supply and demand for agricultural products made by various analysts is wide. The elasticities chosen in this study fall within this range.
- ⁷ Statistics of production and consumption in the years 1991 to 1993 have short-comings: an extreme drought caused a fall of production and an increase of prices that induced a decline of consumption. Furthermore, the expansion of the privat sector was not adequately covered by the statistical office.

References

- ALTON, Thad P, "Comparison of Overall Economic Performance in the East European Countries". In: NATO, The Economies of Eastern Europe under Gorbachev's Influence, Reiner Weichhardt (Ed.), Brussels, 1988, pp. 26-47.
- ANDERSON, Kym. Will Eastern Europe and the Soviet Republics become Major Agricultural Exporters? Improving Agricultural Trade Performance Under GATT, Tilman Becker, Gray Andrew Schmitt, Ed., Kiel 1992, pp. 5-27.
- BUREAU OF AGRICULTURAL ECONOMICS, Agricultural Policies in the EC, Canberra, 1985.
- DICKE, Hugo, Josef Misala, Polish Agriculture and Food Processing Industry - Facts and Prospects, Kiel Working Paper No. 554, Kiel 1993.
- ; Hugo, Die Wirkungen strukturpolitischer Maßnahmen in der Ernährungsindustrie, Kieler Studien 144, Tübingen, 1977.
- FAO, Fertilisers Yearbook, Vol. 40, 1990.
- , Production Yearbook, Vol. 44, 1990.
- GATT Accord. Results of the Uruguay Rounds of Multilateral Trade Negotiations, ed. by K.R. Gupta, New Delhi 1994.
- , International Trade 1989-90, Vol. II, Geneva 1990.
- HEITGER, Bernd, Klaus Schrader and Eckhardt Bode, Die mittel- und osteuropäischen Länder als Produktionsstandort (The Central and East European Countries as a Location for Production). Kieler Studien, 250, Tübingen 1992. (1991).
- INTERNATIONAL MONETARY FUND, The World Bank, OECD, EBRD, A Study of the Soviet Economy, Vol. 3, February 1991.
- JOINT ECONOMIC COMMITTEE, Pressures for Reforms in the East European Economies. 101st Congress, 1st Session, Washington 89.
- KWIECINSKI, Andrzej Prospects for Poland's Agriculture Integration with the European Union. PPRG Discussion Papers, Polish Policy Research Group Warsaw University, No. 31, Warsaw 1994.
- LANGHAMMER, Salient Features of Trade Among Former Soviet Union Republics, Kiel Working Paper, No. 496, October 1991.
- OECD (a), Agricultural Policies, Markets and Trade. Monitoring and Outlook 1994, Paris 1994.

OECD, (b), Agricultural Policy Reform: New Approaches. The Role of Direct Income Payments. Paris 1994.

SAEPR, Polands Trade in Agricultural Products in 1992-1994. Warsaw September 1994.