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Agriculture of the Czech Republic, Hungary and Poland in Perspective of Joining Common Agricultural Policy – with Some Fiscal Remarks

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Abstract

This paper discusses problems connected with the accession of Central European Countries (CECs) to the Common Agricultural Policy (CAP). A lot of attention is given to the analysis of the agricultural situation and prospects in the Czech Republic, Hungary and Poland. Also the evolution and the future of the CAP itself is broadly presented. Since the agricultural accession of CECs to the CAP will have an impact not only on the situation in the agricultural sectors in these countries but also on their overall economic situation, therefore some fiscal consequences are discussed in the end.

The CECs problems with agriculture concern mainly the lack of modernisation (know-how), efficiency, and structural changes. The EU also has problems with agriculture. It is too costly – due to the high level of protection and overproduction (connected with storage of the costly surpluses) – and unequally developed (there are big differences in rural development among the Member Countries). The accession may, to some extent, solve CECs' and EU's problems with agriculture, but under the condition, that the CECc will get ready to join the CAP structures, as much as it is possible. Therefore, generally, the pre-accession policies in the Czech Republic, Hungary and Poland should focus on investments in rural development and employment reductions since these policies guarantee improvement of agricultural productivity and improvement of agricultural to non-agricultural income ratio (which are the most desirable goals). It should be remembered, however, that the changes in agricultural sector need usually more time than the changes in other sectors so the agricultural accession of CECs to the CAP should come after the agricultural reorganisation. The pre-accession changes in agriculture will be co-financed by the EU.

As far as budgetary effects are concerned, the pre-accession agricultural aid from the EU has little or no direct budgetary effects for the applicant countries. After the accession, the budgetary outflows from national CECs budgets to CAP will exceed budgetary inflows from CAP. This is because transfers from Member Countries to CAP come from national budgets but transfers from the CAP mostly do not come through the central national budgets but they are directed to the national *paying agencies*.

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1. Introduction

The CEECs assimilation into the CAP is a little bit easier now than it was before the latest CAP reform of March 1999. The Member States eventually accepted the financial framework for 2000–2006 and set the directions for the development of the CAP over the next few years. Since then, the CAP is no longer a moving target for CEECs. Annual transfers for the new members became clear as well as the priority area in the future agricultural perspectives. The main instrument of the CAP – price supports – which have raised most EU prices above the world level (leading to overproduction and highly subsidised exports), have gradually been replacing by direct payments. Rural development has become more and more significant, and now it is the second pillar of the CAP.

The most important external pressures for the latest CAP reform came from such indicators as: the upcoming round of World Trade Organisation negotiations, U.S. economic and political pressure on EU trade, the uncertainty over future the extension of the EU for new Member States. Apart from that, CAP reform was also conditioned by an internal set of pressures. First, the budget costs of the CAP needed to be controlled by an overall budget constraints, second, the CAP needed to be forced to broader rural and social aims such as environmental, health and distributive objectives.

If we compare the possible accession of the Czech Republic, Hungary and Poland (CEC-3) with the previous ones, we see that it is not so "untypical" as sometimes is stressed. In terms of population growth, it would be very similar to that of the accession of Greece, Spain and Portugal in the 1980s (see Table 1). Population growth would be even smaller (59.1 million or 15,9%) than after the accession of the UK, Ireland and Denmark in 1973 (64 million people or 31%). Also the increase in agricultural area after accession of CEC-3 would not be a revolution since after the accession in 1973 and in the 1980s these indicators grew twice as much as they would in the case of CEC-3. Farm population would rise by 4,6 million, which is comparable to the accession of Greece, Portugal and Spain, but much different from previous accessions. The largest difference, however, would be in the welfare of CEC-3 in comparison to the EU, since GDP per head is on average 58% lower than in the EU (see Table1).

The main goal of this paper is to present the problems connected with accession of the Czech, Hungarian and Polish agriculture to the Common Agricultural Policy (CAP). The first part of this paper is of an informative character and describes the CAP history, instruments and mechanisms. There is also a short review of literature on the CAP enlargement. Part Two presents the current agricultural situation in CEC-3 with

comparison to other CEC considered as first-wave countries [1] (Slovenia, Estonia) and to the EU-15. Part three considers some fiscal consequences of joining the CAP for the Czech Republic, Hungary and Poland as well as for the EU-15. The last chapter tries to sum up the conclusions derived from the previous sections.

2. Common Agricultural Policy

2.1. Literature Review of the CAP Enlargement over CEECs

The economic literature broadly disputes the problems connected with the potential membership of the CEECs in the European Union, and particularly stresses the issue of agricultural policy in view of its costs for an extended EU.

There are significant differences among economists in estimating the costs of extending CAP to e.g. Visegrad- 4: Poland, Czech Republic, Hungary and Slovak Republic [2]. The lowest estimate for the Visegrad-4 reaches ECU 4 billion per year [Brenton and Gros, 1993] [3] while the highest reaches ECU 37 billion per year [Anderson and Tyers, 1993] [4], see Table 1. However, we should remember that these early analyses showed the possible effects of the Pre-Agenda 2000 CAP on agricultural markets and budget. They poorly describe the possible future effects because the CAP has already changed. What is more, they based their calculations on quantities and prices, which have already changed very much. The price gap between the EU and CEEC decreased substantially over the last 5 years (see Figure 3 in Chapter IV).

Further works, written after the Agenda 2000 proposal (from 1997 on) compares accession effects related to the reformed CAP, works by Munch and Tangermann (1998), Banse and Münch (1998) and Münch 1999. I would like to describe more precisely the last work of Münch, which as one of the latest works devoted to the subject of our interest.

– Munch's (1999) paper focuses on the market and budgetary effects of the CAP accession for five CEC, i.e. the Czech Republic, Estonia, Hungary, Poland and Slovenia (CEC -5). He uses in his study the European Simulation Model (ESIM). It was developed in co-operation with Josling and Tangerman and first used in Tangerman and Josling

[1] Countries, which may first enter the EU.
[2] Baldwin R., Francois J., Portes R., (1997).
[3] Brenton P .and Gros D., (1993).
[4] Anderson K. and Tyers R., (1993).

(1994). It has been further developed in Tangerman and Münch (1995), Münch (1995) and expanded in country coverage by Münch (1997). The analysis of effects of a future CAP on the five acceding countries of Central Europe is comprised of five scenarios:

– MEMBER scenario assumes that although CEC-5 are in the EU, at first they do not participate in the Common Agricultural Policy.

– In the AGENDA scenario, the CEC-5 are assumed to be integrated into the CAP and the Single Market in 2003. In that year a complete alignment of policy prices, tariffs and other measures takes place. Therefore all CAP measures apply to the Central European members except direct payments. Quotas for sugar and dairy products and export measures on the pork, poultry and egg sector are defined in such a way that WTO export competition constraints are met.

– The third scenario (AGENDA+DIR) assumes that the CEC-5 will become eligible for direct payments for dairy and beef cattle as well as for arable crops. The cattle payments take into account the constraints arising from the small producers (90 animals per enterprise) and the constraints for dairy cow numbers arising from the milk quota.

– In the above scenarios technical progress is based on conventional rates such as 2.3 percent p.a. for corn yields. The scenario AGENDA+DIR +TP varies this assumption and set the yearly rates 50 percent higher beginning in 2006. A possible recovery of yields in CEC is very likely especially for crops and intensive livestock production. This development may be caused by increased investments due to a better availability of capital, lower risks on markets due to improvements, e.g., in contracting and increasing competition in the downstream sector and structural change.

– The last scenario AGENDA+DIR+NQ varies the applied policies for the sugar and the dairy sectors. The Agenda proposal does not include the sugar regime, which consequently remains one of the most protected crops in the CAP. Moreover, the question of future milk quotas after 2006 is still open. This scenario analyses the effects of lifting the quotas.

As far as budget implications are concerned, ESIM generates projections only for net expenditure on trade measures, i.e. export subsidies minus tariff revenues, as well as compensatory payments. To make the model results comparable to EAGGF, guarantee spending conversion factors have been applied to include spending for administration and storage. The results are summarised in Figure 1.

Government spending for CEC, in the MEMBER scenario, gradually raise the base value to EUR 2.5 billion in 2013, which is a result of growing net exports and increasing protection due to appreciating real exchange rates – explains Münch. Integration into the EU under the AGENDA scenario in 2003, i.e. without direct payments, would result in EUR 3 billion spending in 2013. It is only EUR 500 million more than the expenditure expected from national policies – MEMBER scenario.

The complete introduction of the Agenda 2000 measures in AGENDA+DIR increases the costs to close to EUR 10 billion by the end of the simulation period. The largest part of the spending falls on direct payments for arable area. The spending in AGENDA+DIR+TP is only somewhat higher if technical progress is 50 percent higher than in the other scenarios. This is different in the AGENDA+DIR+NQ scenario, in which the milk and sugar supplies are able to freely expand and react to price developments. In this case, expenditure would amount to EUR 15 billion.

Münch also estimates in his work the expenditures from the EU in the CEC-5 in 2006 under the AGENDA+DIR condition. The two small agricultural countries Slovenia and Estonia have a share of less than 2 percent of total EU spending. A larger share goes to the Czech Republic and Hungary. 60 percent of the expenditure for agricultural policies, however, falls on Poland, which has the largest agricultural sector, the largest amount of arable land and cattle and a large share of higher protected commodities in total productions (see Figure2).

As far as guarantee spending is concerned, Münch shows that under the AGENDA +DIR scenario the highest flows will be to Poland. The Czech Republic and Hungary will receive less export refunds and storage aids. Hungary, according to Munch, is an interesting case. It is the only net agricultural exporter of the five countries with a high share of net exports in production. However, exports are comprised mainly out of wheat, corn and oilseeds which, are less protected commodities under Agenda conditions. Hence, according to Münch, despite its large exports, the need for export refunds will be relatively low. Poland on the other hand has the highest protection among the CEC, i.e. its production structure is dominated by highly protected commodities. Therefore, those products, which are exported from Poland outside the EU will receive relatively high export refunds (see Figure 3).

It should be remembered that Münch presents here only one side of the story, as he shows the transfers from the EU budget to the CEC-3. In Chapter IV of this paper, the author will try to show the nature of the transfers going in both directions: from the EU to the CEC-3 and vice versa. At the end, the net transfers will be discussed, which will give a better idea about the reality of agricultural transfers.

2.2. CAP from Historical Point of View

At the time of the signing of the Treaty of Rome (25 March 1957) many people in the original six (Belgium, France, Netherlands, Luxembourg, Germany and Italy) were dependent on farming as their main source of income. Almost 25% of the total labour force were employed in agriculture and average agricultural income in the three largest

countries: France, Germany and Italy, was only about half of the income of other occupations [5]. At the time, approximately two-thirds of farm holdings were only between 1 and 10 hectares in size, the productivity was low and the share of agriculture in GNP was also low (see Table 2 and Table 3).

2.2.1. Old CAP

The plans for the creation of a common agricultural market were set out in the 1960s, at a time when Europe was in deficit for most food products. The Treaty of Rome, signed in 1957, by the European Economic Community (ECC) foresaw the creation of the Common Agricultural Policy, the mechanisms of which were devised to address this problem. In essence, they supported internal prices and farmers' incomes, either through intervention and/or border protection or, where no border protection existed, by variable aids to food producers.

The Objectives of the CAP

The first objectives of the CAP were clearly defined in Article 39 of the Treaty as follows:

– to increase agricultural productivity by promoting technical progress,
– to ensure a fair standard of living for farmers,
– to stabilise agriculture products markets,
– to guarantee a stable food supply at reasonable prices for consumers.

The objectives were established in a broader form a year later, after the Stresa conference (in 1958), but, generally, they were in the spirit of the Treaty:

(i) to increase farm incomes not only by a system of transfers from the non-farm population through a price support policy, but also by the encouragement of rural industrialisation to give alternative opportunities to farm labour;

(ii) to contribute to overall economic growth by allowing specialisation within the Community and eliminating artificial market distortions;

(iii) preserving the family farm and (...) ensuring that structural and price policies go hand in hand.

The CAP Price Support Mechanism

The CAP machinery was developed gradually and did not apply to every product. The main goal was to guarantee the farmers' income support by regulating the market so as

[5] El-Agraa Ali M., (1990).

to reach a price high enough to achieve this objective. The domestic price was partly maintained by various devices, which prevented cheaper world imports from influencing the EC domestic price levels. However, in addition, certain steps were taken for official *support buying* within the EC, so as to eliminate from the market any actual excess supply that might have been stimulated by the *guaranteed price* level.

More specifically, the basic features of the system can be represented by that one, which originally was devised for cereals – the first agricultural product for which a common policy was established (see Figure 4).

A *target price* was set on an annual basis and was maintained at a level which the product was expected to achieve on the market in the area where cereal was in shortest supply – Disburg in the Ruhr Valley. The target price was not a producer price since it included the costs of transport to dealers and costs of storage. The target price was variable, in that it was allowed to increases on a monthly basis from August to July in order to allow for storage costs throughout the year.

The *threshold price* was calculated in such a way that when transport costs incurred within the EC were added, cereals collected at Rotterdam should have sold at Disburg at a price equal to or slightly higher than the target price. An *import levy* was calculated on a daily basis and was equal to the margin between the lowest priced consignment entering the EC on the day – allowing for transport costs to one major port (Rotterdam) – and the threshold price. This levy was then charged on all imports allowed into the EC on that day.

As long as the EC was experiencing excess demand for this product, the market price was held above the target price by the imposition of import levies. If target prices resulted in an excess supply of the product in the EC, *support buying* was necessary. A basic *intervention price* was then introduced for this purpose. This was fixed for Disburg at about 7% or 8% below the target price. Similar prices were then calculated for several locations within the EC on the basis of the costs of transport to Duisburg. National intervention agencies were then compelled to buy whatever was offered them at a relevant intervention price. The intervention price was therefore a minimum guaranteed price. Moreover, export subsidies were paid to EC exporters. This was determined by the officials and was influenced by several factors (world prices, amount of excess supply, expected trends etc.) and was generally calculated as the difference between the EC intervention price (p2) and the world price (pw).

Origins of Financing the CAP

In order to finance the agricultural policy the Treaty provided for a common fund – the European Agricultural Guidance and Guarantee Fund (EAGGF). Since it came into existence, it has been the biggest single item in the Community budget. The supervisory body, the Court of Auditors, controls proper use of the financial

resources. The EAGGF's resources are provided jointly by the Member States, irrespective of who will benefit most from the expenditure on agriculture. The EAGGF is a part of the general Community budget, the financing of which is essentially determined by the economic performance of the Member States. This financial solidarity between rich and less rich Member States is one of the Community's basic principles. It is a condition for a greater degree of economic and social balance within the Community. In addition to national financial contributions to the Community budget, there is also revenue from customs duties levied by the Community on imports from non-EC countries. The common agricultural policy itself also provides revenue, in the form of duties on farm trade and the sugar levy. These are also entered in the Community budget as own resources.

At the time of the inception of the CAP it was expected that the revenues collected from the imposition of extra area import levies would be sufficient to finance EAGGF. Since then, the rapid rise in agricultural output has led to a reduction in EC imports and therefore to a reduction in receipts from levies. In addition, the costs of the support system have increased beyond expectation. Thus the EC found it necessary to make provision for direct budgetary contributions from national governments. For example in the financial year 1992 the budget amounted to around ECU 60 billion (about $71 billion), of which agricultural expenditure accounted for about 58%. The revenue from agricultural levies was ECU 1.98 billion, approximately 3.3% of the total budget revenue. The EC Council of February 1988 decided that the annual growth rate of EAGGF guarantee expenditure should not exceed 70–80% of the annual growth rate of EC GNP. This was introduced as a stabiliser on agriculture.

2.2.2. Reforms of the CAP

The first decade of the CAP was considered in the EEC as a great success: between 1962 and 1972 agricultural production grew, the European Union of Six reached self-sufficiency and consumer prices stayed at a reasonable level. However, since 1968, and later in 1972, it was more emphasised that market supports by themselves would not solve the agricultural problems and that the expenditure on structural aspects of the CAP should be much increased. In April 1972 the first reform of the CAP was implemented, the so called the Mansholt Plan dealing with:

– modernisation of farms,

– measures to encourage the cessation of farming and the reallocation of utilised agricultural area,

– the provision of socio-economic agriculture,

– farming in less favourable areas,

– marketing of agriculture produce.

From the mid 1970s, surpluses started to appear in the Community's production, which neither the internal market nor outlets on the world market could absorb. This resulted in increasingly higher levels of agricultural expenditure. The system, which corresponded well to a deficit situation, revealed a number of deficiencies as the Community moved into surplus for most of its agricultural products. These deficiencies can be analysed briefly as follows:

– The prices and guarantees provided through intervention and production aids stimulated output at a rate increasingly beyond the market's absorption capacity; between1973 and 1988, the volume of agricultural production in the EEC increased by 2% per annum whereas internal consumption grew by only 0.5% per annum.

– This led to the build-up of costly surpluses in certain sectors, which had a depressing effect on market prices.

– In addition, tension grew in EU relations with certain trading partners annoyed at the perceived impact of EU subsidised exports on their world market share and the world price.

– In certain regions, intensive production was creating negative environmental effects.

– The system was not taking adequate account of the agricultural incomes of the vast majority of small and medium-size family farms.

– The CAP failed to achieve any progress on the structural aspect of encouraging farmers to seek alternative occupations.

– The CAP has had the effect of making the prosperous farmers richer, but has not helped the poorer farmers.

– Finally, the policy failed to provide reasonable prices for consumers.

In short, by the late 1980s, there was a general agreement that reform was necessary. The CAP structure, which was suitable for the 1960s and operated well in the 1970s, showed serious weaknesses in the 1980s. To face these problems the second CAP reform was introduced in 1998, the "Delors Package". This package covered:

– Budgetary discipline – limits for agricultural expenditures.

– System of agricultural stabilisers – limits for production levels which come within intervention buying.

– Reform of structural funds (also the EAGGF Guidance section).

The impact of this set of measures proved to be too small, and it was therefore necessary to devise a more radical policy for the 1990s.

In June 1992, the European Union Council of Agriculture Ministers formally adopted

the most radical reform of the CAP in its history. This was the so-called Mac Sharry reform. Essentially, it involved a significant redirection of Community farm policy:

1. To ensure the competitiveness of Community agricultural production, EU prices in the arable and beef sector, over a three years period, were reduced to become closer to world market levels (minus 29% for cereals, minus 15% for beef).

2. To preserve the viability of farmers, they receive compensatory payments on an historical basis for the reductions in EU support prices.

3. In the case of cereals and other arable crops, payment of compensation is in general dependent on the withdrawal of land from production (the "set-aside" premium). This has proved an effective production control tool. Payments are also linked to the respect of historical regional base areas and historical field.

In the beef sector, compensatory premium payments are subject to individual or regional ceilings and are paid on the basis of a maximum stocking rate per hectare. Additional premium is payable when the stocking rate is less than 1.4 livestock units per hectare. This gives strong encouragement for the extension of production methods.

4. An important innovation in the new CAP are the accompanying measures, which cover agro-environment, afforestation and early retirement measures. These schemes have opened up new opportunities for farmers, while providing a response to environmental and structural problems within the EU (see Box 1).

2.2.3. CAP Directions for the Future

CAP reform covered about 75% of Community agricultural production. The evaluation of the reform was presented by the European Commission in its formal report named "Agenda 2000". The results of the reform were, on the whole, encouraging:

1. In the key *cereals* sector, market balance has been restored. Public stocks have been reduced from around 30 million tons in the course of 1993 to less than 3 million tons at the end of the marketing year 1995/1996.

2. EU cereals have become more competitive on the Community market. Experts estimated that usage by the animal feed industry in the EU have increased by 12 million tons (between 1992/93 and 1995/96) [6].

3. The prices of community products were approaching world prices.

4. The control of production was achieved due principally to the set-aside instrument. This flexible market management tool has permitted rapid and flexible reaction to market

[6] In contrast to a market loss in the 1976–1993 period of 1 to 2 million tons a year.

developments. The reform was also positive in terms of reduction in use of pesticides and fertilisers.

5. EAGGF-Guarantee expenditures became more manageable and easier to forecast.

6. Average EU farm income increased by 4.5% between 1992 and 1996.

7. Consumers have been able to benefit from lower prices.

8. The reform of 1992 was also undertaken to respond to very serious internal problems in the European Union. However, the radical reforms of 1992 also enabled the EU to comply with its obligations under the Uruguay Round GATT Agreement, which was signed on 15 April 1994. This was a far-reaching multilateral agreement, which also covered all farm products. This reciprocal agreement requires a 20% reduction in domestic support for agriculture over a six-year period, a reduction of 36% in budget spending on export subsidies and a 21% cut in the quantity of subsidised exports.

Although the Agenda 2000 report positively valued the Mac Sharry reform it also underlined the necessity of further changes in CAP:

(...) The 1992 reform of the Common Agricultural Policy has been highly successful. But the time has come to deepen the reform and to take further the movement towards world market prices coupled to direct income aids. Several reasons militate for such an approach: the risk of new market unbalances, the prospect of a new trade round, the aspiration towards a more environment-friendly and quality-oriented agriculture, and last but not least the prospect of enlargement. At the same time, there is a growing need for a fully-fledged rural development policy (...).

The European Commission in its "Agenda 2000", highlighted the need for a further evolution of the CAP, by developing the approach successfully started by the 1992 reform. The need for the reform was explained by various elements "foremost internal in nature".

– First, the current level of prices in the Union is still too high. If it is not corrected, the consequences will be in the form of growing surpluses and, consequently, intolerable costs. The Union will gradually lose its position on both the world and internal market, not only in agricultural products but also in processed goods. This would have an adverse effect on employment as well.

– Second, the CAP has had a number of negative effects, which have only been partially corrected by the 1992 reform. The support it provides is distributed unequally and is concentrated on regions and producers who are not the most disadvantaged. This is having negative effects on regional development planning and the rural community, which has suffered badly from the decline in agricultural activity in many regions. At the same time, other regions have seen the development of

excessively intensive farming practices, which are often having a serious impact in terms of the environment and animal diseases. "*An agriculture which pollutes, which contributes inadequately to development and protection of the environment, and which, because of its undesirable practices, must take its share of responsibilities in the spread of animal diseases, has no chance of long-term survival and cannot justify what it is costing*"

– Third, the current way the CAP operates was designed for the Community of six and has been not changed too much since then. It is not suited to a Union of fifteen, which welcomes new members. It causes more complexity, bureaucracy and a lack of understanding among farmers about how it works.

These internal factors, which would be enough to justify reforming of the CAP, were even strengthened by external challenges:

1. The first big challenge lies in continuing to adapt EU agriculture to an increasingly competitive international context characterised by further moves towards trade liberalisation. New multilateral trade negotiations will start in 1999 at the second stage of the Uruguay Round. The Union has to cut border protection, reduce export subsidies and reshape internal support instruments. There is also a need to introduce environmental and social standards at the international level and to take consumers into account.

2. The second big challenge refers to EU enlargement to the Central and East European countries, which could potentially add over 100 million consumers, whose average purchasing power is one third of that of the current consumers in the Union. Agricultural area would be expanded by 50% and the agricultural labour force would at least double.

These are the reasons why all agreed that the CAP must be reformed. This means an extension of the 1992 reform through further shifts from price support to direct payments, and developing a coherent rural policy to accompany this process. Therefore the Commission proposed among others the following measures:

Competitive Prices, Reliable Incomes and Decentralizations

Product prices will be brought closer to world prices, but to offset this price decrease, farmers will receive compensation in the form of direct payments. Direct aids are more linked to environmental indicators than in the past. The decentralisation policy offers Member States and regions greater field to deal with certain local issues themselves. The following technical adjustments are proposed:

– Lower institutional prices in the beef, dairy product and cereal sector (by 30%, 10% and 20% respectively) [7].

– A strengthening of the direct compensatory aid system for agricultural land and livestock; the maximum amount of direct income support a farm can receive will be fixed in a fairer way.

– A revision of the mechanisms for awarding compensation in sectors with diverse production methods like beef and dairy sectors.

– Specific measures in favour of young farmers and mountainous regions.

Rural Development: a Second Pillar of the CAP

A very important issue for Europe's agricultural policy will be maintaining lively rural areas and developing its special resources. The proposed reform will:

– Simplify the present situation by creating a single framework of measures for rural development.

– Increase the resources devoted to the environment.

– Establishes rural development as the second pillar of the CAP.

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[7] 1. Cereals sector:

– The cereals intervention price should be lowered in one step from the level of 119.19 ECU/ton to 95.35 ECU/ton in 2000 (i.e. by 20%)

– A non crop specific area payment is established at 66 ECU/ton (multiplied by the regional cereals reference yields of the 1992 reform); this payment will be lowered if the market prices are sustained at a higher level than currently foreseen;

– Set aside: the reference rate for compulsory set-aside is fixed at 0%, voluntary set-aside is allowed, extraordinary set-aside is abolished; set-aside areas get the non crop specific payment;

– Silage cereals (mainly silage maize) are excluded from the regime;

– For protein crops a supplementary aid is established at a level of 6.5 ECU/ton in order to preserve their competitiveness with cereals; for durum wheat the present supplements are maintained.

2. Beef regime:

– Effective market support should be gradually established at a level of 1 950 ECU/ton (from 2 780 ECU/ton), over the period 2000–2002. It should be possible to stabilize market prices around or above this level through border protection, export measures and the introduction of a private storage regime, as already exists for pig meat;

– Direct income payments should gradually increase and should be still paid per head of cattle. In permanent regime, they would reach the following level (the present level is mentioned in brackets): Suckler cow (yearly payment) 215 ECU (*145 ECU*), Male bovine bull (one payment) 368 ECU (*135 ECU*) steer (two payments) 232 ECU (*109 ECU*), Dairy cow (yearly payment) 70ECU *no premium*.

3. Diary regime:

– extend the quota regime up to 2006;

– improve flexibility and simplify the present common market organization;

– gradually decrease support prices, by an average of 10% in total over the period;

– introduce a new yearly payment for dairy cows adjusted to average yield, at a level of 145 ECU.

A Reform Involving the Member States

– Member States will be able to regulate the aid granted to farms according to criteria (defined by the Member State) linked to employment on the farm. The savings made may be use by Member States as additional finance for agri-environmental measures.

– Member States will have the legal powers to restrict direct aid payments to those farmers exercising a predominantly agricultural activity.

– The Member States need to ensure that the environmental issues will be obeyed. If they fail, it could result in a reduction or discontinuation of direct aid.

23–24 March 1999 the Council of Ministers debated on the Commission's proposals underlined in Agenda 2000 related to agriculture. Eventually, after very long and difficult talks (because of many conflicts of interests), the Council has reached a global agreement on the reform of the Common Agricultural Policy. The Agreement fully endorses the philosophy and objectives covered in the Commission's – accepted the detailed proposals as far as the price reductions and compensatory payments are concerned. Certain adjustments have been made to the method of compensation to take account of Member States priorities and diversity of production systems. In summary, the decisions includes a reduction in intervention prices for diary products (butter and milk powder) of 15% but starting from 2004; a reduction in cereals intervention price by 20% but in three steps starting from 2000; oilseed aid per hectare is to be aligned to that of cereals in 2002; the basic price of beef is lowered by 20% (to EURO 2224/t), while intervention is maintained only as a safety net at 1560/t. Farmers' incomes are supported through a series of direct payments.

2.3. CAP Instruments

The CAP is implemented by Common Organisation of the Market (COM) and financed by the European Agricultural Guarantee and Guidance Fund (EAGGF).

Common Organisation of the Market removed obstacles to intra-Community trade and created common protection at frontiers. The need for organisation of the common market was mainly because the EEC Member States were differently organised at national levels. Indeed, almost all States intervened in one way or another to ensure the income of their farmers and stable supply for their consumers but the systems of intervention varied from one country to another. They can be divided into two main categories: direct income aid systems for farmers, which existed in the UK before its

entry to the Community, and the system of price support on the internal market combined with external protection. The later represented 80% of the total public support to agriculture in the OECD countries and was chosen for the needs of EEC's agriculture. In fact, the *direct income aid* system was not adapted to the interest of the Community, because it seemed to be more expensive than the *price support system* at that time. Under the former system, agricultural products would have to be imported at world prices, generally low, and the income of national farmers would have to be topped up by a subsidy from the budget. Instead the system of price support was implemented as it helped to realise the main objectives of CAP in a less expensive way. Under such a system, to provide national farmers with sufficient income, internal prices which were higher than world prices for agricultural products were practised and the difference was compensated by import levies or custom duties and by export refunds. As Europe was at the beginning a net importer of food, the income from import levies was greater than expenditure on export subsidies, so the policy was quite affordable at the beginning. The higher prices stimulated agricultural output and productivity. They also tended to guarantee self-sufficiency in basic agricultural products and foodstuffs, which was another point in their favour. If they were set too high, however, they could naturally lead to production surpluses, which was a negatiev point and which is what happened.

The Common Organisation of the Market (COM) takes different forms according to the production and selling conditions of the different products. Based on a single market, it guarantees prices for more than 60% of agricultural output. There are four main types of COM:

1. Direct aids to producers linked to factors of production such as land and livestock. Aid is based on reference periods and on the existence of production control mechanisms. This type concerns: cereals, oilseeds, protein crops, sheep meat and beef.

2. Assistance that is proportional to production levels. It covers: olive oil, tobacco, cotton, certain processed fruit, and vegetables such as citrus fruits, tomatoes and prunes, and to a certain extent, table wine.

3. Income support for producers of dairy products and sugar.

4. The fourth type allows the market itself to adjust to fluctuations in supply and demand with little intervention. This applies to fruit and vegetables, quality wines, pig meat, poultry meat, eggs and honey.

The European Agricultural Guarantee and Guidance Fund (EAGGF) is made up of two sections: the Guarantee section and the Guidance section.

The Guarantee Section finances Community expenditure under the policy on prices and markets, including CAP reform compensatory payments and the accompanying

measures. To this section goes the greater part of EAGGF about 90% (see Figure 5) of which 70% is spent on direct payments to farmers. Management of expenditure in the EAGGF's Guarantee Section is anchored in a system of advance payments to the Member States, with annual clearing of accounts. The funds are finally acquired by the Member States after an audit of compliance of their expenditure with the Community rules.

While the Guarantee Section is the consequence of market policy, the Guidance Section is of structural policy. It contains the Community resources allocated to the structures policy, such as aids for the modernisation of holdings, the installation of young farmers, aids for processing and marketing, diversification and so on. It should be mentioned that, together with the European Region Fund and the European Social Fund, it also finances rural development actions. Planning and execution of these measures is fairly decentralised, in co-operation with the individual Member States or regions, and the principle of co-financing applies. The Guidance Section's share in the total farm budget is usually 10% (see Figure 5). It is also interesting to note the breakdown of the Guidance Section by objectives. The EAGGF Guidance Section contributes to the following four objectives: Objective 1 (regions whose development is lagging behind), Objective 5a (agricultural structures in all regions), Objective 5b (rural development in certain limited areas), Objective 6 (Nordic regions), see Table 4.

Budgetary Procedure

Total agricultural expenditures, as well as its allocation among the various products and measures, are decided by the Council of Ministers and the European Parliament (under the general budgetary procedure). These procedures were strengthened under the inter-institutional agreement of 29 October 1993 agreed by the European Parliament, Council and Commission, the purpose of which is to implement budgetary discipline and to improve the functioning of the annual budgetary procedure and co-operation between the institutions on budgetary matters. This agreement renewed the European Council (Heads of State) accord on budgetary discipline of February 1988 which provided for a ceiling on agricultural expenditure, so as to link it to trends in the gross domestic product (GDP) of the European Union. Control of agricultural expenditure is therefore a key objective of EU policy. It is to be noted that, as a proportion of the EU budget, EAGGF is on a downward trend – from 70% of the total EU budget in 1980 to around 48% in 1995. Each year, a preliminary draft budget from the Commission states expected requirements. All new decisions and proposals, which form part of farm policy, are examined as to their financial implications, but it is not always possible to avoid a gap between appropriations voted and actual requirements. Production trends in the Community, world market prices and exchange rates cannot be forecast precisely.

Rural Development

Since the mid-1980s, the European Union has been focusing to an increasing extent on the development of rural areas, over and above the agricultural economy. The aim is to meet the challenges posed by the depopulation and abandonment of many such areas. The Treaty on European Union, which came into force in 1993, mentions rural areas specifically in the context of economic and social cohesion, i.e. the Union's policy of assisting the peripheral, lesser-developed regions to catch up with the central, more highly developed regions of the EU. In the period 1994–1999, one third of the EU budget – ECU 141 billion (at 1992 prices) – was devoted to this policy of economic and social cohesion.

Concerning rural development, the principal objective is to maintain viable rural communities. A competitive agriculture is essential to this process. In addition, however, diversification of the rural economy is a key element; in this context, the Community is concentrating on developing small and medium-sized businesses, exploiting new technology in favour of rural areas, rural tourism and so on. Access to services the protection of the environment and appropriate training are further important priorities. For the 1994–1999 period, the scope of EU measures was broadened in favour of rural development, and includes:

– provision for encouragement of tourist and craft investments,
– renovation and development of villages,
– protection and conservation of rural heritage,
– protection of the environment, maintenance of the countryside and restoration of landscapes.

3. Agricultural Situation in the Czech Republic, Hungary and Poland

3.1. Agriculture in the National Economies

The Czech Republic's relative size of agriculture is much smaller than in Hungary and Poland and hence it is the most comparable to the EU average. The agricultural area in 1997 was 4.3 million hectares, which was 54.3% of the total area. The contribution of agriculture to GDP was 2.9% and share in total employment 4.1% (see Table 1). Those two latter measures, the share of agriculture in GDP and the share in employment, have been subsequently decreasing.

The total number of persons employed in agriculture (including self-employed) dropped by more than half from 533 000 in 1989 to a little over 200 000 in 1997, about half of which are still in the agricultural co-operatives.

While the share of agro-food import in total imports has remained stable at around 7% in recent years, the share of the agro-food export in total exports has tended to decline. The balance in agro-food trade has shifted from a surplus in the first transition years as surplus production was disposed of, to a rapidly increasing deficit in the latest years.

Agriculture is the biggest land user. Of the total area of 7.9 million ha over half is used for agricultural purposes and a third is covered with woods. Agricultural area has remained fairly stable.

In Hungary agriculture is of major importance to the national economy. The agricultural area amounts to 6.2 million hectares, and covers 66.5% of total land. It ensures the domestic food supply, is an essential provider of employment, and an important contributor to Hungary's foreign exchange earnings. In 1996, agriculture and forestry accounted for 3.8% of Hungary's GDP and employed 8.2% of the working population. Agricultural employment is higher than the EU average, which was 5.1% in 1996, but it has bees on a downward path since the beginning of transformation. In 1990 it was 17.5% of total employment and in 1997 less than a half of that, 7.9% of total employment (see Table 1). This made Hungarian agriculture comparable to those of some Member States e.g. Greece for the share in GDP and Spain for the share in total employment. Between 1990 and 1991, agriculture and the food industry have been affected by a change of enterprise classification between sectors, which partly explains the cut in the share of agriculture together with a steep increase in the food industry's share. Another factor was the splitting-up of the co-operatives and state farms.

The recession 1990–1993 was worse for agriculture than for Hungary's economy overall: the cumulative fall amounted to – 31% for agriculture against, 18% for the whole economy. Recovery has been visible since 1994, and has been faster for agriculture than for the economy in general. However, in 1997, agriculture recorded a slight setback, while overall economic growth accelerated. The agricultural recession of 1990–1993 was mainly caused by: the collapse of traditional markets in the former Soviet Union; an unfavourable development of the terms of trade; the fundamental restructuring of land ownership; the reorganisation of farms; the immediate and delayed effects of abnormal droughts in 1992 and 1993.

The contraction of agricultural activity obviously resulted in a reduction of employment in the sector, in absolute and relative terms. Again this was particularly strong from 1990–93, when agriculture's share in employment fell from 18% to 10%.

The number of people registered in agriculture fell from 345 000 in 1994 to 298 000 in 1996, but their share within the working population declined less rapidly, from 9% to 8.2% of active labour force.

The agro-food sector is the only major sector in which Hungary is a net exporter. Over the period 1990–96, agricultural and food products fell from 25% to less than 20% of total exports but, while their share declined, they still represent an important and fairly stable source of foreign exchange earnings.

As for structure of agricultural output, the evolution of the crop sector between 1990 and 1993 was negative (except in 1991) and was visibly affected by the droughts of 1992 and 1993. A clear recovery has been seen since 1994, however. Over the same period, a real collapse of the livestock sector occurred as a consequence of structural reorganisation, decapitalization, quality problems and the droughts. As a result, crops are progressively dominating the livestock sector: starting from around 50 to 50 in 1990, towards 60/40 (it is 48 to 52 in the EU). Several factors could explain this trend towards crops: livestock rearing requires more investments; natural conditions in Hungary are largely favourable to crops; livestock production and consumption were artificially supported under the former political regime.

Agriculture in Poland also plays a significant role. The agricultural area reaches 18.5 million ha which is 59% of the total area. The contribution of agriculture to total GDP is still relatively high at an estimated 6% level in 1997 (see Table 1). Since the beginning of transition, agricultural recession has been caused by an unfavourable development of the terms of trade and later in 1992 and 1994 it suffered from drought.

The agricultural labour force holds a 26.7% share of the total employment (4.13 million farmers). However, this statistic, does not reveal the reality of farmers' employment. It should be remembered that in Poland everyone who has more than 1 ha of arable area is listed as a farmer, and can benefit from exemption in income taxes, preferable social security system (KRUS) and credit subsidies.

As much as 54%, of the 4.13 million farmers obtain their income mainly from sources other than agriculture (they live in rural areas but work full time in factories or part time in services). 31.2% of all agricultural households are not engaged in agricultural production and virtually lack contact with a real agricultural market, at most producing enough to sustain themselves. Thus, "real farmers" (which produce for the market) make up around 12% of the total employment. Only 31% of all agricultural households produce mostly for market purposes. It should also be taken into account, that among all employed in agriculture sector only 82.1% farmers are in productive age (18–64 for men and 18–59 for women).

The employment figures are inflated by a certain amount of underemployment and hidden unemployment in rural areas. During recent years, employment in agriculture has

grown bringing some people from urban areas. Nevertheless, there is no need to worry about hidden unemployment because it was already mostly revealed due the restructuring of the former state farms. All threats about a big emigration of Polish rural society to other countries are unreasonable. Even if the rate of unemployment in rural areas is underestimated, there are still many obstacles for such movement (low education, no command of languages, fear etc.). First, the migration should be visible from rural to urban areas in Poland but we still do not observe significant migrations from villages to cities. So it seems that problems with rural unemployment will remain a local Polish problem.

The difference between agriculture contribution to GDP and employment indicates a very low labour productivity in this sector.

There are 3,066,535 agricultural households in Poland (among them 2,035,664 are individual households) but only 700 000 live exclusively from the agricultural trade. Those households are mostly big (over 15 ha) and they cover fertile soil. There are also small households, which specialise e.g. in ecological food. All the same, 1.2 million households have no money income from agricultural activities or only a small part of the overall income. Therefore, they shouldn't be counted as regular agricultural households but as places of living or parcels of ground.

3.2. Farm Structures

The privatisation of Czech agriculture, which in the pre-transition period was dominated by very large scale collective (the "old" co-operatives) and state farms, has led to the emergence of three new forms of farming: the transformed coops, other companies (joint stock or limited liability) and individual farms (family or other).

According to the latest available data (CSO Agrocensus 1995, CSO Register of Firms 1996) still 43% of agricultural land is in hands of the newly formed co-operative farms (based on the pooling of the land and the assets of the individual members plus land and other assets of non-members). Although the average size has decreased from over 2500 ha in the pre-transition period to around 1450 ha, these farms in general show a conservative and reluctant attitude to further restructuring and are to a large extent still run as in the pre-transition days (see Table 2). A smaller number of the producer co-operatives have entered a second phase of reorganisation, restructuring ownership, management and the labour force.

The joint stock and limited liability companies, which have been created from the previous state farms and from property withdrawn from the former coops, farm about

32% of agricultural land on average 690 ha (compared to an average size of the former state farms of over 9000 ha). Although Czech farms generally have mixed crop and livestock production, the degree of specialisation is higher in this category of farms than in others. They produce more livestock because they are mostly derived from former collective or state enterprises, which specialised in animal production (pigs, poultry and eggs). Also recently the number of joint stock companies has been growing due to the so called second wave of transformation of coops aimed at the elimination of old debts and concentration of productive assets.

The remaining quarter of agricultural land is farmed by individual producers, often on very small plots of less than 3 ha, producing mainly for own consumption and local markets. Of the individual farms exceeding 3 ha, the average size is above 30 ha, with quite a number of larger farms of over 100 ha operating on leased land and with hired labour.

The reestablishment of property rights in agriculture through the restitution of state owned land and the transformation of coops has led to a fragmented ownership (much as it was in the pre-Communist era), but not necessarily to a fragmented use of land. Many farms operate on leased land, but most contracts are only short to medium term (1–4 years), inhibiting longer-term investment.

Still pending is the sale of around 500,000 ha of state owned land, which are held in portfolio by the Land Fund. For the time being the land (about a quarter of all farmland) is being rented out.

Privatisation of the 1,200 Hungarian collective farms is almost completed, but restructuring is still underway. Of the 120 state farms, the majority has been privatised, one third have been liquidated, and a quarter is still under state ownership (see Table 2).

As for land use, 1.2 million of individual farms use more than half the agricultural area (54%) and ensure nearly 60% of the output. Only 5% of these farms are full time holdings. Co-operatives and other corporate farms occupy respectively 28% and 14% of the land, and their joint share in output is estimated at 43%.

Privatisation and restructuring have resulted in a greater diversity in the legal status, size and ownership of agricultural holdings. A dual structure is still apparent, but between the large-scale farms (which have been down-sized) and the traditional very small holdings, new, medium-sized, commercial farms are gradually emerging.

Changes in farm structures in Poland are rather limited. The average farm size increased only by 12.9% over 8 years from 7.0 ha in 1988 to 7.9 ha in 1996. The number of individual holdings went down by 6% to a total of 2.04 million. The number of holdings between 1 and 2 ha even increased slightly. Medium sized holding up to 15 ha decreased in numbers and their share of land use (see Table 3).

There is a visible polarisation in the structure of holdings. Percentage of very small ones and very large increase, while medium sized holdings decrease in number and share of land use. This is partly due to the liquidation of state farms.

Official viewpoint of Ministry of Agriculture and Food Economy is that in medium term only 400 000 to 500 000 farms will be sustainable (22% of all holdings). Another study showed that only 20–30% of agricultural holdings could generate enough capital to expand. Yet given the strong cultural attachment to "small scale farming" in many areas, hardly anybody believes in significant changes in the size and number of small holdings.

Another obstacle, standing on the road to efficient cultivation of land is the fragmentation of farms into small plots. About 40% of farms are split into 4 or more plots and on 45% of farms, the furthest plot was more than 2 km away. Only 16.5% of farms own the land in one piece.

As far as the structure of land ownership is concerned, collectivisation in Poland was never seriously advanced (in contrary to Hungary and Czech Republic). Despite of attempts in the early 1950s farmers managed to resist this idea.

There were some state owned farms, however, mainly concentrated in the northern and western parts of Poland where they made up almost 40% of agricultural land use there (1990) in compare with the national average of 18%. Although most of this land is still state owned, much of it is now rented to private managers so that the land managed by the state sector is reduced from around 20% in 1989 to 7% in 1996. Average size of the state owned farms is greater than a total average size and amounted to 620 ha. Private farms dominate in Polish agriculture and are usually in the south and east of the country. In the south, agriculture is a part time occupation for many, unlike in the central and eastern parts of the country where non-agricultural income plays smaller role. The land used by private sector increased from 80% in 1989 to around 82% currently. Average size of the private farms is lower than total average and makes 7 ha (see Table 2).

The co-operatives, like the state owned farms were also concentrated in the Midwestern part of Poland. Around half of them were formed from land assigned by the state and the other half being specialised co-operatives based on private ownership cultivating only a small range of products collectively. The co-operative share in land use fell from 3.9% in 1989 to 3% in 1996.

3.3. Agricultural Trade

As far as the Czech Republic's trade is concerned, agro-food exports have stagnated, and imports have continued to rise in recent years, leading to a rapidly increasing deficit,

the largest part of which is with the EU. The EU is the Czech Republic's biggest trading partner with a share in Czech imports of around 50% and in Czech exports of around 35%, although with a declining tendency for both in the last three years. The EU is followed by the other CEFTA countries, in particular Slovakia which has a custom union with the Czech Republic and which absorbs about a quarter of Czech exports. Recently exports have shifted somewhat away from the EU towards other CECs and the NIS, which together take up 50% of Czech exports.

The main imported items are (tropical) fruit and animal feed, which together account for over 20% of imports, while the main export items are dairy products, beverages and oilseeds, which together account for 30 to 40% of export value. Exports of tobacco (products) have increased considerably in value, more than doubling in 1997 and overtaking beverages as the second largest export item. Trade with the EU tends to exhibit the same patterns (see Table 4).

Hungary is traditionally a net exporter of agricultural and food products. In the first years of transition, they accounted for 25% of total exports, for 7% of imports. In the past two years these shares fell, but agro-food exports still amounted to ECU 2.39 billion (during 1996–1997 on average) while the corresponding figure for imports was ECU 0.85 billion, giving a ECU 1.55 billion of positive balance (see Table 4). Despite the drop in agricultural production, agro-food exports since transition has remained above ECU 2 billion, except for 1993. As the contraction in domestic food consumption has been sharper than the fall in production, surplus quantities have been available for export. The Hungarian government has also given a political priority to maintaining or increasing agro-food exports.

In terms of value, meat, processed fruit and vegetables, cereals and wine together account for more than half of agro-food exports. On the import side, animal fodder ranks first, followed by tropical products and tobacco.

Hungary's main trading partner by far is the EU, with 47.4% of agro-food exports and 43.1% of imports (1996). Among the Member States, Germany is the principle trading partner, followed by Italy (for exports) and Austria (for imports). Then come the Newly Independent States, mainly Russia, on the export side only, with 20% in 1996. In 1996, the other CECs accounted for 16% of exports but for only 5% of imports. The share of these countries is increasing, while the EU's share is declining. In particular, exports towards CEFTA partners are rising steadily, and more rapidly than imports.

Polish agro-food exports and imports represented 13% and 9% respectively in 1997 of total exports and imports. The agro-food trade balance became negative in 1992 and has deteriorated since then to a deficit of ECU 0.42 billion in 1997 (see Table 4). Agriculture has maintained its share of exports but its share of imports has decreased.

The agricultural trade balance which was in surplus of ECU 971 million in 1990 became negative of ECU 33 million in 1992, and deteriorated to ECU –418 million in 1997 (see Table 4). The peak of agricultural imports was in 1996 due to unusually large imports of cereals and oilseeds.

The most important Polish export products are [8]: vegetable processed products (34.7%), fruit products (12.5%), meat and meat products (15.8%), milk (9.7%) and confectionery (9.5%). On the import side, the most important import products are crop-processed products (22.2%) [9], cereals (18.5%), coffee, cocoa, and tee (11.6%) and soya and fresh fruit, mostly citrus, (7.5%).

EU is Poland's most important agricultural trading partner. However, the EU's share of Polish trade is diminishing. In 1989 it was 60% of Polish export, in 1996 – 47%, and in 1997 only 39%. As for the share of Polish imports to the EU, it was 47% in 1996 and dropped to 46% in 1997.

3.4. Agricultural and Rural Policies

The main policy objectives for the Czech agricultural policy are set out in the Law on Agriculture adopted in the autumn of 1997. They relate to the provision of basic food security, environmental protection and resource management (soil, water, air and landscape).

The main categories of support to agriculture are market price support, direct payments and credit subsidies. After a sharp drop in 1993 total expenditure has again been increasing. In 1998 a rise of 36% (since 1997) is expected, in particular due to sharp increases in direct payments and market support.

The main instruments for market price support are border measures (tariffs, import/export licensing and export subsidies) and direct (through the state agency) or indirect (through market agents) intervention in the market (36% of all agricultural expenditures). The main institution for market support is the State Fund for Market Regulation (SFMR). Its stated objective is to stabilise agricultural markets (i.e. to prevent large price movements either downwards or upwards in the interest of producers and consumers) by purchasing/exporting surpluses and selling/importing in the case of shortages. Its council, chaired by the minister of agriculture, decides on the products to be regulated and the mode of intervention. In the period 1994 –96 support was mainly limited to wheat (of bread making quality) and dairy products. More recently the SFMR

[8] Data from 1996 as a percentage of total exports.

[9] Data from 1996 as a percentage of total imports.

has introduced more indirect forms of intervention, as has also the Support and Guarantee Fund for Farmers and Forestry (SGFFF), thus far mainly dealing with structural adjustment.

Expenditure on market support has tended to grow over the last couple of years. In 1998 it amounted to 36% of the total agricultural budget while in 1997 it amounted to 21%. This was in particular due to increased expenditure on cereals (see Table 5).

The protectionist measures, which strengthen market support, are to a large extent conditioned by the Czech Republic's Uruguay Round commitments on market access and export competition.

Most Czech tariffs are considerably lower than the EU-15 ad valorem equivalents with the exception of poultry, potatoes and oilseeds, which enjoy a higher protection, and of pig meat, which has a similar level of protection.

On the export side the Czech Republic is allowed to subsidise a limited range of products.

The main roles in the process of facilitating structural adjustments are played by credit subsidies and loan guarantees (23% of total agricultural expenditures), which are administrated by the Support and Guarantee Fund for Farmers and Forestry (SGFFF). All credit projects are subject to economic evaluation by commercial banks before they are approved by the SGFFF. The credit facilities are available for investment as well as working capital needs.

Credit policy has shifted away from providing interest-free loans to farmers towards loan guarantees and partial interest subsidies. As a result, subsidies for interest-free loans have declined, while the budgetary cost of loan guarantees and partial interest subsidies has increased. Increasingly, farmers have found themselves unable to repay the loans entered into during the period of economic transition. The number of mature guaranteed loans that could not be repaid has increased significantly. The government partially wrote off debt and extended the repayment period for interest-free loans provided in the 1991–93 period. Farmers in disadvantaged areas could postpone repayment of debt contracted in connection with the privatisation of agricultural assets. Moreover, farmers in these regions benefited from a 90 per cent reduction in rents for land leased from the Land Fund in 1996 and 1997.

In 1995 direct payments were introduced (29% of total agricultural payments) in the form of area payments to encourage specialised beef production in less favoured areas (LFAs). In 1998 these measures were taken up in a new scheme. A generalised agricultural area payment was introduced, the level depending on the administrative land price and intended as a support to farming in general (maintenance of the landscape), organic farming and afforestation in particular, and in LFAs also to livestock activities (beef cattle and sheep). In addition, an annual payment for diary cows in LFAs was introduced.

In total expenditure, direct payments increased by 117% in 1998 compared to 1997, overtaking credit subsidies as the largest structural expenditure item.

Rural development measures focus mainly on village infrastructure and communal services. An inter-ministerial commission manages the Program for the Restoration of Villages, aiming to promote socio-economic diversification in rural areas. About CZK 200 million annually is spent on the program. The subsidies of the Ministry of Agriculture on water and sewage equipment in villages amounted to CZK 343 million in 1997.

Hungary's agricultural policy has traditionally been export-oriented and rather liberal, reflecting Hungary's long-standing membership in the GATT. Since January 1998 the agricultural policy started to be reshaped with a view of future EU membership. Since 1993, and more visibly since 1994, Hungary has in fact taken a more interventionist approach, adopting different elements of the EUs Common Agricultural Policy, albeit with much lower support prices, and increasing import protection. Export subsidies continue to play a major role in agricultural support and within the agricultural budget.

In Hungary, on March 1997, the government launched a national debate on its agricultural and rural policies with the publication of "*The basic principles of the national agricultural program*". At least two important issues have so far emerged as controversial. First, encouraging "*the creation of farms with land areas capable of efficient market production*" and requiring "*full registration of all agricultural producers*" may favour the large-scale farms (new co-operatives and large corporate farms) and has raised fears among small farmers. Second, the objective of dedicating 2.5% of GDP to agricultural and rural policies is dependent on the budgetary commitments that still have to be made for regional policy, including its rural aspects.

At present the agricultural budget (which does not include rural development) represents around 1.3% of the GDP.

The largest part of the agricultural budget goes to the market support policy, 35% (the breakdown of expenditure is set out in the Table 5). Between 1997–1998 this was cut, however, from 42% to 35%, and direct subsidies increased accordingly (from 21% to 27%). Market support is mainly provided through export refunds and, for a limited number of products, by direct price support. Direct subsidies include credit grants, support for the use of poor land and, since 1998, a subsidy designed to encourage farm employment. Investment subsidies rank third in importance, with a share of 24% in 1998.

As far as structural policy in agriculture is concerned, the Hungarian government developed various instruments, mainly support for investment and support for the use of poor quality land.

Responding to a decline in agricultural investment and the lack of bank lending, the government in 1992 created an Agricultural Development Fund within the budget of the Ministry of Agriculture. Through this instrument, farmers can receive investment grants,

as well as loan with subsidised interest rate. Investments can be production-related (e.g. plantations, machinery) or for farm infrastructure (e.g. buildings, land improvement). The share of the agricultural budget devoted to investment support has gradually been increasing and reached 22% in 1997, i.e. 22 bio HUF (104 million ECU).

The agricultural use of land in less favourable areas is considered to be in the interest of the national economy. In order to encourage this and to supplement their low incomes, farmers can claim a fixed subsidy of around 2 000 HUF/ha. Eligibility of land is based on its value, as established during the restitution/compensation process. According to the information provided by Hungary to the EU, the area eligible was 3.2 million ha in 1996. In the 1997 agricultural budget, 5.5 billion HUF were allocated for this subsidy. The scheme has some similarities with the EU's Less Favoured Areas scheme.

Small farmers with revenue of up to 1 million HUF are under exemption from income declaration and taxes. Farmers with a revenue of between 1 and 2 Mio HUF are not obliged to keep accounts and may pay taxes at a personal rate (up to a maximum of 42% in 1997). Farmers with gross revenue above 2 Mio HUF must keep accounts and pay taxes at corporate rates (18% of net income). Co-operatives pay corporate tax, while their members pay income tax on their personal income. Land tax was eliminated in 1995. Farmers benefit from a refund of 85% of the fuel excise tax. In practice, most individual farmers do not pay taxes and do not provide statistical information to the tax authorities, even though this means they forgo their right to receive subsidies. According to some estimates, 10–15% of agricultural production has moved completely into the shadow economy, and is not reflected in national statistics or in the tax base. In an attempt to correct this situation, the government decided that, from 1997 onwards, all producers selling any agricultural products have to be registered with the tax authorities, even if they are exempt from income declaration.

Apart from the general considerations expressed in "*The basic principles of the national agricultural program*", there is not yet a fully-defined concept of a rural policy to accompany the changes in agriculture and agricultural policy. In particular, the Ministry of Agriculture has no budget line to support farm economic diversification.

In Poland, market mechanisms were introduced five months earlier in the agricultural sector (from August 1, 1989) than in the rest of the economy (from January 1, 1990). Due to the fact that hyperinflation occurred (and could not be stopped immediately), and given the increasing deterioration of the terms of trade for agriculture (between 1989 and 1991), the government established the Agency for Agricultural Markets (ARR). The agency is responsible for market intervention in agriculture, focusing on market stabilisation and support of farmer's income. Market intervention is mainly realised through intervention purchases or sales of goods. The agency is also responsible for

holding the State's reserves of food and agricultural products. The activities of the ARR are primarily financed by the budget. In 1997, the ARR received 329,8 million of PLN (86.6 million ECU) from the government to cover the outlays on its intervention purchases and for the management of its stocks.

As shown in Table 5, in 1997 budget expenditure for the agricultural sectors amounted to 12.5 billion PLN, which was 3.4 billion EC. This amounted to 9.8% of total budget expenditure. This number, however, does not include the budgetary loss connected with tax exemptions for farmers. This loss was estimated as equivalent to 2% of overall budgetary revenues [10].

By far the biggest part (72%) of the agricultural budget is destined for the farmers' social security system.

In 1992, Poland introduced a 6% border tax to improve the balance of payments. The GATT agreed that this measure could be applied temporarily and must cover all imports. In 1995, this tax was reduced to 5%, and on January1, 1996, it was further reduced to 3% and finally eliminated in 1997.

While in the pre-transition period Poland's agriculture and food exports were fairly highly subsidised, since 1990 export subsidies have rarely been applied and are limited to sugar, butter and pork. However, export undertaken by the ARR on the basis of intervention purchases, are partly carried out with losses and can therefore be regarded as a form of indirect export subsidisation. Export prohibitions are expected to prevent domestic shortages, e.g. in 1992/93, as a consequence of the decline in output caused by the drought.

PSE [11] calculations show that at the beginning of the transformation process in 1989–1990, Poland intended to build up a very liberal market economy with low support levels. The result was that the overall support to agriculture in the period 1989–1991 was generally small, and market price support (MPS) component negative, implicitly taxing farmers. Since then, Poland has reinforced the protectionist measures and price support systems. Support to farmers measured by the PSE and MPS components has therefore increased. Unlike the MPS, the significance of direct

[10] The calculation of budgetary loss due to income tax exemptions for farmers is presented in Koronowski A. (1997). It is based on the following assumptions: first, that income in individual agricultural households amounts at 6% of nominal disposable income of all Polish households, and second, the tax level for farmers would be equal to average basic rate of taxation for individuals. Then we could say that the current budget revenue is only 94% of all possible revenue (the loss is 6%). In 1996 this loss would have amounted at 2.128 million PLN or 2% of real budgetary revenues in 1996. For more details see Koronowski A. (1997).

[11] The Producers Subsidy Equivalent (PSE) and Consumers Subsidy Equivalent (CSE) calculations were developed by the OECD to measure the support/tax to producers and consumers that arise as a result of agricultural policies.

payments (DP) has always been low and is presently insignificant. The last component called "other support" (OS) is dominated by transfers related to the reduction of input costs and general services like research, training and advisory.

3.5. Comparison of Czech, Hungarian and Polish Agriculture with other CEC and the EU

In terms of area, contribution to GDP, and share in total employment agriculture is still relatively more important in the CEECs than in the EU (see Table 6). Only in the Czech Republic, Slovakia and Slovenia is the relative size of agriculture comparable to the EU average (see Table 6).

The share of agriculture production in GDP has generally been declining in the CECs since 1989, but is still incomparable to the EU-15 average of 1.7%, especially in the case of Hungary (5.8%) and Poland (6%).

In a number of CEECs agricultural employment has increased in absolute and relative terms, in particular in those countries where agriculture has played a buffer role on the labour market. The share of the total work force employed in agriculture is particularly high in Poland but, as was explained in the previous section, number of real farmers is half the total agricultural employment.

The Czech Republic, Hungary and Poland are the largest exporters in value terms among all CEECs in the first wave. Poland and the Czech Republic are also large importers. Hungary has become the only net exporter of food in recent years in the group in question. Poland managed to halve its food trade deficit in 1997 by a big increase in exports (see Figure 1).

The most important trade partner for most CECs is the EU, in particular on the import side, where the EU has a share varying between 40% and 55%, although it has lost some market share since 1995 as trade among the CECs themselves is increasing. Also as an export destination the EU is important, in particular for the more export-oriented countries such as Hungary, Poland, and the Czech Republic.

Poland in particular, but also Hungary, is relatively rural with a relatively large part of the population living in rural communities with a small number of inhabitants, dispersed settlement patterns and a low population density. Many rural areas are characterised by an ageing population, over-dependence on agriculture and a poor technical and social infrastructure such as limited transport and communications networks, a lack of schools and limited access to health and other services. In some countries the latter was aggravated by the disappearance of the state and collective farms, which also provided social and other services to the local community.

In several CEECs there was a net migratory flow to the countryside as general economic conditions worsened in the first stage of transition. Agriculture played the role of buffer allowing people to live off their plots of land in their home villages and supplement other income sources such as pensions. The overemployment and hidden unemployment related to subsistence farming poses large future challenges for a balanced development of the rural economies.

Agriculture is the dominant form of land use, over 55% of total land area on average in the CEECs, and an important factor in managing land, water and air resources (including bio-diversity) and in shaping the countryside. The main environmental problems related to agriculture in the CEECs are erosion, water pollution by agro-chemicals, soil compaction and manure disposal in areas with a heavy concentration of animal production. The quality of ground and surface water in many CECs has been influenced in the past by overuse of fertilisers and chemicals and by a high concentration of animal production.

During transition the application of fertilisers and agro-chemicals decreased substantially, as has livestock production, relaxing somewhat the pressures on the environment. More recently input use has again started to increase as the crop sector has recovered, but application levels are generally much below the EU averages.

In most CEECs agriculture was quite heavily supported in the pre-transition era. Under the initial price and trade liberalisation support in many countries dropped drastically and even turned into net taxation of agriculture in countries such as Bulgaria. After the initial liberalisation shock, measures were introduced to stabilise the agricultural sector and more recently there has been a tendency in several countries to increase support again. However, the overall support level measured by the OECDs producer subsidy equivalent (PSE) tends to be much lower than in the EU. Only in Slovenia do PSE calculations carried out by the OECD show a level of support similar to that in the EU (see Figure 2).

Across the CEECs a wide range of support instruments are applied varying from market price support (import protection, and/or domestic floor prices) to several types of direct input subsidies, investment expenditure, and tax exemptions. Generally agricultural policies in the CEECs have not been very stable with frequent changes in instruments and in the range of commodities and activities covered.

The main market price support instruments applied are border measures (tariffs, import/export licensing and export subsidies) and intervention in the market to underpin minimum or floor prices. With the exception of Estonia, the other countries apply domestic floor prices for one or more of the main commodities, but generally at lower or much lower levels than in the EU, in particular for livestock products.

Although in most cases support prices are still lower than in the EU, the gap has become smaller in recent years as (nominal) support prices have been increased. In

Poland and Slovenia the support prices for wheat are now higher than in the EU. Also the other countries with price support for cereals have moved closer to the EU, for wheat in particular. Price support for cereals is mainly achieved through import protection, government purchases and export subsidies. For oilseeds market support is mainly limited to import protection. For sugar, apart from import protection in most countries and export subsidies in a few, only Poland and Slovenia provide direct price support to sugar beet growers, i.e. by setting minimum procurement prices. Poland also has a production quota system for sugar, while Hungary is considering one. For dairy and beef and to a lesser extent pig meat and poultry producer prices are supported by intervention buying and/or export subsidies in the Visegrad countries.

The changes in price support, world market developments and some recovery in domestic demand have led to an increase in producer prices, somewhat more so for crop products than for animal products. The price gaps at farm gate level with the EU have tended to decline over time. For cereals, in particular wheat and barley, CEEC producer prices exceed or have come within a 80 to 90% range of EU levels. For maize farm gate prices are still generally somewhat lower and for sugar beet about half the EU level (see Table 7).

4. Fiscal Aspects of the CAP Enlargement to the Czech Republic, Hungary and Poland

4.1. Pre-accession Fiscal Adjustments

Countries, which formally apply to the EU, usually receive pre-accession aid from the EU. Poland, Hungary and the Czech Republic will also get such aid in the field of agriculture and will be able to benefit from it until they formally become EU members and start to participate in the Common Agricultural Policy. During the period 1999–2006, agricultural expenditure for the applicant countries would comprise pre-accession aid and expenditure related to the accession of the new Member States.

Pre-accession agricultural aid, amounting to EUR 520 million per year (at constant 1999 prices), will be granted from the year 2000 (see Table1). It will be provided in priority areas, such as the improvement of conversion structures, marketing channels, and food quality control. These measures will be implemented on the basis of national programs. They will also ensure funding for specific integrated development projects designed to provide support for local initiatives, such as those covering local economic

diversification, the supply of basic services and the improvement of local infrastructures. This assistance will be co-ordinated, within the framework of the Accession Partnerships, with the measures financed by PHARE. Following the first accessions, the total amount allocated for this aid would remain the same, therefore the countries which did not accessed the EU will receive more than before, since there will be fewer countries to share the aid.

Expenditures relating to the accession of the new Member States are estimated at between EUR 1.7 billion (in 2002) and 3.9 billion (in 2006) (see Table 1). They will cover market measures, which will help new Member Sates to enter the common market (estimated at between EUR 1.1 to 1.4 billion) and *rural development accompanying measures* (estimated at between EUR 0.6 to 2.5 billion), following the pre-accession measures. The subsidies for the development of rural areas will be based on the SAPARD grant assistance programme.

There is also the so-called *margin*, which is designed: first, to provide cover for the enlargement-related costs without necessitating an increase the agricultural guideline at the time of accession, and second: to accommodate agricultural market uncertainties. Third, it should also allow the transitional arrangements applied to the new Member States to be terminated when necessary.

First of all, from this financial framework we can conclude that agricultural pre-accession funds are quite small. In the years 2000–2002 only EUR 520 million (at constant 1999 prices) is set aside for 10 CEECs applicant countries [12] (that is around 6.5 times less than overall agricultural budget in Poland in 1997, which amounted at ECU 3.4 billion). The countries really start to participate in agricultural transfers after joining CAP.

Second, it is hard to predict how much each of the applicant countries will gain from the pre–accession aid. It will depend on the quality of presented programs and on the speed of adoption of EU directives and regulations.

Third, the amount of transfers set for accession (EUR 1.7 billion) reveals the fact that the EU does not take into account direct payments for CEC-3, otherwise the *Expenditures relating to the accession of the new Member States* would be at least twice higher. Direct payments for Poland were estimated at around ECU 2.3 billion.

From the fiscal point of view it is important that the pre-accession agricultural funds will be directed to concrete programs designed by applicant countries (not to the overall national agricultural budgets) and that they will partially co-finance programs which are normally fully financed from national budgets. Community finances 25–60% of expenditures for the adaptation of farm structures (so called objective 5a), 50% of

[12] Apart from Czech Republic, Hungary and Poland, also Slovenia, Estonia, Romania, Bulgaria, Slovakia, Lithuania and Latvia may participate in the pre-accession aid.

expenditures spent on development of rural areas (objective 5b) and up to 75% of expenditures spent on development of regions lagging behind the two previous objectives (objective 1). Objective 5a includes, for example, measures to improve the efficiency of the structures of holdings and promoting the diversification of production, measures to encourage the installation of young farmers, measures to improve the marketing and processing of agricultural and forestry products. Objective 5b concerns promotion of rural development in difficult areas, development of tourism and crafts, afforestation and environmental protection. Objective 1 relates in particular to the conversion, diversification, reorientation and adjustment of production potential, investments for quality agricultural and forestry products, individual or collective land improvement, irrigation and improvement of drainage systems, etc.

Co-financing assures, at least theoretically, more effective use of funds and the sharing of responsibilities between the applicant country and the EU. The money saved thanks to co-financing could be spent by country on other purposes. In my opinion more important for fiscal burden is the type of pre-accession policy chosen by each country (those 'other purposes') rather than the pre-accession aid from EU, which involves small amount of money.

The most desirable objectives for agricultural policies seem to be improvement of agricultural productivity and improvement of the agricultural to non-agricultural income ratio. As W. Orłowski (1996) shows, there are several policy instruments to obtain those objectives but they differ as to budgetary implications (see Table 2).

Investments in rural development help to increase Value Added per unit of production (through better agricultural product processing and better production structure adjustments). This way the policy satisfies both objectives and its costs are easily controlled.

Policy stimulating production growth is very costly because of surpluses' management and satisfies only one objective – improvement of the agricultural to non-agricultural income ratio, but does not help in productivity improvement.

Price support would be counterproductive, since the resulting short-term increase of farmers' incomes and apparent higher productivity improvements due to artificially higher prices would minimise economic incentives to restructure, modernise agriculture and to reduce employment [13]. Wrong signals sent to producers through the distorted prices structure would lead agricultural producers to invest in areas where no real

[13] Greece, which obtained much greater transfers for price support policy than Portugal and Spain, (Greece got 2.8% GDP while Portugal only 0.2% GDP and Spain 0.4%GDP in 1990) experienced the slowest outflow from agricultural sector. It amounted at -2.1% a year on average during 1981–1993, while Portugal and Spain -5.5% and -4.1% respectively.

comparative advantage exist and would result in an excessive increase of output and surpluses. The misallocation of resources would have a detrimental impact on the overall growth of the economy, while inflation would increase due to a faster rise in food prices. Such policy then, would lead to large economic costs (related to implementing tariffs) mainly paid by consumers and partly by budget (in form of export subsidies).

In the case of *direct payments* to farmers the whole expenditure is taken by budget. Although the policy is very costly, it guarantees effective use of funds (which cannot be said in the case of price support policy).

The last policy variant, based on *reductions in agricultural employment* satisfies both objectives and its cost seems to be less than in the case of surpluses management, price support and direct payments.

From the above we can see that the best pre-accession policies should be based on investments in rural development and reductions in agricultural employment as they help in structural changes, improvement of productivity, increase of agricultural income and, at the same time, keep budgetary expenditures under control. In addition, they are consistent with the objectives defined by the EU for pre-accession agricultural aid so the expenditures will be partially co-financed.

The agricultural policies in CEC-3 differ as to costs and effectiveness. As far as costs are concerned, the most expensive policy so far was led by Poland, but in terms of expenditure per farmer, the most was spent by Hungary (see Figure 1). In Poland, the budget expenditure for the agricultural sector amounted to ECU 3.4 billion (1997), 9.8% of total budget expenditure [14]. That was ECU 821 per farmer (7.5 times less than in EU-15 [15]). In Hungary, the agricultural budget for 1997 amounted to ECU 477 million. It was much less than in the case of Poland, but all the same it was twice as much per farmer, ECU 1715.8. However it was still much less than in EU-15 (around 3.6 times less). As far as the Czech Republic is concerned, the budget expenditures amounted to around ECU 314.6 million. Although it was the least value as a whole, but per farmer it was as much as ECU 1491.3 – only a little less than in case of Hungary and much more than in case of Poland.

In light of the above discussion we can judge, that the least effective in satisfying the main objectives, i.e. effectiveness and employment reductions, are policies concentrated on direct payments – like in the case of Poland, where social measures consumes 72% of agricultural budget. More effective are those policies, which are concentrated on

[14] It should be remembered that tax exemptions are not counted here, so those expenditures are de facto higher.

[15] As it was stated before, in Poland there are in fact, much fewer real farmers so this statistics is overestimated.

investments – as in the case of the Czech Republic and Hungary, where in the former 38% of agricultural budget is spent on credit subsidies and in the latter 22% is spent on investment subsidies (see Figure1). In the Czech Republic no exemptions from a direct tax on farmers resulted in lower agricultural employment.

All CEC-3 declare soon adjustments in their agricultural policies to the CAP. Czech Agriculture Minister Jan Fencl said at press conference that his priority in the office would be to implement an agricultural policy compatible with the CAP. The Ministry of Agriculture has said that from 1999 to 2000 the annual expenses from the state budget to implement the agricultural policy will be about KC 23 billion a year. Further expenditures will be used for forest and water management policies. As the Ministry explains, the policy contains mid-term development plans for agriculture and the processing industry, which will take place in two stages. The first stage of *revitalisation* will take place from 1999 to 2002, which should invigorate and stabilise the Czech agrarian sector. The second stage, will end with the CRs accession to the EU and will consist of Czech agriculture adopting the conditions of the EUs common agricultural policy. The *revitalisation* stage has four basic points, namely the stabilisation of primary production, environmental measures, modernisation and transformation of domestic farming and food-processing companies, and the development of public services for farmers. The adaptation stage will introduce specific instruments, institutions and programs of the CAP. The Czech Republic intends to negotiate a temporary period after being admitted to the EU, during which special customs measures would be applied to commodities where the prices in the EU and the Czech Republic differ substantially. At this time, the Czech Republic has already fully taken over 108 of the total 220 legal standards that apply to agriculture.

Hungarian Agriculture and Rural Development Minister Jozsef Torgyan declares that Hungary's agriculture will be able to smoothly fit into the EUs united agricultural sector in 2002. Hence, Hungary does not plan to request an overall derogation period. Hungary promised to fulfil all obligations from the date of joining the EU and plans to gain all privileges, as well. The Minister stresses that among the most needed things are: a well-though out product-structure system, rural development programmes, successful negotiations on quotas, satisfaction of agricultural tax derogation requests and a derogation in environmental protection.

Polish Agriculture Minister Artur Balazs declared that he was going to gradually remove all the factors that had led to the current collapse in that sector of the economy. The minister's agenda in that office is to balance agricultural production and intervene in the market when necessary. His priority is to restore a healthy produce market and to ensure at least a minimum profitability of agricultural production. Integration with the EU

will also require Poland to introduce VAT in agriculture. VAT for all agricultural products with a low degree of processing (milk, grain, eggs, potato, vegetable, fruit, etc.), which are now exempt, will be levied at 7 percent. The rate for agricultural inputs is to be 7 percent and for machinery 22 percent [16]. The process would be spread over time. Initially, a 3 percent tax on low-processed agricultural products is to be introduced in 2000. One agricultural policy scenario also assumes taxation of agricultural operations with the income tax. It would be levied according to general rules for large farms, while small and medium-sized farms would pay lamp sums. The minister promised: to create a programme for the unemployed in rural areas, to protect efficiently the agricultural market from highly-subsidised imported food, to create a national programme for education in rural areas, and to improve economic conditions in rural areas (through general economic growth of the country and through the creation of additional sources of income for farmers outside farms).

Although statements made by Ministers of Agriculture may not be fulfilled, but they at least give an idea of the directions of the agricultural policies conducted in the nearest future, which (as it was said before) are crucial for fiscal expenditures in the pre-accession period.

To conclude, pre-accession agricultural aid from the EU has little or no direct budgetary effects. More important for budgetary expenditures are the national pre-accession policies adopted by the countries. Assuming that the main objectives of the pre-accession agricultural policies are improvement of productivity and an increase in income per capita then the most effective policies (satisfying objectives at the least costs) are investments in rural development and a reductions in agricultural employment.

To satisfy the EU requirements and to get the pre-accession agricultural aid, CEC-3 had to adopt new strategies, focused mainly on rural development and more effective agricultural markets. In the case of Poland, VAT implementation on agricultural products is necessary. This will increase the proportion of budget revenue coming from indirect taxes.

4.2. After Accession Fiscal Adjustments

There are no direct contributions from Member Countries to CAP (see Figure 2). First the countries contribute to the EU general budget and then part of this money is

[16] It is worth noting that Poland has a relatively high base VAT rate compared to the EU members states. Thus after joining the Single Market, Poles living near the border with Germany might be encouraged to do shopping across the border where the VAT rete is 16 percent – RZ. No 82, p9, 8.04.1999.

transferred to CAP, namely to EAGGF. The proportion of the contribution from overall EU budget to EAGGF decreases gradually. In 1994 total agricultural expenditures amounted to 59.6% of the total EU budget, in 1998 55.9% of the total EU budget was spent on CAP and in 2006 it is estimated to be 49.4% of total EU expenditures.

The Member States' contributions to the EU budget come from four (national) *own resources*:

1. VAT revenues
2. National percentage contributions (proportional to national GDP)
3. Custom duties and agricultural levies

VAT contributions amount to 0.5% of the VAT revenues, and declined from 0.75% after the latest reform. National contributions are more or less proportional to the shares in GNP of the EU. Custom duties and agricultural levies depend on the trade structure of the country. 90% of custom revenues from imports from outside the EU go to the EU budget (10% are collection costs). The overall EU budget, financed by the system of own resources, has a ceiling of 1.27% of the EU GNP.

At first, the CEC-3 will pay less than their share of GDP in total EU GDP, as in case of the Mediterranean countries. VAT contributions will differ among CEC-3 since VAT revenues differ significantly among CEC-3 (although the share of VAT revenues in GDP is similar in the Czech Republic, Hungary and Poland and amounts at 7.1%, 8.3% and 8.3% respectively [17]). The share of VAT revenues in the total budget revenues is the biggest in Poland (30.8% in 1997). In Hungary this share amounts at 25.1% (in 1997) and in the Czech Republic to18.1% (in 1997).

Let us now look at the other side of the Figure 2 we see that agricultural expenditures are covered by the EAGGF Guarantee and Guidance sections, of which the Guarantee section covers 90.2% of the total EAGGF. One third is spent on Market Support (refunds on export to third countries and intervention to stabilise the agricultural markets) and two-third is spent on Direct Aid to farmers. Around 9.2% of the total EAGGF is spent through the Guidance Section on rural development (objectives 1, 5a, 5b, 6). However CEC-3 will probably participate only in Market Support from the Guarantee Fund and in programs financed through Guidance Fund. They will probably not participate in direct payments, which is the greatest part of the EU agricultural budget.

As far as the EU budgetary implications of CEC-3 accession to CAP are concerned we may consider them on the basis of expenditure on trade measures, i.e. export

[17] Neneman J. (1999). "The reform of Indirect taxation in the Czech Republic, Hunagry, Poland and Romania.

subsidies minus tariff revenues, which will be the most significant agricultural transfers between CEC-3 and EU.

Among Market Support measures the most important are export subsidies. They amount at around 15.09% of the total Guarantee Fund. They are counted as the difference between EU and world prices times the exports outside the EU. They are paid to exporters when the EU price is higher than the world export price:

$$Export\ subsidy_i = (p^{UE}_i - p^w_i) * Export\ to\ the\ outside\ of\ the\ EU$$

where *i* – product, p^{UE}_i – the UE price of the product, p^w_i – the export price of the product in the world, *Export to outside the EU* – exports of the product in tonnes outside the EU.

On the other side we have tariff revenues, which can be counted as the difference between EU and the world prices times the imports outside the EU:

$$Import\ tariff_i = (p^{UE}_i - p^w_i) * Import\ from\ the\ outside\ of\ the\ EU$$

where *i* – product, p^{UE}_i – the UE price of the product, p^w_i – the export price of the product in the world, *Import from the outside of the EU* – imports of the product in tonnes outside of the EU.

If the difference between export subsidies and imports tariffs is positive it means that the country is a net recipient from the EU budget. If the difference is negative it means that the country contributes more than it gets from the EU (considering only expenditure on trade measures).

Since we can treat the difference between EU and world prices here as a positive number (as it is a condition for export subsidies) the net agricultural transfers from the Member Countries to the EU depend on the trade structure of each country. The country, which exports more than imports from outside the EU, gets more than it contributes to CAP (considering only expenditure on trade measures).

As it is presented in Table 3 the agro-food trade seams to be the most important in the case of Hungary. Agro-food export amounts to 17.5% of total export. In the Czech Republic it is 5.7% and in Poland 11%. Hungary also exports the greatest share of its agro-food products outside the EU, i.e. 9.2% of total exports. Poland exports outside the EU 5,8% of agro-food products as a share of overall export, and Czech Republic 3.6%. As far as agro-food imports are concerned, Hungary imports the least share of its overall imports, namely 5.1%, the Czech Republic imports 7.5% and Poland 11%. The ranking stays the same if we look at agro-food trade outside the EU. Hungary has the least share of total imports outside the EU, which amounts to 2.9%, further Czech Republic (3.5%)

and Poland (5.8%). As far as exports are concerned, Hungary exports outside the EU the greatest percentage of total exports and the Czech Republic the least (9.2% and 3.6% respectively).

For net agricultural transfers not the values but the quantities imported and exported to the outside the EU really maters. Each quantity exported outside the EU is refunded if the EU price is higher than the price in the destination region. As it is visible in Table 3, Hungary has the most favourable trade structure, which among CEC-3 is the only net exporter of agro-food products outside the EU. This means that, if the trade structure doesn't change, the EU has to pay to Hungary more (export refunds) than it will get contributions from Hungary (tariff revenues). On the contrary, the Czech Republic and Poland will contribute more to the EU in form of the tariff revenue contributions than they will get from CAP in form of export refunds.

Now, as we remember, Münch W., (1999) claimed that the greatest share of the expenditure for agricultural policy would fall in Poland. However, he did not show that Poland would also contribute the most to the EU, and that the contribution would be greater than transfers from the EU to Poland.

To sum up, the above various transfers were presented but not all of them are budgetary ones. As far as transfers to EU are concerned they come from national budgets (like import tariff, VAT revenues and GDP shares) but from the CAP only part of transfers comes through the budget: a minor part of Market support Measures (e.g. storage, etc.) and part of Guidance Fund for national structural programs (Guidance Fund transfers may also be captured by private programs). Export subsidies, does not go through budget because they are paid directly to the exporters.

5. Some other Aspects of CAP Enlargement

5.1. Accession Effects on Agro-food Prices

The differences in levels of food prices between Poland, the Czech Republic and Hungary on the one side, and EU on the other side will be the most important factors determining the impact of integration in agricultural sector. As it will be presented below those differences gradually decrease and this process is faster than it was believed some years ago. Therefore, at the moment of integration, CEEC-3 should not experience a radical change in the path of food prices growth. The reform of CAP will also contribute to that fact. So far the wider gap in food prices in CEEC-3 and EU

is generally between those products which are the most protected in EU: sugar, beef, milk (see Figure 3).

According to W. Orłowski (1998), Poland should not expect an accelerated increase in food prices. The reasoning is the following: (a) CAP is going through gradual liberalisation, and as a consequence food prices will be less protected in the EU; (b) Polish Zloty will appreciate in real terms causing pressure for an increase on food prices expressed in foreign currency; (c) agricultural raw materials make up only 20–25 % of overall processed food products bought by Polish households. Other indicators which will prevent an accelerated increase of food prices may be (a) the transition period and (b) the declining price gap due to the overall tendency of growing producer prices in the agricultural sector.

Producer food prices in Poland are not so much lower than the EU as is sometimes stressed. During last years the price gap has decreased significantly due to the agricultural policy and changes in world market trends. For cereals prices in Poland were between 55% (rye) and 73% (wheat) of the respective EU price in 1993 but rose to be equivalent to EU prices in 1996 and 1997. This is partly due to favourable increase in Polish guaranteed prices in 1996. Polish sugar beets prices are consistently lower at around half of the EU price while oilseeds' prices, have been higher in Poland than in the EU in recent years. For fresh fruit and vegetables, Polish prices are considerably lower, for example only a poorer marketing chain in Poland and explains the good Polish export trade to the EU for these products. Although fruit and vegetable prices are lower in Poland this is likely to be because the Polish prices refer to products for processing, generally of lower quality.

For animal products, the beef price in Poland is only half that of the EU and partly reflects lower quality and the low demand in Poland but of course also the higher support price in the EU. However, poultry meat is at an equivalent price, and the pig meat price in Poland is a bit lower due to generally poorer quality carcasses. The milk price in Poland has increased since 1993 and is currently around 50% of that in the EU. For high quality milk (equivalent to that in the EU) a premium is paid by processors who would bring the producer prices much closer to the EU level if Polish milk was of equivalent quality to the EU. For wheat, oilseeds, pork and poultry prices in 1997 were similar for products of equivalent quality. Although fruit and vegetable prices are lower in Poland this is most likely because the Polish prices refer to products for processing, generally of low quality. Even considering the difference in the quality into account, milk and beef prices are higher in the EU than in Poland.

In Hungary, producer prices are generally lower than EU prices. This is, on the one hand, due to Hungary's net exporting situation and to the low level of support, and, on the other hand, it is also due to the relatively high level of EU prices, compared with

world prices. For cereals (except maize), pork and poultry, prices are already close to EU levels, for oilseeds, prices are similar. If the Agenda 2000 proposals are implemented in the EU, the gap for cereals and dairy products will close further and for beef will close significantly. The sugar price gap will probably remain wide, but the introduction of quota regimes could limit market impact at accession time.

Producer prices in the Czech Republic have generally moved up in recent years, somewhat more for crops than for animal products, but have also in most cases not kept up with general inflation. Expressed in ECU the domestic price rises have been to some extent mitigated by the depreciation of the Koruna. Nevertheless, the price gaps at farm gate level with the EU have tended to decline over time. In the arable sector Czech prices for cereals and oilseeds have moved to 80–90% of the average EU level, while sugar-beets are still at only half of the EU level. In the fruit and vegetable sector Czech tomatoes are relatively expensive, while apples are at around 70% of the EU level. In the livestock sector Czech dairy prices have moved to around 65% of the EU level, while beef prices have gradually increased to over 70% of the EU level. Despite the still existing cereals differential Czech pig-meat prices are close to what could be considered normal EU prices, while poultry prices at 70–80% of the EU level reflects, more or less, the difference in feed costs (see Figure 4).

Taking everything into account, the conclusion is that food prices are not expected to increase significantly in Poland, Hungary and Czech Republic after joining EU because the price gap is not as big as it was a few years ago and is still declining. On the other hand, CAP is going through gradual liberalisation. Therefore, the expected impact of the CAP instruments on the supply side of the CEEC-3 economies will be much lower than was presented in some previous estimates [e.g. Anderson K. and Tyers R., 1993; and Piskorz W. et al., 1995 etc.].

In the simulations made for Poland by FAPA [Piskorz W., Guba W., et al., 1998] the three scenarios were taken into consideration: (a) Polish agricultural policy will not change and Poland will not join the EU untill 2010; (b) Poland will join the EU in 2003, but the CAP remain unreformed; (c) Poland will join the EU in 2003 and the CAP reformed according to Agenda 2000. The resulting prices are summarised in Table 4.

According to FAPA, after joining CAP *crop prices* may rise 20–30% under 'Agenda 2000' scenario. As a result crop production will rise but demand for feeding stuff will decline. Important for farmers will be the fact that the price gap between wheat and rye will decline because prices of rye will go up by a greater amount than prices of wheat. This will improve the situation of rye producers. As far as the *sugar sector* is concerned, this is a highly protected sector in the EU. 'Agenda 2000' does not assume any changes in the price regime so the sugar price rise in both scenarios – 'CAP unchanged' and 'Agenda 2000' – is the same. For Poland this means rise in sugar prices nearly by a half. As a

consequence, domestic sugar consumption should decline and more sugar will be directed for export. In scenarios 'CAP unchanged' and 'Agenda 2000' *milk* and *butter* prices significantly rise in comparison with scenario 'without Accession'. In 'CAP unchanged' scenario butter prices are even 2.5 times higher than in the 'without Accession' scenario. Integration with the EU will cause a rise in beef prices, which are around 60% lower in Poland than in the EU, which is good news for beef producers, but not for consumers. Assuming that beef prices in the EU will be reduced by 30% as stated in Agenda 2000 document, Polish beef prices will remain still lower than in the EU. Higher beef prices will encourage beef producers to boost production. Pig-meat prices will not rise significantly after Polish accession because this sector in the EU is less protected than the beef or milk sectors, and a 20% fall in prices between 1996–2002 is forecasted. Poultry-meat producers will face lower prices under both accession scenarios. Competition in the poultry market will demand from Polish farmers more investments in technology and higher efficiency.

It is worth taking a closer look at the food prices in poor Mediterranean countries, which joined the EU in 70s and 80s. None of the countries experienced a quick increase in food prices in the year in which they joined the EU. In case of Greece and Portugal the food price inflation even decreased in that year (in 1981 in the case of Greece and in 1986 in the case of Portugal). Spain experienced increased food price inflation but it was a very little change (between 1985–1986). Common for all three countries, was the fact that they kept their food inflation at the same level (Portugal) or even lower (Greece and Portugal) in the few years after accession. There was an increase in food prices inflation in the 1990s but it was 3 years after Portugal and Spain joined the EU and eight years after Greece joined the EU. So the conclusion is that the changes in prices do not occur immediately as a consequence of joining EU but they may occur later due to other effects (see Figure 5).

5.2. Accession Effects on Agricultural Protection

The introduction of the CAP in the CEC-3 will lead to changes in agricultural protection. The average nominal rates of protection (NPR) (in Figure 6) measure the percentage difference of domestic to world market prices. Once becoming member in 2003, the average NPR increases in CEC-3. The initial high level of protection in 2003 and its rapid decline falls together with reform of the beef and dairy market, which ends for the latter in 2006.

Though the CAP imposes the same measures in the CEC-3, the level of protection differs between the countries. Poland's protection is the highest with an initial 50 percent.

Hungary and the Czech Republic are the countries with the lower average NPR. The protection in the EU-15 itself is closer to the Hungarian level than to that in Poland. From 2003, agricultural protection decreases in the CEC-3 and the EU-15. In the case of the Czech Republic protection falls to the level of domestic policies in 2003. In the other CECs protection remains higher than before accession. Increasing world market prices leads to decline of average NPR.

6. Conclusions

From each part of the paper some conclusions may be drawn. Therefore, they will be presented in the order of the chapters. First, some remarks will be made on the Common Agricultural Policy, second, on the state of agriculture in CECs and finally, on budgetary aspects of CAP enlargement.

– The CAP was created in 1960s, at the time when Europe was in deficit for most food products. The first decade was considered in EEC as a great successes because agricultural production grew and ECC reached self-sufficiency at the reasonable prices. However, after that problems with costs due to overproduction and storage of costly surpluses arose. As we remember there were number of attempts to reform the CAP (the Mansholt Plan, Delors Package, Mac Shary, Agenda 2000) but the changes have been coming very slowly. After 20 years, the policy has the same problems to solve: to decrese support prices, to lower production, to decrease surpluses, to decrease expenditures (the CAP is the most costly among the EU policies although it employs only around 5% of total employment and contributes only 1.7% to the GDP). So it is visible that agricultural sector needs more time for changes than any other sector and this is not only a problem of the CECs but of the EU as well.

– Both CEC-3 and the EU have problems with efficiency. The agriculture in the Czech Republic, Hungary and Poland needs transfers of know-how and funds to improve its competitiveness, while EU agriculture needs to reduce costs of the agricultural policy.

– EU and CEC-3 farmers may benefit from accession of CEEC to the EU. On the one hand CEC-3 may benefit from the pre-accession agricultural transfers and programs (i.e. SAPARD) and after accession from structural aid, which will enable investments in rural areas and transfers of technology. Furthermore, some Polish farmers will receive higher income from the sell of agricultural products on the domestic market (due to an increase in food prices) and in foreign markets (due to export refunds). On the other hand, the EU may also benefit from CEEC accession, because expansion of the Single Market will

strengthen the Union's position in the global market (59 million of new consumers) and will also partly solve the EU problems with costly surpluses, since more products will be sold on the intra-trade market.

– As for pre-accession policies, they should concentrate mainly on: (1) investments in rural development and (2) employment reductions since only these policies guarantee improvement of agricultural productivity and improvement of agricultural to non-agricultural income ratio (which are the most desirable goals).

Investments in rural development in CEEC-3 should be directed mostly in: creating new jobs opportunities in rural areas (especially in Poland), restructuring of the collective farms (especially in Hungary and Czech Republic), and changing patterns of settlement, inherited from the socialist period (all CEC-3). Furthermore, investment in rural development should also focus on providing technical and social infrastructure, providing better access to education, smoothing farm restructuring (through a well-functioning land market for the actual exchange of land property and the leasing of land), completing and speeding up the privatisation of state farms (especially in Hungary and Czech Republic), agricultural marketing (enhance the functioning of the marketing chain, development of the private marketing co-operative sector, strengthening the wholesale marketing infrastructure), services to infrastructure (by promoting the transfer of employment between agriculture and its service industry, improve access to financial markets, investments in agro-industry (speed-up the privatisation and mergers and acquisitions, streamline quality controls), promote trade associations and professional organisations (increase representation of the private sector in the various agricultural and food sub-sectors).

Employment reduction in agricultural sector is a much more difficult policy to implement than investments in rural development at least from social viewpoint. Partly, new jobs will be available due to investments in rural development but such obstacles as the low level of education and the ageing of rural society will restrain the process of employment reduction in the agricultural sector. Early retirement schemes, although seemingly the quickest instrument in that case are also the most costly. In Poland for example 72% of the agricultural budget is already spent on social services for farmers (not including the tax exemptions). In the year 2000 an implementation of income taxes on Polish farmers is planned which may cause to some extent an outflow from agricultural activities of the farmers whose income is low and therefore, increase budgetary revenues. Nevertheless, the process is slow and we should not rather expect radical changes in agricultural employment over the next few years.

– The pre-accession agricultural aid from the EU has little or no direct budgetary effects. More important, from the budgetary expenditures' viewpoint, are national pre-accession policies adopted by the countries. Assuming that the main objectives of the pre-

accession agricultural policies are improvement of productivity and increase in income per capita then the most effective policies (satisfying objectives at the least costs) are investments in rural development and reductions in agricultural employment.

– For net agricultural transfers not the values but the quantities imported and exported to the outside the EU really matters. Each quantity exported outside the EU is refunded if the EU price is higher than the price in the destination region. The most favourable trade structure has Hungary, which among CEC-3 is the only net exporter of agro-food products outside the EU. This means that, if the trade structure doesn't change, the EU has to pay to Hungary more (export refunds) than it will get in contributions from Hungary (tariff revenues). On the other hand, the Czech Republic and Poland will contribute more to the EU in the form of tariff revenue contributions than they will get from CAP in the form of export refunds.

– Putting all the propaganda pressure for achieving rapid EU membership aside, it seems that Czech Republic, Hungary and Poland, could actually benefit from attending EU membership later rather than sooner (in 6 years rather than in 4 years). This is because they would gain time to strengthen their position before agricultural negotiations with the EU will be completed. They will adjust agricultural parameters to the EU norms, they will modernise their agriculture, and they will be able to better use the transfers when the agricultural policies will be advanced in restructuring. The period of the pre-accession talks with candidates such as Portugal or Spain, which also had a lot of catching up to do in relation to EU countries, was approximately eight years. During that time both countries modernised their agricultural production and rural infrastructures and had time to liquidate structural unemployment in rural areas. The speed of the reforms should be the highest possible.

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Tables, Graphs and Boxes

Chapter I/Table 1. Changes in Area, Population and Welfare After Successive Enlargements

Enlargement:	1973 (UK, Ire., Den.)	1980s (Gre., Spain, P)	1995 (Austr., Fr., Sw)	20??* Cz., Hu., Pol.)
Increase in population (Mio)	64	58	22	59.1
Percent population increase	31%	21%	6%	15.9%
Increase in agric. area (Mio ha)	27	41	10	29
Percent agric. area increase	41%	41%	7%	21.2%
Increase in farm population (Mio)	1.1	4	0.6	**4,6
Percentage difference in GDP per head	-10%	-33%	6%	-58%

* data for 1996

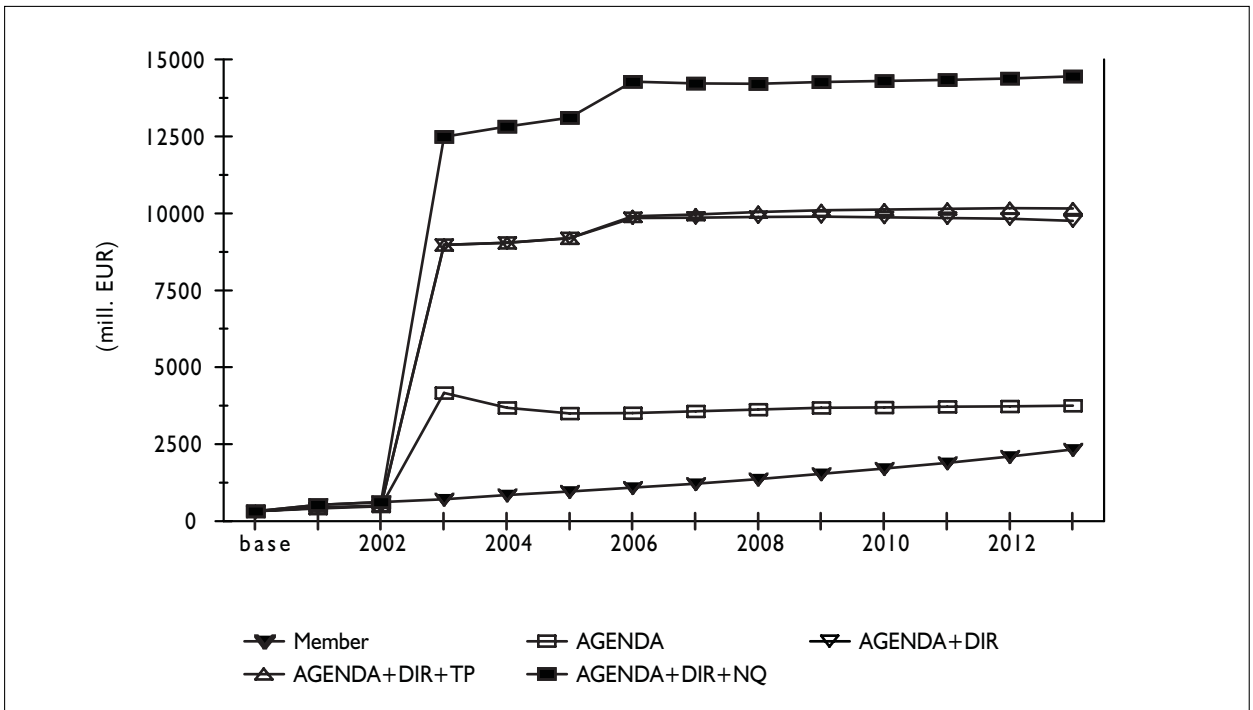
Source: Josling T.E., Pearson S. R., (1981)

Chapter II/Table 1. Estimated CAP Costs of Eastern Enlargement

Study	Costs (billion ECU)
Anderson and Tyers (1995)	37
Tyers (1994)	34
Brenton and Gros (1993)	4–31
Mahé (1995)	6–16
Tangermann and Josling (1994)	9–14
Slater and Atkinson (1995)	5–15
Tangermann (1996)	13–15

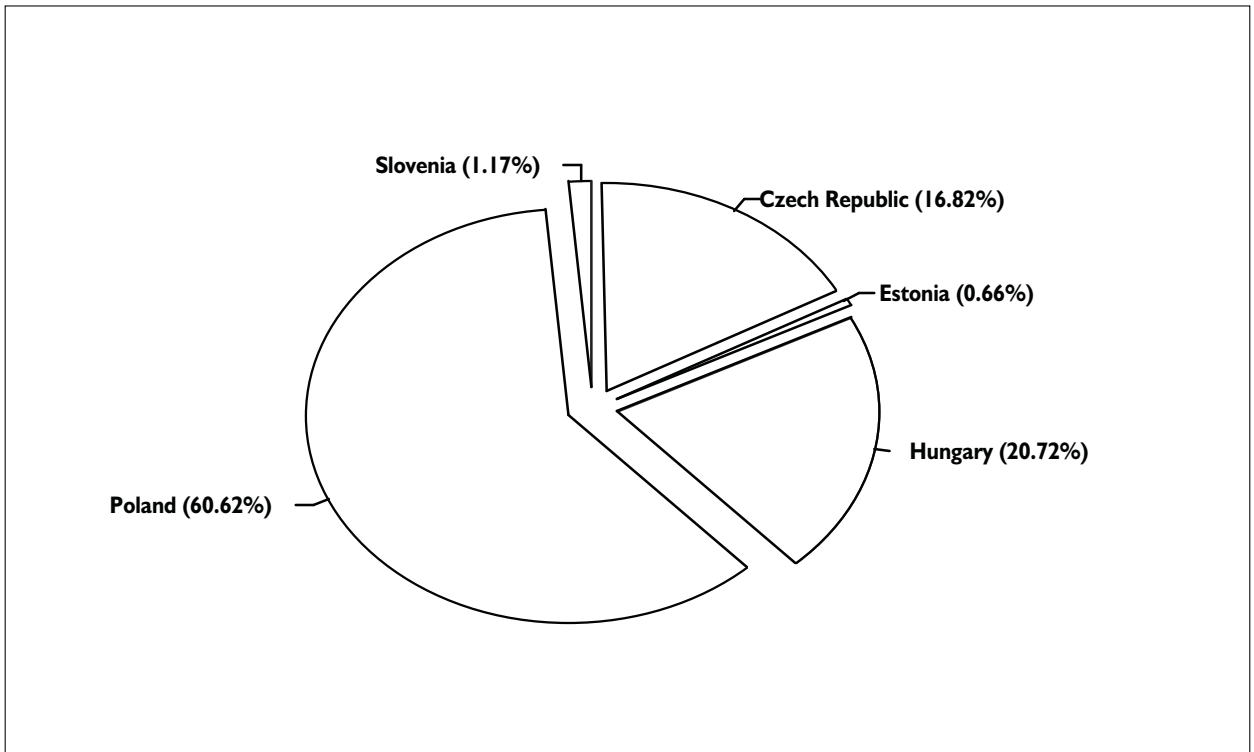
Source: R. Baldwin, J.Francois, R. Portes (1997)

Chapter II/Figure 1. Development of Budgetary Expenditure for Market Guarantee in the CEC in Different Scenarios from 2001 to 2013



Source: Münch W., (1999)

Chapter II/Figure 2. CEC-5 Share in Expenditure in the AGENDA+DIR Scenario in 2006



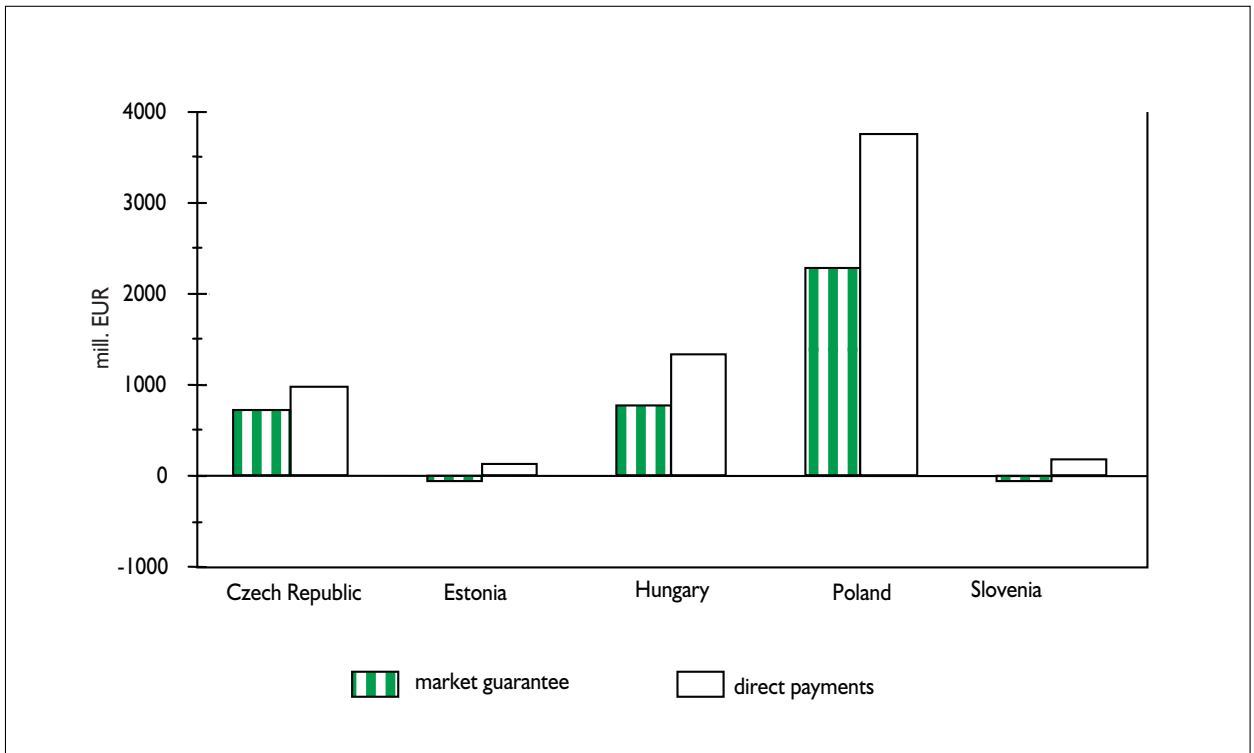
Source: Münch W., (1999)

Chapter II/Table 2. Share of Agriculture in Total Labor Force and GDP(%)

Share in total labor force						
Countries	**1955**	**1970**	**1975**	**1981**	**1986**	**1990**
Belgium	9.3	4.1	3.4	2.9	2.9	2.7
France	25.9	12.7	10.9	8.4	7.3	6.1
Germany	18.9	5.69	7.1	5.8	5.3	3.4
Italy	39.5	13.1	15.5	13	10.9	9
Luxembourg	25	11	6.1	5.6	4	3.2
Netherlands	13.7	5.8	6.5	4.5	4.8	4.6
Denmark	25.4	9	9.3	8.4	6.2	5.7
Ireland	38.8	25.7	23.8	18,9a	15.8	15
UK	4.8	2.7	2.7	2.8	2.6	2.2
Greece	-	-	33.2b	30.3a	28.5	25.3
Portugal	-	-	-	-	21.9	17.8
Spain	-	-	-	-	16.1	11.8
Shares in national output						
Countries	**1955**	**1970**	**1975**	**1981**	**1986**	**1989**
Belgium	8.1	4.2	3.2	2.5	2	2.4
France	12.3	6.6	5.6	4	4	3.3
Germany	8.5	3.3	2.9	1.9	2	1.7
Italy	21.6	9.8	8.7	6.4	5	4
Luxembourg	9	3.3	3.5	2.8	-	2.4
Netherlands	12	6.1	4.7	4.3	4	4.6
Denmark	19.2	6.4	7.4	5	6	4.2
Ireland	29.6	16.9	18.1	11,3a	14	10.5
UK	5	2.7	1.9	2.1	2	1.5
Greece	-	-	19	16.3	17	16.5
Portugal	-	-	7.3	-	10	5.5
Spain	-	8.9	-	-	6	4.7

a – 1980, b –1973
Source: El-Agraa Ali M., (1990), p.207

Chapter II/Figure 3. Expenditure for Market Support in 2006 in the AGENDA +DIR Scenario



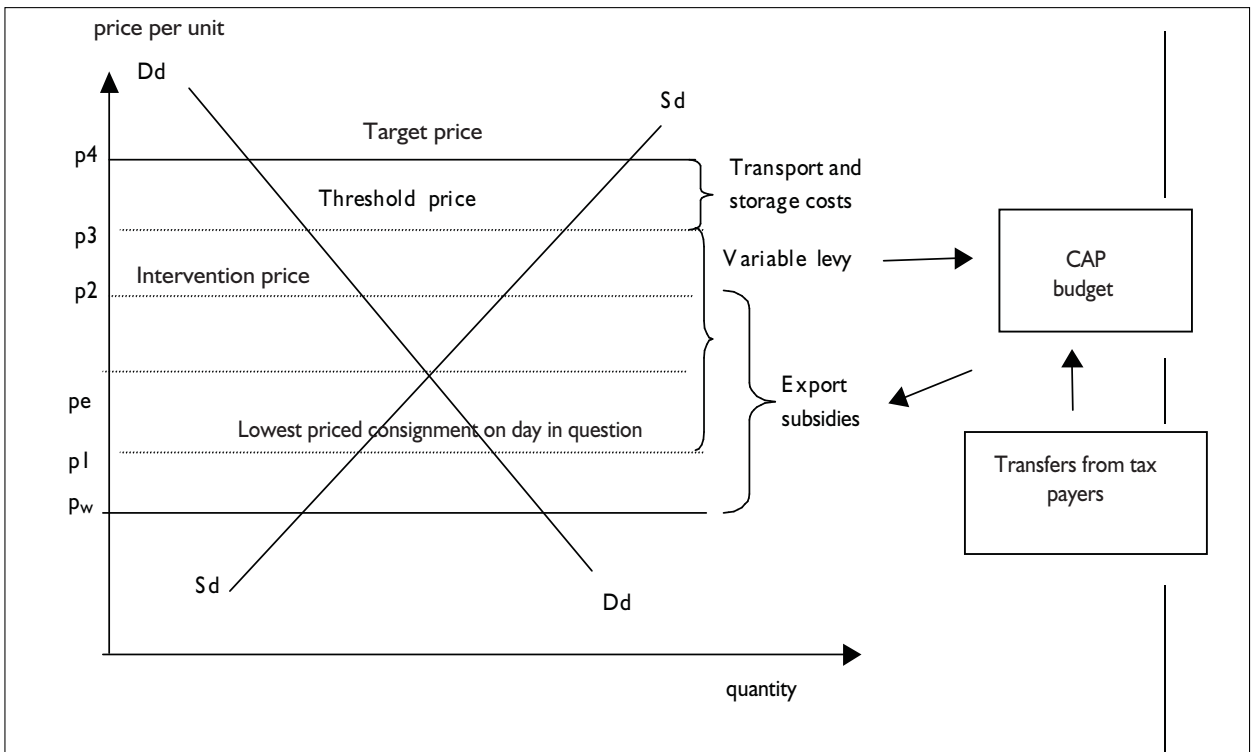
Source: Münch W., (1999)

Chapter II/Table 3. Farm Structure of European Countries

1960					
Hectares	**1-<5**	**5-<10**	**10-<20**	**20-<50**	**50+**
Belgium	48.5	26.5	18	6	1
France	26	21	27	21	5
Germany	45	25	21	8	1
Italy	68	19	8.5	3	1.5
Luxembourg	32	18	26	22	2
Netherlands	38	27	23	11	1
Denmark	18	28	28	23	3
Ireland	20	24	30	21	5
UK	29.5	13	16	22.5	19
Greece	-	-	-	-	-
Portugal					
Spain	-	-	-	-	-
1973					
Hectares	**1-<5**	**5-<10**	**10-<20**	**20-<50**	**50+**
Belgium	31	23	27	16	1
France	22	16	24	28	10
Germany	36	20	24	18	2
Italy	68b	17.5	8.5	4	2
Luxembourg	21	13	20	41	7
Netherlands	25	22	31	20	2
Denmark	12	20	29	32	7
Ireland	15b	16.5	31	29	8.5
UK	16	13	16	26	29
Greece	72a	20.5	6	1.5	0
Portugal	78c	12.5	5	2.5	2
Spain	56c	18	12	8.5	5.5
1987					
Hectares	**1-<5**	**5-<10**	**10-<20**	**20-<50**	**50+**
Belgium	27.7	18.1	24.5	23.9	5.8
France	18.2	11.7	19.1	32.8	18.1
Germany	29.4	17.6	22.1	24.8	6.1
Italy	67.9	16.9	8.7	4.6	1.9
Luxembourg	18.9	9.9	12.4	32.5	26.2
Netherlands	24.9	18.4	25	27.3	4.4
Denmark	1.7	16.3	25.4	39.4	17
Ireland	16.1	15.2	29.2	30.5	9
UK	13.5	12.4	15.3	25.4	33.3
Greece	69.4	20	7.6	2.5	0.5
Portugal	72.5	15	7.2	3.4	1.9
Spain	53.3	19	12.3	9.4	6

a – interpolation between the surveys of 1971 and 1977-8, b – 1975, c – 1979
Source: El-Agraa Ali M., (1990), p.207

Chapter II/Figure 4. CAP Product Prices



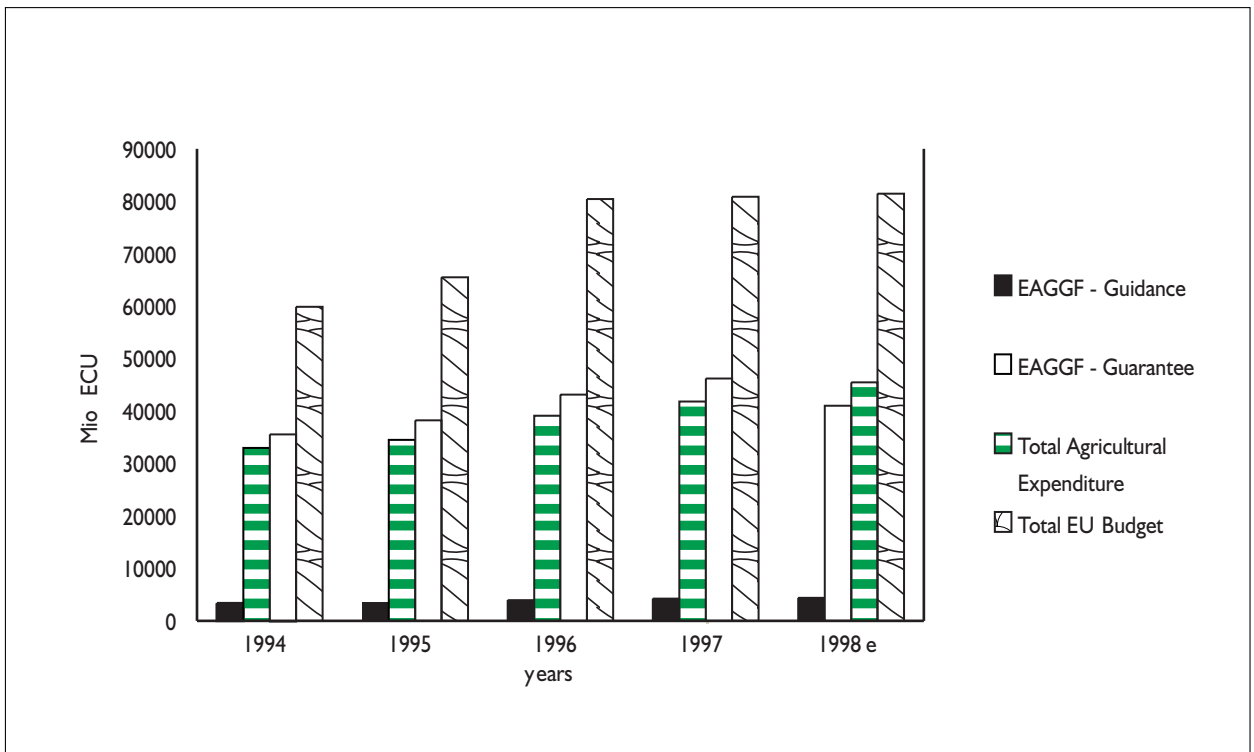
Source: El-Agraa Ali M., (1990), p.21

Chapter II/Table 4. Expenditure Trend by Objectives (ECU million)

Objectives	1991	1992	1993	1994	1995
Objective 1	1440.8	1634.7	1599.2	1904.3	2395.2
Objective 5a	631.3	701.3	923.9	1131.6	655.9
Objective 5b	260.2	475.8	508.6	271.8	249.5
Objective 6					47.7

Source: European Commission, (1996b)

Chapter II/Figure 5. Budgetary Expenditures on CAP



Source: European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter II/Box 1

Agri-environment

The aim of these schemes is to grant aid to farmers for the introduction or maintenance of production techniques, which encourage the protection of the environment, the landscape and natural resources. More than 160 programs have been approved under this measure, on the basis of proposals submitted by the Member States and regions of the Union, who have primary responsibility for implementing these programs. There is a very rich diversity of agricultural-producing regions in the EU - from Lapland in the north of Finland to Andalusia in the south of Spain. This measure encourages the farmer to view his role not only as the producer of food but also as guardian of the countryside, the common heritage of all EU citizens.

Afforestation

Aid for afforestation under CAP reform is intended to provide an alternative use for agricultural land and to encourage the development of farm forestry. The aim is to create the right conditions for well-balanced afforestation of farmland, as part of the policy to restore equilibrium to agricultural markets.

Other objectives set for the European Union's forestry strategy are as follows:

– to manage Europe's forests so that they can fulfil their function of protecting the environment and maintaining the countryside;

– to develop the forests so that they can contribute to the economic development of the countryside and under-developed areas;

– to enhance and market forestry products.

Farm forestry is encouraged through measures such as afforestation of farmland, enhancement of farm woodland, improved conditions for processing and marketing forestry products.

Early retirement measures

While the agri-environmental and agri-forestry measures accompanying CAP reform are compulsory, and must be implemented in all Member States, the early retirement scheme is optional. It permits those Member States, which so desire to grant aid to farmers and farm workers, aged at least 55, who wish to cease work before the normal retirement age. This scheme is particularly important given the age structure within Community agriculture, where some 50% of farmers are over 55 years of age.

Under this measure, early retirement measures are being implemented in ten of the fifteen Member States (as of spring 1996). These programmes are expected to involve some 212 000 recipients, who will release about 4.3 million hectares of land, which will be used principally for the establishment of young farmers, to enlarge existing holdings, but also for non-agricultural uses.

Source: European Commission, DG VI, (1997)

Chapter III./Table 1. Importance of Agriculture in the Czech Republic, Hungary and Poland

CZECH REPUBLIC		1990	1991	1992	1993	1994	1995	1996	1997(e)
Agricultural area	(000) ha	4288	4285	4283	4281	4279	4280	4279	4278
Agricultural area	% total area	54.4	54.3	54.3	54.3	54.3	54.3	54.3	54.3
Gross Agricultural Product (GAP)	% change	-2.3	-8.9	-12.1	-1.2	-1.9	4.3	-4.3	-5.8
Share of Agriculture in GDP	%	6.2	5	3.4	3.3	3.1	3.2	3	2.9
Share of Agriculture in Employment	%	9.6	8.1	6.3	5.6	5	4.4	4.1	4.1
Share of Agro-food/Exports	% total exp.	6.6	8.8	7.1	8.4	7	6.2	5.7	5.4
Share of Agro-food/Imports	%t otal imp.	7.8	7.3	6.3	8.4	9.3	7.1	7.5	6.9
HUNGARY		**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Agricultural area	(000) ha	6474	6460	6136	6129	6122	6179	6184	6195
Agricultural area	% total area	69.6	69.4	66	65.9	65.8	66.4	66.5	66.6
Gross Agricultural Product (GAP)	% change	-4.6	-8.1	-11.9	-14.7	3.4	2.7	4.2	-1.9
Share of Agriculture, forest, fish in	%	1.8	5.2	5.1	4.7	4.5	4	3.8	
Share of Agriculture in Employment	%	17.5	15.8	13.5	10.1	9	8.6	8.2	7.9
Share of Agro-food/Exports	% total exp.	24	26	25	22	21	22	18	15
Share of Agro-food/Imports	% total imp.	8	5	6	6	7	6	5.1	5
POLAND		**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Agricultural area	(000) ha	18720	18674	18664	18642	18648	18622	18474	18457
Agricultural area	% total area	59.9	59.7	59.7	59.6	59.6	59.6	59	59
Gross Agricultural Product (GAP)	%change	-0.3	6.8	-12.3	3	-9.3	10.7	1.1	-0.1
Share of Agriculture in GDP	%	8.4	6.9	6.9	6.8	6.3	6.4	6	
Share of Agriculture in Employment	%	25.8	26	25.5	25.5	25.4	25.9	26.7	
Share of Agoi-food/Exports	% total exp.	14.1	16.6	14.6	11.6	12.1	11	11.3	13
Share of Agro-food/Imports	% total imp.	8.2	13.5	12.4	12	11.2	10.3	10.7	9

(e) estimated

Source: European Commission, Directorate for Agriculture (GD VI), (1998a) WIIW Handbook of Statistics (1997)

Chapter III/Table 2. CEC-3 Farm Structure According to Land Use

	co-operatives*		state farms**		other corporate farms***		private/individual farms****		
Share in total agricultural area (%)									
	pre-transition	current	pre-transition	current	pre-transition	current	pre-transition	current	last census
Czech Republic	61	43	38	2		32	0	23	1995
Hungary	80	28	14	4		14	6	54	1996
Poland	4	3	19	7		8	77	82	1996
Average size (ha)									
	cooperatives*		state farms**		other corporate farms***		private/individual farms****		
	pre-transition	current	pre-transition	current	pre-transition	current	pre-transition	current	
Czech Republic	2578	1447	9443	521		690	5	34	
Hungary	4179	833	7138	7779		204	0.3	3	
Poland	335	222	3140	620		333	6.6	7	

* collectivepre-transition, transformed into private (producer) cooperatives/associations currently
** state farms pre-transition, remaining state farms and state held/controlled enterprises currently
*** joint stock, limited liability companies and other business entities currently
**** household plots pre-transition, individual (part time) farms currently
Source: European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter III/Table 3. Number and Size of Holdings in 1988 and 1996

DISTRIBUTION OF FARMS ACCORDING TO FARM AREA						
	Total number of farms	**1-5 ha**	**5-10 ha**	**10-20 ha**	**20-50 ha**	**>50 ha**
1 988 000 farms	2 168	1 159	637	372	na	na
%	100%	53%	29%	17%	-	-
1 996 000 farms	2 041	1 130	521	307	75	9
%	100%	55%	26%	15%	4%	0%
DISTRIBUTION OF UTILISED AGRICULTURAL AREA ACCORDING TO FARM AREA						
	Total land area	**1-5 ha**	**5-10 ha**	**10-20 ha**	**20-50 ha**	**>50 ha**
1 988 000 farms	15 280	3 731	5247	6302	na	na
%	100%	24%	34%	41%	-	-
1 996 000 farms	16 141	3 403	4237	4650	2249	1602
%	100%	21%	26%	29%	14%	10%

Source: European Commission, Directorate for Agriculture (GD VI), (1998d)

Chapter III/Table 4. CEC-3 Net Agro-food Trade

CZECH REPUBLIC	1990	1991	1992	1993	1994	1995	1996	1997
Agrofood Import (ECU million)						54522*		
Agrofood Import (% total Import)	7.80%	7.30%	6.30%	8.40%	9.30%	7.10%	7.50%	6.90%
Total Export (ECU million)						36172*		
Agrofood Export (% total Export)	6.60%	8.80%	7.10%	8.40%	7%	6.20%	5.70%	5.40%
Total net agrofoof trade (ECU billion)				0.02	-0.34	-0.35	-0.65	-0.58
Net agrofood trade with EU (ECU billion)				-0.08	-0.23	-0.34	-0.53	-0.46
HUNGARY	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Total Import (ECU billion)	6.81	9.27	8.58	10.8	12.29	11.77	14.27	18.72
Agrofood Import (ECUbillion)	0.55	0.5	0.51	0.68	0.89	0.75	0.74	0.96
Agrofood Import (% total Import)	8%	5%	6%	6%	7%	6%	5%	5%
Total Export (ECU billion)	7.57	8.28	8.24	7.62	9.03	9.86	12.35	16.85
Agrofood Export (ECU billion)	1.83	2.13	2.05	1.69	1.94	2.22	2.27	2.52
Agrofood Export (% total Export)	24%	26%	25%	22%	21%	22%	18%	15%
Total net agrofoof trade (ECU billion)	1.29	1.62	1.54	1	1.05	1.47	1.42	1.55
Net agrofood trade with EU (ECU billion)	0.6	0.76	0.61	0.38	0.37	0.52	0.66	0.53
POLAND	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Total Import (ECU billion)	7.49	12.53	12.29	16.07	18.17	22.21	29.17	37.37
Agrofood Import (ECUbillion)	0.52	1.68	1.52	1.91	2.05	2.28	3.14	3.35
Agrofood Import (% total Import)	7%	13%	12%	12%	11%	10%	11%	9%
Total Export (ECU billion)	11.25	12.03	10.18	12.07	14.52	17.05	19.26	23.13
Agrofood Export (ECU billion)	1.49	1.99	1.49	1.43	1.76	1.92	2.17	2.93
Agrofood Export (% total Export)	13%	17%	15%	12%	12%	11%	11%	13%
Total net agrofoof trade (ECU billion)	0.97	0.31	-0.03	-0.48	-0.29	-0.36	-0.97	-0.42
Net agrofood trade with EU (ECU billion)	0.35	-0.02	-0.08	-0.35	-0.33	-0.34	-0.57	-0.53

* Average 1995–1997

Source: European Commission, Directorate for Agriculture (GD VI), (1998a) WIIW Handbook of Statistics (1997)

Chapter III/Table 5. Budgetary Expenditure on Agricultural Policy

CZECH REPUBLIC	**1997 (CZK million)**	**1997 (% total agri. budget)**	**1998 (CZK million)**	**1998(e) (% total agri. budget)**
Market (price) support	2 404	21%	5 565	36%
Credit subsidies	4 181	37%	3 500	23%
Direct payments	2 059	18%	4 463	29%
Disaster payments	973	9%	100	1%
General services	798	7%	800	5%
Tax concession	827	7%	900	6%
TOTAL	11 242	100%	15 328	100%
fees (for air pollution)	-100	..	-100	..
HUNGARY	**1997 (HUF million)**	**1997 (% total agri. budget)**	**1998 (HUF million)**	**1998 (% total agri. budget)**
Market policy (mainly export subsidies)	42 300	42%	41 000	35%
Subsidy to agricultural production (mainly interest subsidy and use of poor quality land)	20 900	21%	31 480	27%
Reorganization program	5 300	5%	3 000	3%
Investment subsidies	22 000	22%	28 320	24%
Land improvement, irrigation	2 000	2%	1 900	2%
Afforestation aid	1 300	1%	1 400	1%
Land use and quality protection	1 320	1%	1 400	1%
Animal husbandry and breeding	500	0%	550	0%
Wildlife management and fishery	1 098	1%	850	1%
Others	4 230	4%	6 220	5%
TOTAL	100 948	100%	116 120	100%
POLAND	**1997 (PLN million)**	**1997 (% total agri. budget)**	**1998 (PLN million)**	**1998 (% total agri. budget)**
Price and income support	331	3%	325	2%
Reduction of input costs	1248	10%	1311	9%
General services	1384	11%	1277	9%
Education, culture and art	546	4%	617	4%
Social measures (pension fund)	9011	72%	11080	76%
Total agriculture	12520	100%	14610	100%
Total budget expenditure	127 554	..	143 441	..
Share of agriculture in total expenditure	9.80%	..	10.20%	..

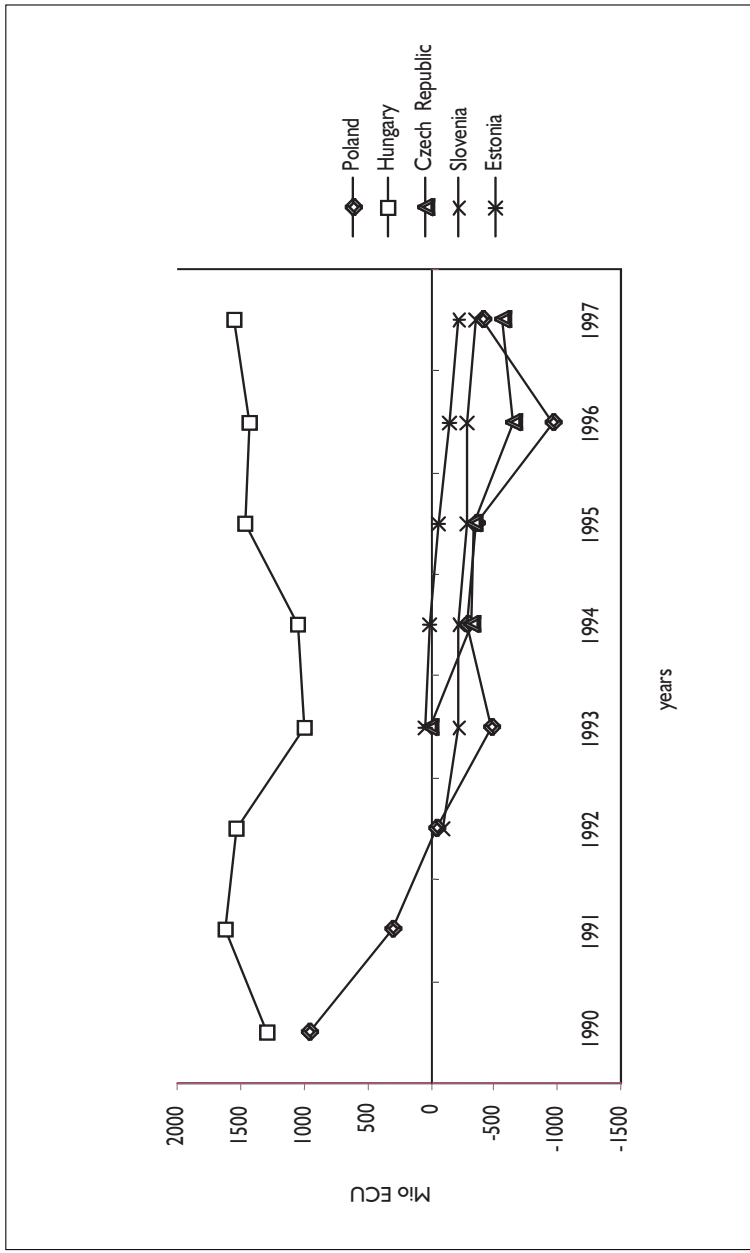
Source: European Commission, Directorate for Agriculture (GD VI), (1998c) i (1998d), WIIW Handbook of Statistics (1997)

Chapter III/Table 6. Agriculture of CEEC-5 and the EU in the National Economies

	Agricutural area		Agricultural production		Agricultural employment		Agrofood trade		Food expend.
1996	000 ha	% tot. area	billion ECU	%GDP	thous.	% tot. empl.	% tot.exp.	% tot.imp.	% hous. Inc.
Czech Republic	4279	54.3	1.2	4.4	211	4.1	5.7	7.5	31
Hungary	6184	66.5	2.1	5.8	298	8.2	17.5	5.1	24
Poland	18474	59.1	6.5	6	4130	26.7	11	11	35
Slovenia	785	38.7	0.7	4.4	61	6.3	4.2	7.8	23
Estonia	1450	32.1	0.3	8	74	9.2	15.7	15.6	30
EU-15	135260	41.8	117.5	1.7	7514	5.1	7.4	9.6	18

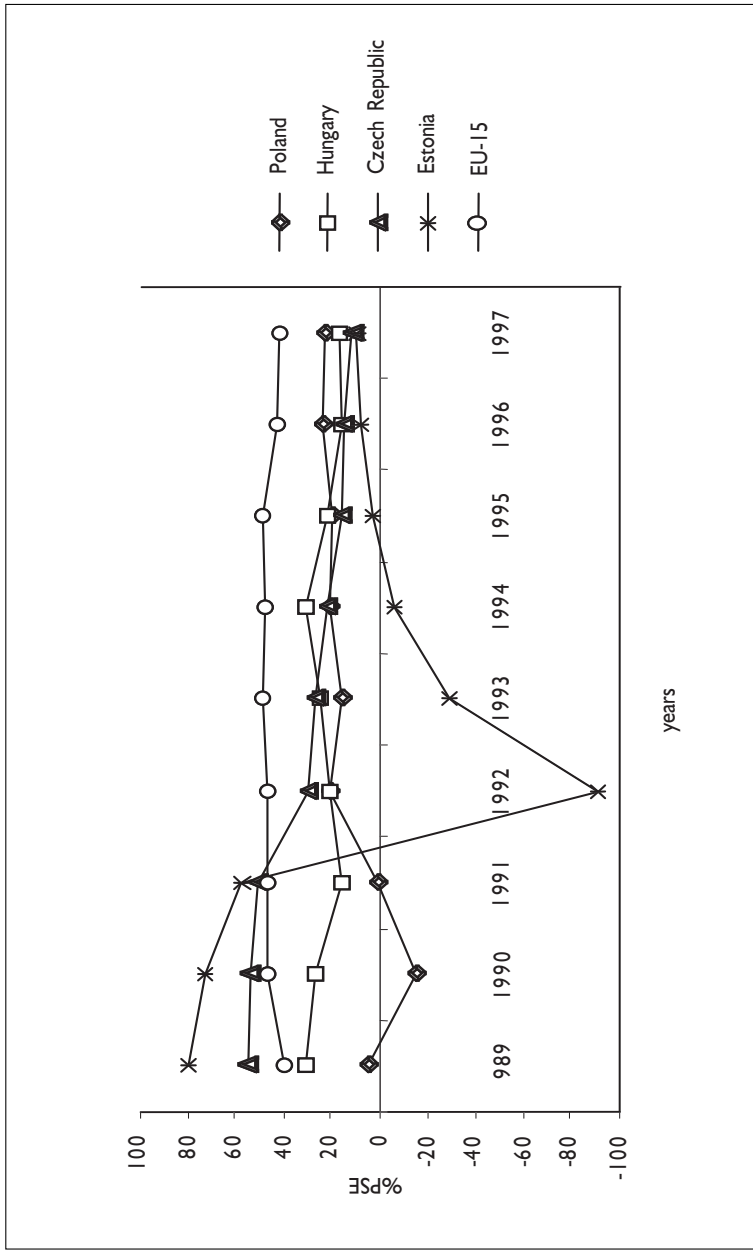
Source: European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter III/Figure 1. CEEC-I Net Agro-food Trade



Source: Based on European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter III/Figure 2. Percentage PSE CEECs-EU



Source: OECD Data Base (1998b)

Chapter III/Table 7. Effective Support Prices of Selected Products 1997/1998

	wheat		sugar beet		milk		beef	
	ECU/t	%EU	ECU/t	%EU	ECU/t	%EU	ECU/t	%EU
Czech Republic	103	84%	-	-	179	62%	1858	67%
Hungary	71	58%	-	-	210	73%	1630	58%
Poland	141	115%	25	52%	147	51%	-	-
Slovenia	171	139%	47	98%	-	-	-	-
Estonia	-	-	-	-	-	-	-	-
EU-15	123		48		287		2791	

Source: Based on European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter IV/Table1. The EU Financial Framework for 1999–2006

EUR (million)	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Agricultural Guideline*	**45 205**	**46 940**	**48 750**	**50 630**	**52 600**	**54 650**	**56 790**	**59 020**
Agricultural Expenditure	**40 400**	**42 650**	**45 710**	**47 515**	**49 040**	**49 250**	**49 270**	**49 360**
Agricultural expenditure for EU-15	**40 400**	**42 120**	**45 170**	**46 965**	**48 480**	**48 680**	**48 680**	**48 760**
Reformed CAP (Market Measures)	37 800	37 275	40 280	42 035	43 510	43 670	43 620	43 670
Accompaning Rural Development and Horizontal Fisheries Measures	2 600	4 745	4 790	4 830	4 870	4 910	4 960	4 990
Veterinary and Plant-health Measures	100	100	100	100	100	100	100	100
Agricultural expenditure for the Applicant Countries	0	530	540	2 250	2 760	3 270	3 890	4 500
Pre-Accession Aid**	0	530	540	550	560	570	590	600
Estimated Expenditure for Accession	**0**			**1 700**	**2 200**	**2 700**	**3 300**	**3 900**
CAP Market Measures		0	0	1100	1200	1200	1300	1400
Rural development accompanying measures		0	0	600	100	1500	2000	2500
Margin	**4 805**	**4 290**	**3 040**	**3 115**	**3 560**	**5 400**	**7 520**	**9 660**

* Guideline for the fifteen. Assuming Deflator 2% a year between 2000–20006

** It makes 520 million Euro at constant prices

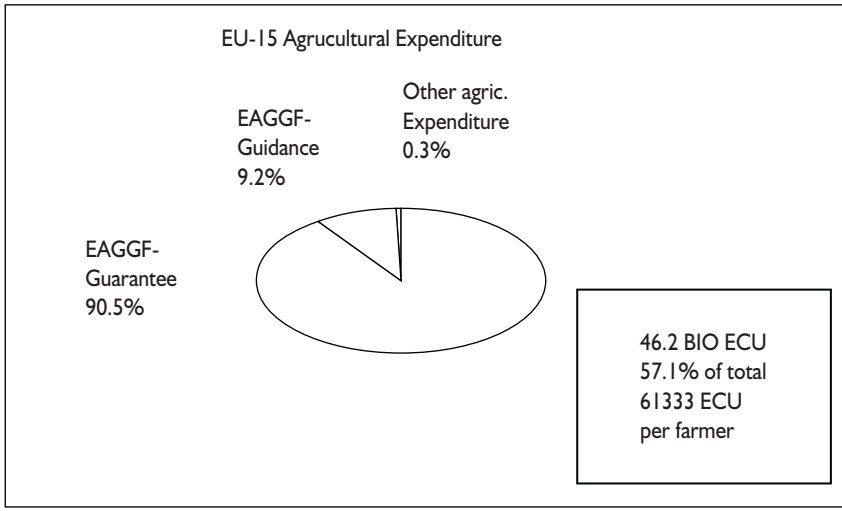
Source: European Commission, (1999)

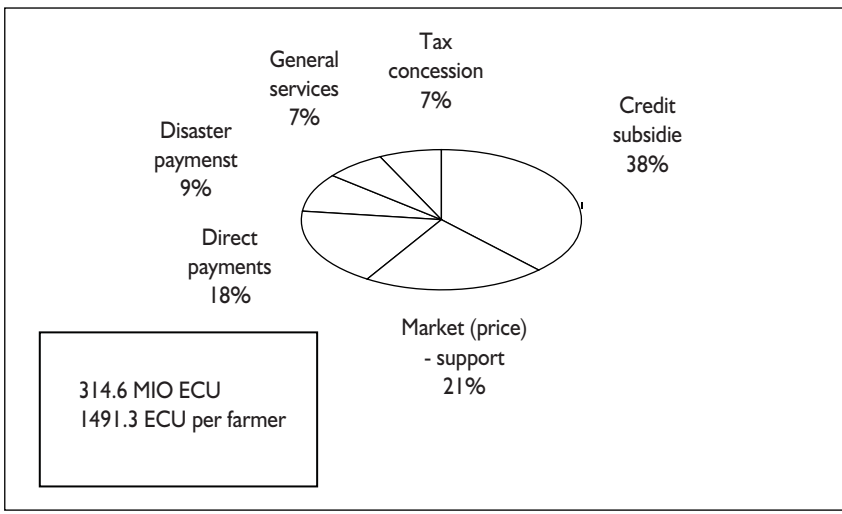
Chapter IV/Table 2. Agricultural Policy Instruments

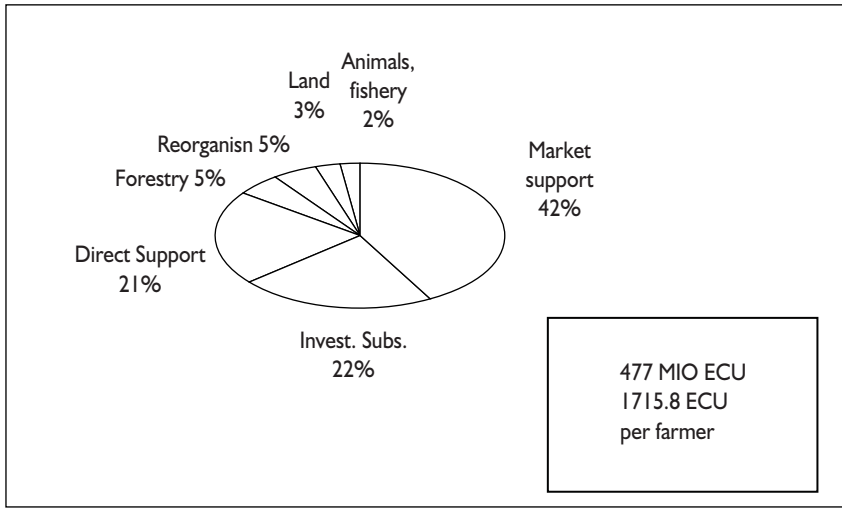
	(+)	(+)	(+)	(+)	(-)
Agricultural Income = f [(per cap.)	(VA)	(Production)	(Price)	(Direct Payments)	(Agr. Employment)]
Policies:	Investments in Rural Development	Surpluses Management	Price Support	Income Transfers	Reducions in Number of Farmers
	*(Budget -)	**(Budget--)	**(Budget--)	**(Budget--)	*(Budget -)

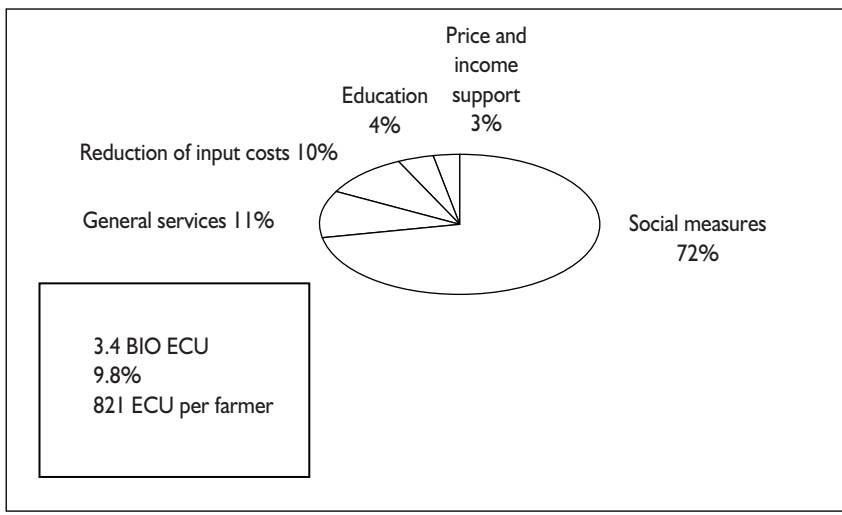
* Easily controlled budget expenditures or small burden for budget
** Hardly controlled budget expenditures or big burden for budget
Source: Orłowski W. M., (1996b)

Chapter IV/ Figure 1a-d. Agricultural Expenditures in CEC-3



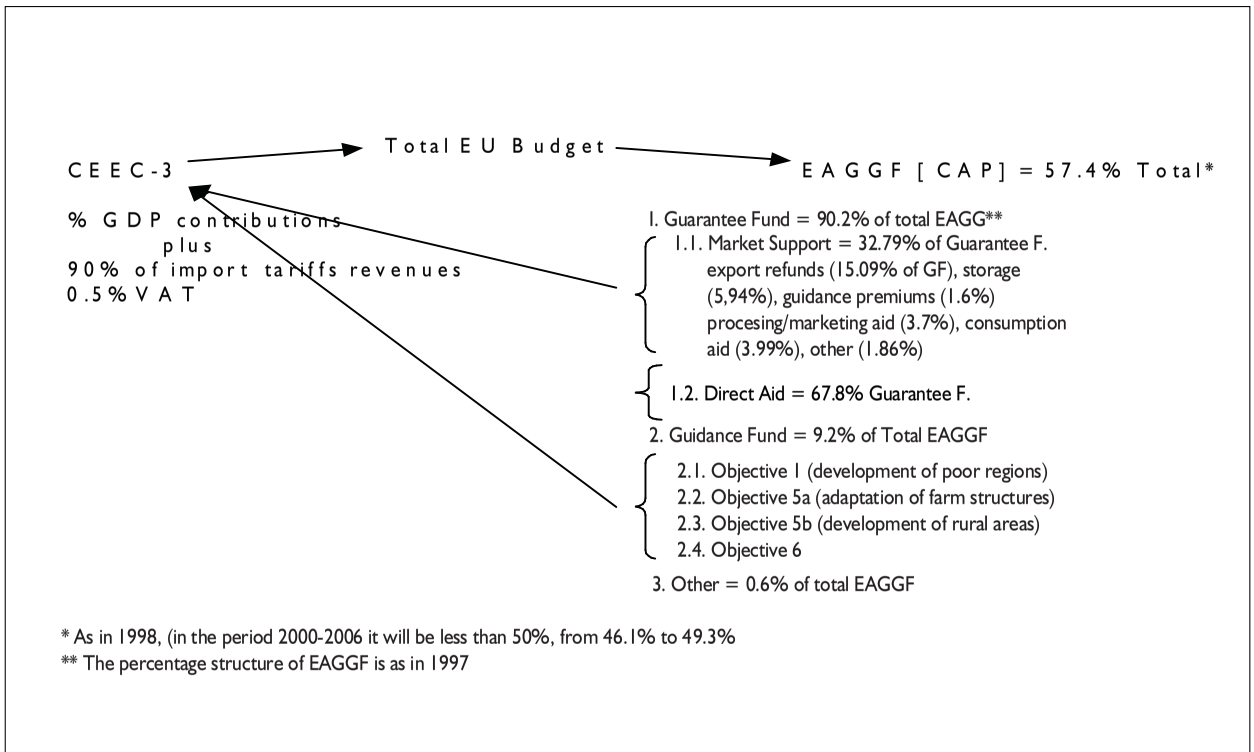






Source: Reports European Commission, Directorate for Agriculture (GD VI), (1998a), (1998b), (1998c), (1998d)

Chapter IV/Figure 2. Agricultural Transfers



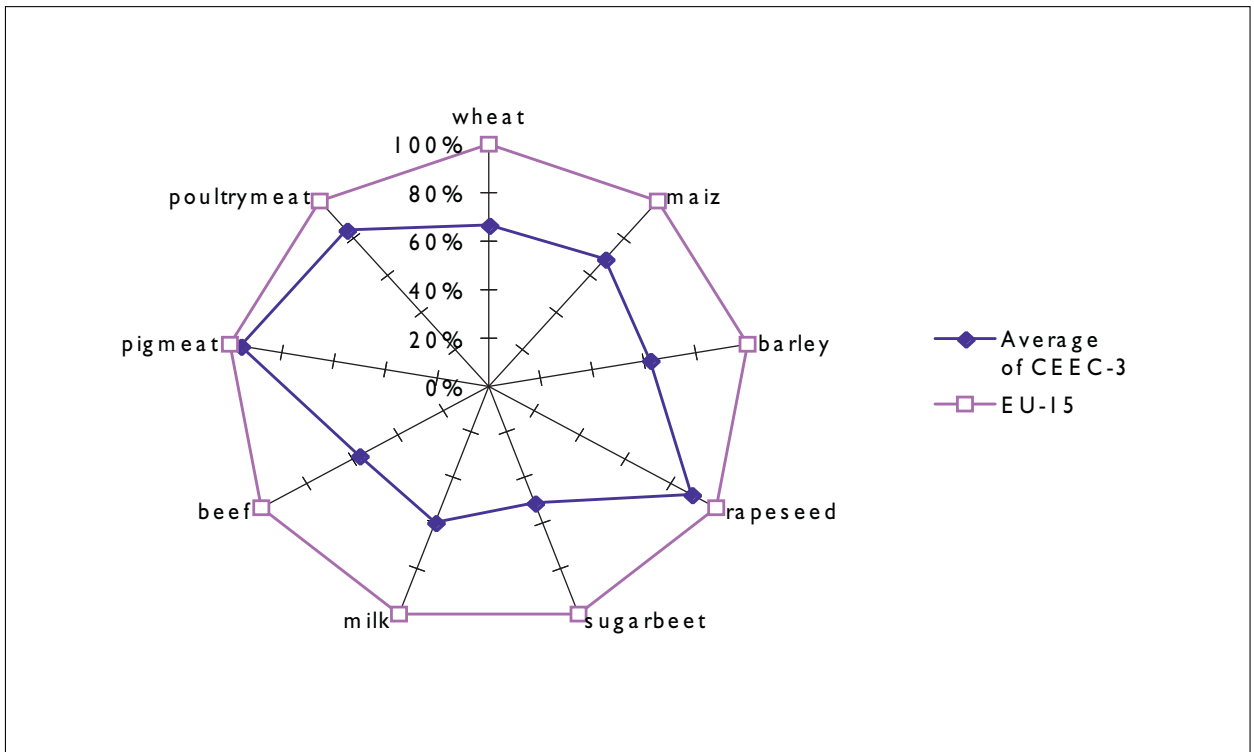
Source: EC, DGVI

Chapter IV/Table 3. Agro-food Trade Structure in CEC-3

	Agrofood Trade		Agrofood Trade outside EU		Agrofood Trade outside EU		Net Agrofood Trade outside EU
1996	**% of total import**	**% of total export**	**% of total import**	**% of total export**	**MT import**	**MT export**	**MT**
Czech Republic	7.5	5.7	3.5	3.6	1 120 361.00	776 126.00	344 235.00
Hungary	5.1	17.5	2.9	9.2	1 640 398.80	1 778 256.60	-137 857.70
Poland	11	11	5.8	5.8	3 914 911.60	1 289 178.90	2 625 732.70

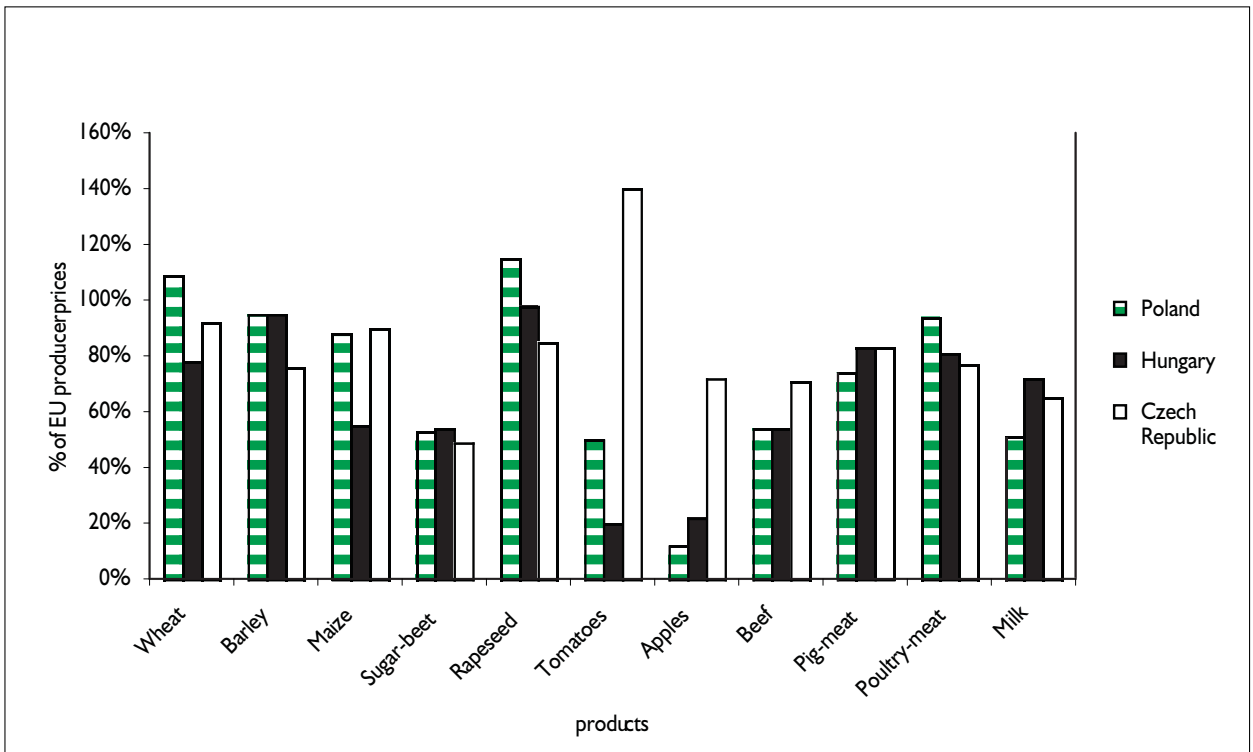
Source: Self-counting based UN Commodity Trade Statistics, (1997) and European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter III/Figure 3. Percentage PSE CEECs-EU



Source: European Commission, Directorate for Agriculture (GD VI), (1998a)

Chapter IV/Figure 4. Comparison of Producer Food Prices Between EU and CEEC-3



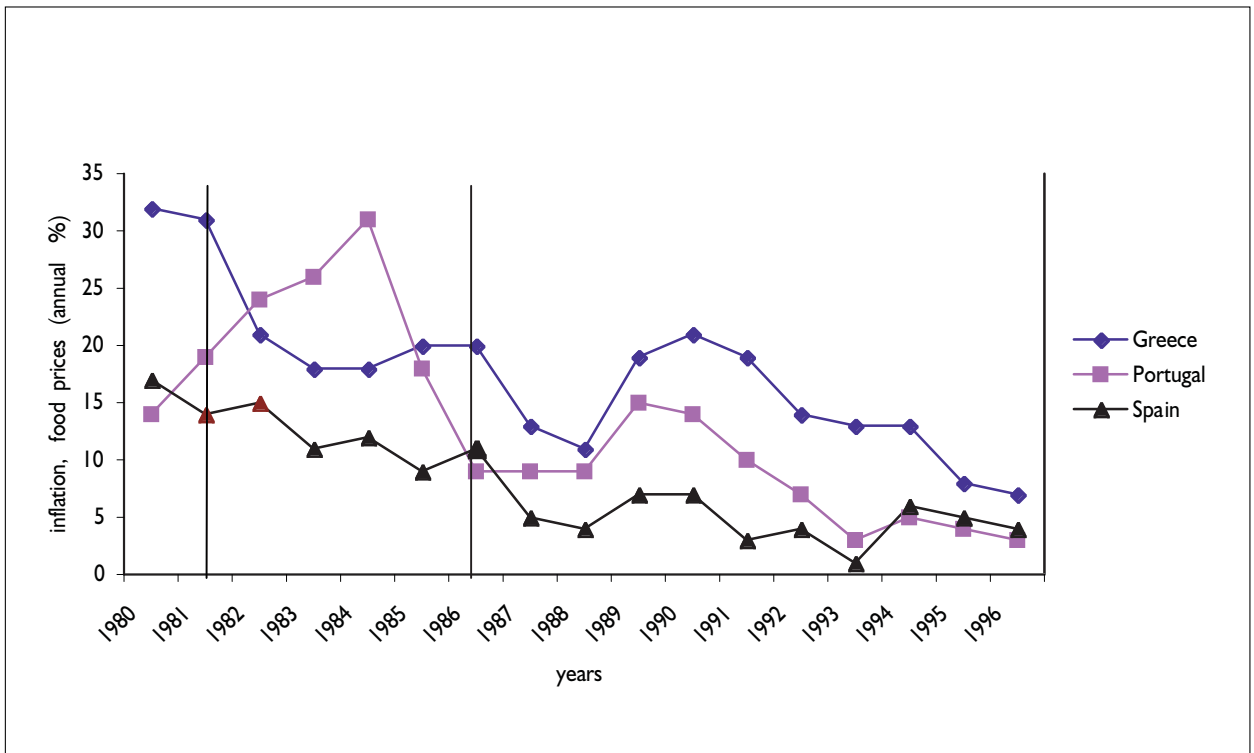
Source: European Commission, Directorate for Agriculture (GD VI), (1998a),(1998b), (1998c), (1998d)

Chapter IV/Table 4. Food Prices in Poland: Three Scenarios for 2005-2010

Products	Prices (PLN/t) in:						
	Base period (1994-1996)	2005			2010		
		w.o. Accession	Accession and CAP unchanged	Agenda 2000	w.o. Accession	Accession and CAP unchanged	Agenda 2000
Wheat	421	358	439	421	369	456	446
Rye	375	342	414	392	330	425	416
Rapeseed	894	968	783	773	982	796	786
Sugar	1 556	1 563	2 423	2 423	1 824	2 403	2 403
Milk	624	639	1 238	1 104	639	1 228	1 095
Butter	4 858	4 969	13 380	11 949	4 969	13 273	11 854
Beef	6 189	7 097	9 469	7 475	7 799	9 394	7 811
Pig-meat	4 777	5 190	4 811	4 781	5 310	5 035	5 011
Poultry-meat	5 291	5 555	3 848	3 830	5 616	3 750	3 736

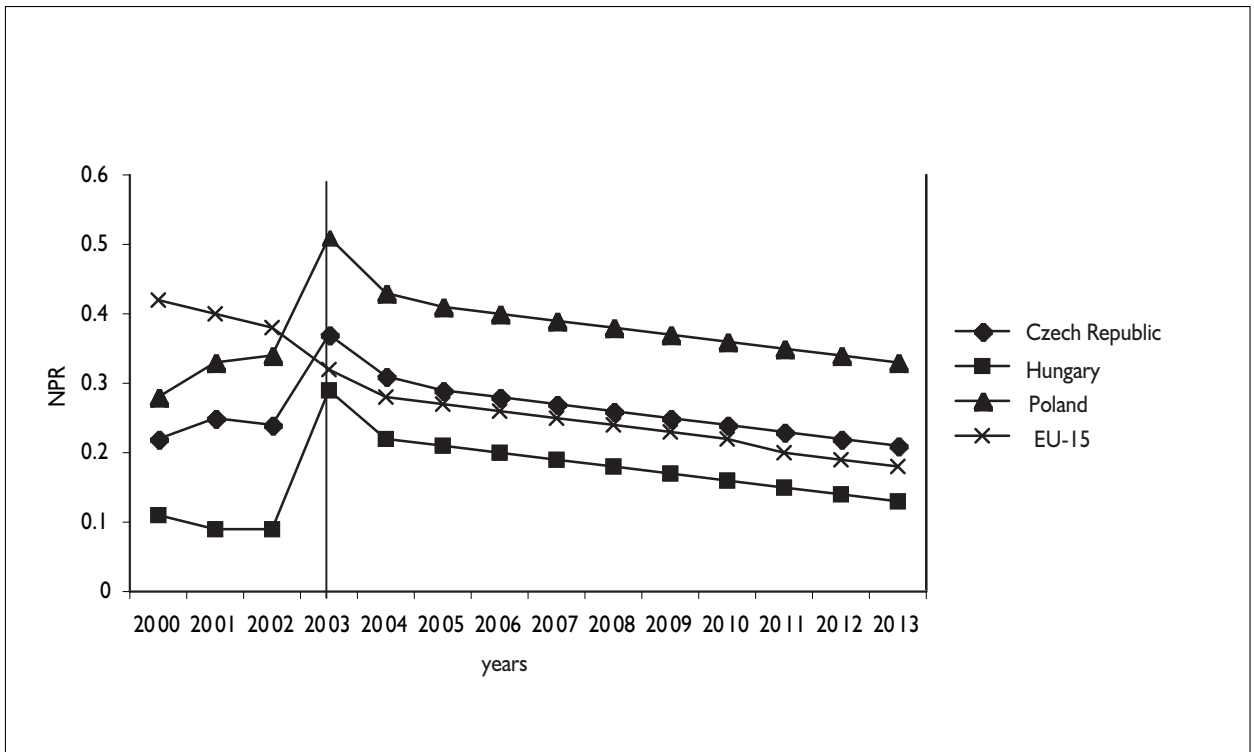
Source: Piskorz W., Guba W., et al., (1998)

Chapter IV/Figure 5. Food prices in Portugal, Spain and Greece in 80s and 90s.



Source: The World Bank Database: Development Indicators (1998)

Chapter IV/Figure 6. Development of Average Nominal Rates of Protection in the AGENDA Scenario



Source: The World Bank Database: Development Indicators (1998)

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