# EU agricultural expenditure for various accession scenarios

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Agriculture is a sensitive chapter in the accession negotiations between the European Union and the candidate countries. One of the main issues in these negotiations is the question of direct payments, with possible reforms of the market and price policy for the enlarged EU in the background. This report assesses the consequences for the EU budget of a number of accession and reform variants. A calculation model has been constructed to calculate the different scenarios. The conclusion is that granting direct payments to new member states will have considerable consequences for the EU budget. If these consequences have to be compensated in the agriculture budget, a gradual reduction in existing payments would be an option.

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# Contents

# Preface

The CAP is a vital condition for the functioning of the common European market in agricultural products. This policy is therefore significant for the whole agricultural sector, not only for the sub-sectors, which are directly supported by the CAP. Although the agricultural policy has already been reformed several times, further modifications will follow. Without wishing to play down the importance of internal factors, the reasons for this are the liberalization of the international agricultural trade in the framework of the WTO, the proposed enlargement of the EU and the limitation of EU agricultural expenditure. It goes without saying that these developments are interrelated.

This report looks at the relationship between the enlargement of the EU by twelve candidate countries and the development of EU agricultural expenditure. The report builds on previous research carried out by the LEI into the consequences for agricultural expenditure of complete integration of candidate countries from Central and Eastern Europe. The EU assumes that a certain category of income payments will only apply to the present member states. During the accession negotiations, however, the candidates and the Commission may propose transitional periods in which income support is gradually phased in. The value of this report lies in the immediate insight it provides regarding the budgetary consequences for the EU of the variants discussed in the accession negotiations.

The report was jointly commissioned by the Ministry of Finance and the Ministry of Agriculture, Nature Management and Fisheries (LNV). The information will be used in the recently initiated Interdepartmental Policy Research (IBO) about the financing of the Common Agricultural Policy. The IBO will issue recommendations for the position of the Netherlands towards EU resolutions regarding the enlargement of the EU.

The present report was written by Mrs. C.W.J. van Rijswick and Mr. A.J. de Kleijn, under the supervision of Dr. H.J. Silvis. They acknowledge with thanks the advice provided by Mr. S. van Berkum at the start of the project.

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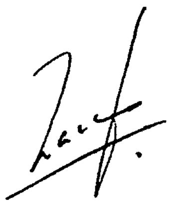
The Managing Director,



Prof. L.C. Zachariasse

# Summary

*Introduction*

The European Commission is negotiating with twelve candidate countries (CC) about accession to the EU. A sensitive issue in this regard is the Common Agricultural Policy (CAP). The main issue in these negotiations concerns direct income payments (hectare payments and livestock premiums) in the CC, with possible reforms in the market and price policy for the enlarged EU in the background. The position of the European Council and the European Commission is that these income payments will not be made to new member states. On the other hand, the CC are aiming at complete integration in the CAP, including payments. The financial consequences of accession require serious discussion because the CAP accounts for a substantial proportion of the entire EU budget. This report assesses the consequences of a number of accession and reform variants for the budget. A calculation model has been constructed to calculate the various scenarios.

*Current situation concerning accession*

In December 2000, the European summit in Nice concluded that the CC had made good progress on the road to joining the EU. Plans for further negotiations were made for the coming two years. The question of direct payments was reserved for the final phase of the negotiations. During the screening process of the CC, the Commission ruled that with regard to agriculture, a great deal still had to be achieved with regard to the structure of the sector. Of the candidate countries, Romania seems to be furthest from accession. However even Poland, which may be among the first group to join, would seem to require further major reforms. Compliance with agricultural agreements at WTO level is a special aspect with regard to the enlargement of the EU. For cereals, milk powder, other dairy products and pork, the calculated export surplus is bigger than the maximum level of export volume agreed in the WTO, while expenditure for export support threatens to exceed the agreed WTO maximum amounts in the long term for sugar, milk powder, other dairy products and pork. Therefore the EU will need to adjust its policy.

*Agricultural sector in the candidate countries*

The agricultural sector is very important for the CC. In Central and Eastern European countries, the share of agriculture in the country's Gross National Product (GNP) and employment are higher than the average in the EU-15. With the exception of Bulgaria and Hungary, the CC are net importers of agricultural products. The EU acts as a major trading partner for these countries. The crop, dairy and meat sectors are fairly important in the CC. Poland is the most important producer of almost all products, which include cereals, dairy, potatoes, sugar beet, beef and pork. Romania also produces quite a lot of cereals, in addition to oilseeds, milk, fruit and vegetables. Hungary is a fairly important producer of poultry, oilseeds, cereals, vegetables and fruit (including wine-growing). Since 1989 a sharp decline has been particularly evident in livestock production in the CC. Most CC lack a healthy structure for agriculture, and agricultural productivity is relatively low. The food industry suffers from overcapacity and is in urgent need of modernization, partly to be able to meet EU standards.

*Accession scenarios*

The base line of this report is that on joining the EU, the new member states should be subject to the CAP as a whole, but without the direct payments. Arguing against this, four scenarios have been developed. On the one hand, these scenarios are related to the way in which the eventual introduction of payments could be made. On the other hand they take into account the possible implementation of CAP reforms, which would apply to the enlarged EU. In the first scenario direct payments would be granted in full as from accession in 2004, and subsequently in accordance with the agreements applicable to the EU 15. This means payments in full for cereals and beef as from 2004, and for dairy as from 2005. The second scenario phases in the payments: 20% in the first year (2004), 40% in the second year, 60% in the third year and 80% in the fourth year, 100% in the fifth and subsequent years. The third scenario envisages a 10% annual reduction in direct payments for the whole EU as from 2007 with regard to the previous year. The fourth scenario describes a reform of the sugar and dairy policy from 2003 and a further reform from 2007, which will proceed in the same way as the first round of reforms (15% price reduction in three phases, with partial compensation for producers by means of direct payments). These four scenarios are intended to offer insight into the effects of the possible options.

*EU agricultural expenditure in the scenarios*

In the financial prospects of the EU for the period 2000-2006, an amount totalling 1.6 billion euro in 2002 has been included for additional agricultural expenditure following the accession of (six) new member states, rising to 3.4 billion euro in 2006. This increase is related to a gradual growth of rural support. The expenditure calculated in this report for the base line follows the same pattern, but is at a higher level. This is particularly due to the technical assumption that not 6 but all 12 CC will join in the first year.

A more important conclusion drawn from the calculations is that any allocation of direct payments to the new member states will have considerable consequences for the EU budget. In the first scenario, with 100% allocation of direct payments, EU agricultural expenditure for the 12 CC rises to a level, which will be around 7.5 billion euro higher in 2010 than expenditure according to the base line. Four countries (Poland, Romania, Hungary and the Czech Republic) account for 80% of the calculated EU agricultural expenditure in the CC. The timing of the accession of these countries is therefore of vital importance for the level of agricultural expenditure in a given year. More than half of the expenditure for the major products (cereals, oilseeds, protein crops, sugar, dairy and beef) is spent on cereals. Reducing payments has the greatest absolute effect for countries with a considerable share in this sector: Poland in the CC, and France and Spain in the EU 15. Relatively speaking, the greatest effect in the EU 15 is felt by the United Kingdom. The size of the direct payments determines the level of the total agricultural expenditure.

Changes in the reference period (of production) on which payments are based may result in radical shifts in EU agricultural expenditure. For the CC, of all the years since the transition, the year 1989, with its relatively high vegetable and livestock production, resulted in the highest possible outcome: an extra 3.5 billion euro annually. For vegetable production, a reference year in the first half of the nineties resulted in the lowest possible outcomes, while the most recent years have seen the lowest expenditure for livestock production.

Expenditure which is related to export surpluses is highest in the Czech Republic, Lithuania (dairy export) and Hungary (cereals export). The direct effect of world market prices on EU agricultural expenditure is limited because most of the agricultural expenditure consists of fixed direct payments. Extra reforms in the dairy and sugar sectors result in an increase in the importance of the dairy sector in the total agricultural expenditure. This has particular consequences (in relative terms) for countries in which the dairy sector plays a major role: Poland, the Czech Republic and Lithuania in the CC and the Benelux in the EU 15.

# 1. Introduction

### 1.1 Aim of the report

The European Union is on the eve of a significant enlargement. Negotiations are currently underway between the European Commission and twelve candidate countries (CC): Cyprus, Malta and ten Central and Eastern European countries. Negotiations have not yet been started with the thirteenth candidate country, Turkey.

Agricultural issues form an important part of the negotiations. During these negotiations, discussions focus on the adoption of plant health (phytosanitarian) and veterinary legislation and on the modalities of agricultural market and price policy. One sensitive theme in this respect is the issue of direct income payments (hectare payments and livestock premiums).

The financial framework for the EU, which was established in Berlin in March 1999, explicitly takes into account the accession of six CC in the period between 2002-2006. For the last year of this period, an extra 3.4 billion euro has been included in the budget for agricultural expenditure. This is intended for the price policy (market expenditure) and rural policy, not including the hectare payments and livestock premiums. It has been decided to exclude the new member states from livestock premiums. In defence of this decision it is argued that the payments in question form a partial compensation for price reductions which have taken place in the EU 15, but not in the countries joining the EU. However in many cases the new member states will be confronted with price increases when they join the Union. Objections have been raised against this decision, based on the fact that, on the grounds of equality and fair competition within the larger EU, it would be morally difficult to defend a policy whereby the majority of the European agricultural budget was directed at relatively rich farmers from the EU 15, while the 'poorer' farmers from the new member states were excluded from the premiums concerned.

The financial consequences of any implementation of direct payments in the new member states deserves serious attention, particularly because the CAP accounts for a substantial part of the total EU budget. Apart from allocating the payments for the EU 15 as agreed in Berlin, various paths can be taken. For example, payments may be partially allocated or phased in. However there is also the possibility that, partly for budgetary reasons, payments in the larger EU may be reduced. This report assesses the consequences for the budget of a number of these accession variants, whereby expenditure is divided according to country, period and product group.

## 1.2 Research methods

A calculation model was constructed to calculate the various scenarios, thus making it easier and faster to calculate the financial consequences of variations in reference periods and reference levels, the gradual introduction of income payments, moment of accession and the composition of the group of countries joining the EU. The calculation model consists of a number of parts. The level of direct payments was estimated by multiplying the relevant amounts and the associated premiums. The remaining expenditure of the EU market and price policy was estimated on the basis of prognoses and production surpluses in the CC published by the Commission. The calculations were made for the major product groups, after which a total sum was estimated using an increment factor. Rural policy forms a separate category of agricultural expenditure. In practice, for this kind of expenditure a fixed sum is allocated each year, which is encrypted. In order to estimate this expenditure in the new member states, this report has assumed a ratio between the level of expenditure and the area of cultivated ground. Together the parts described determine the total effect on EU agricultural expenditure. An explanation of the calculation model is given in appendix 1.

## 1.3 Organisation of the report

The next chapter outlines the progress being made in the negotiations concerning the accession of the CC to the EU. It also discusses aspects of the enlargement relating to the WTO (World Trade Organisation). Chapter 3 looks at the agricultural economic situation in the CC, emphasising products linked with high EU agricultural expenditure. Chapter 4 describes the positions and assumptions, which form the basis of the various scenarios. Continuing on from this, Chapter 5 presents the budgetary consequences of these scenarios. This presentation will provide an indication of the sensitivity of the expenditure for variations in certain assumptions. The results will also be compared with results from other reports.

# 2. The road to accession

## 2.1 General

During the European summit in Copenhagen in 1993, the EU member states reached agreement about the criteria for accession. It was then no longer a question of whether the candidate countries would join the Union, but when. In July 1997, partly in preparation for the accession, the European Commission presented its so-called 'Agenda 2000', which included an outline of the future Union and an evaluation of the situation in the candidate countries. These evaluations resulted in an initial decision by the Commission that as from 2002, Poland, Hungary, the Czech Republic, Estonia, Slovenia and Cyprus would join the EU. In March 1998, the official accession negotiations were opened with these countries. The accession of Romania, Bulgaria, Slovakia, Lithuania, Latvia and Malta would follow after 2006.

*Box 2.1 Pre-accession support to the candidate countries from Central and Eastern Europe*

There are three main instruments for pre-accession support to the ten candidate countries from Central and Eastern Europe (CEE).

- PHARE
  This is the main channel for financial and technological aid to the CEE countries. The support is directed at adoption of the 'acquis communautaire'. This means investment support and organisation of institutions (for example training of civil servants, environmental inspectors, statisticians, lawyers, etc.). An annual budget of 1,560 million euro is available for the programme (in terms of 1999 prices) between 2000 and 2006. With a share of around 37%, Poland is the biggest recipient, followed by Romania and Bulgaria.
- ISPA
  The 'Instrument for Structural Policies for Pre-Accession' mainly finances large projects relating to the environment and infrastructure. ISPA has an annual budget of 1,040 million euro. At least half of this sum will be directed to projects in Poland and Romania.
- SAPARD
  The 'Special Accession Programme for Agriculture and Rural Development' provides pre-accession support for agricultural and rural development. The annual budget of 520 million euro will mainly be used to accelerate the adoption of the acquis communautaire in rural areas. It directs much of its support to modernising agriculture, providing incentives to the food industry and contributing to rural development. The European Commission expects almost a third of the sum will be spent on projects in Poland and almost 30% in Romania.

Source: EC, 2000a.

In October 1999 the European Commission presented its second report on the progress of the countries on their way to joining the EU. Partly on the basis of this report, the European Council of Helsinki in December 1999 decided to expand the number of negotiating partners by including the other candidate countries. In addition Turkey was officially granted the status of candidate country. As from 2000, all ten candidate countries from Central and Eastern Europe receive pre-accession support (see box 2.1). Specific instruments and funds are available for Cyprus, Malta and Turkey. The negotiations are taking place in bilateral accession conferences based on the chapters which cover the areas of the 'acquis communautaire'. Agriculture is one of the chapters.

In December 2000 the European summit in Nice determined that considerable progress had been made. The summit described the differential principle, which will do justice to the merits of each candidate country. A plan for further negotiations over the next two years has been drawn up. The European Council feels that the Union will be ready to welcome the new member states from the end of 2002. The candidate countries have been requested to continue with and accelerate the necessary reforms, particularly with regard to the strengthening of their administrative capacity.

## 2.2 Agricultural themes in the accession negotiations

The main agricultural themes in the accession negotiations relate to plant health (phytosanitarian) and veterinary issues, the volume of the production quota and the allocation of direct payments. In the background, current and future obligations at WTO level play an important role (see section 2.3). According to the plan approved in Nice, the agricultural negotiations will take place mainly in the second half of 2001 and the first half of 2002. However the question of direct payments will be kept for the final phase of the negotiations.

*Requirements of the candidate countries*

The six CC with whom accession negotiations were started in 1998, made their requirements known to the European Commission in 1999 via 'position papers'. They feel that they will require a period of transition after accession before they are able to adopt EU legislation. At the same time they generally assume that complete integration in the CAP will follow accession. This means that they wish to be considered for the same support measures as the present EU member states, including hectare payments and livestock premiums. Poland even considers direct payments to be essential for the (economic) quality of life in the Polish rural areas and that there are some additional products, which should also be considered eligible for direct payments. The Polish negotiators do not consider any price differences between Poland and the EU to be an obstacle for enforcement of the CAP. Hungary feels that it is entitled to direct payments on the grounds of the EU's 'non-discrimination principle'. The determination of production quota is another item for discussion. Just like Slovenia, Poland also feels that production quota should not be determined on the basis of present production, but on the basis of 'production potential'. The accession candidates also each have their own specific requirements regarding agricultural support.

*Progress in the preparations*

Running parallel to the negotiations is the screening process, in which the European Commission investigates to what extent the CC are capable of adopting the acquis of the EU and satisfying the political and economic criteria established by the Council. The results of the screening are published in progress reports, the most recent of which appeared in November 2000 (EC, 2000b).

With regard to agriculture the Commission concludes that there is still a lot to be done in the field of structure (size of the concern, processing industry, sales channels, ground market). According to the Commission, considerable efforts are required with regard to veterinary and plant health (phytosanitarian) measures before they can adopt the acquis of the EU. Of the 12 candidate countries, Romania seems furthest from accession, but even in Poland, which in contrast to Romania will probably be one of the countries in the first group to join, there is urgent need for further reform. In contrast the Commission is optimistic about Slovenia. The Commission is also fairly positive about modifications to legislation in the Czech Republic and Bulgaria aimed at accelerating the accession process. In the other candidate countries, the Commission considers that progress aimed at achieving integration in EU agriculture is still too slow.

*Trade agreements*

The EU not only negotiates with the candidate countries about the terms for accession but also on bilateral trade agreements. These are in preparation for the future common market. Recently all candidate countries signed so-called 'double zero' agreements. After difficult negotiations, Poland was the last candidate country to sign such an agreement in September 2000. The 'double zero' agreements contain three kinds of bilateral arrangements:

- all import rates and quota restrictions for the so-called non-sensitive products will be abolished both in the EU and in the candidate country;
- with regard to the so-called 'double zero products', both countries will reduce their rates to 0% and export subsidies will no longer be permitted. The import volumes to which the 'double zero' agreement applies will be increased each year;
- for a number of products, ad hoc agreements have been reached as a concession for certain agreements relating to the two other groups of products.

Besides the bilateral trade agreements with the EU, the candidate countries have reciprocal trade agreements. They are also members of the World Trade Organisation [WTO]; Lithuania was the last of the countries to become a member of the WTO at the end of 2000.

## 2.3 Agricultural agreements at WTO level

A special aspect of the enlargement of the EU is compliance with current and any new agricultural agreements reached at WTO level. In order to liberalise international trade in agricultural products, agreements were made during the Uruguay Round aimed at expanding market access, reducing internal support and restricting export subsidies. Initially these agreements apply to the period 1995-2000. For developing countries, to which only Cyprus and Romania of the CC belong, there is an implementation period from 1995 until 2004. As long as there is no new WTO agreement, the agreements from the Uruguay Round remain in force, even after the implementation period.

When the CC join the EU, they will adopt the acquis communautaire. This means that the administrative prices and associated EU measures (import restrictions, export subsidies) will also start to apply in the new member states. The (enlarged) EU must meanwhile continue to fulfil its WTO obligations.

*Increasing market access*

In the framework of the enlargement of market access, the EU has replaced the variable import levies by rates. The level of these rates is based on the average difference between the world market price and the intervention price in the reference period (1986-1988), increased by 10%. These rates were gradually reduced in the period 1995-2000 by an average 36%, with a minimum of 15%. For certain products a supplementary rate was imposed on the basis of an agreed special clause (the so-called special warranty clause). Besides the reduction in the rate, it also became compulsory to expand market access from 3% of the domestic consumption in 1995 to 5% in 2000. In order to achieve this, quotas with a reduced fixed import rate have been opened.

The implementation of the above-mentioned agreements has caused few problems for the EU so far (Silvis and Van Rijswick, 1999a). The Central and Eastern European countries have been given special treatment within the WTO during the determination of import rates. They were able to set rates without taking reference levels from the past into account. The candidate countries have determined their import rates in various ways (Tangermann, 2000). For example Hungary set import rates which were considerably higher than the rates which were actually applied at that time (1994). However the average rates for cereals, sugar, milk powder, beef and eggs are still below the level of the EU. In contrast Poland followed (EU-guidelines) by setting rates below (?) the EU line. In general these rates were far higher than the rates which had been applied before the implementation of the WTO agreement. Slovenia and Romania also apply a fairly high protection level. In the Czech Republic and Slovakia the rates are considerably lower. These apply to cereals, sugar, dairy products, beef and eggs, among others.

Following accession to the EU, two options will be available for dealing with these different rates. The new member states will have to start implementing the same import rates as the EU. Where the rates were lower in the candidate countries than in the EU, the EU can negotiate compensation with the WTO partners involved. This was also the case in the enlargement of the EU in 1995. Possible compensation may then consist of offering extra tariff quotas for the countries that are suffering from these 'new' higher import duties. A second option is to reduce existing EU import rates, thereby adapting them to the lower level of the new member state. The other WTO partners should then compensate the EU by relaxing other WTO obligations.

*Reducing internal support*

In a period of six years, since 1985 the maximum internal support has been reduced by 20% with regard to the level of 1986-88. The support in question involves trade distortive support; the measures concerned are classified as amber box support. The extent of the support, which mainly consists of price support, is measured in AMS (Aggregate Measure of Support). Measures of support which satisfy the criteria imposed by the green or blue boxes are exempt from compulsory support reduction and are not included in the AMS. The green box concerns support which does not have a direct effect on production decisions and which is funded by collectively financed government programmes. Examples are decoupled income support, food aid, disaster aid, support for rural development and research. The criteria of the blue box are that the measures must be production-neutral and impose production-restricting conditions on the producer. This last category includes the CAP hectare payments and livestock premiums.

Until now, both the EU and the candidate countries have remained below the maximum permitted support. When the internal EU prices also start to apply in the new member states, these countries may in some cases rise above their AMS limit. However the EU's unused AMS potential is sufficient to make good this 'deficiency'. An estimate of the AMS in 2004 is presented in Table 2.1. This estimate is based on market prognoses of the European Commission. It assumes that the CAP reforms agreed in Berlin will be implemented.

*Table 2.1 Effect of EU enlargement on internal support to agriculture (million euro)*

| | EU basis (1997/98) | EU, 2004 | CC, 2004 | EU+CC, 2004 |
|---|---|---|---|---|
| Estimated AMS-limit a) | 67,367 | 61,204 | 4,505 | 65,709 |
| Estimated AMS value | 50,194 | 42,441 | 8,470 | 50,911 |
| Difference | 17,173 | 18,763 | -3,965 | 14,798 |
| Share of AMS value in AMS-limit | 75% | 69% | 188% | 77% |
| Blue box b) | 20,443 | 24,800 | 6,800 | 31,600 |

a) The total AMS-limit of the CC is estimated by aggregating the underlying country limits, converted to euro with the rates of 1998 (Eurostat), unless the country limits are fixed in ecu, USD or constant rates; b) For 2004 based on calculations as for scenario 1 of this report

From Table 2.1 it can be concluded that even after the enlargement, the AMS limits will not present problems to the EU. On the grounds of the assumptions which form the basis of this estimate, there is still sufficient room to lower the present AMS limit (for the year 2000) by another 23% without exceeding the restrictions. In the event of further policy reforms, of the sugar or dairy sectors for example, extra room will be created. However if the blue box were to be abolished and the hectare allowances and livestock premiums added to the AMS, there might be a risk of exceeding the limit. The estimated AMS comes 10% above the limit. When direct payments are also made to the candidate countries, the total AMS of an enlarged EU (including blue box support) will be around 26% higher than the AMS limit.

*Reducing export support*

In contrast to internal support, for which agreements have been made at an aggregated level, agreements have been made concerning the reduction of export support at the level of 22 separate product groups. The budget for export support must be reduced between 1995-2000 per product group by 36%, while the subsidised export volume must be reduced by 21%. The period between 1986 and 1990 has been made a reference period. Similar agreements apply to the EU, Cyprus, the Czech Republic, Hungary, Poland, Romania, Slovakia and Bulgaria. No such agreements have been made for the other CC. It is uncertain what problems the EU will face after its enlargement regarding compliance with export support agreements. This is subject to various unpredictable developments. Future production levels in the CC in particular are difficult to determine. On the one hand, as a result of rising internal prices (as a result of the accession) production may be expected to increase. On the other hand the accession negotiations between the EU and the new member states may have produced agreements concerning production quotas which restrict production. Domestic demand may increase further, while export surpluses decrease as a result of income growth. Finally the uncertain level of world market prices and possible policy modifications are important for the future supply.

Table 2.2 gives an indication of the export surpluses and subsidies after the enlargement of the EU. The calculation of the WTO limits following the enlargement of the EU is a separate problem. No regulations were included in the Uruguay Round Agreement covering the calculation of maximum export support in the enlargement of a customs union. During the enlargement of the EU in 1995, the obligations of the new member states were added to those of the Union, whereby the bilateral trade between the newcomers and the EU was deducted. Due to the lack of reliable trade data from the 'new' WTO limit and export surpluses, the present estimates take no account of the bilateral trade between the EU and the candidate countries and between the member states.

*Table 2.2 Estimate of the export surpluses to be subsidised and total export subsidies and WTO restrictions for selected products of the EU 27 in 2004 a)*

| | Export surplus (1,000 t) b) | WTO limit (1,000 t) | Export subsidies (mio euro) c) | WTO limit (mio euro) d) | Export subsidies with | |
|---|---|---|---|---|---|---|
| | | | | | production CC +10% | external price 25% |
| Cereals | 34,800 | 25,180 | 916 | 2,064 | 935 | 263 |
| Sugar | 1,082 | 1,469 | 556 | 528 | 574 | 524 |
| Butter | 262 | 397 | 453 | 934 | 466 | 351 |
| Milkpowder | 907 | 362 | 785 | 283 | 842 | 515 |
| Cheese | 315 | 319 | 208 | 282 | 214 | 0 |
| Other dairy | 1,950 | 1,009 | 1,556 | 687 | 1,636 | 970 |
| Beef | 702 | 924 | 625 | 1,277 | 630 | 294 |
| Pork | 1,090 | 690 | 523 | 188 | 538 | 328 |
| Poultry | 405 | 477 | 106 | 133 | 107 | 0 |
| Eggs | 85 | 85 | 13 | 26 | 13 | 0 |
| Wine | 2,421 | 3,007 | 29 | 49 | 29 | 0 |

a) The products for which no subsidised export surpluses are expected now or in the future, such as olive oil, fresh fruit and vegetables and tobacco, have been omitted; b) The export surpluses are determined if possible on the basis of prognoses by the European Commission. If these were not available, an estimate was made based on present data concerning export surpluses; c) Export subsidies are estimated by multiplying the estimated surpluses by the total subsidy per tonne of the product concerned in the EU 15 in 1998/99. Based on the WTO notification of the EU for 1998/99, assumptions have been made for the internal and external prices. When determining the internal prices, the Agenda 2000 decisions are taken into account. The external price is kept constant at the level of 1998/99; d) This is the sum of the limit of the individual countries, converted into euros at the 1998 exchange rate (see Eurostat), unless limits have been established in ecus, US dollars, or constant exchange rates.
Source: LEI calculations on the basis of WTO notifications and data from FAO and European Commission.

As a result of the above-mentioned comments, the results in Table 2.2. must be considered as a rough estimate of the possible consequences of EU enlargement. The present WTO agreements pose a problem to EU enlargement. For cereals, milk powder, other dairy products and pork, the calculated export surplus is greater than the limit of the subsidised export volume, while surpluses of sugar, milk powder, other dairy products and pork threaten the budget for export support.

The table also gives some insight into the sensitivity of the results to assumptions about production in the CC and the level of the external price. If the candidate countries produce 10% more than assumed, the required export subsidies will increase slightly. An average 25% higher external price leads to a considerable decline or disappearance of the necessity to grant export subsidies.

# 3. Agriculture in the CC: situation and perspectives

## 3.1 Economic significance of agriculture

The agricultural sector is of great economic significance to the CC (Table 3.1). In all Central and Eastern European countries the percentage of agriculture in the gross national product (GNP) and employment is higher than average in the EU 15. The economic significance of agriculture for Malta on the other hand is slight. All candidate countries, with the exception of Bulgaria and Hungary, are net importers of agricultural products. The EU is their most important trading partner, not only for imports but also as a sales outlet.

*Table 3.1 Some key figures of the candidate countries and the EU 15, 1999*

| | Population (mio) | GDP/capita as % EU-average a) | Share of agriculture (%) | | Ag. production (1989-91 =100) | Ag. imports (mio USD) b) | Ag. exports (mio USD) b) |
|---|---|---|---|---|---|---|---|
| | | | BBP | employment | | | |
| Bulgaria | 8.3 | 22 | 17.3 | 26.6 | 71 | 404 | 689 |
| Cyprus | 0.7 | 81 | 4.2 | 9.3 | 117 | 718 | 531 |
| Czech R. | 10.3 | 59 | 3.7 | 5.2 | 86 | 2,042 | 1,292 |
| Estonia | 1.4 | 36 | 5.7 | 8.8 | 44 | 1,001 | 620 |
| Hungary | 10.1 | 51 | 5.5 | 7.1 | 76 | 1,181 | 2,716 |
| Latvia | 2.4 | 27 | 4.0 | 15.3 | 41 | 715 | 248 |
| Lithuania | 3.7 | 29 | 8.8 | 20.2 | 63 | 620 | 495 |
| Malta | 0.4 | nb | 2.5 | 1.8 | 126 | 285 | 35 |
| Poland | 38.7 | 37 | 3.8 | 18.1 | 90 | 3,784 | 2,928 |
| Romania | 22.5 | 27 | 15.5 | 41.7 | 97 | 1,040 | 437 |
| Slovak R. | 5.4 | 49 | 4.5 | 7.4 | 60 | 958 | 467 |
| Slovenia | 2.0 | 71 | 3.6 | 10.2 | 106 | 773 | 369 |
| EU 15 | 368.9 | 100 | 2 c) | 5 c) | 102 | 193,836 | 186,368 |

a) Purchasing power parity b) 1998; c) Preliminary.
Source: Eurostat and FAO, editing LEI.

Arable farming, dairy and other livestock sectors are fairly important in the candidate countries, even if their share in overall global production is small (see FAO). This is particularly due to low productivity: the acreage and meat surpluses in the CC have a larger share in the world total than production. With respect to the Central and Eastern European countries, Poland is the major producer of almost all products. Poland is a major producer of cereals, dairy products, potatoes, sugar beet, beef and pork. Romania also produces quite a lot of cereals, but also oilseeds, milk, fruit and vegetables. Hungary is a fairly important producer of poultry, oilseeds, cereals and fruit and vegetables (including vine-growing). In Bulgaria the fruit and vegetable sector (including vine-growing) is relatively important. Dairy and potato production are among the biggest sectors in the Baltic States. In contrast, the Czech Republic produces quite a large amount of oilseeds and cereals.

Despite the differences between the Central and Eastern European countries, there have been a number of common trends since 1989. For example agricultural production, in particular livestock production, has shown a considerable general decline. One of the main reasons for this decline in production is the reduced profitability of the agricultural sector resulting from the deterioration of the terms of exchange. This means that the prices of means of production have mainly risen more than the price of production ex-farm. Other factors which have contributed to the decline in production are reduced demand (due to less puchasing power, for example, and the abolition of consumption subsidies) and the loss of normal sales to the former Soviet Union. Further factors which play a role are the complex privatisation and restructuring processes and the reversion of the government support. In addition many countries do not have the institutions to guide the smoothly functioning market economy.

As a result of these developments there is a deep gulf between the agricultural sector of the candidate countries and those of the EU. Most of the CC lack a healthy structure for their agriculture, the agricultural productivity is relatively low and there are major inefficiencies in the trade and processing industries. In the majority of the Central and Eastern European countries, the food processing industry suffers from overcapacity (including slaughter houses), there is an urgent need for modernisation and there is no compliance with EU norms (EC, 1999a). Another problem is the still unfinished privatisation process in a number of countries. Finally the candidate countries still have to implement many modifications in the fields of veterinary services, plant health (phytosanitarian) conditions, food safety and quality.

## 3.2 Cereals, oilseeds and protein crops

With a share of 45% in the overall agricultural expenditure, cereals, oilseeds and protein crops form the biggest item in the EU's agricultural budget (EC, 1999c). Of all the expenditure for this item, in 1998 almost 85% was channelled to direct income payments for producers. The rest was aimed at storage and intervention costs and export restitutions. This clearly shows that the level of future agricultural expenditure will mainly be determined by the extent of hectare support granted to the producers. In 1998 the hectare support to cereals producers in the present EU member states totalled 54 ecu/tonne (with a certain maximum per hectare and region/country). From 2000 this allowance will be increased in three phases to 63 euro/tonne.

This will continue the trend which was started with the Mac Sharry reform: the direct income payments will increase while other expenditure on market and price support will decline further. The hectare allowances for protein crops will be even lower. In 1999 hectare support totalled 94 euro/tonne and in 2000 it was still 72.50 euro/tonne. Hectare support for oilseeds will also be reduced, from 94 euro/tonne in 1999 to 63 euro/tonne in 2002. Moreover the provisions of the Blair House agreement between the EU and the US, which provide for a reduction in the support in the event the maximum acreage being exceeded up to and including 2001/2002, will remain in force. The basic percentage for the set-aside obligation has been established at 10% for the 2000-2006 period. The percentage of land to be laid aside will be adapted to the market conditions. For fallow farmland, the producer will receive the same payment as for cereals.

*Cereals*

Within the expenditure category for crops, three quarters is attributed to cereals. In terms of enlargement, it is therefore the cereals sector, and to a lesser extent the oilseed sector, which is important. In 1999 cereals production in the new member states totalled almost 3.5% of the world's total. Three countries account for almost three quarters of this production: Poland, Romania and Hungary. The EU produces almost three times as much cereals as the candidate countries. The cereals acreage in the candidate countries has remained relatively stable in recent years. In the first half of the nineties, production showed a downturn, but has recovered somewhat in recent years. The European Commission expects that the growth of the average hectare yield will continue by an annual 1.55 to 2% (EC, 1999b). In combination with a slight increase in the acreage (1% per year) this means an annual production increase of almost 3%. As expected, just as in recent years internal consumption is not increasing as fast as production, thus creating an export surplus. If the internal market price remains higher than the world market price, export subsidies will be required to sell the surplus. This will mean extra expenditure for the EU and potential problems with compliance with WTO obligations

It is difficult to estimate what the effects of enlargement will be on cereals production, but it is possible that (the prospect of) the application of the market and price policy of the EU in the new member states will result in extra production or a shift of non-supported crops (for example potatoes) to cereals or oilseeds. In the former DDR the introduction of the market and price policy has caused considerable changes in the level and composition of the production. In the Central and Eastern European countries the effect will probably be less significant because these countries have already been preparing for accession for some time and the different price levels have already moved closer to each other. Moreover the accession production quota and/or limits for the size of possible direct payments will be determined so that production will not rise explosively. There may be a slight shift from potatoes to cereals. A possible shift from cereals to oilseeds, or vice versa, mainly depends on the price ratio between these two crops. According to Münch (2000) the application of the market and price policy would cause an expansion of the cereals acreage at the expense of the oilseed acreage, because the price of cereals, particularly the feed cereals, would rise proportionally more than the price of oilseeds.

*Oilseeds*

In 1998 almost 13% of EU agricultural expenditure for cereals, oilseeds and protein crops, or 6% of the total expenditure, was intended for oilseeds. Oilseeds are used to produce oils or prepared fats like margarine, as well as producing scraps for cattle feed. The most important oilseeds grown in the EU and the Central and Eastern European region are turnip seeds, sunflower seeds and soybeans. Romania, Poland and Hungary produce two thirds of the oilseeds in the candidate countries. The share of the CC production in the world total is low at 2% (FAO). The EU produces almost three and a half times as many oilseeds, but is nevertheless a net importer of oilseeds. If the price of oilseeds remains low in the coming years, the acreage of oilseeds in the Central and Eastern European countries will probably decline. The positive productivity development is expected to continue. On balance, according to the Commission a small export surplus in the CC will remain, which will not have any consequences for the WTO agreements.

*Protein crops*

With a share of less than 2%, protein crops only represent a small item in the CAP. These crops include field peas, broad beans, tick beans and non-bitter lupins. The candidate countries produce (in 1999) some 1% of the total global production, the EU some 9% (FAO). Poland, the Czech Republic and Hungary are the major producers in the Central and Eastern European countries. In contrast to the EU (excluding intra-trade), the Central and Eastern European region is (including intra-trade) is a net exporter of protein crops. The net export is mainly carried out by the Czech Republic, Hungary, Slovakia and Poland. After the enlargement of the EU, the EU will nevertheless remain a net importer because EU imports are considerably larger than CC exports. The acreage of protein crops declined sharply in the countries applying for membership. With the introduction of direct payments these negative trends will probably be reversed, even though protein crops will continue to constitute a minor crop involving little EU expenditure.

## 3.3 Meat

Following the arable crops, the meat sectors form the second largest expenditure item for agriculture in the EU budget. By introducing direct payments in the beef sector, expenditure for beef rose during the nineties. During the first half of the nineties, the share of the beef sector in the overall CAP was around 10%; in 1998 the share rose to around 13%. Between 1996 and 1997 the share rose to around 17% as a result of expenditure involved in the BSE crisis. In general, expenditure on export restitutions declined while expenditure for livestock premiums rose. As a result of the price reductions agreed in Berlin, EU prices will be closer to world market prices, so that export restitutions will further decline.

Export restitutions mainly constitute expenditure for pork and poultry. This means that expenditure for these sectors is limited (Figure 3.1). Moreover export restitutions are declining. This is partly determined by WTO restrictions which limit export subsidies to a maximum. In addition the internal market prices will probably decline as a result of the price reduction for cereals.

From 2000, livestock premiums in the beef sector will further increase. Bearing in mind the consequences of EU enlargement for the budget, developments in the beef sector in the candidate countries are particularly important.

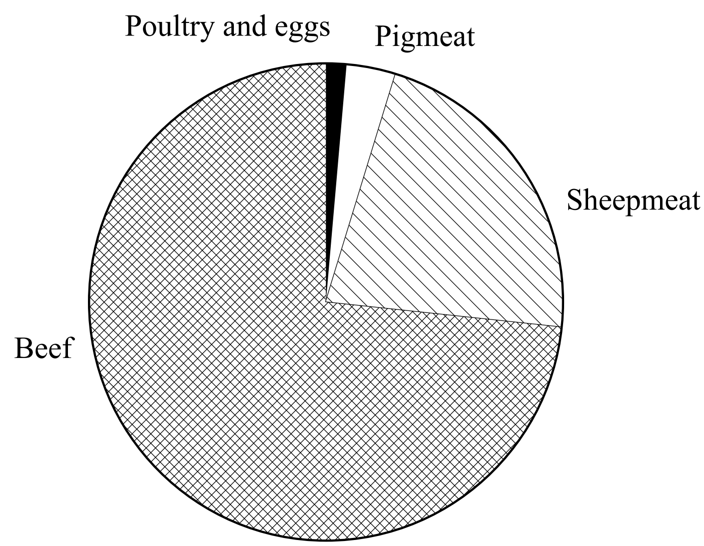



*Figure 3.1 Division of EU agricultural expenditure for meat, 1998*

*Beef*

With its production share of 40% in 1999, Poland is the largest beef producer of the candidate countries, followed at a distance by Romania (18%) and the Czech Republic (10%) (Eurostat). Since the transition, livestock production has declined in the Central and Eastern European countries. The beef sector showed the greatest decline in production. Livestock production is related to dairy production (number of cattle), meaning that future production is largely dependent on developments in the dairy sector. If the progressive decline in dairy stocks continues, according to the European Commission beef production will remain almost at the same level (due to a higher slaughter weight) or decline slightly (EC, 1999b). At the same time, internal consumption will probably increase. This will lead to a slight import surplus. For the EU agricultural expenditure, depending on the rate of growth, this means limited or no extra restitution expenditure.

*Mutton and goat's meat*

Expenditure of the EU market and price policy for mutton consists of so-called ewe premiums (livestock premiums for female sheep). These premiums are determined annually on the basis of the difference between the basic price and the average market price in the EU for heavy lambs. This basic price is determined annually during negotiations on the EU's prices package. In some regions of the EU (Greece, the United Kingdom and Italy) premiums are also paid for goats. A maximum amount of premiums applies to each producer. If the current policy is continued, the development of expenditure for the sheep and goat sectors will be determined by the market price and production volume.

More than 85% of all ewes in the candidate countries are in Romania and Bulgaria. Just as in the other livestock sectors, the number of sheep has declined sharply since the turnaround in 1989. This decline does not yet seem to have reached its conclusion. Following accession to the EU and the possible promise of premiums, some stabilisation or (slight) rise in the number of animals might occur. In view of the share of the ewe premiums in EU agricultural expenditure (almost 4% in 1998) and the relatively small number of ewes in the CC (around one seventh of the EU total) this expenditure will in any case be fairly low.

*Pork*

In the nineties, the share of pork in the overall agricultural expenditure of the EU fluctuated around 0.5%, with peaks of 1% in the years when expenditure was required during the outbreak of swine fever. In years without swine fever, more than 80% of the expenditure consisted of export restitutions. Expenditure therefore depends on the production surplus in the EU and the difference between the EU price and the price on the major sales markets. However there is not always a direct link between market expenditure and prices, because trade agreements (WTO) and occasional incidents such as livestock disease and falling demand as a result of economic crises are very influential on EU agricultural expenditure. The WTO agreements concerning pork are so 'tight' that the agreed restrictions act as guidelines for the restitution expenditure.

In 1999 the EU and the CC accounted for 20% and 5% respectively of the pork production in the world (FAO). Pork is the most commonly consumed and produced meat in the candidate countries. Almost half of all the pork in the candidate countries is produced in Poland. Other major producers in the CC are Romania, Hungary and the Czech Republic. The European Commission (1999b) expects that production will rise in the coming years by around

1.5% in the CC and that most growth will take place in Poland and Hungary, the countries which already have a production surplus. There will probably be a less rapid increase in consumption. In short it is probable that the Central and Eastern European region will continue to be a net exporter of pork. The application of the market and price policy is not expected to have a significant effect on production because the prices of the Central and Eastern European countries are similar to the EU prices and they are not subject to any heavy market arrangement on the pork sector. With a view to compliance with the WTO agreements with the EU regarding pork, growth of the export surplus may be restricted.

*Poultry*

The poultry market resembles the pork market, in that there is very little governmental intervention. No price or income support exists for these products. It is only possible for export surpluses to be exported with restitutions when the market balance is distorted. Since 1994 agricultural expenditure for poultry and eggs has shown a downward trend. Almost 90% of the expenditure for poultry and eggs is destined for export restitutions for poultry. Between 1993 and 1998, these restitutions have declined each year under the influence of market developments and WTO agreements.

According to the FAO, in 1999 the overall poultry production in the candidate countries amounted to just under 3% of the world total, in contrast to 13% of the EU. Poland, Hungary, Romania and the Czech Republic are the largest producers among the Central and Eastern European countries. The production of the Central and Eastern European countries exceeds domestic consumption, but the European Commission does not expect an increase in the production surplus (EC, 1999b). Hungary will probably continue to be a major net exporter. This country is a strong competitor with its production and processing of poultry. In Poland and the Czech Republic this sector also developed favourably. According to the Commission, consumption (+ 3% per year) will grow more rapidly than production (+ 2.5% per year), meaning that the export surplus will be reduced to some extent. In that case the enlargement of the Union will have little effect on EU agricultural expenditure on poultry.

## 3.4 Dairy

In 1988 the dairy sector was in third place on the list of sectors with the highest EU agricultural expenditure with a share of 7% in the expenditure (EC, 1999c). This expenditure mainly consists of restitutions and storage costs for skimmed milk powder and butter. EU dairy expenditure has shown a downward trend in recent years. After the introduction of the dairy reform agreed in Berlin, this trend will be turned into an upward trend by the introduction of direct payments. Price support for dairy will be reduced from 2005. Dairy farmers will be compensated for this price reduction in the form of a premium per tonne quota.

Expenditure resulting from production surpluses remains significant for the level of future expenditure.

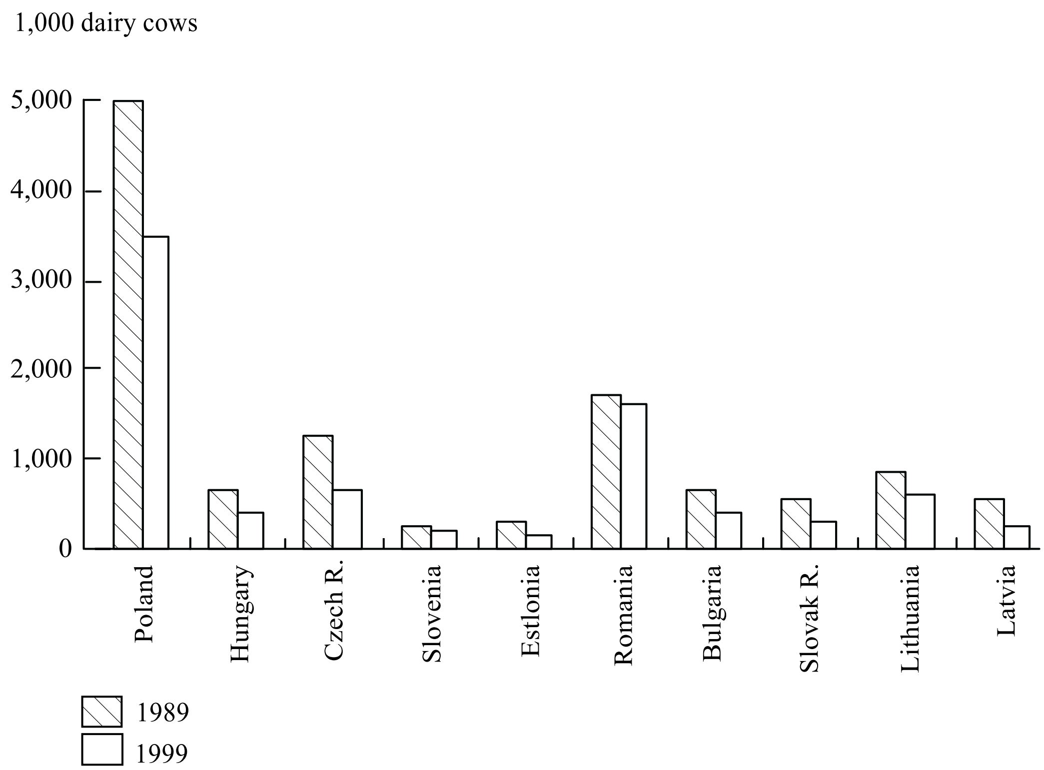



*Figure 3.2 Size of the dairy herd in the candidate countries in 1989 and 1999*

The dairy sector is important for most of the candidate countries. Most of these countries are net exporters of dairy products and together produce around 6% of the world total (FAO). The EU produces four times as much milk as the candidate countries. Of the Central and Eastern European countries, Poland and Romania are the largest producers of milk, with 12 and 5 million tonnes respectively, while Lithuania is an important exporter of dairy products.

The number of dairy cattle in Central and Eastern European countries declined in the nineties (Figure 3.2). The European Commission does not expect a rapid end to this decline, although the decline will be less sharp (EC, 1999b). Due to a significant increase in the average milk yields per cow, the overall milk production has nevertheless risen. This development is expected to continue. According to the Commission, consumption of cheese and fresh dairy products in particular will show further growth. On balance the present export surplus of 2.7 million tonnes will probably remain relatively stable.

With regard to the market and price policy, the continued increase in milk production in the CC could result in increasing expenditure for restitution and intervention measures. At the same time there is the risk of exceeding WTO restrictions for export support. This might prompt the EU to lower the price level of dairy products sooner and/or further. If compensation is granted to dairy farmers as a result, expenditure for the dairy sector will rise faster and further than budgeted by the Berlin resolutions.

## 3.5 Other products

For the EU's agricultural expenditure, apart from the arable crops, meat and dairy products, also olive oil, vegetable and fruit, tobacco, fibre crops (flax, hemp, cotton) and wine are important. There is also considerable expenditure in the market and price policy for the sugar sector, but this is largely financed by the sector itself.

*Sugar*

Export restitutions form the main element of agricultural expenditure for the sugar sector. Insofar as these relate to sugar produced in the EU, the expenditure is recovered from the producers through levies on the A and B quotas. The remaining sugar expenditure relates to the export of sugar from ACP countries, which enters the EU under special conditions. Maximum amounts are agreed at WTO level for export support (with the exception of ACP sugar). These maximum amounts cause problems for the EU. The accession of the Central and Eastern European countries will bring little change in the situation as they do not yet have a production surplus of sugar, and the introduction of production quotas will prevent a large increase in production. It may be necessary in the near future for the EU to reduce the price support to the sugar sector in the event of new WTO agreements.

*Fruit and vegetables*

EU expenditure on fruit and vegetables totals around one and a half billion euro per year, which in 1998 was equivalent to almost 4% of the overall agricultural expenditure. It mainly involves processing support for products based on tomatoes, currants, raisins or other fruit. A large part of the support to the fruit and vegetable sector is made through support to growers associations, sometimes in combination with co-financing.

The production of fruit and vegetables is considerably lower in the new member states than in the EU: according to the FAO the overall vegetable production totalled around 15 million tonnes in 1999, as opposed to 55 million tonnes in the EU; for fruit this was 9 million tonnes as opposed to 59 million tonnes. For this reasons most of the candidate countries are net importers of fruit and vegetables. Poland, Romania, Hungary and Bulgaria are the major fruit and vegetable producers in the region. With regard to the production of vegetables, products such as tomatoes, cucumbers, cabbage and onions are important, while apples are important in the production of fruit. In addition quite a significant amount of stone fruit and soft red fruit are grown. The European Commission expects 'some' development of the fruit and vegetable sector of the Central and Eastern European countries (EC, 1998). In view of the lowl production of crops related to the fruit and vegetable expenditure and the many conditions which have to be met by growers' associations in order to obtain support, this will have little effect on the overall EU agricultural expenditure. In addition it does not yet seem likely that fruit and vegetable production will contribute to any export surplus of the EU. As yet production is largely destined for domestic consumption due to the inferior quality as compared with that in the EU.

A possible development might be a shift of part of the acreage used for arable vegetable crops (carrots, onions) to crops supported by the EU market and price policy such as cereals and oilseeds. However it is difficult to estimate this effect, as it is largely dependent on the sharply fluctuating prices of the products concerned. The further reduction of cereals prices between 2000 and 2002 does not provide an incentive to change to cereals. On the other hand, hectare support might provide an incentive to grow cereals or oilseeds instead of vegetables.

*Wine*

Agricultural expenditure for the wine sector seems to be declining in the EU. In 1998 expenditure amounting to 700 million euro was directed at support for the distillation of wine and by-products and storage of wine and grape must (EC, 1999c). According to the FAO, wine production totalled some 18 million tonnes in the EU and 1.6 million tonnes in the candidate countries in 1999, giving the candidate countries an almost 6% share in the world production. Romania, Hungary and Bulgaria produce the most wine and for these countries wine is also an important export product. The wine production has the potential for further development. Depending on the growth of consumption in the EU, this may result in extra expenditure.

*Tobacco, olive oil and fibre crops*

The total tobacco leaf cultivation in the candidate countries is about a third of that in the EU. The intervention expenditure for the tobacco sector fluctuated in the EU between 1994 and 1998 at around 990 million euro (EC, 1999c). The production of tobacco, olive oil and fibre crops in the candidate countries is so insignificant that it will have little effect on overall expenditure in the future. It is questionable whether the production of these crops will increase as a result of the integration in the market and price policy of the EU. This will have very little effect on olives, as they can only be grown in a small area of Central and Eastern Europe where the conditions are right. The Central and Eastern European countries do produce fibre flax, also exporting the low to medium quality to the EU. However this product does not have great potential because it is generally difficult to find enough markets and processing capacity for these crops. Acreage will therefore not necessarily be significantly expanded following accession to the Union. On the other hand, a system of hectare allowances for flax and hemp is in force in the EU and the application of this system in the CC might well stimulate extra production.

# 4. Accession scenarios and basic assumptions

## 4.1 Accession scenarios

The base line in this report is that after joining the EU, the new member states will be subject to the CAP as a whole, but without the direct payments. However four contrasting scenarios have been distinguished. On the one hand these scenarios concern the way in which payments might be introduced, while also taking into account possible reforms of the CAP which will apply to the enlarged EU (box 4.1).

*Box 4.1 Base line and scenarios*

| | |
|---|---|
| Base line | For the period 2004 - 2010/15: implementation Berlin resolutions; accession of the 12 CC in 2004; direct application of the CAP, without direct payments. |
| Scenario 1 | The same as the base line, but with full (100%) allocation of direct payments from accession in 2004, in accordance with the agreements which also apply to the EU 15. For cereals and beef, this involves full payments from 2004 and for dairy, payments from 2005. |
| Scenario 2 | The same as the base line, but involving gradual introduction of payments to the CC: 20% in the first year (2004), 40% in the second year, 60% in the third year, 80% in the fourth year, 100% in the fifth year, 100% in the sixth year, 100% in the seventh year (2010). |
| Scenario 3 | The same as the base line, but with the allocation of payments in the CC, and an annual reduction of direct payments by 10% with respect to the previous year for the whole EU 27 as from 2007. |
| Scenario 4 | The same as the base line, but including reforms of the EU dairy and sugar policy from 2003 and further reforms as from 2007, along the same lines as the first reform round (thus 15% price reduction in three stages, whereby producers are partially compensated by direct payments). N.B. only these payments are applied in the CC. |

- *Scenario 1: full allocation of direct payments*
  Scenario 1 is the most radical scenario with regard to the position taken by the Council and Commission during the negotiations. This scenario clearly illustrates the budgetary consequences of the granting of any direct payments in the new member states. The scenario assumes that the candidate countries will be eligible for 100% payments from the moment of accession just as the EU 15. This has no particular consequences for market expenditure (restitutions and intervention expenditure) because the price reductions and the resulting market measures also apply in the base line.

- *Scenario 2: gradual introduction of payments*
  The second scenario is a compromise between non-payment and full payments to the new member states. This scenario assumes a gradual introduction of the payments, thus gradually increasing the budgetary consequences. Payments are increased in a number of steps to the level of the EU 15. The premiums are raised annually by 20% of the level which applies to the EU 15, so that this level is reached in five years.

- *Scenario 3: reduction of payments*
  In the third scenario the new member states are fully integrated into the CAP on joining the EU, but a gradual reduction in the payments is introduced in the enlarged EU in the subsequent period of financial prospects (2007-2013). During negotiations between the EU member states about the package of reform proposals in Agenda 2000, degressivity of income payments was discussed in detail. Although degressivity is not included in the final resolutions, it may be possible to re-open the discussion if EU agricultural expenditure increases further and the present member states see a deterioration of their net payment position as a result of the enlargement. The percentage by which the payments could be reduced without causing too much damage to the agricultural sector and the rural economy partly depends on market conditions, the health of the sector, the availability of any alternative instruments for agricultural policy and the EU's financial potential at the moment when degressivity is introduced. This scenario chose an annual reduction of 10% with respect to the previous year.

- *Scenario 4: reform of sugar and dairy policy*
  The last of the four chosen scenarios describes reforms of the dairy sector and sugar sector as introduced for cereals and beef. This scenario was prompted by the consequences of the enlargement for compliance with existing and future WTO agreements by the EU (section 2.3). The agreements on export subsidies will probably cause problems in the coming years, at least for products with relatively large price differences between the EU and third countries, i.e. sugar and dairy. According to the Berlin resolutions, and as presented in the base line, the dairy sector will be reformed in 2005. No such reform has been decided (yet) for the sugar sector. Scenario 4 is based on past and further reforms of both the dairy and sugar policies, whereby the prices will be reduced twice by 15%: the first round of reforms starts in 2003 and the second in 2007. Because the price reductions will partially be compensated by income payments, EU agricultural expenditure will increase on balance in this scenario.

## 4.2 Basic assumptions

The assumptions forming the basis of the chosen scenarios relate to the moment of accession, the composition of the group of countries joining and the reference period for determining the payments. In order to determine the other expenditure for market and price policy, assumptions are required about the development of production and consumption in the new member states and about the world market price (or external price). An assumption is also required about the agricultural expenditure in the new member states for rural policy.

*When and which countries?*

With regard to the timing of the accession of the candidate countries, the EU has promised that it will be ready from the end of 2002 for the first group of new members. All twelve candidate countries will be considered if they satisfy the criteria drawn up. In view of the changes required from the new member states and the ratification of the accession agreements by the present member states, a certain margin has been included in this report for the moment of accession. The date chosen for accession is 1 January 2004. If accession should take place at an earlier or later date, the budgetary consequences of the accession for the new members will shift accordingly.

*Reference period*

Objections have been lodged against granting direct payments based on the actual volume of production in the new member states as this stimulates production. The volume of production or quota on the basis of which direct payments are granted will therefore be frozen at a certain level. In the EU, in order to determine such reference volumes, the average production of a number of years will generally be taken. The candidate countries themselves have said that they want a reference volume on the basis of their 'production potential', in view of the considerable decline in production since the transition. A reference year like 1989 would probably provide a good estimate of the desired production potential by the new member states. An alternative is to take the early nineties as a reference period, when production had already clearly fallen. A possible compromise might be to take a period which best reflects the current situation. This report takes the period between 1996 and 1998. Using a more recent reference period is not currently an option due to the lack of reliable information.

*Market developments*

Expenditure on export restitutions and intervention measures are mainly dependent on the difference between internal and external prices and the size of the export surpluses. The growth of export surpluses is the result of production and consumption. In this exercise the assumptions on this are based on the position taken by the European Commission in its market prognoses for 2000-2006 (see appendix 1). The difference between internal and external prices, which determines the level of the export subsidy, follows from the so-called WTO notification of the EU about the export subsidies granted in 1998/1999. An average external price (known as world market price, for the sake of simplicity) is calculated and then extrapolated to the 2004-2010 period.

*Other assumptions*

In order to estimate EU expenditure for the market and price policy with respect to the other products, a multiplication factor of 1.25 is applied to the calculated expenditure in the first scenario. This factor is derived from the fact that the products included in the calculation model account for around 80% of the expenditure for the market and price policy in the present EU 15. The amounts concerned are included unchanged in the calculations of the expenditure for the other scenarios. Gradual introduction or reduction of income payments has therefore no effect on the expenditure concerned.

In addition to expenditure for the market and price policy there is also agricultural expenditure for rural policy. In practice a fixed sum is determined for rural policy, which is encoded. In order to estimate this expenditure for the CC, a direct ratio is assumed between the present EU agricultural expenditure for rural policy and the area of cultivated ground in the EU 15. It is assumed that this ratio will also apply in the new member states. Moreover, in line with the financial perspectives of the EU, it is assumed that the amount of rural support in the period under consideration will gradually grow towards the calculated maximum level in relation to the limited absorption capacity of the new members.

# 5. EU agricultural expenditure for various accession scenarios

## 5.1 Overall expenditure

In the financial prospects of the EU for the period 2000-2006 an amount is included for additional agricultural expenditure following the accession of (6) new member states of 1.6 billion euro in 2002, rising to 3.4 billion euro in 2006. The increase is related to the gradual growth of rural support. The expenditure calculated in this report for the base line follows the same pattern, but is at a higher level. This is the result of the technical assumption that not 6, but all 12 CC will join in the first year.

*Table 5.1 EU agricultural expenditure (million euro) for various accession scenarios*

| | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|---|
| Base line | | 3,689 | 4,500 | 5,476 | 6,417 | 7,262 | 7,286 | 7,313 | 7,542 |
| Effects of | | | | | | | | | |
| Scenario 1 | CC 12 | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |
| Scenario 2 | CC 12 | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |
| Scenario 3 | CC 12 | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 3,229 |
| | EU 15 | 0 | 0 | 0 | 0 | -2,819 | -5,356 | -7,640 | -16,056 |
| Scenario 4 | CC 12 | 517 | 751 | 750 | 984 | 1,217 | 1,450 | 1,450 | 1,441 |
| | EU 15 | 2,094 | 2,024 | 1,005 | 952 | 1,909 | 2,866 | 2,866 | 2,866 |

The results for the four scenarios under consideration reveal significant consequences for the budget. The estimated extra expenditure varies per scenario and year (table 5.1 and figure 5.1). In the first scenario, with 100% direct payments, the EU agricultural expenditure for the 12 CC rises to a level which will be 7.5 billion euro higher than the expenditure according to the base line from 2007. In the second scenario the income payments will be increased in five stages to a level of 100%. In 2004, the extra expenditure involved will be considerably lower than in the first scenario. However the difference becomes increasingly small over the years and from 2009 scenarios 1 and 2 will produce identical results.

The third scenario is based on a gradual reduction (degressivity) of income payments for all member states. In 2015 the result for the CC in scenario 3 will be more than 4 billion euro lower than in scenarios 1 and 2. For the EU 15 this scenario means a reduction in expenditure of 7.6 billion euro in 2010 and 16 billion in 2015. The absolute consequences are by far the greatest for France, followed by Spain (see appendix 4). In relative terms the effect is the greatest for the United Kingdom, for whom the cereals and beef payments are fairly important.

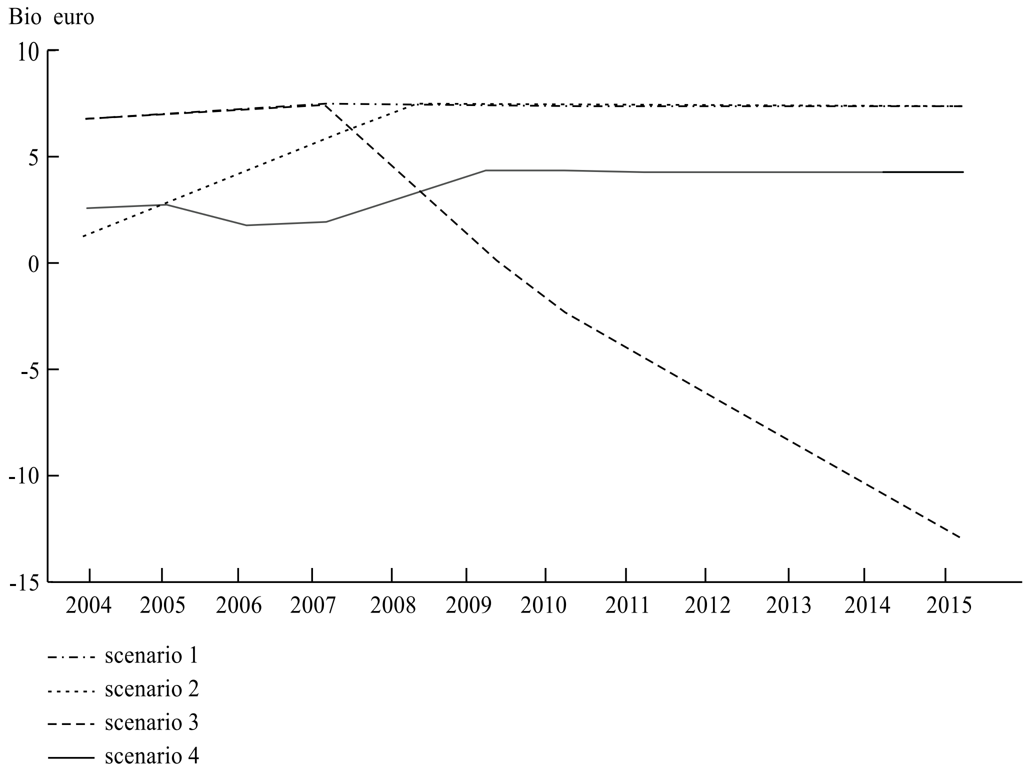



*Figure 5.1 Effects of the four scenarios for EU agricultural expenditure in the EU 27 (EU 15 + CC 12) (in billions of euro with regard to the base line)*

A possible scenario is a combination of scenarios 2 and 3: the gradual introduction of income payments in the new member states and a reduction of payments in the EU as a whole (including new member states) after 2007. The budgetary consequences of such a scenario resulting from payments to the new member states would be more than fully compensated as from 2010 by the reduction of the payments in the enlarged EU.

The fourth scenario, reform of the sugar and dairy policy, has a greater effect on the EU 15 in absolute terms than on the CC. In this scenario part of the price support to dairy and sugar producers is replaced by income support. The difference between this reform variant and the base line for the new member states amounts to 1.5 billion euro in the last year under consideration (2015), as opposed to almost 3 billion euro for the EU 15 (appendix 4). In relative terms the sugar and dairy reforms have the most effect on the member states with a fairly large share in the dairy and sugar quota, such as the Netherlands and Luxembourg.

## 5.2 Expenditure per candidate country

*General*

The results of the first scenario provide the most insight into the expenditure per candidate country. The budgetary consequences of scenario 1 are the greatest for the candidate countries with the most extensive arable production and livestock, namely Poland and Romania. Poland alone already accounts for more than a third of the direct payments. In all, some 80% of the payments in the new member states is accounted for by four countries: Poland, Romania, Hungary and the Czech Republic.

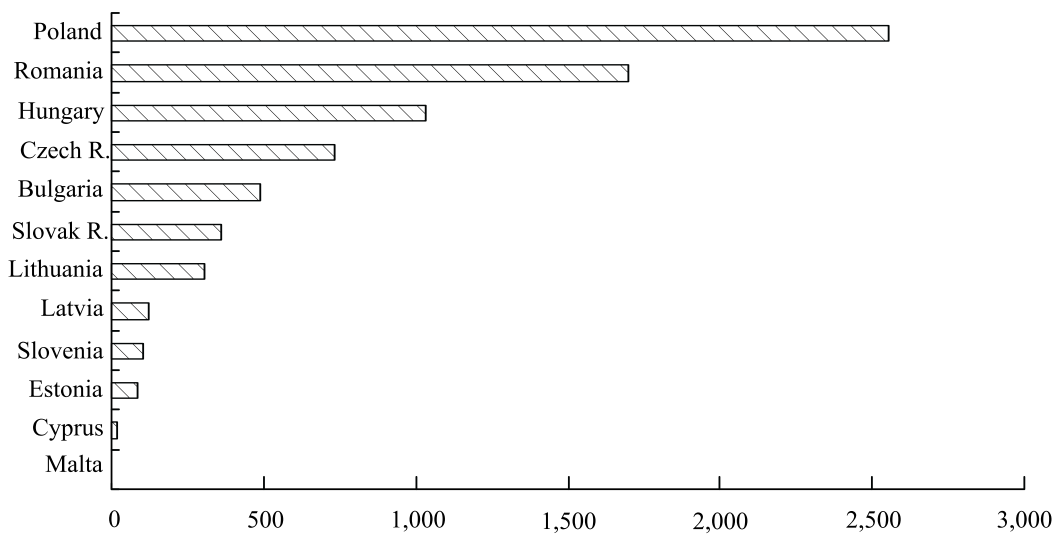



*Figure 5.2 Consequences of scenario 1 for the expenditure (million euro) on direct payments per country*

*Time of accession*

The base line of this report assumes that all twelve candidate countries will join the EU in 2004. This will probably not be the case. In its 'Strategy Paper', the Commission makes no mention of the precise timing of the accession of the candidate countries (EC, 2000b). However it can be derived from these documents that Bulgaria and Romania will probably be the last of the candidate countries to join, in view of the political and economic criteria involved. It should be noted that this situation might change in the coming period. Cyprus, Malta, Estonia, Hungary, Poland, the Czech Republic and Slovenia are currently included in the leading group (Agra Europe, 2000). Lithuania, Slovakia and Latvia are midfield runners. The Commission emphasises that the countries which now seem most remote from accession may still be among the first members if they make satisfactory progress.

Should Romania and Bulgaria join the EU later, a considerable shift of expenditure will take place at that time: in 2006 expenditure will be 3.3 billion euro less (appendix 3). Due to the large share of Poland in the overall agricultural expenditure in the CC (32%), the timing of the accession of this country will have an important effect on expenditure. The share in the expenditure of neighbouring countries, the Czech Republic and Slovakia, is considerably lower than that of Poland, by 11 and 5% respectively. The effect of Hungary with 14% is almost as great as that of these two countries combined. Hungary and the Czech Republic largely determine any surpluses in the new member states, so that these two countries contribute a fairly large share with regard to market expenditure in the enlarged EU. The Baltic States are not very significant for expenditure: Estonia, Latvia and Lithuania together have a share of only 8% in the expenditure.

## 5.3 Expenditure per product

Cereals have the largest share of EU agricultural expenditure in the CC for a scenario of 100% payments. Of the six products considered, cereals accounted for 60% of the overall budgetary consequences. The significance of cereals for agricultural expenditure explains why Poland and Romania receive such an extensive share of the overall expenditure in the scenarios.

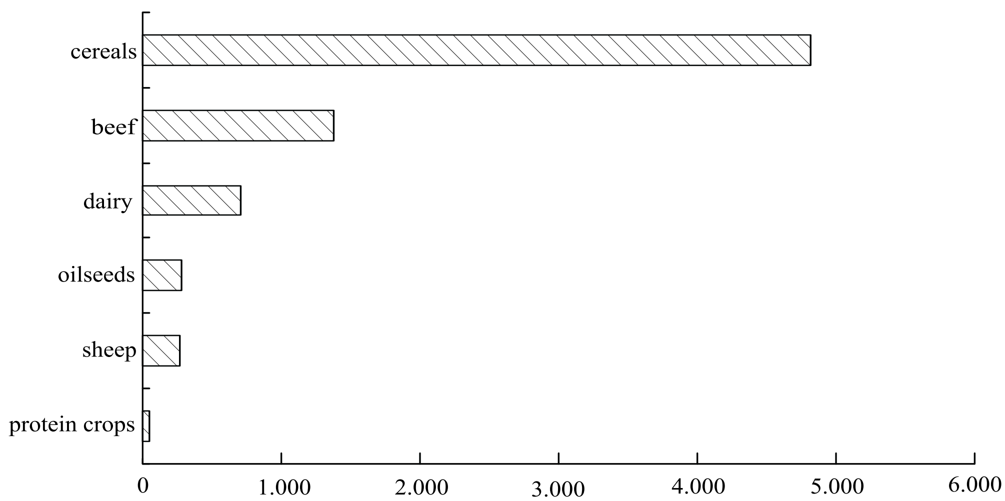



*Figure 5.3 EU agricultural expenditure (million euro) in the CC per product according to scenario 1 in 2010*

If the dairy and sugar sectors undergo further reforms, along the same lines as in the cereals sector, the relative importance of the cereals sector in the total agricultural expenditure will decline. In the EU 15 the share of the dairy sector in the overall EU agricultural expenditure is currently around 7% (see section 3.4). This share will considerably increase in the coming years as a result of the Berlin resolutions. Further calculations of scenario 1 for the new member states produce a 15% share for the dairy sector in the overall agricultural expenditure (in 2010). With extra reforms of the dairy policy, the share increases even further due to the increase in the amount of direct payments, which makes a considerable mark on the overall total expenditure. Problems expected with compliance with present and future WTO obligations were the reason behind the choice of scenario 4 as a calculation variant in this report. Scenario 4 also illustrates above all the possible major consequences of WTO agreements and any resulting reforms on the distribution of agricultural expenditure among the products.

Developments in the dairy sector, and to a lesser extent in the beef sector, are less important for the level of market expenditure. Countries which are relatively large exporters of these products, such as the Czech Republic and Lithuania, account for a fairly large share in the market expenditure of the candidate countries. The internal EU cereals prices are around world market level, meaning only a small subsidy is required to bridge the difference between the internal and external prices. For sugar however, considerable subsidies are necessary for selling it on external markets, but the subsidies are financed by means of production levies (section 3.5). These levies are not balanced with the expenditure side of the EU budget, but are visible on the income side.

## 5.4 Sensitivity to basic assumptions

*Reference period*

The choice of reference period on which to base any payments is very significant for the effect on the budget of the calculated scenarios. If the year 1989 were chosen instead of 1996-1998 for scenario 1, the overall expenditure would be more than 3.5 billion euro higher than in 2010. If the average production of 1991-1993 is chosen as a reference, this has less effect on the calculated expenditure (table 5.2).

*Table 5.2 Sensitivity of the reference period for the direct payments on EU agricultural expenditure in the CC according to scenario 1: favourable differences (milion euro) with regard to the base line with reference period 1996-1998*

| Reference period | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| 1991-1993 | 735 | 720 | 705 | 690 | 690 | 690 | 690 |
| 1989 | 3,206 | 3,319 | 3,431 | 3,543 | 3,543 | 3,543 | 3,543 |

Since 1989 there has been a major decline particularly in livestock production. The choice of 1989 as a reference year therefore results in a greater increase in expenditure on livestock products in terms of percentage than crop products. For beef and sheep, expenditure even doubles when 1989 is chosen as production reference.

Because livestock in the Central and Eastern European countries has systematically declined (on average) since 1989, a reference year 1991-93 results in higher scenario-results than reference year 1996-98. In the crop sector, after an initial decline, production experienced an upswing in the second half of the nineties. This means that if the reference period 1991-93 is chosen, expenditure on cereals and oilseed, with a lower production, is lower than in reference period 96-98 (table 5.3). On balance the effect of the decline in the livestock sector is greater than in the crop sector, resulting in a rise in expenditure of 690 million euro.

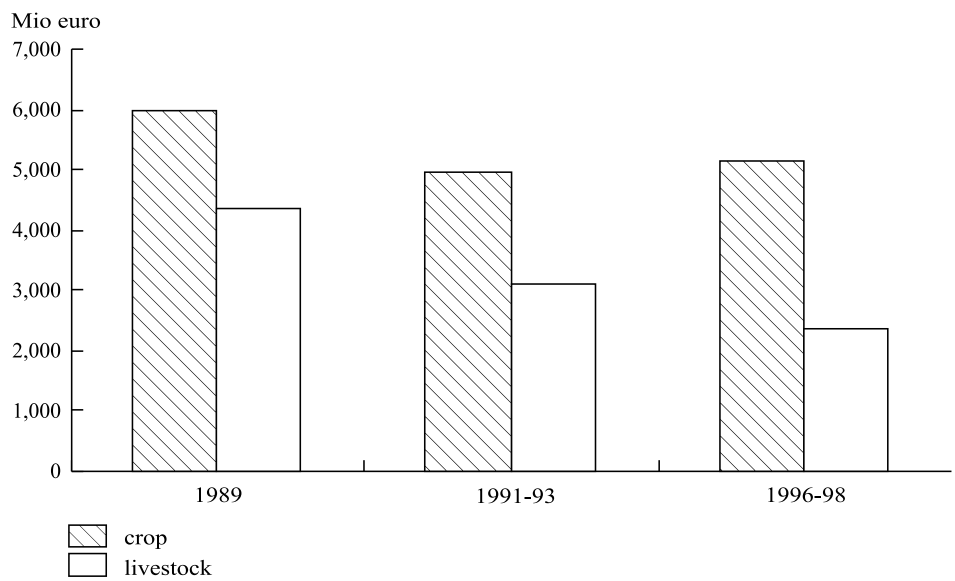



*Figure 5.4 Direct payments (million euro) to crop products and livestock according to scenario 1 in 2010 for various reference periods*

*Production development*

One of the most uncertain factors when estimating the budgetary consequences of accession is the development of production and consumption in the new member states. In the calculation model in this report, these developments are not included as variables, while in reality EU agricultural expenditure and the production and consumption developments may affect each other. In this report fixed rates of growth have been assumed because the major part of EU agricultural expenditure consists of direct payments. These direct payments are allocated on the basis of fixed references whereby the effect on production and consumption developments on the model results is small.

The many production prognoses which have been made for the Central and Eastern European countries in recent years often seem too optimistic in retrospect. It has therefore been decided to make cautious assumptions with regard to the development of production and consumption in the CC. A more favourable development of production is certainly possible, particularly as a result of the current accession negotiations. The four scenarios have therefore been calculated for the case that production grows by a percent point per year faster than in the basic situation. This means a total average production growth of 30% for the 2004-2010 period.

*Table 5.3 Sensitivity of EU agricultural expenditure in the CC for a 1% point higher average annual growth: positive difference (million euro) with regard to the base line*

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| Scenarios 1, 2 en 3 | 377 | 460 | 547 | 655 | 781 | 925 | 1,075 |
| Scenario 4 | 356 | 409 | 486 | 549 | 618 | 691 | 807 |

Where the growth of consumption remains the same, a higher rate of production will create export surpluses. These may be cleared by means of intervention measures or export subsidies. This would mean almost 400 million euro and 1.1. billion euro in 2004 and 2010 respectively in extra agricultural expenditure in scenarios 1, 2 and 3. The consequences will be felt most in Romania. In the basic scenario Romania had no export surpluses, but this will be the case with a 1% higher growth. Market expenditure is also fairly strong for Poland. Because the direct payments in the calculation variants are determined on the basis of a fixed reference year, the development of production has no effect on the level of the payments. In scenario 4 the support prices for sugar and dairy products have been reduced, thereby reducing the difference between the internal and external prices. As a result, the consequences for the budget are fewer than in the scenarios without this reform measure.

*World market prices*

World market prices always fluctuate very sharply. On the other hand, the internal price in the EU is reasonably stable due to the price support which the CAP offers a number of products. The world market prices of agricultural products are uncertain. In order to gain an impression of the effect of price rises or price reductions on EU agricultural expenditure for the new member states, four models have been calculated with a 25% higher and a 25% lower external price. The effects for all years and scenarios are almost identical and relatively small (see appendix 3). On average a quarter higher or lower external price results in a decline or rise of the overall agricultural expenditure of the candidate countries by more than 3% (with regard to the starting situation in table 5.1).

As a result of the Berlin agreement, the EU cereals price increasingly approaches the world market price. This means that export subsidies for a number of kinds of cereals (especially wheat) will become redundant with a 25% rise in the world market price. Export subsidies for beef will also become redundant. As a result of the reduction in expenditure for cereals and beef with 25% higher external prices, the share of dairy products in the overall market expenditure shows a clear growth with respect to the basic scenario. This is reflected in the distribution of the expenditure over the countries. The share of Poland and Lithuania in the market expenditure increases considerably due to the importance of the dairy sector in these countries. The relative share of major cereals exporters as Hungary and the Czech Republic in the market expenditure has also experienced such a decrease.

Despite the high world market price, the price level of sugar and dairy products remains on average on a higher level than the external prices. For a large number of dairy products unsubsidised exports will be possible because there is no question of one world market price. This is because the same different external prices apply to the different dairy products on the various sales markets. Sugar prices, for example, do not receive adequate support in most developed countries, causing the world market to become a dumping place for surpluses with generally extremely low prices compared with the internal producer's prices.

*Reduction in payments*

If a reduction percentage is a feasible option, various factors will have to be considered, such as the available budget, the expected income consequences for the agricultural sector and any other possible economic effects. The run down scenario chosen in this report is just a calculation variant which gives an indication of the expected budgetary consequences. In order to show the consequences of a different reduction percentage, scenario 3 was also calculated with 5 and 15% instead of 10% (see appendix 3). If the payments are reduced by 5%, so less rapidly, the overall agricultural expenditure of the candidate countries will be some 9% higher (962 million euro) in 2010 than in the scenario with 10% reduction. With a faster reduction (of 15%) the expenditure is then 862 million euro lower than the basic scenario. Changes to the reduction percentage have the greatest effects on countries with a relatively large share in direct payments, particularly Poland and Romania and in the EU, France and Spain.

## 5.5 Comparison with other reports

The EU agricultural expenditure calculated in this report for different scenarios is not contradicted by other reports. A previous report concerning the effect of enlargement on EU agricultural expenditure was based on a full allocation of direct payments to the candidate countries (Silvis and Van Rijswick, 1999b). For the ten Central and Eastern European countries, the total effect was calculated at between 13.7 and 19.3 billion euro in 2010, depending on the chosen scenario. The estimate of the new report for a scenario of 100% direct payments and cautious production development provides a good compromise with approximately 15 billion euro.

A recent report by Münch (2000) commissioned by the European Commission, puts the budgetary consequences of the enlargement of the EU with 5 countries (Poland, Hungary, the Czech Republic, Estonia and Slovenia) at almost 10 billion euro in 2013. In the present report, the five countries in question have a share of around 60% of the overall expenditure. If the estimates of Münch based on this share are applied to the 12 CC, they are around 1.5 billion euro higher than in this report. Münch arrives at the amounts mentioned on the basis of calculations using the European Simulation Model (ESIM). From the publication of the results of these model simulations of Münch, it is not exactly possible to discover which assumptions are at the basis of the results (particularly with respect to production developments). It is therefore difficult to explain the differences in results between this report and that of Münch.

An investigation carried out by the German research institute IAMO estimates the budgetary consequences of EU enlargement with ten Central and Eastern European candidate countries in the year 2007 (Weber et al., 2000). The estimate is the result of model simulations using the CEEC-ASIM model (Central and Eastern European Countries Agricultural Simulation model). For cereals, oilseeds, sugar, dairy products and beef, Weber et al. calculate an agricultural expenditure of 7.5 billion euro (in 1999 prices). The bases used by Weber et al. show many resemblances to those in this report, for example, the assumed production development based on prognoses by the European Commission. The assumed reference year is 1997, and the world market prices have been taken from FAPRI prognoses. The slight differences in basic assumptions are the reason for the results in the present report for the same products being several hundred million euros higher than those in the report of Weber et al.

Depending on the chosen scenario, recent model simulations using the so-called GTAP model result in budgetary consequences for the ten Central and Eastern European countries of between 5.5 and 16 billion euro in 2010 (Frandsen and Jensen, 2000). The scenario of Frandsen and Jensen which results in agricultural expenditure of 16 billion euro can be compared with scenario 1 (100% payments in this report. This means a difference in results of around 1 billion euro. This difference can partly be explained by the differences in basic assumptions with regard to production development and references for the granting of direct support. These reference levels for direct are higher in the research of Frandsen and Jensen than in this report.

## 5.6 Conclusions

The position of the Council and European Commission in the accession negotiations is that CAP hectare payments and livestock premiums should not apply to the CC. Any departure from this position will have considerable consequences for the EU budget. This chapter has reviewed the consequences for EU agricultural expenditure of a number of technical scenarios; the sensitivity for the chosen starting point has been outlined and the results compared with those of other reports. Further details are included in the appendixes. The major conclusions of the calculations are the following:

- The calculated expenditure for the base line follows the same pattern as the financial perspectives for the period 2000-2006. The fact that the calculated expenditure lies at a higher level is mainly the result of the technical assumption that not 6 but all 12 CC will join in the first year.
- 100% direct payments to the 12 CC on the basis of the production structure in 1996-98 will require 7.5 billion euro more EU agricultural expenditure on accession (in 2010) than in the base line, in which no direct payments are granted.
- Four countries, Poland, Romania, Hungary and the Czech Republic account for 80% of the calculated EU agricultural expenditure in the CC.
- Due to the enormous burden which will be imposed by Poland and Romania, the timing of the accession of these countries is very important for the level of the EU agricultural expenditure in a certain year.
- The budgetary consequences of any gradual introduction of income payments in the new member states can be technically dealt with by reducing payments in the EU as a whole (including new member states).
- Cereals account for more than half of the expenditure on the major products (cereals, oilseeds, protein crops, sugar, dairy and beef). Reduction in payments has the greatest consequences for countries with a considerable share in this sector: Poland in the CC, and France and Spain in the EU 15.
- Extra reforms in the dairy and sugar sectors will result in a considerable increase in the importance of the dairy sector in the overall agricultural expenditure. This will seriously affect countries in which the dairy sector is of great importance (Poland, the Czech Republic and Lithuania in the CC and the Benelux countries in the EU 15).

- The amount of EU agricultural expenditure is mainly determined by the direct payments. Changing the chosen reference year (for production) on which payments are based, results in considerable shifts in overall agricultural expenditure. For the candidate countries, the year 1989, with a relatively high crop and livestock production, resulted in the highest possible outcome of all the years since the transition. A reference period in the first half of the nineties results in the lowest possible results, while more recent years lead to the lowest expenditure for livestock production
- The direct effect of changing world market prices on agricultural expenditure is not significant, because the majority of agricultural expenditure consists of fixed direct payments.

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# Appendix 1 Calculation Model

## A1.1 Objective and structure

The calculation model aims at calculating the consequences of different accession scenarios for EU agricultural expenditure. Twelve candidate countries were distinguished. Because the time and manner of accession for the different countries was not known, the calculation model was designed in such a way as to allow flexible calculations for different scenarios. In order to keep the model as simple as possible, a spreadsheet model was chosen.

The calculations of the model initially relate to the direct payments. Then on the basis of assumed production and consumption developments in the candidate countries, calculations were made for any export surpluses. Based on this calculation for the different countries and products, the market expenditure (expenditure for stock management or export restitutions) was calculated. The calculations were limited to the 'major' products for which direct payments are provided in EU policy (per hectare and per animals). These include cereals, oilseeds, protein crops, dairy products, beef and mutton.

Using multiplication and summation of the production data and payments, results were generated for each country and each product group. These were then levelled up. Initially a levelling up factor was used for products which were not included in the calculation model. Based on the relevant ratio in the EU 15, the expenditure for these products was estimated at 25% in the CC of the results calculated in scenario 1. The calculated amounts were continually used as the basis for the scenarios. Secondly rural support was taken into consideration. The amounts involved were determined using the cumulative amounts in the financial prospects of the EU and the ratio of agricultural acreage in the different countries.

In order to calculate the consequences for the current member states, the EU 15 was also included in the calculation model. The EU 15 as a whole was thus approached in the same way in the calculation model as the individual CC. Direct payments and market expenditure for the six product groups were then calculated. The calculated sum for the EU 15 was distributed per product group over the EU member states on the basis of the shares per product group of the different countries. The calculation model did not include a distribution over the member states of the overall amount of the base line which follows the financial perspectives of the European Commission. This was estimated using the agricultural expenditure in the years 1996, 1997 and 1998. The average share of the member states during these three financial years was used as a ratio to distribute the amounts in the base line over the member states.

## A1.2 Direct payments

The Berlin agreement on the Agenda 2000 proposals form the basis for the premium amounts which are included in the calculation model.

*Cereals, oilseeds and protein crops*
Initially this involves non-crop-bound hectare payments of 63 euro/tonne for cereals and oilseeds and of 72.5 euro/tonne for protein crops. For the calculation, the average ground productivity (production per hectare) is important. For fallow ground the same payment applies as for cereals, i.e. 63 euro/tonne.

*Beef*
There are five kinds of beef premiums which will be increased from the year 2000 to the next amounts in 2002 (and following years):
- 210 euro per bull (once-only premium);
- 150 euro per bullock (twice during its life);
- 200 euro per milking cow (per year);
- 80 euro slaughter premium per animal older than eight months;
- 50 euro calf premium per sex or exported animal (of maximum 160 kg).

For the premium for bulls and bullocks, as from the 2000 selling season, there will no longer be a maximum number of 90 animals for which a premium may be applied. However there is still a regional maximum, which is the total number of animals for which a premium can be allocated per region (some countries count as 1 region). If this maximum is exceeded, the number of animals eligible for premium is equally reduced per producer. The maximum age of bulls of 21 months no longer applies, and a premium may be requested whatever their age. For bulls of 24 months and older, there is a large animal standard of 1.0 large animals per hectare. The model does not take these pre-conditions into consideration. For slaughtered beef, farmers of beef cattle may receive a premium per animal as from 1 January.

The premium is a (partial) compensation for the reduction of the intervention prices. The premium applies to all cattle slaughtered in the EU and for all cattle exported to a country outside this area. The cattle must be at least eight months old. Moreover the producer must comply with the I&R requirements. The premium is increased in stages: 27 euro per animal in the year 2000, 53 euro in 2001, and 80 euro from 2002. Coupled to the slaughter premium is a supplementary amount granted from the so-called national envelope. For the Netherlands, the national envelope contains 8.4 million euro in the year 2000, 16.9 million euro in 2001 and 25.3 million euro from 2002. The amount per animal depends on the total number of animals of at least 15 months old which is eligible for premium and will probably be 6 euro for a cow and 12 euro for a bull in 2000, rising to 20 euro and 35 euro respectively from 2002.

*Dairy*
Dairy farmers will gradually be compensated for the price reductions in the form of a premium per tonne of quota, rising to 5.75 euro/tonne I 2005 to 11.9 euro/tonne in 2006 and 17.24 in the following years. In addition the member states will have a so-called national 'envelope' from 2005. In the model an assumption is made about the size of the quota and the reference quantity on the basis of which premiums will be granted.

*Sheepmeat*
The premium regulation for mutton has not been modified by the Berlin resolutions. The level of this premium (the ewe premium) is determined by the difference between the basic price and the average market price in the EU for heavy lambs. This difference is multiplied by a coefficient, which indicates the average number of heavy lambs per ewe produced in the EU. If one gets light lambs instead of heavy lambs, one only receives 80% of the premium. As from 1993 there is a fixed maximum of premiums per producer. In the Netherlands, the ewe premium for the 1999 selling season has been (for the meantime) fixed at almost 22 euro. This amount serves as a basis for the calculation model. Sheep milk farmers receive 80% of this premium. The definitive level of the premium is determined in retrospect on the basis of the market prices. Producers with farms in a problem area receive extra payment on top of the normal premium of around 7 euro. Milk sheep farmers in a problem area receive a supplement of 90% of this amount. The model does not take this into account.

## A1.3 Production data

NewCronos was used as a source of data concerning production and production capacity in the different countries. This is the database compiled by Eurostat from the national statistics from the countries. There is a special domain for the candidate countries. This data is also used by the European Commission. The data in the model relates to production and production capacity (acreage or number of animals) of wheat, feedgrain, oilseeds, protein crops, dairy cows, beef cattle, veal and mutton.

With regard to the reference period which was used as the basis for payments, the averages from the years 1996, 1997 and 1998 were taken. The average production is expressed in 1,000 tonnes, the production capacity in 1,000 ha or 1,000 cattle and the average production in tonnes per ha.

*Table A1.1 Average production capacity and productivity of the CC in the period 1996-98*

| | Cereals | | | Oilseeds | | | Protein crops | | |
|---|---|---|---|---|---|---|---|---|---|
| | production (1,000 t) | acreage (1,000 ha) | t/ha | production (1,000 t) | acreage (1,000 ha) | t/ha | production (1,000 t) | acreage (1,000 ha) | t/ha |
| Poland | 26,043 | 8,868 | 2.94 | 735 | 379 | 1.94 | 185 | 100 | 1.85 |
| Hungary | 12,830 | 2,881 | 4.45 | 1,034 | 581 | 1.78 | 129 | 61 | 2.11 |
| Czech R. | 6,772 | 1,650 | 4.11 | 658 | 295 | 2.23 | 124 | 54 | 2.29 |
| Slovenia | 528 | 95 | 5.54 | 3 | 2 | 1.29 | 0 | 2 | 0.00 |
| Estonia | 618 | 323 | 1.91 | 13 | 12 | 1.08 | 13 | 7 | 1.86 |
| Romania | 17,253 | 6,031 | 2.86 | 1,180 | 1,011 | 1.17 | 76 | 55 | 1.38 |
| Bulgaria | 4,977 | 2,049 | 2.43 | 548 | 488 | 1.12 | 31 | 50 | 0.61 |
| Slovak R. | 3,516 | 848 | 4.15 | 253 | 96 | 2.64 | 76 | 36 | 2.08 |
| Lithuania | 2,759 | 1,116 | 2.47 | 44 | 24 | 1.81 | 99 | 52 | 1.92 |
| Latvia | 985 | 465 | 2.12 | 2 | 2 | 0.71 | 9 | 5 | 1.69 |
| Cyprus | 85 | 54 | 1.57 | 0 | 0 | 0.00 | 0 | 1 | 0.00 |
| Malta | 0 | 0 | 0.00 | 0 | 0 | 0.00 | 0 | 0 | 0.00 |

*Table A1.2 Average production capacity and productivity of the CC in the period 1996-98*

| | Milk | | | Cattle | | | Sheep |
|---|---|---|---|---|---|---|---|
| | production (1,000 t) | cattle (1,000) | dairy cows (1,000) | bulls (1,000) | suckler cows (1,000) | beef production (1.000 t) | ewes (1,000) |
| Poland | 12,121 | 6,814 | 3,477 | 1,034 | 695 | 425 | 303 |
| Hungary | 2,024 | 884 | 407 | 170 | 81 | 64 | 668 |
| Czech R. | 2,819 | 1,738 | 663 | 442 | 133 | 151 | 73 |
| Slovenia | 581 | 462 | 187 | 109 | 37 | 51 | 37 |
| Estonia | 707 | 326 | 168 | 48 | 34 | 20 | 24 |
| Romania | 4,588 | 3,271 | 1,687 | 482 | 337 | 182 | 6,752 |
| Bulgaria | 1,228 | 632 | 393 | 39 | 79 | 63 | 2,343 |
| Slovak R. | 1,128 | 800 | 311 | 199 | 62 | 62 | 294 |
| Lithuania | 1,891 | 999 | 598 | 81 | 120 | 85 | 15 |
| Latvia | 952 | 473 | 261 | 56 | 52 | 29 | 30 |
| Cyprus | 180 | 63 | 27 | 13 | 5 | 5 | 131 |
| Malta | 41 | 21 | 10 | 4 | 2 | 2 | 8 |

*Table A1.3 Average assumed annual production growth (%) in the CC for the period 2004-2015*

| | Cereals | Oilseeds | Protein crops | Sugar | Dairy | Beef | Sheepmeat |
|---|---|---|---|---|---|---|---|
| Poland | 2.1 | 0.2 | 2.1 | 1.2 | 1.6 | -0.2 | 0.7 |
| Hungary | 4.4 | -1.4 | 4.4 | 1.5 | 2.8 | 1.3 | 2.1 |
| Czech R. | 1.4 | -0.4 | 1.4 | 0.5 | 0.9 | -2.0 | -0.6 |
| Slovenia | 3.6 | 0.0 | 3.6 | 1.8 | 1.5 | -0.3 | 0.6 |
| Estonia | 2.5 | 0.0 | 2.5 | 1.3 | 1.0 | -0.8 | 0.1 |
| Romania | 2.9 | -0.8 | 2.9 | 1.1 | 0.8 | 0.5 | 0.7 |
| Bulgaria | 3.7 | 1.1 | 3.7 | 2.4 | 1.3 | 0.4 | 0.9 |
| Slovak R. | 2.6 | -0.3 | 2.6 | 1.2 | -0.6 | -0.5 | -0.6 |
| Lithuania | 2.4 | 0.0 | 2.4 | 1.2 | -0.5 | -2.5 | -1.5 |
| Latvia | 2.5 | 0.0 | 2.5 | 1.3 | 2.6 | 4.5 | 3.6 |
| Cyprus | 2.8 | -0.2 | 2.8 | 1.3 | 1.1 | 0.0 | 0.6 |
| Malta | 2.8 | -0.2 | 2.8 | 1.3 | 1.1 | 0.0 | 0.6 |

Source: European Commission, 1999b; editing LEI.

*Table A1.4 Average assumed annual consumption growth (%) in the CC for 2004-2015*

| | Cereals | Oilseeds | Protein crops | Sugar | Dairy | Beef | Sheepmeat |
|---|---|---|---|---|---|---|---|
| Poland | 1.6 | 0.8 | 1.6 | 1.2 | 1.8 | 1.2 | 1.5 |
| Hungary | 1.9 | 4.0 | 1.9 | 3.0 | 2.3 | 3.0 | 2.7 |
| Czech R. | 0.3 | 0.8 | 0.3 | 0.6 | 0.3 | 0.0 | 0.2 |
| Slovenia | 1.5 | 0.0 | 1.5 | 0.8 | 0.0 | 0.9 | 0.5 |
| Estonia | 1.2 | 0.0 | 1.2 | 0.6 | 1.0 | 0.0 | 0.5 |
| Romania | 0.9 | 0.8 | 0.9 | 0.9 | 0.7 | 0.8 | 0.8 |
| Bulgaria | 2.8 | 3.6 | 2.8 | 3.2 | 1.8 | 1.1 | 1.5 |
| Slovak R. | 1.6 | 0.1 | 1.6 | 0.9 | 0.6 | 0.3 | 0.5 |
| Lithuania | 1.6 | 0.0 | 1.6 | 0.8 | 0.8 | -2.7 | -1.0 |
| Latvia | 1.2 | 0.0 | 1.2 | 0.6 | 2.1 | 0.7 | 1.4 |
| Cyprus | 1.5 | 1.0 | 1.5 | 1.2 | 1.1 | 0.5 | 0.8 |
| Malta | 1.5 | 1.0 | 1.5 | 1.2 | 1.1 | 0.5 | 0.8 |

## A1.5 Assumptions about export support

*Table A1.5 Assumed export support in euro/tonne in scenario 1 for the period 2004-2015*

| | Cereals | Sugar | Dairy | Beef | Butter |
|---|---|---|---|---|---|
| | 25 | 500 | 165 | 400 | 1,728 |

*Table A1.6 Assumed export support in euro/tonne in scenario 4, per year*

| | Cereals | Sugar | Dairy | Beef | Butter |
|---|---|---|---|---|---|
| 2004 | 25 | 468 | 150 | 400 | 1,568 |
| 2005 | 25 | 436 | 135 | 400 | 1,408 |
| 2006 | 25 | 436 | 135 | 400 | 1,408 |
| 2007 | 25 | 404 | 120 | 400 | 1,248 |
| 2008 | 25 | 372 | 105 | 400 | 1,088 |
| 2009 | 25 | 340 | 90 | 400 | 928 |
| 2010 and beyond | 25 | 340 | 90 | 400 | 928 |

## A1.6 Scenarios

- *Scenario 1: full allocation of payments*
  The data for production and production capacity are derived from the averages of the years 1996-1998 multiplied by the fixed premiums. These reference amounts determine the maximum direct payments to be paid in the period under consideration (2004-2010). Due to lack of data about the beef sector (bulls and dairy cows) assumptions have been made about the distribution of beef farming in different categories. Beef production is not always divided into the production of adult animals and calves. Because there is a different slaughter premium for beef cattle and calves, the distribution is partially based on other sources. For both the dairy sector and the beef sector, there is a so-called national envelope. For dairy and beef cattle this amount is based on production. For the candidate countries the level of the envelope is determined on the basis of an average amount per kg milk quota in the EU. The export surpluses in the candidate countries involve market expenditure. The assumed support amounts per tonne of export surplus are listed in table A1.5.

- *Scenario 2: gradual introduction of payments*

  This scenario is based on a gradual introduction direct payments. In this process, it assumes 20% in the first year, 40% in the second year, etc. until the maximum premium amount is paid out in 2008. Because the dairy reform will only be enforced at a later stage (2005), the maximum amount will only be granted in 2009.

- *Scenario 3: reduction of payments*

  This scenario is based on the gradual reduction of direct payments. Because the resolutions for the period 2000-2006 have already been taken, payments will only be reduced in the first subsequent period. In 2007 they still amount to 100% but after that they will be reduced annually by 10% with regard to the previous year.

- *Scenario 4: reform of sugar and dairy policy*

  This scenario assumes that the reform of the dairy policy will already have been implemented in 2003. This means that the amounts which are used for calculations go back two years. In contrast with scenario 1 (in which direct payments in 2004 are still zero), an amount is now paid in all years, reaching its maximum in 2005. In addition it assumes a review of the policy for the sugar sector and a new dairy reform in the subsequent period. This reform will be implemented along the same lines as the first dairy reform. Scenario 4 not only has consequences for the level of direct payments but also for market support due to the reduction of price support for the sugar and dairy sectors.

# Appendix 2 EU agricultural expenditure in the CC

## A2.1 Total EU agricultural expenditure in the Candidate Countries

*Table A2.1.1 Total EU agricultural expenditure in the CC by scenario (in million euro)*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,482 | 11,529 | 12,741 | 13,918 | 14,763 | 14,787 | 14,814 | 15,043 |

| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 5,048 | 7,264 | 9,740 | 12,276 | 14,621 | 14,787 | 14,814 | 15,043 |

| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 3,229 |
| Market expenditure | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,482 | 11,529 | 12,741 | 13,918 | 14,013 | 13,361 | 12,781 | 10,771 |

| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 567 | 850 | 850 | 1,134 | 1,417 | 1,701 | 1,701 | 1,701 |
| Market expenditure | 2,471 | 2,497 | 2,573 | 2,601 | 2,571 | 2,544 | 2,571 | 2,791 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 4,206 | 5,251 | 6,226 | 7,401 | 8,479 | 8,736 | 8,763 | 8,983 |

*Table A2.1.2 Rural development expenditure in CC (million euro)*

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 380 | 620 | 912 | 1,193 | 1,461 | 1,461 | 1,461 | 1,461 |
| Hungary | 86 | 140 | 206 | 269 | 330 | 330 | 330 | 330 |
| Czech R. | 50 | 81 | 119 | 156 | 191 | 191 | 191 | 191 |
| Slovenia | 14 | 23 | 34 | 45 | 55 | 55 | 55 | 55 |
| Estonia | 27 | 45 | 66 | 86 | 105 | 105 | 105 | 105 |
| Romania | 276 | 449 | 662 | 865 | 1,060 | 1,060 | 1,060 | 1,060 |
| Bulgaria | 116 | 189 | 278 | 363 | 445 | 445 | 445 | 445 |
| Slovak R. | 46 | 74 | 110 | 143 | 175 | 175 | 175 | 175 |
| Lithuania | 92 | 149 | 220 | 288 | 353 | 353 | 353 | 353 |
| Latvia | 66 | 107 | 158 | 206 | 253 | 253 | 253 | 253 |
| Cyprus | 9 | 15 | 22 | 28 | 35 | 35 | 35 | 35 |
| Malta | 7 | 12 | 18 | 23 | 28 | 28 | 28 | 28 |
| Total | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |

## A2.2 Results for scenario 1 (million euro)

- Direct payments from accession in 2004 of CC 12
- Reference period 1996-1998

*Table A2.2.1 Direct payments per candidate country*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 2,247 | 2,349 | 2,450 | 2,551 | 2,551 | 2,551 | 2,551 | 2,551 |
| Hungary | 979 | 996 | 1,013 | 1,030 | 1,030 | 1,030 | 1,030 | 1,030 |
| Czech R. | 665 | 688 | 712 | 735 | 735 | 735 | 735 | 735 |
| Slovenia | 87 | 91 | 96 | 101 | 101 | 101 | 101 | 101 |
| Estonia | 67 | 73 | 78 | 84 | 84 | 84 | 84 | 84 |
| Romania | 1,583 | 1,621 | 1,660 | 1,698 | 1,698 | 1,698 | 1,698 | 1,698 |
| Bulgaria | 458 | 469 | 479 | 489 | 489 | 489 | 489 | 489 |
| Slovak R. | 332 | 341 | 351 | 360 | 360 | 360 | 360 | 360 |
| Lithuania | 260 | 275 | 291 | 307 | 307 | 307 | 307 | 307 |
| Latvia | 98 | 106 | 114 | 122 | 122 | 122 | 122 | 122 |
| Cyprus | 15 | 16 | 18 | 19 | 19 | 19 | 19 | 19 |
| Malta | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |

*Table A2.2.2 Direct payments per product*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 4,811 | 4,811 | 4,811 | 4,811 | 4,811 | 4,811 | 4,811 | 4,811 |
| Oilseeds | 282 | 282 | 282 | 282 | 282 | 282 | 282 | 282 |
| Protein crops | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Dairy | 0 | 236 | 472 | 708 | 708 | 708 | 708 | 708 |
| Beef | 1,379 | 1,379 | 1,379 | 1,379 | 1,379 | 1,379 | 1,379 | 1,379 |
| Sheep | 267 | 267 | 267 | 267 | 267 | 267 | 267 | 267 |
| Total | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |

*Table A2.2.3 Market expenditure per candidate country*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 819 | 839 | 858 | 878 | 872 | 869 | 865 | 845 |
| Hungary | 319 | 337 | 357 | 377 | 393 | 411 | 430 | 539 |
| Czech R. | 382 | 396 | 409 | 423 | 431 | 439 | 447 | 489 |
| Slovenia | 50 | 54 | 57 | 61 | 63 | 65 | 67 | 79 |
| Estonia | 41 | 41 | 41 | 41 | 40 | 38 | 37 | 38 |
| Romania | 397 | 406 | 416 | 425 | 425 | 426 | 427 | 498 |
| Bulgaria | 131 | 136 | 141 | 146 | 149 | 152 | 155 | 172 |
| Slovak R. | 106 | 110 | 113 | 117 | 118 | 120 | 121 | 131 |
| Lithuania | 226 | 225 | 224 | 224 | 219 | 214 | 209 | 184 |
| Latvia | 44 | 47 | 50 | 53 | 55 | 56 | 58 | 70 |
| Cyprus | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| Malta | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |

*Table A2.2.4 Market expenditure per product*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 83 | 97 | 111 | 127 | 143 | 160 | 179 | 339 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 67 |
| Beef | 13 | 12 | 10 | 9 | 7 | 8 | 9 | 14 |
| Sheepmeat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 498 | 499 | 500 | 500 | 501 | 503 | 504 | 522 |
| Other | 1,863 | 1,925 | 1,987 | 2,050 | 2,054 | 2,059 | 2,064 | 2,110 |
| Total | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |

*Table A2.2.5 Total expenditure (including rural development) per candidate country*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 3,446 | 3,807 | 4,220 | 4,622 | 4,884 | 4,881 | 4,877 | 4,857 |
| Hungary | 1,384 | 1,473 | 1,575 | 1,676 | 1,753 | 1,771 | 1,789 | 1,898 |
| Czech R. | 1,097 | 1,165 | 1,241 | 1,315 | 1,358 | 1,366 | 1,374 | 1,416 |
| Slovenia | 151 | 169 | 188 | 207 | 219 | 221 | 223 | 235 |
| Estonia | 135 | 158 | 185 | 211 | 229 | 228 | 226 | 227 |
| Romania | 2,255 | 2,477 | 2,737 | 2,989 | 3,184 | 3,184 | 3,186 | 3,256 |
| Bulgaria | 705 | 793 | 898 | 998 | 1,083 | 1,086 | 1,089 | 1,106 |
| Slovak R. | 484 | 526 | 574 | 620 | 654 | 655 | 657 | 667 |
| Lithuania | 578 | 650 | 736 | 818 | 878 | 873 | 869 | 844 |
| Latvia | 207 | 260 | 322 | 382 | 430 | 431 | 432 | 445 |
| Cyprus | 28 | 35 | 44 | 52 | 59 | 59 | 59 | 59 |
| Malta | 10 | 15 | 21 | 27 | 32 | 32 | 32 | 32 |
| Total | 10,482 | 11,529 | 12,741 | 13,918 | 14,763 | 14,787 | 14,814 | 15,043 |

### A2.3 Results for scenario 2 (million euro)

- Accession in 2004 by CC 12
- Gradual introduction of direct payments: 20-40-60-80-100% from 2004
- Reference period: 1996-1998

*Table A2.3.1 Direct payments per candidate country*

| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 449 | 919 | 1,429 | 1,980 | 2,490 | 2,551 | 2,551 | 2,551 |
| Hungary | 196 | 395 | 601 | 814 | 1,020 | 1,030 | 1,030 | 1,030 |
| Czech R. | 133 | 271 | 418 | 574 | 721 | 735 | 735 | 735 |
| Slovenia | 17 | 36 | 56 | 78 | 98 | 101 | 101 | 101 |
| Estonia | 13 | 28 | 45 | 64 | 81 | 84 | 84 | 84 |
| Romania | 317 | 641 | 981 | 1,335 | 1,675 | 1,698 | 1,698 | 1,698 |
| Bulgaria | 92 | 185 | 283 | 385 | 483 | 489 | 489 | 489 |
| Slovak R. | 66 | 135 | 207 | 283 | 355 | 360 | 360 | 360 |
| Lithuania | 52 | 107 | 168 | 236 | 298 | 307 | 307 | 307 |
| Latvia | 20 | 41 | 65 | 93 | 117 | 122 | 122 | 122 |
| Cyprus | 3 | 6 | 10 | 15 | 18 | 19 | 19 | 19 |
| Malta | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 3 |
| Total | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |

*Table A2.3.2 Direct payments per product*

| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 962 | 1,924 | 2,887 | 3,849 | 4,811 | 4,811 | 4,811 | 4,811 |
| Oilseeds | 56 | 113 | 169 | 225 | 282 | 282 | 282 | 282 |
| Protein crops | 11 | 22 | 32 | 43 | 54 | 54 | 54 | 54 |
| Dairy | 0 | 47 | 189 | 425 | 566 | 708 | 708 | 708 |
| Beef | 276 | 552 | 828 | 1,104 | 1,379 | 1,379 | 1,379 | 1,379 |
| Sheep | 53 | 107 | 160 | 214 | 267 | 267 | 267 | 267 |
| Total | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |

*Table A2.3.3 Market expenditure per candidate country*

| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 819 | 839 | 858 | 878 | 872 | 869 | 865 | 845 |
| Hungary | 319 | 337 | 357 | 377 | 393 | 411 | 430 | 539 |
| Czech R. | 382 | 396 | 409 | 423 | 431 | 439 | 437 | 489 |
| Slovenia | 50 | 54 | 57 | 61 | 63 | 65 | 67 | 79 |
| Estonia | 41 | 41 | 41 | 41 | 40 | 38 | 37 | 38 |
| Romania | 397 | 406 | 416 | 425 | 425 | 426 | 427 | 498 |
| Bulgaria | 131 | 136 | 141 | 146 | 149 | 152 | 155 | 172 |
| Slovak R. | 106 | 110 | 113 | 117 | 118 | 120 | 121 | 131 |
| Lithuania | 226 | 225 | 224 | 224 | 219 | 214 | 209 | 184 |
| Latvia | 44 | 47 | 50 | 53 | 55 | 56 | 58 | 70 |
| Cyprus | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| Malta | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |

*Table A2.3.4 Market expenditure per product*

| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 83 | 97 | 111 | 127 | 143 | 160 | 179 | 339 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 67 |
| Beef | 13 | 12 | 10 | 9 | 7 | 8 | 9 | 14 |
| Sheepmeat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 498 | 499 | 500 | 500 | 501 | 503 | 504 | 522 |
| Other products | 1,863 | 1,925 | 1,987 | 2,050 | 2,054 | 2,059 | 2,064 | 2,110 |
| Total | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |

*Table A2.3.5 Total expenditure (including rural development) per country*

| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 1,648 | 2,377 | 3,200 | 4,051 | 4,824 | 4,881 | 4,877 | 4,857 |
| Hungary | 601 | 872 | 1,163 | 1,459 | 1,743 | 1771 | 1,789 | 1,898 |
| Czech R. | 565 | 748 | 947 | 1,154 | 1,344 | 1,366 | 1,374 | 1,416 |
| Slovenia | 82 | 113 | 147 | 183 | 216 | 221 | 223 | 235 |
| Estonia | 82 | 114 | 152 | 191 | 226 | 228 | 226 | 227 |
| Romania | 989 | 1,497 | 2,058 | 2,626 | 3,161 | 3,184 | 3,186 | 3,256 |
| Bulgaria | 339 | 510 | 702 | 894 | 1,077 | 1,086 | 1,089 | 1,106 |
| Slovak R. | 218 | 319 | 430 | 543 | 648 | 655 | 657 | 667 |
| Lithuania | 370 | 482 | 613 | 748 | 869 | 873 | 869 | 844 |
| Latvia | 129 | 195 | 273 | 353 | 425 | 431 | 432 | 445 |
| Cyprus | 16 | 25 | 36 | 48 | 58 | 59 | 59 | 59 |
| Malta | 8 | 14 | 20 | 26 | 32 | 32 | 32 | 32 |
| Total | 5,048 | 7,264 | 9,740 | 12,276 | 14,621 | 14,787 | 14,814 | 15,043 |

## A2.4 Results for scenario 3 (million euro)

- Direct payments from accession in 2004 by CC 12
- Reference period: 1996-1998
- Reduction of payments from 2007: annual reduction of 10%

*Table A2.4.1 Direct payments per candidate country*

| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 2,247 | 2,349 | 2,450 | 2,551 | 2,296 | 2,066 | 1,860 | 1,098 |
| Hungary | 979 | 996 | 1,013 | 1,030 | 927 | 834 | 751 | 443 |
| Czech R. | 665 | 688 | 712 | 735 | 662 | 596 | 536 | 317 |
| Slovenia | 87 | 91 | 96 | 101 | 91 | 82 | 74 | 44 |
| Estonia | 67 | 73 | 78 | 84 | 76 | 68 | 62 | 36 |
| Romania | 1,583 | 1,621 | 1,660 | 1,698 | 1,528 | 1,375 | 1,238 | 731 |
| Bulgaria | 458 | 469 | 479 | 489 | 440 | 396 | 357 | 211 |
| Slovak R. | 332 | 341 | 351 | 360 | 324 | 292 | 263 | 155 |
| Lithuania | 260 | 275 | 291 | 307 | 276 | 249 | 224 | 132 |
| Latvia | 98 | 106 | 114 | 122 | 110 | 99 | 89 | 53 |
| Cyprus | 15 | 16 | 18 | 19 | 17 | 16 | 14 | 8 |
| Malta | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 1 |
| Total | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 3,229 |

*Table A2.4.2 Direct payments per product*

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 4,811 | 4,811 | 4,811 | 4,811 | 4,330 | 3,897 | 3,507 | 2,071 |
| Oilseeds | 282 | 282 | 282 | 282 | 253 | 228 | 205 | 121 |
| Protein crops | 54 | 54 | 54 | 54 | 48 | 44 | 39 | 23 |
| Dairy | 0 | 236 | 472 | 708 | 637 | 573 | 516 | 305 |
| Beef | 1,379 | 1,379 | 1,379 | 1,379 | 1,242 | 1,117 | 1,006 | 594 |
| Sheep | 267 | 267 | 267 | 267 | 240 | 216 | 195 | 115 |
| Total | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 3,229 |

*Table A2.4.3 Market expenditure per candidate country*

| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 819 | 839 | 858 | 878 | 872 | 869 | 865 | 845 |
| Hungary | 319 | 337 | 357 | 377 | 393 | 411 | 430 | 539 |
| Czech R. | 382 | 396 | 409 | 423 | 431 | 439 | 447 | 489 |
| Slovenia | 50 | 54 | 57 | 61 | 63 | 65 | 67 | 79 |
| Estonia | 41 | 41 | 41 | 41 | 40 | 38 | 37 | 38 |
| Romania | 397 | 406 | 416 | 425 | 425 | 426 | 427 | 498 |
| Bulgaria | 131 | 136 | 141 | 146 | 149 | 152 | 155 | 172 |
| Slovak R. | 106 | 110 | 113 | 117 | 118 | 120 | 121 | 131 |
| Lithuania | 226 | 225 | 224 | 224 | 219 | 214 | 209 | 184 |
| Latvia | 44 | 47 | 50 | 53 | 55 | 56 | 58 | 70 |
| Cyprus | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| Malta | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |

*Table A2.4.4  Market expenditure per product*

| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 83 | 97 | 111 | 127 | 143 | 160 | 179 | 339 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 67 |
| Beef | 13 | 12 | 10 | 9 | 7 | 8 | 9 | 14 |
| Sheepmeat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 498 | 499 | 500 | 500 | 501 | 503 | 504 | 522 |
| Other products | 1,863 | 1,925 | 1,987 | 2,050 | 2,054 | 2,059 | 2,064 | 2,110 |
| Total | 2,521 | 2,596 | 2,673 | 2,751 | 2,771 | 2,795 | 2,822 | 3,051 |

*Table A2.4.5  Total expenditure (including rural development) per candidate country*

| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 3,446 | 3,807 | 4,220 | 4,622 | 4,629 | 4,396 | 4,186 | 3,404 |
| Hungary | 1,384 | 1,473 | 1,575 | 1,676 | 1,650 | 1,575 | 1,510 | 1,312 |
| Czech R. | 1,097 | 1,165 | 1,241 | 1,315 | 1,284 | 1,226 | 1,174 | 997 |
| Slovenia | 151 | 169 | 188 | 207 | 209 | 202 | 196 | 178 |
| Estonia | 135 | 158 | 185 | 211 | 221 | 212 | 203 | 179 |
| Romania | 2,255 | 2,477 | 2,737 | 2,989 | 3,014 | 2,861 | 2,725 | 2,289 |
| Bulgaria | 705 | 793 | 898 | 998 | 1,034 | 993 | 956 | 828 |
| Slovak R. | 484 | 526 | 574 | 620 | 618 | 587 | 559 | 462 |
| Lithuania | 578 | 650 | 736 | 818 | 848 | 815 | 785 | 669 |
| Latvia | 207 | 260 | 322 | 382 | 417 | 408 | 399 | 375 |
| Cyprus | 28 | 35 | 44 | 52 | 57 | 55 | 54 | 48 |
| Malta | 10 | 15 | 21 | 27 | 32 | 32 | 32 | 31 |
| Total | 10,482 | 11,529 | 12,741 | 13,918 | 14,013 | 13,361 | 12,781 | 10,771 |

## A2.5 Results for scenario 4 (million euro)

- Direct payments from accession in 2004 by CC 12
- Reference period: 1996-1998
- Reform of dairy and sugarregime in 2003 en 2007

*Table A2.5.1 Direct payments per candidate country*

| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 250 | 375 | 375 | 501 | 626 | 751 | 751 | 751 |
| Hungary | 45 | 68 | 68 | 90 | 113 | 135 | 135 | 135 |
| Czech R. | 57 | 86 | 86 | 115 | 144 | 173 | 173 | 173 |
| Slovenia | 10 | 16 | 16 | 21 | 26 | 31 | 31 | 31 |
| Estonia | 12 | 18 | 18 | 24 | 30 | 35 | 35 | 35 |
| Romania | 91 | 137 | 137 | 182 | 228 | 273 | 273 | 273 |
| Bulgaria | 21 | 32 | 32 | 42 | 53 | 63 | 63 | 63 |
| Slovak R. | 24 | 35 | 35 | 47 | 59 | 71 | 71 | 71 |
| Lithuania | 35 | 53 | 53 | 70 | 88 | 106 | 106 | 106 |
| Latvia | 17 | 26 | 26 | 35 | 43 | 52 | 52 | 52 |
| Cyprus | 3 | 5 | 5 | 6 | 7 | 9 | 9 | 9 |
| Malta | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Total | 567 | 850 | 850 | 1,134 | 1,417 | 1,701 | 1,701 | 1,701 |

*Table A2.5.2 Direct payments per product*

| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protein crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 472 | 708 | 708 | 944 | 1,180 | 1,416 | 1,416 | 1,416 |
| Beef | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 95 | 143 | 143 | 190 | 238 | 285 | 285 | 285 |
| Total | 567 | 851 | 851 | 1,134 | 1,418 | 1,701 | 1,701 | 1,701 |

*Table A2.5.3 Market expenditure per country*

| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 801 | 804 | 825 | 828 | 806 | 787 | 785 | 772 |
| Hungary | 319 | 336 | 355 | 373 | 388 | 403 | 420 | 522 |
| Czech R. | 369 | 368 | 381 | 379 | 370 | 361 | 367 | 400 |
| Slovenia | 48 | 49 | 52 | 53 | 52 | 51 | 52 | 60 |
| Estonia | 39 | 38 | 38 | 37 | 34 | 32 | 31 | 32 |
| Romania | 397 | 406 | 416 | 425 | 425 | 425 | 427 | 498 |
| Bulgaria | 131 | 136 | 141 | 146 | 149 | 152 | 155 | 172 |
| Slovak R. | 105 | 107 | 111 | 113 | 113 | 114 | 115 | 124 |
| Lithuania | 214 | 202 | 202 | 191 | 177 | 164 | 161 | 145 |
| Latvia | 43 | 45 | 48 | 50 | 50 | 50 | 52 | 62 |
| Cyprus | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| Malta | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 2,471 | 2,497 | 2,572 | 2,601 | 2,570 | 2,544 | 2,570 | 2,791 |

*Table A2,5,4 Market expenditure per product*

| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 83 | 97 | 111 | 127 | 143 | 160 | 179 | 339 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 60 | 56 | 56 | 52 | 48 | 44 | 44 | 45 |
| Beef | 13 | 12 | 10 | 9 | 7 | 8 | 9 | 14 |
| Sheepvlees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 452 | 407 | 408 | 363 | 318 | 273 | 274 | 283 |
| Other products | 1,863 | 1,925 | 1,987 | 2,050 | 2,054 | 2,059 | 2,064 | 2,110 |
| Total | 2,471 | 2,497 | 2,572 | 2,601 | 2,570 | 2,544 | 2,570 | 2,791 |

*Table A2.5.5 Total expenditure (including rural development) per country*

| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Poland | 1,431 | 1,799 | 2,112 | 2,522 | 2,893 | 2,999 | 2,997 | 2,984 |
| Hungary | 449 | 544 | 629 | 732 | 830 | 868 | 885 | 987 |
| Czech R. | 475 | 535 | 586 | 650 | 706 | 725 | 732 | 764 |
| Slovenia | 73 | 88 | 103 | 119 | 133 | 136 | 138 | 146 |
| Estonia | 79 | 100 | 122 | 147 | 169 | 172 | 171 | 172 |
| Romania | 764 | 993 | 1,215 | 1,473 | 1,713 | 1,758 | 1,760 | 1,830 |
| Bulgaria | 268 | 357 | 451 | 551 | 646 | 660 | 663 | 680 |
| Slovak R. | 174 | 217 | 255 | 304 | 348 | 360 | 362 | 371 |
| Lithuania | 341 | 405 | 475 | 549 | 618 | 622 | 619 | 604 |
| Latvia | 125 | 178 | 232 | 291 | 346 | 355 | 357 | 366 |
| Cyprus | 16 | 24 | 31 | 39 | 46 | 48 | 48 | 48 |
| Malta | 9 | 14 | 19 | 25 | 31 | 31 | 31 | 31 |
| Total | 4,206 | 5,251 | 6,226 | 7,401 | 8,479 | 8,736 | 8,763 | 8,983 |

# Appendix 3 Sensitivity of expenditure for assumptions

## A3.1 Reference period (million euro)

*Table A3.1.1 Total EU agricultural expenditure in CC 12 under reference year 1989*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 9,358 | 9,684 | 10,009 | 10,335 | 10,335 | 10,335 | 10,335 | 10,335 |
| Market expenditure | 3,162 | 3,260 | 3,359 | 3,460 | 3,480 | 3,504 | 3,530 | 3,760 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 13,688 | 14,848 | 16,171 | 17,461 | 18,306 | 18,330 | 18,356 | 18,586 |
| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 1,872 | 3,808 | 5,875 | 8,073 | 10,140 | 10,335 | 10,335 | 10,335 |
| Market expenditure | 3,162 | 3,260 | 3,359 | 3,460 | 3,480 | 3,504 | 3,530 | 3,760 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 6,202 | 8,972 | 12,037 | 15,199 | 18,111 | 18,330 | 18,356 | 18,586 |
| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 9,358 | 9,684 | 10,009 | 10,335 | 9,302 | 8,372 | 7,534 | 4,449 |
| Market expenditure | 3,162 | 3,260 | 3,359 | 3,460 | 3,480 | 3,504 | 3,530 | 3,760 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 13,688 | 14,848 | 16,171 | 17,461 | 17,273 | 16,367 | 15,555 | 12,700 |
| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 772 | 1,159 | 1,159 | 1,546 | 1,932 | 2,318 | 2,318 | 2,318 |
| Market expenditure | 3,112 | 3,161 | 3,260 | 3,310 | 3,280 | 3,253 | 3,279 | 3,501 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 5,052 | 6,224 | 7,222 | 8,522 | 9,703 | 10,062 | 10,088 | 10,310 |

*Table A3.1.2 Total EU agricultural expenditure in the CC 12 under reference period 1991-1993*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 7,381 | 7,605 | 7,829 | 8,053 | 8,053 | 8,053 | 8,053 | 8,053 |
| Market expenditure | 2,668 | 2,740 | 2,814 | 2,889 | 2,909 | 2,933 | 2,960 | 3,188 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 11,217 | 12,249 | 13,446 | 14,608 | 15,453 | 15,477 | 15,504 | 15,732 |
| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 1,476 | 2,997 | 4,608 | 6,308 | 7,918 | 8,053 | 8,053 | 8,053 |
| Market expenditure | 2,668 | 2,740 | 2,814 | 2,889 | 2,909 | 2,933 | 2,960 | 3,188 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 5,312 | 7,641 | 10,225 | 12,863 | 15,318 | 15,477 | 15,504 | 15,732 |
| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 7,381 | 7,605 | 7,829 | 8,053 | 7,248 | 6,523 | 5,871 | 3,467 |
| Market expenditure | 2,668 | 2,740 | 2,814 | 2,889 | 2,909 | 2,933 | 2,960 | 3,188 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 11,217 | 12,249 | 13,446 | 14,608 | 14,648 | 13,947 | 13,322 | 11,146 |
| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 549 | 824 | 824 | 1,099 | 1,373 | 1,648 | 1,648 | 1,648 |
| Market expenditure | 2,618 | 2,641 | 2,715 | 2,739 | 2,709 | 2,682 | 2,709 | 2,929 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 4,335 | 5,369 | 6,342 | 7,504 | 8,573 | 8,821 | 8,848 | 9,068 |

## A3.2 Production growth (million euro)

*Table A3.2.1 Total EU agricultural expenditure in CC 12 under an additional annual production growth of 1%*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,898 | 3,056 | 3,220 | 3,405 | 3,551 | 3,720 | 3,896 | 4,926 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,859 | 11,989 | 13,288 | 14,572 | 15,543 | 15,712 | 15,888 | 16,918 |
| **Scenario 2** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2015** |
| Direct payments | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,898 | 3,056 | 3,220 | 3,405 | 3,551 | 3,720 | 3,896 | 4,926 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 5,425 | 7,724 | 10,287 | 12,930 | 15,401 | 15,712 | 15,888 | 16,918 |
| **Scenario 3** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2015** |
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 3,229 |
| Market expenditure | 2,898 | 3,056 | 3,220 | 3,405 | 3,551 | 3,720 | 3,896 | 4,926 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,859 | 11,989 | 13,288 | 14,572 | 14,793 | 14,286 | 13,855 | 12,646 |
| **Scenario 4** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2015** |
| Direct payments | 567 | 850 | 850 | 1,134 | 1,417 | 1,701 | 1,701 | 1,701 |
| Market expenditure | 2,827 | 2,906 | 3,060 | 3,150 | 3,189 | 3,235 | 3,377 | 4,212 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 4,562 | 5,660 | 6,713 | 7,950 | 9,097 | 9,427 | 9,569 | 10,404 |

## A3.3 World market prices (million euro)

*Table A3.3.1 EU agricultural expenditure in CC 12 with lower worldmarket prices (-25%)*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,764 | 2,851 | 2,941 | 3,033 | 3,066 | 3,109 | 3,157 | 3,558 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,725 | 11,784 | 13,009 | 14,200 | 15,058 | 15,101 | 15,149 | 15,550 |
| Scenario 2 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,764 | 2,851 | 2,941 | 3,033 | 3,066 | 3,109 | 3,157 | 3,558 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 5,291 | 7,519 | 10,008 | 12,558 | 14,916 | 15,101 | 15,149 | 15,550 |
| Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 5,195 |
| Market expenditure | 2,764 | 2,851 | 2,941 | 3,033 | 3,066 | 3,109 | 3,157 | 3,558 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,725 | 11,784 | 13,009 | 14,200 | 14,308 | 13,675 | 13,116 | 13,244 |
| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 567 | 850 | 850 | 1,134 | 1,417 | 1,701 | 1,701 | 1,701 |
| Market expenditure | 2,715 | 2,752 | 2,841 | 2,883 | 2,866 | 2,859 | 2,906 | 3,298 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 4,450 | 5,506 | 6,494 | 7,683 | 8,774 | 9,051 | 9,098 | 9,490 |

*Table A3.3.2 Total EU agricultural expenditure in CC 12 with higher worldmarket prices (+25%)*

| Scenario 1 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 7,501 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,306 | 2,373 | 2,441 | 2,509 | 2,518 | 2,528 | 2,539 | 2,638 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,267 | 11,306 | 12,509 | 13,676 | 14,510 | 14,520 | 14,531 | 14,630 |
| **Scenario 2** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2015** |
| Direct payments | 1,359 | 2,764 | 4,264 | 5,859 | 7,359 | 7,501 | 7,501 | 7,501 |
| Market expenditure | 2,306 | 2,373 | 2,441 | 2,509 | 2,518 | 2,528 | 2,539 | 2,638 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 4,833 | 7,041 | 9,508 | 12,034 | 14,368 | 14,520 | 14,531 | 14,630 |
| **Scenario 3** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2015** |
| Direct payments | 6,793 | 7,029 | 7,265 | 7,501 | 6,751 | 6,075 | 5,468 | 3,229 |
| Market expenditure | 2,306 | 2,373 | 2,441 | 2,509 | 2,518 | 2,528 | 2,539 | 2,638 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 10,267 | 11,306 | 12,509 | 13,676 | 13,760 | 13,094 | 12,498 | 10,358 |
| **Scenario 4** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2015** |
| Direct payments | 567 | 850 | 850 | 1,134 | 1,417 | 1,701 | 1,701 | 1,701 |
| Market expenditure | 2,257 | 2,273 | 2,341 | 2,359 | 2,318 | 2,278 | 2,288 | 2,378 |
| Rural development | 1,168 | 1,904 | 2,803 | 3,666 | 4,491 | 4,491 | 4,491 | 4,491 |
| Total | 3,992 | 5,027 | 5,994 | 7,159 | 8,226 | 8,470 | 8,480 | 8,570 |

# Appendix 4 EU agricultural expenditure in EU 15

## B4.1 EU agricultural expenditure in the EU 15, base line and 4 scenarios (differences with base line, million euro)

*Table B4.1.1 Overview*

| EU-15<br>Base line | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Total | 42,760 | 41,930 | 41,600 | 41,660 | 41,660 | 41,660 | 41,660 | 41,660 |
| of which: | | | | | | | | |
| Direct payments | 24,813 | 25,833 | 27,016 | 28,192 | 28,192 | 28,192 | 28,192 | 28,192 |
| Market expenditure | 13,597 | 11,737 | 10,214 | 9,098 | 9,098 | 9,098 | 9,098 | 9,098 |
| Rural development | 4,350 | 4,360 | 4,370 | 4,370 | 4,370 | 4,370 | 4,370 | 4,370 |

| Difference with base line<br>Scenario 3 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Direct payments | 0 | 0 | 0 | 0 | -2,819 | -5,356 | -7,640 | -16,056 |
| Other expenditure | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | -2,819 | -5,356 | -7,640 | -16,056 |
| Scenario 4 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
| Direct payments | 2,274 | 2,383 | 1,365 | 1,490 | 2,627 | 3,764 | 3,764 | 3,764 |
| Other expenditure | -180 | -359 | -359 | -539 | -718 | -897 | -897 | -897 |
| Total | 2,094 | 2,024 | 1,005 | 952 | 1,909 | 2,866 | 2,866 | 2,866 |

*Table B4.12 EU agricultural expenditure in the base line per member state*

| Base line<br>Total | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Belgium | 1,017 | 996 | 987 | 989 | 989 | 989 | 989 | 989 |
| Danmark | 1,264 | 1,237 | 1,227 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 |
| Germany | 6,330 | 6,209 | 6,161 | 6,169 | 6,169 | 6,169 | 6,169 | 6,169 |
| Greece | 2,761 | 2,704 | 2,681 | 2,685 | 2,685 | 2,685 | 2,685 | 2,685 |
| Spain | 4,980 | 4,882 | 4,843 | 4,850 | 4,850 | 4,850 | 4,850 | 4,850 |
| France | 9,744 | 9,550 | 9,472 | 9,486 | 9,486 | 9,486 | 9,486 | 9,486 |
| Ireland | 2,059 | 2,022 | 2,007 | 2,010 | 2,010 | 2,010 | 2,010 | 2,010 |
| Italy | 4,966 | 4,872 | 4,834 | 4,841 | 4,841 | 4,841 | 4,841 | 4,841 |
| Luxemburg | 36 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Netherlands | 1,571 | 1,538 | 1,525 | 1,527 | 1,527 | 1,527 | 1,527 | 1,527 |
| Austria | 1,372 | 1,353 | 1,345 | 1,347 | 1,347 | 1,347 | 1,347 | 1,347 |
| Portugal | 833 | 819 | 814 | 815 | 815 | 815 | 815 | 815 |
| Finland | 875 | 863 | 859 | 860 | 860 | 860 | 860 | 860 |
| Sweden | 846 | 831 | 826 | 827 | 827 | 827 | 827 | 827 |
| United Kingdom | 4,107 | 4,021 | 3,986 | 3,992 | 3,992 | 3,992 | 3,992 | 3,992 |
| Total | 42,761 | 41,931 | 41601 | 41661 | 41,661 | 41,661 | 41,661 | 41,661 |

| Base line<br>Rural development | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Belgium | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Danmark | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Germany | 702 | 703 | 705 | 705 | 705 | 705 | 705 | 705 |
| Greece | 131 | 132 | 132 | 132 | 132 | 132 | 132 | 132 |
| Spain | 460 | 461 | 462 | 462 | 462 | 462 | 462 | 462 |
| France | 762 | 764 | 765 | 765 | 765 | 765 | 765 | 765 |
| Ireland | 316 | 317 | 317 | 317 | 317 | 317 | 317 | 317 |
| Italy | 597 | 598 | 599 | 599 | 599 | 599 | 599 | 599 |
| Luxemburg | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Netherlands | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| Austria | 424 | 425 | 426 | 426 | 426 | 426 | 426 | 426 |
| Portugal | 201 | 201 | 201 | 201 | 201 | 201 | 201 | 201 |
| Finland | 291 | 291 | 292 | 292 | 292 | 292 | 292 | 292 |
| Sweden | 149 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| United Kingdom | 154 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Total | 4,350 | 4,360 | 4,370 | 4,370 | 4,370 | 4,370 | 4,370 | 4,370 |

## B4.2 Scenario 3 results for EU 15: differences with the base line (million euro)

*Table B4.2.1 Per product in EU 15*

| Scenario 3<br>Direct payments | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 0 | 0 | 0 | 0 | -1,324 | -2,516 | -3,588 | -7,541 |
| Oilseeds | 0 | 0 | 0 | 0 | -150 | -285 | -407 | -856 |
| Protein crops | 0 | 0 | 0 | 0 | -32 | -61 | -88 | -184 |
| Dairy | 0 | 0 | 0 | 0 | -305 | -580 | -827 | -1,737 |
| Beef | 0 | 0 | 0 | 0 | -832 | -1,582 | -2,256 | -4,741 |
| Sheep | 0 | 0 | 0 | 0 | -175 | -333 | -474 | -997 |
| Total | 0 | 0 | 0 | 0 | -2,819 | -5,356 | -7,640 | -16,056 |

| Scenario 3<br>Market expenditure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Beef | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheepvlees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Scenario 3<br>Total | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 0 | 0 | 0 | 0 | -1,324 | -2,516 | -3,588 | -7,541 |
| Oilseeds | 0 | 0 | 0 | 0 | -150 | -285 | -407 | -856 |
| Protein crops | 0 | 0 | 0 | 0 | -32 | -61 | -88 | -184 |
| Dairy | 0 | 0 | 0 | 0 | -305 | -580 | -827 | -1,737 |
| Beef | 0 | 0 | 0 | 0 | -832 | -1,582 | -2,256 | -4,741 |
| Sheep | 0 | 0 | 0 | 0 | -175 | -333 | -474 | -997 |
| Sugar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | -2,819 | -5,356 | -7,640 | -16,056 |

*Table B4.2.2 Per EU member state, differences with the base line (million euro)*

| Scenario 3<br>Total expenditure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Belgium | 0 | 0 | 0 | 0 | -50 | -95 | -136 | -286 |
| Danmark | 0 | 0 | 0 | 0 | -98 | -187 | -267 | -561 |
| Germany | 0 | 0 | 0 | 0 | -543 | -1,032 | -1,472 | -3,094 |
| Greece | 0 | 0 | 0 | 0 | -58 | -111 | -158 | -332 |
| Spain | 0 | 0 | 0 | 0 | -299 | -569 | -811 | -1,704 |
| France | 0 | 0 | 0 | 0 | -714 | -1,356 | -1,934 | -4,064 |
| Ireland | 0 | 0 | 0 | 0 | -100 | -190 | -270 | -568 |
| Italy | 0 | 0 | 0 | 0 | -303 | -575 | -820 | -1724 |
| Luxemburg | 0 | 0 | 0 | 0 | -3 | -5 | -7 | -16 |
| Netherlands | 0 | 0 | 0 | 0 | -85 | -161 | -229 | -481 |
| Austria | 0 | 0 | 0 | 0 | -60 | -114 | -163 | -343 |
| Portugal | 0 | 0 | 0 | 0 | -31 | -60 | -85 | -178 |
| Finland | 0 | 0 | 0 | 0 | -39 | -74 | -106 | -223 |
| Sweden | 0 | 0 | 0 | 0 | -64 | -122 | -174 | -366 |
| United Kingdom | 0 | 0 | 0 | 0 | -371 | -706 | -1,006 | -2,115 |
| Total | 0 | 0 | 0 | 0 | -2,819 | -5,357 | -7,640 | -16,056 |

*Table B4.2.3 Per EU member state, in % of base line*

| Scenario 3<br>Total expenditure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Belgium | 0% | 0% | 0% | 0% | -5% | -10% | -14% | -29% |
| Danmark | 0% | 0% | 0% | 0% | -8% | -15% | -22% | -46% |
| Germany | 0% | 0% | 0% | 0% | -9% | -17% | -24% | -50% |
| Greece | 0% | 0% | 0% | 0% | -2% | -4% | -6% | -12% |
| Spain | 0% | 0% | 0% | 0% | -6% | -12% | -17% | -35% |
| France | 0% | 0% | 0% | 0% | -8% | -14% | -20% | -43% |
| Ireland | 0% | 0% | 0% | 0% | -5% | -9% | -13% | -28% |
| Italy | 0% | 0% | 0% | 0% | -6% | -12% | -17% | -36% |
| Luxemburg | 0% | 0% | 0% | 0% | -9% | -14% | -20% | -46% |
| Netherlands | 0% | 0% | 0% | 0% | -6% | -11% | -15% | -31% |
| Austria | 0% | 0% | 0% | 0% | -4% | -8% | -12% | -25% |
| Portugal | 0% | 0% | 0% | 0% | -4% | -7% | -10% | -22% |
| Finland | 0% | 0% | 0% | 0% | -5% | -9% | -12% | -26% |
| Sweden | 0% | 0% | 0% | 0% | -8% | -15% | -21% | -44% |
| United Kingdom | 0% | 0% | 0% | 0% | -9% | -18% | -25% | -53% |
| Total | 0% | 0% | 0% | 0% | -7% | -13% | -18% | -39% |

## B4.3  Scenario 4 results for EU 15: differences with base line (million euro)

*Table B4.3.1  Per product in EU-15*

| Scenario 4<br>Direct payments | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Cereals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protein crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 2,039 | 2,031 | 1,012 | 1,020 | 2,038 | 3,058 | 3,058 | 3,058 |
| Beef | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 235 | 353 | 353 | 470 | 588 | 705 | 705 | 705 |
| Total | 2,273 | 2,383 | 1,364 | 1,490 | 2,626 | 3,763 | 3,763 | 3,763 |
| Scenario 4<br>Market expenditure | | | | | | | | |
| Cereals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | -46 | -92 | -92 | -137 | -183 | -229 | -229 | -229 |
| Beef | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheepvlees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | -134 | -267 | -267 | -401 | -535 | -668 | -668 | -668 |
| Total | -180 | -359 | -359 | -539 | -718 | -897 | -897 | -897 |
| Scenario 4<br>Total | | | | | | | | |
| Cereals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oilseeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protein crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dairy | 1,905 | 1,764 | 745 | 620 | 1,504 | 2,391 | 2,391 | 2,391 |
| Beef | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sugar | 189 | 261 | 261 | 333 | 405 | 476 | 476 | 476 |
| Total | 2,094 | 2,025 | 1,007 | 953 | 1,909 | 2,867 | 2,867 | 2,867 |

*Table B4.3.2  Per EU member state; differences with base line (million euro)*

| Scenario 4<br>Total expenditure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Belgium | 60 | 60 | 32 | 32 | 59 | 87 | 87 | 87 |
| Danmark | 79 | 75 | 36 | 33 | 69 | 106 | 106 | 106 |
| Germany | 500 | 482 | 238 | 225 | 453 | 682 | 682 | 682 |
| Greece | 14 | 14 | 9 | 9 | 15 | 21 | 21 | 21 |
| Spain | 104 | 103 | 55 | 55 | 102 | 149 | 149 | 149 |
| France | 442 | 432 | 223 | 216 | 417 | 618 | 618 | 618 |
| Ireland | 88 | 83 | 37 | 31 | 72 | 113 | 113 | 113 |
| Italy | 181 | 178 | 93 | 91 | 173 | 256 | 256 | 256 |
| Luxemburg | 5 | 4 | 2 | 1 | 3 | 5 | 5 | 5 |
| Netherlands | 190 | 179 | 83 | 75 | 162 | 249 | 249 | 249 |
| Austria | 47 | 46 | 24 | 23 | 45 | 66 | 66 | 66 |
| Portugal | 30 | 28 | 12 | 11 | 25 | 39 | 39 | 39 |
| Finland | 42 | 40 | 18 | 17 | 36 | 55 | 55 | 55 |
| Sweden | 58 | 56 | 27 | 25 | 52 | 78 | 78 | 78 |
| United Kingdom | 254 | 243 | 117 | 108 | 225 | 342 | 342 | 342 |
| Total | 2,094 | 2,025 | 1,007 | 953 | 1,909 | 2,867 | 2,867 | 2,867 |

*Table B4.3.3  Per EU member state, in % of base line*

| Scenario 4<br>Total expenditure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Belgium | 6% | 6% | 3% | 3% | 6% | 9% | 9% | 9% |
| Danmark | 6% | 6% | 3% | 3% | 6% | 9% | 9% | 9% |
| Germany | 8% | 8% | 4% | 4% | 7% | 11% | 11% | 11% |
| Greece | 1% | 1% | 0% | 0% | 1% | 1% | 1% | 1% |
| Spain | 2% | 2% | 1% | 1% | 2% | 3% | 3% | 3% |
| France | 5% | 5% | 2% | 2% | 4% | 7% | 7% | 7% |
| Ireland | 4% | 4% | 2% | 2% | 4% | 6% | 6% | 6% |
| Italy | 4% | 4% | 2% | 2% | 4% | 5% | 5% | 5% |
| Luxemburg | 14% | 11% | 6% | 3% | 9% | 14% | 14% | 14% |
| Netherlands | 12% | 12% | 5% | 5% | 11% | 16% | 16% | 16% |
| Austria | 3% | 3% | 2% | 2% | 3% | 5% | 5% | 5% |
| Portugal | 4% | 3% | 1% | 1% | 3% | 5% | 5% | 5% |
| Finland | 5% | 5% | 2% | 2% | 4% | 6% | 6% | 6% |
| Sweden | 7% | 7% | 3% | 3% | 6% | 9% | 9% | 9% |
| United Kingdom | 6% | 6% | 3% | 3% | 6% | 9% | 9% | 9% |
| Total | 5% | 5% | 2% | 2% | 5% | 7% | 7% | 7% |