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PROSPECTS FOR
AGRICULTURAL MARKETS

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Foreword

In 1997, the Directorate-General for Agriculture (DG VI) published a number of studies, which examined in detail the current situation and the long-term outlook for several agricultural markets in the EU, developments in rural areas and on world markets. These studies were published under the common heading “CAP 2000”.

The first of these studies, published under the title “Long term Prospects – Grains, Milk and Meat Markets”, presented an overview of market trends and long-term projections of supply and demand for the main agricultural commodities. In view of the public interest for this study, DG VI has updated the forecasts made in spring 1997 and presents now the results of the update in this publication.

This publication contains three chapters. The first chapter centres on the market prospects by the year 2005 within the EU and covers the following products: cereals, oilseeds, meat, milk and the main dairy products. Chapter II provides a description of the likely prospects of agricultural markets in the associated Central European Countries, which are candidates for accession to the EU. This part is based on the more detailed individual country reports, which have recently been published by DG VI, but the forecast horizon is now extended to the year 2005. Finally, a presentation of the medium and long-term prospects of agricultural world markets, established by different international organisations and institutes, is given in chapter III.

List of acronyms and abbreviations

BSE	Bovine Spongiform Encephalopathy
CAP	Common Agricultural Policy
CEC	Central European Countries
cwe	carcass weight equivalent
CRP	Conservation Reserve Programme (US)
DG	Directorate-General
EU	European Union
EUROSTAT	Statistical Office of the European Communities
FAO	Food and Agriculture Organisation (of the United Nations)
FAPRI	Food and Agricultural Policy Research Institute
FMD	Foot-and-Mouth disease
FSU	Former Soviet Union
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
ha	hectare
IMF	International Monetary Fund
kg/cap.	kilogram/capita
mio t	million tonnes
OECD	Organisation for Economic Co-operation and Development
OTMS	Over Thirty Months Scheme
SMP	Skimmed milk powder
US	United States of America
USDA	United States Department of Agriculture
WMP	Whole Milk Powder

WTO

World Trade Organisation

Executive summary

Chapter I Prospects for agricultural markets in the European Union

This chapter summarises the main results and underlying assumptions of long-term forecasts for some key agricultural products (i.e. cereals, oilseeds, meat and milk products) in the European Union for the period 1998-2005. The results presented are the final outcome of different approaches (econometric methods, statistical analyses, specific assumptions, expert judgements, etc.), depending on the products and variables concerned, **based on the agricultural statistics available on the 15.08.1998.**

These projections are not intended to constitute a forecast of what the future will be, but instead a description of what may happen under a specific set of assumptions and circumstances. The most important assumption concerns **agricultural policy, which is assumed to remain unchanged over the whole forecast period.** This implies that all policy instruments and measures are expected to operate under the current rules or within the changes foreseen (**status-quo forecasts**).

The second assumption relates to trade in agricultural products and, in particular, to the commitments derived from the GATT agreement. **It has been assumed that all GATT commitments regarding imports and subsidised exports will be fully respected.** Thus, unless otherwise stated, exports are expected to amount to the annual GATT ceilings, whereas imports under normal and minimum access are supposed to be fully fulfilled. **In addition, the GATT commitments have been assumed to remain unchanged for the 2001-2005 period.**

Cereals

Total **area** allocated to cereals is forecast to decline from 37.9 mio ha in 1997/98 to 37.1 mio ha in 1999/00, in line with the increase in the rate of compulsory set-aside from 5 % in 1997/98 to 10 % in 1999/00. From 2000/01 onwards the set-aside rate is assumed to be set back at its base rate of 17.5 %, resulting in a total cereal area relatively stable at around 35.9 mio ha. Yield trends observed over recent years are assumed to continue over the forecast period.

Total harvested cereal **production** is forecast to rise from 203.6 mio t in 1997/98 to 213.2 mio t in 2005/06. In particular, total wheat production is forecast to increase from 94.7 mio t in 1997/98 to 112.3 mio t in 2005/06. Coarse grain production is expected to decline from 109 mio t in 1997/98 to 96.3 mio t in 2000/01 and then to increase slightly to

100.9 mio t in 2005/06 due to higher yields. In 2005/06, barley will still constitute the most important coarse grain with 45.2 mio t, followed by maize with 38.6 mio t.

Total **demand** for cereals is forecast to increase from an estimate of 175.3 mio t in 1997/98 to 180.6 mio t in 2005/06. Both feed (+2.2 mio t) and non-feed use (+3.1 mio t) would generate this growth in cereal demand.

Quantities exported are assumed to stay strictly within the annual limit for subsidised exports set by the GATT agreement (i.e. 26.4 mio t for total cereals over the 2000-2005 period). Significant unsubsidised exports are not considered in the context of these forecasts under expected market and exchange rate conditions. **Imports** are projected to amount to 5 mio t from 1998/99 onwards, including imports under the GATT commitments.

The **balance sheets** which result from these developments show that the cereal market is likely to be characterised by a relatively difficult situation over the next years. Total stocks are likely to rise from around 46 mio t over the 1998/99-2001/02 period to 72.3 mio t in 2005/06, of which 50.6 mio t in intervention stores.

In the short-run, most of these stocks will be coarse grains since low wheat prices should favour wheat consumption at the expense of coarse grains. However, in the longer-run, the stronger development in wheat area and yields is forecast to increase wheat production well over internal consumption capacity and GATT export volumes. Wheat stocks are likely to grow at an increasing speed to reach 47 mio t in 2005/06 of which about 36 mio t in intervention.

Oilseeds

The **area** allocated to “food” oilseeds is expected to decline in 1999/00 and 2000/01 in line with the increase in the rate of set-aside. From 2000/01 onwards, it should remain relatively stable at around 4.6 mio ha. Non-food oilseed area is estimated to adapt to the level of set-aside rate. From 0.4 mio ha in 1998/99, it is expected to increase to 0.7 mio ha in 1999/00, before stabilising at slightly less than 1 mio ha over the 2000/01-2005/06 period.

Oilseed **yields** are expected to increase in the medium-term. This should mainly concern rape seed and soya bean, whereas sunflower seed yields are likely to stagnate.

Oilseeds (food) **production** is forecast to drop from 13.4 mio t in 1997/98 to 11.3 mio t in 2000/01, mainly due to the reduction in the area allocated to oilseeds as a consequence of the change in the set-aside rate. It will then increase slightly to around 11.9 mio t. Non-food oilseed production will also evolve together with the set-aside rate and reach about 2.8 mio t in 2005/06.

Beef

Beef/veal **production** is forecast to drop by -3.6 % in 1998, reaching 7.6 mio t, and by a further -2.3 % in 1999. In the years after, beef production is expected to resume, reaching its

next cyclical top in the year 2002, and then entering in the downward phase at the end of the forecast period.

Beef/veal **consumption** in 1997 recovered by 2.7 % (per capita: +2.4 %) from the extremely low level experienced in 1996, where under the influence of the BSE scare consumption dropped by -7.4 % (per capita: -7.7 %). This evolution confirms the working assumption made by the Commission services in the context of the *Long Term Prospects* of 1997; i.e. that per capita beef consumption will gradually recover to its long-term trend. It is assumed that this will be the case by the year 2001. From 2002 onwards, per capita beef consumption is expected to once again follow its long-term declining trend and reach about 18.9 kg by 2005. Thus, total beef/veal consumption is forecast to increase from 6.9 mio t in 1996 to 7.3 mio t in 2001 and then to decline to 7.2 mio t in 2005.

Trade development is assumed to respect the GATT commitments, with **imports** more or less stable at 0.4 mio t over the forecast period. **Exports** are assumed running at their maximum level under the GATT limits for subsidised exports, excluding non-subsidised exports given the current and the expected prices on internal and world markets for the next years.

Based on the assumptions and forecasts outlined above, the beef **balance sheet** shows that beef stocks, reaching 630 000 t at the end of 1997, are expected to decline between 1998 and 2000. From 2001 onwards, higher levels of production combined with lower internal and external demand (due to the GATT constraints) are forecast to affect the beef market balance and lead to an accumulation of stocks in the second half of the forecast period (about 1.5 mio t by the year 2005).

Pig meat

Pig meat **consumption** in 1997 has been negatively affected (-0.2 %) by reduced supply and relatively high prices, due to the outbreak of classical swine fever in several Member States, in particular in the Netherlands. In the medium and long-term, pig meat consumption should continue to grow moderately by around 0.5 % per year.

Imports are likely to rise due to increasing quantities imported under the GATT minimum access and other market access agreements. Total **exports** should increase from about 0.9 mio t in 1997 to 1.1 mio t in 1998 and are expected to stay at around 1.042 mio t from 2001 onwards, including exports without subsidies.

Based on the above-presented assumptions, pig meat **production** is forecast to increase by around 0.7 % annually over the period 2000-2005, reaching around 17.9 mio t by the year 2005.

Poultry

Poultry **demand** strongly increased in 1996 (by 4.1 %) in the wake of the BSE crisis and the switch of consumers away from beef to other meats. A 2.9 % increase occurred in 1997, and the short-term forecasts for 1998 suggest a further increase of 1.8 %. In the medium and

long-term, poultry consumption is forecast to retain its strong growth by around 1.9 % on average per year.

Poultry **imports** are forecast at around 330 000 t by the end of the forecast period. Exports are forecast to decrease slightly from an estimated 960 000 t in 1998 to around 890 000 t at the end of the forecast period, reflecting the reduced GATT limits for subsidised exports.

Under the above-presented assumptions, poultry **production** is expected to increase by between 1.7 % and 2.1 % per annum from 1998 onwards, reaching around 9.9 mio t in the year 2005.

Sheep and Goat

Reduced availability and relatively high prices characterised **consumption** of sheep and goat meat in 1997, which declined by 3.0 %. However, **production** and also consumption is expected to recover in 1998.

In the medium and long-term, a slight downward trend for both production and consumption is expected. **Imports** could slightly increase in response to somewhat better use of market access commitments granted to some third countries.

Milk and dairy products

Total cow's milk **production** is forecast to decline from an estimated 120.8 mio t in 1997 to around 120.4 mio t in 1998. In the future, based on the assumption that milk quotas in the EU will remain unchanged, production is expected to decline slightly each year to reach about 119.7 mio t by 2001 and 118.6 mio t by 2005. Around 94 % of this quantity will be delivered to dairies, the remainder being used on farms and for direct sales.

It is expected that the downward trend in the **number of dairy cows** will continue. This is the consequence of the slightly decreasing milk production and an expected further increase in milk yields. Thus, the dairy cow herd is forecast to drop from 21.7 mio head in 1997 (result of the December survey) to around 20.1 mio head in 2001 and 18.6 mio head in 2005.

Cheese

Domestic use of cheese is expected to continue its increase, but more modestly than in the past. Total consumption of cheese is expected to increase by around 1.1 % annually until 2001 and by around 1 % per year subsequently.

For cheese **exports**, it is assumed that, in the context of a status-quo-policy, the reduction in subsidised exports due to the GATT commitments can only be partly compensated by an increase in non-subsidised exports. The forecasts on **imports** of cheese are based on the assumption that the actual level under current access will be maintained and that, in addition, imports of cheese under GATT minimum access and other market access agreements will increase.

Based on the above trends in domestic use and external trade, it is expected that cheese **production** will continue to rise, but at a lower rate than internal consumption. Scope for further growth in the cheese production is limited especially by the constraining nature of the

GATT commitments for exports. Cheese production will continue to absorb increasing quantities of milk, but less than compared to a situation without these constraints. These quantities of milk, which would normally be allocated to cheese production, are likely to be used by dairies for the manufacture of other dairy products, in particular butter and skimmed milk powder (which can be sold into intervention).

Butter

A further decrease in **domestic consumption** of butter is expected by the year 2005, but at a lower rate than in the past (-0.8 % per year). Butter **production** is expected to decrease slightly over the 1998-2005 period, reflecting not only the reduced milk deliveries to dairies but also the fact that more milk is used in the manufacturing of other dairy products. **Imports** of butter should remain more or less stable around the current level. On the **export** side, the margin with respect to GATT commitments on subsidised exports appears more than sufficient. However, relatively high level of exports (around 250 000 t at the end of the forecast period, compared to 200-230 000 t actually) would be necessary in order to keep intervention stocks down (assuming a minimum stock level of around 40 000 t). At least in most recent years, demand on world markets was not sufficient to absorb such large quantities.

Skimmed milk powder

For skimmed milk powder (SMP), forecasts indicate a further drop in **consumption**, mainly in animal feed use, while human consumption is prospected to increase slightly. Due to lower availability of milk and increasing use of skimmed milk in the manufacture of other dairy products (fresh products, cheese), SMP **production** is likely to decline also, but to a lesser extent than consumption.

On the other hand, **imports** of SMP are expected to increase (due to GATT minimum access and other market access commitments), while subsidised **exports** are limited. It is not expected that EU exports of SMP will exceed 250 000 t in coming years. In this case, the forecasts envisage a situation where EU intervention stocks of SMP tend to increase until 2002 and to ease somewhat at the end of the forecast period.

Chapter II Prospects for agricultural markets in the associated Central European Countries

This chapter provides an overview of the current situation and the expected long-term developments by the year 2005 for a number of the main agricultural commodity sectors of the **ten associated Central European Countries (CECs)**, which are candidates for accession to the European Union. While in the 1997 Publication *Long Term Prospects*, the adoption of the CAP was assumed to take place from 2003 onwards, the following projections are based on the hypothesis of the status-quo policy in the CECs. This could explain some discrepancies between this year's and last year's forecasts.

Cereals

Area grown with cereals is expected to continue to increase and reach 25.4 mio ha by 2005/06. This increase is expected to take place in all the CECs, and in particular in Poland, while Romania is projected to remain the only country to exhibit a minor decrease.

A continued increase in the cereal **yield** is expected due to better use of inputs. Annual yield increases are foreseen to be between 1 and 3 % in most countries. Based on these area and yield assumptions, the total cereal **production** in the CECs could reach 92 mio t in 2005/06 compared to about 82 mio t in 1997/98. Poland, Romania and Hungary will account for 66 mio t hereof, or 31.5, 20 and 14.5 mio t each respectively.

On the **consumption** side a slight increase in the human per capita consumption is foreseen. On the other hand, the use of cereals in animal feed is expected to increase from 45 mio t in 1997/98 to over 52 mio t in 2005/06. Total internal use of cereals in the CECs is foreseen to reach nearly 83 mio t by the end of the forecast period, compared to 74 mio t in 1997/98.

The above-mentioned figures for production and consumption indicate that the CECs in 2005/06 will have a positive **balance** of 9 mio t. The countries with an expected exportable surplus are Hungary (4.5 mio t), Romania (2 mio t) and Poland (1.5 mio t).

Oilseeds

Oilseed **area** is expected to increase from 2.6 mio ha in 1997/98 to 3.2 mio ha in 2005/06. This increase should occur particularly in Romania (sunflower seed) and Poland (rapeseed). Average **yields** are expected to show annual growth of more than 2 % and attain 1.83 t/ha in 2005/06. Based on these area and yield forecasts, the total oilseed **production** is projected to reach 5.8 mio t in 2005/06, compared to the drought/frost affected 1997/98 crop of 3.5 mio t and 4.0 mio t in 1996/97.

A relatively large increase in the **use** of oilseeds in the CECs is expected from a current figure of around 4 mio t to 5 mio t in 2005/06. During the forecast period the CECs are forecast to increase their **exportable quantities** of oilseeds from a few 100 000 t to just below 1 mio t in 2005/06. Main exporters are expected to be Hungary and Poland, each with around 300 000 t in annual export.

Milk

The total **production** of cow milk is expected to increase from 28 mio t in 1997 to 31.5 mio t in 2005 due to the increase in yield (around 1.8 % per year). Poland is the largest producer country with a production around 14 mio t in 2005.

It is expected that the human **consumption** of fresh milk will recover some of the losses observed in the previous years, and the per capita use of fresh milk is projected to increase from 164 kg in 1997 to 172 kg in 2005. The total fresh milk consumption is therefore expected to increase from 17 mio t in 1997 to 18 mio t in 2005. An increase in the use of milk for processing is also expected. Thus the total use of milk is foreseen to increase from 26.2 mio t in 1997 to 30.0 mio t in 2005. This leaves the CECs with a positive **balance** of

2.2 mio t in 2005 compared to 2.0 mio t in 1997. The quantities available for export will in particular rise in Poland and Lithuania.

Beef

Total beef and veal **production** is expected to increase from 1.25 mio t in 1997 to 1.4 mio t in 2005. Most of this increase is projected to take place in Poland, Romania and Hungary.

The **demand** is only expected to show a modest growth during the forecast period after the significant decrease during the years 1989 to 1997. Total use in the CECs is seen to increase from 1.24 mio t to 1.34 mio t. This leaves the CECs with a small **exportable quantity**, mainly in Poland.

Pig meat

Total pig meat **production** is expected to increase by 0.7 mio t from 4.5 mio t in 1997 to 5.2 mio t in 2005. The increase in production is mainly demand driven, since the total **demand** of pig meat in the CECs is expected to increase from 4.1 mio t in 1997 to 4.8 mio t in 2005. The increase will be particular strong in Poland and Romania.

The development in production and internal use leaves the CECs with a **balance** of around 400 000 t available for export in 2005 compared to 250 000 t in 1997. Due to the CECs WTO export commitments, most of these quantities would have to find an export market without export subsidies. Most of these exportable quantities are of Polish and Hungarian origin.

Poultry

Total poultry meat **production** is expected to increase by 30 % from 1.6 mio t in 1997 to 2.1 mio t in 2005. Poland is the most important producer, with production projected to reach 750 000 t in 2005, followed by Romania and Hungary which are forecast to produce around 400 000 t each in 2005.

Total domestic **use** is expected to increase slightly less, thereby increasing the quantities available for **export** by the end of the period. Hungary is the main exporter of poultry meat with around 100 000 t annually. However, by the end of the period, it is expected that also Poland and Romania should be able to develop a significant export.

Chapter III Prospects for world markets

There is a broad consensus among analysts that the medium-term outlook for agricultural products will be characterised by a **strong growth in demand** that will generate a **sustained expansion in trade**. Prospects for an increased consumption of food products, mainly in the

developing countries, combined with the limited possibilities to proportionally increase domestic production, are expected to boost world trade and strengthen world prices above their long-term declining trends. The expansion of demand from the non-OECD regions, in particular in Asia and Latin America, will constitute the main driving force behind these favourable prospects.

Although the situation of agricultural markets is expected to improve significantly as compared to the late 1980s and the early 1990s, it is important to stress that it remains subject to some uncertainties, notably in view of growing concerns about future economic perspectives at world level. These uncertainties should moderate the strong pattern forecasted by most analysts for future trade and prices growth.

Cereals

The **medium-term outlook for cereal markets** is expected to demonstrate a tight situation derived from a strong rise in demand from developing countries. Higher cereal consumption, fuelled by economic and population growth as well as dietary changes, is forecasted to boost cereal imports in a large number of non-OECD countries, including China, North Africa and Latin America.

After 15 years of relative stagnation, cereal **trade** is expected to increase by more than 20 %, with coarse grains exhibiting a stronger pattern driven by increasing meat consumption in many developing countries and the ensuing expansion of their livestock sector. Global trade in coarse grain will strengthen with annual growth averaging around 4 %, whereas wheat trade is projected to grow by an annual average of about 2.5 % over the 1997-2005 period.

After bottoming out in 1997/98 and 1998/99, world **prices** will follow an upward trend up to 2005. According to FAPRI and USDA forecasts, wheat prices should range in 2005/06 between 166 \$/t and 187 \$/t, whereas maize and barley prices should develop to between 119 \$/t and 143 \$/t.

Oilseeds

The oilseed sector is expected to exhibit strong **demand** for vegetable oils and oilseed meals, benefiting from the expansion of the feed-livestock sector, that should generate further expansion of **trade** in oilseeds and oilseed products and support prices over the outlook horizon. The **prices** of oilseeds and oilseed products are expected to decline in the short-term from the high levels reached in recent years, before strengthening over the rest of the period. The strong dependence of the trade in vegetable oil from developing countries makes the outlook very sensitive to the economic prospects in these countries.

Meat

The prospects for an increase in the **consumption** of meat in response to income growth, in particular in transition economies and rapidly industrialising economies, are expected to stimulate world **trade** and strengthen world prices for meat over the medium and long-term. Beef trade is forecasted to increase by approximately 1 mio t (i.e. more than 20 %) over the 1997-2005 period. Pig meat trade is projected to climb to between 0.4 to 0.7 mio t over the

same period. Global trade in poultry meat is also projected to trend upward, with rises ranging from 0.8 to 2.4 mio t according to different analyses. Beef and poultry **prices** should strengthen over the medium-term, supported by strong demand, whereas pig meat prices are projected to stagnate or decline slightly in line with their long-term trend.

Milk and dairy products

Stimulated by increasing consumption and higher producer prices, milk **production** is set to expand in a number of countries, mainly outside the OECD area and in those OECD countries that do not use production quotas. According to the FAO, world cow milk production is likely to increase by more than 60 mio t (+11.4 %) from 1997 to 2005, of which the bulk in India, some other Asian countries (China, Pakistan) and several countries in South and Latin America (Brazil, Argentina, Uruguay, Mexico).

International **trade** should be stimulated from increasing demand for most dairy products, with the exception of SMP. In general, those countries for which an increase in milk production is predicted will mostly benefit from this evolution. Dairy **prices** on world markets are predicted to be somewhat lower compared to the year 1995, but should remain above the level experienced in the early 1990s. Price prospects for cheese are more optimistic than for the other dairy products.

Key issues

The outlook for agricultural markets over the next decade is fairly positive when compared to the situation in the 1980s and early 1990s. However, it must be stressed that these trade and price projections are particularly sensitive to critical assumptions regarding economic growth, as well as future supply, demand and policy developments not only in the main importing countries but also in exporting countries.

In this regard, two main areas of uncertainties can be identified:

- *Economic perspectives*: growing concerns over economic prospects throughout the world and the sustainability of the strong economic growth exhibited in some regions over the past decade (in particular in China and South East Asia) should moderate the medium-term outlook even though they are expected to mainly affect short-term development.
- *Scope for production growth*: future production growth in the main importing countries is forecasted to be outpaced by the rise in consumption. If availability of additional land is expected to be limited in most regions, potential for further improvement in productivity clearly remains a source of uncertainty.

In view of these uncertainties, a cautious assessment of the favourable prospects of agricultural markets is deemed necessary. Even if the main trends in market fundamentals can be expected to be positive over the medium and long-term, they remain subject to some uncertainties, both on the supply side (potential for a more rapid adjustment in production) and on the demand side (slower economic growth in major importing countries).

These uncertainties may be expected to moderate the strong pattern for future growth in trade and prices as forecasted by almost all analysts, although the situation of agricultural markets should remain significantly better than in the late 1980s and the early 1990s.

PROSPECTS FOR AGRICULTURAL MARKETS

IN THE EUROPEAN UNION

1. Introduction and macro-economic environment

1.1 Introduction

This chapter summarises the main results and underlying assumptions of long-term forecasts for some key agricultural products (i.e. cereals, oilseeds, meat and milk products) in the European Union for the period 1998-2005. The results presented are the final outcome of different approaches (econometric methods, statistical analyses, specific assumptions, expert judgements, etc.), depending on the products and variables concerned, **based on the agricultural statistics available on the 15.08.1998.**

These projections are not intended to constitute a forecast of what the future will be, but instead a description of what may happen under a specific set of assumptions and circumstances. The most important assumption concerns agricultural policy, which is assumed to remain unchanged over the whole forecast period. This implies that all policy instruments and measures are expected to operate under the current rules or within the changes foreseen (status-quo forecasts).

The second assumption relates to trade in agricultural products and, in particular, to the commitments derived from the GATT agreement. **It has been assumed that all GATT commitments regarding imports and subsidised exports will be fully respected.** Thus, unless otherwise stated, exports are expected to amount to the annual GATT limits, whereas imports under normal and minimum access are supposed to be fully fulfilled. **In addition, the GATT commitments have been assumed to remain unchanged for the 2001-2005 period.**

1.2 The macro-economic environment

Latest Commission (DG II) short-term estimates from spring 1998 confirm the expected recovery in the economic situation of the European Union, despite an international environment that turned out to be less favourable due to turbulence on Asian financial markets. Prospects for a continuation of the recovery were considered quite positive as the driving force for growth has gradually shifted from exports to domestic demand. The continued absence of inflationary pressure, the rapid budgetary consolidation, a policy-mix supportive to growth and sound demand and supply-side fundamentals were all expected to strengthen the economic recovery.

Table 1.1 Assumptions on macro-economic variables in the European Union, 1996 – 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Population (in mio)	372.6	373.7	374.8	375.9	377.0	378.0	379.1	380.1	381.2	381.8
Inflation (in %)	2.6	2.1	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
GDP growth (in %)	1.8	2.7	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0

2. Cereals

2.1 Supply

Area allocation

Total area allocated to cereals is forecast to decline from 37.9 mio ha in 1997/98 to 37.1 mio ha in 1999/00, in line with the increase in the rate of compulsory set-aside from 5 % in 1997/98 to 10 % in 1999/00. From 2000/01 onwards the set-aside rate is assumed to be set back at its base rate of 17.5 %, resulting in a total cereal area relatively stable at around 35.9 mio ha. In comparison with the Commission's *1997 Long Term Prospects*, this represents a drop of about 0.4 mio ha due to a higher level of land set-aside than previously projected. Obligatory set-aside is now forecast to have a stronger impact on the level of land available for production as the area grown within the general scheme is expected to be higher than originally forecast. Yet, voluntary set-aside is estimated to remain at around 0.5 mio ha. This decline in cereal area will mainly affect coarse grains, in particular barley and other cereals (of which mainly oats and rye).

Table 1.2 Cereal area allocation in the European Union, 1996 – 2005 (mio ha)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total wheat	16.9	17.2	17.2	17.2	16.9	17.1	17.2	17.3	17.4	17.5
Soft wheat	13.8	14.0	14.0	14.1	13.7	13.9	14.0	14.1	14.2	14.3
Durum wheat	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Total coarse grains	19.8	20.7	20.3	19.9	18.8	18.8	18.7	18.6	18.5	18.4
Barley	11.4	11.9	11.6	11.4	10.8	10.7	10.6	10.6	10.5	10.5
Maize	4.1	4.3	4.2	4.1	3.9	4.0	4.0	4.0	4.1	4.1
Other cereals	4.3	4.5	4.6	4.3	4.1	4.1	4.0	4.0	3.9	3.9
Total cereals	36.8	37.9	37.5	37.1	35.7	35.9	35.9	35.9	35.9	35.9
Set-aside rate	10.0%	5.0%	5.0%	10.0%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%

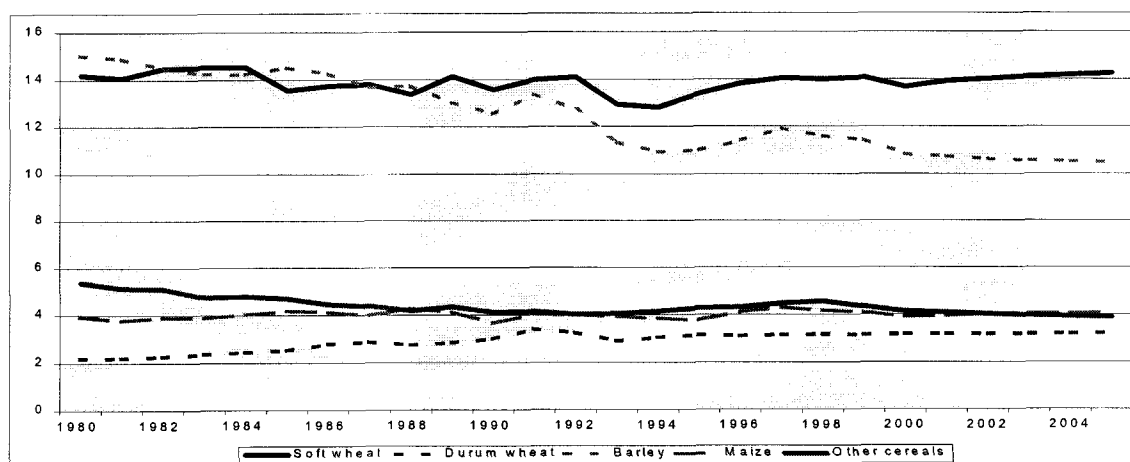
Soft wheat area is expected to remain stable at around 14.1 mio ha in 1998/99 and 1999/00. Then, it should drop to 13.7 mio ha in 2000/01 reflecting the higher rate of set-aside, before expanding regularly afterwards to reach 14.3 mio ha in 2005/06. The projected expansion in soft wheat area is expected to be slower than originally expected¹. This is due to observed modifications in producer's response to price changes since the 1992 reform and the recent slow down in the upwards long-term trend in soft wheat area. Area with durum wheat is forecast to increase slightly from 3.1 mio ha in 1997/98 to 3.2 mio ha in 2005/06 in the wake of the new common market organisation.

On the opposite, barley area is forecast to drop from 11.9 mio ha in 1997/98 to 10.8 mio ha in 2000/01 following the increase in the set-aside rate. From 2000/01 onwards, the high level of compulsory set-aside should affect barley more than other cereals (as was observed over the 1993-1998 period), mostly for agronomic and economic reasons. Maize area is forecast

¹ In its *1997 Long Term Prospects*, the Commission forecasted an increase in soft wheat area from 14.4 mio ha in 2000/01 to 14.8 mio ha in 2005/06.

to remain broadly stable at around 4 mio ha, thanks to steadier maize prices than those of other coarse grains.

Graph 1.1 Cereal area allocation in the European Union, 1980 – 2005 (mio ha)



Yields

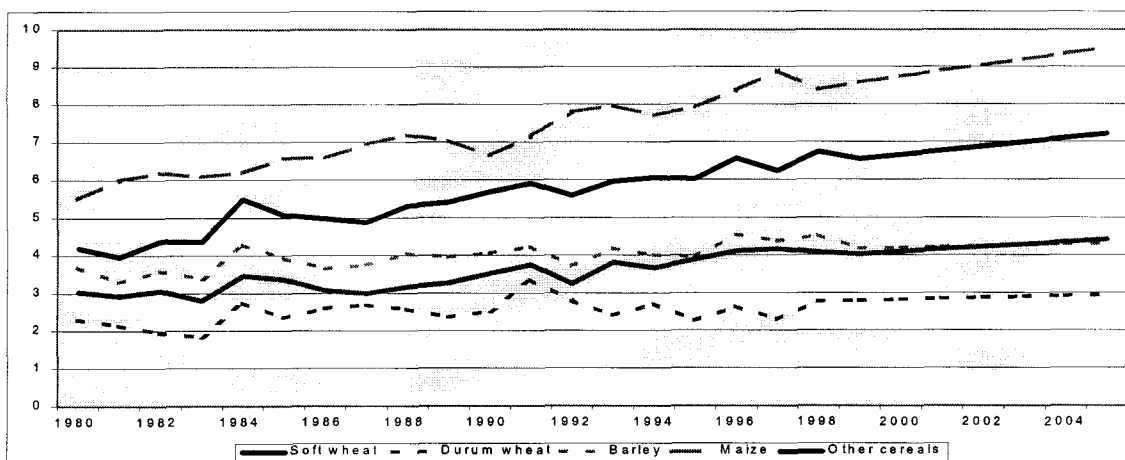
Yield trends observed over recent years are assumed to continue over the forecast period. The upsurge in yields in the most recent years as well as the return to a higher set-aside rate, which should remove the least productive land from production, should contribute to reinforce this trend.

Table 1.3 Cereal yield forecasts in the European Union, 1996 – 2005 (t/ha)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Soft wheat	6.6	6.2	6.7	6.5	6.7	6.8	6.9	7.0	7.1	7.2
Durum wheat	2.6	2.3	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9
Barley	4.6	4.4	4.5	4.2	4.2	4.2	4.2	4.3	4.3	4.3
Maize	8.4	8.9	8.4	8.6	8.7	8.9	9.0	9.2	9.4	9.5
Other cereal	4.1	4.2	4.1	4.0	4.1	4.2	4.2	4.3	4.3	4.4
Total cereals	5.5	5.4	5.6	5.4	5.5	5.6	5.7	5.8	5.9	5.9

The average cereal yield is forecast to increase from 5.28 t/ha for the 1995/96-1997/98 period to 5.94 t/ha in 2005/06. Maize and soft wheat would gain most with an annual increase estimated at around 0.15 t/ha and 0.11 t/ha respectively. Durum wheat and barley will record the lowest yield increases.

Graph 1.2 Cereal yields in the European Union, 1980 – 2005 (t/ha)



Production

Total harvested cereal production is forecast to rise from 203.6 mio t in 1997/98 to 213.2 mio t in 2005/06. This production level is strongly influenced by the yield forecasts. Achieved in the context of a 17.5 % set-aside rate, these projections may be considered as relatively high compared to the 1996/97-1997/98 average of about 203 mio t, which has been reached with lower obligatory set-aside. However, slower growth in soft wheat area will lead to a downward shift in the total wheat production. Total wheat production is forecast to increase from 94.7 mio t in 1997/98 to 112.3 mio t in 2005/06. Coarse grain production is expected to decline from 109 mio t in 1997/98 to 96.3 mio t in 2000/01 and then to increase slightly to 100.9 mio t in 2005/06 due to higher yields. In 2005/06, barley will still constitute the most important coarse grain with 45.2 mio t, followed by maize with 38.6 mio t.

Table 1.4 Cereal harvested production forecasts in the EU, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total wheat	99.0	94.7	103.2	101.0	100.1	103.4	105.6	108.0	110.2	112.3
Soft wheat	90.8	87.5	94.4	92.2	91.1	94.3	96.4	98.7	100.8	102.9
Durum wheat	8.2	7.2	8.8	8.8	9.0	9.0	9.1	9.2	9.3	9.4
Total coarse grains	104.1	109.0	106.0	100.3	96.3	97.4	98.5	99.2	100.0	100.9
Barley	51.9	52.1	52.4	47.6	45.3	45.2	45.1	45.0	45.1	45.2
Maize	34.5	38.3	35.0	35.2	34.1	35.2	36.5	37.2	37.9	38.6
Other cereals	17.7	18.6	18.6	17.5	16.9	17.0	17.0	17.0	17.1	17.1
Total cereals	203.1	203.6	209.2	201.3	196.4	200.8	204.1	207.2	210.2	213.2

2.2 Internal demand

Total demand for cereals is forecast to increase from an estimate of 175.3 mio t in 1997/98 to 180.6 mio t in 2005/06. This growth in cereal demand would be generated by both feed (+2.2 mio t) and non-feed use (+3.1 mio t).

Table 1.5 Cereal demand forecasts in the EU, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total wheat demand	80.8	82.6	81.7	84.4	85.5	86.5	87.3	88.2	89.0	89.4
Feed demand	36.3	36.5	36.0	37.1	37.7	38.2	38.6	39.1	39.6	39.6
Non-feed demand	44.5	46.1	45.7	47.2	47.8	48.3	48.7	49.1	49.5	49.7
Total coarse grains demand	92.0	92.7	93.3	92.3	91.9	91.5	91.3	91.2	91.2	91.3
Feed demand	70.7	71.6	72.0	71.5	71.1	70.8	70.6	70.5	70.5	70.7
Non-feed demand	21.3	21.1	21.3	20.8	20.8	20.8	20.7	20.7	20.7	20.6
Total cereals demand	172.8	175.3	175.0	176.7	177.4	178.1	178.6	179.4	180.2	180.6
Feed demand	107.0	108.1	108.0	108.7	108.8	109.0	109.2	109.6	110.1	110.3
Non-feed demand	65.8	67.2	67.0	68.0	68.6	69.1	69.4	69.8	70.2	70.3

Feed demand

Cereal use in animal feed has steadily increased since 1993/94, from 92.7 mio t to 108.1 mio t in 1997/98. This increase, which is predominantly due to wheat, results from a strong development in the total feed demand, higher price competitiveness of internal cereals and lower imports of manioc and corn gluten feed. This growth in feed demand for cereals has been revised upwards compared to last year's forecasts. The revision mainly concerns coarse grains and may be explained by the change observed in the feed demand structure since the 1992 reform, with a significant increase in on-farm use (which is often difficult to predict due to the indirect price impact on cereals used on-farm).

Further increase in feed use of cereals is forecast over the 1998-2005 period, though at a lower rate than in recent years due to nutritional limits in the feed formulations. Despite improved feed conversion rates, the steady development in pig and poultry production will be the main driving force behind this upward trend, together with lower cereal prices. Total feed use of cereals will reach 110.3 mio t in 2005/06, i.e. an increase of 2.2 mio t compared to 1997/98. Wheat is expected to dominate this development with a likely increase of around 3.1 mio t over the whole period, from an estimate of 36.5 mio t in 1997/98 to 39.6 mio t in 2005/06. Conversely, feed use of coarse grains will stagnate around 71 mio t.

The market share of individual cereals in total demand for feed is mainly dependent on the development in its relative market price. Although soft wheat consumption should mostly benefit from parallel price evolution, a different pattern of price changes could give rise to a different situation. Since barley and other cereals appear to be less price-responsive and oilseed prices are expected to remain firm over the period, much should depend from the soft wheat/maize price relationship. High cereal production and stock figures will lead to prices close to or even slightly below intervention levels, favouring soft wheat consumption. Furthermore, maize prices are expected to show a stronger pattern in line with sustained demand and relatively lower availability.

Food and other uses

Food and other uses of total cereals are forecast to increase from estimated 67.2 mio t in 1997/98 to 70.3 mio t in 2005/06. Similar to the increase in feed demand, this growth is expected to benefit mostly wheat with a rise of 3.6 mio t, in particular for industrial uses

such as starch. Use of coarse grains is forecast to stagnate over the same period, continuing its long-term trend.

2.3 External trade

Quantities exported are assumed to stay strictly within the annual limit for subsidised exports set by the GATT agreement (i.e. 26.4 mio t for total cereals over the 2000-2005 period). Significant unsubsidised exports are not considered in the context of these forecasts under expected market and exchange rate conditions.

The export volume includes an additional 1.5 mio t for food aid (even if this level of food aid has not been reached recently), but excludes 0.4 mio t of exported potato starch. In the context of these forecasts, it is assumed that no use will be made of the possibility to carry-over unused rights for subsidised quantities from one period to the next.

Imports are projected to amount to 5 mio t from 1998/99 onwards, including imports under the GATT commitments.

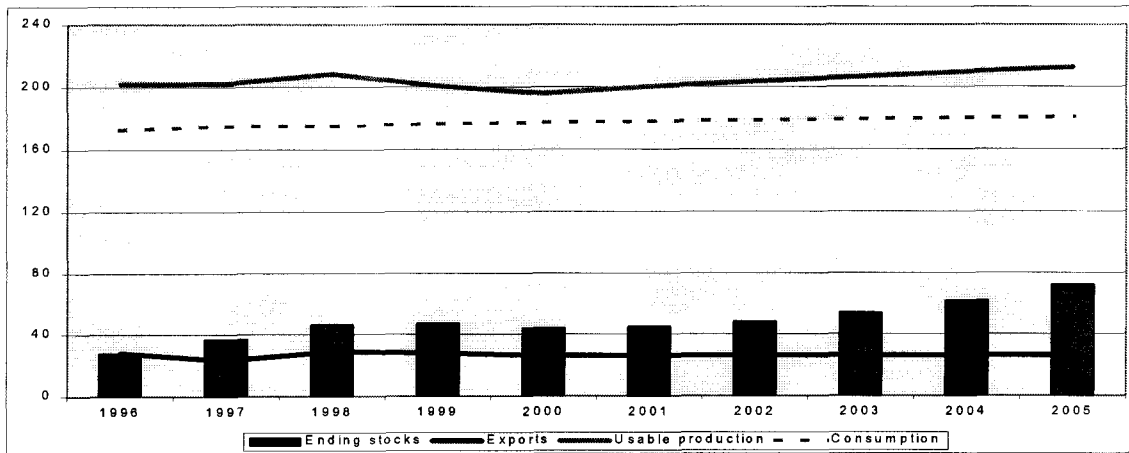
2.4 Balance sheet

The balance sheets presented below show that the **cereal market** in the EU is likely to be characterised by a relatively difficult situation. Total stocks are likely to rise from around 46 mio t over the 1998/99-2001/02 period to 72.3 mio t in 2005/06, of which 50.6 mio t in intervention stores. The increase in the set-aside rate from 5 % in 1998/99 and 10 % in 1999/2000 to 17.5 % in 2000/01 will merely contain the development of total cereal stocks at around 45 mio t up to 2001/02.

Table 1.6 Total cereals balance sheet in the EU, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Usable production	202.1	202.3	208.3	200.6	195.7	200.1	203.4	206.5	209.5	212.5
Consumption	172.8	175.3	175.0	176.7	177.4	178.1	178.6	179.4	180.2	180.6
Imports	4.8	4.9	5.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Exports	28.3	23.2	29.0	28.1	26.4	26.4	26.4	26.4	26.4	26.4
Beginning stocks	22.4	28.1	36.8	46.4	47.2	44.1	44.8	48.2	53.9	61.8
Ending stocks	28.1	36.8	46.4	47.2	44.1	44.8	48.2	53.9	61.8	72.3
o.w. intervention stocks	2.4	14.2	24.4	26.0	22.9	23.4	26.8	32.4	40.2	50.6

Graph 1.3 Total cereals balance sheet in the EU, 1996 – 2005 (mio t)

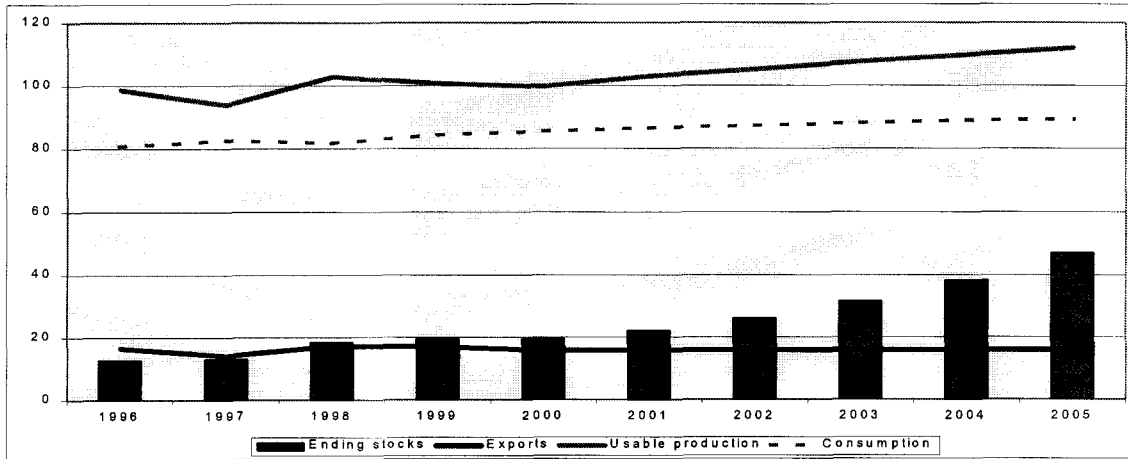


In the short-run, most of these stocks will be coarse grains since low wheat prices should favour wheat consumption at the expense of coarse grains. However, in the longer-run, the stronger development in wheat area and yields is forecast to increase wheat production well over internal consumption capacity and GATT export volumes. Wheat stocks are likely to grow at an increasing speed to reach 47 mio t in 2005/06, of which about 36 mio t in intervention.

Table 1.7 Wheat balance sheet in the European Union, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Usable production	98.7	94.0	102.9	100.7	99.8	103.1	105.3	107.7	109.9	112.0
Consumption	80.8	82.6	81.7	84.4	85.5	86.5	87.3	88.2	89.0	89.4
Imports	2.0	3.0	1.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Exports	16.6	14.2	17.4	17.1	15.9	15.9	15.9	15.9	15.9	15.9
Beginning stocks	9.5	12.8	13.0	18.4	19.5	19.7	22.2	26.1	31.6	38.4
Ending stocks	12.8	13.0	18.4	19.5	19.7	22.2	26.1	31.6	38.4	47.0
o.w. intervention stocks	0.5	2.6	8.0	9.4	9.5	11.8	15.7	21.0	27.7	36.3

Graph 1.4 Wheat market in the European Union, 1996 – 2005 (mio t)



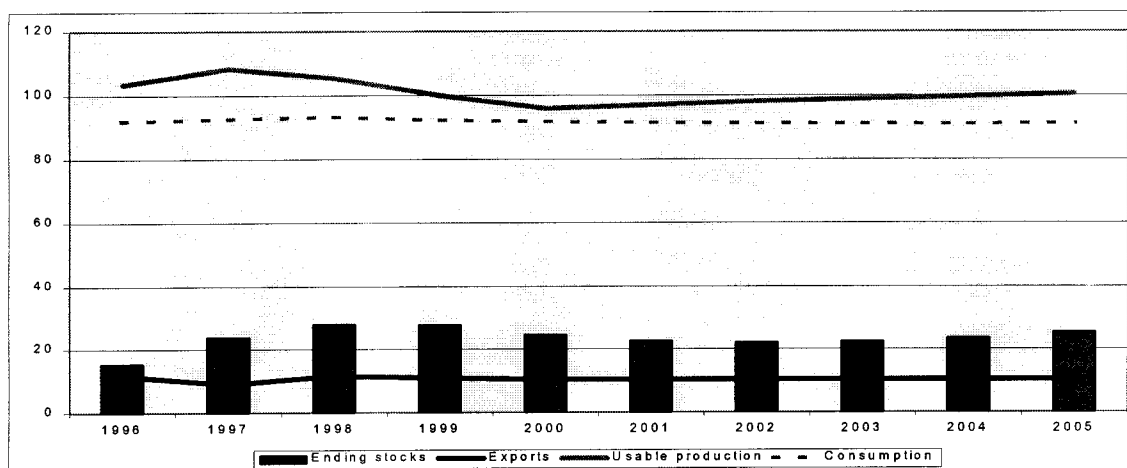
The coarse grain market is not forecast to deteriorate further since the increase in the rate of compulsory set-aside in 1999/00 and 2000/01 is expected to reduce significantly the development of coarse grain production. This limited increase in production, combined with a stagnating consumption and the GATT constraints on subsidised exports, will have little impact on the market balance. Ending stocks will be contained between 22 and 28 mio t over the whole forecast period, with 14.4 mio t in public stocks at the end of 2005/06.

Table 1.8 Coarse grains balance sheet in the EU, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Usable production	103.4	108.3	105.4	99.9	95.9	97.0	98.1	98.8	99.6	100.5
Consumption	92.0	92.7	93.3	92.3	91.9	91.5	91.3	91.2	91.2	91.3
Imports	2.8	1.9	3.7	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Exports	11.7	9.0	11.6	11.0	10.4	10.4	10.4	10.4	10.4	10.4
Beginning stocks	12.9	15.3	23.8	28.0	27.7	24.4	22.6	22.1	22.3	23.4
Ending stocks	15.3	23.8	28.0	27.7	24.4	22.6	22.1	22.3	23.4	25.3
o.w. intervention stocks	1.9	11.6	16.4	16.6	13.4	11.6	11.1	11.4	12.5	14.4

This rather gloomy outlook for the EU cereal market is conditional on the development of the world cereal markets, both in volume and relative prices, and the ability of the European Union to export significant quantities onto the world market (with or without subsidies).

Graph 1.5 Coarse grains market in the EU, 1996 – 2005 (mio t)



However, given the current level of support prices, only a strong and steady pattern of cereal prices and trade on the world market would enable the EU to avoid growing imbalances on its markets and rapidly accumulating cereal stocks.

Even if the perspectives for the world cereal markets over the next seven years are more positive, their ability to secure a stable and sustained market outlet for the balance of the EU internal markets remains very questionable due to the expected high level of economic, policy and market uncertainties².

Finally, it should be mentioned that this market situation is also dependent on the development of oilseed prices on the world market. In view of the expected favourable prospects for oilseed prices over the medium-term, a situation where EU arable crop producers would shift land from cereal to oilseed production should not be totally excluded.

3. Oilseeds

Most market analysts foresee a decline in world oilseed prices in the short-term following the high levels achieved in recent years. Yet, over the medium-term, oilseed prices are expected to display a stronger pattern and will likely return to levels of around 250-270 \$/t. These favourable prospects on world markets should sustain oilseed production in the European Union. However, it is assumed that the limitations imposed by the Blair House agreement will limit the development of oilseed area allocated to “food” oilseeds (that includes the area grown with oilseeds whether with crop specific or small producer payments)³.

Consequently, after an estimated overshoot of the separate base area of around 3 % in 1998/99, the area allocated to “food” oilseeds is expected to decline in 1999/00 and 2000/01

² In that perspective, even the plausibility of a 17.5 % set-aside rate assumption may be questionable.

³ The “non food” oilseeds area corresponds to the oilseeds grown on set-aside land, but for which the output is not primarily intended for human or animal consumption. (Additionally, the Blair House agreement foresees that the EU should take appropriate action if the by-products exceed 1 mio t, expressed in soya bean meal equivalent).

in line with the increase in the rate of set-aside. From 2000/01 onwards, it should remain relatively stable at around 4.6 mio ha. However, this does not preclude that the short-term development in the market price relationship between oilseeds and cereals may favour oilseeds and lead to an overshoot of the separate base area.

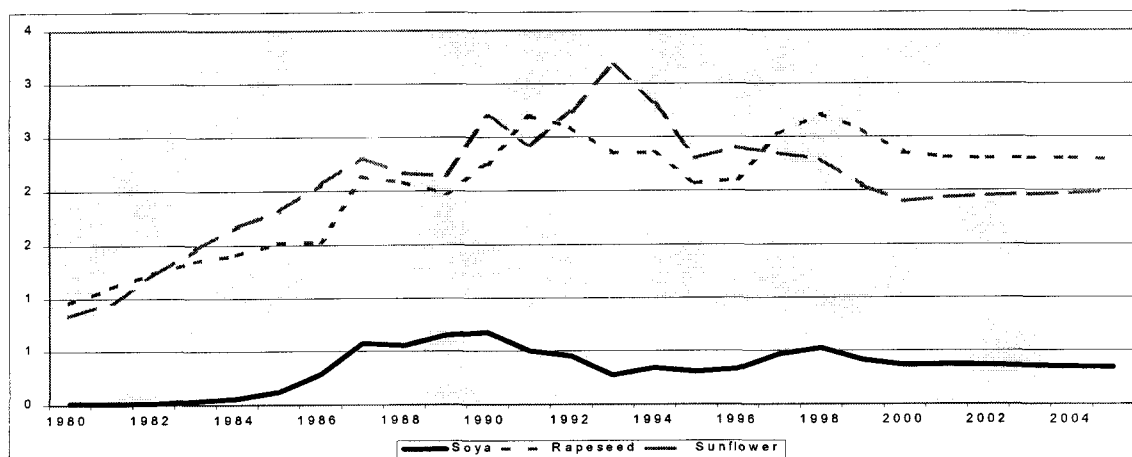
Table 1.9 Oilseed area allocation in the EU, 1996 – 2005 (mio ha)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Rape seed	2.7	2.8	3.1	3.2	3.2	3.1	3.1	3.1	3.1	3.1
Sunflower seed	2.5	2.4	2.4	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Soya beans	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3
Total oilseeds	5.5	5.7	5.9	5.7	5.6	5.6	5.6	5.6	5.6	5.6
Food	4.8	5.3	5.5	5.0	4.6	4.6	4.6	4.6	4.6	4.6
Non food	0.7	0.4	0.4	0.7	1.0	1.0	1.0	1.0	1.0	1.0
Set-aside rate	10.0%	5.0%	5.0%	10.0%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%

Non-food oilseed area is estimated to adapt to the level of set-aside rate. From 0.4 mio ha in 1998/99, it is expected to 0.7 mio ha in 1999/00, before stabilising at around 0.95 mio ha over the 2000-2005 period.

Among the three main types of oilseeds grown in the European Union, rape seed is expected to confirm its position as the most important oilseed with around 3.1 mio ha over the forecast period.

Graph 1.6 Oilseed (food) area allocation in the EU, 1980 – 2005 (mio ha)



Despite a certain decline in the late eighties and early nineties, oilseed yields are expected to increase in the medium-term. This should mainly concern rape seed and soya bean, whereas sunflower seed yields are likely to stagnate.

Table 1.10 Oilseed yields in the EU, 1996 – 2005 (t/ha)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Rape seed	2.7	3.0	3.1	2.9	3.0	3.0	3.1	3.1	3.2	3.2
Sunflower seed	1.6	1.8	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Soya beans	3.1	3.5	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.5
Total oilseeds	2.2	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.6

Oilseeds (food) production is forecast to drop from 13.4 mio t in 1997/98 to 11.3 mio t in 2000/01, mainly due to the reduction in the area allocated to oilseeds as a consequence of the change in the set-aside rate. It should then increase slightly to around 11.9 mio t. Non-food oilseed production is also expected to evolve together with the set-aside rate and reach about 2.8 mio t in 2005/06.

Table 1.11 Oilseed harvested production in the EU, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Rape seed	7.3	8.6	9.4	9.2	9.3	9.4	9.5	9.6	9.8	9.9
Sunflower seed	4.1	4.2	3.8	3.5	3.4	3.5	3.5	3.5	3.5	3.6
Soya beans	1.0	1.6	1.7	1.4	1.2	1.2	1.2	1.2	1.2	1.2
Total oilseeds	12.4	14.5	14.9	14.1	13.9	14.1	14.2	14.4	14.5	14.7
Food	10.7	13.4	13.7	12.2	11.3	11.4	11.5	11.6	11.8	11.9
Non food	1.7	1.1	1.2	1.9	2.6	2.7	2.7	2.7	2.8	2.8
Set-aside rate	10.0%	5.0%	5.0%	10.0%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%

4. Meat and livestock

4.1 Beef

Beef/veal **production** has been strongly influenced by the BSE scare, in particular by the crisis in 1996. The slaughtering policy immediately adopted in the UK and the emergency measures, decided in autumn of 1996 in the wake of the crisis, had a profound impact on the beef cycle, which has been in an upward phase since 1995. The peak of production in this cycle had been expected for the end of 1996/beginning 1997. The fact that production figures for 1996 (7.950 mio t) and 1997 (7.890 mio t) are lower than those for 1995 (7.970 mio t) is due to the exclusion of slaughtering of all animals eliminated from the food chain (animals over 30 months, calves entering into the processing scheme). If these animals had been included (around 1.4 mio processed calves and nearly 2 mio other cattle, the two years 1996 and 1997 taken together), overall production would have been estimated at around 8.280 mio t in 1996 and 8.150 mio t in 1997.

Monthly slaughtering figures for the end of 1997 show the first impact of the emergency measures decided in October 1996 (calf processing and early marketing). However, the main impact is expected for 1998 and 1999. Consequently, beef production is forecast to drop by – 3.6 % in 1998, reaching 7.6 mio t, and by a further –2.3 % in 1999. In the years after, beef production is expected to resume, reaching its next cyclical top in the year 2002, and then entering in the downward phase at the end of the forecast period. Compared to the 1997 Commission's publication *Long Term Prospects*, the below presented forecasts are somewhat different. This is mainly due to the incorporation of the real figures on slaughtered

animals under the different BSE schemes, instead of rough estimates at that time. Furthermore, the analytical work on the theoretical beef cycle has been updated and includes now also the most recent cycle.

Beef/veal **consumption** in 1997 recovered by 2.7 % (per capita: +2.4 %) from the extremely low level experienced in 1996, where under the influence of the BSE scare consumption dropped by -7.4 % (per capita: -7.7 %). At least until now, this evolution confirms the working assumption made by the Commission services in the context of the *Long Term Prospects* of 1997; i.e. that per capita beef consumption will gradually recover to its long-term trend. It is assumed that this will be the case by the year 2001. From 2002 onwards, per capita beef consumption is expected to once again follow its long-term declining trend and reach about 18.9 kg by 2005. This long-term declining trend can be explained by the fact that, even before the BSE crisis in 1996, beef consumption was expected to fall, and even though demand for beef would normally benefit more than other meat from favourable economic prospects in the medium-term. The main explanatory factor behind this evolution is the lower price-competitiveness vis-à-vis other types of meat. Thus, total beef/veal consumption is forecast to increase from 6.9 mio t in 1996 to 7.3 mio t in 2001 and then to decline to 7.2 mio t in 2005.

Trade development is assumed to respect the GATT commitments, with **imports** more or less stable at 0.4 mio t over the forecast period. **Exports** are assumed running at their maximum level under the GATT limits for subsidised exports⁴, excluding non-subsidised exports given the current and the expected prices on internal and world markets for the next years.

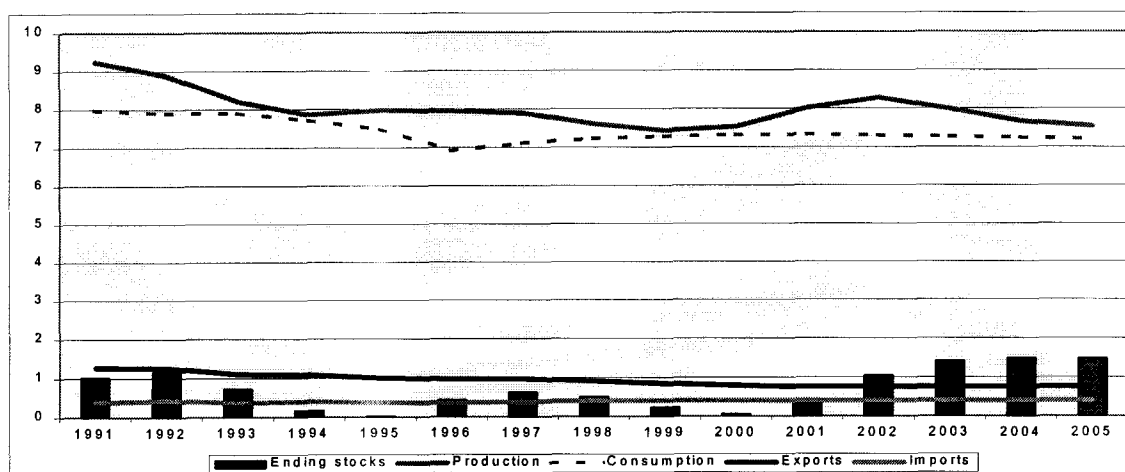
Table 1.12 Beef/veal balance sheet in the EU, 1996 - 2005 ('000 t cwe)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production (gross)	8068	7934	7625	7445	7545	8030	8301	8001	7678	7556
Import of live animals	36	41	50	50	50	50	50	50	50	50
Export of live animals	154	89	75	70	70	70	70	70	70	70
Production (net)	7950	7886	7600	7425	7525	8010	8281	7981	7658	7536
Consumption	6924	7109	7220	7275	7308	7319	7291	7263	7235	7198
Imports	358	384	400	400	400	400	400	400	400	400
Exports	961	965	900	835	783	752	752	752	752	752
Beginning stocks	18	434	630	510	226	60	400	1038	1405	1477
Ending stocks	434	630	510	226	60	400	1038	1405	1477	1464
p.c. cons. (kg)	18.58	19.02	19.26	19.35	19.39	19.36	19.23	19.11	18.98	18.85

Based on the assumptions and forecasts outlined above, the beef balance sheet shows that beef stocks, reaching 630 000 t at the end of 1997, are expected to decline between 1998 and 2000. From 2001 onwards, higher levels of production combined with lower internal and external demand (due to the GATT constraints) are forecast to affect the beef market balance and lead to an accumulation of stocks in the second half of the forecast period.

⁴ In fact, this assumption depends strongly from the further evolution of the economic situation in Russia. In 1997, Russia accounted for around 40 % of all EU beef meat exports.

Graph 1.7 Beef/veal market in the EU, 1996 - 2005 (mio t)



4.2 Pig meat

In 1996, per capita **consumption** of pig meat increased by 1.7 %, partly reflecting a consumer shift from beef/veal to other meats in the wake of the BSE crisis. In the context of the publication *Long Term Prospects*, a further increase in consumption was forecast for 1997 but the outbreak of classical swine fever in several Member States, in particular in the Netherlands, changed completely the short-term situation in the sector. In fact, consumption in 1997 decreased slightly by -0.2 % due to reduced supply and relatively high prices. However, the situation is now under control and pig production is recovering. Pig meat consumption is expected to resume its upward tendency. Especially in 1998, consumption should be favoured by low prices due to significantly higher market supply. In the medium and long-term, pig meat consumption should continue to grow modestly by around 0.5 % per year, given the already high level of per capita consumption.

Table 1.13 Pig meat balance sheet in the EU, 1996 - 2005 ('000 t cwe)

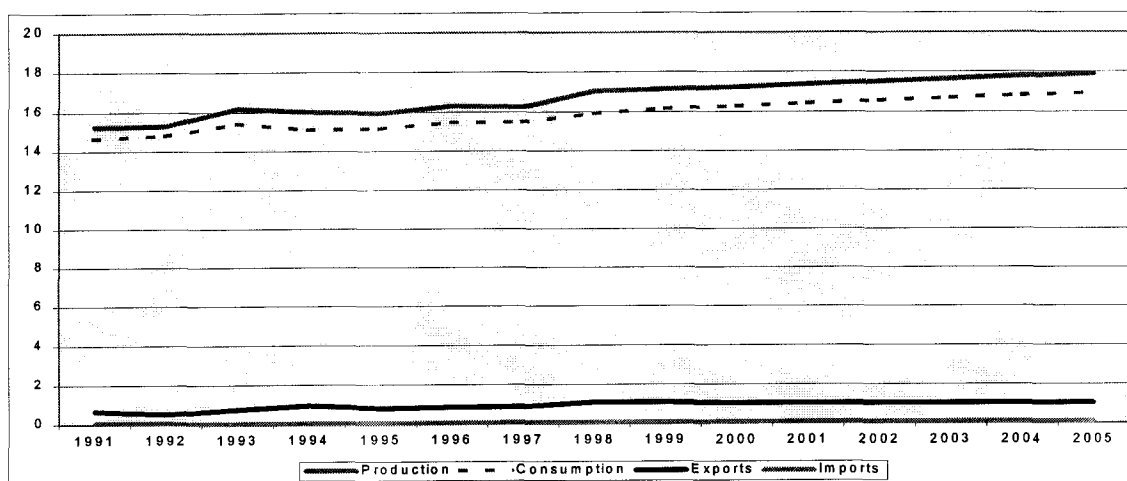
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production (gross)	16319	16251	17062	17152	17251	17403	17531	17660	17790	17901
Import of live animals	0	5	0	0	0	0	0	0	0	0
Export of live animals	2	2	2	2	2	2	2	2	2	2
Production (net)	16317	16255	17060	17150	17249	17401	17529	17658	17788	17899
Imports	45	55	60	65	74	90	90	90	90	90
Exports	844	890	1100	1100	1051	1042	1042	1042	1042	1042
Stock changes	56	-60	100	-50	-25	0	0	0	0	0
Consumption	15462	15480	15920	16165	16297	16450	16578	16706	16836	16947
p.c. cons. (kg)	41.49	41.42	42.48	43.00	43.23	43.52	43.73	43.95	44.17	44.39

Note: The figures on imports and exports are calculated on the base of the definition of pig carcass weight and exclude therefore offals.

As far as trade is concerned, **import** forecasts are based on the assumption that the actual level of current access will be maintained and that, in addition, imports of pig meat under GATT minimum access and other market access agreements will increase by the year 2001. Each year since 1994/95, subsidised **exports** were below the GATT limits, and even after the reintroduction of export refunds on carcasses in the spring 1998, there should be a margin

widely enough to accommodate the increasing export volumes expected for 1998 and 1999, following EU pig meat production at record levels. Non-subsidised exports in 1997 are estimated at around 680 000 t, representing around 76 % of total exports, compared to about 50 000 t yearly during the period 1991-1994. This figure will certainly be lower in 1998 and 1999 when increased use of refunds is made. But, in the medium-term, it is expected that around 600 000 t of pig meat can be permanently exported without refunds. Overall, assuming full use of the GATT limits for subsidised exports, total exports are forecast to reach around 1.040 mio t over the rest of the forecast period⁵.

Graph 1.8 Pig meat market in the EU, 1996 - 2005 (mio t)



Based on the above-presented assumptions, pig meat **production** is forecast to increase by around 0.7 % annually over the period 2000-2005, reaching around 17.9 mio t by the year 2005. This figure is around 360 000 t higher compared to the 1997 forecast, due to higher (unsubsidised) exports and internal demand.

4.3 Poultry

As for pig meat, **poultry demand** strongly increased in 1996 in the wake of the BSE crisis and the switch of consumers away from beef to other meats. It appears that poultry benefited mostly from this shift. In 1996, per capita consumption increased by 4.1 %. A 2.9 % increase occurred in 1997, and the short-term forecasts for 1998 suggest a further increase of 1.8 %. In the medium and long-term, poultry consumption is forecast to retain its strong growth by around 1.9 % on average per year. Very competitive prices with respect to other meats and increasing consumer preference should continue to play in favour of poultry consumption.

⁵ Like in the beef sector, the main EU partner country for pig meat exports is actually Russia, but the dependence from the Russian market is somewhat lower (around 31 % according to the 1997 figures). However, EU pig meat exports rely also substantially on some markets in Asia, where the economic situation in several countries gives reason for concern. So, for example, Japan accounted in 1997 for 25.4%, South Korea for 5.3% and Hong Kong for 2.6% of total EU exports.

Poultry imports are forecast at around 330 000 t by the end of the period. This forecast is based on the assumption that the actual level of current access will be maintained and that, in addition, imports under GATT minimum access and other market access agreements will increase by the year 2001. Current levels of subsidised **exports** of poultry are roughly in line with the GATT limits, and it is expected that this situation will not change in coming years. On the other hand, unsubsidised exports are continuously increasing (from around 50 000 t yearly in the period 1991-94 to an estimated 560 000 t in 1997). Estimates for non-subsidised exports in 1998 are set at about 600 000 t, representing more than 60 % of total exports⁶. Assuming that this level of unsubsidised exports can be maintained, total exports are forecast to be slightly lower each year, reflecting the reduced GATT limits for subsidised exports. It is certainly not excluded that exports without refunds will further increase, but expected increased competition on world markets from other exporting countries is the reason for the cautious assumption of maintaining the level currently reached.

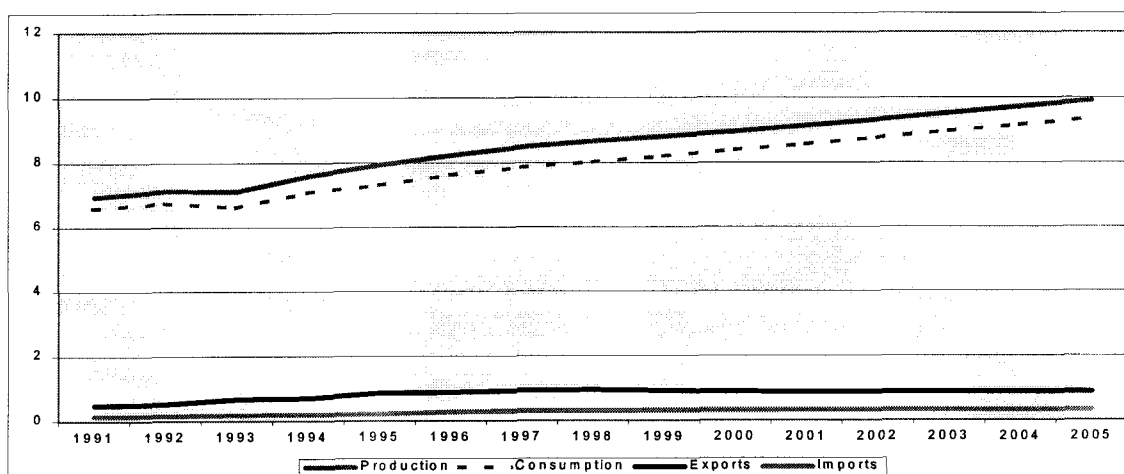
Table 1.14 Poultry balance sheet in the EU, 1996 - 2005 ('000 t cwe)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production (gross)	8239	8494	8670	8824	8973	9139	9330	9525	9724	9917
Import of live animals	1	1	1	1	1	1	1	1	1	1
Export of live animals	4	6	6	6	6	6	6	6	6	6
Production (net)	8236	8489	8665	8819	8968	9134	9325	9520	9719	9912
Imports	283	313	315	318	323	328	328	328	328	328
Exports	884	940	960	930	901	886	886	886	886	886
Stock changes	7	-8	0	0	0	0	0	0	0	0
Consumption	7628	7870	8020	8207	8390	8576	8767	8962	9161	9354
p.c. cons. (kg)	20.47	21.06	21.40	21.83	22.26	22.69	23.13	23.58	24.03	24.50

Under the above-presented assumptions, **poultry production** is expected to increase by between 1.7 % and 2.1 % per annum from 1998 onwards, reaching around 9.9 mio t in the year 2005. This figure is around 200 000 t higher than the 1997 forecast, mainly due to higher (unsubsidised) exports.

Graph 1.9 Poultry market in the EU, 1991 - 2005 (mio t)

⁶ The most important partner country in 1997 was Russia with approximately 29 % of total EU exports, followed by Saudi Arabia with 10.1% and Hong Kong with 8.4%.



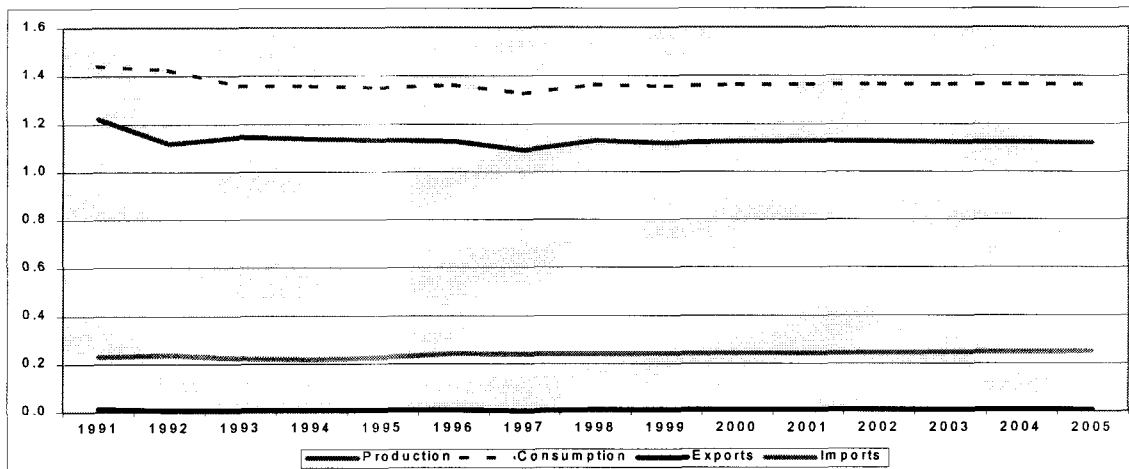
4.4 Sheep and Goat

Consumption of sheep and goat meat seems not to be affected by the concerns of consumers over scrapie and BSE. In the wake of the BSE crisis in 1996, strong demand has resulted in much higher prices, but **production** could not respond fast enough in the short-term. As a consequence, per capita consumption increased only slightly. Reduced availability and relatively high prices characterised consumption in 1997, which declined by 3.0 %. The main reason for this was that, due to the wet summer of 1997, lambs were slower to finish and, as a result, were carried over into 1998. However, production and also consumption is expected to recover in 1998.

Table 1.15 Sheep/goat meat balance sheet in the EU, 1996 - 2005 ('000 t cwe)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production (gross)	1114	1077	1116	1105	1111	1110	1108	1105	1102	1099
Import of live animals	14	14	15	16	17	19	19	21	22	23
Export of live animals	1	1	1	1	1	1	1	1	1	1
Production (net)	1127	1090	1130	1120	1127	1128	1127	1125	1123	1122
Imports	242	239	240	242	243	243	244	246	248	249
Exports	7	3	6	6	6	6	6	6	6	6
Stock changes	-2	0	0	0	0	0	0	0	0	0
Consumption	1363	1326	1364	1356	1364	1365	1365	1365	1365	1365
p.c. cons. (kg)	3.66	3.55	3.64	3.61	3.62	3.61	3.60	3.59	3.58	3.58

Graph 1.10: Sheep/goat meat market in the EU, 1991 - 2005 (mio t)



In the medium and long-term, a slight downward trend for both production and consumption is expected. **Imports** could slightly increase in response to somewhat better use of market access commitments granted to some third countries.

5. Milk and dairy products

5.1 Milk production, deliveries and dairy herd

Total cow's milk production is forecast to decline from an estimated 120.8 mio t in 1997 to around 120.4 mio t in 1998. In the future, based on the assumption that milk quotas in the EU will remain unchanged, production is expected to decline slightly each year to reach about 119.7 mio t by 2001 and 118.6 mio t by 2005. Around 94 % of this quantity will be delivered to dairies, the remainder being used on farms and for direct sales. **Deliveries to dairies** reached 113.5 mio t in 1997 and are estimated at respectively 112.2 mio t in 2001 and 111.4 mio t in 2005. This likely decrease, both of milk production and deliveries, is mainly due to short-term adjustments to the milk reference quantities, in particular in those Member States where current deliveries are above the reference quantities. However, it also reflects the impact of an expected further slight increase in the milk fat content over the medium-term. Compared to the Commission's *1997 Long Term Prospects*, figures on production and deliveries are somewhat higher. One reason is the revision of some statistical data. In addition, the results for the milk quota year 1997/98 have been incorporated, showing a slightly different picture as far as the over-/undershooting of the reference quantities (after fat adjustment) is concerned.

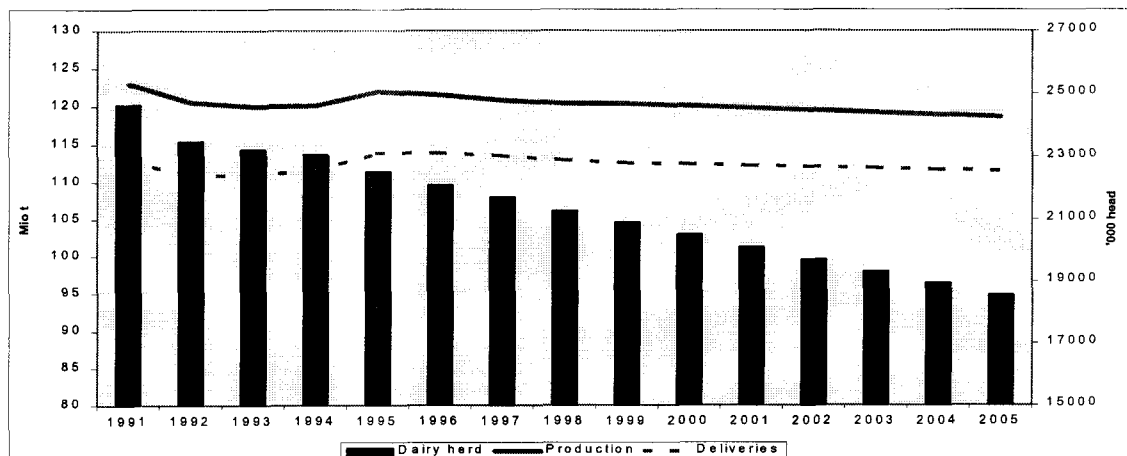
Table 1.16 Milk production, deliveries and dairy herd in the EU, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production (mio t)	121.5	120.8	120.4	120.3	120.0	119.7	119.5	119.2	118.9	118.6
Deliveries (mio t)	113.8	113.5	112.9	112.6	112.4	112.2	112.0	111.8	111.6	111.4
Milk yield (kg/cow)	5421	5498	5594	5692	5792	5893	5996	6101	6208	6317
Number dairy cows ('000)	22107	21716	21271	20899	20489	20087	19692	19306	18927	18555

It is expected that the downward trend in the **number of dairy cows** will continue. This is the consequence of the slightly decreasing milk production and an expected further increase in milk yields, assumed at around 1.75 % per year on the basis of historical trends. Thus, the

dairy cow herd is forecast to drop from 21.7 mio head in 1997 (result of the December survey) to around 20.1 mio head in 2001 and 18.6 mio head in 2005.

Graph 1.11 EU Milk production, milk deliveries and dairy herd, 1991 - 2005



5.2 Dairy products

5.2.1 Cheese

For cheese, **domestic use** is expected to continue its increase, but more modestly than in the past. Per capita consumption is forecast to rise from 16.3 kg/cap. in 1996 to respectively 17.0 kg/cap. in 2001 and 17.6 kg/cap. in 2005. Compared to the Commission's *1997 Long Term Prospects*, the consumption figures are somewhat higher due to revised historical data and final figures for the year 1996. However, the predicted annual rate of growth in per capita consumption of around 0.8 % still stands. Taking into account the expected modest growth in population, total consumption of cheese should increase by around 1.1 % annually until 2001 and by around 1 % per year subsequently.

For **cheese exports**, it is assumed that, in the context of a status-quo-policy, the reduction in subsidised exports due to the GATT commitments can only be partly compensated by an increase in non-subsidised exports. However, the level of unsubsidised exports of cheese in 1997 (estimated at around 110 000 t) is somewhat higher than assumed in the 1997 forecasts, established in spring last year⁷.

Table 1.17 Cheese balance sheet in the EU, 1996 - 2005 ('000 t)

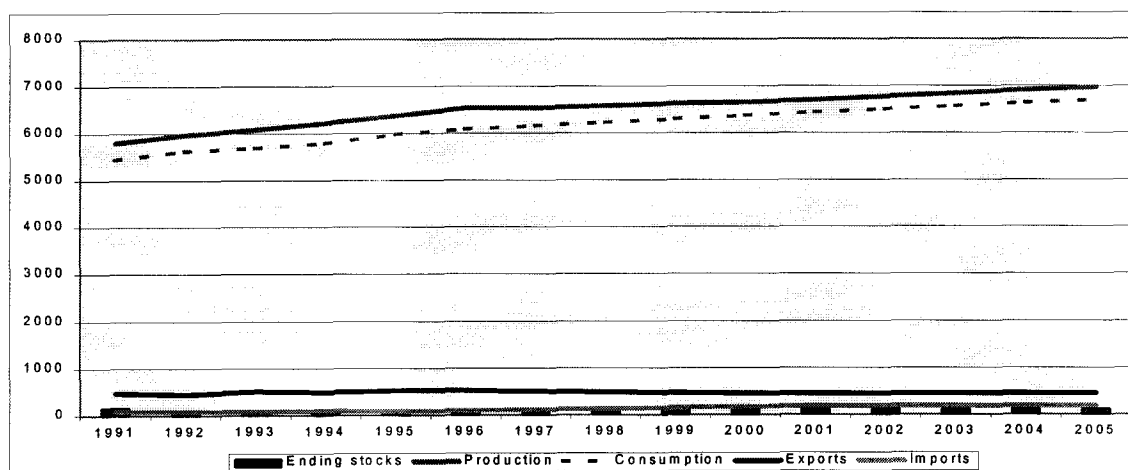
⁷ Like in the different meat sectors, EU exports of dairy products to Russia increased significantly over the last few years. In 1997, around 30 % of total EU cheese exports (around 150 000 t) and nearly 38 % of EU butter exports (around 82 000 t) were destined for Russia.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production	6536	6538	6583	6625	6656	6703	6771	6839	6907	6968
Imports	95	111	128	150	171	182	182	182	182	182
Exports	528	508	492	477	461	450	450	450	450	450
Consumption	6087	6159	6229	6298	6367	6435	6503	6571	6639	6700
Stock changes	16	-18	-10	0	0	0	0	0	0	0
p.c. consumption (kg)	16.34	16.48	16.62	16.75	16.89	17.02	17.16	17.29	17.42	17.55
Public stocks (private aided stocks)										
Beginning stocks	115	121	130	120	120	120	120	120	120	120
Ending stocks	121	130	120	120	120	120	120	120	120	120
Stock changes	6	9	-10	0	0	0	0	0	0	0

The forecasts on **imports of cheese** are based on the assumption that the actual level under current access will be maintained and that, in addition, imports of cheese under GATT minimum access and other market access agreements will increase.

Based on the above-presented likely trends in domestic use and external trade, it is expected that **cheese production** is still rising, but at a lower rate than internal consumption. Scope for further growth in the cheese sector is limited especially by the constraining nature of the GATT commitments for exports. Cheese production will continue to absorb increasing quantities of milk, but less than compared to a situation without these constraints. This part of milk, which would normally be allocated to cheese production, is likely to be used by dairies for the manufacture of other dairy products, in particular butter and skimmed milk powder (which can be sold into intervention).

Graph 1.12 Cheese market in the EU, 1991 - 2005 ('000 t)



5.2.2 Butter

Per capita **consumption of butter** recently stabilised at around 4.7 kg/cap. after a steady and sustained drop in previous years. However, it is not expected that this short-term stabilisation will last over the whole forecast period. Consequently, a further decrease in **domestic consumption** of butter is expected, but at a lower rate than in the past. Per capita consumption is forecast to decrease from 4.7 kg actually to 4.5 kg by 2001 and 4.3 kg by 2005, representing an annual rate of change of around -1.0 %. The expected decrease in total butter consumption is somewhat lower (-0.8 %), due to the population increase.

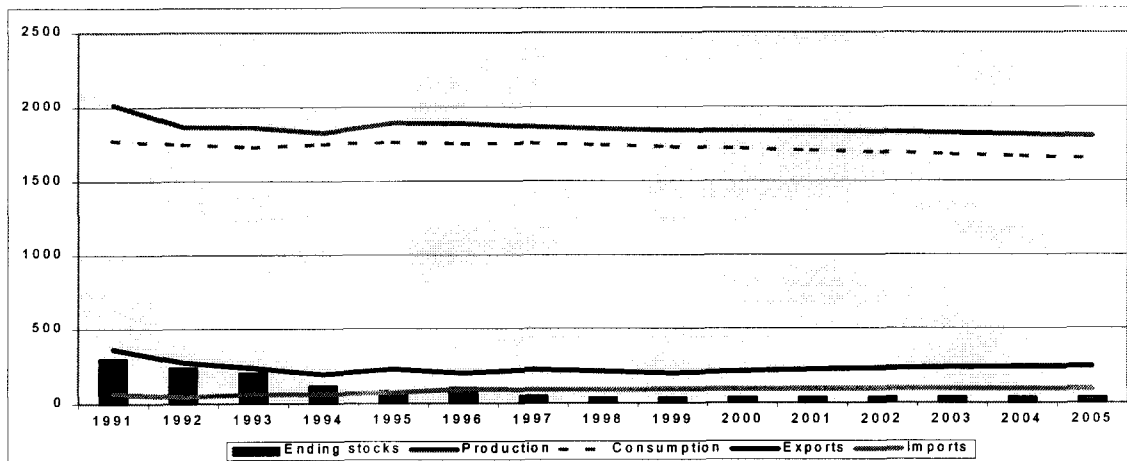
Butter production is expected to decrease slightly over the 1998-2005 period, reflecting not only the reduced milk deliveries to dairies but also the fact that more milk is used in the manufacturing of other dairy products. **Imports of butter** should remain more or less stable around the current level, after the increase in 1996 following the GATT outcome (increase in minimum access tariff quotas) and other import commitments. On the **export** side, the margin with respect to GATT commitments on subsidised exports appears more than sufficient. However, relatively high level of exports (around 250 000 t at the end of the forecast period, compared to 200-230 000 t actually) would be necessary in order to keep intervention stocks down (assuming a minimum stock level of around 40 000 t). At least in most recent years, demand on world markets was not sufficient to absorb such large quantities.

Table 1.18 Butter balance sheet in the EU, 1996 - 2005 ('000 t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production	1888	1866	1852	1840	1838	1837	1829	1821	1813	1801
Imports	95	90	91	93	94	95	95	95	95	95
Exports	203	226	215	202	215	227	233	238	244	247
Consumption	1751	1755	1743	1730	1718	1705	1691	1678	1664	1649
Stock changes	30	-25	-14	0	0	0	0	0	0	0
p.c. consumption (kg)	4.70	4.70	4.65	4.60	4.56	4.51	4.46	4.41	4.37	4.32
Public stocks (intervention and private aided stocks)										
Beginning stocks	85	107	52	40	40	40	40	40	40	40
Ending stocks	107	52	40	40	40	40	40	40	40	40
Stock changes	22	-56	-12	0	0	0	0	0	0	0

Compared to the 1997 publication *Long Term Prospects*, the export volumes are somewhat lower, reflecting the slightly higher forecasts on butter consumption (revised data for 1995 and 1996 and provisional estimates for 1997) and somewhat lower production figures.

Graph 1.13 Butter market in the EU, 1991 - 2005 ('000 t)



5.2.3 Skimmed milk powder

Finally, for skimmed milk powder (SMP), forecasts indicate a further drop in **consumption**, mainly in animal feed use, while human consumption is prospected to increase slightly. Due to lower availability of milk and increasing use of skimmed milk in the manufacture of other dairy products (fresh products, cheese), SMP **production** is likely to decline also, but to a lesser extent than consumption.

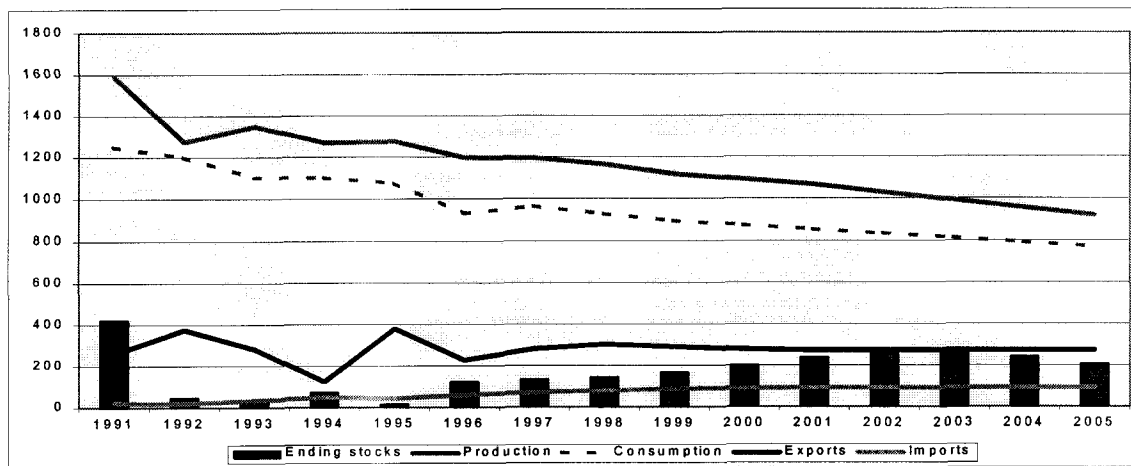
On the other hand, **imports** of SMP are expected to increase (due to GATT minimum access and other market access commitments), while subsidised **exports** are limited. Total exports over the last two years remained well behind the GATT limits for subsidised exports. This will also be the case in 1998. Estimates on the basis of trade figures for the first months of the year suggest exports of only around 200 000 t, which is even less than in the year 1996. The main reason for this is the weak demand on world markets. In contrast to other dairy products, the medium term prospects for SMP world markets show only limited growth in trade, however combined with relatively high world market prices.

Table 1.19 SMP balance sheet in the EU, 1996 - 2005 ('000 t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Production	1196	1194	1130	1105	1081	1056	1018	981	944	907
Imports	59	72	79	86	90	92	92	92	92	92
Exports	229	282	200	230	250	250	250	250	250	250
Consumption	931	964	945	924	902	881	859	838	816	795
--- human	274	289	295	299	303	306	310	314	318	320
--- anim. feed, etc.	657	675	650	625	600	574	549	524	499	474
Stock changes	95	20	64	38	19	18	0	-15	-30	-46
Public stocks (intervention and private aided stocks)										
Beginning stocks	14	125	135	200	238	257	274	274	259	229
Ending stocks	125	135	200	238	257	274	274	259	229	183
Stock changes	111	10	65	38	19	18	0	-15	-30	-46

Most of the increase in world demand is expected to occur in Asia, with Australia and New Zealand as main supplier. Therefore, it is not expected that EU exports of SMP will exceed 250 000 t in coming years. In this case, the forecasts envisage a situation where EU intervention stocks of SMP tend to increase until 2002 and to ease somewhat at the end of the forecast period.

Graph 1.14 SMP market in the EU, 1991 - 2005 ('000 t)



**PROSPECTS FOR AGRICULTURAL MARKETS
IN THE ASSOCIATED
CENTRAL EUROPEAN COUNTRIES**

1. Introduction

This chapter provides a short overview of the current situation and the expected longer term developments for a number of the main agricultural commodity sectors of the ten associated Central European Countries⁸ (CECs), which are candidates for accession to the European Union.

As for the EU countries, the projections for production and consumption of the main crop and livestock products in the CECs cover the period up to 2005. The projections presented below are based on the country studies⁹ published by the Commission during the summer of 1998 covering the period up to 2003. Nevertheless, the forecast horizon is now extended from 2003 to 2005 under a status-quo policy hypothesis¹⁰ to coincide with the EU-15 projection period.

The provisional results for the CECs together are summarised below. As mentioned in the country reports, they are the combined outcome of statistical analysis and expert judgement regarding the most likely developments in land use, animal numbers, yields and consumption patterns.

The description below will concentrate on the CEC as a whole. A more detailed analysis per sector and by country can be found in the aforementioned summary and country reports including a description of the main assumptions.

Figures for the year 1998 do not constitute estimates for this year's production and use, but forecasts based on data collected in May 1998.

2. Cereals

The cereal grown areas in the CECs have remained relatively stable at around 24 mio ha since 1992/93, with a significant increase from a low of 23.4 mio ha in 1996/97 to 24.7 mio ha in 1997/98. Yields have been growing since 1992/93, to reach 3.3 t/ha in 1997/98. However this figure is still below the 1989/90 level of 3.7 t/ha. Consequently total cereal production has increased from 63 mio t in 1992/93 to 81.6 mio t in 1997/98, which represents an increase of 30 %.

During the forecast period (1998/99–2005/06) the area grown with cereals is expected to continue to increase and reach 25.4 mio ha by 2005/06. This increase is expected to take

⁸ Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

⁹ "Agricultural Situation and Prospects in the Central and Eastern European Countries", 10 country studies and a summary report published as working documents by DG VI during summer 1998.

¹⁰ The example taken is purely hypothetical and only for illustrative purposes. It does not prejudge the effective entry date, the number of entrants, nor the modalities of any transition period, which will be the subject of future accession negotiations. The impact of accession will be examined at a later stage.

place in all the CECs, with the largest increase in Poland, while Romania is projected to remain the only country to exhibit a minor decrease.

A continued increase in the cereal yield is expected due to better use of inputs. The average cereal yield for the CECs is estimated to increase during the forecast period by 10 % to 3.63 t/ha in 2005/06. Annual yield increases are foreseen to be between 1 and 3 % in most countries, with the exemption of Bulgaria where a higher rate of increase in yields is expected (however in absolute terms still lower than the CECs average).

Based on these area and yield assumptions total cereal production in the CECs could reach 92 mio t in 2005/06. Poland, Romania and Hungary will account for 66 mio t hereof, or 31.5, 20 and 14.5 mio t each respectively.

On the consumption side a slight increase in the human per capita consumption is foreseen. Total consumption of cereals for food purposes is expected to increase by 0.5 mio t. However a large part of this increase is due to the projected rise in population. Animal production is forecast to expand over the forecast period, and consequently the use of cereals in animal feed is expected to increase from 45 mio t in 1997/98 to over 52 mio t in 2005/06. The biggest increase in total cereals usage is expected in Poland (4 mio t), Romania (1 mio t) and Lithuania (0.5 mio t). Total internal use of cereals in the CECs is foreseen to reach nearly 83 mio t by the end of the forecast period.

Table 2.1 Situation of cereal markets in the CECs, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Area (mio ha)	23.4	24.7	24.1	24.4	24.7	24.9	25.1	25.2	25.3	25.4
Yield (t/ha)	2.94	3.30	3.11	3.19	3.28	3.37	3.46	3.54	3.59	3.63
Production (mio t)	68.8	81.6	75.1	77.9	80.8	83.8	86.7	89.2	91.1	92.2
Total internal use (mio t)	71.7	74.2	73.5	75.3	76.8	78.4	80.1	81.6	82.3	83.0
Food (mio t)	16.3	17.5	17.5	17.7	17.6	17.7	17.9	17.9	18.0	18.1
Feed (mio t)	44.4	44.9	45.1	46.4	47.6	48.9	50.3	51.6	52.2	52.7
Balance (mio t)	-2.9	7.4	1.5	2.6	4.1	5.5	6.6	7.5	8.8	9.3

The above-mentioned figures for production and consumption indicate that the CECs in 2005/06 will have a positive balance of 9 mio t. The countries with an expected exportable surplus are Hungary (4.5 mio t), Romania (2 mio t) and Poland (1.5 mio t).

3. Oilseeds

The oilseed grown areas fluctuated during the first years of the transition process. The sown area was below 2 mio ha in 1993/94, while in 1995/96 it was almost 3 mio ha. Oilseeds in the CECs are mainly grown in Romania (up to 1 mio ha) and Hungary, Poland and Bulgaria (approximately 400 000 to 500 000 ha each).

During the forecast period, the oilseed areas are expected to increase to a total of 3.2 mio ha in 2005/06. This increase occurs particularly in Romania (sunflower seed) and Poland (rapeseed). However, the rapeseed areas in Poland are still well below the 1980s figures.

Average yields are expected to show annual growth of more than 2 % and attain 1.83 t/ha in 2005/06. As in the EU-15, the expected increase should be higher for rapeseed than for

sunflower seed. Based on these area and yield forecasts, total oilseed production is projected to reach 5.8 mio t in 2005/06, compared to the drought/frost affected 1997/98 crop of 3.5 mio t and 4.0 mio t in 1996/97.

A relatively large increase in the use of oilseeds in the CECs is expected from a current figure of around 4 mio t to 5 mio t in 2005/06. This increase will occur in the four large producer countries, with Romania in the leading position.

Table 2.2 Situation of oilseed markets in the CECs, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Area (mio ha)	2.76	2.57	2.80	2.92	2.98	3.03	3.07	3.16	3.18	3.20
Yield (t/ha)	1.47	1.37	1.59	1.63	1.66	1.71	1.75	1.77	1.80	1.83
Production (mio t)	4.0	3.5	4.5	4.8	4.9	5.2	5.4	5.6	5.7	5.8
Total internal use (mio t)	3.9	3.6	4.3	4.4	4.6	4.7	4.8	4.9	4.9	4.9
Balance (mio t)	0.1	-0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	0.9

During the forecast period the CECs are forecast to increase their exportable quantities of oilseeds from a few 100 000 t to just below 1 mio t in 2005/06. Main exporters are expected to be Hungary and Poland, each with around 300 000 t in annual export.

4. Beef

Beef and veal production in the CECs has traditionally been entirely dependent on the dairy herd, with only few producers with specialised beef herds. It is expected that during the forecast period there will be a visible increase in the specialised beef herd.

Beef production in the CECs has decreased by 40 % since 1989. The number of animals slaughtered per annum has decreased from 10 mio head to 6.3 mio head, but is expected to increase by 0.5 mio head to 6.8 mio head in 2005. Poland with 2.9 mio head and Romania with 1.5 mio of slaughtered animals are the dominant producers.

The average slaughtered weight is expected to increase slightly from 191 kg/head to 204 kg/head, partly because of the expected increase in the specialised beef herd. Total beef and veal production is expected to increase from 1.25 mio t in 1997 to 1.4 mio t in 2005. Most of this increase is projected to take place in Poland, Romania and Hungary.

The demand is only expected to show a modest growth during the forecast period after the significant decrease during the years 1989 to 1997. Per capita consumption is projected to increase from 11.6 kg in 1997 to 12.6 kg in 2005. With the exemption of the Baltic States, the per capita consumption is still significantly below the EU level. Total use in the CECs is seen to increase from 1.24 mio t to 1.34 mio t. This leaves the CECs with a small exportable quantity, in particular Poland.

Table 2.3 Situation of the beef and veal market in the CECs, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Slaughtered animals (mio)	6.4	6.5	5.7	6.5	6.6	6.6	6.7	6.8	6.8	6.9
Slaughter weight (kg/head)	191	193	215	193	195	197	199	201	203	204
Production (mio t)	1.21	1.25	1.23	1.25	1.28	1.31	1.33	1.36	1.38	1.40
Internal use (mio t)	1.23	1.22	1.24	1.25	1.27	1.29	1.31	1.33	1.34	1.34
Balance (mio t)	-0.01	0.02	-0.01	0.00	0.01	0.02	0.02	0.03	0.05	0.06
Per capita consumption (kg/cap)	11.6	11.6	11.8	11.9	12.0	12.1	12.3	12.5	12.5	12.6

5. Pig meat

Pig meat is by far the preferred meat in the CECs with current per capita consumption at around 40 kg. Pig meat consumption has decreased less than beef/veal consumption during transition. Over the forecast period, it is expected that supply will increase faster than demand.

The number of slaughtered animals is expected to increase from 50 mio head in 1997 to 59 mio head in 2005. Poland alone is expected to increase its numbers by 5 mio head. Hungary and Romania also show significant increases in pig slaughtering numbers. The average slaughter weight is stable at around 87 kg/head. Total pig meat production is expected to increase by 0.7 mio t from 4.5 mio t in 1997 to 5.2 mio t in 2005. Poland is the dominant producer with 2.2 mio t in 2005 followed by Hungary and Romania at around 0.8 mio t.

The increase in production is mainly demand driven, since the total demand of pig meat in the CECs is expected to increase from 4.1 mio t in 1997 to 4.8 mio t in 2005. The increase will be particularly strong in Poland and Romania. The average per capita consumption in the CECs is expected to increase from 38.4 in 1997 to 44.7 kg/capita in 2005.

Table 2.4 Situation of the pig meat market in the CECs, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Slaughtered animals (mio)	53.7	50.4	52.9	53.3	54.2	55.1	56.2	57.3	58.3	59.3
Slaughter weight (kg/head)	86	86	87	87	87	87	87	87	88	88
Production (mio t)	4.6	4.3	4.6	4.6	4.7	4.8	4.9	5.0	5.1	5.2
Internal use (mio t)	4.4	4.1	4.4	4.5	4.5	4.6	4.6	4.7	4.7	4.8
Balance (mio t)	0.25	0.25	0.23	0.18	0.20	0.21	0.27	0.31	0.37	0.44
Per capita consumption (kg/cap)	41.4	38.4	41.3	42.2	42.8	43.3	43.8	44.2	44.4	44.7

The development in production and internal use leaves the CECs with a balance of around 400 000 t available for export in 2005 compared to 250 000 t in 1997. Due to the CECs WTO export commitments, most of these quantities have to find an export market without export subsidies. Most of these exportable quantities are of Polish and Hungarian origin.

6. Poultry

In 1996 per capita consumption of poultry meat surpassed that of beef/veal. Poultry meat is the only sector for which consumption has been increasing steadily during the transition years. It is expected that the rapid increase in per capita consumption of poultry meat will continue in the forecast period, and thereby stimulate domestic production.

Total poultry meat production is expected to increase by 30 % from 1.6 mio t in 1997 to 2.1 mio t in 2005. Poland is the most important producer, with production projected to reach 750 000 t in 2005, followed by Romania and Hungary which are forecast to produce around 400 000 t each in 2005. Per capita poultry meat consumption is expected to increase by 25 % from 1997 to 2005 and reach 19.0 kg/capita on average.

Total production is seen to have expanded by more than 0.5 mio t, and total domestic use is expected to rise slightly less, thereby increasing the quantities available for export by the end of the period. Hungary is clearly the main exporter of poultry meat with around 100 000 t annually. However, by the end of the period, it is expected that Poland and Romania should be able to develop a significant export (the trade figures for 1996 and 1997 for the CECs in total have been largely influenced by export/re-export of poultry meat through the Baltic States to Russia).

Table 2.5 Situation of the poultry meat market in the CECs, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Slaughtered animals (mio)	1 082	1 042	1 064	1 084	1 100	1 112	1 124	1 142	1 158	1 174
Slaughter weight (kg/head)	1.38	1.50	1.58	1.61	1.64	1.68	1.72	1.75	1.78	1.81
Production (mio t)	1.49	1.57	1.68	1.74	1.80	1.87	1.94	2.00	2.06	2.13
Internal use (mio t)	1.39	1.55	1.64	1.70	1.77	1.82	1.88	1.94	1.98	2.03
Balance (mio t)	0.11	0.02	0.04	0.04	0.04	0.05	0.06	0.07	0.08	0.10
Per capita consumption (kg/cap)	13.2	14.7	15.5	16.1	16.7	17.2	17.7	18.2	18.6	19.0

7. Milk

The production of milk in the CECs has decreased significantly more than the internal use in the first years during the transition. The decline in the numbers of dairy cows has been slowing down in the latest years. Furthermore, yields have begun to increase, as productivity gains have been observed in several countries.

The dairy cow herd has dropped from above 11 mio in 1989 to below 8.2 mio cows in 1997. It is expected that the decrease in the dairy herd is coming to an end and that during the forecast period, dairy cow numbers will stay stable at around 8.1 mio cows. It is foreseen that the dairy cow herd will increase in the Baltic States, Poland, Hungary and Bulgaria. The other CECs are expected to see a slight reduction in their herd size.

The yield per cow is seen increasing in all countries. In total, the average yield is expected to grow from 3.46 t/cow in 1997 to 3.97 t/cow in 2005, or an annual increase of around 1.8 %. The total production of fresh cow milk is expected to increase from 28 mio t in 1997 to 31.5 mio t in 2005. Poland is the largest producer country with a production of around 14 mio t in 2005.

It is expected that human consumption of fresh milk will recover some of the losses observed in the previous years. Per capita use of fresh milk is projected to increase from 164 kg in 1997 to 172 kg in 2005. Total fresh milk use is therefore expected to increase from 17 mio t in 1997 to 18 mio t in 2005. An increase in the use of milk for processing is also expected, thus the total use of milk is foreseen to increase from 26.2 mio t in 1997 to 30.0 mio t in 2005.

Table 2.6 Situation of the milk market in the CECs, 1996 - 2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number milk cows (mio)	8.3	8.2	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Yield (t/cow)	3.39	3.46	3.50	3.56	3.62	3.69	3.76	3.83	3.90	3.97
Production (mio t)	28.2	28.3	28.5	28.9	29.3	29.8	30.4	31.0	31.6	32.2
Total internal use (mio t)	26.2	26.2	26.6	27.0	27.4	27.8	28.4	29.0	29.5	30.0
Fresh milk use (mio t)	17.7	17.3	16.8	16.9	17.1	17.4	17.6	17.9	18.1	18.3
Balance (mio t)	2.0	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2
Per capita consumption (kg/cap)	167	164	159	160	162	164	166	168	170	172

This leaves the CECs with a balance of 2.2 mio t in 2005 compared to 2.0 mio t in 1997. The quantities available for export will in particular rise in Poland and Lithuania.

PROSPECTS FOR

WORLD AGRICULTURAL MARKETS

1. Introduction

This chapter is aimed at giving an overall picture of the long-term prospects of world markets for some key agricultural products. While the Commission has developed its own set of projections for the EU market prospects, the outlook of world markets is mainly assessed on the basis of reports and projections released by different international organisations, experts and foreign institutions, and in particular on the basis of three main sets of projections for international agricultural markets to the year 2005.

The first comes from the US Department of Agriculture through its interagency World Outlook Board (USDA Baseline), the second from the Food and Agricultural Policy Research Institute (FAPRI), with units at the University of Missouri and Iowa State University, which provides analysis and economic forecasts to the US Congress (FAPRI Outlook). The third set of projections consists of the medium-term outlook from the Organisation for Economic Co-operation and Development (OECD) which reflects information provided by its members as well as independent analysis by the OECD Secretariat.

These forecasts constitute the most recent and comprehensive set of long-term agricultural forecasts available to date¹¹. However, it should be stressed that these forecasts were finalised during the first half of 1998 on the basis of information available at the end of 1997. Therefore, they do not take into account the recent development on financial markets and economic prospects.

In this perspective, some issues related to key underlying assumptions and forecast results will be briefly addressed in the light of the latest information available and our own assessment.

2. Overview of main trends

There is a broad consensus among analysts that the medium-term outlook for agricultural products will be characterised by a strong growth in demand that will generate a sustained expansion in trade. Prospects for an increased consumption of food products, mainly in the developing countries, combined with the limited possibilities to proportionally increase domestic production are expected to boost world trade and strengthen world prices above their long-term declining trends. The expansion of demand from the non-OECD regions, in particular in Asia and Latin America, will constitute the main driving force behind these favourable prospects.

Even if the situation of agricultural markets is expected to improve significantly as compared to the late 1980s and the early 1990s, it is important to stress that it remains subject to some uncertainties, notably in view of growing concerns about future economic perspectives at

¹¹ Medium and long-term prospects of agricultural world markets are also assessed on the basis of other sources and projections, and in particular the long term projections from the FAO. The FAO projections, that are still provisional, were presented at the "Outlook Conference" in May 1998 in Roma.

world level. These uncertainties should moderate the strong pattern forecasted for future trade and prices growth presented below.

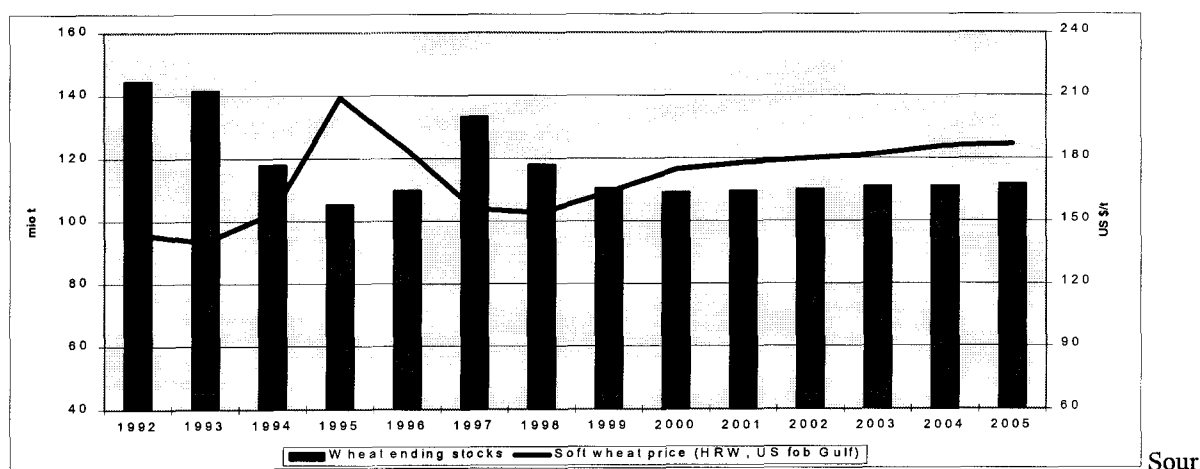
2.1 Overview per sector

The main features of the medium-term prospects per main agricultural commodity can be summarised as follows:

Cereals

The medium-term outlook for cereal markets is expected to demonstrate a tight situation derived from a strong rise in demand from developing countries. Higher cereal consumption, fuelled by economic and population growth as well as dietary changes, is forecasted to boost cereal imports in a large number of non-OECD countries, including China, North Africa and Latin America. After 15 years of relative stagnation, cereal trade is expected to increase by more than 20 % by the year 2005/06, with coarse grains exhibiting a stronger pattern driven by increasing meat consumption in many developing countries and the ensuing expansion of their livestock sector.

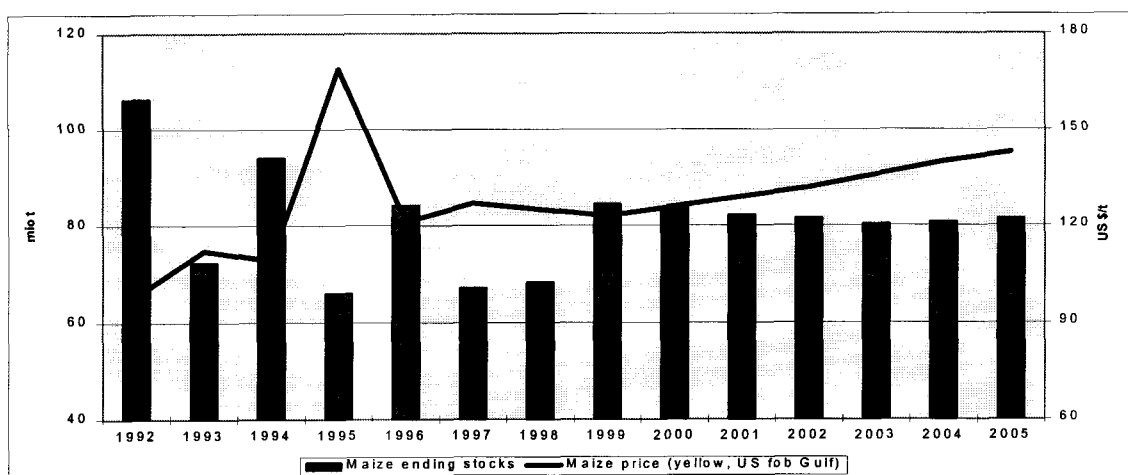
Graph 3.1 Outlook for world prices and closing stocks of wheat, 1992 – 2005



Source: USDA, February 1998

Global trade in coarse grains will strengthen with annual growth averaging around 4 %, whereas wheat trade is projected to grow by an annual average of about 2.5 % over the 1997-2005 period. After bottoming out in 1997/98 and 1998/99, world prices will follow an upward trend up to 2005.

Graph 3.2 Outlook for world prices and closing stocks of maize, 1992 – 2005



Source: USDA, February 1998

ce: USDA, February 1998

According to FAPRI and USDA forecasts, wheat prices forecasts are expected to range in 2005/06 between 166 \$/t and 187 \$/t, whereas maize and barley prices should develop to between 119 \$/t and 143 \$/t.

Oilseeds

The oilseed sector is expected to exhibit strong demand for vegetable oils and oilseed meals, benefiting from the expansion of the feed-livestock sector, that should generate further expansion of trade in oilseed and oilseed products and support prices over the outlook horizon. The prices of oilseed and oilseed products are expected to decline in the short-term from the high levels reached in recent years, before strengthening over the rest of the period. The strong dependence of the trade in vegetable oil from developing countries makes the outlook very sensitive to the economic prospects in these countries.

Meat

The prospects for an increase in the consumption of meat in response to income growth, in particular in transition economies and rapidly industrialising economies, are expected to stimulate world trade and strengthen world prices for meat over the medium and long-term. Beef trade is forecasted to increase by approximately 1 mio t (i.e. more than 20 %) over the 1997-2005 period. Pig meat trade is projected to climb to between 0.4 to 0.7 mio t over the same period. Global trade in poultry meat is also projected to trend upward, with rises ranging from 0.8 to 2.4 mio t according to different analysts. Beef and poultry prices should strengthen over the medium-term, supported by strong demand, whereas pig meat prices are projected to stagnate or decline slightly in line with their long-term trend.

Milk and dairy products

In general, the available medium and long-term studies show the same relatively favourable world market outlook as for the other agricultural products. Stimulated by increasing consumption and higher producer prices, milk production is set to expand in a number of countries, mainly outside the OECD area and in those OECD countries that do not use production quotas. According to the FAO, world cow milk production is likely to increase by

more than 60 mio t (+11.4 %) from 1997 to 2005, of which the bulk in India, some other Asian countries (China, Pakistan) and several countries in South and Latin America (Brazil, Argentina, Uruguay, Mexico).

International trade should be stimulated from increasing demand for most dairy products, with the exception of SMP. In general, those countries for which an increase in milk production is predicted, will mostly benefit from this evolution. Dairy prices on world markets are predicted to be somewhat lower compared to the year 1995, but should remain above the level experienced in the early 1990s. Price prospects for cheese are more optimistic than for the other dairy products.

2.2 Underlying factors

Five main factors can be identified to explain these developments:

(1) *Strong economic growth in developing and transitional economies*

The main contributing factor to the sharp improvement in the medium-term outlook of agricultural markets lies in the prospects for a strong and robust economic growth in many developing countries over the next ten years.

The first part of the nineties has been characterised by a moderate but positive growth in the world economy, of around 2.3 % a year on average. Countries in East and South Asia have enjoyed an economic boom, with a growth in real GDP averaging more than 8 % a year. China topped the list of Asian countries with an annual growth of nearly 11 %. Growth was much less significant in Latin America, averaging 2.1 %. Economic growth in the OECD countries was around 2 % a year over the same period.

For the purpose of its long-term forecast, the USDA foresees that real GDP throughout the world will rise over the medium-term substantially faster than during 1990-1996, at a rate estimated at 3.2 %. These forecasts indicate that real GDP in South East Asia will increase by nearly 7 % a year until the year 2007, led by an annual growth rate of more than 8 % in China. Growth in Latin America is expected to strengthen to reach about 4.8 % a year on average. Economic growth in the Middle East will remain at a sustained level of between 4.0 % and 4.3 %, though slightly lower than in the early 1990s due to a modest increase in energy prices. Africa, especially North Africa, is forecasted to demonstrate a more robust economic pattern, with GDP growth estimated at more than 4 %.

Table 3.1 USDA assumptions in real GDP growth 1997 – 2007 (%)

	1997	1998	1999	Average	Average	Average
				1990-1996	1997-2001	2001-2007
World	3.2	3.0	3.0	2.3	3.2	3.2
Developed economies	2.7	2.5	2.4	2.0	2.5	2.4
Transition economies	0.2	1.2	2.1	-6.9	1.9	3.5
Eastern Europe	4.9	5.1	4.0	-0.4	4.5	4.2
FSU	-1.3	-0.1	1.4	-8.4	1.0	3.2
Developing countries	5.4	5.0	5.2	5.1	5.3	5.5
East and Southeast Asia	6.9	6.7	6.6	8.6	6.8	6.8
China	9.0	8.9	8.8	10.8	8.8	8.2
Korea	6.4	6.1	6.0	7.7	6.1	5.6
Indonesia	5.5	5.2	4.8	7.8	5.6	6.2
Thailand	2.7	2.0	1.0	8.6	3.1	6.0
Latin America	4.5	4.4	5.1	2.1	4.8	4.7
Mexico	4.9	4.1	5.4	1.9	5.0	4.6
Brazil	4.0	4.4	5.2	1.5	4.7	4.8
Middle East	4.7	3.3	3.6	4.4	4.0	4.3
North Africa	4.1	4.2	4.2	2.0	4.2	4.1

It is forecasted that the decline in the Former Soviet Union (FSU) output of around -8 % on annual average during the period 1990-1996 will come to an end and give rise at the turn of the century to positive but slow growth over the next decade. Similar developments are expected for Central and Eastern European countries, where economic reforms towards greater market liberalisation and openness to trade and competition should sustain growth at relatively optimistic levels of over 4 %.

While stronger economic growth in the developed world will only have a minor influence on the global demand for agricultural products, it is expected to have a dramatic effect on food consumption in the non-OECD zone owing to high income elasticity.

(2) *Population growth*

Population growth constitutes another traditional determinant for food demand. Global annual population growth has been steadily declining since the second half of the 1960s, falling from 2.1 % in the 1960s to 1.4 % in 1997. It will fall further over the next seven years to reach 1.2 % in 2005. However, the next decade is expected to witness the highest absolute annual increments in world population history. It is estimated that between 85 to 90 mio persons will be added every year to world population over the next decade.

The pattern of population growth will differ widely between regions, with Africa and the Middle East demonstrating strongest increase (around 2.5 % per year). The next fastest growing regions are Asia and Latin America, each averaging 1.3 % per annum. More than 90 % of this population increase will take place in developing countries, with more than half in Asia.

(3) *Change in dietary pattern*

Higher income is expected to have significant repercussions on the nature and the composition of global food demand, as there is a direct correlation between per capita growth in income and diet diversification. Demand for meat products, processed food and beverages is expected to rise in developing countries in line with wealth. A higher degree of urbanisation and openness to trade is also expected to lead to a shift in demand for wheat-based products and meat (with the ensuing increase in demand for coarse grains and other feedingstuffs as it takes more cereals and oilseeds to produce a unit of calories from meat than through the direct human consumption of these crops).

(4) *Differentiated pattern of food production and consumption will lead to regional imbalance and increased trade*

The prospects for trade over the medium-term depend heavily on the differentiated pattern in domestic production and consumption at the regional level. Although agricultural production is expected to increase faster in developing countries, the annual rate of increase of production in these countries is still projected to be lower than the increase in demand. This will result from the combined impact of the limited potential of available land (due to urbanisation and pressure on agricultural resources and environment) and under-investment in agriculture (as compared to the more profitable manufacturing sector), despite the scope for further productivity gains. This will lead to the emergence of some large countries and

regions (like China, South Korea, Indonesia, Middle East and Latin America) as important and increasingly significant importers of agricultural products.

(5) Continuing trends towards market-oriented policy reform and trade liberalisation

Further trade liberalisation and the continued implementation of the Uruguay Round and WTO agreement are expected to lower barriers and boost the demand for food imports. The pace of economic reform in many regions, such as the transition economies and the FSU, towards greater liberalisation of markets and integration into the global economy (in terms of trade, investment flows and currency convertibility) will have a significant impact on international trade.

3. Key issues

The outlook for agricultural markets over the next decade is fairly positive when compared to the situation in the 1980s and early 1990s. However, it must be stressed that these trade and price projections are particularly sensitive to critical assumptions regarding economic growth, as well as future supply, demand and policy developments not only in the main importing countries but also in exporting countries.

In this regard, two main areas of uncertainties can be identified:

- *Economic perspectives*: growing concerns over economic prospects throughout the world and the sustainability of the strong economic growth exhibited in some regions over the past decade (in particular in China and South East Asia) should moderate the medium-term outlook even though they are expected to mainly affect short-term development.
- *Scope for production growth*: future production growth in the main importing countries is forecasted to be outpaced by the rise in consumption. If availability of additional land is expected to be limited in most regions, potential for further improvement in productivity clearly remains a source of uncertainty.

3.1 Economic prospects

All projections presented in this chapter anticipate that the strong and robust economic growth in developing regions (in particular China, East Asia, Latin America, North Africa, and the Middle East) will constitute the most important source of import demand growth over the medium-term. Based on the information available at the end of 1997, they all assume that the recent economic crisis in a number of Asian economies will be of limited duration and that economic recovery will take place around 2000-2001 with a return to a path of long-term growth.

However, doubts may now be raised on the validity of these economic growth assumptions in Asia and also in other parts of the world in view of the growing concerns over the prospects for the world economy. The Asian financial crisis that erupted last summer has since spread to other emerging markets, notably Russia, and now threatens to slow growth in developed economies (through weaker export opportunities and greater competition from cheaper imports of manufactured products).

The financial instability in South East Asia started in Thailand, where fragilities in the financial sector led the public authorities to cease to maintain the exchange rate peg to the

US \$. Strong and rapid spillover effects from the crisis were felt by other countries of the region (notably Indonesia, Malaysia and Korea) and started to take its toll on demand and economic activity in the affected countries¹². At present (September 1998), the IMF expects GDP in 1998 to fall by as much as 13-14 % in Indonesia, 4-5.5 % in Thailand and 1-2 % in South Korea.

The economic prospects in Asia have been worsened by the continuous deterioration of the economic situation in Japan. Tight fiscal policy and continuous fragilities in the financial system have dashed any hope of recovery in 1998, with GDP down for the third quarter in a row. A new phase in the emerging-market crisis has now been triggered by Russia, when the country fell into a deep financial, political and social crisis, driven by the default on much of its debt and the devaluation of the rouble in summer 1998 (cf. box on Russia crisis and its impact on EU agricultural exports). In line with the deterioration of its macro-economic fundamentals, the Russian economy is now expected to contract in 1998 and 1999.

With Japan, most of East Asia and Russia in recession, risk of contagion are running high, with emerging economies most at risk due to falling commodity prices (industrial and energy commodity prices are at their lowest in real terms for over 25 years) and loss of investor confidence. Total net capital flows to emerging economies started to fall steeply as the crisis deepened and are now expected to drop by as much as 25 % in 1998. Already some Latin American countries (notably Brazil and Venezuela) are under intense pressure from financial markets (with heavy capital outflows).

The financial instability began to have a dampening effect on global growth in early 1998 and the IMF has recently announced a sharp cut in its forecast for world GDP growth for 1998, from 3.1 % (early forecast) to 2 %. Therefore, a global slow down in the world economy may be expected in the short-run.

The pace of economic recovery of the most affected countries constitutes a major uncertainty in the short-term. In this respect, the implementation of macro-economic, financial and structural policies reform will be crucial to foster sustainable growth and boost confidence. The situation in some East Asian countries appears to have improved (in particular South Korea and Thailand), with export volumes starting to climb, interest rates which have been reduced and exchange rates that have stabilised.

Yet, if the negative consequences are felt in the short-run, the economic growth prospects in the emerging countries may be affected over the medium-term, though to a much lower extent. These medium-term economic perspectives will depend heavily on four main sources of risk: **the pace of recovery in the Japanese economy, political and social uncertainty in Russia, monetary strategy in China** (risk of devaluation of the yuan) and **propagation of the crisis to Latin America.**

¹² The financial crisis was mainly linked to concerns about the weakness of the financial sector, large external deficit, inflated property and stock market value, maintenance of fixed exchange rate to the US \$ and overdependence on short-term capital flows.

The recovery of the Japanese economy may be expected to be slow. Due to its dominant position in Asia -Japan accounts for more than 2/3 of Asian GDP- this should in turn hinder rapid recovery in other Asian countries. Following a more pronounced slow down in the short-term, they may be expected to follow a gradual path to long-term growth rates up to the early years of the next millennium.

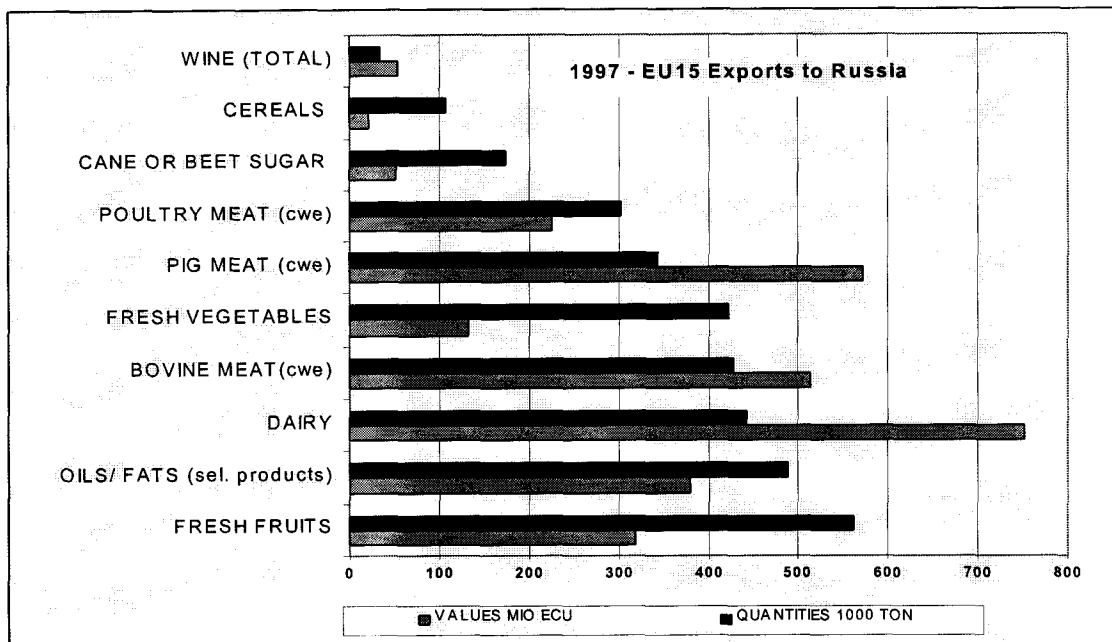
Russian crisis and its impact on EU agricultural exports

After several months of financial turmoil, the government and the Central Bank of the Russian Federation announced, on August 17th 1998, a package of drastic measures aimed to ensure economic stability and protect the Russian economy from the destabilising effects of speculative movements. It was first decided to suspend, for 90 days, operations of external debt repayments made by residents to non-residents. Then, the government announced a new exchange rate policy, allowing the rouble to float within a band of 6 to 9.5 roubles per dollar until the end of 1998. Previously, the exchange rate of the rouble could fluctuate between 5.27 and 7.13/\$, with a target rate of 6.2/\$. This target rate, which had been strongly defended by the Central Bank, was considered as a central element of the government's stabilisation policy. Given the effective exchange rate before this decision, this corresponded to a potential devaluation of the rouble of about 34 % from the August 14th rate. A programme was also announced for the restructuring of the domestic debt due to mature before the end of 1999. Finally, the government introduced capital controls in order to prevent capital outflow, including controls on foreign currency transfers by Russian residents.

These decisions have been followed by a period of political instability and uncertainties, a sharp fall in stock market quotations and an actual devaluation of the rouble of about 60 % in one month. So far (20th September 1998) the new government is not yet in office and it is not clear in which direction it will move as far as the economic policy is concerned, although the new prime minister declared that economic reforms will continue in Russia.

There is a high risk that the collapse of the rouble and the deterioration of Russian economic prospects will heavily affect the EU markets for several agricultural products, at least in the short term. With an import of agri-food products of about 5.4 billion ECU in 1997, Russia is the second largest importer of EU agricultural products, just after the US and before Japan. Russia is now importing about 10 % of the total EU agricultural exports, compared to 13 % for the US and 6.7 % for Japan. In addition, exports to Russia have increased over the last few years at a faster rate than exports to the rest of the world.

The expected consequences of the Russian crisis on EU agriculture will vary across sectors. They are expected to be most felt in the beef sector that is heavily dependent on the Russian export market (40 % of all EU beef exports in 1997, i.e. 427 000 t) at a time when the volume of intervention stock is around 490 000 t. A similar situation occurs in the pig meat sector (31 % of all EU pig meat exports went to Russia in 1997, i.e. 343 000 t) while the sector is currently at the peak of its production cycle. Russia is also the main consumer of EU poultry, accounting for 29 % (302 000 t) of total exports in 1997. As far as dairy products are concerned, 38 % of EU exports of butter (81 600 t) and 30 % of EU exports of cheese (150 000 t) went to Russia in 1997.



The Chinese economic prospects are likely to be strongly influenced by both the economic development of its neighbouring countries and domestic issues, including the structural reforms of its public industrial sector and banking sector.

Confidence in Russia's commitment to continue economic reforms will be key to the stability of the rouble and economic recovery. Yet, after a GDP decline in the short-run, medium-term perspectives may be expected to be somewhat lower than originally forecasted. The impact of harsh economic remedies implemented to counter financial pressures in some Latin American emerging countries are expected to slow down recovery to long-term growth path. Lower expectations for energy prices may also affect economic prospects in the North Africa and Middle East region (but also in Mexico and Venezuela).

It is still difficult at this stage to provide a full assessment of the long-term impact of the current economic instability on agricultural commodity markets. Slower growth and currency devaluation in many emerging countries should lead in the short-term to weaker demand, lower food exports from OECD countries and consequently lower world price prospects. The larger adverse impact is likely to be on higher value added agricultural products, such as meat and processed food, that should in turn put downward pressure on feed grain prices.

Import demand for wheat may be expected to be less affected than coarse grain since it is mainly used for direct human consumption (its availability being considered as of primary concern during times of political, economic and social difficulties). In the short-term, maintenance of trade flows is expected to foster competition between major exporters through increased use of export support measures (export subsidies, export credit guarantee, etc.), exerting further downward pressure on prices.

Beyond the short-term impact, many developing countries are foreseen to exhibit economic recovery to long-term growth path in the early years of next century. These improved economic conditions should stimulate a renewed increase in food demand, resume the expansion in food imports and support world prices. In that respect, the pace of recovery in many regions will be critical to the medium-term outlook for agricultural markets.

If the current economic slow down in the world economy is not expected to alter fundamentally the medium and long-term economic perspectives, it should moderate the very optimistic outlook for agricultural markets that most analysts had long predicted.

3.2 Growth potential in agricultural supply

The slow supply adjustment of agricultural products to the expansion in demand constitutes a major outcome of the medium-term outlook. It strongly conditions the expected increase in trade and prices. Yet, scope for further increase in production still remains a key uncertainty for the outlook, notably for crop products.

In contrast to the last ten years, the total land allocated to grain and oilseed production is projected to increase slightly. Yet, potential for additional land is expected to be modest and

limited in most regions due to the expanding urbanisation, climatic limitations and pressure on agricultural resources and environment (erosion, salinisation and contamination). A large proportion of the growth in production is forecasted to be found in productivity improvement. Reversing the downward trend of the early 1990s, total cereal yields are expected to increase faster over the next seven years. Global growth in coarse grain yields, notably maize yields, is projected to be stronger than in the 1980s, whereas wheat yields are forecast to increase by at a slower rate.

However, increased reliance on food imports in some regions and prospects of high price levels could influence significantly the global level of production of crop products. Despite limitations linked to environmental pressures and water constraints, some areas of potential gains in yield growth may still exist, such as the development in genetic engineering and its increasing utilisation in the OECD zone.

Furthermore, policy developments in major importing countries, notably China, and the historical tendency in some regions to promote “self-sufficiency” policies could significantly affect the outlook of agricultural markets, in particular trade levels and price developments.

Finally, crop production in the OECD zone will be strongly influenced by two major land idling programmes: the set-aside provisions for farmers in the European Union and the Conservation Reserve Programme (CRP) in the US. Even if assumptions on both programmes differ in the USDA and FAPRI projections, a significant amount of land is kept out of production. Any change in the level of land set-aside could strongly influence world prices.

3.3 Conclusion

In view of these uncertainties, a cautious assessment of the favourable prospects of agricultural markets is deemed necessary. Even if the main trends in market fundamentals can be expected to be positive over the medium and long-term, it is important to stress that they remain subject to some uncertainties, both on the supply side (potential for a more rapid adjustment in production) and on the demand side (slower economic growth in major importing countries).

These uncertainties may be expected to moderate the strong pattern for future growth in trade and prices as forecasted by most analysts, although the situation of agricultural markets should remain significantly better than in the late 1980s and the early 1990s.

4. Prospects per sector

This section is based on the projections¹³ of some international organisations, including the OECD, the FAO, the FAPRI, the USDA and Commission’s internal assessment of possible

¹³ It is important to mention that these forecasts are not always directly comparable. In fact, they sometimes differ as regards their geographical coverage, the precise nature of the commodity concerned, the price variables used and the historical reference period. However, despite these divergences, it is possible to point out some main trends that are presented hereafter.

development in world agricultural markets over the medium-term. Its main objective is not to compare these different estimates or to give the most realistic levels of global supply, demand and trade of the different commodities at a given time, but only to assess the possible development of world markets over the next seven years. As a consequence, the absolute levels of the different variables considered must be interpreted with caution, and should be seen as providing an order of magnitude instead of a precise estimate of the level of these variables¹⁴. Further caution is deemed necessary in view of the recent important developments on some agricultural markets and in the world economic situation (cf. section 3).

4.1 Cereals

Most analyses tend to converge in their global assessment of the medium-term outlook for cereals. They depict a situation of world cereal markets that looks rather favourable over the next seven years. They expect that improved conditions on cereal markets from the mid-1990s are likely to persist into the early years of the next millennium with world prices and trade forecasted to increase substantially, the strong growth in cereal demand outpacing the increase in availability. These trends in international trade and prices would be mainly derived from strong import demand in a large number of non-OECD countries, fuelled by rapid economic growth.

The estimates for the 1998/99 marketing year tend to indicate that there will be a renewed large wheat crop forecasted at 593 mio t, whereas coarse grain production would remain around the high levels reached in 1996/97¹⁵. World demand for wheat will continue to rise to reach 602 mio t (+14 mio t) in 1998/99, while coarse grain consumption will increase only slightly to 895 mio t. Cereals trade is foreseen to stagnate at 1997 levels. This renewed increase in production level will put downward pressure on prices that are expected to fall at low levels compared to the previous three years. Coarse grain stocks are expected to refurbish strongly (most of the increase will take place in the US), whereas world wheat stocks are foreseen to decline in relation to lower production forecasts in the FSU (and despite a sharp rise in wheat stock levels in the five major exporting countries).

Supply

¹⁴ These projections, on which the assessment is based, are not intended to forecast what the future will be, but instead describe what may happen under a very specific set of assumptions and circumstances. The projections represent one plausible long-run scenario that presumes a continuation of the current agriculture and trade policies, with no major weather or political shocks, and with specific assumptions regarding the global macro-economy, international developments, productivity growth and other factors affecting food production, consumption and trade. It is obviously impossible to give a comprehensive view of all macroeconomic and policy assumptions adopted by each analyst. These can be found in the documents mentioned in reference.

¹⁵ The renewed increase in total maize production in 1998/99 at 598 mio t, after a slight fall recorded in 1997/98, would compensate for the decline in barley production from around 155 mio t in 1996/97-1997/98 to 145 mio t in 1998/99.

Over the medium-term, world wheat production is forecasted to increase substantially. Wheat availability should grow at a sustained pace that ranges from 0.8 % on annual average in the USDA and FAPRI forecasts (i.e. 35-40 mio t over the 1997-2005 period) to 1.4 % in the OECD and the FAO projections (i.e. 70 mio t). Total wheat production should reach around 645 mio t in 2005 as compared to 600-610 mio t in 1997. Most of the growth in production will be generated from higher yields since area allocated to wheat is not expected to expand significantly due to land constraints in most countries linked to urbanisation and climatic conditions, and to the changing market and policy environment in some countries that is expected to favour allocation of land to oilseeds.

Table 3.2 Outlook for world wheat production, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD	585.2	587.8	589.4	599.0	611.7	621.9	631.2	641.6		
FAPRI	582.5	603.5	590.9	595.1	601.1	609.3	617.4	625.9	634.8	643.4
USDA	582.6	609.4	585.9	588.9	597.4	610.2	619.3	628.0	635.8	644.8
FAO	569.9	578.7	587.5	595.4	603.6	612.1	621.1	629.9	639.1	648.4

The growth in coarse grain production will be higher, at a rate estimated by the OECD and the USDA between 1.5 % and 1.9 % per year respectively (i.e. 145 mio t over the 1997-2005 period in USDA forecasts). It will be mainly driven by the expansion of maize production that will range between 103 mio t (FAPRI) and 128 mio t (USDA) (i.e. 2.1 % to 2.5 % per annum respectively), whereas barley production will only rise by about 10 mio t (i.e. around 1 % per year).

Table 3.3 Outlook for world maize production, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
FAPRI	586.1	569.2	600.1	611.5	619.2	629.7	640.0	650.3	661.3	672.0
USDA	592.0	578.5	604.7	620.7	633.8	647.2	662.2	674.6	691.9	706.1
FAO	547.1	559.6	571.0	583.4	596.5	610.0	623.8	637.9	652.3	667.3

Demand

Demand for wheat is forecasted to increase annually by an average ranging from 1.2 % in FAPRI and USDA forecasts to 1.7 % in OECD estimates, i.e. by about 60 mio t over the 1997-2005 period. Total coarse grain consumption should follow a stronger pattern with an annual increase estimated on average at around 1.7 % by most analysts (or around 130 mio t) over the period.

Table 3.4 Outlook for world wheat consumption, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD	578.2	582.5	589.2	600.2	612.1	624.5	634.3	644.7		
FAPRI	579.7	583.6	588.4	594.8	601.7	609.7	617.6	625.9	634.9	643.7
USDA	579.2	585.4	588.5	590.4	598.7	609.8	618.7	627.1	635.7	644.1
FAO	569.5	577.0	585.0	593.4	601.7	610.0	618.8	627.6	636.7	645.9

Maize should constitute the main driving force behind this development in demand, due to the expansion of the poultry and pig meat sectors, with an annual increase forecasted

between 1.8 % and 2.2 % (corresponding to 87 and 110 mio t from 1997 to 2005), whereas barley consumption would rise by around 1 % on annual average (i.e. 12-15 mio t over the whole period).

Table 3.5 Outlook for world maize consumption, 1996 – 2005 (mio t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
FAPRI	566.8	585.4	597.6	608.2	618.3	629.4	639.9	650.5	661.4	672.5
USDA	573.8	595.9	599.9	616.5	634.4	648.8	662.9	675.8	691.5	705.5
FAO	546.6	558.0	569.6	582.2	595.2	608.6	622.0	636.1	650.5	665.6

This strong development in demand for cereals is mainly derived from non-OECD (importing) countries, in relation to rising real incomes, population growth and continued urbanisation (changes in diet with increased meat demand and further diversification towards more wheat-based food).

Trade

Since this growth in the demand for cereals cannot be fully matched by domestic availability, trade is expected to rise. Reversing a decline that began in the early 1980s, coarse grains are expected to exhibit the strongest increase in grain trade in response to higher meat consumption and increase in feed demand. Both the FAPRI and USDA foresee a steady expansion in trade from 1997 to 2005 ranging between 20 % and 24 % for wheat (i.e. 17 mio t and 24 mio t respectively) and between 32 % and 41 % for coarse grains (i.e. 25 mio t and 37 mio t respectively).

Table 3.6 Outlook for total trade in cereals, 1997 – 2005 (mio t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Wheat	97.2	82.8	121.4	99.9	24.2	17.0
Coarse grains	88.2	78.2	124.7	103.0	36.5	24.8
Maize	63.0	60.7	90.6	82.4	27.6	21.7
Barley	15.6	16.5	19.2	17.7	3.6	1.3
Total cereals	185.4	161.0	246.1	202.8	60.7	41.8

USDA figures include intra-FSU trade.

When looking at regional breakdown of cereal net imports, most analysts expect that development in cereal import will mainly be driven by income growth in some lower and middle income regions, including China and South East Asia, Latin America, North Africa and Middle East.

Net cereal imports from China are forecasted to increase significantly over the next seven years. Wheat imports will grow from 1.8 mio t in 1997/98 to around 7 to 9 mio t in 2005/06. China will turn from being a net exporter in coarse grains in 1997/98 to become a net importer of about 11 mio t. Growth in coarse grain imports (mainly maize) will be driven by the rapid expansion of China's livestock sector in response to sustained meat demand.

Although these import figures have been adjusted downwards, China remains a large potential importer of cereals.

Table 3.7 Outlook for wheat net imports for major importing countries, 1997 – 2005 (mio t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	26.2	30.1	35.7	40.4	9.5	10.3
China	1.8	1.8	9.4	6.7	7.6	4.9
Indonesia	4.5	-	6.9	-	2.4	-
Japan	5.8	5.8	5.7	6.1	-0.1	0.3
FSU	1.0	0.8	1.3	0.1	0.3	-0.8
North Afr. & M.East	31.9	-	38.8	-	6.9	-
Africa & M.East	36.9	35.5	43.6	39.2	6.7	3.6

Cereal imports in North Africa and the Middle East are expected to rise in response to sustained GDP expansion, high population growth and limited production potential. Coarse grain imports are projected to increase by about 5 mio t from 1997/98 to 2005/06, whereas wheat imports will grow by 7 mio t.

Table 3.8 Outlook for coarse grains net imports for major importers, 1997 – 2005 (mio t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	34.6	36.3	57.2	54.7	22.6	18.4
China	-2.7	-1.8	11.4	11.8	14.2	13.6
Indonesia	0.6	-0.8	2.3	-2.3	1.7	-1.6
Japan	20.8	20.4	20.2	18.9	-0.6	-1.6
Mexico	6.6	6.1	11.1	9.0	4.5	3.0
Other Lat. America	9.3	9.0	11.3	11.2	2.0	2.2
FSU	-0.3	0.0	0.9	1.9	1.2	1.9
North Afr. & M.East	18.6	-	23.7	-	5.1	-
Africa & M.East	22.5	19.8	26.0	24.5	3.5	4.7

Coarse grain imports in Mexico are expected to increase further to 9-11 mio t in 2005/06 as rising income boost meat demand. Finally, the Former Soviet Union is forecasted to become a net importer of coarse grains by the end of the 1997-2005 period in response to the expansion of its livestock.

Prices

After bottoming out in 1998/99 following two years of decline from their peaks in 1995/96, cereal prices are foreseen to increase substantially in the early years of the next millennium. Prices of common wheat (HRW, fob US Gulf) are forecasted in 2005/06 in a range between 166 US \$/t (FAPRI) and 187 US \$/t (USDA). Prices of coarse grains should follow a similar trend, with prices projected in a range between 119 US \$/t and 143 US \$/t at the end of the period.

Table 3.9 Outlook for world wheat market prices (US HRW, fob Gulf), 1996 – 2005 (\$/t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD	184.3	162.2	162.6	168.5	170.7	175.1	181.5	188.9		
FAPRI	184.3	154.9	149.5	151.2	156.6	158.6	160.2	162.1	163.9	166.3
USDA	184.0	156.0	154.0	164.0	175.0	178.0	180.0	182.0	186.0	187.0

After some strong rebuilding in 1997 and 1998, most organisations foresee a decrease in the aggregate level of wheat stocks. As a result, world wheat prices are expected to increase over the medium-term. After falling up to 1998-1999, barley prices are forecasted to strengthen over the rest of the period: slowly in FAPRI projections to reach 138 \$/t in 2005/06 (from 128 \$/t in 1998/99, Portland reference) and more strongly in USDA forecasts (from 106 \$/t in 1998/99 to 120 \$/t in 2005/06, Duluth reference).

As for barley, the rising trend in maize prices over the 1997-2005 period is stronger in the USDA and OECD forecasts than in the FAPRI projections. After falling up to 1998-1999, maize prices are forecasted to increase by a range of 12-20 \$/t over the next six years, to reach in 2005/06 between 119 \$/t (FAPRI) and 143 \$/t (USDA). Main differences relate to the level of maize stocks that are forecasted to remain at low level but to recover slightly in FAPRI forecasts, while declining in USDA projections.

Table 3.10 Outlook for world maize market prices (US yellow corn, fob Gulf), 1996 – 2005 (\$/t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD	120.9	120.2	118.0	124.4	127.2	129.0	131.5	136.6		
FAPRI	120.9	113.2	108.2	107.2	109.4	111.2	112.4	114.7	116.7	119.3
USDA	121.0	127.0	125.0	123.0	126.0	129.0	132.0	136.0	140.0	143.0

As already mentioned above, a prudent interpretation of the outlook for the cereal markets as given by the OECD, FAPRI and USDA is deemed necessary. Although the demand for cereals may reasonably be expected to increase over the medium-term, the recent slow down in per capita consumption of wheat in many parts of the world combined with the deterioration of economic prospects in a large number of importing countries should subdue the expected strong pattern in cereal consumption.

Furthermore, the pace of supply adjustment to the expansion of demand remains a key uncertainty for the prospects for cereal imports. Lower yield growth and limited land use was the main cause behind the recent instability in market prices. Over the medium-term, the growth in the cereal supply will be strongly influenced by the set aside provisions in the EU and the CRP in the US and by the potential impact on cereal production of self-sufficiency-oriented grain policies in place in key importing countries (especially in Asia).

Although coarse grains appear to be more affected by the stagnation in import levels from Asia, their production and consumption may be expected to follow a stronger pattern than wheat over the medium and long-term. This is due to the fundamental link with the main factor behind increased cereal demand, i.e. rising meat consumption (maize has the main advantage of higher yields and lower prices than wheat).

Even if growth in production, consumption and trade of cereals may not be as strong as presented by most forecasting organisations, it should remain significant. Cereal prices should be expected to stay higher than in the early 1990s due to the rise in demand and trade, but at a somewhat lower level than that presented above. The current level of expectations about the medium and long-term perspectives for the world economy and the cereals market tends to confirm our views presented last year of a more moderate development in cereal prices than that forecasted by most organisations. The Commission expected world market prices for cereals to reach around 140 \$/t for wheat (SRW, US fob Gulf) and 115 \$/t for coarse grains (US fob Gulf) over the medium-term. At that time, these price levels were criticised as too pessimistic.

4.2 Oilseeds and oilseed products

Like for other agricultural commodities, prospects for the oilseed sector are expected to be favourable over the medium-term. Strong demand for vegetable oils for human consumption and for oilseed meals from the expanding livestock sector, are forecasted to generate further expansion of the oilseed sector and support prices over the outlook horizon.

4.2.1 Oilseeds and oilseed meals

According to the OECD, total oilseed production is forecasted to increase at an annual rate of 1.3 % over the 1997-2003 period. Similar growth rates are projected by the USDA and FAPRI for soya beans up to 2005. Most of the increase in production is foreseen to take place in Argentina, Brazil and China and to result from both area expansion and yield improvement. Nevertheless, yield increases are expected to remain rather modest since no major technological progress is anticipated over the medium-term. Area expansion could amount to between 6 and 7 mio ha, coming either from new land brought into production (notably in Argentina and Brazil) or from land previously allocated to cereals.

Import demand for oilseed and oilseed meal is expected to remain strong, notably in developing countries where income growth is likely to stimulate demand for livestock products. Total trade in oilseeds is anticipated to increase faster than in the 1980s but more slowly than in the early 1990s. Trade growth in oilseed meals is foreseen to be relatively steady but still slower than over the last fifteen years. Soya bean trade will rise at annual rates of around 1.5 % over the next decade, whereas soya bean meal imports will grow at a rate ranging between 2 and 3 % per year.

Table 3.11 Outlook for total trade in soya beans and soya bean products, 1997 - 2005 (mio t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Soya beans	37.6	36.7	42.8	40.5	5.2	3.8
Soya beans meals	35.6	30.2	42.2	37.6	6.6	7.4
Soya beans oil	6.3	5.0	7.2	6.4	0.9	1.4

The USDA foresees that the combined exports of soya beans and meals, on a soya bean-equivalent basis, will amount to 88 mio t by 2000/01 and 100 mio t in 2007/08. It expects developing countries to account for 80 % of soya bean and soya bean meal import growth

(China, Philippines, Indonesia and Mexico). China, where market reforms continue to boost per capita incomes and meat consumption, is expected to demonstrate a sharp rise in imports of more than 2 mio t by 2005/06. Whereas the USDA foresees only marginal rise in EU soya meal net imports, FAPRI expects them to continue to expand steadily to reach 13.2 mio t in 2005/06.

Table 3.12 Outlook for soyabean meals net imports for major importing countries, 1997-2005 (mio t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union	11.1	11.2	11.3	13.2	0.2	2.0
Eastern Europe	2.1	1.8	2.5	2.1	0.4	0.3
China	4.5	4.5	6.5	7.3	2.0	2.8
South Korea	0.8	0.8	1.3	1.2	0.5	0.4

Oilseed and oilseed meal prices are expected to decline in the short-term from the high levels reached in recent years, before strengthening over the rest of the period. In 2005/06 soya bean prices will range between 267 \$/t and 296 \$/t according to FAPRI and USDA forecasts.

Table 3.13 Outlook for world soya bean market prices, 1996 – 2005 (\$/t)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD	304.0	252.5	239.4	240.0	245.2	256.0	268.5	283.9		
USDA	301.0	270.0	244.0	243.0	255.0	266.0	274.0	283.0	292.0	296.0
FAPRI	302.0	278.4	253.8	255.4	255.7	257.6	259.1	261.5	264.9	267.4

US soyabeans, cif Rotterdam

4.2.2 Vegetable oils

Vegetable oil has been the agricultural commodity with one of the most significant continued growth rates over the last 20 years as consumption increases significantly with economic growth. World vegetable oil trade is projected by the USDA to grow by 2.7 % annually during the 1997-2007 period, lower than the rates achieved in the 1980s and the early 1990s. Income growth in China, India and Pakistan, which together account for more than a third of the total world population, is expected to drive trade growth in global vegetable oil from 1997 to 2005.

The palm oil market should absorb the largest share of consumption growth. Soya bean oil is expected to have a smaller role in the global increase in the vegetable oil trade because of the relative low oil content in the soya beans. Soya bean oil trade is projected to grow between 1.7 % (USDA) and 3.2 % (FAPRI) a year (a total increase of around 1 mio t mainly driven by Chinese imports) over the 1997-2005 period, compared to a growth of about 9 % a year in the early 1990s. Strong growth in oilseed oil trade relative to meals and beans is expected to create incentives for increased production in high-oil content oilseeds (such as rape and sunflower seeds in the EU as compared to soya beans).

Oilseed oil prices are expected to decline initially from recent peaks and to recover subsequently reaching between 584 \$/t and 606 \$/t in 2005 (soya bean oil, fob Rotterdam). The strong dependence of the vegetable oil market on imports from developing countries makes the outlook very sensitive to the macro-economic outlook for these countries.

4.3 Meat

The meat market situation and outlook focuses on the three types of meat, of which the EU is a net exporter (beef and veal, pig meat and poultry meat). Most international organisations expect a rather favourable situation for the meat markets over the next seven years. Prospects for growing consumption of meat in response to income growth, in particular in transition economies and rapidly industrialising economies, combined with limited possibilities to proportionally increase domestic production, are expected to stimulate world trade and to strengthen world prices for meat over the medium and long-term. These projections have been based on the assumption that the recent deterioration in the global economic situation in some parts of the world is a short-term phenomenon and that recovery will take place over the forecast horizon.

4.3.1 Beef and veal

The beef market is traditionally split into two distinct segments, either free of foot-and-mouth disease (FMD) or not. The Pacific market is only available for exports that are free of FMD, with prices that are normally higher as compared to the Atlantic Market. However, the price gap between both regions has reduced in recent years and the OECD expects a continuation of this evolution in the framework of a more homogenous world beef market with increasing prices (subject to the successful implementation of eradication programmes in many regions such as Europe and South America).

World beef production is forecast to increase by about 1.3 % per annum on average over the next seven years. Much of this increase will occur in the non-OECD zone, led by China and Brazil. Recovery in production in the FSU and Mexico is foreseen by the USDA and FAPRI, though at a quicker pace by the former.

Table 3.14 Outlook for world beef production, 1997 – 2005 (mio t)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD (OECD zone)	26.1	25.5	24.7	25.1	25.5	26.2	26.3		
FAO (OECD zone)	27.2	27.2	27.3	27.4	27.7	27.8	28.0	28.1	28.3
FAO	57.4	57.9	58.7	59.5	60.6	61.5	62.5	63.4	64.5
USDA	49.4	49.4	50.6	50.6	51.3	52.3	53.3	54.1	55.0
FAPRI	43.2	42.6	42.8	43.0	43.4	44.0	45.1	46.0	46.7

Global beef consumption is expected to rise gradually in relation to income growth. In most developed countries, per capita consumption of beef is expected to fall or to stagnate, since consumers continue to substitute pig meat and poultry meat for beef. This development is particularly marked in the US where beef consumption per capita is foreseen to fall significantly: from more than 43 kg in 1997 to 41.5 kg (FAPRI) or 39.5 kg (USDA) in 2005. In contrast, increasing beef demand is likely to occur in Asian countries (mainly China, South Korea and Japan) and Latin America (led by Brazil and Mexico), on the condition that consumption will resume over the forecast horizon after a short-term decline. In Asia, beef consumption should increase rapidly, from low current levels, in response to economic development and higher disposable income that should lead to changes in food habits toward more western style.

The growth in the demand for beef will tend to outpace that of production in a large number of countries, thus creating additional market outlets for major exporters. The USDA predicts that total trade in beef from major exporters should increase by around 1 mio t (or 20 % over the 1997-2005 period). Much of the growth in imports is expected to come from Asia and Mexico. In Japan and South Korea, beef is the preferred substitute for increasingly scarce seafood. In addition, production is not expected to be able to respond to the rapidly increasing consumption. Beef imports are forecast to swell also in Mexico where competition from low-priced imports from the US will curtail the expansion of the domestic market.

Table 3.15 Outlook for beef net imports for major importing countries 1997 – 2005 ('000 t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
FSU	425.0	387.0	492.0	821.0	67.0	434.0
Japan	872.0	870.0	1108.0	1123.0	236.0	253.0
South Korea	225.0	207.0	425.0	382.0	200.0	175.0
Mexico	135.0	135.0	255.0	368.0	120.0	233.0

The prospects for the FSU constitute the major source of uncertainty over the medium-term. FAPRI predicts that beef consumption in that region is not likely to increase significantly before the turn of the century, when it peaks up mainly filled up by imports since recovery in

beef production is forecast to lag two years. In contrast, the USDA expects that not only beef consumption, but also production and exports will rise strongly after bottoming up in 1998, thus reducing growth in net imports.

Strong import prospects combined with limited growth in beef production, especially in some OECD countries but also in most countries where the biggest increase in consumption is forecast, will result in rising beef prices over the medium and long-term.

Table 3.16 Outlook for world market prices for beef, 1997 – 2005 (\$/t)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD (1)	1494	1525	1598	1637	1686	1709	1741		
USDA (2)	1791	1888	1994	1967	1910	1929	1974	1997	2017
FAPRI (1)	1462	1528	1651	1732	1649	1581	1524	1486	1441

(1) Nebraska Direct Fed Steer price; (2) New York IFS

Despite the strong increase in world market prices over the medium-term, the price gap between EU and the world market will remain too high to allow unsubsidised exports from the EU. Furthermore, the reduction in this price gap will strongly depend on the magnitude of the economic crisis and the speed of recovery in some major importing regions (South East Asia, Japan and the FSU). Since income growth is seen as the main driving force behind beef demand, a prudent and cautious assessment of medium-term prospects for global beef trade and EU export potential is deemed necessary.

4.3.2 Pig meat

The medium and long-term outlook for pig meat is characterised by a renewed increase in world production, consumption and trade. Yet, prices for pig meat are expected to remain rather stable or even to decline in the medium-term, reflecting increased competition from poultry meat and sustained productivity growth.

World pig meat production is projected to continue to increase, but at a slower rate than in previous decades (2.7 % per annum on average between 1997 and 2005). Environmental constraints as well as greater competition from poultry meat are expected to limit pig meat expansion in many regions. Most of production growth is likely to occur in China as production in the US, EU, Canada, Mexico, FSU and Central and Eastern European Countries is expected to show only modest growth. Production in Japan is forecasted to decline due to lower competitiveness vis-à-vis pig meat imports.

The consumption of pig meat in most developed countries (including the EU, US, Canada and Japan) is expected to record slower growth due to stronger competition from poultry meat and moderate economic prospects. Modest consumption growth in these countries will be partially compensated by stronger increase in Asia, in particular in China and South Korea (rise of more than 30 % in both countries between 1997 and 2005). FSU and CECs are predicted to exhibit moderate rise in pig meat demand.

Table 3.17 Outlook for world pig meat consumption, 1997 – 2005 (mio t)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD (OECD zone)	30.3	30.7	31.3	31.6	32.1	32.4	32.5		
FAO (OECD zone)	32.4	32.5	32.7	33.0	33.2	33.3	33.4	33.6	33.9
FAO	84.9	86.6	88.5	90.7	92.8	94.8	96.9	99.2	101.5
USDA	80.4	83.2	85.5	88.2	90.5	92.6	94.6	96.5	98.4
FAPRI	79.7	83.4	87.5	89.4	91.3	93.4	95.0	96.7	98.5

Global trade in pig meat is forecasted to increase by around 30 % over the forecast horizon, driven by strong demand in major importing countries: Japan and Hong-Kong, South Korea¹⁶ and Mexico. Similar to other sectors, prospects in the FSU, a major importer, are difficult to assess both on the supply side (pace of production recovery linked to economic reforms) and on the demand side (with consumption growth linked to an uncertain economic outlook). Both the USDA and FAPRI expect no major changes in pig meat trade flow in this region over the medium-term.

Table 3.18 Outlook for pig meat net imports for major importing countries, 1997 – 2005 ('000 t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Japan	728.0	762.0	1038.0	995.0	310.0	233.0
FSU	499.0	442.0	462.0	472.0	-37.0	30.0
South Korea	36.0	15.0	180.0	74.0	144.0	59.0
Mexico	28	28	113	32	85.0	4.0
China-HK	142.0	142.0	216.0	127.0	74.0	-15.0

The outbreak of the foot-and-mouth disease in Taiwan in March 1997 had major implications not only for Taiwan pig sector but also for global pig meat trade. Taiwan was previously the world's fourth largest exporter of pig meat, of which most went to Japan (accounting for around 40 % of all Japanese pig meat imports). The FMD outbreak forced Taiwan to withdraw from the lucrative Japanese market and despite the fact that the FMD epidemic seems now under control, it may take several years before Taiwan exports to Japan will resume (assumed in 2002 and 2003 in FAPRI and USDA forecasts, respectively). Japanese pig meat imports fell in 1997 due to the interruption in supply from Taiwan, but are expected to recover strongly over the rest of the period.

Pig meat prices are generally expected to stagnate or decline slightly in line with their long-term trends. The impact of higher feeding costs and strong demand could be more than offset by continued efficiency gains in feeding practices and increased competition from other meats.

Table 3.19 Outlook for world market prices for pig meat, 1997 – 2005 (\$/t)

¹⁶ Although the depreciation of the won may boost domestic competitiveness and thus constrain imports.

	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD (1)	1593	1449	1359	1330	1332	1324	1344		
FAPRI (1)	1141	890	968	1028	983	936	992	1032	981
OECD (2)	3839	3451	3355	3287	3271	3250	3242		
USDA (2)	6401	6369	6498	6704	6930	7148	7347	7537	7729
FAPRI (2)	4970	4690	4920	4970	4870	4780	4800	4800	4710

(1) US price Iowa-Souther Minnesota, barrow and gilt price; (2) Japan, Tokyo

4.3.3 Poultry

The outlook for poultry meat appears to be the most favourable of all types of meat, with all market fundamentals expected to demonstrate strong growth. World production, consumption and trade are foreseen by most international organisations to increase over the next decade at rates well above those for beef and pig meat, though somewhat lower than during the 1980s. Whereas poultry meat benefited from some shift in consumption away from beef and pig meat as a consequence of major disease outbreaks in the short-run, the main driving forces behind long-term expansion of the poultry sector lies in its low production cost and general health considerations.

Poultry meat production and consumption is predicted to increase sharply over the next decade. The FAO and the USDA foresee a rise of around 50 %, whereas FAPRI is more moderate with an increase of about 30 % (the main difference lying on China's prospects). Production in the large producer countries (US, China, EU, Brazil) should continue to expand as domestic and global demand increases. Yet, most of the growth in production and consumption is expected in non-OECD countries. The lower price of poultry relative to other meats, combined with rising incomes in most of these countries, is expected to strengthen demand. Therefore, in many countries with a low per capita consumption, the expected improvement of the economic situation should first favour the poultry sector. In addition, consumption should also increase, though more moderately, in countries with a relatively high per capita consumption due to a shift in consumer preferences.

Table 3.20 Outlook for world poultry meat consumption, 1997 – 2005 (mio t)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD (OECD zone)	26.7	27.8	28.5	29.3	30.1	30.8	31.4		
FAO (OECD zone)	27.5	28.5	29.3	30.2	31.0	31.9	32.9	33.9	34.9
FAO	59.1	62.2	65.4	68.7	72.2	76.0	80.1	84.5	89.1
USDA	52.5	54.0	63.2	66.2	69.2	71.9	74.3	76.7	79.1
FAPRI	41.4	43.7	43.9	45.1	46.2	40.0	41.2	42.3	43.3

Since production in most of the countries with expected rapid growth in consumption (Mexico, Brazil, China, etc.) could expand at slower rates, increased demand is expected to generate a strong rise in trade (estimated at 23 % by FAPRI and 49 % by the USDA over the 1997-2005 period). Most of the growth in trade is likely to take place in lower-value poultry cuts.

Table 3.21 Outlook for poultry meat net imports for major importing countries, 1997 – 2005 ('000 t)

	1997		2005		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
FSU	1297.0	1116.0	1646.0	1213.0	349.0	97.0
China	400.0	400.0	1041.0	602.0	641.0	202.0
China-HK	251.0	215.0	400.0	246.0	149.0	31.0
Mexico	210.0	118.0	245.0	248.0	35.0	130.0
Japan	560.0	533.0	749.0	730.0	189.0	197.0
Saudi Arabia	212.0	212.0	224.0	233.0	12.0	21.0
South Korea	58.0	16.0	89.0	88.0	31.0	72.0

The USDA and FAPRI forecasts of import demand differ widely for some countries. So for example, the Chinese per capita consumption is expected to rise from 10.5 kg in 1997 to 13 kg in FAPRI estimates and 18 kg in USDA estimates. Imports from the FSU will depend on the pace of modernisation of the domestic production sector since consumption is expected to increase gradually. As already mentioned, the economic prospects in the FSU over the medium-term constitute a source of major uncertainty since they should strongly influence not only the size and composition of poultry meat imports in the FSU but also global trade.

Table 3.22 Outlook for world market prices for poultry meat, 1997 – 2005 (\$/t)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
OECD	1316	1174	1215	1218	1227	1233	1255		
FAPRI	1296	1218	1213	1218	1205	1211	1231	1239	1248
USDA	1312	1352	1363	1333	1319	1351	1383	1415	1442

Wholesale weighted average broiler price 12 cities

Poultry prices are expected to follow the evolution of feed grain prices and to remain firm over the medium-term, supported by a strong demand.

4.4 Milk and dairy products

The outlook for the world milk and dairy products market focuses on milk production in some selected countries and on some processed milk products, in particular on butter, cheese and milk powder, since only limited quantities of fresh milk are traded. Compared to other products, forecasts for the dairy sector are more limited because only few international organisations establish long-term prospects for this sector¹⁷.

In general, the available medium- and long-term studies show the same relatively favourable world market outlook as for the other agricultural products. But they also depend strongly from some key assumptions and are affected by the same major uncertainties, in particular regarding the economic situation in some regions of the world (Russia, South East Asia).

¹⁷ So, for example, even the USDA is focusing only to the US dairy market in its most recent publication on the long-term baseline projections.

4.4.1 Milk production

Stimulated by increasing consumption and higher producer prices, milk production is set to expand in a number of countries, mainly outside the OECD area and in those OECD countries that do not use production quotas. According to the FAO, world cow milk production is likely to increase by more than 60 mio t (+11.4 %) from 1997 to 2005¹⁸. The greatest increase in milk output is expected for India, some other Asian countries (China, Pakistan) and for several countries in South and Latin America (Brazil, Argentina, Uruguay, Mexico). The milk sector in Australia and New Zealand will in particular benefit from the demand growth in Asia. A quite important increase in milk production is also forecast for the US, driven by higher domestic demand and by efficiency gains resulting from the policy changes under the FAIR Act. In the countries of Central and Eastern Europe, milk production is likely to increase over the medium-term, although growth rates will differ across countries.

¹⁸ The long-term forecasts from the FAO are still provisional. Compared to the FAO, FAPRI predicts a somewhat lower increase in world milk production, but these results are covering only selected countries.

Table 3.24 World cow milk production, 1997 – 2005 (mio t)

	1997		2005		Change	
	FAO/OECD	FAPRI	FAO	FAPRI	FAO	FAPRI
USA	71.3	71.0	77.0	76.0	5.6	5.0
Canada	7.8	7.8	8.2	8.0	0.4	0.2
Australia	9.1	9.3	12.5	11.5	3.4	2.2
New Zealand	11.1	11.5	---	13.9	---	2.4
Argentina	8.9	9.2	11.9	12.1	3.0	2.9
Brazil	---	20.6	---	28.8	---	8.2
Mexico	7.9	7.8	---	9.6	---	1.8
India	34.0	34.5	42.8	46.4	8.9	11.9
Japan	8.5	8.6	8.5	8.7	0.0	0.1
China	6.5	---	10.0	---	3.4	---
World	553.0	378.2	616.2	420.9	63.2	42.7

4.4.2 Dairy products

For the period up to 2003, the OECD does not expect any significant change of dairy consumption in the OECD countries, apart from Mexico, Turkey, Japan and perhaps some Mediterranean countries. However, in nearly all countries, cheese consumption is expected to continue to increase, while consumption of butter is set to decline. By contrast, a significant increase in the overall consumption of animal products, including dairy products, is predicted for the developing countries, in particular in Asia and Latin America. This is true for all dairy products with the exception of SMP, which is declining in terms of consumption and increasingly replaced by WMP. FAO and FAPRI are sharing this view in their longer reaching forecasts, highlighting also the increase in dairy consumption mainly in Asia and Latin America, where growing population coupled with some income increases and changing dietary patterns will be the main factors underpinning rising consumption.

The strongest increase in consumption, and also in trade, is predicted for cheese, of which the bulk will occur in OECD countries, accounting for around 80 % of total world consumption. Both imports and exports of the OECD countries are expected to rise by between 12 % and 20 % over the next few years. Growing cheese consumption in the Asian region will be mainly satisfied by imports, largely from Australia and New Zealand. In Latin America, part of the increasing demand is likely to be supplied by expanding production in Argentina.

For butter, the main changes are predicted to occur in the non-OECD area, while in the OECD countries butter production should remain more or less stable and consumption is expected to continue its decline. Outside the OECD area, total butter consumption is likely to increase, but in most cases mainly due to the population growth with rather flat or even declining per capita consumption. Health concerns and competition from vegetable-based oils and solid fats are mentioned as explanatory elements. However, due to the fact that in these countries production is not able to keep pace with overall demand, some scope for additional exports from the main OECD producer countries can be expected.

Compared to other dairy products, import demand for SMP is projected to remain weak. While FAPRI expects a slight increase over the next decade, the forecasts of the OECD

indicate a decrease in total trade volumes. Some additional demand is expected to occur only in South East Asia, with Australia and New Zealand as main supplier, and North Africa. Overall, production and consumption of SMP is forecast to decline over the medium term. Increasing production in some regions (Latin America, Russia, India) will be more than compensated by decreases in the most important producer countries, such as the EU and the US.

For WMP, which is increasingly replacing SMP, the medium term prospects are much more optimistic. Increasing consumption, mainly in South and Latin America, North Africa and East Asia, which can only partly satisfied by higher indigenous production, is likely to lead to a significant expansion of world trade. Forecasts are ranging between 10 % (FAPRI) and nearly 20 % (OECD), with good exports prospects for nearly all OECD net export countries.

4.4.3 Dairy prices

Despite some differences in the forecasts, there is a common view that over the medium-term world dairy prices should in general remain above the level experienced in the early 1990s. However, only for cheese it is expected that the high prices observed in 1995 will continue over the whole forecast period. For the other products, the forecasts indicate a short-term decline compared to the year 1995 and a subsequent recovery¹⁹.

These relatively optimistic price forecasts are explained by the growing import demand, mainly in non-OECD countries, and lower subsidised exports from main players on world dairy markets. The likely impact from both factors is expected to be somewhat tempered by the rising world milk production.

Table 3.25 World market prices for selected dairy products, 1997 – 2005 (\$/100 kg)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Butter									
OECD (1)	179	179	175	167	166	171	176		
FAPRI (1)	172	185	188	189	190	192	194	196	197
SMP									
OECD (1)	176	169	172	182	195	198	200		
FAPRI (1)	174	163	176	182	187	190	195	202	211
WMP									
OECD (1)	185	181	181	185	192	195	198		
FAPRI (1)	183	187	197	203	206	208	211	216	222
Cheese									
OECD (2)	220	216	215	218	225	230	235		
FAPRI (2)	243	247	250	252	251	251	252	255	258

(1) F.O.B. export price, northern Europe

(2) F.O.B. export price cheddar cheese 40lb blocks, northern Europe

¹⁹ The most important exception from this general tendency are the OECD forecasts for the butter price, which is expected to lack behind the price evolution for other dairy products. However, the OECD forecasts are not yet reflecting the situation in 1998 with extremely high US butter prices and their influence on world markets.

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METHODOLOGICAL ANNEX

A. Macro-economic variables

The Directorate-General for Economic and Financial Affairs -DG II- and the Statistical Office -EUROSTAT- of the European Commission are the source for historical data and forecasts for the exogenous variables, such as inflation, GDP growth, Ecu/\$ exchange rate and population. In some cases DG VI-A2 estimates have been added.

B. Arable crops

1. Arable crop supply

1.1 Area

Area forecasts are based on the allocation of the base areas as defined in the Council Regulation 1765/92 (et al.) for EUR 12 and EUR 3. This “total base area”, upon which compensatory payments are granted, amounts to 53.5 mio ha. It is distributed among the arable crops covered by the 1992 reform (i.e. cereals, oilseeds, protein plants, non-fibre flax seeds), land set-aside (on a voluntary or compulsory basis) and fodder areas under the beef premium regime.

Overall use of the base area

The base area allocation takes into account two phenomena that have been observed over the 1993-1997 period: firstly, some **systematic under-utilisation** of the base area and, secondly, the existence of **some areas grown without the request of subsidies**. On the basis of historical trends and market expert judgement, both have been set at 1.67 mio ha, so that their net impact on the allocation of the total base area is neutral.

Set-aside of land

Compulsory set-aside is set at 5 % in 1998/99, 10 % in 1999/2000 and then from 2000/01 onwards to its base rate of 17.5 %. Total land set-aside is calculated on the basis of the total area under the general scheme. This area has been steadily increasing over the 1993-1997 period: from 30 mio ha in 1993/94 to 39.9 mio ha in 1997/98. This evolution reflects a combination of structural and policy factors. On the one hand, there is the on-going process of structural adjustment, with even larger area grown by “professional producers”. On the other hand, the incentive for arable producers to remain under the “small producers” regime declined following the regular decrease in the rate of compulsory set-aside. Over the forecast period, it is assumed that the structural adjustment will continue, but from 2000/01 onwards its impact on the total area under the general scheme will be compensated by the impact of the increase in the rate of compulsory set-aside. Therefore, land under the compulsory set-aside will expand to around 4 mio ha in 1999/2000 and to 7 mio ha from 2000/01 onwards, as compared to around 2 mio ha in 1997/98 and 1998/99.

Voluntary set-aside is assumed to adapt to changes in the rate of compulsory set-aside. It will increase from 2 mio ha in 1997/98 to 2.2 mio ha in 1998/99. Then, it is expected to

decrease to 1.5 mio ha in 1999/2000 and to 0.5 mio ha from 2000/01 onwards, in line with the increase in the rate of compulsory set-aside.

Protein plants, non-fibre flax seeds and silage crops

Areas cultivated for protein plants, non-fibre flax seeds and silage crops have been estimated on the basis of market expert judgement. They are expected to decline slightly in the context of a higher set-aside rate to reach respectively 1.2 mio ha, 0.15 mio ha and 4.2 mio ha from 2000/01 onwards (compared to 1.4 mio ha, 0.22 mio ha and 4.5 mio ha in 1997/98).

Cereals and oilseeds

The base area not covered by the above-mentioned crops or set-aside will be grown either with cereals or oilseeds. The area allocation between the different types of cereals and oilseeds is operated on the basis of a system of econometric models. These econometric models cover not only the period before the 1992 CAP reform but also the after-reform period for EUR 12 and EUR 3. These models simulate the historical producer's behaviour and their adjustment to relative price changes. Equations are specified for each main cereal and oilseed type, namely soft wheat, durum wheat, barley, maize and "other cereals" (mainly oats, rye and triticale), rape seeds, sunflower seeds and soya beans.

Oilseeds area is assumed to respect the limits fixed by the GATT (Blair House) agreement. These limitations correspond to a base area of 5.482 mio ha, to which the annual rate of set-aside for arable crops has to be applied (however, the reduction of the separate oilseed base area cannot be of less than 10 %). The resulting area is then allocated to rapeseed, sunflower seed and soya beans (excluding "non-food" oilseeds). Account is also taken of the oilseeds area grown by the so-called "small producers" that are exempted from set-aside obligations and the Blair House agreement. This area is expected to represent around 0.1 mio ha.

1.2 Yields

Yields are forecast on the basis of linear trends over the 1983-1995 period for each type of cereals. Oilseed yield trends are computed over a more recent period in order to take account of the more positive developments observed over the last few years, after their decline in the wake of the reform of the sector in the late 1980s.

2. Cereal demand

Cereal demand is forecast per type of cereal and use (feed, food and other uses), using several models. In general, these models are based on the consumer price changes of cereals and of their substitute products, forecasts of animal production and GDP growth, changes in feed conversion rates and trends observed in the past.

3. Balance sheet

The cereal balance sheets resume the forecast results for production, consumption and external trade. The disposable surplus that balances these items is attributed either to private

or to public (intervention) stores, with private stockholding set at 12 % of total consumption, which corresponds to around six to seven weeks of consumption.

4. Cereals and oilseeds prices

Cereal prices are computed on the basis of the balance between supply and demand for each type of cereal. Forecasts for world oilseeds prices are taken from the FAPRI baseline projections published in March 1998.

C. Meat and livestock

1. Beef supply and demand

The long-term prospects for beef have been obtained on the basis of the results from several approaches. Econometric and statistical models on cyclical production and the long-term evolution of consumption form the basis of the forecasts. However, since the BSE crisis is expected to affect the short-term production and consumption patterns, some additional simulations have been carried out. They mainly concern the evolution of consumption and the impact of the emergency measures on production adopted in October 1996.

Beef supply

Forecasts on **beef supply** are based on different models of the beef production cycle, of which the statistical one follows the traditional approach of analysing and separating the different components in beef production, i.e. the seasonal pattern, the cyclical movement and the long-term tendency. A more sophisticated econometric approach takes account of additional elements from the beef market, such as market prices, feeding costs and assumptions on the evolution of the cow's herd. The combination of these models form the "baseline projections", which are then used as a reference for adjustments in order to incorporate the potential impact of the BSE crisis and the support measures which have been adopted. These adjustments cover:

- The effect of the different slaughter programs in several Member States, and in particular the UK with the "Over-Thirty-Months-Scheme (OTMS), which is expected to be applied for six years. The estimates are mainly based on administrative data on the working of this scheme and on rough assumptions on the average slaughter weight per category of animal. The impact is quantified at around 320 000 t in 1996, 220 000 t in 1997, 196 000 t in 1998 and about 190 000 t from 1999 onwards until the year 2001;
- The estimated impact of the measures the Council decided in October 1996 in order to limit beef production in the short-term. They concern in particular the calf processing scheme (for beef and dairy calves) and the early marketing scheme for veal calves. It is assumed that both measures are applied as foreseen, i.e. until November 1998. Processed or diverted calves (from beef to veal production, in order to compensate for the reduced slaughter weights of veal calves) are assumed to have an impact on beef production over

the two following years. Like for the OTMS, the potential impact is estimated on the basis on administrative data on the working of both schemes and assumptions on normal average slaughter weights.

The net impact of these types of measures has been deducted from the potential beef production obtained from the baseline projection.

Beef demand

The forecasts for beef/veal **consumption** are based on an econometric model covering also other types of meat (mainly pig meat and poultry), taking into account not only the evolution of consumer prices for beef, pig meat and poultry but also other variables, such as the disposable income of consumers. The obtained results, which show a long-term declining tendency for beef/veal consumption, form the “baseline projections” before adjustments in order to incorporate the (observed and further expected) impact of the BSE crisis. The adjustments are based on the assumption that beef/veal consumption will gradually recover from the big drop in 1996 towards its long-term trend by the year 2001. This year has been retained to be coherent with the assumptions made on the supply side. From 2002 onwards, beef consumption is assumed to once again follow the long-term tendency estimated in the “baseline projections”.

2. Pig meat, poultry and sheep/goat meat

Forecasts for **pig meat and poultry** production were obtained on the basis of demand forecasts and assumptions on net external trade, taking into account the GATT constraints on subsidised exports and expert judgements on the level of non-subsidised exports that can be realised. In both cases, a rather cautious approach has been retained, i.e. the expected level of unsubsidised exports has been set in function of the volumes currently realised. The forecasts on internal demand are coming from the same econometric model on meat demand that has been used for the beef consumption forecasts. However, as for beef, results from this model have been adjusted in order to take account of the impact of the BSE crisis.

A different approach was followed for **sheep/goat meat** due to the specific characteristics of the sector. Production is mainly determined by the ewe premium system, although some adjustments may apply to changes occurring on the demand side, taking into account the quite substantial import volumes.

D. Milk and dairy products

1. Milk supply and dairy herd

EU cow **milk production** is to large extent determined by the milk quota system, which fixes reference quantities for deliveries to dairies and direct sales from farms. In addition, a reference fat content for delivered milk has to be taken into account. The long-term forecasts are based on the assumption that milk quotas will remain unchanged during the whole forecast period (status-quo scenario) and that actual delivery will adapt to the fixed milk

reference quantities. The fat content in the delivered milk is assumed to increase further slightly, reducing the physical quantities of milk that can be delivered to dairies without penalty in the form of the “additional levy”. Furthermore, the delivery ratio (the share of delivered milk with respect to total production) is expected to continue its slight increase, as in the past.

The forecasts on the **number of dairy cows** are derived from the forecast results on milk production, assuming an increase in milk yields fixed at 1.75 % yearly. This figure is based on historical trends.

2. Dairy product balance sheets

The balance sheets for the three most important dairy products (cheese, butter and skimmed milk powder) take into account import and export commitments under the GATT agreement and also granted improved market access under other agreements. It is assumed that **production** of these products is essentially demand-driven (internal and exports), but some adjustments have been made in order to incorporate likely responses within dairy manufacture due to the GATT constraints in the cheese sector. Therefore, butter and skimmed milk powder production forecasts incorporate some residual elements. The adjustments made are checked against a calculated global balance of milk used in dairies. The forecasts on **internal demand** for the different dairy products are mostly based on historical trends, adjusted if necessary in order to take into account changed short-term consumption patterns.