European Commission
Directorate-General for Agriculture

CAP Reports

Prospects for agricultural markets 2002 - 2009

June 2002

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PROSPECTS FOR

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NOTE TO THE READERS

The medium-term perspectives presented in this publication consist of a set of market projections elaborated on the basis of specific assumptions regarding macro-economic conditions, the agricultural and trade policy environment, weather conditions and international market developments. They 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, which at the time of projections were judged plausible. As such, they should be seen as an analytical tool for medium-term market and policy issues, not as a short-term forecasting tool for monitoring market developments and addressing short-term market issues.

This report is based on the statistical information available in April 2002. The implications of the new US Farm Bill, the Farm Security and Rural Investment Act of 2002, have not been incorporated into the present analysis. An update of the medium-term projections for the EU will be provided shortly in the light of the projected impact of the US Farm Bill on the world agricultural markets.

Table of contents

Foreword

The Directorate-General for Agriculture of the European Commission has published in recent years an overview of market trends and medium-term projections of supply and demand for the main agricultural commodities. This publication provides a picture of the likely developments of agricultural markets up to 2009, based on a certain number of assumptions and on the statistical information available in April 2002.

This report contains three chapters. The first chapter centres on the market prospects by the year 2009 within the EU and covers the following products: cereals, oilseeds, rice, meat, milk and the main dairy products. Chapter II provides a description of the likely prospects of agricultural markets in the ten Central and Eastern European Countries, which are candidates for accession to the EU. Finally, a presentation of the medium and long-term prospects of agricultural world markets, based on reports and projections established by various international organisations and institutes, is given in chapter III.

List of acronyms and abbreviations

ACP	Africa -Caribbean-Pacific countries
Bio	Billion
BSE	Bovine Spongiform Encephalopathy
CAP	Common Agricultural Policy
Cap.	Capita
CEECs	Central and Eastern European Countries
CIF	Cost-Insurance-Freight
Cwe	Carcass weight equivalent
DG AGRI	Directorate-General for Agriculture
EBA	"Everything But Arms" Initiative
EU	European Union
EUROSTAT	Statistical Office of the European Communities
FAIR	Federal Agriculture Improvement and Reform (US)
FAO	Food and Agriculture Organisation of the United Nations
FAPRI	Food and Agricultural Policy Research Institute
FMD	Foot-and-Mouth Disease
FOB	Free-On-Board
FSU	Former Soviet Union
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
Ha	Hectare
IGC	International Grains Council
IMF	International Monetary Fund
Kg	Kilogram
LDCs	Least Developed Countries
LFA	Less Favoured Areas
Lw	Live weight
Mio	Million
NAFTA	North America Free Trade Agreement
OCT	Overseas Countries and Territories
OECD	Organisation for Economic Co-operation and Development
OTMS	Over Thirty Months Scheme

SAPARD	Special Accession Programme for Agricultural and Rural development
SMP	Skimmed Milk Powder
SRM	Specific Risk Material
T	Metric tonne
TRQ	Tariff-Rate Quota
URAA	Uruguay Round Agreement on Agriculture
US	United States of America
USDA	United States Department of Agriculture
WMP	Whole Milk Powder
WTO	World Trade Organisation

Summary of the projections

Chapter I Prospects for agricultural markets in the European Union

Introduction

This chapter summarises the main results and underlying assumptions of medium-term projections for some key agricultural products in the European Union for the period 2002 - 2009. The results presented are **based on the statistical information available in April 2002.**

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 assumptions concern agricultural and trade policies, as well as the evolution of the $/€ exchange rate:

(1) All policy instruments and measures are expected to operate under the current rules or within the changes already decided by the end of April 2002 for the 2002-2009 period. In that perspective, the implementation of the **reform of the Common Agricultural Policy** adopted in the framework of **Agenda 2000** is fully taken into account from 2000 onwards. By contrast, the implications of the new **US Farm Bill, the Farm Security and Rural Investment Act of 2002,** have not been incorporated into the present analysis.

(2) **It is assumed that all commitments taken within the Uruguay Round Agreement on Agriculture (URAA), regarding in particular market access and subsidised exports will be fully respected.** Thus, subsidised exports are expected not to exceed the annual URAA limits, whereas imports under current and minimum access are fully incorporated. **In addition, the URAA commitments are assumed to remain unchanged over the 2002-2009 period**.

(3) The trade agreements that have been concluded by the EU, notably with the LDCs and with the 10 CEECs candidate countries until April 2002 have been taken into account in these market projections. **They mainly concern the EBA initiative** with duty-free and quota-free market access on all products, except arms, originating in the LDCs and the **"double-zero"** agreements with the 10 CEECs candidate countries.

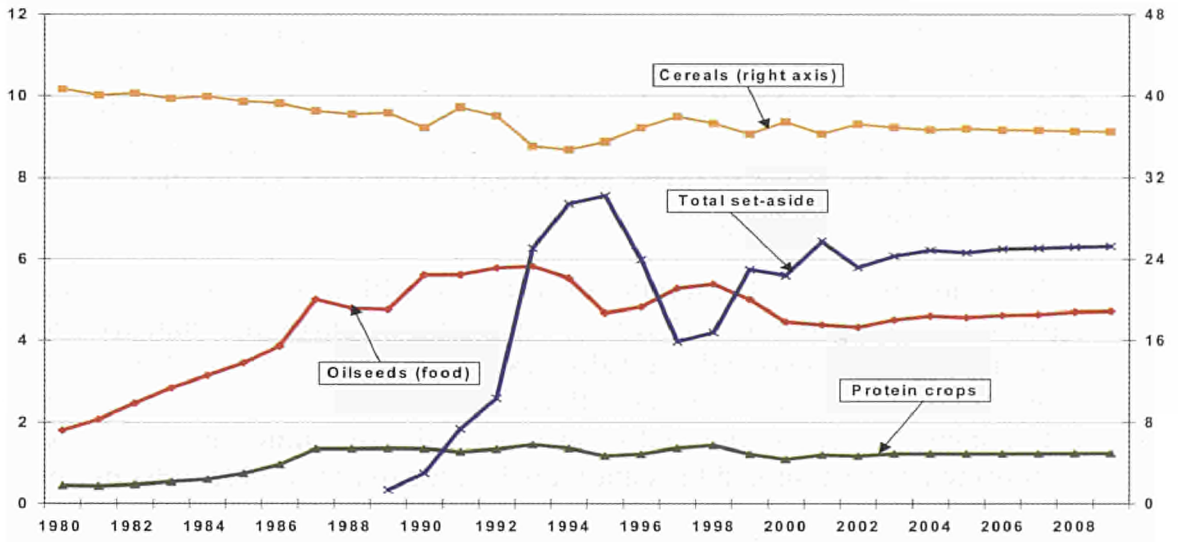
(4) After trading at low level against the US dollar in 2001, the **euro** is assumed to strengthen over the medium term as the impact of the short-term factors contributing to the current strong depreciation of the euro may be expected to weaken. The **$/€ exchange rate** would rise from 0.91 in 2002 to 0.95 in 2003 and would appreciate further towards **parity by 2006**.

Arable crops

Cereals

In the framework of a *status quo* policy, the medium-term projections depict an outlook for the EU cereal markets that would appear rather favourable for most EU cereals, with the noticeable exception of rye and –to a lesser extent- barley. In spite of a further expansion in cereal production, total cereal stocks would remain constrained at reasonable levels for most of the projection period as the full implementation of the Agenda 2000 CAP reform would strongly improve cereal competitiveness on both the internal and external markets. This outlook relies on the expected recovery in world cereal markets and the assumption of a relatively favourable currency environment -in comparison with historical developments- that would also contribute significantly to the overall balance of EU cereal markets. However, after the reduction in cereal support prices and the renewed shift in agricultural support further away from direct price support towards direct payments under Agenda 2000, the relative stability of EU cereal markets becomes increasingly dependent upon the developments in world market prices and in the $/€ exchange rate.

Graph i Outlook for arable land allocation in the EU ('mio ha), 1980-2009



In 2001, total cereal area dropped to 36.3 mio ha owing to the difficult climatic conditions at sowing times and, to a lower extent, to the recovery in oilseed prices. The return to a normal climatic situation and the third cut in direct payments in the oilseed sector are foreseen to generate a swift rebound in **total cereal area** in 2002 to 37.2 mio ha. Cereal area would also benefit from market prices above support levels for common wheat, maize and durum wheat and by the return of voluntary set-aside to more normal levels.

From 2003 onwards, the overall decline in average cereal prices –concerning especially feed cereals- and improved price prospects for oil-rich oilseed prices (i.e. sunflower and rape seed) would entail a slow decline in total cereal area of around 0.7 mio ha over the next seven years as direct payments are fully harmonised across arable crops.

Total cereal area would gradually decrease to 36.5 mio ha by 2009. These overall developments would not be uniform across cereals as **wheat** and **maize** would mainly gain with an area increase estimated in 2009 at around 3-4 % relative to the average

1999-2000. By contrast, less favourable profitability perspectives would affect barley area that would exhibit a 9 % drop by 2009/10.

Yield trends observed since the mid-1980s are assumed to continue over the projection period, although at a lower rate (around 1.1 % per annum). Average cereal yields would reach 6.20 t/ha in 2009/10, with the highest increases for maize, soft wheat and rye. After a record cereal crop at 213.7 mio t in 2000, **total harvested cereal production** is estimated to drop below 200 mio t in 2001/02. It would then bounce back from 2002/03, driven by increasing yields that would largely more than compensate the gradual fall in total cereal area and expand significantly over the medium term to reach 226.5 mio t in 2009/10.

Owing to higher area and yield projections (2 % and 12 % respectively as compared to 1999-2000), **common wheat production** would rapidly expand over 100 mio t and reach a historical high of 106 mio t in 2009. In contrast, **coarse grain production** would fall in the short term from the high levels recorded in 2000, before rising slowly to approximately 111 mio t by 2009/10 as yield growth would somewhat outpace the slow decline in area.

The reduction in the cereal support prices following the implementation of Agenda 2000 and its translation into lower market prices for feed cereals would combine with the moderate recovery in the prices of the oilseed complex to boost cereal competitiveness and to generate a significant increase in domestic demand for cereals. **Total cereal demand** is projected to increase steadily over the medium term, from 186 mio t in 2000/01 to 200 mio t in 2009/10. This 14 mio t growth in cereal demand would be broadly shared between feed and non-feed uses. **Total cereal feed usage** would continue to increase over the medium term to reach 124.4 mio t by 2009/10, though at a **much more moderate pace than after the 1992 CAP reform** due to slower projected growth in meat production and lower gains in the price competitiveness of cereals. **Total cereal non-feed uses** are also foreseen to rise by some 7 mio t, from 69 mio t in 2000/01 to 76 mio t in 2009/10 driven mainly by industrial demand (especially soft wheat).

The implementation of Agenda 2000 CAP reform and the projected decline in average cereal prices in the EU would combine with a moderate recovery in world cereal prices and a sustained increase in world cereal import to **improve EU cereal competitiveness** and set the stage for a **sustained recovery in EU cereal exports** over the next seven years. These favourable perspectives for EU cereal exports would be reinforced by a relatively favourable $/€ exchange rate that is anticipated to further enhance the ability of the EU to export beyond its URAA limits on subsidised exports.

After a first fall in 2000/01 to 28.7 mio t from a high of 36.9 mio t in 1999/00, **total EU cereal exports** are estimated to decline dramatically in 2001/02 to 17.5 mio t. Over the medium term, they are projected to recover substantially -driven by wheat exports- thanks to greater availability and exceed the annual limit for subsidised exports set by the URAA as durum wheat, some common wheat and barley/malt would be exported without subsidies (these projections for cereal exports remain conditional upon an export policy that ensures the full use of the URAA limits).

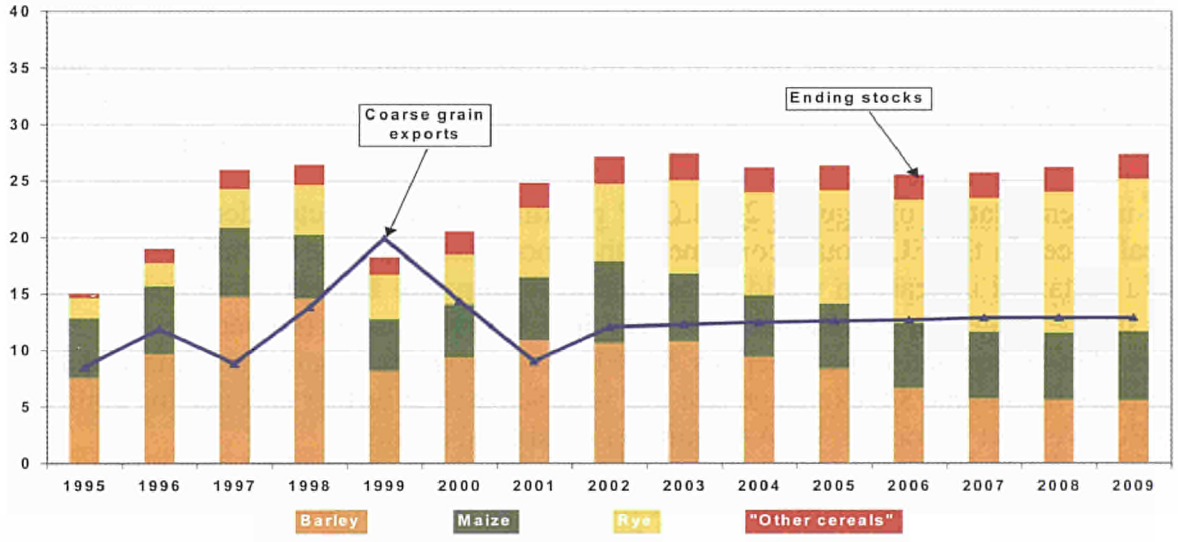
Total cereal imports are estimated to almost double in 2001/02 to reach 11.9 mio t, with 8.5 mio t in wheat (of which 1.5 mio t of durum wheat), turning the EU into the world's largest wheat importer in 2001/02. This situation results from a combination of short-term factors, including a relatively low wheat crop in the EU, very low or even nil import duties and very large export supplies available in Russia, Ukraine and in some Eastern

European countries at extremely competitive prices. Over the medium term, the existence of large exportable surplus from the Black Sea region is not expected to consistently stay at present levels. Total cereal imports are foreseen to fall to approximately 8.0 mio t in the near term, still above the most recent averages, and to remain relatively stable over the medium term.

Although short-term developments are expected to remain dominated by the existence of large cereal stocks, the medium-term outlook tends to display a **rather favourable situation for the EU cereal markets** with **total cereal stocks** broadly constrained at reasonable levels for most of the projection period. After a short-term increase at around 43 mio t, total cereal stocks would slowly decline until 2006/07 as the expansion in cereal production would be somewhat limited by the increase in voluntary set-aside and oilseed production, and mainly absorbed by a growing domestic feed demand and higher exports. From 2006/07 onwards, total cereal stocks would resume growing slowly to reach 40 mio t by 2009/10, about 13 mio t of which will be in public stores (practically all in rye).

The markets for soft wheat, durum wheat and maize would continue to remain rather tight. Despite an increase in production levels, these cereals would benefit from a steady growth in domestic and/or external demand, which is foreseen to keep their market prices substantially above support levels. The **barley market** would improve gradually and become broadly balanced around 2006/07, when the slow decline in production levels and the prospects for sustained exports outweigh the erosion of barley's share in the feed market.

Graph ii Allocation of the coarse grain production surplus in the EU, 1995/96 – 2009/10 (mio t)



In contrast to other cereals, **the market for rye in the EU is foreseen to display a continuous and structural imbalance** as the potential for adjustment in the supply and demand of this cereal remains largely constrained by its relatively high market prices and lack of market outlets. Limited import demand on the world market, low price competitiveness on both the external and domestic markets, feed nutritional limitations and a stagnating domestic human demand in the EU are all foreseen to make public stores an increasingly attractive outlet for the domestic surplus of this cereal. The latter, estimated at approximately 0.9 mio t, is projected to accumulate over the whole period and entail a gradual increase in total rye stocks that would reach 13.5 mio t in 2009/10, of which 12.8 mio t in intervention stocks.

Oilseeds

The medium-term prospects for the oilseed sector show a significant improvement in the **production potential of oilseeds** in the EU over the medium term as they would benefit from productivity increases and **improved price prospects**. World prices of oilseeds and oilseed products are projected to strengthen over the medium term fuelled by an improved demand, notably for vegetable oil that should translate into a stronger pattern for oil-rich oilseeds. Higher demand –in particular from the livestock sector- would generate an increase in the consumption of oilseeds and oilseed products that should however remain rather moderate due to the greater competitiveness of EU cereals.

After a marked fall of around 0.5 mio ha in 2000, the **"food" oilseed area** is estimated to have stabilised in 2001 at 4.4 mio ha. In spite of high market prices, total food oilseed area is projected to decline further in 2002/03, when it would bottom out at 4.3 mio ha with the full implementation of the Agenda 2000 CAP reform. Total food oilseed area would then rebound to 4.5 mio ha in 2003/04 before gradually increasing to 4.7 mio ha in 2009/10.

Soybean and **rape seed area** is expected to fall by 32 % and 14 % respectively in 2002/03 relative to 1999/00, before recovering beyond 300 000 ha and 2.4 mio ha respectively over the medium term. After a short-term moderate decrease, **sunflower seed area** is foreseen to slowly increase below 2.0 mio ha until the end of the period on account of favourable prices. Non-food oilseed area is estimated to adapt to the level of the set-aside rate and to stagnate at around 0.9 mio ha over the 2001/02–2009/10 period (mainly rape seed).

Despite a certain decline over the last two years, **oilseed yields** are expected to resume their increase in the medium term and reach 2.8 t/ha on average in 2009/10, i.e. an average annual growth of 1.1 % between 2002/03 and 2009/10. After falling for two consecutive years, **oilseed (food) production** is projected to increase slightly over the medium term to reach 13.5 mio t in 2009/10 as yields resume rising and oilseed area recovers. Non-food oilseed production would evolve together with the level of set-aside and stabilise around 2.6-2.7 mio t over the medium term.

Prospects of higher demand for marketable feed products from the livestock sector would generate over the medium term an increase in the **demand for oilseeds and oilseed products** in the EU. Notwithstanding the impact of the ban on the use of meat and bone meal in animal feed, this increase in the consumption of oilseeds and oilseed products should remain rather moderate as these protein-rich feed products would face greater competition from EU cereals. Given the medium-term perspectives for oilseed production in the EU, this demand should give rise to a slight increase in imports.

Rice

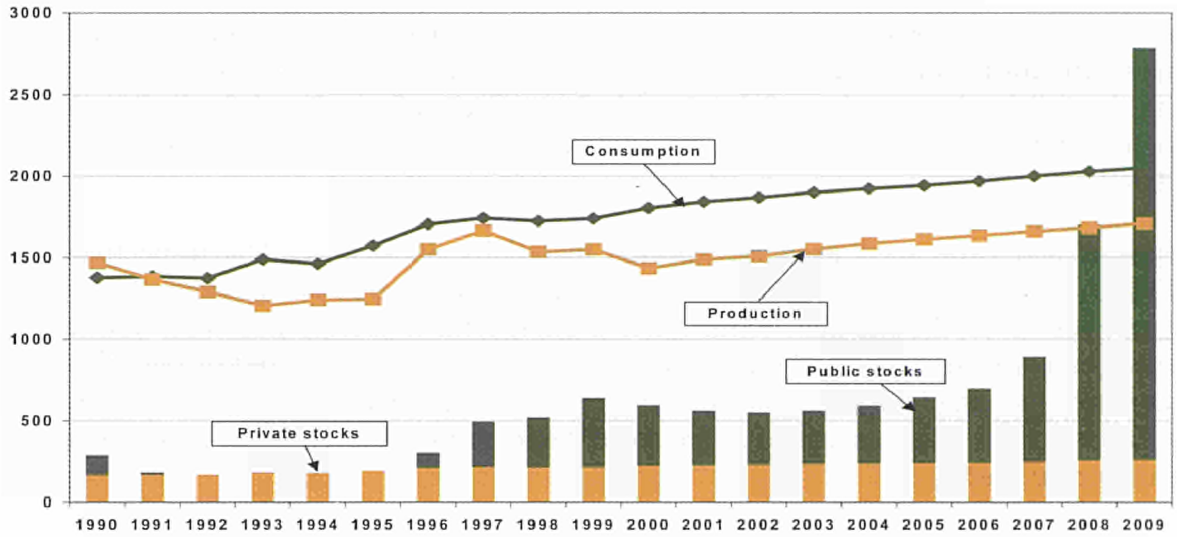
The combined impact of a strong increase in rice production during the most recent years –in particular in 1996/97 and 1997/98- and a swift rise in rice imports resulted in a rapid build-up in public stores which stood at more than 600 000 t of paddy rice at the beginning of the 2001/02 marketing year. In spite of a modest short-term improvement, the current global market imbalance is forecast to weigh heavily on the medium-term prospects of the sector which are expected to demonstrate a gradual deterioration until 2006/07.

The progressive reduction in tariff for rice imports from LDCs adopted in the EBA initiative is then foreseen to dramatically worsen the overall outlook as EU domestic

demand would become increasingly -and by the turn of the decade almost entirely- satisfied by more competitive imports from these countries, generating a rapid, dramatic and unsustainable increase in public stores.

However, these global perspectives mask widely diverging trends between japonica and indica rice markets. Unlike historical developments in the sector, indica rice is projected to display a growing role over the medium term both on the supply side (in terms of area allocation and yield developments) and on the demand side (in terms of consumer preference).

Graph iii Outlook for the EU rice market ('000 t of milled equiv.), 1990/91-2009/10



But the steady increase in domestic consumption of indica is not foreseen to meet the pace of a rapidly expanding availability -fuelled by an increasing production and the regular rise in imports- and the indica market would exhibit a growing imbalance. By contrast, the outlook for the japonica market would benefit from the continuation of the improvement in the overall market balance which started in 2000/01 as total production would stabilise at levels close to domestic and external demand. But there again, the implementation of the EBA initiative is expected to strongly deteriorate the overall market situation from 2008/09 onwards.

Uncertainties

These projections for the EU cereal, oilseed and rice markets are based on a number of assumptions regarding future economic and market developments. In that respect, they are subject to some uncertainties that could have significant implications for the EU arable crop markets, notably the future developments on the **world cereal, oilseed and rice markets**, the medium-term outlook for the **€/$ exchange rate** and **the impact of existing and future trade agreements**. Furthermore, the implications of the new **US Farm Bill, the Farm Security and Rural Investment Act of 2002,** have not been incorporated into the present analysis. Any change in any of these assumptions could significantly alter the medium-term perspectives. A sensitivity analysis shows that if a weaker € environment would not drastically change the overall market perspectives for the arable crop sector, a stronger € (i.e. a $/€ exchange rate rising to 1.1 by 2005 and then stabilising at that level) would in contrast generate a negative impact, with in particular a further increase in total coarse grain stocks of around 19 mio t (concerning mainly barley and –to a lesser extent- rye).

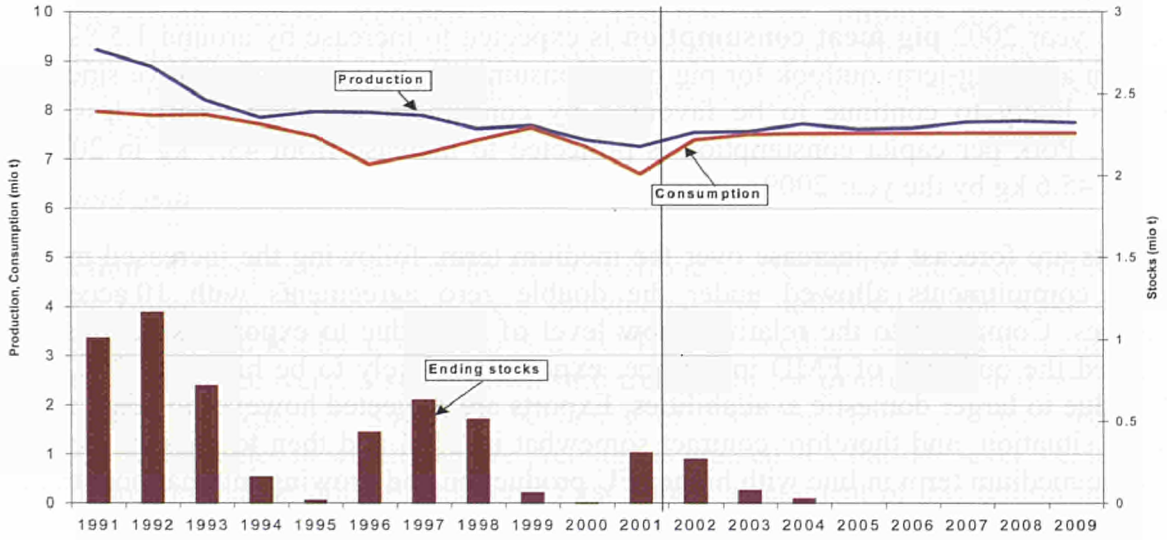
Meat and livestock

Beef and veal

Since the beginning of the second BSE crisis in October 2000, new measures have been taken in order to reduce the growing gap between supply and demand and to reassure the consumers concerning the increased safety standard of EU beef meat. During the year 2001 and the beginning of 2002, supply-side measures like the "Purchase for Destruction" scheme and the "Special Purchase" scheme withdrew and destroyed the meat of around 1.1 mio animals. Furthermore the culling linked to the appearance of outbreaks of Foot and Mouth disease (FMD) in the UK, the Netherlands, France and Ireland concerned around 850 000 cattle, essentially in the UK. As a result, and in the presence of a smaller *backlog* of animals than previously announced, **beef production** for the year 2001 dropped to 7.26 mio t, -1.8% compared to the low level of 2000.

However, even with those measures in place, the dramatic drop in **beef consumption**, which fell by around 12% compared to 1999 levels, put strong pressure on prices, which dropped below intervention level and even below the safety net (for a short period and only in Germany and the Netherlands). At first, intervention stocks grew rapidly and reached around 259 000 t by mid December 2001. The situation has showed signs of recovery since March 2001 and beef prices have continued to improve to reach around 90% of intervention level by the end of the year (except for cow meat, where prices remained low throughout the year 2001).

Graph iv Outlook for the EU beef market (mio t), 1991-2009



Net production is estimated to increase in the year 2002 and 2003, as beef production returns to more normal conditions, with improved prices and no destruction schemes in place after March 2002 (except for the OTMS in the UK, which is assumed to be maintained until Spring 2004). However, the estimated impact of some of the special measures decided in June 2001 as part of the beef plan has been taken into account, notably the reduction of the stocking density rate and some temporary measures in the suckler cow premium for 2002 and 2003. Beef and veal production is therefore estimated to increase up to 7.7 mio t. in 2004 and then decrease slightly in the following years as the beef production cycle reaches its minimum by the year 2005/06 at around 7.6 mio tons. Beef production should then slightly increase to reach 7.75 mio t by 2009.

The lower production in 2001, the assumed prolongation of the OTMS scheme in UK, the quick recovery in beef meat consumption and the impact of the special measures taken in 2000 and 2001 indicate that the balance of the EU beef market is likely not to worsen in the next few years. **Intervention stocks** could be cleared already in 2003 and no buying-in is expected over the forecast period. Variations in **exports** would be expected to be sufficient in order to cope with the cyclical up and down in production.

Pig meat

At the beginning of 2001, the outbreak of FMD in UK and then in Ireland, France and the Netherlands also perturbed the pig meat sector. Animals slaughtered and destroyed for sanitary reasons in the areas touched by the outbreaks (around 580 000 pigs were slaughtered and destroyed in the FMD containment and Livestock Welfare Disposal Scheme in the UK) affected **pig meat production** in 2001, which reached just over 17.5 mio tons. Pig meat production is expected to increase by around 2 % in 2002, following the positive developments of producer prices and margins over the last year and taking into account the negative impact of the recent sporadic outbreaks of swine fever in Spain, Germany, Luxembourg and France. However, a part of the anticipated increase in production will take place in 2003, which is foreseen to reach 18.1 mio t (+1% compared to the previous year). Over the long term, there is a certain scope for further expansion, but at a slower rate than in the past. Pig meat production, which is assumed to be driven mostly by demand (internal and external) is, thus, projected to continue its growth and reach around 18.7 mio t by the end of the forecast period.

The drop in beef per capita consumption, which has been recorded since November 2000, had a positive impact on pig meat consumption (but clearly less than on poultry). For the year 2002 **pig meat consumption** is expected to increase by around 1.5 %. The medium and long-term outlook for pig meat consumption is in general positive since pig meat is likely to continue to be favoured by consumers, although clearly less than poultry. Pork per capita consumption is projected to increase from 43.7 kg in 2001 to around 45.6 kg by the year 2009.

Imports are forecast to increase over the medium term, following the increased market access commitments allowed under the double zero agreements with 10 accession countries. Compared to the relatively low level of 2001 due to export restrictions that followed the outbreak of FMD in Europe, **exports** are likely to be higher in 2002 and 2003, due to larger domestic availabilities. Exports are projected however to adapt to the supply situation, and therefore contract somewhat in 2004 and then to slightly increase over the medium term in line with higher EU production and growing international trade.

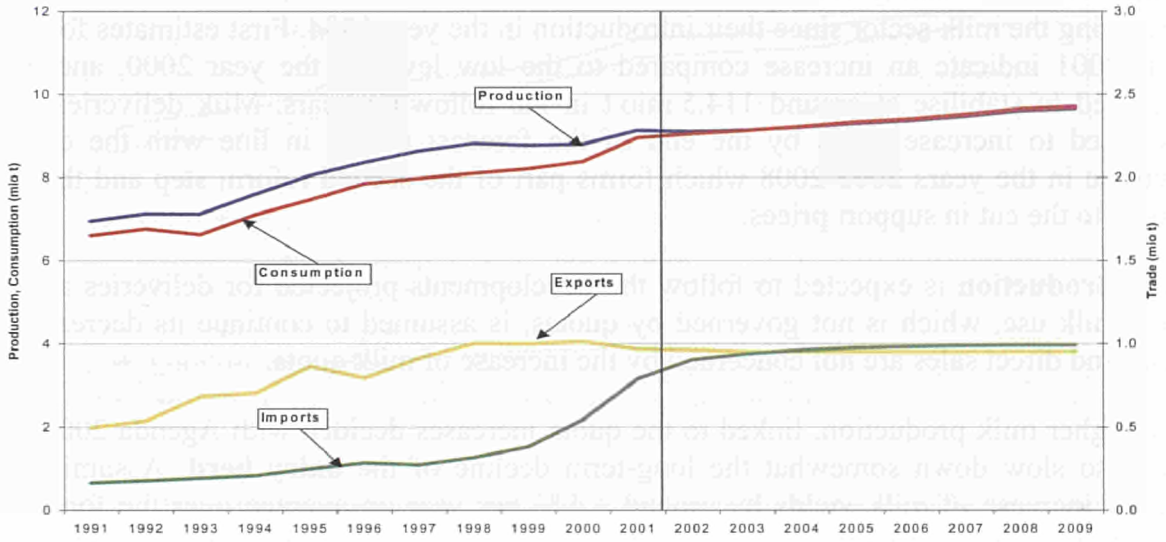
Poultry

The new BSE scare in the beef sector, which, like in the 1996 crisis, was translated into a switch in demand towards other kinds of meat, has mostly benefited the poultry sector (consumption increased by 6.8% in 2001 compared to 2000). **Poultry production** was much quicker than pig meat to respond, with an increase estimated at around +3.7 % in 2001 compared to the previous year.

In the medium and long term, the outlook for poultry production is relatively less positive than in the past. The recent strong increase in poultry imports (+407 000 tons between 1999 and 2001) clearly undermines the EU production potential, as most of the consumption growth is satisfied by imported poultry meat from Brazil and Thailand. Furthermore, more and more traditional EU export markets are being taken over by the

very same competitors on the world poultry meat markets, limiting our export possibilities.

Graph v Outlook for the EU poultry market (mio t), 1991-2009



Competitive prices with respect to other meats and strong consumer preference should, however, continue to play in favour of poultry. Per capita **consumption** is projected to increase from 23.7 kg in 2001 to around 25.2 kg by the year 2009. This evolution is in line with the long-term growth of consumption that has been observed in the past.

After the strong increase recorded over the last few years, **imports** are assumed to continue to increase, but at a lower pace, over the medium term. This continued increase in poultry imports is expected to lead, over the next few years, to a position where the **EU may become a net importer of poultry meat**.

Sheep and goat

Production of sheep/goat meat in the EU was strongly affected by the Foot and Mouth epidemic (more than 5 mio sheep were slaughtered and destroyed in the wake of the FMD epidemic) and fell by around 9.6 % in 2001. In the medium and long term, after an expected gradual recovery, a slight downward trend both for **production** and per capita **consumption** is expected. Since the beginning of 2002 the sheep and goat sector is governed by new rules in which the ewe premium is granted at a flat-rate level, i.e. it is no longer linked to market price fluctuations. First impact assessment of this reform indicate that, with the current high price level and a predictable direct payment there would be an incentive to re-stock the sheep flock after the FMD epidemic.

Sheep and goat **imports** could increase slightly in response to somewhat better use of market access commitments granted to some third countries as well as the possible impact of increased quotas under the double zero agreement with 10 CEECs.

Milk and dairy products

Milk

Milk deliveries mainly reflect the evolution in the milk reference quantities that are governing the milk sector since their introduction in the year 1984. First estimates for the year 2001 indicate an increase compared to the low level of the year 2000, and are expected to stabilise at around 114.5 mio t in the following years. Milk deliveries are projected to increase again by the end of the forecast period in line with the quota increase in the years 2005-2008 which forms part of the second reform step and that is linked to the cut in support prices.

Milk production is expected to follow the developments projected for deliveries as on farm milk use, which is not governed by quotas, is assumed to continue its decreasing trend and direct sales are not concerned by the increase of milk quota.

The higher milk production, linked to the quota increases decided with Agenda 2000, is likely to slow down somewhat the long-term decline of the **dairy herd**. Assuming a further increase of milk yields by around 1.4 % per year on average over the forecast period, the number of dairy cows in the EU is projected to decline from 20.2 mio animals recorded in 2001 (December survey) to around 18.1 mio animals by the year 2009.

Dairy products

The internal and external analysis carried out in the framework of the preparation of the Mid Term Review of the CAP has been the opportunity to cast additional light on the EU dairy sector, also through new methodological approaches. These analyses give a somewhat more optimistic outlook for the EU dairy sector, notably on the demand side, than those presented in last year's projections and allowed to adapt somewhat the cautious approach as regards long term-projections for the major dairy products.

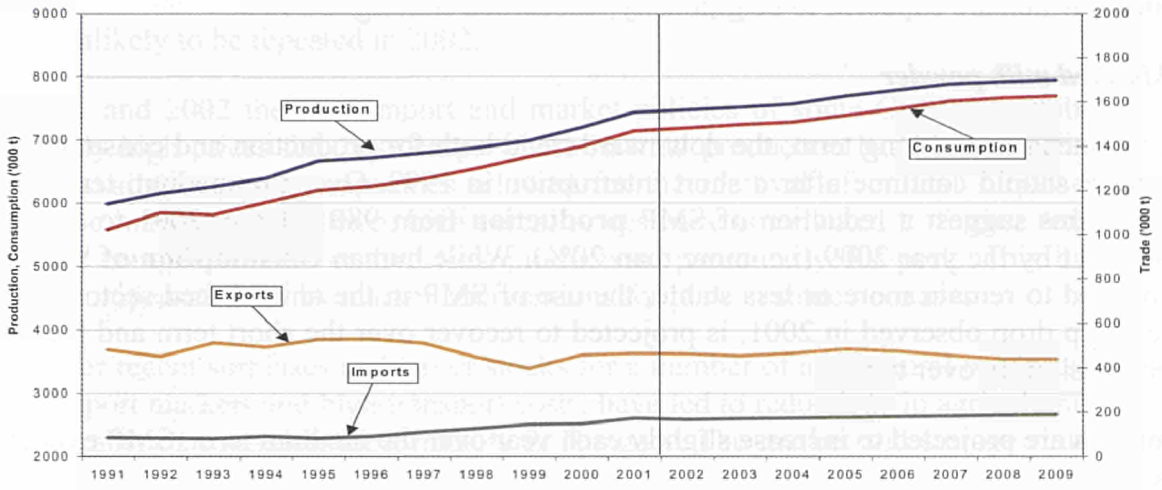
Cheese

The medium and long-term outlook for **consumption** is in general positive, but with a slowdown in the growth rate after the big increase recorded in 2000 and 2001 (+7% in two years). Per capita consumption is projected to rise from 18.9 kg in 2001 to about 20 kg by the year 2009.

Exports are likely to slowdown somewhat after the increase recorded in 2000 and 2001. Over the medium term, it is expected that exports could reach about 480 000 t by 2005-2006 thanks to larger milk availabilities linked to Agenda 2000 quota increases. This small increase should be seen against the background of the gradual implementation of the cut in milk support price that, together with expected higher world market prices, should contribute to increase the competitiveness of European cheese on the world market.

However, for the period 2006-2009, the steady growth in domestic consumption is expected to absorb most of the increase in cheese production, leaving less to be exported. We expect cheese exports to decrease slightly and stabilise somewhat at around 440 000 t by 2009.

Graph vi Outlook for the EU cheese market ('000 t), 1991-2009



Imports are forecast to continue to increase over the medium term, reflecting improved market access granted to third countries within the GATT Uruguay Round and some bilateral trade agreements like the double zero agreements with 10 CEEC countries.

Consequently, cheese **production** is projected to continue its steady increase, but at a relatively lower rate in comparison to the recent past. The expected average yearly growth rate for production is similar to that of total cheese consumption, i.e. at around +1 % per year until 2007, and then slow down somewhat.

Butter

In spite of the current slow down in cheese production growth, which has resulted in more milk being channelled in butter production (creating a situation of weak prices and intervention stocks), **butter production** is projected to decrease slightly over the medium term. The Agenda 2000 quota increases foreseen for the period 2005/06-2007/08 are not expected to change this downward trend as the production of other dairy products is expected to absorb most of the additional deliveries. Furthermore, the lower intervention prices decided with Agenda 2000 will make it less attractive to sell butter and SMP into intervention.

Butter **consumption** tends still to decline despite some signs of stabilisation observed over several years. Projections for per capita consumption are set at 4.47 kg by the year 2009, compared to around 4.67 kg currently. This forecast implies an annual rate of change of around –0.5 % for per capita consumption and –0.4 % for total consumption, due to the expected small population growth

Imports of butter are projected to continue to increase somewhat over the forecast period to reach up to 150 000 t over the medium term, following the increased market access commitments allowed under the double-zero agreement with 10 candidate countries. Butter **exports** are set to reach around 200 000 t by 2005, and then to decrease over the medium term, following the decrease in production. World market forecasts for butter trade show some increase in the medium term but the biggest part of the anticipated increase is likely to be supplied by New Zealand and Australia, which are continuously expanding their milk production and exports of dairy products.

The balance sheet for butter shows that, after a certain short-term situation of over-supply, decreasing production should ease somewhat the pressure on **intervention stocks**, which are expected to be gradually reabsorbed starting in 2004.

Skimmed milk powder

In the medium and long term, the downward trend both for production and consumption of SMP should continue after a short interruption in 1999. Over the medium term, the projections suggest a reduction of SMP **production** from 980 000 t in 2001 to around 780 000 t by the year 2009 (i.e. more than 20%). While human **consumption** of SMP is projected to remain more or less stable, the use of SMP in the animal feed sector, after the sharp drop observed in 2001, is projected to recover over the short term and then to decline slightly over time.

Imports are projected to increase slightly each year over the medium term. SMP **exports** are set to increase in the short term to reach up to 220 000 t by the year 2004 and are then expected to decrease in line with lower production.

Overall, the strong reduction in production that is projected over the long-term (in line with that observed in the past) together with the expected stabilisation in consumption (that will benefit of lower prices following the implementation of the Agenda 2000 price cut) is expected to gradually reduce current intervention stocks to zero after 2004.

Chapter II Prospects for agricultural markets in the candidate countries from Central and Eastern Europe

This chapter provides an overview of the current and expected medium-term developments in a number of the main agricultural commodity sectors in the 10 Central and Eastern European Countries (CEECs) which are candidates for accession to the European Union[1]. The projections are **based on a status-quo policy hypothesis**. **No assumptions** have been made concerning the date and conditions of entry to the EU by the candidate countries. **The projections for agricultural products are based on the assumption of a continuous trend of real appreciation of exchange rates for national currencies against the euro and the US dollar**, which has been visible in recent years. This leads to continuous competitive pressure on CEEC agriculture and requires rapid restructuring, especially of the labour-intensive part, in order to maintain competitiveness. Restructuring, and in some countries rural poverty, remains the prime political challenge in most CEECs over the medium term.

The year 2000 was a year of extremes in the CEECs. The adjustments following the collapse of the Russian market became fully apparent in the production figures for the animal sector. In addition, many countries were affected by the worst drought since the start of the transition process. Prices for agricultural commodities, especially for crops, increased considerably as a response to the limited supply of cereals. Relatively high world market prices and the practice of some Candidate Countries to largely maintain high import tariffs and to neutralise preferential imports, which marked a significant change of policies compared to similar situations in previous years, contributed to this price increase.

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[1] Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

In many respects the year 2001 presented a change of conditions for CEEC crop production. Good weather conditions throughout the year led to good yields and exceptional harvests in most CEECs. The exceptionally good weather conditions of 2001 seem unlikely to be repeated in 2002.

In 2001 and 2002 the new import and market policies of some CEECs contributed to relatively high prices for those crops where internal production has been insufficient or where available storage capacities allowed for the removal of critical surpluses from domestic markets. In addition, high cereal prices have contributed to further reduce the internal competitiveness of livestock production, particularly for pork. This has been partly compensated for by market interventions for pork in some countries.

However recent surpluses and larger stocks for a number of agricultural products, due to tight export markets and high transport costs, have led to reductions in agricultural prices in a number of countries, most notably in Hungary. The market and storage situation in net importing countries such as Poland seems also to indicate emerging pressure on prices for cereals, some milk products and pork unless stock capacities would be further increased. The foreseen average harvest in 2002 might put further pressure on domestic prices in the CEECs, if levels of stocks were maintained at current levels. Under these conditions, agricultural prices are expected to significantly decline in the coming years and would not reach again the extraordinary levels of 2000 and 2001 in most CEECs.

Despite these obvious pressures, which might lead to a change of market policies in a couple of CEECs in the medium term, **in the simulations policies are assumed to remain unchanged over the projected period.**

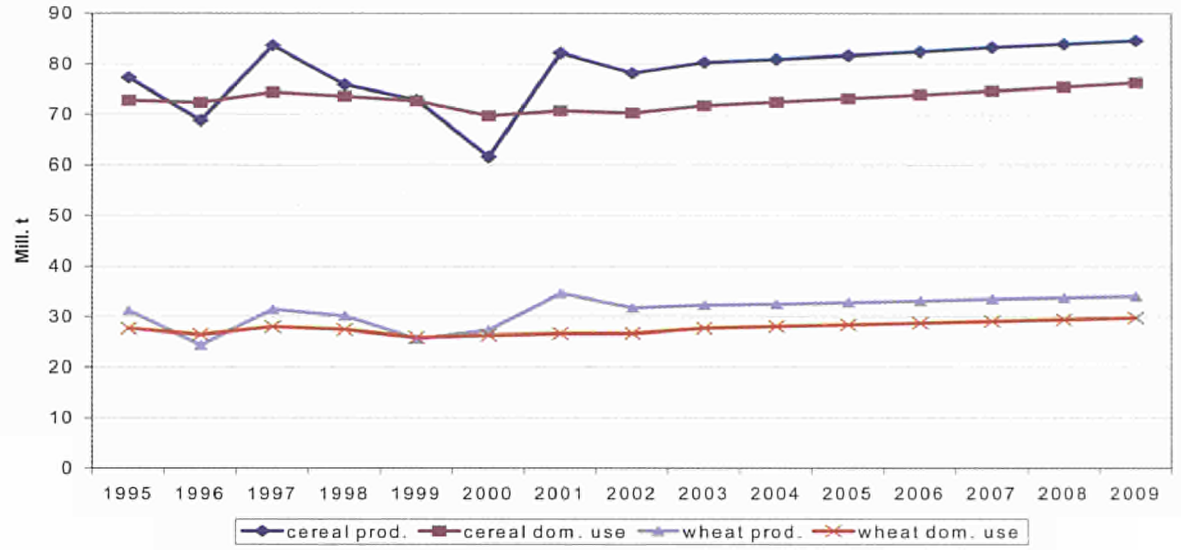
Cereals

Total cereal production in the CEECs increased from 63 mio t in 1992 to around 76 mio t in 1998. Due to weather-related problems the cereal harvest was reduced in 1999 to 73 mio t, and the drought in 2000 resulted in a crop of only 62 mio t, the lowest harvest since the beginning of transition. Very favourable weather conditions and the incentives provided by the high price levels in 2000 led to a production of 82.2 mio t in 2001, while production for 2002 is expected to be 4 mio t lower than this. The general tendency towards a slight intensification of cereal production, supported by domestic policies and a favourable world market price development, is expected to lead to an expansion in production up to levels of 85 mio t by 2009. Poland, Romania and Hungary should remain the largest producers of cereals over the projected period. Current policies in Poland would encourage the expansion of wheat production and especially that of rye, which appears to be a problematic crop for exports.

Internal use of cereals is expected to expand over the projected period from 71 mio t in 2001 to 76 mio t in 2009, due to rising incomes and increasing meat production. Of the increase of 5.5 mio t, food consumption would increase by 2.3 mio t and feed use by 3.2 mio t.

In recent years, total **exports** and **imports** have fluctuated significantly due to weather-related changes in production and varying incentives given by national agricultural policies. The unfavourable conditions of 1999 and 2000 led to a reduction in the exportable surplus to 0.2 mio t in 1999 and to a deficit of 8 mio t in 2000. In 2000 cereal prices peaked in the CEECs due to the large demand for imports and the high level of import tariffs. Prices for common wheat, barley and rye approached price levels for cereals in the net-importing EU Member States.

Graph vii Development of production and domestic use of cereals and wheat in the CEECs (mio t)



The projected slight expansion in production and the development in domestic use stabilise the amount of cereals available for exports until 2009. Even under the assumption that cereal storage would be increased where necessary, domestic prices would become less dependent on import prices and could be expected to fall. Consequently the exportable annual surplus stagnates at around 8 to 8.5 mio t until 2009.

Oilseeds

The area in the CEECs under oilseeds reached a peak in 1999 of around 3.8 mio ha. This was the result of the relatively attractive oilseed prices in 1998, as well as weather-related problems during cereals sowing (for instance in Hungary and the Slovak Republic). The oilseed area then fell sharply in 2000 to only 3.1 mio ha, and the high prices for cereals in 2000 led to a further decrease of harvested area in 2001 compared to 2000. In 2002 this downward trend is expected to reverse due to a favourable development in oilseed prices particularly in Hungary, Romania, and Bulgaria. This would lead to an expansion in area and a slight increase in oilseed production. The **area under oilseeds** would rise from 3.1 mio ha in 2002 to 3.6 mio ha in 2009, while production would increase by 1 mio t from 5.1 mio t in 2002 to 6.1 mio t in 2009. The main expansion in production is projected as being for the relatively low yielding sunflower seed in Hungary, Bulgaria, and Romania.

Since 2000 **internal use/crushing** has been increasing again to levels of 4 mio t and is expected to increase further in 2002 to 4.3 mio t. In the medium term internal crushing might stabilise at that level, if demand for protein-rich oilmeals remains limited in the CEECs. However, increasing quality and lean meat content might add to an expansion of the use of protein-rich feeds, which could trigger additional investments for expanding crushing capacities in the CEECs. With existing crushing capacities exportable oilseed surpluses might increase from the present 1 mio t to 1.7 mio t by 2009.

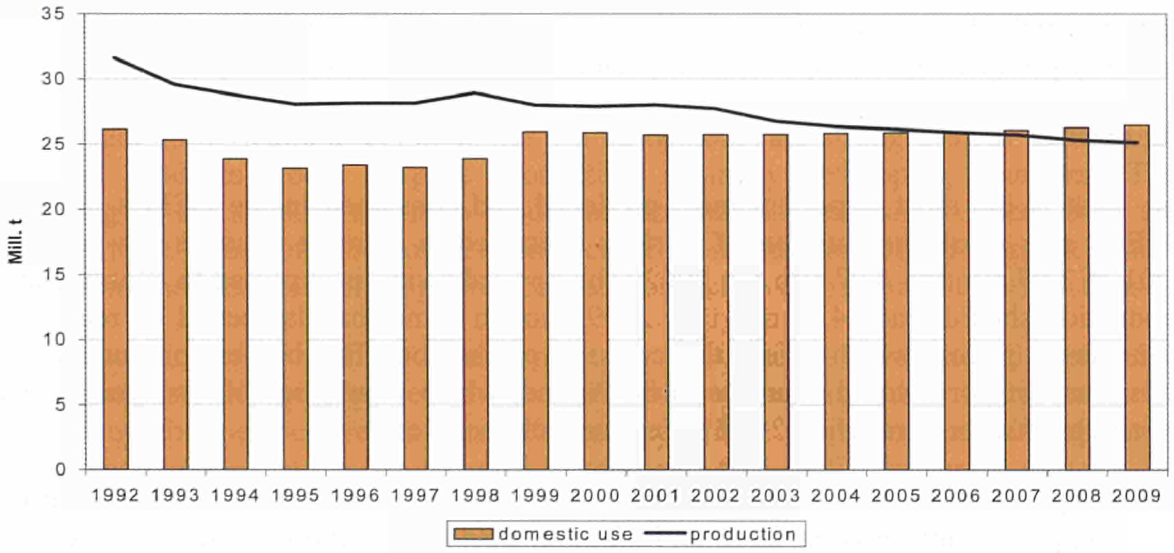
Milk

Milk production is projected to remain under pressure under the assumption of continuing current policies. This pressure arises from appreciating real exchange rates and tight export markets for skimmed milk powder and butter. This generally leaves little room for domestic prices to increase. Higher investment in dairy farms, which would contribute to achieving economically viable and cost-competitive production, is generally still too limited to offset the competitive pressures.

Under the provision of unchanged national policies domestic prices for milk would not remain at the high level seen over the last two years. The number of **dairy cows** fell from over 10 mio in 1992 to 7.2 mio in 2001 and a further decrease to 7.1 mio is foreseen for 2002. This downward trend is expected to continue over the projected period, with total cow numbers falling to 5.5 mio by 2009.

The recent reduction in cow numbers has been partly offset by the increase in the average milk yield, which is expected to reach 3.9 t/cow in 2002. The average **yield** is projected to continue to increase and to reach a level of 4.6 t/cow by 2009. However, the effect on production of the decline in the number of dairy cows would be stronger than the positive impact of the yield increase. In fact milk production is expected to fall from 27.7 mio t in 2002 to 25.1 mio t in 2009. This reduction in production is expected to be most apparent in Bulgaria, Poland and Romania.

Graph viii Production and domestic use of milk in the CEECs (mio t)



As in past years total food demand for milk and dairy products in the CEECs would continue to increase. Between 2002 and 2009 **human consumption** would increase by 2.6 mio t from 23.1 mio t to 25.7 mio t. Rising consumer incomes are projected to result primarily in increased consumption of cheese and fresh milk products, while butter consumption would remain more or less stagnant. Per capita consumption of milk and milk products is foreseen to increase from 221 kg/capita in 2002 to 244 kg/capita in 2009. At the same time feed use of milk declines alongside the reduction of the dairy herd. As a result **total domestic use** increases only by 0.7 mio t from 25.8 mio t in 2002 to 26.5 mio t in 2009.

The CEECs as a group were net-exporters of milk and milk products in the 1990s, especially of milk powder and butter. It is expected that under present national policies the CEECs would become **net importers** of milk in the medium term. The Baltic states,

Slovenia, the Czech Republic, and Slovakia would, however, remain net exporters of milk, though exports would follow a declining trend.

Beef and veal

The production of beef and veal in the CEECs is mainly linked to size of the dairy herd, since only limited suckler cow herds are present in the CEECs. Due to the long production cycle, the build up of suckler cow and specialised beef production is slow. Specialised beef production therefore does not affect total beef production to any great extent over the projection period. Beef production is much more linked to the development of the dairy herd than, for example, in the EU.

The beef meat sector has been the sector that has experienced the largest decrease in production since the beginning of transition. From 1989 to 2001 production decreased by more than 40 %, to less than 1 mio t.

During the projection period the number of **animals slaughtered** would decrease in line with the reduction in the number of dairy cows, and despite specialised beef production being foreseen to increase, beef and veal production would decline by 0.23 mio t, from just under 1 mio t in 2001 to 0.77 mio t in 2009.

Per capita consumption of beef continued to decline in 2001 and 2002. However, declining domestic prices, increasing incomes and increasing prices for pork and poultry should tend to stabilise domestic consumption at 9.3 to 9.5 kg/capita in the projected period. Total **internal use** in the CEECs would be relatively stable at levels of approximately 1 mio t through to 2009. As a consequence of stable use and declining domestic production, net imports are expected to increase to 214 000 t by 2009.

Pig meat

Pig meat is the most important meat produced and consumed in the CEECs. For the CEECs as a whole **production of pork** is estimated to increase from its low level in 2001 of 3.97 mio t to 4.07 mio t in 2002. The upward swing is expected to continue and production should reach 4.65 mio t by 2009, though somewhat dampened by relatively high cereal prices, which affect the costs of production. The biggest producers and consumers of pork would continue to be Poland, which would be able to dynamically expand production through to 2009 under domestic policies.

Increasing incomes would lead to increasing consumption. Per capita **consumption** would expand from 39 kg in 2001 to 45.2 kg in 2009. Consumers in Hungary, Poland, and in Slovenia currently consume over 50 kg/capita and would increase their consumption further through to 2009.

Total consumption in the CEECs should expand by 610 000 t from 4.15 mio t in 2002 to 4.76 mio t in 2009. During the projection period the CEECs as an aggregate would appear to slightly increase their balance deficit from 100 000t in 2001 to 110 000 t in 2009.

Poultry meat

Compared to pork production the poultry industry is generally structured on a large scale, and foreign direct investments play an important role, which partly explains the ability to continuously expand production over the last decade. However, in several countries

small-scale production is highly important. Three countries dominate poultry meat production, namely Poland, Hungary and Romania.

In relative terms the expansion of demand for poultry meat has been the strongest for all the meats. The projections confirm this trend, which is particularly linked to the increase in income. **Consumption** would expand from 1.72 mio t in 2002 to 1.87 mio t in 2009. Per capita consumption should increase by 8.5%, from 16.4 kg in 2002 to 17.8 kg in 2009.

Total production of poultry meat would increase to just over 2 mio t in 2009 compared to 1.85 mio t in 2002, slightly faster than domestic use. Therefore the exportable surplus would expand from 130 000 t in 2002 to 160 000 t in 2009. Hungary remains the most important exporter of poultry meat in the region.

Chapter III Prospects for world agricultural markets

The prospects for world agricultural markets are mainly based on reports and projections released by the most prominent institutions in this field, namely the FAPRI, the OECD[2] and the USDA. These organisations provide for a short-term outlook marked by the continuous, albeit slow, recovery of agricultural markets after a longer than expected downturn. The medium-term prospects for agricultural markets would be mainly driven by an improved macro-economic environment with more broadly based, robust and sustainable growth. Combined with higher population, urbanisation and changes in dietary pattern, particularly in many emerging economies, these prospects for stronger economic growth would support a steady increase in food demand.

World trade in agricultural commodities would demonstrate strong growth, as demand for food products would outpace production in many developing countries. The tightening of the stock-to-use ratio would in turn sustain commodity prices over the medium term. Most of the growth would come from the non-OECD regions, which would constitute the main driving force behind these relatively favourable perspectives.

Notwithstanding the relative improvement in the market fundamentals of most agricultural sectors that is projected over the medium term, a prudent interpretation of these favourable perspectives is deemed necessary. These projections remain subject to many uncertainties that can be expected to moderate the positive pattern forecasted for future trade and price growth. The most important include the future course of agricultural policy in many regions (notably the recently approved US Farm Security and Rural Investment Act of 2002), the new round of multilateral trade negotiations, the future macro-economic perspectives and the scope for further productivity growth in some regions.

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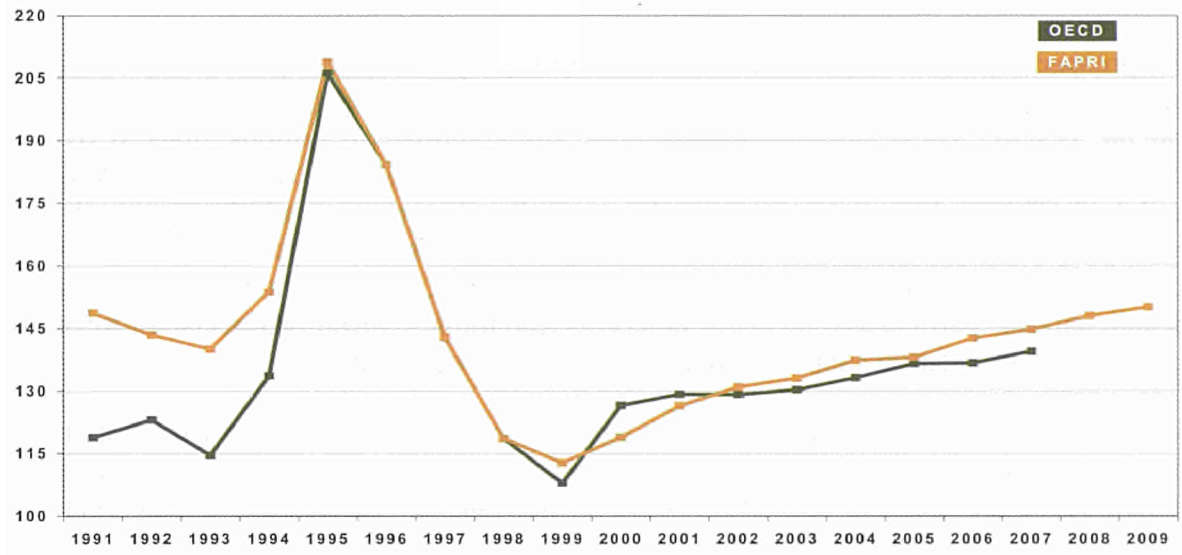
[2] It should be noticed that the OECD outlook consists of the preliminary projections established by the OECD Secretariat whose final results are scheduled to be declassified after discussion by the OECD Working Party on Agricultural Policies and Markets at its meeting on 21 and 22 May 2002. These final projections which should be published in the OECD Agricultural Outlook, may be subject to some modifications in the light of the discussion by the Working Party.

Cereals

The world cereal markets are anticipated to slowly emerge from a prolonged downturn. An improved economic environment, population growth as well as changes in the dietary pattern in some major importing countries are foreseen to generate a strengthening of world demand and a tightening of stock-to-use ratios. Higher demand would outpace domestic supply in many developing countries, including China, North Africa and Latin America, and trigger a sustained expansion in global cereal trade. Total cereal trade would increase by between 40 and 47 mio t to 2009/10, i.e. at a much quicker pace than in the 1980s and 1990s.

Global trade in wheat would strengthen with annual growth averaging about 2.3 %-3.1 %, whereas coarse grain trade would exhibit a similar pattern with an annual average ranging between 2.0 % and 3.1 % over the 2001/02-2009/10 period.

Graph ix Outlook for world wheat prices, 1991 – 2009 ($/t)



Ref.: US FOB Gulf, HRW.

After having bottomed out at the turn of the century, world prices are projected to display a slow and moderate recovery over the medium term as supply adjusts and global demand strengthens. HRW wheat prices would reach approximately 145-150 $/t by 2009/10 according to the OECD and FAPRI projections[3]. Maize prices would exhibit a similar trend, standing at 110-111 $/t at the end of the projection period. Barley prices would also trend upwards, rising from 121$/t in 2000/01 (Portland reference) to 139 $/t in 2009/10 in FAPRI projections and from 96 $/t to 100 $/t in 2007/08 in the OECD outlook (St Lawrence reference). A similar outlook is projected for durum wheat prices that would rise from 175 $/t in the short-term to around 180 $/t by 2009/10.

Oilseeds

If the short term developments of the oilseed sector are expected to continue to be affected by policy and macro-economic factors, the medium-term prospects are foreseen to demonstrate a relatively moderate recovery. The vigorous growth in demand for oilseed and oilseed products anticipated over the medium term by most agencies is

[3] The SRW wheat, which broadly corresponds to EU wheat quality, generally quotes around 10 % below the HRW wheat reference.

forecast to contribute to the gradual restoration of market balance as supply exhibits more moderate increases. Global demand would benefit from the recovery in world economic growth which is projected to generate increased human consumption of vegetable oils as well as higher use of oilseed meals for the livestock sector. Trade in oilseeds is anticipated to increase faster over the projection period than in the 1980s, but more slowly than in the early 1990s.

The prices of oilseeds would display a continuous recovery over the next seven years driven by long-term demand growth. However, several factors including the sustained yield growth, the large production potential in South America and the continuation of a production-inducing policy in the US are expected to moderate future price trends. The OECD projections provide for average oilseed prices (i.e. soybean, rape seed and sunflower seed) at 237 $/t by 2007/08, whereas the FAPRI forecasts soybean prices at 229 $/t in 2009/10. Rape seed and sunflower seed would benefit from more favourable long-term vegetable oil demand -in comparison to meal- and would accordingly exhibit a stronger price pattern than soybean, with prices at 240 $/t and 271 $/t in 2009/10 respectively in the FAPRI projections.

Oilseed meal prices are expected to weaken in the short term on account of strong production growth, before increasing slowly over the rest of the period supported by an expanding consumption, and ranging between 178 $/t and 214 $/t.

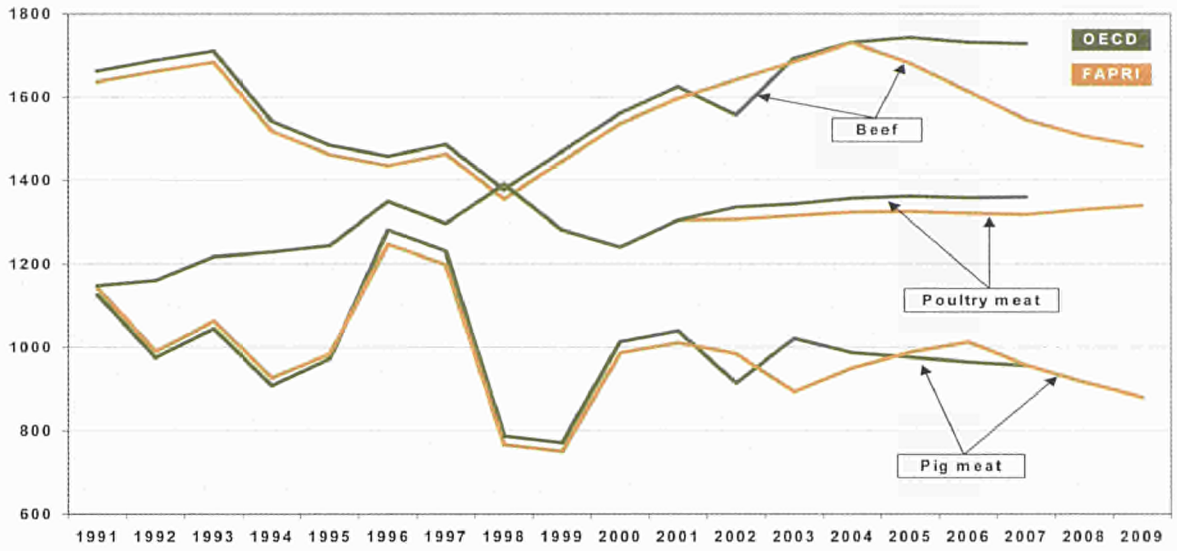
Prospects of rising incomes drive the solid expansion in vegetable oil consumption. Palm oil and soybean oil would capture the greatest share of an expanding demand for and trade of vegetable oil. Growth in oilseed oil trade would average between 1.7 % and 2.8 % per annum, i.e. a much lower rate than in the 1990s. The strong dependence of trade in vegetable oil from developing countries, notably China and India, makes the outlook very sensitive to the economic prospects in these countries.

Meat

The medium-term perspectives for the meat markets would exhibit higher production, consumption and trade. The increase in meat consumption would be mainly supported by a favourable macro-economic environment of sustained income growth, in particular in the emerging economies of Asia and Latin America, and by changes in dietary pattern in many regions. As higher meat demand would take place in many net importing countries, world trade would rise and world prices would show moderate strength. The FAPRI and USDA projections exhibit a sustained rise in beef trade ranging between 1.2 mio t and 1.5 mio t over the 2001-2009 period (i.e. some 30 %), with most of the growth from Asia, Russia and Mexico. After a short-term fall due to lower availability, weaker economies and animal health crises, the medium-term outlook for pig meat trade is projected to display a renewed and marked expansion over the same period (by between 0.75 to 1.15 mio t), driven by strong import demand from Japan, China, Mexico and Russia.

Poultry meat would capture the largest proportion of the increased global meat demand thanks to low production costs (relative to beef and pig meat) and consumer preferences in many parts of the world. Trade in poultry meat is also projected to trend upwards, with increases in the range of 1.3 to 1.8 mio t. Much would depend on the prospects for import demand from China and Russia. On the export side, a weak currency, large availability of cheap feed grains and strong investments in the meat sector are all anticipated to enhance Brazil's market share over the medium term.

Graph x Outlook for world meat prices, 1991 – 2009 ($/t lw)



Beef prices would be supported over the medium term by a strong import demand, although the changing structure of the world beef market, the emergence of new exporting countries and the increasing competition from other meats should restrain upward beef price tendencies. Poultry and pig meat prices would display modest gains over the projection horizon as the continued improvement in feed efficiency, structural changes and the swift emergence of low-cost producers would maintain world market prices under pressure.

These perspectives rely heavily on the assumption that the recovery from the recent economic downturn will turn into sustained economic growth over the medium term. They also assume that the recent disruptions in world meat markets caused by sanitary issues will not occur over the projection period as they could trigger higher market segmentation and limit market access for some potential meat exporters.

Milk and dairy products

The OECD and FAPRI foresee that the medium-term outlook for the dairy sector would remain dominated by a strong expansion in global demand for dairy products. The latter would reflect not only income growth in many regions of the world, but also changes in consumer preferences towards dairy products (as meat substitutes). Demand growth is projected to be strongest in the non-OECD zone, notably in Asia, Latin America and the Middle East.

World milk production would grow at the sustained pace of between 1.2 % and 1.9 % on annual average over the 2001-2007 period, supported by higher demand and price rises in a number of countries, mainly outside the OECD area and in those OECD countries not subject to production quotas.

If dairy consumption in the OECD area is not expected to demonstrate significant changes over the medium-term (with the exception of cheese and –to a lower extent- whole milk powder), solid and sustained growth in the demand for dairy products is projected in developing countries fuelled by growing population, rising disposable income, urbanisation and changing dietary pattern.

Although a significant part of this increasing demand is expected to be met by domestic production, scope for additional, albeit increasingly regionalized, trade is foreseen in Asia, the Middle East and the FSU. The structural change in world trade of dairy

products from bulk dairy products (SMP and butter) towards higher value-added products (such as cheese and whey powder) that has been observed since the mid 1980s would consolidate over the next seven years according to the OECD outlook (although trade in butter and SMP would still remain substantial). Technological advances are also projected to stimulate a rapid development in milk components.

The perspectives of stronger economic growth and a strengthening demand for dairy products are projected to generate a sustained recovery in world market prices of dairy products over the medium term. However, the rapid expansion of milk production in low-cost producing regions (such as Oceania) is expected to moderate this price pattern. In spite of a short-term weakening, cheese prices should display the strongest pattern among the prices of dairy products. In contrast, the pace of price increase is forecast to be more moderate for milk powder, notably for SMP, which should face greater competition from WMP and whey powder. Butter prices would recover modestly and gradually, benefiting also from the expected rise in vegetable oil prices.

These medium-term perspectives remain strongly dependent on the future development in some key (existing or emerging) markets such as Russia and East Asia as the world dairy market is foreseen to remain relatively thin. Furthermore, the trend towards further concentration and globalisation of the dairy industry, and greater differentiation of dairy products is expected to make trade projections for dairy products increasingly complex and dependent on dairy firms' cost structure, production and marketing strategy.

Key issues

If the outlook for agricultural markets over the next seven years appears relatively favourable, as agricultural markets would gradually emerge from a prolonged downturn, it clearly remains subject to some uncertainties. In this respect, three main areas of uncertainty can be identified:

- *The economic prospects:* the medium-term projections from the FAPRI, OECD and USDA depend heavily and critically on the robust and sustainable economic growth which is expected over the medium term in many developing regions (in particular China, South East Asia, Latin America, North Africa and the Middle East). Strong and sustainable economic expansion, population growth, urbanisation and dietary changes in these regions constitute the main driving force behind the projected recovery in most agricultural markets as they are all foreseen to lift global food demand and stimulate solid growth in world trade.

  However, significant sources of risks to the sustainability and durability of the economic recovery remain. They concern notably the imbalances that developed in the late 1990s in the US and the global economy, in particular the large US current account deficit, the apparent overvaluation of the US dollar and undervaluation of the euro, the outlook for the Japanese economy and the situation of financial markets that may still embody relatively optimistic expectations for corporate profitability and the pace of recovery. Moreover, the volatility of oil prices may become a potential risk to the recovery, especially if the security situation in the Middle East were to deteriorate further. Recent developments in Argentina show that considerable downside risks still exist in this country, with possible contagion to other emerging countries of Asia and Latin America. Significant changes in relative exchange rates could still significantly affect agricultural trade and markets.

- *The scope for production growth:* the projected moderate increase in trade and prices over the medium term, one of the major outcomes of the projections, remains strongly

conditioned by the slow adjustment of agricultural supply to the rapid expansion of food demand in some regions of the world. Yet, the extent to which production would become outpaced by a rising domestic consumption remains unclear as the scope for further production increase in some major importing regions constitutes a key uncertainty for the medium-term outlook, notably for crop products. If total cereal productivity growth is forecast to be broadly comparable over the next seven years to that of the 1990s, it should remain significantly lower than in the previous decades. In this context, policy management and development in some major producing countries -such as China, Russia and India- and exporting countries -such as the EU and the US with the land set-aside instrument- could have significant implications for the future level of world agricultural supply.

- *The policy and trade environment:* future changes in agricultural and trade policies as well as the new round of multilateral trade negotiations may have important implications for the medium-term outlook for agricultural production, consumption, trade and prices as well as the functioning of agricultural markets. They include notably:

    - the recently approved US Farm Security and Rural Investment Act of 2002: although preliminary analysis tends to indicate moderate downwards impact on US prices, further in-depth economic and trade analysis is needed, notably with respect to its repercussions for international trade and prices. The economic (mainly price-depressing) impact of the new counter-cyclical payments are of specific interest –as the main thrust of the subsidy regime- since they have the effect of reducing market signals, thus leading farmers to over-produce in times of surplus.

    - the EU Mid-term review of the Agenda 2000 CAP reform planned in 2002 and 2003 and the enlargement of the EU to the candidate countries of Central and Eastern Europe;

    - as regards trade policy, the outcome of the new trade round at the WTO, the recent accession of China and Chinese Taipei to the WTO, the adoption of the so-called "double-profit" agreements with the CEECs candidate countries and the EBA initiative of the European Union;

    - the emergence of new issues related to food safety, food quality and the environment.

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 medium-term projections for some key agricultural products (i.e. cereals, oilseeds, meat and milk products) in the European Union for the period 2001 - 2009. 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. They are **based on the statistical information available at the end of April 2002.**

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 assumptions concern agricultural and trade policies, as well as the evolution of the $/€ exchange rate The most important assumptions concern agricultural and trade policies:

(1) As regards agricultural policy, all policy instruments and measures are expected to operate under the current rules or within the changes already decided by the end of April 2002 for the 2002-2009 period. In that perspective, the implementation of the **reform of the Common Agricultural Policy** adopted in the framework of **Agenda 2000** is fully taken into account from 2000 onwards. By contrast, the implications of the new **US Farm Bill, the Farm Security and Rural Investment Act of 2002,** have not been incorporated into the present analysis (cf. Chapter III, section 4.3).

(2) The second important assumption relates to trade in agricultural products and, in particular, to the commitments derived from the Uruguay Round Agreement on Agriculture. **It is assumed that all URAA commitments regarding in particular market access and subsidised exports will be fully respected.** Thus, subsidised exports are expected not to exceed the annual URAA limits, whereas imports under current and minimum access schemes are fully incorporated. **In addition, the URAA commitments are assumed to remain unchanged over the 2002-2009 period.**

(3) The trade agreements that have been concluded by the EU, notably with the LDCs and with the 10 CEECs candidate countries until April 2002 have been taken into account in these market projections. **They mainly concern the EBA initiative** with duty-free and quota-free market access on all products, except arms, originating in the LDCs and the **"double-zero"** agreements of 2000 and 2001 with the 10 CEECs candidate countries[4].

1.2 The macro-economic environment

From 2000 to 2001 average economic growth in the EU halved to 1.7 %. In spite of a temporary rebound at the end of 2000, growth slowed down from mid-2000 until the end of 2001. This was mainly the consequence of a combination of shocks, including oil

[4] The potential impact of the so-called "double profit" agreements of 2002 has not been accounted for in these medium-term prospects as none of the agreements already concluded had been adopted by the Council at the time of preparation of these projections, i.e. by the end of April 2002.

price rises, the repricing of global equity markets and the financial and corporate linkage with the rest of the world (IMF, 2002). Consequently, the nature of the downturn became increasingly similar to that of the US, albeit less steep. Although the depth of the downturn differed quite substantially across countries, most Member States exhibited a weakening in investment and inventories as well as declining export growth.

According to the short-term economic forecasts from the Commission[5] released in April 2002, a gradual recovery is taking shape in the EU as business and -to a lower extent- consumer confidence start increasing, although industrial production and retail sales have failed so far to peak up decisively. The international environment should also be supportive as there have been increasing signs that the global slowdown has bottomed out in some regions, notably the US. The initial pick-up should be based on the rebuilding of inventories and a net export contribution as other factors –in particular domestic demand and investment- are not expected to strengthen before the second half of 2002. The slowing increasing external demand, uncertainty and risks of unemployment and price rises would all contribute to moderate the strength of the recovery in the first half of 2002.

Growth would gain momentum in the second half of 2002 underpinned by the past interest rates reduction against the background of an improved international environment. However, average GDP growth should only reach 1.5 %, somewhat below the level achieved in 2001. A synchronised recovery in domestic and external demand is then projected to boost economic expansion in 2003, when consumption and trade would spur future investment. Brighter employment prospects, healthy savings rate of households and low inflation would provide the basis for a sustainable expansion of the EU economy. In spite of a temporary interruption at the beginning of 2002 owing mainly to a surge in food prices and changes to indirect taxes in several Member States, the decline in inflation should resume its downwards trend. The growth in GDP price index would reach 2.1 % in 2002 before falling below 2 % by 2003.

Table 1.1 Assumptions on macro-economic variables in the European Union, 1999 – 2009

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Population (in %)	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
GDP growth (in %)	2.6	3.3	1.7	1.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Inflation (in %)	1.5	1.5	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9
$/€ exchange rate	1.07	0.92	0.90	0.91	0.95	0.97	0.99	1.00	1.00	1.00	1.00

On account of the cyclical downturn, the budget deficit increased substantially in 2001 and 2002 in many EU economies. However, this deterioration of public finance is expected to come to an end in 2003 as fiscal consolidation would resume in most Member States and government accounts would stand close to balance or in surplus.

If the strength of private consumption, wage pressures and the state of public finances may still add some domestic uncertainty to this outlook, oil prices and the persistence of imbalances in the US economy (regarding the low saving ratio and the government budget and current account deficits) remain a source of concerns on the external side. However, if it is still difficult to precisely assess the pace and the strength of the recovery in the EU, the Commission foresees that risks should be rather limited and better balanced by virtue of EU sound economic fundamentals. In this framework, economic

[5] European Commission, Directorate-General for Economic and Financial Affairs. Economic Forecasts Spring 2002. *European Economy* No.2/2002.

growth as well as inflation in the EU has been assumed to remain broadly stable over the medium term at 2.9 % and 1.9 % per year respectively.

The euro remained relatively weak against the US dollar in 2001, trading at 0.90 on average. If many factors can be put forward to explain this pronounced weakness, this pattern is foreseen to continue over the short term, with a trading range well below estimates of the value consistent with economic fundamentals. The euro is then assumed to strengthen against the US dollar over the medium term as the impact of the short-term factors contributing to the current strong depreciation of the euro may be expected to weaken. The $/€ exchange rate would rise from 0.91 in 2002 to 0.95 in 2003 and would appreciate further towards parity by 2006.

Graph 1.1 Medium-term development in the $/€ exchange rate (1 € = ... $), 1980 – 2009

2. Arable crops

2.1 Cereals

2.1.1 Supply

Area allocation

The allocation of arable land in the EU over the 2002-2009 period is expected to be shaped by the full implementation of the **Agenda 2000 CAP reform** in the EU and by more favourable, albeit still moderate, medium-term perspectives for world cereals and oilseeds markets. Within the CAP reform, three measures are foreseen to significantly impact the supply of land for the main arable crops (cereals, oilseeds and protein crops) and for the set-aside programmes: the reduction in cereal support prices towards world market levels implemented in July 2000 and 2001, the alignment of direct payments for oilseeds, set-aside and non-textile linseed on the cereal payments from 2002 onwards and the setting of the base rate for compulsory set-aside at 10 %.

In comparison with the pre-Agenda 2000 period –and after taking account of the regulatory rate of mandatory set-aside- the arable crop sector is projected over the medium term to exhibit:

- an **increase in cereal area** at the expense of oilseeds, especially in the early years of the decade as the general recovery in oilseed prices would later erode the relative profitability of cereals;

- an **expansion in voluntary set-aside** in regions where farming profitability is low;

- a **greater sensitivity** of the distribution of arable land to the development in world market prices and in the $/€ exchange rate on account of the reduction in cereal support prices and the shift in agricultural support further away from direct price support towards direct payments under Agenda 2000.

Table 1.2 Distribution of the total area under arable crops and set-aside, 2000/01 – 2009/10 (mio ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cereals	37.5	36.3	37.2	36.9	36.7	36.8	36.6	36.6	36.5	36.5
Oilseeds	4.5	4.4	4.3	4.5	4.6	4.6	4.6	4.6	4.7	4.7
Protein crops	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Linseed (1)	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Silage (2)	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.2
Total arable crops (a)	47.6	46.3	47.3	47.1	46.9	47.0	46.9	46.9	46.9	46.8
Compulsory set-aside	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.1	4.1
Voluntary set-aside	1.7	2.5	1.9	2.1	2.2	2.2	2.2	2.2	2.2	2.2
Total set-aside (b)	5.6	6.4	5.8	6.1	6.2	6.2	6.3	6.3	6.3	6.3
TOTAL COP (a+b)	53.2	52.8	53.1	53.2	53.2	53.2	53.2	53.2	53.2	53.2

(1) : Including flax and hemp from 2001/02; (2) : Excluding grass silage for Finland and Sweden

After a short-term fall in 2001, the aggregate total COP area –which includes the total land allocated to arable crops and to set-aside programmes- is projected to recover to 53.2 mio ha over the medium term. Owing to the stabilisation in total linseed area below 200 000 ha and the gradual decline in the area devoted to grain silage (in line with the fall in the total EU herd size), the total area allocated to the production of cereals, oilseeds and protein crops and to the set-aside programmes is expected to increase from 48.6 mio ha in 2000 to 48.8 mio ha over the medium term.

In spite of a base rate for mandatory set-aside maintained constant at 10 % throughout the whole period, **total land set-aside** is projected to rise from 5.6 mio ha in 2000 to a projected 6.3 mio ha in 2009. After a 200 000 ha drop in 2000 associated with the implementation of the new arrangements governing the general and simplified schemes in the new CAP reform[6], total land under **compulsory set-aside** resumed growing in 2001 at 39.1 mio ha. Land under mandatory set-aside would continue rising from 2002 onwards to reach 4.1 mio ha by 2009 as area grown under the general scheme expands (owing mainly to structural adjustments).

Land under **voluntary set-aside** rose remarkably in 2001 to 2.5 mio ha due to unfavourable sowing conditions in the EU[7]. Under the assumption of normal climatic conditions from 2002 onwards the development of voluntary set-aside is expected to be reduced. However, total area removed from production on a voluntary basis would

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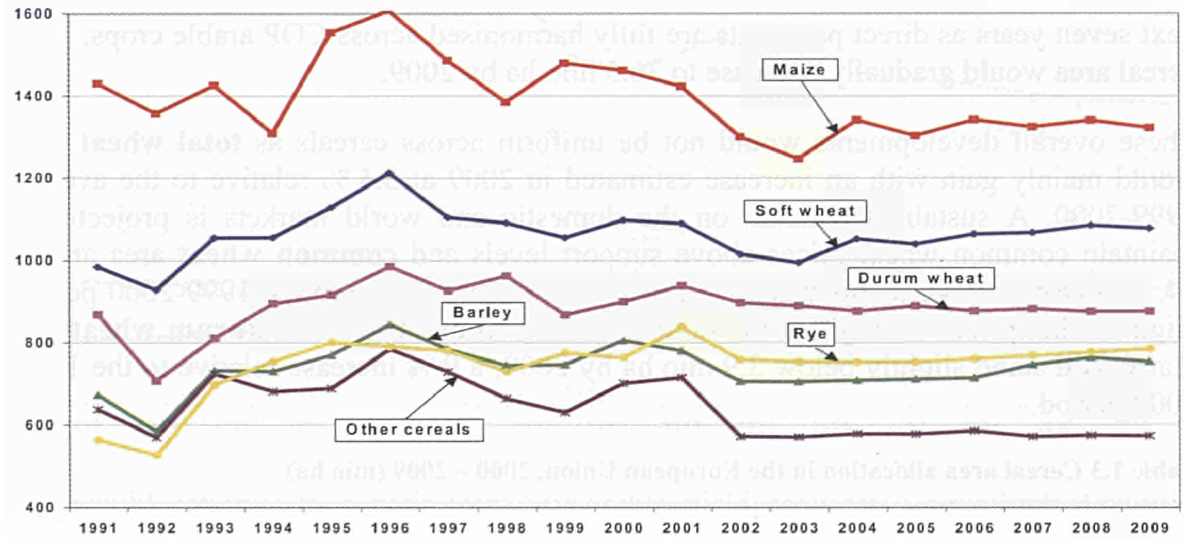
6 This concerns notably the level of direct payments granted for arable crops and the new eligibility criteria for the voluntary set-aside scheme.

7 In autumn 2000, excessive rain hindered winter cereals sowing operations in the UK, Ireland, France and the Benelux. Abundant rain was also recorded in winter and early spring in the central and northern countries, which made the field farming operations very difficult in these countries. By contrast, southern Member States suffered from very high temperatures at the end of spring which affected both winter cereals and spring crops.

remain at relatively high level over the medium term in response to the projected overall decline in cereal prices and the cut in the direct payments for oilseeds and fibre flax. After an initial drop to 1.9 mio ha in 2002, voluntary set-aside would increase in the near term before stabilising around 2.2 mio ha depending on market price developments (which may shift land into or out of production). Any change in the rate of compulsory set-aside could also significantly alter these projected developments.

The slow rise in total set-aside land would generate a gradual, albeit modest, decline in the **total COP area in production**. The latter would fall from around 42.7 mio ha in 2002 to 42.5 mio ha in 2009 owing mainly to the decline in average cereal prices. The distribution of the total COP area between cereals, oilseeds and protein crops over the medium term should be directly influenced by changes in the relative profitability of these crops once direct payments are equalised across arable crops[8].

Graph 1.2 Medium-term development in cereal receipts, 1991/92 – 2009/10 (€/ha)



Better average receipts for cereals over oilseeds and protein crops at the turn of the decade lifted the share of cereals in the total COP area to approximately 87 %[9]. Over the medium-term cereals would benefit from increasing yields, prices above support levels for some cereals (such as common wheat, durum wheat and maize[10]) and higher direct

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8 Direct payment per crop is calculated on a per Member State basis, taking into account the national reference yields. This allows to identify specific changes in direct payments for crops which are not produced evenly across the EU (such as sunflower, soya bean and durum wheat).

9 After a fall to 1.1 mio ha in 2000, protein crops area rapidly recovered in 2001 to 1.2 mio ha thanks to the increase in total beans and sweet lupins area that outweighed the slight fall in peas area. Total protein crops area would stabilise above 1.2 mio ha over the rest of the projection period on account of modest projected price developments. Protein crops would maintain their share in the total COP area to around 3 %.

10 EU domestic prices for cereals are foreseen to continue to benefit from improved perspectives for world markets which should contribute to keep domestic prices above support levels over the medium term for some cereals (notably common wheat, durum wheat, maize and also barley towards the end of the decade). After bottoming out in 1999, world prices are expected to exhibit a slow recovery over the medium term thanks to more favourable market fundamentals. By 2009/10, world cereal prices are expected to reach around 150 €/t for common wheat (HRW, US fob Gulf), 110 €/t for maize (US fob Gulf) and 104 €/t for barley (fob, St Lawrence).

payments which would on average partially outweigh the cut in cereal support prices[11]. However, the projected recovery in world oilseed prices foreseen for the rest of the decade (cf. section 2.2) should entail a gradual decline in total cereal share which would slowly fall below 86.0 %.

Whereas the total cereal area had dropped to 36.3 mio ha in 2001 owing to the difficult climatic conditions at sowing times and, to a lower extent, to the recovery in oilseed prices, the return to a normal climatic situation, the third adaptation in direct payments and the end of the transitional period in the oilseed sector are all foreseen to generate a swift rebound in total cereal area in 2002 to 37.2 mio ha and the return of voluntary set-aside to more normal levels. Cereal area would also benefit from market prices in 2001/02 above support levels for common wheat, maize and durum wheat.

From 2003 onwards, the overall decline in average cereal prices –concerning especially feed cereals- and improved price prospects for oil-rich oilseed prices (i.e. sunflower and rape seed) would entail a slow decline in total cereal area of around 0.7 mio ha over the next seven years as direct payments are fully harmonised across COP arable crops. Total cereal area would gradually decrease to 36.5 mio ha by 2009.

These overall developments would not be uniform across cereals as **total wheat area** would mainly gain with an increase estimated in 2009 at 3.5 % relative to the average 1999-2000. A sustained demand on the domestic and world markets is projected to maintain common wheat prices above support levels and **common wheat** area around 14.1 mio ha over the medium term, i.e. a 2 % increase relative to the 1999-2000 period. High market prices throughout the outlook period would also boost **durum wheat** area that would stand slightly below 3.9 mio ha by 2009, a 9 % increase relative to the 1999-2000 period.

Table 1.3 Cereal area allocation in the European Union, 2000 – 2009 (mio ha)

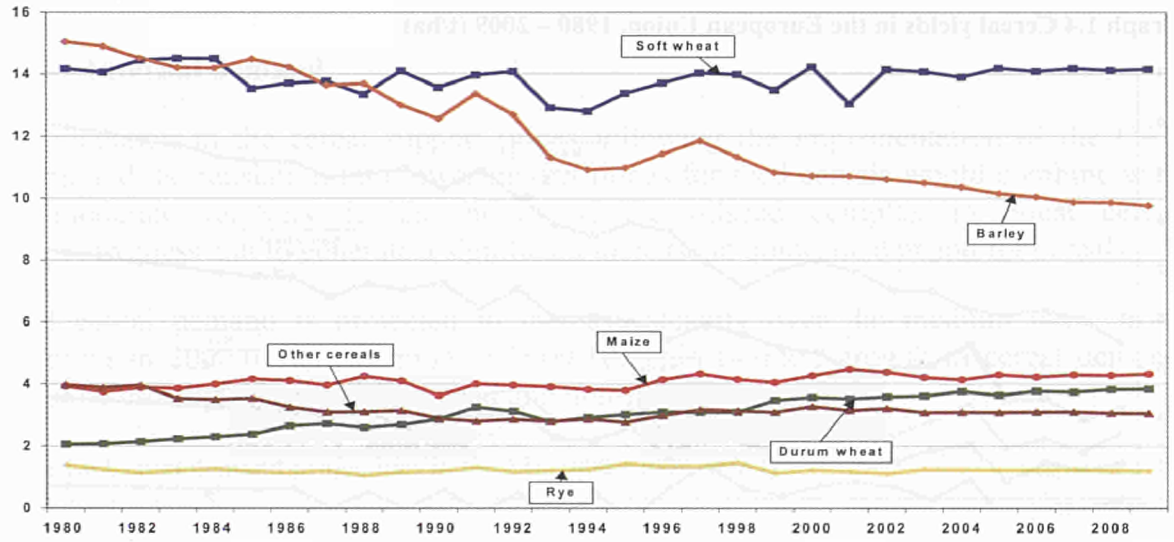
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total wheat	17.9	16.6	17.8	17.8	17.7	17.9	17.9	18.0	18.0	18.1
Soft wheat	14.3	13.1	14.2	14.1	13.9	14.2	14.1	14.2	14.2	14.2
Durum wheat	3.6	3.6	3.6	3.6	3.8	3.7	3.8	3.8	3.9	3.9
Total coarse grains	19.6	19.6	19.4	19.1	18.9	18.9	18.7	18.6	18.5	18.5
Barley	10.7	10.7	10.6	10.5	10.4	10.2	10.1	9.9	9.9	9.8
Maize	4.3	4.5	4.4	4.2	4.2	4.3	4.3	4.3	4.3	4.4
Rye	1.2	1.2	1.1	1.3	1.3	1.3	1.3	1.3	1.2	1.2
Other cereals	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Total cereals	37.5	36.3	37.2	36.9	36.7	36.8	36.6	36.6	36.5	36.5
Set-aside rate	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%

By contrast, **total coarse grain area** would bear the overall decline in cereal area and would display a continuous fall over the medium term to reach 18.5 mio ha by 2009, a decrease of approximately 5 % as compared to the 1999-2000 average. Developments in coarse grain production would be affected by less favourable perspectives on the demand side (both internal and external) and the persistence over the whole projection period of large public stocks. As a result, the market prices of coarse grains would remain under strong pressure fluctuating at or below support levels (with the exception of maize and barley at the end of the period).

[11] The projected development in internal prices and productivity growth would sustain the general level of total cereal receipts (i.e. market receipts and direct payments) as the latter would range by 2009/10 between –11 % for "other cereals" (i.e. oats and triticale) and approximately +1 % for soft wheat, barley and rye as compared to the pre-Agenda 2000 reform period.

The development in coarse grain area would be mainly affected by the fall in **barley** area that would reach around 9 % by 2009 in comparison to the 1999-2000 average on account mainly of projected lower receipts. The maize area would increase by some 4 % relatively to its 1999-2000 level thanks a sustained expansion in several Member States over the most recent years that is foreseen to continue over the medium term on the ground of high productivity growth, market prices above support levels and some shift from silage to grain maize. However, the total area allocated to maize would fluctuate around 4.3 mio ha, i.e. at a slightly lower level than in 2001 and 2002, due to a projected increased pressure on market prices (linked to greater import levels and competition from other feed grains, notably feed wheat).

Graph 1.3 Cereal area allocation in the European Union, 1980 – 2009 (mio ha)



Rye would continue to benefit from favourable yield prospects and a high domestic support price relatively to world market levels. These two factors would contribute to maintain its harvested area between 1.2 and 1.3 mio ha in spite of the persistence of significant levels of public stocks. Notwithstanding the significant projected fall in the average prices of the "**other cereals**" (mainly oats and triticale), the total area allocated to these cereals would stabilise at around 3.1 mio ha over the whole projection period.

Yields

Yield trends observed since the mid-1980s are assumed to continue over the whole projection period. However, the overall decline in market prices that is foreseen to take place in the wake of the cut in cereal support prices is expected to curb somewhat the increasing trend in cereal yields, notably in the short term. Its negative impact on productivity growth would nevertheless be partially offset by the projected increase in the level of voluntary land set-aside that would remove the least productive land from production and by the increasing share of soft wheat and maize in the total cereal area.

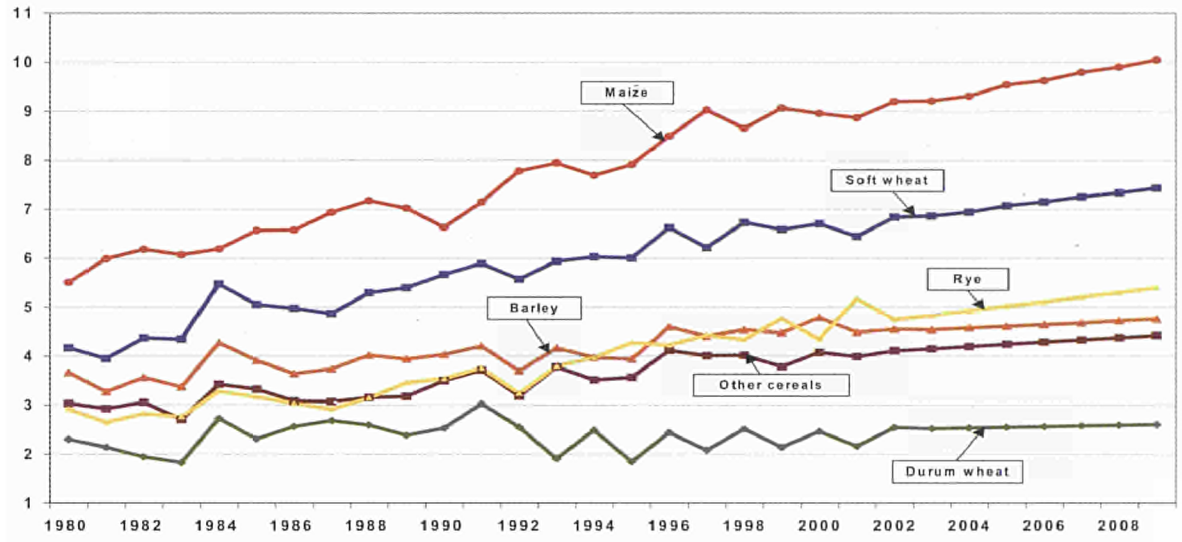
Over the medium term, cereal yields are foreseen to continue to expand to reach 6.20 t/ha in 2009, i.e. **an annual average productivity growth of 1.1 %**. This would constitute a marked slowdown as compared to the annual growth rates observed between 1993 and 1999 (+2.2 % on average). Maize, soft wheat and rye would exhibit the strongest gains, with an average annual increase estimated at around 0.14 t/ha, 0.09 t/ha and 0.09 t/ha respectively (i.e. more than 1.2 % per annum on average).

Table 1.4 Cereal yield projections in the European Union, 2000 – 2009 (t/ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total wheat	5.9	5.5	6.0	6.0	6.0	6.2	6.2	6.3	6.3	6.4
Soft wheat	6.7	6.5	6.8	6.9	7.0	7.1	7.2	7.3	7.3	7.4
Durum wheat	2.5	2.2	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6
Total coarse grains	5.6	5.5	5.6	5.5	5.6	5.7	5.8	5.9	5.9	6.0
Barley	4.8	4.5	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.8
Maize	9.0	8.9	9.2	9.2	9.3	9.6	9.6	9.8	9.9	10.1
Rye	4.4	5.2	4.8	4.8	4.9	5.0	5.1	5.2	5.3	5.4
Other cereals	4.1	4.0	4.1	4.2	4.2	4.3	4.3	4.3	4.4	4.4
Total cereals	5.7	5.5	5.8	5.8	5.8	5.9	6.0	6.1	6.1	6.2

Conversely, durum wheat and barley[12] would record the lowest yield increases at 0.3% and 0.7 % on annual average respectively.

Graph 1.4 Cereal yields in the European Union, 1980 – 2009 (t/ha)



Production

After a record cereal harvest at 213.7 mio t in 2000, the total cereal production is estimated to have dropped below 200 mio t in 2001 on account of both lower yields and a falling area harvested associated with adverse climatic conditions. The 2002 production year would exhibit a sharp rebound in cereal harvest driven by increasing yields -towards their long-term trends- and higher area. Over the medium term, the steady growth in cereal productivity would more than compensate the gradual fall in total cereal area, so that total production would reach 226.5 mio t in 2009. As compared to the 1999-2000 period, the cumulative increase in yields of 11 % up to 2009 would largely outweigh the slow decline in total cereal area (-1 %) in the total production growth (10 %).

Supported by higher area and yield projections (2 % and 12 % respectively as compared to 1999-2000), common wheat production would expand over 100 mio t and reach a historical high of 106 mio t in 2009. Durum wheat production would also increase to reach 10 mio t by 2009 owing to area expansion. By contrast, coarse grain production would fall in the short term from the high levels recorded in 2000, before rising slowly to approximately 111 mio t by 2009 as yield growth would somewhat outpace the slow

[12] The increasing share of malting barley in the total EU barley area is also projected to affect its average productivity growth.

decline in area. Lower profitability prospects and less favourable perspectives for productivity growth would affect barley production which is projected to stagnate at around 47 mio t over the next seven years.

Table 1.5 Cereal harvested production projections in the EU, 2000 - 2009 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total wheat	104.7	92.1	106.4	106.2	106.5	110.1	110.9	113.0	114.0	115.7
Soft wheat	95.8	84.4	97.2	97.0	96.9	100.7	101.1	103.2	104.0	105.6
Durum wheat	8.9	7.7	9.2	9.2	9.6	9.4	9.8	9.7	10.0	10.1
Total coarse grains	109.1	107.3	108.0	106.2	105.9	108.0	107.8	109.1	109.7	110.8
Barley	51.6	48.3	48.5	47.9	47.7	47.1	46.9	46.4	46.8	46.7
Maize	38.6	40.1	40.7	39.1	38.9	41.3	41.0	42.5	42.8	43.8
Rye	5.4	6.3	5.4	6.2	6.3	6.3	6.4	6.6	6.6	6.6
Other cereals	13.5	12.7	13.4	12.9	13.1	13.2	13.4	13.6	13.6	13.7
Total cereals	213.7	199.4	214.4	212.3	212.5	218.1	218.7	222.1	223.7	226.5

2.1.2 Internal demand

The reduction in the cereal support prices following the implementation of the CAP reform and its translation into lower market prices for feed cereals would combine with the moderate recovery in the prices of the oilseed complex to boost cereal competitiveness and to generate a significant increase in domestic demand for cereals.

Total cereal demand is projected to increase steadily over the medium term, from 186 mio t in 2000/01 to 200 mio t in 2009/10. This 14 mio t growth in cereal demand would be broadly shared between feed and non-feed uses.

Table 1.6 Cereal demand projections in the EU, 2000 - 2009 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Feed demand	116.7	118.1	119.3	120.2	119.6	121.4	122.0	123.0	123.4	124.4
Food demand	44.7	45.4	45.9	46.3	46.1	46.5	46.5	46.8	47.0	47.3
Seed demand	6.1	6.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Other demand	18.1	19.3	19.8	20.4	20.5	21.0	21.3	21.6	22.0	22.5
Total cereals demand	185.7	188.8	191.1	192.9	192.1	194.8	195.7	197.4	198.3	200.2

Feed demand

The 1992/93-1999/00 period was marked by a very sharp rise in cereal feed use. The rapid development in white meat production and the dramatic improvement in EU cereals competitiveness -following the implementation of the 1992 CAP reform- generated a 6 percentage point increase in the cereal market share in the feed product market and a global gain of some 30 mio t. The implementation of the Agenda 2000 CAP reform is projected to generate **a further increase in cereal feed use** over the 2002/03–2009/10 period, though at a **much more moderate pace than after the 1992 CAP reform** due to slower growth in meat production and lower gains in the price competitiveness of cereals[13].

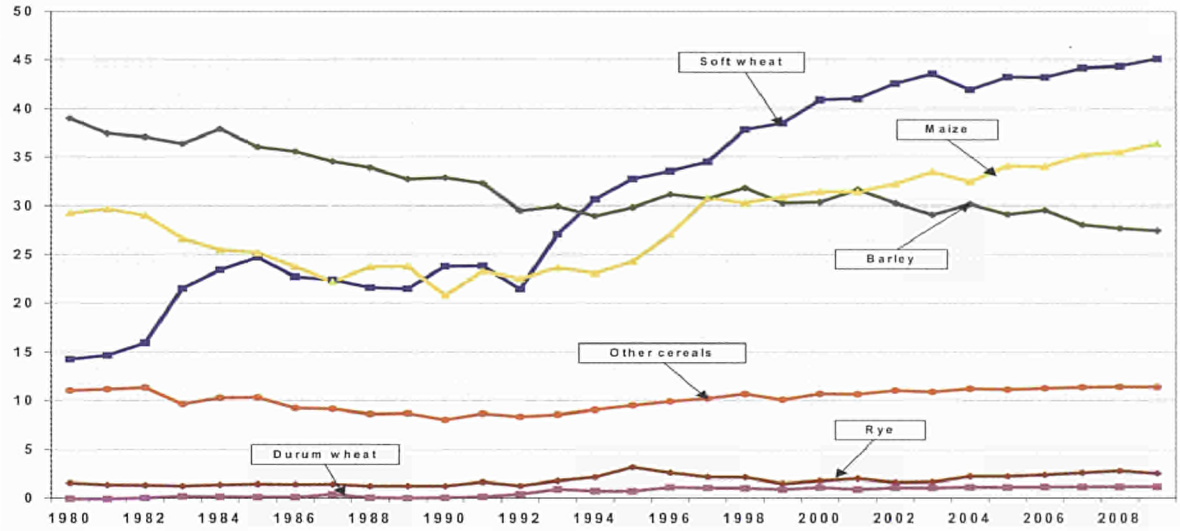
The medium-term prospects of a marked slowdown in the growth of white meat production and the declining trend in the size of the total EU cattle herd are expected to limit the average annual growth in the total demand for marketable feed products to around 0.3 %, i.e. only a fifth of the growth observed between 1993/94 and 1999/00. Short-term developments in total feed demand would remain dominated by the recent crisis in the animal sector, the beef cycle (which enters its downward path in 2002), the

[13] Furthermore, nutritional constraints in the feed formulations for further cereal incorporation could also limit somewhat future growth prospects for cereal feed use.

upwards adjustment in the pig meat sector and a relative stagnation in poultry meat production. After a relative stagnation in 2003 and 2004, global growth in feed demand would resume rising from 2005 onwards at the sustained pace of around 0.5 % per year owing to the robust developments in the white meat sector. The end of the decade would be marked by a significant slowdown in the feed demand sector that would merely reflect less favourable perspectives in the pig and poultry sectors.

The projected fall in **EU feed cereal prices** in the wake of the implementation of the Agenda 2000 CAP reform should boost their price competitiveness vis-à-vis their main substitutes. Having recovered from 1998 to 2000, soybean meal prices would weaken in the short term before strengthening from 2003/04 to reach 214 $/t in 2009/10. The impact for the EU feed sector of these fluctuations in meal prices would be accentuated by the changes in the $/€ exchange rate. Conversely, the prices of corn gluten feed would slightly fall in the near term before stagnating over the medium term at around 84 $/t, whereas manioc prices would decline broadly in line with EU domestic cereal prices in order to remain competitive in the EU (after a short-term fall, they would stabilise around 70 $/t).

Graph 1.5 Development in cereal feed demand, 1980/81 – 2009/10 (mio t)



Notwithstanding the recovery on world markets, both in prices and trade opportunities[14], the reduction in cereal support prices in the early years of the decade is projected to lower the general price level of feed cereals over the medium term. Most feed cereal prices in the EU would trade at or below support price levels throughout the whole period as they would remain under pressure from excess supply for some coarse grains (notably rye and barley) and delicately balanced markets for other feed cereals, some of which do not benefit from price support (feed wheat, oats and triticale). These factors would combine to restrain any significant price increases.

In spite of a substantial appreciation of the euro assumed over the medium term –at least as compared to the situation as of April 2002- the relatively weak $/€ exchange rate would exert some further strain on the competitiveness of the major imported feed substitute products by reinforcing the price competitiveness of EU feed cereals.

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[14] However, most additional cereal exports generated by the recovery in world import demand should concern grains of higher quality.

As a result of this improved price competitiveness, EU cereals are projected to capture a growing share of the total demand for marketable feed products. The total share of EU cereals would strongly increase from a 54.9 % average over the 1999/00-2000/01 period to 58.4 % in 2009/10. Most of these gains would be achieved over the first years of the projection period, when the cut in support prices translates into a fall in average feed cereal market prices. This growth in cereal market share would take place at the expense of the "protein-rich" and "energy-rich" products whose market share would drop by 0.7 and 2.8 percentage points respectively[15].

The total feed use of cereals would grow by 7.7 mio t to reach 124.4 mio t by 2009/10 on account of an increased demand for marketable feed products and an improved market share. However, the corresponding annual average growth rate in cereal feed demand of 0.7 % from 2000/01 to 2009/10 would constitute a considerable slowdown relatively to the 1992/93-1999/00 period (4 %). It would also represent a downwards revision from last year's prospects owing to less favourable medium-term developments projected for the animal sector which would in turn generate lesser growth in total demand for marketable feed products[16].

The distribution of this increased global feed demand for cereals would mainly depend on the development of their relative market prices, although specific patterns can be identified such as the increasing use of wheat for feed purposes and the continuous decline in feed barley usage. Since barley and other cereals appear less price responsive, much should depend from the price relationship between soft wheat and maize.

Table 1.7 Total wheat demand projections in the EU, 2000/01 – 2009/10 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Feed demand	42.2	42.0	43.8	44.8	43.2	44.5	44.5	45.5	45.7	46.4
Food demand	39.2	39.8	40.3	40.7	40.4	40.8	40.8	41.1	41.2	41.5
Seed demand	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Other demand	6.1	6.7	7.0	7.4	7.4	7.8	8.0	8.3	8.6	9.0
Wheat demand	90.7	91.8	94.4	96.2	94.3	96.4	96.6	98.2	98.8	100.3

Soft wheat is projected to confirm its predominance as the main feed cereal in the EU over the medium term. Despite relatively firm prices, its share in the total cereal feed use would rise from an average 34.7 % in 1999/00-2000/01 to 36.3 % in 2009/10. Accordingly, soft wheat feed usage would grow from 39.8 mio t in 1999/00-2000/01 to 45.2 mio t in 2009/10, i.e. an increase of 5.4 mio t over the whole period. High productivity growth would enable feed wheat to restrain price increases and to maintain its price competitiveness with other feed grains over the medium term. In comparison with last year's projections, soft wheat feed usage would be slightly affected by lower availability on the supply side and favourable prospects from external demand that should somewhat limit its gains.

[15] The ban on the use of processed animal proteins in farmed livestock feed has been assumed to apply over the whole outlook period.

[16] Conversely, feed cereal usage would benefit from a greater price competitiveness which would partially compensate the impact of lower demand from the animal sector.

Table 1.8 Total coarse grains demand projections in the EU, 2000/01 – 2009/10 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Feed demand	74.6	76.1	75.5	75.4	76.4	76.8	77.5	77.5	77.7	78.0
Food demand	5.6	5.6	5.6	5.6	5.7	5.7	5.7	5.7	5.8	5.8
Seed demand	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.6	2.6
Other demand	12.0	12.6	12.8	13.0	13.1	13.2	13.3	13.3	13.4	13.5
Coarse grains demand	**95.0**	**97.1**	**96.7**	**96.8**	**97.8**	**98.4**	**99.1**	**99.2**	**99.5**	**99.9**

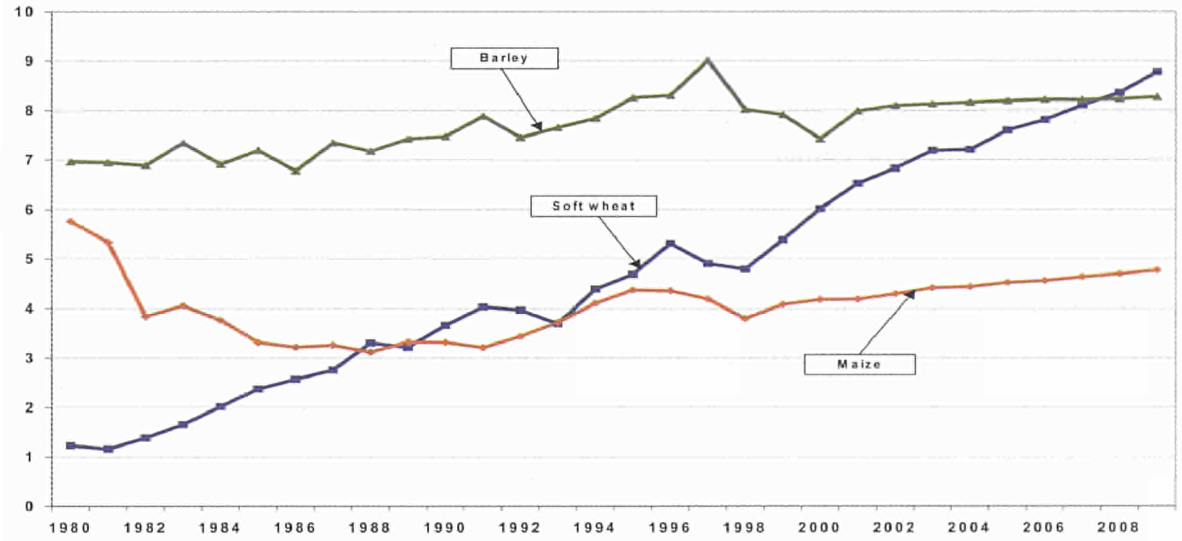
Maize feed use would also rise by 5.2 mio t to reach 36.4 mio t in 2009/10, a 2 % point increase in feed market share thanks to its greater price competitiveness supported by high productivity growth. Most of soft wheat and maize gains would take place at the expense of barley, the use of which would fall by 2.9 mio t over the whole period. Barley feed use would reach 27.5 mio t in 2009/10, i.e. slightly more than a fifth of the total feed cereals consumed by animals. The projected decline in production levels and export demand are foreseen to exert pressure on barley's feed market share.

These projections of cereal feed use show that the general fall in cereal prices generated by the implementation of Agenda 2000 would reinforce the trends observed in the EU feed market since the 1992 CAP reform towards an ever greater use of soft wheat and maize for feed purposes at the expense of barley. The development in maize production and its high productivity potential are expected to strengthen its price competitiveness in the feed market.

Non-feed demand

The total non-feed uses of cereals are projected to increase by 6.8 mio t over the medium term, from 69.0 mio t in 2000/01 to 75.8 mio t in 2009/10. Food demand would increase broadly in line with population growth due to the low price responsiveness of this type of demand. However, the anticipated annual average growth of 0.6 % for total cereal food demand would contrast sharply with the rates recorded since the implementation of the 1992 CAP reform. This is particularly the case for the growth in durum wheat consumption: its growth rate in food consumption would be more than halved over the next seven years. Seed demand would stagnate around 6 mio t over the medium term in line with a total cereal area at between 36.5 and 37 mio ha.

Graph 1.6 Development in "other demand" for soft wheat, maize and barley, 1980/81 – 2009/10 (mio t)



By contrast, the other types of demand, mainly industrial demand, would be stimulated by the fall in cereal prices. They are foreseen to grow by 24 % from 2000/01 to 2009/10 to reach 4.4 mio t. Most of the growth in "other demand" would be generated by soft wheat -predominantly for starch production- as barley and maize would only exhibit modest increases at 0.8 mio t and 0.6 mio t respectively. Therefore, the fall in cereal prices generated by the implementation of Agenda 2000 is also anticipated to favour soft wheat usage at the expense of coarse grains. Yet, the overall projected growth rates in non-feed usage of cereals (with the exception of industrial demand) would also display a marked reduction as compared to the post 1992 CAP reform period.

2.1.3 External trade

The implementation of Agenda 2000 CAP reform and the decline in average cereal prices in the EU would combine with moderate developments in world cereal prices to **improve EU cereal competitiveness** and set the stage for a sustained recovery in EU cereal exports over the next seven years. These favourable perspectives for EU cereal exports would be reinforced by a relatively favourable $/€ exchange rate –in comparison with historical trends- that is anticipated to further enhance the ability of the EU to export beyond its URAA limits on subsidised exports.

In the near term, the cereal sector would only display modest improvements from the trough of the late 1990s when cereal markets were characterised by large supply, ample stocks and weak demand. Over the medium term, most prominent forecasting organisations tend to depict a more favourable situation. Market fundamentals are foreseen to slowly improve with global demand fuelled by improved economic perspectives and a gradual adjustment of supply. Limited production potential in some countries and supply adjustments should generate a broad expansion of cereal trade, driven by rising income, diet diversification and higher demand for livestock products and feeds in some developing countries. Total growth in cereal trade would approximate 40 mio t with Asia, North Africa, the Middle East and Latin America the main importing regions.

These factors would generate **a moderate price recovery** over the medium term. Based on the most recent FAPRI medium-term projections and the provisional OECD outlook (cf. Chapter I, Methodological annex, section II.5 and Chapter III, section 1), cereal prices are assumed to reach around 150 $/t for common wheat (US Fob Gulf, HRW[17]), 110 $/t for maize (US Fob Gulf) and 104 $/t for barley (St Lawrence) by 2009/10. After some weakening in the short-term, durum wheat are also projected to trend upwards, rising to about 180 $/t by the end of the projection period. After a long period of relative stagnation, global cereal trade would rise substantially, with total wheat trade exhibiting a 20 mio t increase and an overall growth in coarse grain trade of around 20 mio t. Among coarse grains, barley trade would also demonstrate a significant expansion with an increase of about 3 mio t, mainly from the Middle East and China.

A relatively favourable $/€ exchange rate would further strengthen the impact of this expected moderate recovery in world market prices on the competitiveness of EU cereals. If world market prices of common wheat, durum wheat and barley would develop at sustained levels in € terms over the near term, they would only display a

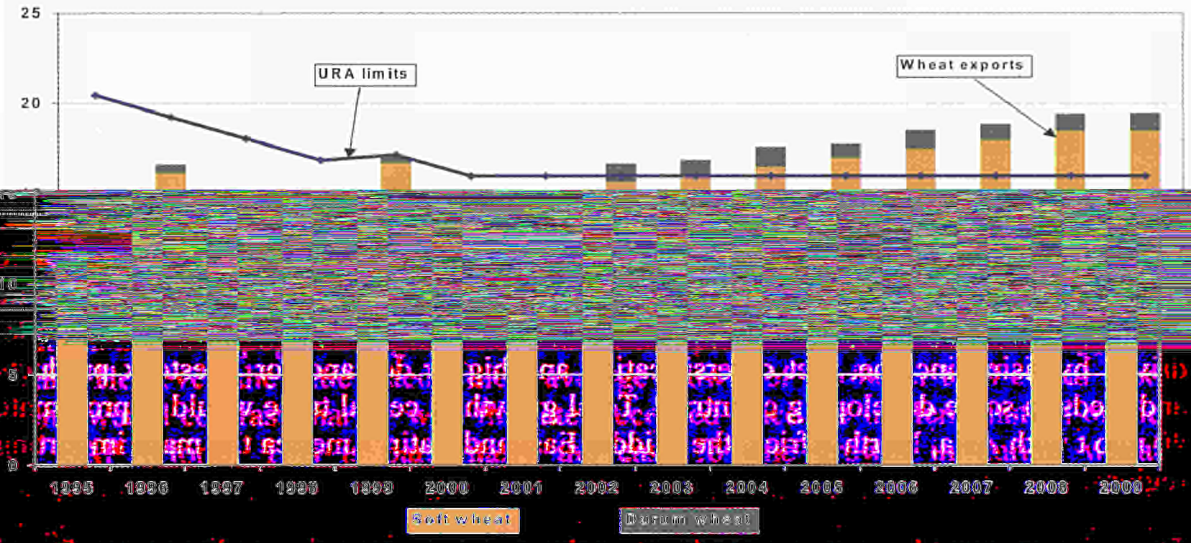
[17] The SRW wheat, which broadly corresponds to EU wheat quality, generally quotes around 10 % below the HRW wheat reference.

moderate growth over the medium term as the € is assumed to appreciate slowly against the $.

As a result, world market prices for common wheat would develop above the EU intervention price level[18] throughout the whole outlook period. This market situation should allow the EU to export significant quantities of soft wheat without subsidies, thus removing any WTO constraints on the level of its soft wheat exports. A similar situation would occur for durum wheat, the exports of which would take place without any export refunds as durum wheat prices would remain substantially above EU domestic support price over the whole projection period.

Medium-term developments in world barley prices are also expected to allow some unsubsidised barley exports over the projection period (mostly in the form of malt and malting barley). By contrast, other coarse grain exports would remain limited by the URAA limits since their prices would remain above world market prices.

Graph 1.7 Development in total wheat exports, 1995/96 – 2009/10 (mio t)



After a first fall in 2000/01 to 28.7 mio t from a high of 36.9 mio t in 1999/00, total EU cereal exports are estimated to decline dramatically in 2001/02 to 17.5 mio t due to a fall in EU wheat quality and a large increase in export supply from Eastern European countries and the FSU at more competitive prices. Over the medium term, they are projected to recover substantially thanks to greater availability and to exceed the annual limit for subsidised exports set by the URAA limits (i.e. 25.4 mio t for total cereals[19]) as durum wheat, some common wheat and barley/malt would be exported without subsidies. These projections for cereal exports would still remain conditional upon the assumption of the full use of the URAA limits.

From 2002/03, total cereal exports would expand steadily and reach 32.3 mio t in 2009/10. They would be driven by rising common wheat exports[20] which would stand slightly above 18 mio t in 2009/10. Whereas exports of maize, rye and other coarse

[18] After taking into account the price differential between HRW (the price reference) and SRW wheat (which broadly corresponds to EU wheat quality) and the fobbing and transport cost, i.e. around 25 €/t.

[19] This export volume includes an additional 0.5 mio t for food aid (including free delivery of agricultural products), but excludes 0.4 mio t of exported potato starch.

[20] Conditional on the respect of the quality requirements.

grains would remain broadly stagnant[21] with an overall volume of 3.8 mio t, barley exports would slowly increase over the medium term as world import demand for barley strengthens and prices rise (from around 8 mio t in the near term to 9 mio t over the medium term). Durum wheat exports would remain sustained at rather high levels (at or slightly below 1 mio t).

Total cereal imports are estimated to almost double in 2001/02 to reach 11.9 mio t, with 8.5 mio t in wheat (of which 1.5 mio t of durum wheat). This situation, that makes the EU the world largest wheat importer in 2001/02, results from a combination of short-term factors including very low or even nil import duties, a relatively low wheat crop in the EU and very large export supplies available in Russia, Ukraine and in some Eastern European countries at extremely competitive prices.

Over the medium term, the combination of all these factors are not expected to continue, notably the existence of large exportable surplus from the Black Sea region[22] (although annual variations may not be excluded). Total cereal imports are assumed to fall to approximately 8.0 mio t in the near term, i.e. still above the most recent averages. They would remain relatively stable over the medium term with imports of -mainly high quality- wheat at 3.5 mio t and maize at 3.0 mio t.

2.1.4 Balance sheet

If short-term developments are expected to remain affected by the existence of large cereal stocks, the medium-term outlook -in the framework of a *status quo* policy- would tend to display a **rather favourable situation for most EU cereals, with the noticeable exception of rye and –to a lesser extent- barley**. In spite of a further expansion in cereal production, total cereal stocks would broadly remain constrained at reasonable levels for most of the projection period.

Table 1.9 Total cereals balance sheet in the EU, 2000/01 – 2009/10 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Usable production	213.3	198.8	213.7	211.7	211.8	217.5	218.0	221.4	223.0	225.8
Consumption	185.7	188.8	191.1	192.9	192.1	194.8	195.7	197.4	198.3	200.2
Imports	5.8	11.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Exports	28.7	17.5	28.7	29.1	30.0	30.3	31.1	31.7	32.2	32.3
Beginning stocks	31.7	36.4	40.8	42.8	40.5	38.2	38.6	37.8	38.2	38.7
Ending stocks	36.4	40.8	42.8	40.5	38.2	38.6	37.8	38.2	38.7	40.0
of which intervention	6.7	9.5	13.7	12.1	11.9	12.0	10.3	11.2	11.8	12.8

The markets of most cereals would benefit from the reduction in support prices that should improve their price competitiveness on both the internal and external markets and from the expected moderate recovery in world cereal markets. These factors would significantly contribute to the overall balance of EU cereal markets. However, the balance and stability of EU cereal markets would become increasingly and critically dependent on the situation on the world cereal markets -for both price and trade volumes- and on the developments of the $/€ exchange rate.

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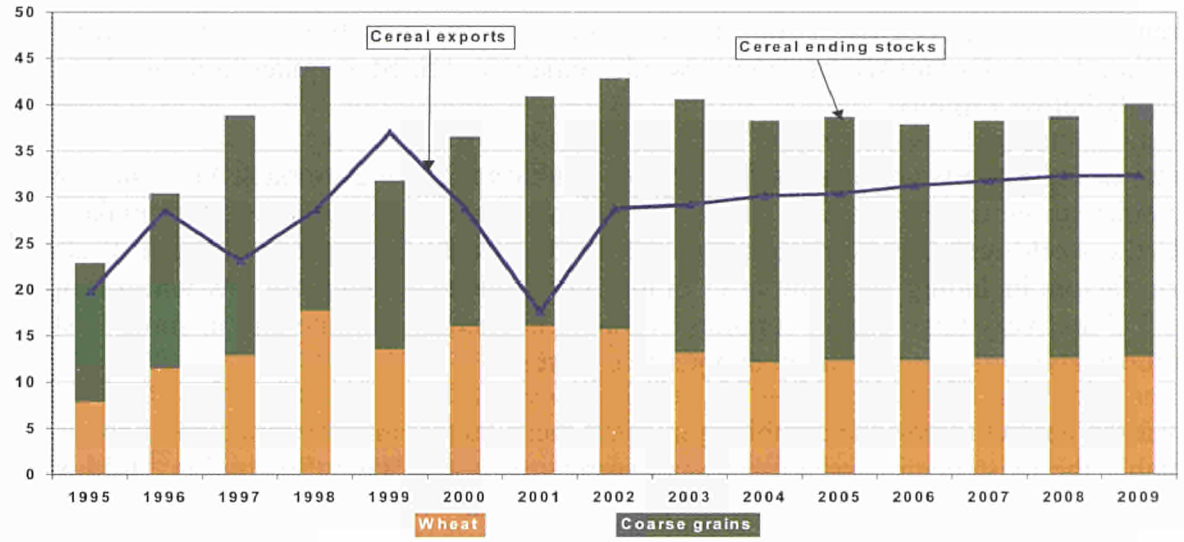
[21] The possibility of taking advantage of unsubsidised barley exports to increase subsidised exports of other coarse grains has been cautiously kept at a minimum.

[22] If cereal output in the Former Soviet Union may be foreseen to increase substantially above the average produced in the 1990s, it is not expected to structurally reach the high level recorded in 2001. Furthermore, increased domestic demand for human consumption and for the livestock sector is foreseen to contribute to limit export supply.

Graph 1.8 Allocation of the total cereal production surplus in the EU, 1995/96 – 2009/10 (mio t)



After a short-term increase at around 43 mio t, total cereal stocks would slowly decline until 2006/07 when they would stand below 38 mio t. In the first part of the outlook period, the expansion in cereal production would be somewhat limited by the increase in voluntary set-aside and oilseed production, and mainly absorbed by a growing domestic feed demand and higher exports. However, these general trends would mask widely diverging prospects across cereals. If the stock levels for most cereals would gradually fall, their impact on the total cereal stock would be broadly offset by the sustained accumulation of rye production surplus.

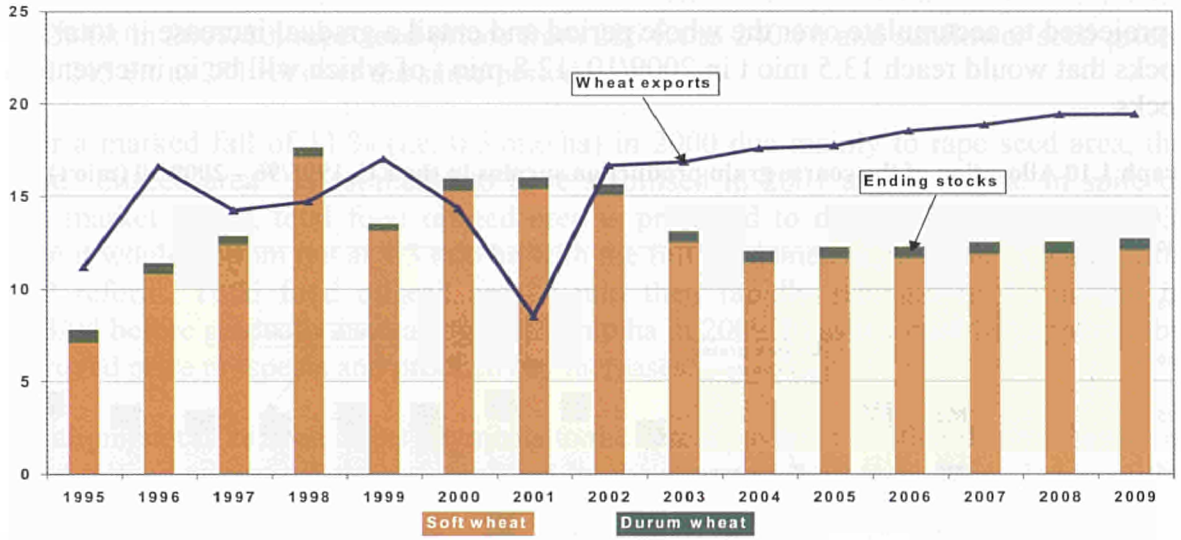
Table 1.10 Wheat balance sheet in the European Union, 2000/01 – 2009/10 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Usable production	104.4	91.8	106.1	105.9	106.3	109.9	110.6	112.7	113.7	115.4
Consumption	90.7	91.8	94.4	96.2	94.3	96.4	96.6	98.2	98.8	100.3
Imports	3.1	8.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Exports	14.3	8.5	16.6	16.8	17.6	17.7	18.5	18.8	19.4	19.4
Beginning stocks	13.5	16.0	16.0	15.6	13.1	12.0	12.3	12.3	12.5	12.5
Ending stocks	16.0	16.0	15.6	13.1	12.0	12.3	12.3	12.5	12.5	12.7
of which intervention	0.8	1.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

From 2006/07 onwards, total cereal stocks would resume growing slowly to reach 40 mio t by 2009/10, of which about 13 mio t of rye in public stores. The markets for soft wheat, durum wheat and maize would continue to remain rather tight. Despite an increase in production levels, these cereals would benefit from a steady growth in domestic and/or external demand, which is foreseen to keep their market prices substantially above support levels. Public stores of barley would fully disappear and barley market prices would start rising above support levels towards the end of the period. In contrast, rye stocks would keep building up, with an additional 0.9 mio t in public stocks every year.

Whereas total wheat stocks would stabilise over the medium term at around 12.5 mio t (of which 0.6 mio t in durum wheat), maize stocks would remain at low levels and fluctuate slightly between 5.5 and 6 mio t over the next seven years.

Graph 1.9 Allocation of the wheat production surplus in the EU, 1995/96 – 2009/10 (mio t)



The barley market would improve gradually and become broadly balanced around 2006/07, when the slow decline in production levels and the prospects for sustained exports outweigh the erosion of barley's share in the feed market (to the benefit of soft wheat and maize). Total stocks of barley would decline over the medium term from 11 mio t in 2001/02 to around 6 mio t from 2006/07 onwards.

Table 1.11 Coarse grains balance sheet in the EU, 2000/01 – 2009/10 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Usable production	108.9	106.9	107.6	105.8	105.5	107.6	107.4	108.7	109.3	110.4
Consumption	95.0	97.1	96.7	96.8	97.8	98.4	99.1	99.2	99.5	99.9
Imports	2.7	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Exports	14.4	9.0	12.0	12.2	12.4	12.5	12.6	12.8	12.8	12.8
Beginning stocks	18.2	20.5	24.8	27.1	27.4	26.2	26.3	25.5	25.7	26.2
Ending stocks	20.5	24.8	27.1	27.4	26.2	26.3	25.5	25.7	26.2	27.3
of which intervention	6.0	8.5	11.5	12.1	11.9	12.0	10.3	11.2	11.8	12.8

The fall in the prices of "other cereals" [23] (oats and triticale) would stimulate a regular increase in the domestic consumption of these cereals, but would in turn constrain their development on the supply side. As a result their market would stabilise for most of the projection period, with total "other cereals" stocks standing slightly above 2 mio t.

In contrast to other cereals, the market for rye in the EU is foreseen to display a continuous and structural imbalance as the potential for adjustment in the supply and demand of this cereal should remain largely constrained by its relatively high market prices[24] and lack of market outlets. Limited import demand on the world market, low price competitiveness[25] on both the external and domestic markets, feed nutritional limitations and a stagnating domestic human demand in the EU are all foreseen to make

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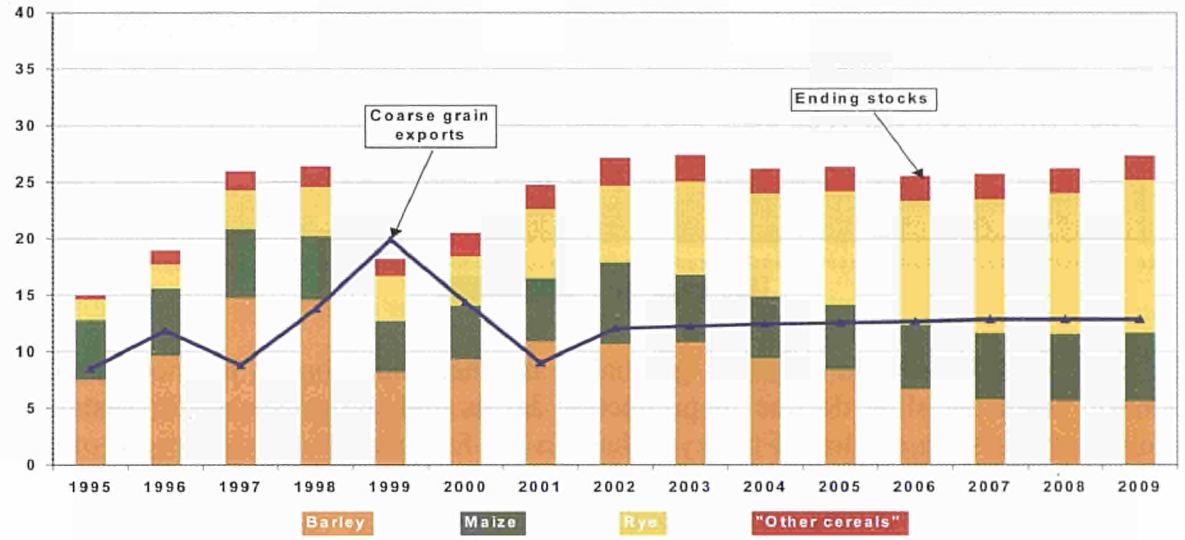
[23] Market prices for oats and triticale would fall below support price levels as these cereals are not eligible to the intervention price support mechanisms.

[24] In contrast to feed wheat, oats and triticale, rye is supported by a price support mechanism that makes it economically attractive for producers.

[25] The import demand for rye is rather limited and unstable: its comes from, on the one hand, the CEECs and the FSU for bread-making purposes when these traditional rye-producing countries face supply shortage, and, on the other hand, from Asia (China, Japan and South Korea) where it is used as feed grain, but where it faces a strong competition from other (low-cost) feed grains.

public stores an increasingly attractive market outlet for the domestic surplus of this cereal that cannot find an export market. The latter, estimated at approximately 0.9 mio t, is projected to accumulate over the whole period and entail a gradual increase in total rye stocks that would reach 13.5 mio t in 2009/10, 12.8 mio t of which will be in intervention stocks.

Graph 1.10 Allocation of the coarse grain production surplus in the EU, 1995/96 – 2009/10 (mio t)



2.2 Oilseeds

The world oilseed sector is projected to exhibit a gradual and moderate recovery from a current situation characterised by very low prices, stemming from a rapid expansion in oilseed production that outpaced demand growth and a combination of policy and macro-economic factors (notably the support system in the US). In the longer run, the robust expansion in the demand for oilseed and oilseed products is anticipated by most forecasting agencies to slowly restore market balance, although oilseed supply should exhibit strong increases. Global oilseed demand would benefit over the medium term from population growth and the consolidation of the recovery in world economic growth that would stimulate increased human consumption of vegetable oils as well as the use of oilseed meals for the livestock sector[26].

World prices of oilseeds and oilseed products are projected to strengthen over the medium term fuelled by an improved demand. With more favourable consumption growth prospects for vegetable oil than for oilseed meals, oil-rich oilseed prices are foreseen to demonstrate a stronger pattern. Accordingly, sunflower seed prices would increase from 219 $/t in 2000/01 to 271 $/t by 2009/10, whereas rape seed prices would follow a similar pattern with prices rising from 202 $/t in 2000/01 to 240 $/t[27] in 2009/10. By contrast, soybean prices would rise more modestly from 200 $/t in 2000/01 to 229 $/t in 2009/10. The medium-term perspectives of a relatively weak $/€ exchange rate –by historical standards- would translate this recovery into a stronger pattern for oilseed

[26] In this respect, it is important to recall that no account has been taken in these projections of the Commission proposal regarding the promotion of the use of biofuels in transport.

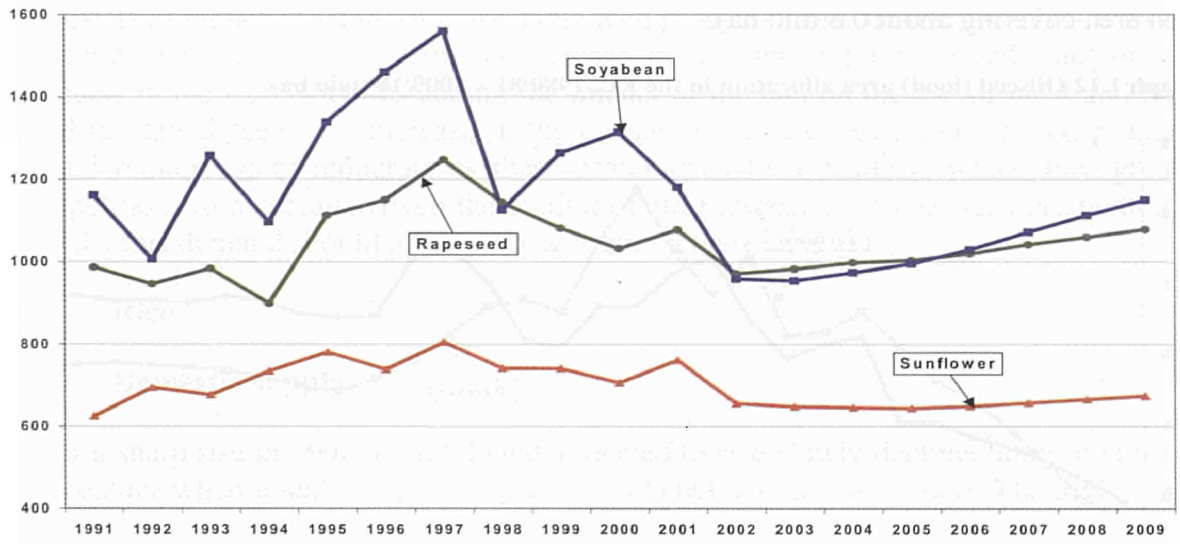
[27] The shortfall in world sunflower seed and rape seed production that boosted their prices in 2001/02 is anticipated to be short-lived.

prices in € terms and should contribute to sustain oilseed production in the European Union over the next seven years. Soybean prices would increase from 224 €/t in 2000/01 to 229 €/t in 2009/10, rape seed prices from 226 €/t to 240 €/t and sunflower seed prices from 245 €/t to 271 €/t over the same period.

After a marked fall of 11 % (i.e. 0.5 mio ha) in 2000 due mainly to rape seed area, the "food" oilseed area[28] is estimated to have stabilised in 2001 at 4.4 mio ha. In spite of high market prices, total food oilseed area is projected to decline further in 2002/03, when it would bottom out at 4.3 mio ha with the full implementation of the Agenda 2000 CAP reform. Total food oilseed area would then rapidly rebound to 4.5 mio ha in 2003/04 before gradually increasing to 4.7 mio ha in 2009/10 as it would be supported by improved price prospects and productivity increases.

The alignment of oilseed direct payments to the cereal payment in 2002/03 and the fall in world oilseed prices in $ terms (amplified by the assumed short-term appreciation of the €) should more than offset the projected modest yield increases, resulting in a drop in oilseed receipts in 2002/03 more pronounced than that for cereals[29] [30]. Oilseed receipts would improve over the medium term, supported by the recovery in oilseed prices and sustained productivity prospects, thus limiting their overall fall in 2009/10 to around 3 % for rape seed, 4 % for soybean and 9 % for sunflower seed relatively to the pre-Agenda 2000 period (cf. graph 1.11).

Graph 1.11 Medium-term development in oilseed receipts, 1991/92 – 2009/10 (€/ha)



28 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. The Blair House agreement foresees that the EU should take appropriate action if the by-products exceed 1 mio t, expressed in soybean meal equivalent.

29 Relatively to the 1998/99-1999/00 average, falls in oilseed receipts would range between 12 % and 13 % in 2002/03 for sunflower seed and rape seed. Owing to a marked decrease in direct payments and less favourable price prospects, soybean receipts would fall by approximately 20 % by 2002/03.

30 The fall in soybean direct payments mainly relates to the specific geographical distribution of this oilseed in the EU. Predominantly produced in Italy, direct payments for soybeans would suffer from both lower direct payment per reference yield –from a theoretical 94.24 € to 63 € per tonne of cereals as for other oilseeds- and from a lower reference yield (from 7.3 t/ha in 2000/01 & 2001/02 to 3.9 t/ha in 2002/03).

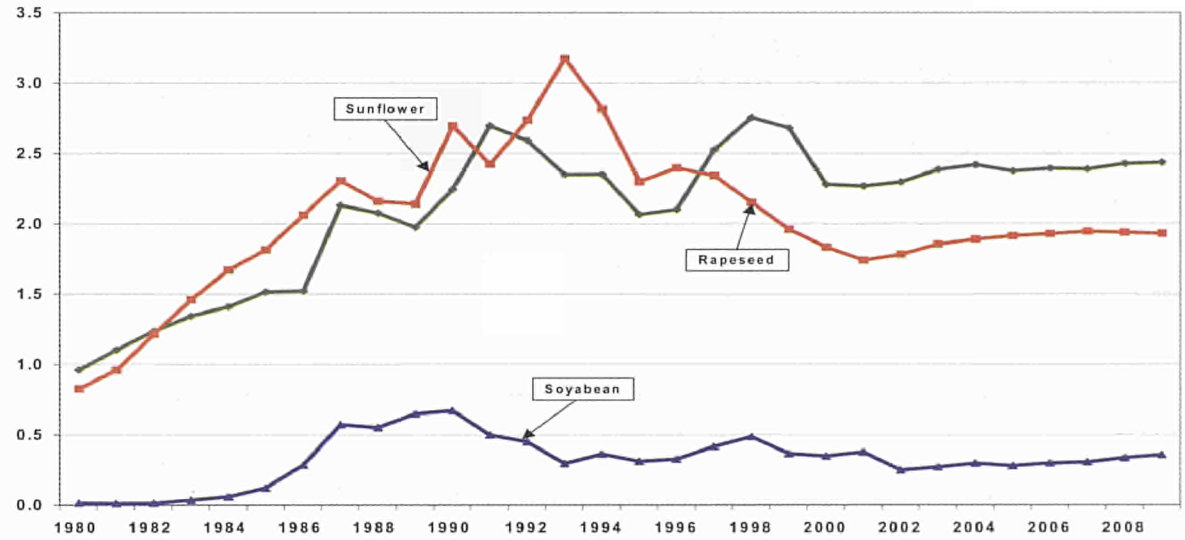
Lower oilseed receipts would generate a fall in their relative share in the total COP area from 12.0 % over the 1998/99-1999/00 period to 11.1 % in 2009/10. Soya bean and rape seed would display the less favourable pattern, their share declining from 1.0 % and 6.3 % over the most recent years to 0.8 % and 5.7 % respectively by the end of the projection period. Soya bean and rape seed area would fall by 32 % and 14 % respectively in 2002/03 relative to 1999/00, before recovering beyond 300 000 ha and 2.4 mio ha respectively over the medium term. After a short-term moderate decrease, sunflower seed area is foreseen to slowly expand below 2.0 mio ha over the medium term on account of favourable prices.

Table 1.12 Oilseed area allocation in the EU, 2000/01 – 2009/10 (mio ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rape seed	3.0	3.0	3.1	3.1	3.2	3.1	3.1	3.1	3.2	3.2
of which food	*2.3*	*2.3*	*2.3*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*
Sunflower seed	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
of which food	*1.8*	*1.7*	*1.8*	*1.9*	*1.9*	*1.9*	*1.9*	*1.9*	*1.9*	*1.9*
Soya beans	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Total oilseeds	5.3	5.3	5.2	5.4	5.5	5.4	5.5	5.5	5.6	5.6
Food	4.5	4.4	4.3	4.5	4.6	4.6	4.6	4.6	4.7	4.7
Non food	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Set-aside rate	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%

Non-food oilseed area is estimated to adapt to the level of the set-aside rate. It is projected to stagnate at around 0.9 mio ha over the 2001/02–2009/10 period (with rape seed area covering about 0.8 mio ha).

Graph 1.12 Oilseed (food) area allocation in the EU, 1980/81 – 2009/10 (mio ha)



Despite a certain decline over the last two years, oilseed yields are expected to resume their increase in the medium term and reach 2.8 t/ha on average in 2009/10. This corresponds to an average annual growth of 1.1 % between 2002/03 and 2009/10, with soybean exhibiting the strongest pattern with an annual growth rate projected at 1.4 % on average.

Table 1.13 Oilseed (food) yields in the EU, 2000/01 – 2009/10 (t/ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rape seed	3.0	3.0	3.3	3.2	3.3	3.4	3.4	3.4	3.5	3.6
Sunflower seed	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8
Soya beans	3.3	3.2	3.4	3.4	3.5	3.5	3.6	3.7	3.7	3.8
Total oilseeds	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8

Oilseeds (food) production dropped from 13.3 mio t in 1999/00 to 11.2 mio t in 2000/01 and 10.9 mio t in 2001/02 as total oilseed area declined. It is then projected to increase slightly over the medium term to reach 13.5 mio t in 2009/10 as yields resume rising and oilseed area recovers. Non-food oilseed production would evolve together with the level of set-aside and stabilise around 2.6-2.7 mio t over the medium term.

Table 1.14 Oilseed harvested production in the EU, 2000/01 – 2009/10 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rape seed	9.0	8.8	10.0	10.0	10.3	10.3	10.5	10.6	11.0	11.1
of which food	*6.9*	*6.8*	*7.6*	*7.7*	*8.0*	*8.0*	*8.1*	*8.2*	*8.5*	*8.7*
Sunflower seed	3.3	3.2	3.2	3.4	3.4	3.5	3.5	3.6	3.6	3.6
of which food	*3.2*	*2.9*	*3.0*	*3.2*	*3.2*	*3.3*	*3.3*	*3.4*	*3.4*	*3.4*
Soya beans	1.2	1.2	0.9	0.9	1.0	1.0	1.1	1.1	1.3	1.4
Total oilseeds	13.5	13.2	14.0	14.3	14.8	14.8	15.1	15.4	15.8	16.2
Food	11.2	10.9	11.4	11.8	12.3	12.2	12.5	12.7	13.2	13.5
Non food	2.3	2.4	2.6	2.5	2.5	2.6	2.6	2.6	2.7	2.7
Set-aside rate	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%

Prospects of higher demand for marketable feed products from the livestock sector would generate over the medium term an increase in the demand for oilseeds and oilseed products in the EU. Notwithstanding the impact of the ban on the use of meat and bone meal in animal feed, this increase in the consumption of oilseeds and oilseed products should remain rather moderate as these protein-rich feed products would face greater competition from cereals. Given the medium-term perspectives for oilseed production in the EU, this demand should give rise to a slight increase in imports.

2.3 Rice

Domestic supply

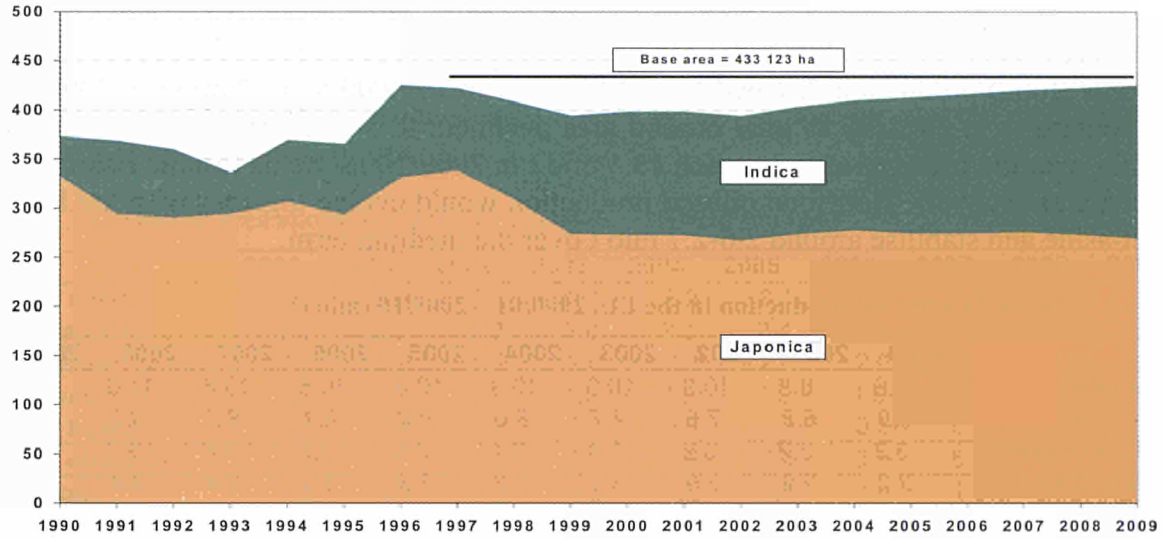
After a sharp rise in 1996/97, total land allocated to rice slowly declined until the turn of the century when it stabilised slightly below 400 000 ha, i.e. some 30 000 ha higher than in the early 1990s. This development in harvested area mainly reflects the strong development in indica area which, in addition to the special aid program between 1987/88 and 1993/94, appears to have been supported by better productivity prospects and a sustained demand. By contrast, japonica area declined by more than 40 000 ha over the last ten years.

Modest price perspectives over the medium term combined with the limitations imposed by the base area on the granting of direct aids –notably for Spain- are foreseen to constrain the expansion of the total rice area that would grow by some 25 000 ha over the whole decade. Most of the growth in area would concern indica that would display a renewed increase –albeit at a lower pace- whereas japonica area would broadly stagnate.

Rice yields are projected to grow by 0.3 % on annual average over the 2001-2009 period, owing to a rise in indica yields of 0.6% per year, whereas japonica yields would merely stagnate. The more favourable productivity prospects for indica rice seem to reflect better

technological improvements for this type of rice varieties as well as its allocation to higher-yield fields

Graph 1.13 Development in EU rice area in '000 ha, 1990/91 – 2009/10

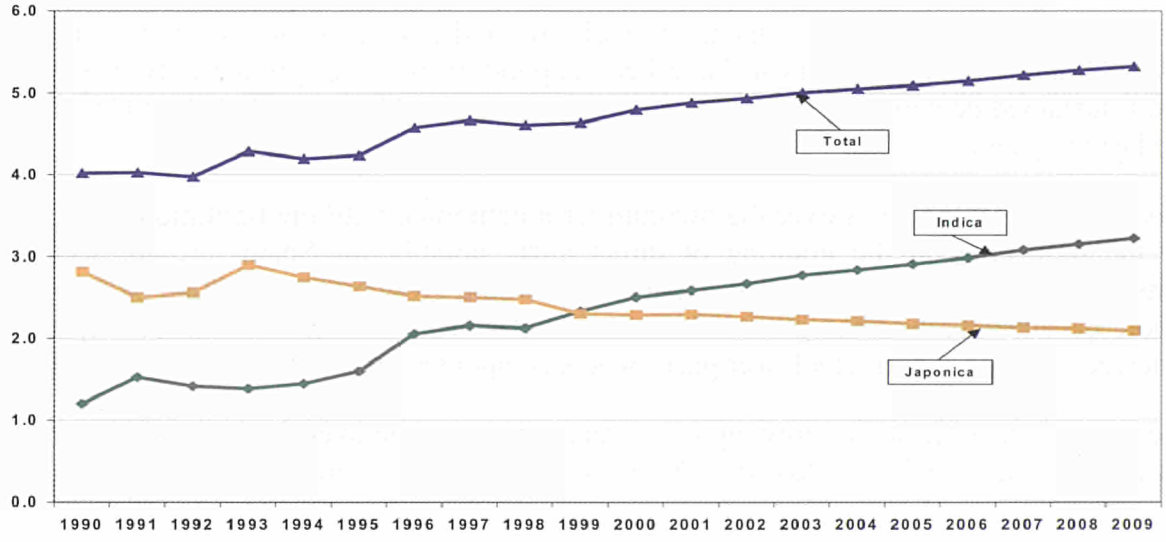


These growth perspectives for area (8 %) and yield (5 %) would entail a 200 000 t increase in rice production (expressed in milled equivalent) that would reach 1.7 mio t by 2009/08. As for yield and area prospects, indica varieties would contribute almost exclusively to this increase.

Domestic demand

Total rice consumption in the EU is anticipated to continue rising from an estimated 1.8 mio t in 2001/02 (milled equiv.) to 2.1 mio t in 2009/10. This 15 % growth would strongly benefit from consumer preferences for indica rice whose total demand would expand by some 30 %. This remarkable growth in indica consumption would amount to 0.3 mio t, i.e. an increase from 2.59 kg/head in 2001/02 to 3.36 kg/head at the end of the decade, and would more than compensate the slow decline in japonica consumption. Indica consumption is also forecast to be supported by low market prices, notably at the end of the decade when LDCs imported rice would enter the EU (at world market prices).

Graph 1.14 Development in EU rice per cap. consumption in kg/head, 1990/91–2009/10



On the contrary, japonica rice would follow its long-term downward trend, falling from 2.29 to 2.12 kg per year over the 2001/02-2009/10 period. This negative trend is forecast to outweigh population growth so that total japonica consumption in the EU would slightly decrease to 0.8 mio t in 2009/10.

External trade

Rice imports –currently composed almost exclusively of indica varieties- would continue rising over the medium term, fuelled by the sustained growth in indica consumption. They would grow from an estimated level of 554 000 t in 2001/02 to 593 000 t in 2005/06.

The share of imports at reduced tariff rates –which currently stands at approximately 60 % in 2000/01- would also steadily increase, albeit at a lower pace than in the most recent years. These imports, mainly composed of basmati rice from India and Pakistan and preferential trade regimes with the ACP, OCT and LDCs and GATT TRQs would rise from 349 000 t in 2001/02 to 388 000 t in 2005/06 driven by the continuous growth in basmati rice imports.

From 2006/07 onwards, the significant reduction in tariff for LDCs imports would boost EU imports which would surge to 1.7 mio t in 2009/10. By the end of the decade, some 80 % of the rice consumption in the EU –including the totality of indica varieties- are foreseen to be satisfied by imports from LDCs (and India and Pakistan for basmati rice). These imports would not only displace almost all imports under normal tariff and preferential trade regimes, but would also replace a very large part of EU rice production.

Rice exports would remain constrained by the WTO limits on subsidised exports of 133 400 t. Total exports would stabilise over the medium term at about 215 000 t thanks to food aid and some unsubsidised exports, with approximately 170 000 t of japonica rice.

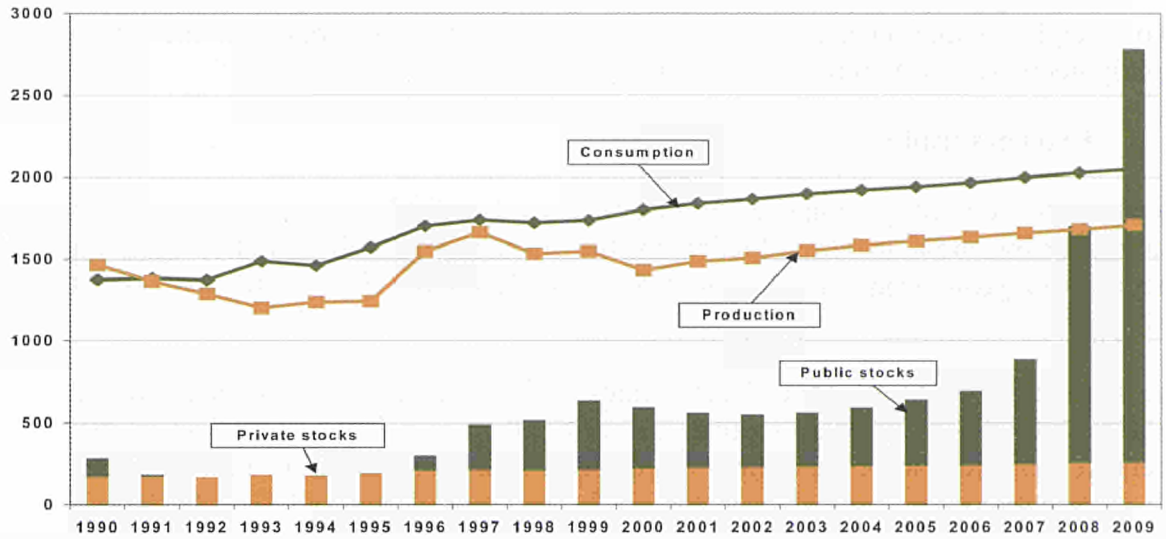
Market balance and stocks

These medium-term perspectives for the EU rice market are projected to display a rather difficult situation characterised by the persistence of the current structural imbalance. If short-term developments are expected to exhibit some reduction in the stock situation, no significant improvement is foreseen in the framework of the current rice regime as total rice stocks would increase from 561 000 t in 2001/02 to 642 000 t in 2005/06. This gradual deterioration of the rice market situation over the medium term would largely constrain price developments in the EU below support price levels.

The expected rise in indica consumption is anticipated to be insufficient to significantly reduce current stock levels owing to the projected expansion of production and the continuous rise in imports. Hence, total stocks of indica rice would rise from 365 000 t in 2001/02 to 479 000 t in 2005/06, of which 340 000 t in public stocks.

On the contrary, the japonica rice market would gradually recover from a long and prolonged downturn -that resulted in weak japonica prices and high public stock levels- as domestic production should broadly adjust to domestic consumption and external demand. Total japonica stocks would then decline from 196 000 t in 2001/02 to 162 000 t in 2005/06, with limited quantities in public stocks.

Graph 1.15 Outlook for the EU rice market ('000 t of milled equiv.), 1990/91-2009/10



By the end of the decade, the gradual implementation of the tariff reduction for LDCs imports would dramatically deteriorate the rice market situation. By 2009/10, total rice stocks in the EU would stand at the unsustainable level of 2.8 mio t –of which 50 % of indica rice- with some 2.5 mio t in public stocks. As a result, domestic prices for milled rice would fall sharply, whereas prices of EU paddy rice would remain supported by the intervention price.

Table 1.15 Total rice balance sheet* in the EU (in '000 t or ha, and kg/cap, milled equivalent), 1999/00 – 2009/10

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Production	1 551	1 436	1 491	1 511	1 555	1 588	1 614	1 638	1 663	1 685	1 711
Imports	522	542	554	563	573	582	593	603	748	1 427	1 699
Available production	2 593	2 615	2 640	2 635	2 679	2 733	2 801	2 883	3 108	4 003	5 113
Consumption	1 741	1 805	1 844	1 869	1 901	1 924	1 945	1 970	2 002	2 085	2 113
Per Capita	4.63	4.79	4.88	4.93	5.00	5.05	5.09	5.14	5.22	5.42	5.48
Exports	214	215	215	215	215	215	215	215	215	215	215
Final stocks	638	595	561	551	562	594	642	697	891	1 703	2 785
private	218	226	230	234	238	241	243	246	250	261	264
public	420	370	330	317	325	353	399	451	641	1 442	2 521

* The public stock projections do not take account of the exceptional disposal measures that could be implemented for uses other than for human consumption, except the 20 000 t sold for feed use in 2001/02.

2.4 Uncertainties

These projections for the EU cereal, oilseed and rice markets are based on a number of assumptions regarding future economic and market developments. In that respect, they are subject to some uncertainties that could have implications for the EU arable crop markets. The most important uncertainties can be summarised as follows:

(1) These projections remain conditional on the medium-term developments on the world cereal markets, both in volume and relative prices, that directly influence the ability of the European Union to export significant quantities onto the world market (with or without subsidies) and release some pressure from the internal markets. The medium-term world market prices for cereals used in this outlook exercise appear rather moderate. A more favourable outlook for these markets could have a significant (and positive) impact on EU markets as it would allow

higher levels of cereal exports and some shift in the domestic feed demand from soft wheat to other feed cereals in surplus. Conversely, less favourable developments on the world markets would lower cereals exports and exert additional pressure on EU cereal prices and public stocks. In this context, it should be noted that the implications of the new US Farm Bill, the Farm Security and Rural Investment Act of 2002, have not been incorporated into the present analysis (cf. Chapter III, section 4.3);

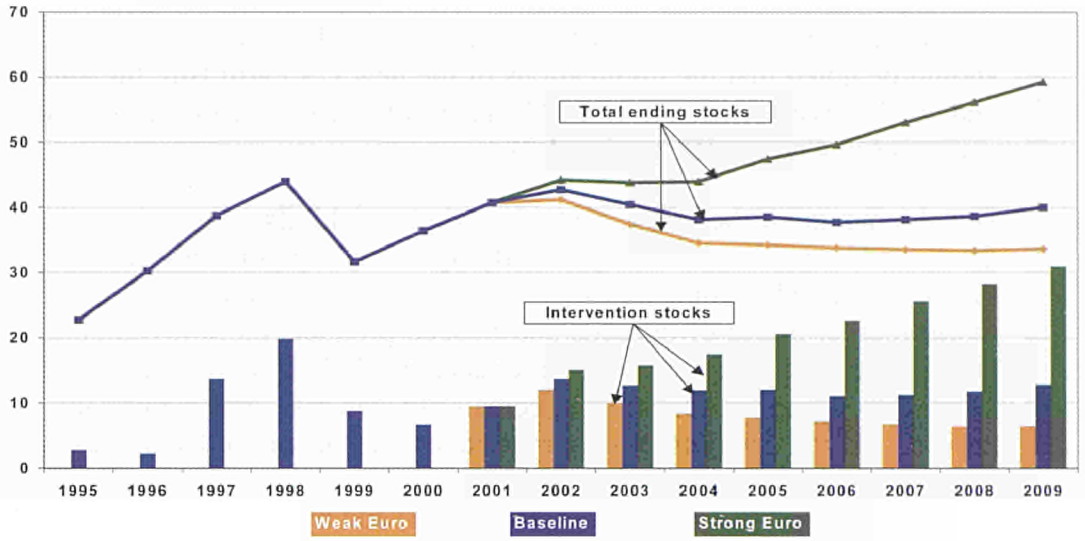
(2) Developments on the world oilseed markets could also have strong implications for the EU cereal markets by modifying the competitiveness of EU cereals in terms of area allocation and domestic consumption. Were future prospects for world market prices of oilseeds and oilseed products more favourable, some EU cereal production surplus could be reduced by shifting more area into oilseeds and increasing domestic demand for cereals. In contrast, any significant downward revision in the medium-term perspectives of the oilseed complex would add pressure on internal cereal market by shifting additional area into other arable crops (the largest part into cereal production) and by lowering the cereal uptake in the feed market;

(3) Prospects for productivity growth for japonica varieties and the consumption of indica rice constitute key uncertainties for the rice sector. The consequences of the tariff reduction for LDCs imports from 2006/07 onwards are also still difficult to assess precisely at this stage. However, if these uncertainties could somewhat alter their order of magnitude, they should not significantly change the key underlying trends and developments that emerge from these projections;

(4) Changes in the €/$ exchange rate could have pronounced effects on the future prospects for the EU cereal markets. A weaker €, as currently observed on the currency markets, would provide further boost to EU cereal competitiveness on the demand side (both domestically and externally). It could also alleviate supply-side pressure on the cereal market by favouring the development of EU oilseed production. A stronger €, as observed over the 1990s, would in turn reduce the competitiveness of EU cereals on its internal markets vis-à-vis imported feed substitute products and on the world markets. Furthermore, it could reduce the EU ability to export some cereals without export refunds and render the WTO limits on subsidised exports increasingly binding in certain cereal sectors (notably in the barley sector and, to a lesser extent, the soft wheat sector). A stronger € would also undermine the attractiveness of oilseed production by reducing the profitability of these crops;

A sensitivity analysis has been carried out to illustrate the impact of alternative $/€ exchange rates on the arable crop sector. In a weaker € scenario (i.e. a $/€ exchange rate stagnating at around 0.9 from 2002 onwards), oilseed area would rise by some 0.2 mio ha on average. If feed demand would increase slightly, the projected increase in internal prices (as domestic markets would become increasingly tight) would affect other types of cereal demand. The largest impact would be found in cereal export demand as EU cereals would become more competitive. Furthermore, the resulting decline in the use of export subsidies for cereal exports (mainly for barley) could in turn allow to increase subsidised exports of other coarse grains up to the URAA limits, albeit in the limits of import demand. As a result, total cereal stocks would drop by more than 6 mio t by 2009/10.

Graph 1.16 Total cereal ending stocks under alternative $/€ exchange rate scenarios, 1995/96 – 2009/10 (mio t)



If a weaker € scenario would not drastically change the overall picture, a stronger € (i.e. a $/€ exchange rate rising from 0.9 in 2002 to 1 in 2003 and 1.1 from 2005 onwards) would in contrast generate some more significant outcome. Whereas cereal area and voluntary set-aside would rise by slightly less than 0.2 mio ha at the expense of oilseeds, total cereal feed demand would decline by more than 0.5 mio t in the short term relatively to the reference scenario. However, the largest impact would be found on the export side where soft wheat and barley exports would be significantly reduced (by 3 to 4 mio t in aggregate) as they lose competitiveness and WTO limits become more binding. As a result, total ending stocks of cereals would rise by a further 19 mio t (concerning mainly barley and – to a lesser extent- rye) to reach 59 mio t by 2009/10.

3. Meat and livestock

3.1 Beef and veal

In recent years the EU beef and veal market has been strongly influenced by the measures that were taken in response to the BSE crises. In the period between 1996 and 2000 around 5 mio animals were withdrawn in the framework of the slaughter schemes and around 6 mio calves were the object of emergency supply-side schemes[31] (of which 3.5 mio in the framework of the early marketing scheme).

Since the second BSE crisis in October 2000, new measures have been taken in order to reduce the growing gap between supply and demand and to reassure the consumers concerning the increased safety standard of EU beef meat. The aim was to restore consumer confidence on beef while, at the same time, reducing beef availabilities by withdrawing animals destined to the food chain. During the year 2001 and the beginning of 2002, the "Purchase for Destruction" scheme and the "Special Purchase" scheme withdrew and destroyed the meat of around 1.1 mio animals[32]. Furthermore the culling

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31 For a detailed description of the 1996 crisis, the measures introduced and the impact on production and consumption, please refer to "*Prospects for the Agricultural Markets 2000-2007*" – November 2000, European Commission, Brussels.

32 The "Purchase for Destruction" scheme was designed to destroy all meat coming from over-thirty-months animals which were not tested for BSE. In this way there was the assurance that all meat from

linked to the appearance of outbreaks of Foot and Mouth disease (FMD) in the UK, the Netherlands, France and Ireland concerned around 850 000 cattle, essentially in the UK[33].

However, even with those measures in place, the dramatic drop in beef consumption between November 2000 and February 2001 put strong pressure on prices, which fell below intervention level and even below the safety net (for a short period and only in Germany and the Netherlands). At first, intervention stocks grew rapidly, also due to the more flexible criteria that were decided for buying into intervention. The situation has showed signs of recovery since March 2001, with growing consumption, a slowdown in the sales into intervention and a lower use of the destruction scheme. This trend has continued for the rest of the year; first estimates indicate beef consumption in 2001 at around 6.7 mio t, -7.6% compared to 2000. However, this figure is the result of a very low consumption level in the first part of the year and a marked recovery in the second semester. As a result, beef prices continued to improve and reached around 90% of intervention level by the end of the year (except for cow meat, where prices remained low throughout the year 2001).

Beef and veal production for the year 2001 was subject to a number of short-term disturbances. First of all, meat was withdrawn and destroyed in the framework of the BSE and FMD related destruction schemes (Purchase for Destruction, Special Purchase Scheme[34], Over-Thirty Months Scheme (OTMS) in UK, Foot and Mouth Disease containment measures and Livestock Welfare Disposal Measures in UK), which totalled around 760 000 t of beef meat. Furthermore, in the wake of the BSE crisis, producers, operators and most Member States reported the presence of a large number of animals that were retained in the farms at the end of 2000, following the fall in prices and the strong reduction in demand. This *backlog* of animals was initially estimated, on the basis of the available information from Member States, to have reached up to 1 million animals. However, as the year 2001 went by, it was evident that the number of animals retained in the farm due to BSE was lower than expected (according to the most recent estimates, the real size of the *backlog* was less than 250 000 heads, almost entirely slaughtered in the second half of 2001). At the December 2001 cattle census there was

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over 30 months animals put on the food chain was tested against BSE, and at the same time, withdrew a large amount of beef from the market. Furthermore, it allowed for a transitory period of 6 months to give the possibility to all the Member States to equip for the testing of all over-thirty-months animals. The scheme concerned around 730 000 over-thirty-months animals, mainly in Ireland and France, which correspond to about 240 000 t of beef meat. This scheme has been fully replaced by a "Special Purchase" scheme that entered into force in April 2001 and ran until the end of March 2002. This scheme allowed Member States to buy up and stock beef from over-thirty-months female animals and to decide later whether to destroy it or to put it back on the market, once the crisis is over. Around 205 000 t of beef meat entered this scheme (i.e. meat from around 680 000 animals, mainly cows). It is estimated that just over a third of this quantity is still stored, the rest having been destroyed immediately after slaughter (around 15 000 t have been donated to North Korea as food aid).

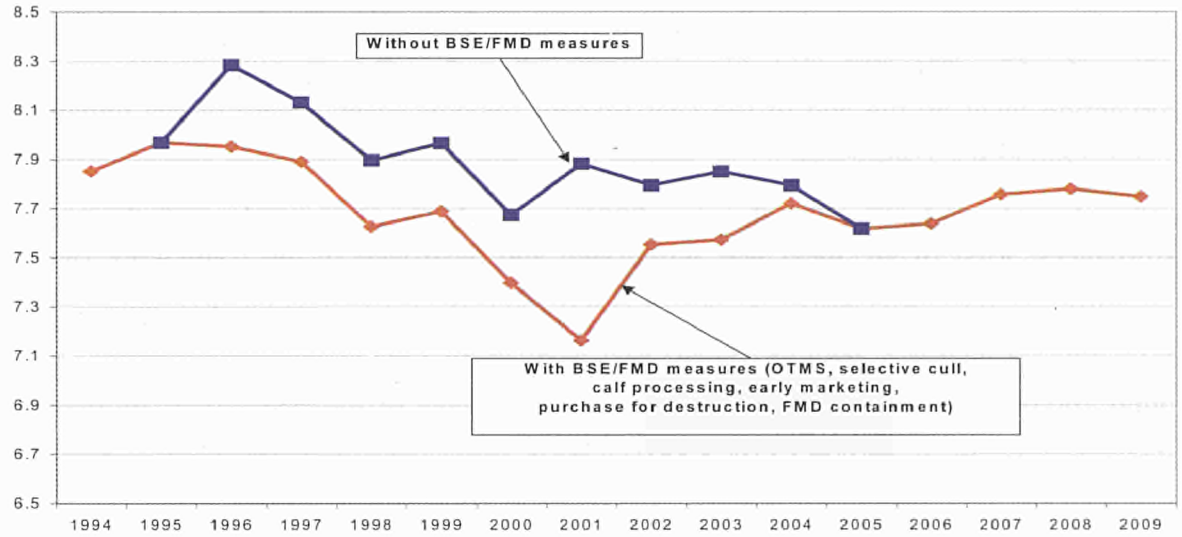
33 Between February and September 2001 a total of 2030 FMD cases were recorded in UK, compared to 26 in the Netherlands, 2 in France and 1 in Ireland. The impact of FMD on beef and veal market was relatively less severe when compared to other livestock (e.g. around 5 mio sheep were killed and destroyed in the wake of the FMD epidemics).

34 For the part already destroyed, estimated at around 100 000 t in 2001.

little evidence of any carry over of animals, all categories being lower than the previous year's census[35].

As a consequence of large withdrawal and in the absence of a big *backlog* of animals, beef and veal production for human consumption in 2001 decreased to 7.26 mio t, -1.8% compared to the low level of 2000. However, even under this situation of low supply, large quantities of beef meat needed to be stored for use in the future: intervention stocks reached around 259 000 t by mid December 2001. No further buying-in took place thereafter. The Special Purchase scheme, designed to ease the cow meat market from a situation of oversupply, withdrew around 165 000 t by the end of 2001[36].

Graph 1.17 Impact of the BSE and FMD measures on beef/veal production (mio t)



Net production is estimated to increase in the year 2002 and 2003, as beef production returns to more normal conditions, with improved prices and no destruction schemes in place after March 2002 (except for the OTMS in the UK). However, the estimated impact of some of the special measures decided in June 2001 as part of the beef plan (Council Regulation (CE) N° 1512/2001 of 23/07/2001) has been taken into account. It concerns in particular the reduction of the stocking density rate (from 2 to 1.8 livestock units per hectare) and some temporary measures (like the small reduction of the special premium ceilings and the limitations in the suckler cow premium in 2002 and 2003).

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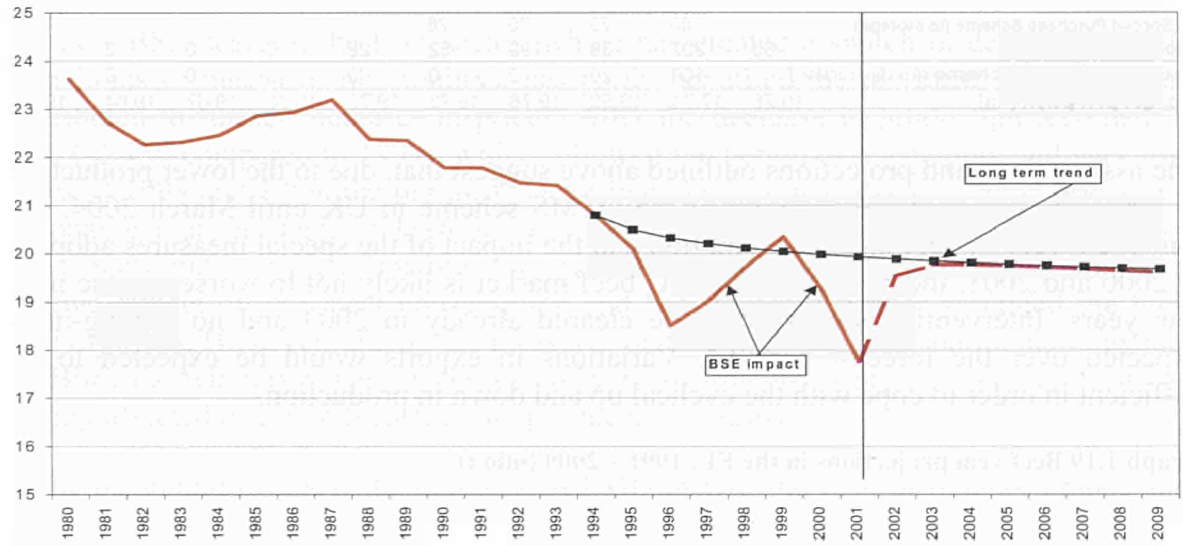
35 Except for heifers (+1.3% compared to the previous year) as a consequence of the special measure decided in June 2001 as part of the so-called 7-point plan (Council Regulation (CE) N° 1512/2001 of 23/07/2001). It concerns the obligation to keep a minimum number of heifers in order to benefit from the suckler cow premium (only introduced for the years 2002 and 2003, with special conditions for the UK). According the new rules the minimum number of heifers kept must be equal to or at least 15% and at most 40% of the total number of animals for which the suckler cow premium is applied. This measure was taken with the objective of reducing the number of cows eligible to the premium and therefore to reduce the number of calves produced and hence beef production.

36 Further 40 000 t were bought in during the prolongation of the scheme in the first quarter of 2002. The scheme expired at the end of March 2002.

It is also assumed that the OTMS scheme in the UK will be maintained until March 2004[37]. This means that from 2004 onwards, around 200 000 t of beef meat per year that were previously destroyed will be put on the market every year[38]. Beef and veal production is therefore estimated to increase up to 7.7 mio t. in 2004 and then decrease slightly in the following years as the beef production cycle reaches its minimum by the year 2005/06 at around 7.6 mio tons. Beef production should then slightly increase to reach 7.75 mio t by 2009.

Following the drop in consumption of 5 % in 2000, a further reduction of 7.6% for the year 2001 was observed so that consumption diminished in total by over 12% compared to 1999. On the basis of the evolution recorded in the 1996 BSE crisis and on the most recent consumption estimates beef consumption is expected to recover more rapidly than originally thought and return to the decreasing long-term trend already in 2003.

Graph 1.18 Impact of the BSE scare on beef/veal per capita consumption (kg cwe)



EU **beef imports**, after the decrease recorded in the year 2001, are likely to increase up to 400 000 t in 2003, and then continue to grow slightly over the medium term in line with the recent "double-zero" agreements with the 10 CEECs[39].

Contrary to the situation of 1996, beef exports have been strongly influenced by the recent BSE crisis, with a large number of countries raising unilateral embargoes on EU beef meat. Furthermore, the outbreaks of FMD in the UK and in other Member States have virtually halted, for a certain period, EU exports of meat and dairy products. With the re-opening of some key markets, notably the Russian market, total beef exports quickly recovered and reached around 500 000 t in 2001 (including live trade). Total

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37 On the basis of the information available at the end of April 2002, it seems that the UK Government will not call for the end of the scheme within 2002 and therefore we assumed a continuation of the scheme throughout the year 2003 and until March 2004.

38 The OTMS scheme in the UK withdrew slightly less than 1 mio animals per year between 1998 and 2000, which corresponds roughly to 250 000 t of beef meat per year. It is expected that, in the absence of such a scheme and following even lower prices for over thirty months cattle, some of these animals would be kept and therefore we assumed that the removal of the scheme would increase production by around 200 000 t per year.

39 The resumption of the imports from South America and the opening of new import quotas at no or low preferential tariff might contribute to increase our imports that traditionally rely on those countries for high quality beef.

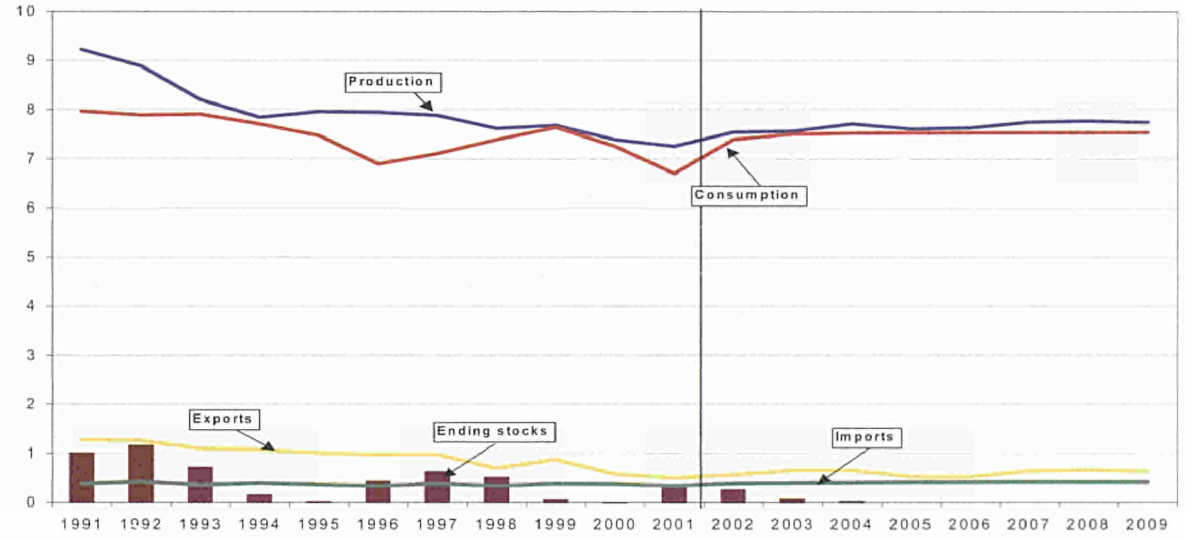
exports are now projected to recover further and to reach 740 000 t by the year 2003 and 2004 and then decline slightly and adapt to the supply situation.

Table 1.16 Beef/veal projections in the EU, 2000 - 2009 ('000 t cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production (gross, excluding OTMS)	7452	7698	7573	7620	7760	7655	7675	7794	7815	7784
Import of live animals	36	33	37	40	48	50	51	51	52	52
Export of live animals	94	45	60	90	90	90	90	90	90	90
Production (net)	7394	7685	7550	7570	7718	7615	7636	7755	7777	7746
- Meat from destroyed animals		425								
Purchase for Destruction		240								
FMD containment		185								
Available net production	7394	7260	7550	7570	7718	7615	7636	7755	7777	7746
Consumption	7259	6707	7399	7510	7530	7535	7537	7539	7540	7540
Imports (meat)	379	350	390	400	410	418	422	425	425	425
Exports (meat)	577	495	560	650	650	526	521	641	662	631
Beginning stocks	65	2	309	270	80	28	0	0	0	0
Ending stocks of which:	2	309	270	80	28	0	0	0	0	0
- Public Intervention Stocks	2	259	200	10	0	0	0	0	0	0
- Special Purchase Scheme (in storage)	-	50	70	70	28	-	-	-	-	-
Stock changes	-63	307	-39	-190	-52	-28	0	0	0	0
Special Purchase Scheme (for destruction)		100	20	0	0	0	0	0	0	0
p.c. consumption (kg)	19.26	17.74	19.52	19.76	19.75	19.73	19.70	19.67	19.64	19.60

The assumptions and projections outlined above suggest that, due to the lower production in 2001, the assumed prolongation of the OTMS scheme in UK until March 2004, the quick recovery in beef meat consumption and the impact of the special measures adopted in 2000 and 2001, the balance on the EU beef market is likely not to worsen in the next few years. Intervention stocks could be cleared already in 2003 and no buying-in is expected over the forecast period[40]. Variations in exports would be expected to be sufficient in order to cope with the cyclical up and down in production.

Graph 1.19 Beef/veal projections in the EU, 1991 – 2009 (mio t)



The very exceptional situation on the beef market in 2001 has hindered analysis and projections and has called for a number of critical assumptions. On the demand side, building on the experience of the 1996 BSE crisis, beef consumption is assumed to recover over 3/4 years after the drop of the year 2000 and 2001. This is confirmed by the available data and estimates from Member States but assumes a continued and gradual

[40] As from the 1st of July 2002 intervention will be replaced by a *safety net* system.

improvement in consumption and therefore does not take into account the risk of any other food scare over the medium term. On the supply side, apart from the big impact of destruction schemes and FMD containment measures, the end of the OTMS in UK by March 2004 has been assumed, with around 200 000 t of beef meat per year to be put in the food chain from 2004 onwards. On the export side, exports are assumed to be able to clear the market from the cyclical up and downs in production. However, recent experience has shown that unilateral, and often unjustified, bans are sufficient to reduce drastically EU exports. Furthermore, EU dependence on the Russian market exposes beef exports to the risk associated with the Russian economic situation.

3.2 Pig meat

The pig meat market, like the entire EU livestock sector, has been affected by some extraordinary circumstances that are having major consequences for the short term and are expected to influence the medium-term evolution of the sector.

The new BSE scare in the beef sector, which has created a switch in demand towards other kinds of meat (mainly poultry), has partly benefited the pig meat sector and has contributed to further increases in prices. After the decrease in production recorded in 2000 (-2.4 % compared to 1999), which followed the period of oversupply and very low prices of 1998 and 1999, the pig meat sector benefited from a period of good prices and reasonable margins and, at least in some Member States, there were first signs of investments and increase of the breeding herd. The recent BSE crisis, like in 1996, had a positive impact on pig meat consumption and has therefore further sustained the high level of prices. However, among the measures that were immediately put in place against the BSE, the temporary ban on the use of animal proteins in pig and poultry feed has slightly affected prices of feedstuff and producers' margins.

At the beginning of 2001, the outbreak of FMD in UK and then in Ireland, France and the Netherlands also perturbed the pig meat sector. Animals killed and destroyed for sanitary reasons in the areas touched by the outbreaks affected production in 2001, which was more or less stable at 17.5 mio tons. Around 580 000 pigs were killed and destroyed in the FMD containment and Livestock Welfare Disposal Scheme in the UK.

Following the FMD outbreak, livestock movement restrictions, together with a large number of export bans imposed by third countries, created major disruptions in slaughterings and sales. The important role of exports for the European pig sector makes it extremely sensible to this kind of epidemics. However, the limited spread of the disease outside the UK prevented major problems and a part of the export ban on EU pig meat was removed after few months. However, the Japanese market remained closed for pig meat from the Netherlands, Ireland and France for more than 12 months. Pig meat exports have recovered after the difficulties linked to FMD and to the triggering of the safeguard clause in Japan. They are now estimated at 1.093 mio t in the year 2001 (just 19% lower than in 2000).

Since December 2001[41], new outbreaks of Classical Swine Fever (CSF) have been recorded in Spain and, to a lesser extent, in Germany, Luxembourg and France. The situation is still not under control mainly in Spain, where a major production area is concerned. However a major impact on total EU pigmeat production is not foreseen.

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[41] And during summer 2001 for few months in Spain.

Overall, the last pig census that was carried out across the EU between November and December 2001 showed, with few exceptions[42], an increase of the total pig herd. The number of mated sows was again increasing almost everywhere. The relatively high price level recorded until September 2001 is expected to lead to a major upward adjustment by pork producers and almost all Member States recorded increasing production by the last quarter of 2001.

Pig meat production is therefore expected to increase by around 2 % in 2002, following the positive developments of producer prices and margins over the last year. However, a part of the anticipated increase in production will take place in 2003, where it is foreseen to reach 18.1 mio t (+1% compared to the previous year). Over the long term, there is a certain scope for further expansion, but at a slower rate than in the past. Pig meat production, which is assumed to be driven mostly by demand (internal and external) is, thus, projected to resume its growth and reach around 18.7 mio t by the end of the forecast period.

The drop in beef per capita consumption, which has been recorded since November 2000, had a positive impact on pig meat consumption (but clearly less than on poultry meat consumption). For the year 2002 pig meat consumption is expected to increase by around 1.5 %. The medium and long-term outlook for pig meat **consumption** is in general positive since pig meat is likely to continue to be favoured by consumers, although clearly less than poultry. After the increase in 2001 and 2002 in connection with the BSE crisis, the growth rates for per capita consumption are anticipated to slowdown somewhat in coming years, given the expected recovery of beef meat consumption and despite the moderate prices that are expected following the strong increase in production. Pork per capita consumption is projected to increase from 43.7 kg in 2001 to around 45.6 kg by the year 2009.

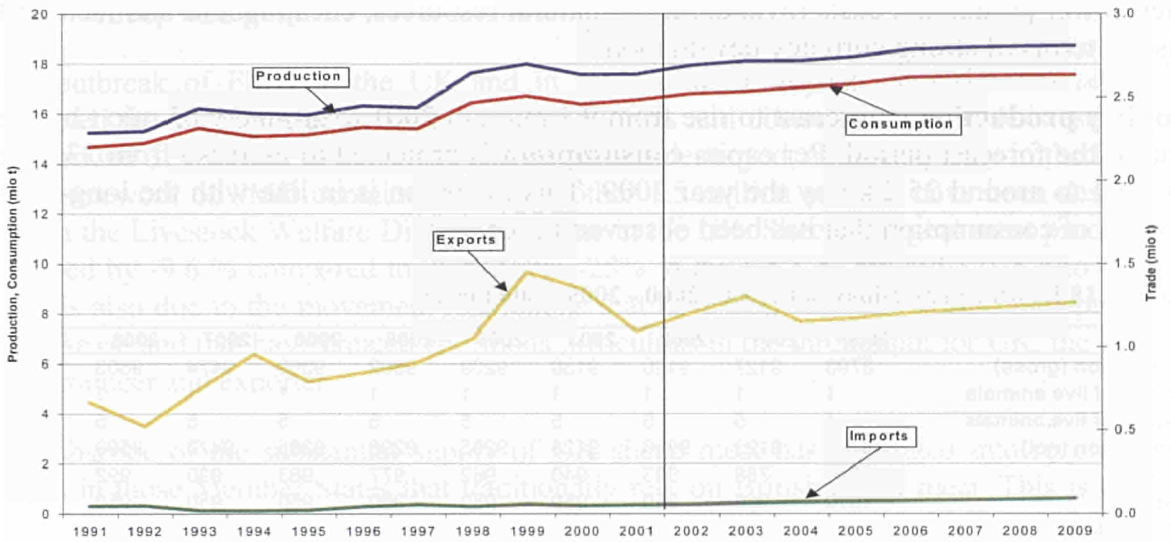
Table 1.17 Pig meat projections in the EU, 2000 – 2009 ('000 t cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production (gross)	17563	17573	17930	18110	18117	18274	18564	18642	18690	18717
Import of live animals	1	1	1	1	1	1	1	1	1	1
Export of live animals	1	1	1	1	1	1	1	1	1	1
Production (net)	17563	17573	17930	18110	18116	18274	18563	18641	18689	18716
Imports	49	53	55	64	69	72	76	80	83	89
Exports	1346	1093	1200	1300	1150	1170	1203	1223	1243	1263
Stock changes	-100	0	0	0	0	0	0	0	0	0
Consumption	16367	16533	16785	16874	17036	17177	17437	17499	17530	17543
p.c. cons. (kg)	43.42	43.74	44.28	44.39	44.69	44.99	45.58	45.66	45.65	45.60

Imports are forecast to increase over the medium term, following the increased market access commitments allowed under the double zero agreements with 10 accession countries. Compared to the relatively low level of 2001 due to export restrictions that followed the outbreak of FMD in Europe, **exports** are likely to be higher in 2002 and 2003, due to the larger domestic availabilities. Exports are projected however to adapt to the supply situation, and therefore contract somewhat in 2004 and then to slightly increase over the medium term in line with higher EU production and growing international trade.

Graph 1.20 Pig meat projections in the EU, 1991 – 2009 (mio t)

[42] Total pig herd was lower only in UK (-4.4%), the Netherlands (-10.2%), Belgium (-6.6%) and Luxembourg (-7.7%).



3.3 Poultry

In recent years, the poultry sector has shown more sustained development than beef and pork, with an average growth rate of around 3.2 % between 1995 and 1998. However, the year 1999 showed, for the first time in many years, a reduction in poultry production (-0.5 % compared to 1998), mainly due to the French cutback in production, the Dioxin crisis in Belgium and the outbreak of avian influenza in Italy. The consequences of these crises were also felt in 2000 with almost stable production compared to 1999.

The new BSE scare in the beef sector, which, like in the 1996 crisis, has translated in a switch in demand towards other kinds of meat, has mostly benefited the poultry sector. At the moment of the crisis, pork and poultry production were at a low level and the increase in demand faced low supplies and therefore translated into high prices for both pig and poultry meat. However, poultry production was much quicker to respond with an increase estimated at around +3.7 % in 2001 compared to the previous year.

In the medium and long term, the outlook for poultry production is relatively less positive than in the past. The recent strong increase in poultry imports (+407 000 tons between 1999 and 2001) undermine the EU production potential, as most of the consumption growth is satisfied by imported poultry meat from Brazil and Thailand[43]. Furthermore, more and more traditional EU export markets are being taken over by the very same competitors on the world poultry meat markets, limiting our export possibilities.

Competitive prices with respect to other meats and strong consumer preference should, however, continue to play in favour of poultry. The moderate feed prices, following the cut of the intervention price for cereals by –15 % (decided in the context of Agenda 2000), improved somewhat the competitiveness of EU poultry production by the way of reduced feeding costs. However, the temporary ban to feed animal proteins to farm animals, including poultry, has partly neutralised the lower feeding costs. Furthermore it must be stressed that the competition with Brazil is not only a result of

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[43] Imports of "salted meat from other animals", mainly poultry, have rapidly increased since 1997. These imports mainly from Thailand and Brazil are subject to a lower duty compared to imports of frozen unprocessed poultry meat and have therefore increased rapidly, from 5 000 t in 1996 to 326 000 t in 2001.

their lower production costs (availability of natural resources, cheap labour and feed) but also in terms of strong currency devaluation[44].

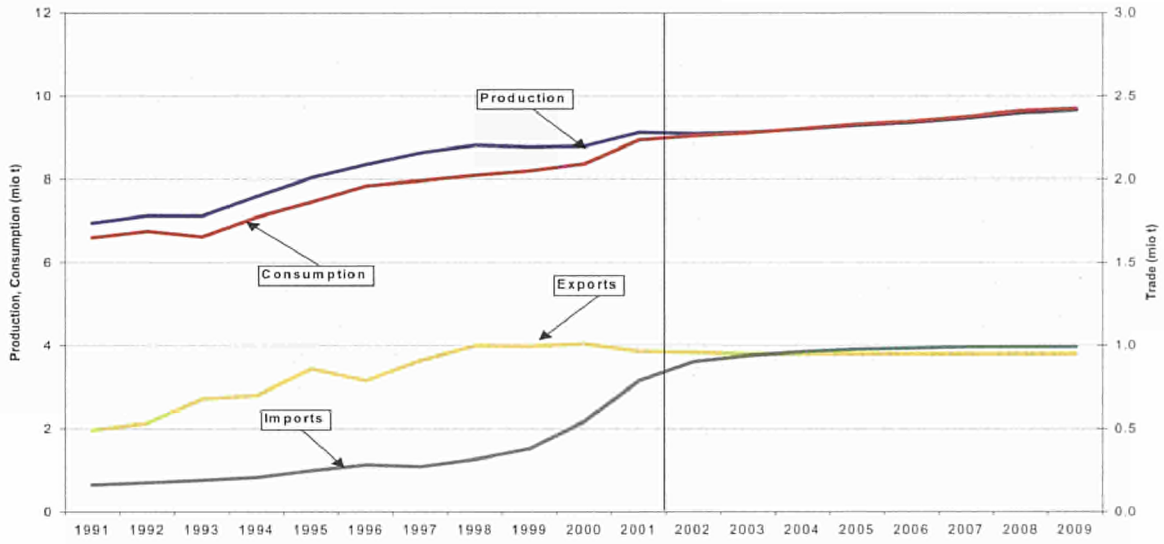
Poultry production is forecast to rise from 9.1 mio t in 2001 to around 9.65 mio t by the end of the forecast period. Per capita **consumption** is projected to increase from 23.7 kg in 2001 to around 25.2 kg by the year 2009. This evolution is in line with the long-term growth of consumption that has been observed in the past.

Table 1.18 Poultry projections in the EU, 2000 - 2009 ('000 t cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production (gross)	8798	9127	9100	9130	9209	9302	9369	9474	9603	9658
Import of live animals	1	1	1	1	1	1	1	1	1	1
Export of live animals	4	5	5	5	5	5	5	5	5	5
Production (net)	8794	9123	9096	9126	9205	9298	9365	9470	9599	9654
Imports	544	788	905	940	962	977	983	990	992	992
Exports	1010	966	960	950	950	950	950	950	950	950
Stock changes	-43	0	0	0	0	0	0	0	0	0
Consumption	8372	8945	9041	9116	9217	9325	9398	9510	9641	9696
p.c. cons. (kg)	22.21	23.66	23.85	23.98	24.18	24.42	24.57	24.81	25.11	25.20

After the strong increase recorded over the last few years, **imports** are assumed to continue to increase, but at a lower pace, over the medium term. This forecast is based on the assumption that the actual level of border protection and current access will be maintained and that, in addition, imports under GATT minimum access and other market access agreements will increase somewhat.

Graph 1.21 Poultry projections in the EU, 1991 – 2009 (mio t)



Exports, after the expected decrease in 2001[45], are likely to stabilise in the medium term in line with increased competition on international markets. Therefore, the continued increase in poultry imports is expected to lead, over the next few years, to a position where the **EU may become a net importer of poultry meat**.

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44 After the sharp devaluation of 1999 and some stability in 2000, the Brazilian Real has again seriously devalued early in 2001 by around 30%.

45 Exports of poultry meat have also been affected by FMD, even if the disease cannot contaminate birds. This is the result of unilateral embargoes on European meat and dairy products decided by a number of trade partners in the wake of the FMD crisis.

3.4 Sheep and goat

The outbreak of FMD in the UK and in some other European countries has severely disrupted the sheep sector in 2001 with large losses and obstacles to trade. It is estimated that around 3.5 million sheep have been killed and destroyed, almost entirely in the UK, in the framework of FMD containment and another 1.5 million animals have been destroyed within the Livestock Welfare Disposal Scheme in the UK. Sheep and goat meat production dropped by -9.6 % compared to 2000 (over -25% in the UK), to around 1.015 mio t. This drop is also due to the movement restrictions that have been decided to stop the spread of the disease and that have created enormous difficulties in the throughput for UK, the largest EU producer and exporter.

The absence of the substantial supply of UK sheep meat has translated into record high prices in those Member States that traditionally rely on British sheep meat. This is true in particular for France who is the main intra-EU importer of sheep meat, where prices rose to more than 6 EUR/kg for the first time ever. Third countries were not able (or did not have the import quota) to increase their exports to the EU to counter-balance this deficit and, as a result, consumption of sheep/goat meat has dropped by 7.8% in the year 2001 (by more than 20% in France).

Production is expected to recover in the year 2002 thanks to some carry over of lambs from 2001. This should compensate for the lower breeding herd that has been severely reduced by the FMD crisis (market experts estimate that 3/4 of the destruction concerned breeding sheep) and that will limit the increase in production, which is foreseen to continue its slight increase until 2004 and to slightly decline thereafter.

Table 1.19 Sheep/goat projections in the EU, 2000 – 2009 ('000 t)

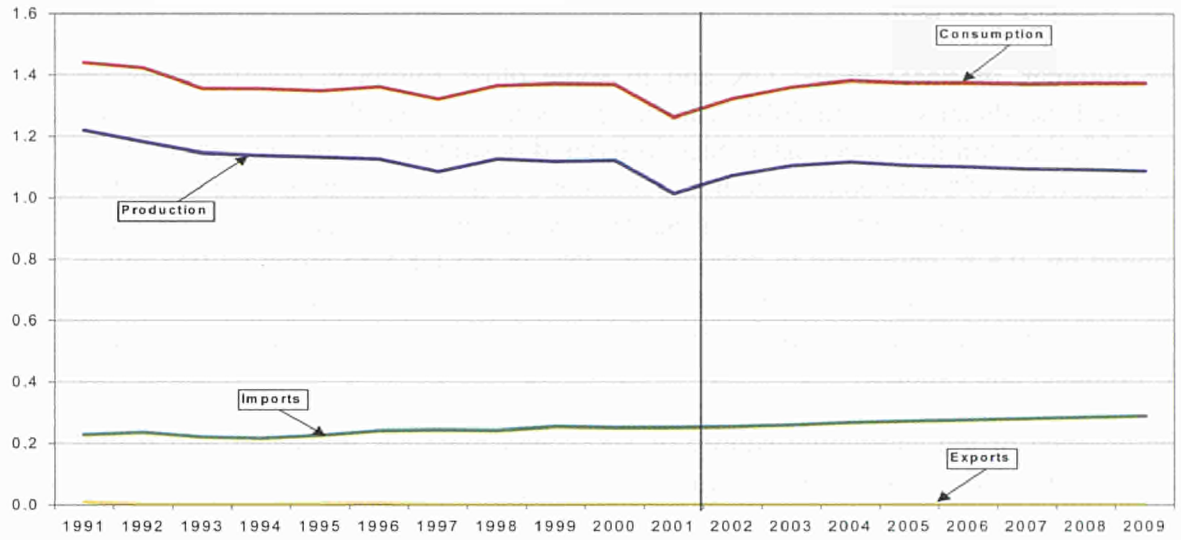
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production (gross)	1109	1005	1060	1092	1106	1094	1090	1082	1080	1072
Import of live animals	15	12	15	15	12	13	13	14	14	17
Export of live animals	1	1	1	1	1	1	1	1	1	1
Production (net)	1123	1015	1074	1106	1118	1106	1102	1095	1093	1088
Imports	252	252	255	260	268	273	277	281	285	290
Exports	4	4	4	3	3	3	3	3	3	3
Stock changes	0	0	0	0	0	0	0	0	0	0
Consumption	1371	1264	1325	1363	1383	1376	1376	1373	1375	1375
p.c. cons. (kg)	3.64	3.34	3.50	3.59	3.63	3.60	3.60	3.58	3.58	3.57

Since the beginning of 2002 the sheep and goat sector is governed by new rules in which the premium is granted at a flat-rate level, i.e. it is no longer linked to market price fluctuations. First impact assessment of this reform indicate that, with the current high price level and a predictable direct payment there would be an incentive to re-stock the sheep flock after the FMD epidemic. However, especially in the UK, the need to prevent further epidemic to spread like in the case of FMD, has encouraged the Government to try to link those payments to density factors.

In the medium and long term, a slight downward trend both for **production** and per capita **consumption** is expected. Due to the small population increase, total consumption is expected to remain more or less at the same level.

Sheep and goat **imports** could increase slightly in response to somewhat better use of market access commitments granted to some third countries as well as the possible impact of increased quotas under the double zero agreement with 10 CEECs.

Graph 1.22 Sheep/goat projections in the EU, 1991 – 2009 (mio t)



3.5 Overall meat consumption

Compared to the 1996 crisis, which translated into a short-term stability in total meat consumption, the recent BSE scare caused a marked reduction in overall consumption for the year 2000 (-1.9%). This was due to the fact that both pig and poultry were in a phase of low production and were not ready to benefit of the drop in beef consumption.

Overall per capita meat consumption for 2001 is estimated to have nearly equalled that of 2000. The sharp drop in beef and sheep consumption (respectively –7.8% and –8.1%) has been almost entirely compensated by poultry consumption, which, according to the latest available statistics, has increased by 6.5% in 2001. The BSE scare and FMD trade disruptions have also benefited pigmeat consumption that increased by around 0.7% in 2001.

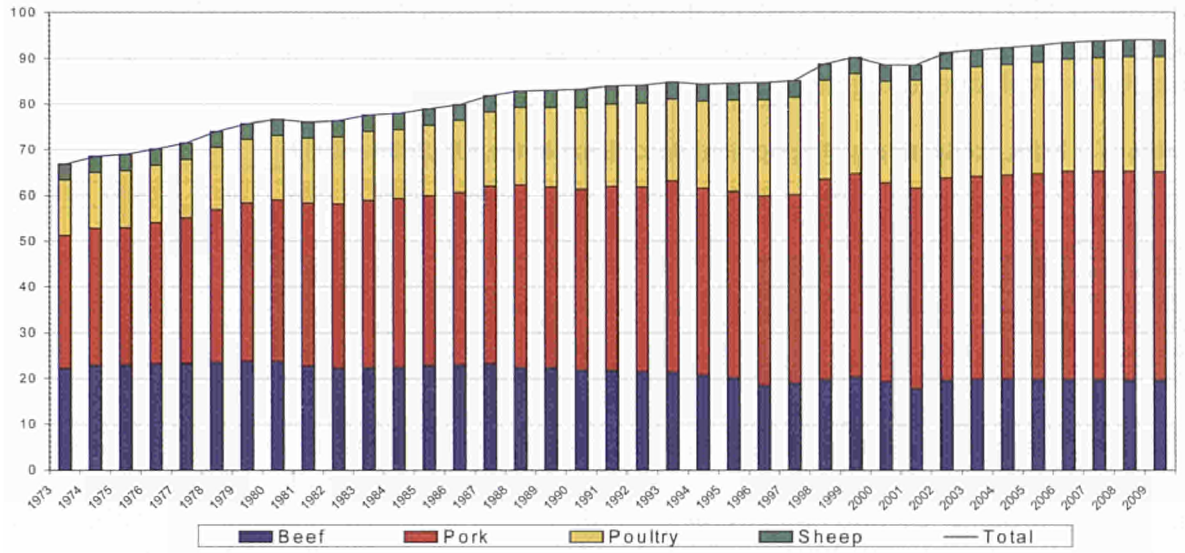
Table 1.20 Overall meat per capita consumption in the EU, 2000 – 2009 (kg/head)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Beef/veal	19.26	17.74	19.52	19.76	19.75	19.73	19.70	19.67	19.64	19.60
Pork	43.42	43.74	44.28	44.39	44.69	44.99	45.58	45.66	45.65	45.60
Poultry	22.21	23.66	23.85	23.98	24.18	24.42	24.57	24.81	25.11	25.20
Sheep/goat	3.64	3.34	3.50	3.59	3.63	3.60	3.60	3.58	3.58	3.57
Total	88.5	88.5	91.1	91.7	92.3	92.7	93.4	93.7	94.0	94.0

The following graph shows the evolution of per capita meat consumption in the EU over the period 1973-2001[46] and presents the medium-term projections for the years up to 2009.

Graph 1.23 Meat per capita consumption in the EU, 1973 – 2009 (kg/head)

[46] All figures are referring to EU 15. In order to allow a long-term view, the EU 15 figures for the years before 1995 have been recalculated as weighted average of figures available for EC9, EC12 and the individual country figures for Austria, Sweden and Finland.



As it can be seen from this graph, there is a long-term trend towards higher per capita consumption of meat that has slowed down at the beginning of the 1990s. The big increase in meat consumption for 1998 and 1999 and that expected for 2002 appears to be in contradiction with the view that meat consumption, in general, is saturated.

The forecasts for overall EU meat consumption that are presented in this document were established without imposing any overall constraints and reflect the projected evolution for the individual types of meat as presented above. According to these projections by individual sectors, total meat consumption in the EU is set to increase from 88.5 kg/head in 2001 to around 94 kg by the year 2009.

Pig meat, with a share of about 50% is by far the most preferred by EU consumers, followed by poultry, recording a share of around 25%, which has overtaken beef/veal since 1996. The projections up to the year 2009 imply a steady rise of the share of poultry with corresponding decline for the other types of meat.

4. Milk and dairy products

4.1 Milk production, deliveries and dairy herd

In 2000, **cow milk production** in the EU was 120.9 mio t and estimates for 2001 suggest a somewhat higher volume of around 121.3 mio t. Most of the milk produced is delivered to dairies. The delivery ratio has considerably increased over time, reflecting lower use at farm level either in form of direct sales or on farm consumption. Currently, **milk deliveries** represent around 94 % of production and reached 114.1 mio t in 2000. The monthly figures available for 2001 suggest that milk deliveries in 2001 could be somewhat higher and the last estimate stands at about 114.9 mio t.

The deliveries mainly reflect the evolution in the milk reference quantities that are governing the milk sector since their introduction in the year 1984. According to the provisional estimates for the milk quota year April 2001/March 2002, it is expected a small over-shoot of the total EU reference quantities for deliveries. The decreasing overshoot observed in 2000 and 2001 is partly attributed to the fact that milk reference quantities for certain Member States were increased in the years 2000 and 2001 as part of the Agenda 2000 decisions. The disruption caused by the epidemic of Foot and Mouth

disease (FMD) in UK[47] was expected to reduce UK milk production in 2001. However, according to most recent estimates is seems that UK deliveries should be very close to the quota level, due to higher yields.

Table 1.21 Milk production, deliveries and dairy herd in the EU, 2000 – 2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production (mio t)	120.9	121.3	121.2	121.1	120.9	121.3	121.7	122.1	122.0	121.9
Deliveries (mio t)	114.1	114.9	114.5	114.5	114.4	114.9	115.3	115.7	115.7	115.7
Delivery ratio (in %)	94.41	94.68	94.46	94.54	94.62	94.68	94.74	94.80	94.85	94.89
Fat content (in %)	4.07	4.08	4.09	4.10	4.10	4.11	4.12	4.12	4.12	4.13
Milk yield (kg/dairy cow)	5829	5988	6082	6168	6267	6383	6485	6576	6641	6705
Number of dairy cows (000)	20371	20153	19779	19463	19152	18884	18661	18463	18273	18123

Note: Dairy cow numbers refer to the end of the year (historical figures from the December cattle survey)

The long-term evolution of milk production in the EU has to be seen against the evolution of the number of dairy cows and the evolution of the milk yield per dairy cow. In 1984, around 29 mio dairy cows produced around 136.2 mio t of milk. The corresponding figures for 2001 are 20.2 mio dairy cows and a milk production of around 121.3 mio t[48]. Obviously, there was a big increase in milk yield over the same period, i.e. from 4387 kg/dairy cow in 1984 to 5988 kg estimated for 2001. On a yearly basis, this represents an average yield growth rate of around +1.8 % that, after the relative slow down during most of the 90s, has somewhat increased in most recent years, probably due to the specific quota increases in some Members States in 2000 and 2001.

Milk deliveries are projected to decrease slightly until 2004 and then resume somewhat following the second part of the Agenda 2000 quota increase starting in 2005/2006. Assuming that Member States will fully adjust to the available reference quantities for deliveries and direct sales, it is expected that milk deliveries will stabilise at around 114.5 mio t by the year 2002. In the following years, it is expected that milk deliveries will decline slightly each year, reflecting the continuing slight increase in the milk **fat content** that reduces the margin for milk deliveries to dairies if the historical reference fat content is exceeded. The milk fat content is assumed to continue to increase, but at a much slower rate than in the past. The same is true for the evolution of the milk delivery ratio. Furthermore, the general trend for further rising milk yields is not expected to change over the next few years, apart from the positive impact of the quota increase in the period 2005-2007. Milk deliveries are forecast to increase again in line with the quota increase in the years 2005-2007 that forms part of the second reform step and that is linked to the cut in support prices.

Milk production is expected to follow the developments projected for deliveries as on farm milk use, which is not governed by quotas, is assumed to continue its decreasing trend and direct sales are not concerned by the increase of milk quota. So far, milk production is expected to decrease slightly from 121.3 mio t estimated for 2001 to 121.2 mio t by the year 2002 and then decline somewhat until 2004. In the years 2005, 2006 and 2007, production is projected to be higher due to the increase in milk quotas in these years.

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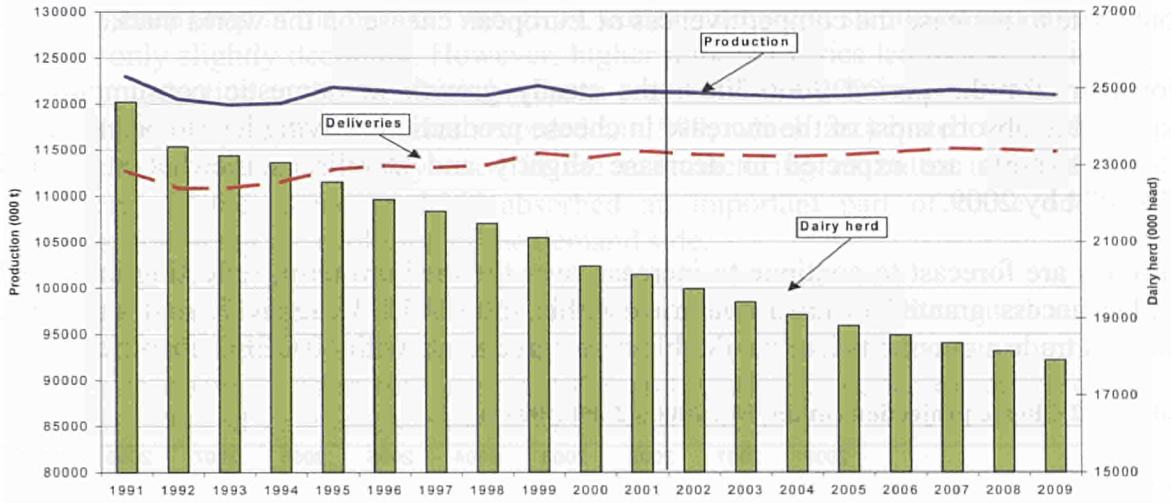
[47] Estimates from market experts indicate that nearly half a million dairy cows might have been concerned by the Foot and Mouth containment and Livestock Welfare Disposal Scheme measures.

[48] All figures refer to EU 15, even before the EU enlargement in 1995. The number of dairy cows is the figure for December of each year.

Graph 1.24 Milk production, deliveries and dairy herd in the EU, 1991 - 2009



The two steps of increase in milk quotas will slow down somewhat the long-term decline of the dairy herd. Assuming a further increase of milk yields by around 1.4 % per year on average over the forecast period, the number of dairy cows in the EU is forecast to decline from 20.2 mio animals recorded in 2001 (December survey) to around 18.1 mio cows by the year 2009.

4.2 Dairy products

The internal and external analysis carried out in the framework of the preparation of the Mid Term Review of the CAP has been the opportunity to cast additional light on the EU dairy sector, also through new methodological approaches. These analyses give a somewhat more optimistic outlook for the EU dairy sector, notably on the demand side, than those presented in last year's projections and allowed to adapt somewhat the cautious approach as regards long term-projections for the major dairy products.

4.2.1 Cheese

Over the last 20 years, the EU cheese sector was characterised by a strong and steady growth, both for production and consumption. The difficulties in 1998 and 1999 for exports towards some third country markets, in particular Russia, changed the short-term perspectives of the sector. Exports in 1998 were about 65 000 t lower than in 1997, and a further decline took place in 1999. However, higher domestic consumption and exports in the following years have stimulated cheese production, which increased by more than 450 000 t in two years (between 1999 and 2001).

Within the context of medium-term forecasts up to year 2009, it has been assumed that cheese production will be mainly driven by both internal and external demand. While the medium-term perspective for internal consumption still looks relatively favourable, **exports**, after the low levels experienced in 1998 and 1999 and the strong increase during the year 2000 and 2001[49], are expected to decrease slightly in the short term. Over the medium term, it is expected that exports could rise to about 480 000 t by 2005-2006 due to larger milk availabilities linked to Agenda 2000 quota increases. This small

[49] The most recent trade figure indicate that the share of cheese exports without refunds has increased from around 21% in 1998 to 26% in 2001.

increase should be seen against the background of the gradual implementation of the cut in milk support price that, together with expected higher world market prices, should contribute to increase the competitiveness of European cheese on the world market.

However, for the period 2006-2009, the steady growth in domestic consumption is expected to absorb most of the increase in cheese production, leaving less to be exported. Cheese exports are expected to decrease slightly and stabilise somewhat at around 440 000 t by 2009.

Imports are forecast to continue to increase over the medium term, reflecting improved market access granted to third countries within the GATT Uruguay Round and some bilateral trade agreements like the double zero agreements with 10 CEEC countries.

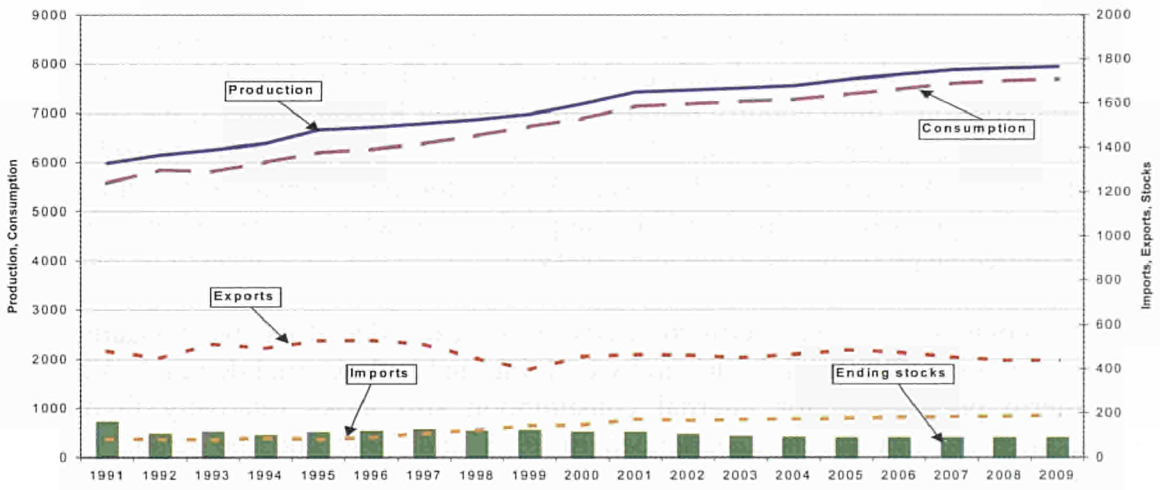
Table 1.22 Cheese projections in the EU, 2000 - 2009 ('000 t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production	6978	7219	7257	7295	7344	7465	7561	7653	7686	7712
Processed cheese impact	216	216	218	220	222	224	226	228	230	232
Imports	149	173	168	171	174	177	180	183	186	189
Exports	458	466	463	454	466	485	475	455	440	439
Consumption	6894	7142	7188	7240	7278	7384	7491	7608	7662	7693
Stock changes	-10	0	-10	-8	-5	-3	0	0	0	0
p.c. consumption (kg)	18.29	18.89	18.96	19.05	19.09	19.34	19.58	19.85	19.95	20.00
Public stocks (private aided stocks)										
Beginning stocks	125	117	116	106	98	93	90	90	90	90
Ending stocks	117	116	106	98	93	90	90	90	90	90
Stock changes	-9	-1	-10	-8	-5	-3	0	0	0	0

Note: The figures on imports and exports are referring to total trade, i.e. including inward processing.

As already mentioned before, the medium and long-term outlook for **consumption** is in general positive, although the rate of increase is expected to slow down. Per capita consumption is projected to rise from 18.9 kg in 2001 to about 20 kg by the year 2009. This represents an annual growth rate of around +0.7 %. Total consumption is projected to increase at a slightly faster rate, i.e. by about +0.9 % per year, due to the expected small population growth.

Graph 1.25 Cheese projections in the EU, 1991 – 2009 ('000 t)



Consequently, cheese **production** is projected to continue its steady increase, but at a relatively lower rate in comparison to the recent past. The expected average yearly growth rate for production is similar to that of total cheese consumption, i.e. at around +1 % per year until 2007, after which date the increase is expected to slow down somewhat.

4.2.2 Butter

After the sharp drop in the period 1986-1994, butter production stabilised and since 1995 has been only slightly declining. However, higher milk deliveries led to a small increase of butter production in 1999, which has been reabsorbed in 2000 and 2001. It appears that the increase in milk deliveries recorded in 1999, which anticipated the 2000/2002 quota increase, was only partly used in the manufacturing of butter and SMP. The production of other dairy products absorbed an important part of these additional deliveries, following the evolution of the demand side.

On average over the period 1995-2001, total butter consumption fluctuated at around 1.76 mio t, with a trend to increase in the last two years. Current exports are running at relatively low levels. After the drop in 1998 and 1999, EU butter exports recovered slightly in 2000 and stabilised somewhat at 177 000 t in 2001.

A certain slowdown in cheese consumption growth since the second half of 2001 has resulted in more milk being channelled in butter production, creating a situation of weak prices. Intervention stocks, which were reduced by sales in spring 2001, have started to grow again in the autumn. By the end of April 2002, around 85 000 tons of butter had been accepted into intervention.

Butter **production** is projected to decrease slightly over the medium term. The Agenda 2000 quota increases foreseen for the period 2005/06-2007/08 are not expected to change this downward trend as the production of other dairy products is expected to absorb most of the additional deliveries. Furthermore, the lower intervention prices decided with Agenda 2000 will make it less attractive to sell butter and SMP into intervention.

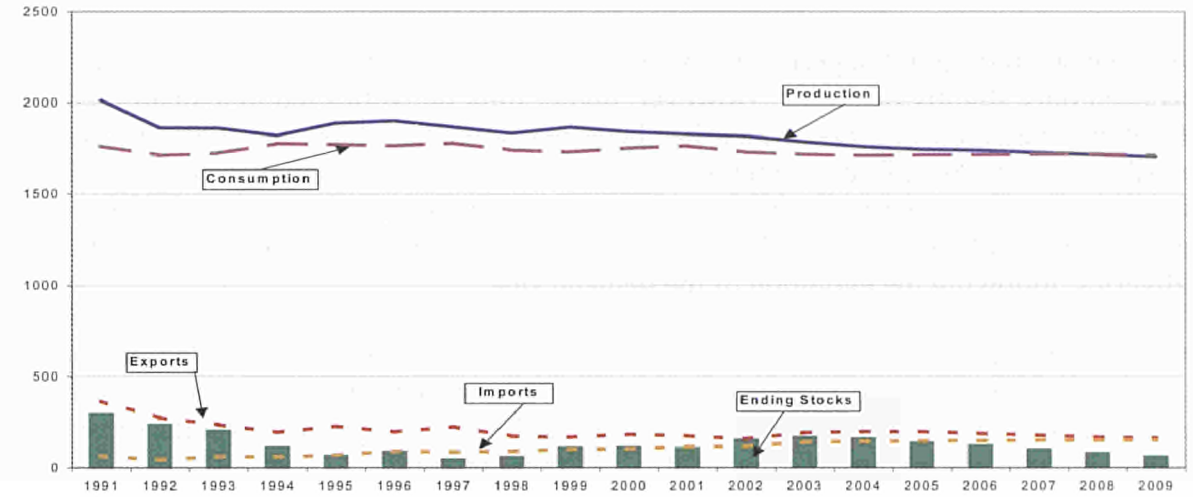
Table 1.23 Butter projections in the EU, 2000 – 2009 ('000 t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production	1843	1829	1818	1787	1761	1746	1741	1729	1718	1706
Imports	106	118	120	143	146	149	151	153	154	154
Exports	185	177	160	195	200	200	190	180	170	165
Consumption	1753	1765	1731	1720	1715	1718	1718	1722	1722	1714
Stock changes	10	5	46	15	-8	-23	-16	-21	-20	-20
p.c. consumption (kg)	4.65	4.67	4.57	4.52	4.50	4.50	4.49	4.49	4.49	4.47
Public stocks (intervention and private aided stocks)										
Beginning stocks	116	119	112	158	173	166	143	127	106	86
Ending stocks	119	112	158	173	166	143	127	106	86	66
Stock changes	3	-7	46	15	-8	-23	-16	-21	-20	-20

Note: The figures on imports and exports are referring to total trade, i.e. including inward processing.

Imports of butter are projected to continue to increase somewhat over the forecast period to reach up to 150 000 t over the medium term, following the increased market access commitments allowed under the double-zero agreement with 10 candidate countries. Butter **exports** are set to reach around 200 000 t by 2005, and then to decrease over the medium term, following the decrease in production. World market forecasts for butter trade show some increase in the medium term. But the biggest part of the anticipated increase, mostly by developing countries, is likely to be supplied by New Zealand and Australia, which are continuously expanding their milk production and exports of dairy products, while the EU share on world butter markets is on the decline.

Graph 1.26 Butter projections in the EU, 1991 – 2009 ('000 t)



As already mentioned, butter **consumption** still tends to decline slightly despite some signs of improvement observed in most recent years. About 30 % of total consumption is still subsidised by different disposal measures on the internal market. On a per capita basis, the continuous small decline is more obvious than for overall consumption. Taking into account the evolution in most recent years, butter consumption is projected to continue its slight decline. Projections for per capita consumption are set at 4.47 kg by the year 2009, compared to around 4.67 kg currently. This forecast implies an annual rate of change of around –0.5 % for per capita consumption and –0.4 % for total consumption, due to the expected small population growth.

The balance sheet for butter shows that, after a certain short-term situation of over-supply, decreasing production should ease somewhat the pressure on intervention stocks, which are expected to be gradually reabsorbed starting in 2004.

4.2.3 Skimmed milk powder (SMP)

Production and consumption of SMP decreased slightly over the last decade, after the strong decline during the period 1984-1992. SMP production decreased on average by –3.7% per year over the period 1997-2001. The main reason for the fall of SMP production is, on one side, lower demand in the animal feed sector due to lower veal production, and, on the other side, the increasing use of liquid skimmed milk in the manufacture of other dairy products (fresh products, cheese). Overall consumption, after the slight reduction between 1995 and 1998, increased considerably in 1999 but returned on a declining trend in 2000 and 2001.

In the medium and long term, the downward trend both for production and consumption of SMP should continue after the short interruption in 1999. The high internal and world market prices recorded over the year 2000 and half of 2001[50] did not represent an incentive to produce more skimmed milk powder. The recent slow down in the production of cheese and other dairy products has resulted in more production of SMP than expected, with a negative impact on prices that have dropped since July 2001 and

[50] Domestic prices for SMP increased rapidly in the second half of 2000, up to more than 130 % of intervention price, on average across the EU. Prices, at the end of June 2001 were still high above intervention level (at more than 120 % of intervention price) but they have dropped in the following months and are now at intervention level.

building up of intervention stocks. In the first month of opening of SMP intervention stocks a total of 28 000 tons has been accepted.

SMP production is likely to follow the downward developments projected for butter. The projections suggest a reduction of SMP production from 980 000 t in 2001 to around 780 000 t by the year 2009 (i.e. more than 20%).

Imports are projected to increase slightly each year over the medium term. SMP **exports** are set to increase in the short term to reach up to 220 000 t by the year 2004 and are then expected to decrease in line with lower production.

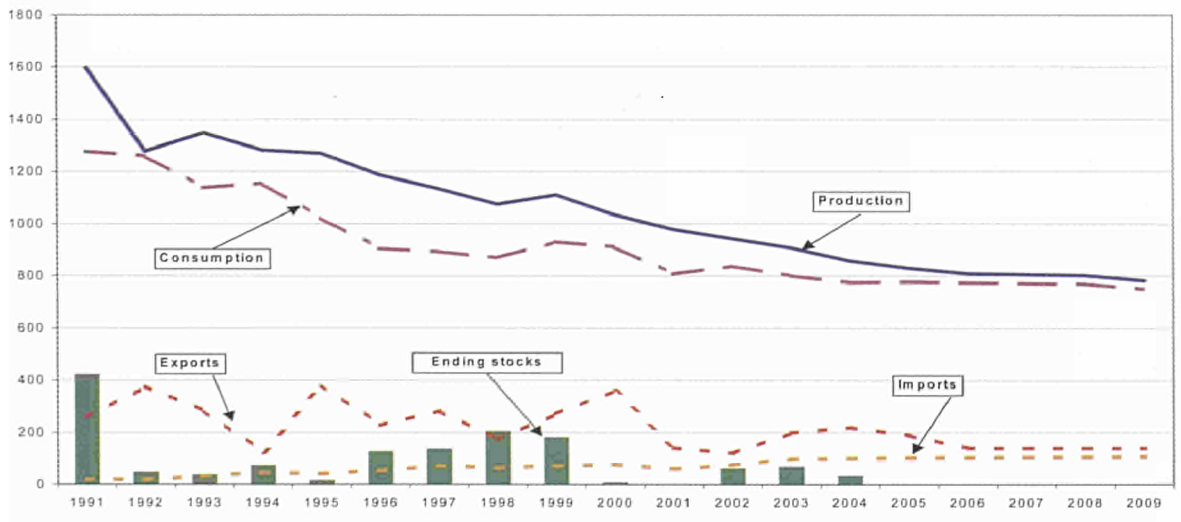
Table 1.24 SMP projections in the EU, 2000 – 2009 ('000 t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Production *)	1034	978	942	908	858	830	809	806	803	783
Imports	78	61	77	100	102	104	105	106	107	108
Exports	362	141	120	200	220	190	140	140	140	140
Consumption	911	808	838	801	775	777	774	772	770	751
- subsidised (feed)	476	335	380	390	393	395	382	369	361	345
- non subsidised	435	473	458	411	383	383	392	402	409	406
Stock changes	-160	90	62	6	-35	-33	0	0	0	0
p.c. consumption (kg)	2.42	2.14	2.21	2.11	2.03	2.04	2.02	2.01	2.01	1.95
Public stocks (intervention and private aided stocks)										
Beginning stocks	180	7	0	62	68	33	0	0	0	0
Ending stocks	7	0	62	68	33	0	0	0	0	0
Stock changes	-173	-7	62	6	-35	-33	0	0	0	0

*) Including buttermilk powder, i.e. the balance sheet for SMP presented here follows the methodology of EUROSTAT.
Note: The figures on imports and exports are referring to total trade, i.e. including inward processing.

While human **consumption** of SMP is projected to remain more or less stable, the use of SMP in the animal feed sector, after the sharp drop observed in 2001[51], is projected to recover over the short term and then to decline slightly over time. An important part of SMP consumption is subsidised (animal feed), but the share fell from around 70 % in 1991 to about 50 % in 2000. The cut in cereals and oilseed prices, decided with Agenda 2000, implies cheaper feed and, therefore, a further reduction of SMP use in animal feed.

Graph 1.27 SMP projections in the EU, 1991 – 2009 ('000 t)



51 Due to the temporary reduction of the incorporation rate in the use of SMP in calves feed.

Overall, the assumptions and projections presented above show a market situation where SMP intervention stocks, after the strong reduction that took place in the most recent years, tend to slightly increase in the short-term, due to the situation of low domestic and world market prices. However, the strong reduction in production that is projected over the long-term (in line with that observed in the past) together with the expected stabilisation in consumption (that will benefit for lower prices following the implementation of the Agenda 2000 price cut) is expected to gradually reduce current intervention stocks to zero after 2004.

METHODOLOGICAL ANNEX

I. Macro-economic variables

The Directorate-General for Economic and Financial Affairs and the Statistical Office - EUROSTAT- of the European Commission are the source for historical data and short-term projections for the exogenous variables, such as inflation, GDP growth, €/$ exchange rate and population. In some cases estimates from DG Agriculture have been added.

II. Arable crops (cereals, oilseeds, protein crops, linseed, flax and hemp, silage)

1. Arable crop supply

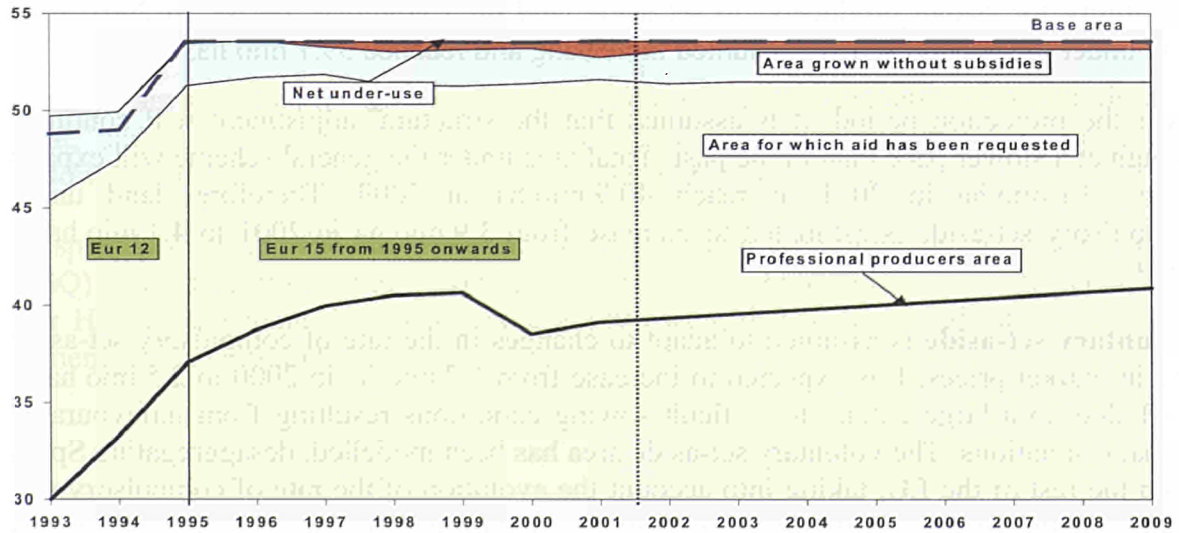
1.1 Area

Area projections are based on the allocation of the base areas as defined in the Council Regulation 1765/92 (et al.) for EUR 15. This "total base area", upon which compensatory payments are granted, amounts to 53.6 mio ha. It is distributed, as explained hereafter, among the arable crops covered by the 1992 reform and Agenda 2000 (i.e. cereals, oilseeds, protein plants, non-textile linseed), land set-aside (on a voluntary or compulsory basis) and fodder areas (including those under the beef premium regime). From 2001/02 onwards, flax and hemp area is included in the base area.

Overall use of the base area

The allocation of the base area takes into account two phenomena that have been observed over the 1993-2001 period: firstly, some **systematic under-utilisation** of the base area (notably in Italy, Spain, Greece, Finland, Portugal and Sweden[52]) as the area for which aid has been requested has always been below the total base area and, secondly, the existence of **some areas grown without support** (in particular in Italy, Spain, France).

Graph A.1 Comparison of the "total arable crop" area and land set-aside with the total EU base area, 1993/94 – 2009/10 (mio ha)



[52] In order to ensure consistency with pre-Agenda 2000 statistics, the estimates for under-utilisation in Finland and Sweden from 2000/01 onwards do not take into account grass silage area.

From 1995 to 2000, the net impact of these two phenomena displayed a **net under-use of the total base area** of some 300 to 500 000 ha and an overall decline in total land farmed in arable crops or set-aside within the framework of a support regime.

The net under-use of the total base area would have reached slightly more than 300 000 ha in 2000 in the European Union as a whole (cf. graph A.1), whereas estimates for the 2001 production year seem to show a larger increase in the net under-use to nearly 800 000 ha.

It has been assumed that these phenomena would prevail over the outlook period at a level close to the average observed level of net under-utilisation over the most recent years. The net under-use would fall to approximately 500 000 ha in 2003 and to some 400 000 ha in 2004 and would then stabilise at that level over the rest of the forecast period.

Set-aside of land

Compulsory set-aside is set at 10 % from 2002 onwards, its base rate in the context of the Agenda 2000 CAP reform. Total land under compulsory set-aside is calculated on the basis of the total area under the general scheme. This area has been steadily increasing over the 1993-1999 period: from 30 mio ha in 1993 (EU-12) to 40 mio ha in 1997 and then 40.6 mio ha in 1999. This evolution reflected a combination of structural and policy factors. On the one hand, there is the on-going process of structural adjustment in the agricultural sector, which leads to an increase in the average size of farms and in the total land subject to the set-aside obligations. On the other hand, the incentive for arable producers to remain under the simplified regime declined following the regular decrease in the rate of compulsory set-aside.

The total area under the general scheme dropped in 2000 by some 2 mio ha. This shift in the level of the area subject to the compulsory set-aside seems to have been associated with the changes in the arrangements governing the application of the set-aside instruments implemented in the Agenda 2000 CAP reform framework (notably the harmonisation of direct payments between the simplified and general scheme as well the possibility for "small producers" to set aside land on a voluntary basis). In 2001, total land under the general scheme resumed increasing and reached 39.1 mio ha.

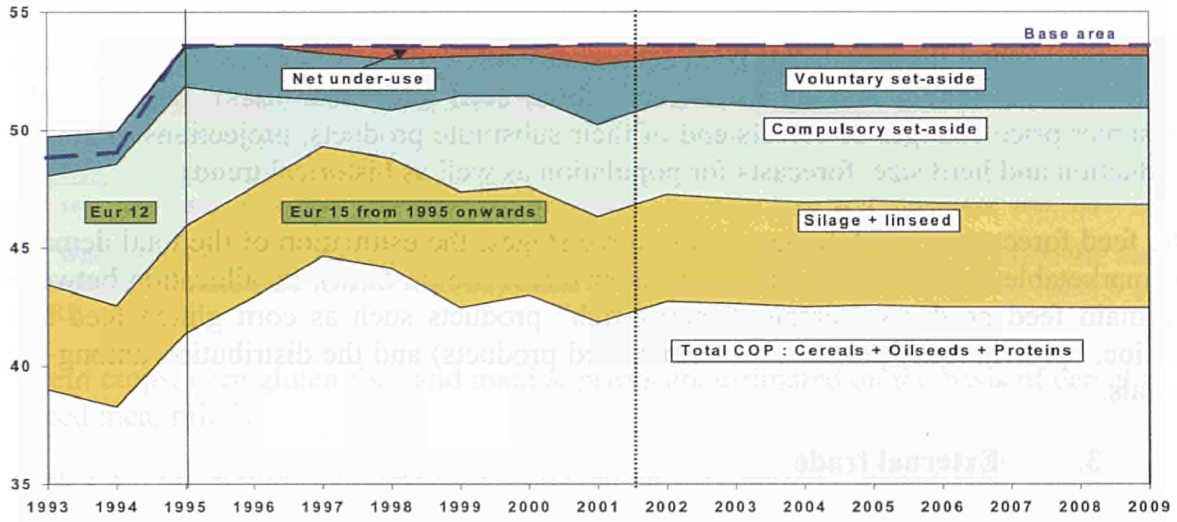
Over the projection period, it is assumed that the structural adjustment will continue, though at a slower pace than in the past. Total area under the general scheme will expand from 39.1 mio ha in 2001 to reach 40.9 mio ha in 2009. Therefore, land under compulsory set-aside is estimated to increase from 3.9 mio ha in 2001 to 4.1 mio ha in 2009.

Voluntary set-aside is assumed to adapt to changes in the rate of compulsory set-aside and in market prices. It is expected to increase from 1.7 mio ha in 2000 to 2.5 mio ha in 2001 due, to a large extent, to difficult sowing conditions resulting from unfavourable climatic situations. The voluntary set-aside area has been modelled, desaggregating Spain from the rest of the EU, taking into account the evolution of the rate of compulsory set-aside and the relative profitability of arable crop farming. Voluntary set-aside area is estimated to increase from 1.9 mio ha in 2002 to around 2.2 mio ha over the medium term. The rise in voluntary set-aside would mainly result from the projected decline in the relative profitability of arable crops, especially in the first part of the projection period.

Linseed, flax & hemp and silage crops

Areas cultivated for non-fibre flax seeds and silage crops have been estimated on the basis of market expert judgement. Over the medium term, area allocated to silage is projected to slightly decline from 4.3 mio ha at the beginning of the decade to less than 4.2 mio ha in 2009 owing to the reduction in the total EU herd size. The area under non-fibre flax seed would increase in the short-term to 0.2 mio ha before declining below 0.1 mio ha from 2002 onwards in line with the cut in direct payment. Flax and hemp area is foreseen to remain relatively stable at around 100 000 ha from 2002 to 2009.

Graph A.2 Distribution of the EU base area between the total COP, compulsory and other set-aside, silage and non-fibre flax seed, 1993/94 – 2009/10 (mio ha)



Cereals, oilseeds and protein crops

The base area not covered by the above-mentioned crops or set-aside will be grown either in cereals, oilseeds or protein crops (cf. graph A.2). The area allocation between the different types of cereals, oilseeds and protein crops has been modelled to simulate producers behaviour in terms of land allocation on the basis mainly of the relative changes in the total receipts per hectare of each crop (i.e. market receipts and direct payments). The total receipt elasticities have been econometrically estimated.

Equations are specified for each main cereal and oilseed type (namely soft wheat, durum wheat, barley, maize, rye and "other cereals" -mainly oats and triticale-, rapeseed, sunflower seed and soya bean) as well as for the aggregate protein crops.

The specific features of the new common market organisation in the durum wheat sector (MGQ) have been taken into account, whereas it is assumed that the limits set in the Blair House agreement do not anymore apply owing due to the equalisation of direct payments for cereals and oilseeds.

1.2 Yields

Yields are projected on the basis of non-linear functions with respect to trends[53] and market prices. Yield functions have been estimated for each type of cereals on the basis of the most representative period, generally over the 1985-2000 period (in terms of forecasting ability over the historical period and plausibility of projections). 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, i.e. after their decline in the wake of the reform of the sector in the late 1980s.

2. Cereal domestic demand

Domestic demand for cereals has been econometrically estimated for each type of cereals (as mentioned above) and by uses (feed, food, seed and other uses), based on the consumer price changes of cereals and of their substitute products, projections of animal production and herd size, forecasts for population as well as historical trends.

The feed forecasting module operates in three stages: the estimation of the total demand for marketable feed products (including their direct use on farm), its allocation between the main feed products (cereals, "energy-rich" products such as corn gluten feed and manioc, "protein-rich" products and other feed products) and the distribution among the cereals.

3. External trade

The level of cereal imports has been projected exogenously on the basis of expert judgement. Cereal exports are estimated using the projected world market prices for cereals, taking into account the limits on the level of subsidised cereal exports set in the Uruguay Round Agreement.

4. Balance sheet

The cereal balance sheets summarise the projection results for production, consumption and external trade. The disposable surplus that balances these items is attributed either to private or to public (intervention) stocks, with private stockholding set at between 13 % and 15 % of domestic consumption depending on the cereal, which corresponds to around five to seven weeks of consumption (except for durum wheat for which private stocks are assumed to remain stable at around 0.6mio t).

5. Cereals and oilseeds prices

Domestic cereal prices are computed on the basis of the balance between supply and demand for each type of cereals, taking into account the system of intervention prices.

Assumptions for world cereal and oilseeds prices are based on the most recent FAPRI medium-term projections published early Spring 2002 and the provisional OECD outlook for the 2002-2007 period (cf. graphs A.3 and A.4).

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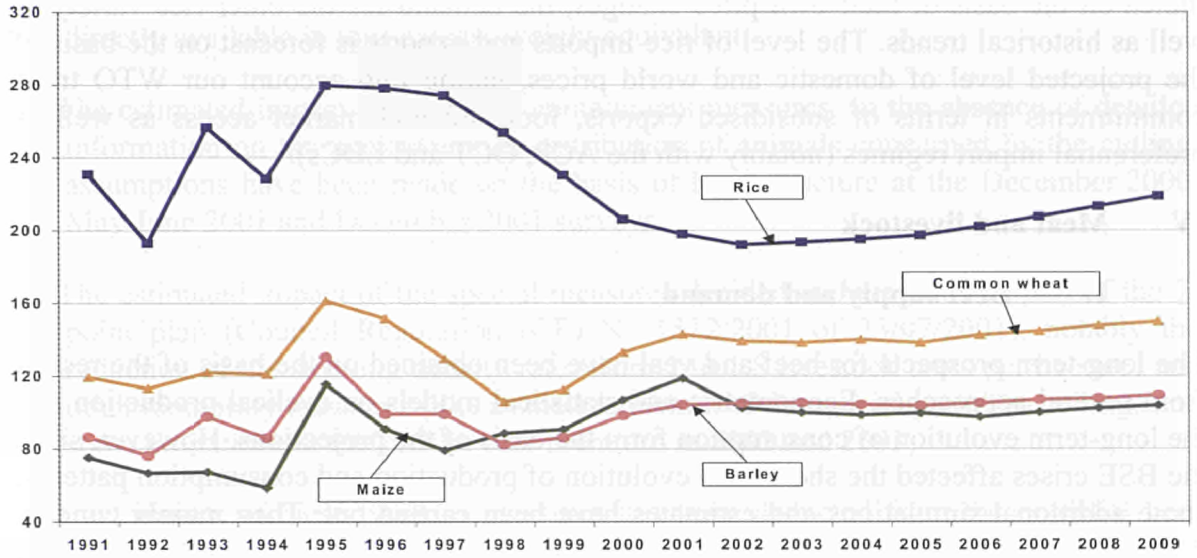
[53] Under these functional forms, estimated trends exhibit a decline over the long term in the annual growth rate in yields.

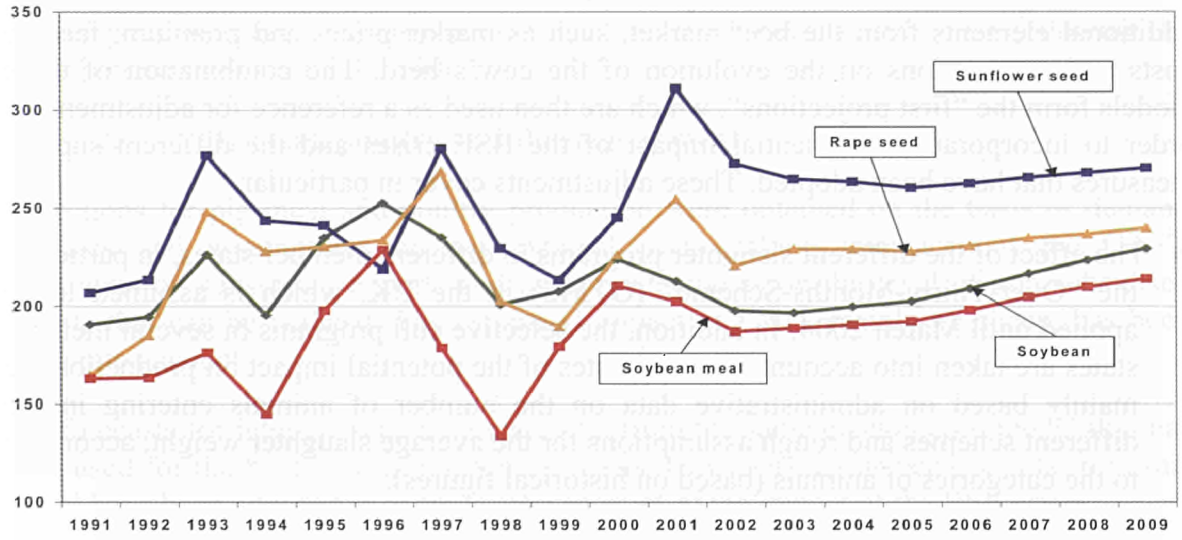
Graph A.3 Assumptions for world market prices for cereals, 1991/92 – 2009/10 (€/t)



Note: Wheat: US No.2, HRW, FOB Gulf (FAPRI); Maize: No.2, yellow corn, US Gulf ports, FOB (FAPRI); Barley: CW barley St Lawrence since 1995, Thunder Bay before (OECD provisional); Rice: FOB Bangkok, 100 % B grade (FAPRI).

Protein crops, corn gluten feed and manioc prices are estimated on the basis of cereal and oilseed meal prices.

Graph A.4 Assumptions for world market price for oilseeds, 1991/92 – 2009/10 (€/t)



Note: Soya bean and soybean meal: CIF Rotterdam; Sunflower seed: CIF Lower Rhine; Rapeseed: CIF Hamburg (FAPRI).

III. Rice

A two-commodity, partial equilibrium, dynamic, supply-demand model has been developed for the EU rice sector. Area projections are based on the allocation of the base areas as defined in the Council Regulation 3072/95 (et al.) for EUR 15 and upon which compensatory payments are granted. The area allocation between japonica and indica rice has been modelled to simulate producers behaviour in terms of land allocation on the basis of the relative changes in the total returns per hectare of each rice variety (i.e. market receipts and direct payments), with elasticities econometrically estimated. Yields are projected on the basis of logarithmic trends estimated for the two varieties of rice on the most representative period.

Per capita domestic demand for rice has been econometrically estimated for japonica and indica on the basis of their own price changes, the demand for the other rice variety as well as historical trends. The level of rice imports and exports is forecast on the basis of the projected level of domestic and world prices, taking into account our WTO trade commitments in terms of subsidised exports, food aid and market access as well as preferential import regimes (notably with the ACP, OCT and LDCs).

IV Meat and livestock

1. Beef supply and demand

The long-term prospects for beef and veal 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 projections. However, since the BSE crises affected the short-term evolution of production and consumption patterns, some additional simulations and estimates have been carried out. They mainly concern the evolution of consumption (with and without the impact of BSE) and the impact of the measures (slaughtering for sanitary reason, supply side measures, and destruction schemes) on production adopted in 1996 and 2000-2001.

Beef supply

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

- The effect of the different slaughter programs in different member states, in particular the "Over-Thirty-Months-Scheme" (OTMS) in the UK, which is assumed to be applied until March 2004. In addition, the selective cull programs in several member states are taken into account. The estimates of the potential impact on production are mainly based on administrative data on the number of animals entering in the different schemes and rough assumptions for the average slaughter weight, according to the categories of animals (based on historical figures).

- 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. The early marketing scheme ended in 1998, but the processing scheme continued in a few member states during 1999. Processed or diverted calves (from beef to veal production, in order to compensate for the reduced slaughter weight 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 of administrative data on the number of animals concerned by both schemes and assumptions on average slaughter weight.

- The estimated impact of the destruction schemes introduced after the recent BSE crisis. The meat withdrawn from the food chain in the framework of the "Purchase for Destruction" scheme is estimated on the basis of administrative data on the

number of thirty–months animals entering the scheme and average slaughter weight. For the "Special Purchase" scheme, like for intervention stocks, information is directly available in tons carcass weight equivalent.

- The estimated impact of the FMD containment measures. In the absence of detailed information on the age/categories distribution of animals concerned by the culling, assumptions have been made on the basis of herd structure at the December 2000, May June 2001 and December 2001 surveys.

- The estimated impact of the special measures decided in June 2001 as part of the 7-point plan (Council Regulation (CE) N° 1512/2001 of 23/07/2001), notably the reduction of the stocking density rate (from 2 to 1.8 livestock units per hectare) and other temporary measures (like a small reduction of the special premium ceilings and some limitations in the suckler cow premium in 2002 and 2003).

The net impact of these types of measures has been deducted from the potential beef production obtained from the "first projections".

Beef demand

The projections for beef and veal consumption are based on an econometric model covering also the other types of meat (mainly pig meat and poultry). It takes account not only of the evolution of prices for beef, pig meat and poultry but also that of other variables, such as the disposable consumer income. The obtained results, which show a long term declining trend for beef meat per capita consumption, are then adjusted to take into account the observed and further expected impact of both BSE crises. Beef consumption is assumed to drop in the short term and recover in few years following the same pattern shown after the 1996 crisis.

2. Pig meat, poultry and sheep/goat meat

Projections 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. The estimated impact of FMD, mainly on sheep, has been taken into account.

The forecasts for internal demand are coming from the same econometric model that has been used for the beef consumption projections. However, as for beef, results from this model have been adjusted in order to take account of the impact of the BSE crises.

V Milk and dairy products

1. Milk supply and dairy herd

The projections for milk productions and deliveries are to a large extent determined by the milk quota system, which fixes the 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 projections are based on the assumption that actual deliveries will adapt to the fixed milk reference quantities, according to the volumes fixed by the Agenda 2000 decisions. The fat content in the delivered milk is assumed to continue to increase slightly, thus, reducing the physical quantities of milk that can be delivered to dairies without penalty in the form of "additional levy". Furthermore, the

delivery ratio (the share of delivered milk with respect to total production) is expected to continue its slight increase, but less than in the past.

The projections on dairy cow numbers are derived from the forecast results for milk production, assuming a further increase in milk yields at about 1.4 % per year on average. This assumption is based on the past evolution of milk yields and takes into account a certain slow down observed in recent years.

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 granted improved market access under other agreements, i.e. the "double zero" agreements recently concluded with 10 accession countries.

It is assumed that production of dairy products is essentially demand-driven (domestic use and exports), but some adjustments have been made in order to incorporate likely responses within dairy manufacture due to the GATT constraints, which are considered to limit a further expansion of some dairy products, such as cheese for example. Therefore, butter and skimmed milk powder production projections incorporate some residual elements. The adjustments made are checked against a calculated global balance of milk used in dairies. The projections on internal demand (domestic use) for the different dairy products are mostly based on historical trends, adjusted if necessary in order to take into account of changed short-term consumption patterns.

The internal and external analysis carried out in the framework of the preparation of the Mid Term Review of the CAP has been the opportunity to deepen and update the analysis of the EU dairy sector and invest in new methodological approaches. These analyses give a somewhat more optimistic outlook for the EU dairy sector, notably on the demand side, than those presented in last year's projections and allowed to adapt somewhat the cautious approach as regards the long term-projections for the major dairy products.

PROSPECTS FOR AGRICULTURAL MARKETS IN THE CANDIDATE COUNTRIES OF CENTRAL AND EASTERN EUROPE

1. Introduction

This chapter provides an overview of the current and projected medium-term development for a number of the main agricultural commodity sectors in the 10 Central and Eastern European Countries (CEECs) which are candidates for accession to the European Union[54].

As is the case for the EU, projections for production and use are presented for some of the main crop and livestock products in the CEECs for the period up to 2009 (marketing year 2009/10 in the case of cereals and oilseeds). The projections combine a short-term forecast for 2001 and 2002 with a medium-term forecast up to 2009.

The short-term forecast is based on a combination of different approaches (statistical analyses, expert judgement, and agro-meteorological models), on different statistical sources (Eurostat, national statistics, international organisations, private information, etc.) and on the most likely development in 2002 according to current knowledge of weather conditions, prices, and the market situation.

As for the EU-15, an economic model has been used for the projections presented in this report, instead of the purely statistical approach reported in the previous ones. This economic model includes a specific module for each of the 10 CEECs to obtain the expected medium-term developments in the main agricultural markets. Agricultural market and trade policies, the development of the population and income and the development of real exchange rates, capital and labour costs all enter as country-specific and explicit variables in the projections for each of the Candidate Countries. **In these projections current agricultural policies are assumed to be maintained unchanged over the medium term**. Therefore, no assumption on the date or the conditions of entry into the EU has been made[55].

The projections for the agricultural markets are based on the European Commission's latest macroeconomic projections for the CEECs and on the assumption of a continuation of past trends, as far as the main macroeconomic parameters are concerned (GDP, real exchange rate, etc.).

The results for the 10 CEECs as a whole are summarised below. Considerable efforts have been made to establish a coherent, reliable and up-to-date set of data on agricultural statistics for all CEECs. Historical data have in some cases changed since last year[56], leading to modifications in this year's projections compared to those published last year. Some of the differences are also due to the change in methodology and in particular to the impact of certain macroeconomic assumptions on market prospects.

The results presented below are aggregated for all 10 CEECs together. However, it is important to emphasise the relevance from an economic and political point of view of the specific situation for each country. We have therefore added in annex a set of tables showing simplified balance sheets per country and per product for the period 1999 - 2002

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

55 This is purely a working assumption and does not prejudge the effective entry date of any candidate country or the modalities of accession.

56 "*Prospects for agricultural markets 2001-2008*" - July 2001, European Commission, Brussels.

and projections up to the year. The estimations for the year 2002 and the projections up to 2009 are based on information available at the end of April 2002.

2. Economic Outlook, Market and Weather Conditions

Since the-mid 1990s Central and Eastern European Countries have on average shown higher economic growth than the EU-15. The global slowdown of economic growth also affected the CEECs at the end of 2001. Robust internal consumption, however, is projected to help the economies return to an average GDP growth of 2.9% in 2002. The CEECs are then projected to return to the path of strong economic growth, mainly due to further strengthening internal demand.

In the medium term, the recovery to sustained high economic growth should stabilise unemployment, especially in urban regions. High unemployment in rural areas, though, is likely to continue to create strong economic pressure and to remain an important policy challenge. It would also have negative repercussions on achieving necessary structural change in the agricultural sector.

However, the return to dynamic economic performance would, as in the past, contribute to rising consumer incomes in the CEECs, a trend which has been assumed to continue over the forecast period. This development should positively affect the demand for agricultural food products, especially of quality products. On the other hand, the population in the CEEC-10 is expected to remain relatively unchanged and thus not affect food consumption.

The projections for agricultural products are based on the assumption of a continuous trend of real appreciation of exchange rates for national currencies against the euro and US-dollar, which has been visible in recent years. This leads to continuous competitive pressure on CEEC agriculture and requires rapid restructuring especially of the labour-intensive part in order to maintain competitiveness. Any significant movement in exchange rates as well as in the costs of production factors could influence the production levels and the consumption patterns in the CEECs, and consequently trade.

The Russian crisis in 1998 led to a decline in an important export market for the CEECs and also to a remarkable reorientation of agricultural trade to other geographical destinations, in the subsequent years. In particular, the trade among the CEECs themselves has gained in importance. However, export markets outside of the EU and the CEECs have remained tight, a feature that would, in certain sectors, be felt much more than at present should production regularly begin to exceed domestic consumption.

In continuation of the European agreements from the beginning of the 1990s, the so-called "double zero-agreements" between the EU and the CEECs, concluded in 2000, deepened the process of bilateral trade liberalisation between the Candidate Countries and the EU. The "double profit" agreements, which represent a further step in liberalising bilateral trade, are expected to be adopted for the majority of CEECs in the second half of this year. These agreements aim at a mutual liberalisation of agro-food trade also for more sensitive products and represent an important step in market integration prior to enlargement. The "double profit" agreements have not been included in the projections.

The EU-15 is the most important trading partner for the CEECs. A successful process of bilateral trade liberalisation and eventual integration into the Single Market requires both

primary production and food processing industries in the CEECs to improve their production standards and cost structures, in order to be able to comply with consumer expectations on food safety and quality in the wider European markets. Successful developments have been observed in most CEECs. The SAPARD[57] programme, which has been adopted for all the CEECs, helps to address this problem and has contributed to the focussing of national policies. However, quickening the pace of restructuring of agriculture and food processing will need considerable additional efforts in the CEECs, which among other measures would require additional domestic investments, further foreign direct investments and additional national programmes.

Market and Weather Conditions

The year 2000 was a year of extremes in the CEECs. The adjustments following the collapse of the Russian market became fully apparent in the production figures for the animal sector. In addition, many countries were affected by the worst drought since the start of the transition process. Prices for agricultural commodities, especially for crops, increased considerably as a response to the limited supply of cereals. Relatively high world market prices and the practice of some Candidate Countries to largely maintain high import tariffs and to neutralise preferential imports, which marked a significant change of policies compared to similar situations in previous years contributed to this price increase.

In many respects the year 2001 presented a change of conditions for CEEC crop production. Good weather conditions throughout the year led to good yields and exceptional harvests in most CEECs.

The exceptional good weather conditions of 2001 seem unlikely to be repeated in 2002. Conditions in early autumn were too wet, which delayed sowing of winter crops. Temperatures in winter were colder than in 2001 and the rather limited amount of snow coverage could not prevent frost kill. Bulgaria, Central Romania, and the Baltic States were specially affected. In the following months, however, weather conditions improved, in terms of temperature and water balance. This had positive effects upon Poland, the Baltics, and north and central Romania in particular. Slightly less favourable conditions appeared in Hungary and the Czech and Slovak Republics. The development of weather conditions in the CEECs seems to indicate so far a quite normal crop year with average yields.

In 2001 and 2002 the new import and market policies of some CEECs contributed to relatively high prices for those crops, where internal production has been insufficient. In addition, high cereal prices have contributed to further deteriorate the internal competitiveness of livestock production, particularly for pork. This has been partly compensated by market interventions for pork in some countries.

However recent surpluses and larger stocks, due to tight export markets and high transport costs, have led to reductions in agricultural prices in a number of countries, most notably in Hungary. Nevertheless, the market and storage situation in net importing countries such as Poland, seem to indicate emerging pressure on cereal prices unless

[57] SAPARD: Special Accession Programme for Agricultural and Rural Development.

storage levels would be further extended. The foreseen average harvest in 2002 might put further pressure on domestic prices in the CEECs, if levels of stocks were maintained at current levels.

Despite these obvious pressures, which might lead to a change of market policies in a couple of CEECs in the medium term, **policies in the simulations are assumed to remain unchanged over the projected period.**

3. Cereals and Oilseeds

3.1 Area

During the second half of the 1990s the **harvested area** for cereals in the CEECs was relatively stable at just above 24 mio ha. However, lower world market prices and wet conditions, which hampered sowing, reduced the area to 22.5 mio ha in 1999. The year 2000 saw an expansion of more than 1 mio ha, which did not however result in higher production due to the drought experienced that year. In 2001 area increased to 24.5 mio ha, with the most significant increases being in Romania and Hungary. For 2002 the total harvested area is forecast to decline by 0.6 mio ha compared to the previous year. The more favourable market conditions for oilseeds and the stagnant prices for cereals in the CEECs are expected to lead to a slight reduction in cereals area down to a level of 23.3 mio ha by 2009.

The previously favourable market conditions for cereals led to a decline in oilseed area in 2000 and 2001. However, oilseed area is forecast to recover and reach 3.1 mio ha in 2002, and then gradually increase to 3.6 mio ha by 2009, with the most notable increases being in Bulgaria, Hungary and Slovakia.

With the exception of 1999, the total area for oilseeds and cereals has been quite stable at around 27 mio ha. In the medium term the total area for cereals and oilseeds is expected to decline slightly until 2009, if current policies in the CEECs remain unchanged.

Table 2.1 Total cereal and oilseed area in the CEECs, 1999 – 2009

		1999	2000	2001	2002	2003	2004	2009
Cereals	(mio ha)	22.5	23.6	24.5	23.9	23.5	23.4	23.3
Oilseeds	(mio ha)	3.8	3.1	2.9	3.1	3.4	3.5	3.6
Total cereals and oilseeds	(mio ha)	26.3	26.6	27.4	27.0	27.0	26.9	26.8

3.2 Cereals

Since the beginning of the 1990s, the **average cereal yield** in the CEECs has increased by more than 15 % from around 2.7 t/ha in 1992 to 3.36 t/ha in 2001. However, the CEECs seem to be more exposed to droughts, such as in 2000, than the EU-15 (since the transition, droughts have affected the CEECs every 4-5 years). Average yields are projected to expand further, to levels of 3.6 t/ha in 2009, which is still below the projected average cereal yields of 6.2 t/ha in the EU-15. Future development to more intensive cereal farming clearly depends on the possibility for farms to improve their use of inputs and on their ability to afford the use of these. The revaluation of exchange rates against major currencies would lower the prices of imported inputs such as pesticides and some fertilisers, which would provide incentives for cereal production.

Total cereal production in the CEECs increased from 63 mio t in 1992 to around 76 mio t in 1998. Due to weather-related problems the cereal harvest was reduced in

1999 to 73 mio t, and the drought in 2000 resulted in a crop of only 62 mio t., the lowest harvest since the beginning of transition. The very favourable weather conditions in 2001 and the incentives provided by the high price levels in 2000 led to a production of 82.2 mio t, which is expected to be 4 mio t lower in 2002. The general tendency of a slight intensification of cereal production, supported by domestic policies and a favourable world market price development, is expected to lead to an expansion of production up to levels of 85 mio t by 2009. Poland, Romania and Hungary should remain the biggest producers of cereals over the projected period. Current policies in Poland would encourage the expansion of wheat production and especially that of rye, which appears to be a problematic crop for exports.

Graph 2.1: Most important producers of cereals in 2002 and 2009 (mio t)

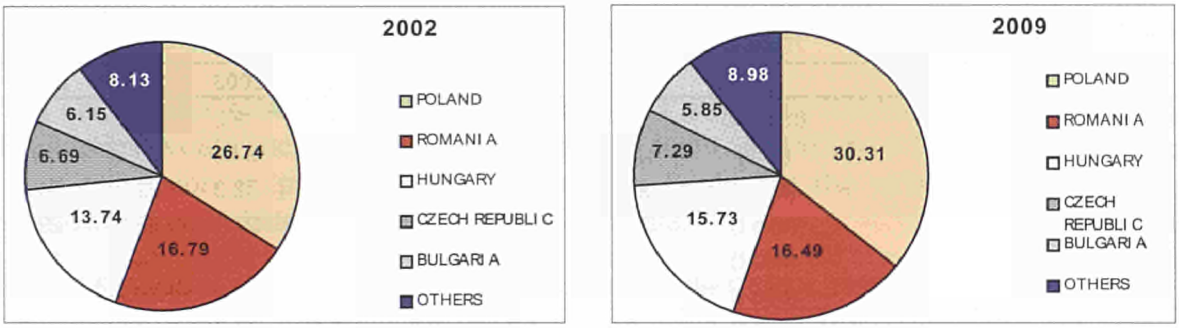


Table 2.2 Situation and perspectives of cereal markets in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Area	(mio ha)	22.5	23.6	24.5	23.9	23.5	23.4	23.3
Yield	(t/ha)	3.24	2.62	3.36	3.28	3.42	3.45	3.64
Production	(mio t)	72.9	61.6	82.2	78.2	80.4	80.9	84.7
Total internal use	(mio t)	72.8	69.8	70.8	70.3	71.8	72.5	76.3
Food	(mio t)	19.5	19.4	19.5	19.4	20.0	20.3	21.8
Feed	(mio t)	46.3	43.4	44.3	44.0	45.1	45.5	47.5
Balance (incl. Stock changes)	(mio t)	0.2	-8.1	11.4	7.9	8.5	8.4	8.3

Internal use of cereals is expected to expand over the projected period from 71 mio t in 2001 to 76 mio t in 2009, due to rising incomes and increasing meat production. Of the increase of 5.5 mio t, food consumption would increase by 2.3 mio t and feed use by 3.2 mio t.

In recent years, total **exports** and **imports** have fluctuated significantly due to weather-related changes in production and varying incentives given by national agricultural policies. The unfavourable conditions of 1999 and 2000 led to a reduction of the exportable surplus to 0.2 mio t in 1999 and to a deficit of 8 mio t in 2000. In 2000 cereal prices peaked in the CEECs due to the large demand for imports and high level of import tariffs. Prices for common wheat, barley and rye approached price levels for cereals in the net-importing EU Member States.

The excellent weather conditions as well as the high level of cereal prices led to a significant expansion of cereal production in 2001, resulting in an exportable surplus of 11.4 mio t. Despite considerable pressures on markets, prices remain high in most of the CEECs as governments and private agents took the opportunity to replenish stocks. However, considerable price pressures are already beginning to be felt particularly in

Hungary and in Poland. The good harvest forecast for 2002 might place further pressure on market prices.

The projected slight expansion of production and the development in domestic use increase the amount of cereals available for exports until 2009. Even under the assumption that cereal storage would be extended where necessary, domestic prices would become less dependent on import prices and could be expected to fall. Consequently the exportable annual surplus stagnates at around 8 to 8.5 mio t until 2009.

Under average weather conditions Hungary, Romania, Bulgaria, Poland, and the Slovak Republic should have a net export balance, while Slovenia, the Czech Republic, and the Baltic States should remain net importers.

Table 2.3 Situation and perspectives of wheat markets in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Area	(mio ha)	7.7	8.7	9.7	9.3	9.0	9.0	8.9
Yield	(t/ha)	3.33	3.13	3.57	3.43	3.58	3.62	3.82
Production	(mio t)	25.6	27.3	34.6	31.8	32.3	32.5	34.1
Total internal use	(mio t)	25.9	26.3	26.7	26.7	27.7	28.0	29.8
Food	(mio t)	12.9	12.9	13.0	13.0	14.1	14.3	15.5
Feed	(mio t)	9.6	9.7	9.9	10.0	10.8	10.9	11.3
Balance	(mio t)	-0.3	1.0	8.0	5.1	4.6	4.5	4.3

Common wheat is the most important cereal in the CEECs and would remain so over the projected period. The area allocated to wheat production would be approximately 9 mio ha. Coarse grain area would decline slightly from 14.6 mio ha in 2002 to 14.3 mio ha in 2009, since prices for coarse grains would develop less favourably than those for wheat.

Wheat production would increase from 31.8 mio t in 2002 to 34.1 mio t in 2009. The increase in production would be slightly less than that in domestic use. The foreseen exportable surpluses of around 5.1 mio t in 2002 would, therefore, decline over time to 4.3 mio t in 2009.

Table 2.4 Situation and perspectives of coarse grains markets in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Area	(mio ha)	14.8	14.8	14.8	14.6	14.5	14.4	14.3
Yield	(t/ha)	3.20	2.31	3.22	3.18	3.31	3.35	3.53
Production	(mio t)	47.3	34.3	47.6	46.4	48.0	48.4	50.6
Total internal use	(mio t)	46.8	43.4	44.1	43.6	44.1	44.4	46.5
Food	(mio t)	6.6	6.4	6.5	6.4	5.9	6.0	6.3
Feed	(mio t)	36.8	33.7	34.4	34.0	34.3	34.6	36.2
Balance	(mio t)	0.5	-9.1	3.5	2.8	3.9	3.9	4.0

The production of **coarse grains** is projected to increase by approximately 4 mio t from 46.4 mio t in 2002 to 50.6 mio t in 2009. Maize, mainly produced in Hungary, Romania, and Bulgaria, is the most important coarse grain with 22.1 mio t produced, followed by barley with 11.1 mio t, mainly produced in Poland and the Czech Republic, and by rye with 7 mio t, mainly produced by Poland and the Baltic states.

By 2009 internal use of coarse grains would increase to 46.5 mio t leaving a balance of 4 mio t available for export, of which 3.2 mio t would be maize (Hungary and Romania)

and 0.8 mio t would be rye (almost entirely from Poland). For the latter it would be difficult to find export outlets.

3.3 Oilseeds

The area in the CEECs under oilseeds reached a peak in 1999 of around 3.8 mio ha. This was the result of the relatively attractive oilseed prices in 1998, as well as weather-related problems during cereals sowing (for instance in Hungary and the Slovak Republic). The oilseed area then fell sharply in 2000 to only 3.1 mio ha, and the high prices for cereals in 2000 led to a further decrease of harvested area in 2001 compared to 2000. In 2002 this downward trend is expected to reverse due to a favourable development in oilseed prices particularly in Hungary, Romania, and Bulgaria. This would lead to an increase of area, but, due to the drop in yields, oilseed production is expected to increase only slightly.

The **area under oilseeds** would increase from 3.1 mio ha in 2002 to 3.6 mio ha in 2009. Production would increase by 1 mio t from 5.1 mio t in 2002 to 6.1 mio t in 2009. The main expansion in production is projected as being for the relatively low yielding sunflower seed in Hungary, Bulgaria, and Romania.

Table 2.5 Situation and perspectives of oilseed markets in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Area	(mio ha)	3.8	3.1	2.9	3.1	3.4	3.5	3.6
Yield	(t/ha)	1.56	1.42	1.72	1.63	1.64	1.65	1.70
Production	(mio t)	**5.9**	**4.3**	**5.0**	5.1	5.6	5.7	6.1
Total internal use	(mio t)	4.1	3.7	3.9	4.3	4.3	4.3	4.3
Balance	(mio t)	1.9	0.6	1.0	0.9	1.3	1.4	1.7

Since 2000 **internal use/crushing** has been increasing again to levels of 4 mio t and is expected to further increase in 2002 to 4.3 mio t. In the medium term internal crushing might stabilise at that level, if demand for protein-rich oilmeals remains limited in the CEECs. However, increasing quality and lean meat content might add to an expansion of the use of protein-rich feeds, which might trigger additional investments for expanding crushing capacities in the CEECs. These structural changes have not been taken into account. With existing crushing capacities exportable oilseed surpluses might increase from the present 1 mio t to 1.7 mio t in 2009.

Table 2.6 Situation and perspectives of rape seed markets in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Area	(mio ha)	1.4	1.1	1.2	1.3	1.3	1.3	1.3
Yield	(t/ha)	2.09	2.06	2.36	2.18	2.24	2.27	2.43
Production	(mio t)	2.9	**2.3**	**2.7**	2.7	3.0	3.0	3.1
Total internal use	(mio t)	**1.8**	**1.9**	**2.1**	2.2	2.2	2.2	2.2
Balance	(mio t)	1.1	0.4	0.6	0.5	0.8	0.8	0.9

The **rape seed** crop has traditionally only been of importance in Poland. However in recent years production has been expanding significantly in the Czech Republic, the Slovak Republic and Hungary. It is projected that rape seed area will remain stable at around 1.3 mio ha from 2002 onwards. By 2009 production should reach a level of 3.1 mio t, with total use being stable at around 2.2 mio t. With unchanged internal crushing capacities around 1 mio t would be available for export in 2009.

Table 2.7 Situation and perspectives of sunflower seed markets in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Area	(mio ha)	2.3	1.8	1.7	1.7	2.0	2.0	2.2
Yield	(t/ha)	1.27	1.01	1.27	1.24	1.21	1.22	1.25
Production	(mio t)	2.9	1.8	2.1	2.2	2.4	2.5	2.7
Total internal use	(mio t)	2.1	1.6	1.7	1.8	1.8	1.8	1.8
Balance	(mio t)	0.8	0.2	0.4	0.3	0.6	0.6	0.9

Sunflower accounts for more than 60 % of the oilseed area in the CEECs, but for only 40 % of total oilseed production, due to the significantly lower yield of sunflower compared to other oilseeds. Sunflower is only grown in Romania, Bulgaria and Hungary. In 2000 a significant decrease in the sunflower area was observed in Hungary due to the drought. Price pressure on cereals, particularly for maize in Hungary, would encourage a gradual increase in sunflower production to 2.7 mio t by 2009.

Despite favourable price developments on world markets and the suitable climate, the area of **soya bean** production mostly on irrigated land would be stable at around 100 000 ha (mostly in Romania), producing 200 000 t, and no significant change is foreseen during the projection period.

4. Milk and dairy products

The milk sector is of major importance for most of the CEECs and the single most important commodity contributing to agricultural income. Combined with the beef sector, milk is an area where the CEECs have seen the most significant reductions during the 1990s.

This labour-intensive part of agriculture in particular might suffer from appreciating real exchange rates, which would lead to a deterioration in domestic prices for dairy products in national terms while costs for domestic factors such as labour and land would gain more weight. Significant efforts have been undertaken in the CEECs to foster restructuring. With the introduction of EU quality norms in most countries, the dairy industry demands increasingly higher standards of milk, which forces market production to restructure. The share of high quality milk in deliveries has increased in most countries.

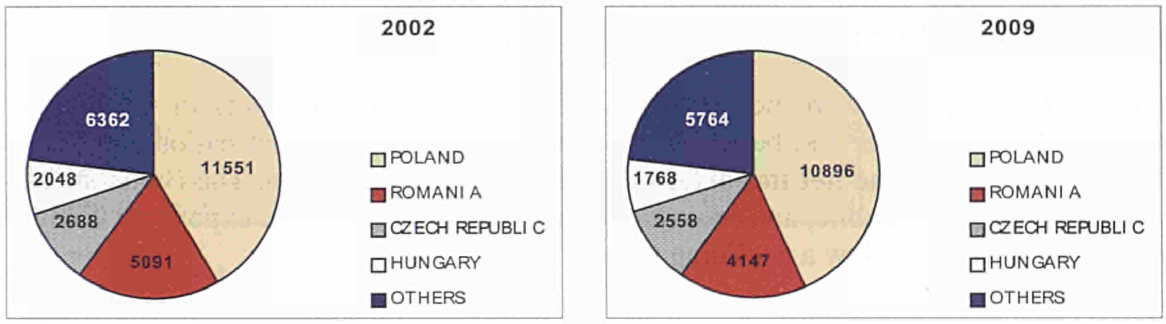
In several countries subsistence milk production of small holdings is an important element of production and the domestic use of milk. In the past subsistence and semi-subsistence production contributed to the stabilisation of milk production. Production has therefore been maintained at a certain level, but income levels have deteriorated significantly. Subsistence production, especially of milk, has gained importance in some countries, because economic and social conditions in rural areas have worsened. A development of this nature indicates a mounting rural poverty problem in the medium term under the domestic policies in some CEECs, which alongside rural unemployment would be a major policy challenge.

Much of the future direction of structural change is less dependent on milk market policies than rather on the economic and social developments in rural areas. Continuous high unemployment and poverty would certainly hamper structural change in milk production, even if agricultural policies in the CEECs provide incentives to market production.

Milk production is projected to remain under pressure under the assumption of continuing current policies. This pressure arises from appreciating real exchange rates and tight export markets for skimmed milk powder and butter. This generally leaves little room to increase domestic prices. Increasing investment in dairy farms, which would contribute to achieving economically viable and cost-competitive production, is generally still too limited to offset the competitive pressures.

Under the provision of unchanged national policies domestic prices for milk would not remain at the high level seen over the last two years. Increased restructuring would further reduce milk production in the CEECs, which is foreseen to fall by 2.6 mio t in 2009 compared to 2002. This reduction in production is particularly visible in Bulgaria, Poland, and Romania.

Graph 2.2: Most important producers of milk in 2002 and 2009 (1000t)



The number of **dairy cows** fell from over 10 mio in 1992 to 7.2 mio in 2001 and a further decrease to 7.1 mio is foreseen for 2002. This downward trend would continue over the projected period with total cow numbers falling to 5.5 mio by 2009.

The reduction in cow numbers has been partly offset by the increase in the average milk yield, which is expected to reach 3.9 t/cow in 2002. The average **yield** is projected to increase over the projected period to 4.6 t/cow by 2009. However, the effect on production of the decline in the number of dairy cows would be stronger than the positive impact of the yield increase. In fact milk production is expected to fall from 27.7 mio t in 2002 to 25.1 mio t in 2009, the reduction being most evident in Bulgaria, Poland, and Romania.

Table 2.8 Situation and perspectives of the milk market in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Number of milk cows	mio	7.88	7.53	7.24	7.10	6.37	6.19	5.49
Yield	1000kg/cow	3,554	3,709	3,874	3,909	4,200	4,261	4,580
Production	mio t	28.0	27.9	28.0	27.7	26.8	26.4	25.1
Total internal use	mio t	26.0	25.9	25.7	25.8	25.8	25.9	26.5
- of which human (in milk equivalent)	mio t	23.3	23.1	23.1	23.1	23.4	23.8	25.7
Balance	mio t	2.0	2.0	2.3	2.0	1.0	0.5	-1.3
Per cap. consumption	kg/pc	222	220	221	221	223	227	244

As in past years total food demand for milk and dairy products in the CEECs would continue to increase. Between 2002 and 2009 **human consumption** would increase by 2.6 mio t from 23.1 mio t to 25.7 mio t. Rising consumer incomes are projected to result primarily in increased consumption of cheese and fresh milk products, while butter consumption would remain more or less stagnant. Per capita consumption of milk and milk products is foreseen to increase from 221 kg/capita in 2002 to 244 kg/capita in

2009. At the same time feed use of milk declines alongside the reduction of the dairy herd and declining beef production. As a result **total domestic use** increases only by 0.7 mio t from 25.8 mio t in 2002 to 26.5 mio t in 2009.

Feed use has decreased from 3 mio t in 1992 to 2.6 mio t in 2001 in line with the declining dairy cow herd size. The projections would suggest a further decrease of dairy and beef herds, which would further decrease the use of milk in feed to 0.8 mio t by 2009.

For countries where statistics are available, **quantities delivered to dairies** were on average 65 % of the total production in 2000. However large differences exist between countries. Deliveries are at around 92 % of the total production in the Czech Republic, 85 % in the Slovak Republic, 80 % in Hungary, 70 % in Slovenia, 60 % in Estonia, 65 % in Lithuania, 58 % in Poland, 48 % in Latvia, 37 % in Bulgaria, and about 20% in Romania. The future shares of market-oriented milk production in total production will crucially depend on the direction of structural change.

The CEECs as a group were net exporters of milk and milk products in the 1990s, especially of milk powder and butter. It is expected that under present national policies the CEECs would become **net importers** of milk in the medium term. The Baltic states, Slovenia, the Czech Republic, and Slovakia would however remain net exporters of milk, though exports would follow a declining trend.

Butter

The production of butter decreased from over 425 000 t in 1992 to 323 000 t in 2001. **Production** is expected to continue to decline over the projected period down to a level of 263 000 t by 2009. Deteriorating butter prices, due to revaluating exchange rates and a higher profitability for other products (mainly of the fresh milk type), should divert milk away to production of more profitable dairy products.

Butter **consumption** has been relatively stable over recent years at around 2.7 kg/capita and is expected to increase slightly to 2.9 kg/capita by 2009 (compared to 4.6 kg/capita in the EU). As a consequence of declining production and slightly increasing consumption, the exportable surplus should decrease from around 45 000 t in 2002 to 9 000 t in 2004. After 2004 the CEECs would become net importers of butter, with the balance reaching a deficit of 41 000 t by 2009. Poland produces more than half of the butter in the CEECs followed by Lithuania and Estonia.

Table 2.9 Situation and perspectives of the butter market in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Production	000 t	328	317	323	322	302	293	263
Total internal use	000 t	286	272	272	276	281	284	303
Balance	000 t	42	46	51	45	21	9	-41
Per cap. consumption	kg/pc	2.72	2.60	2.60	2.64	2.68	2.71	2.89

Cheese

Whereas butter production has been on the decline, cheese has been on an upward trend since 1992 both in terms of production and consumption. In 2001 cheese production in the CEECs increased to 946 000 t. The expected decline in milk production in the CEECs as well as the competition on the internal markets would not allow a significant additional expansion in cheese production, unless investments in the dairy sector were to

increase competitiveness. **Production** of cheese is expected to drop from 972 000 t in 2002 to 825 000 t in 2009. The biggest producer should remain Poland, followed by Hungary and the Czech Republic.

Increasing incomes are expected to lead to a modest increase in per capita cheese **consumption** to 9.7 kg (19 kg/capita in EU-15) by the end of the projection period. The increasing demand and declining production would require imports of 197 000 t in 2009 to satisfy the internal demand in the CEECs.

In several of the CEECs a significant part of cheese is produced and consumed by, or sold from, the holding and this plays an important role in subsistence farming, for instance in Bulgaria, where the delivery to dairies has decreased in recent years while household/on farm sales have increased.

Table 2.10 Situation and perspectives of the cheese market in the CEECs, 1999 - 2009

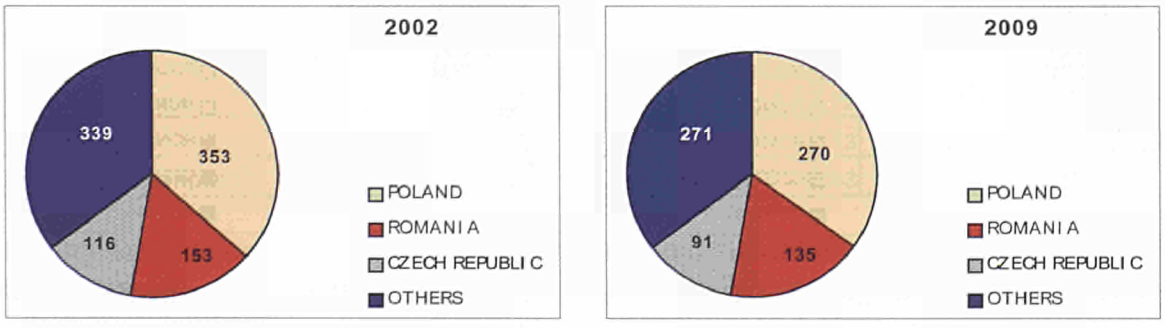
		1999	2000	2001	2002	2003	2004	2009
Production	000 t	924	910	946	972	976	948	825
Total internal use	000 t	830	836	863	883	904	922	1,022
Balance	000 t	93	74	83	89	72	27	-197
Per cap. consumption	kg/pc	7.92	7.99	8.24	8.44	8.62	8.79	9.72

5. Beef and veal

The production of beef and veal in the CEECs is mainly linked to the dairy herd, since only limited suckler cow herds and specialised beef production are present in the CEECs. Due to the long production cycle, the build up of suckler cow and specialised beef production is slow. Specialised beef production therefore does not affect total beef production to a great extent over the projection period.

The beef meat sector has been the sector that has experienced the largest decrease in production since the beginning of transition. From 1989 to 2001 production decreased by more than 40 % to less than 1 mio t. Three countries dominate beef production in the CEECs, Poland with 0.35 mio t, Romania with 0.15 mio t, and the Czech Republic with 0.12 mio t.

Graph 2.3: Most important producers of beef and veal in 2002 and 2009 (1000t)



During the projection period the number of **animals slaughtered** would decrease in line with the reduction in the number of dairy cows. Specialised beef production, which currently has an almost negligible share in production, is foreseen to increase but would have no visible effect on the overall balance. The decline of the dairy herd would lead to a further reduction in beef and veal **production** of 0.23 mio t, from just under 1 mio t in 2001 to 0.77 mio t in 2009.

Table 2.11 Situation and perspectives of the beef and veal market in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Slaughtered animals	mio	5.67	5.52	5.24	5.09	4.75	4.64	4.26
Slaughter weight	kg/head	205	206	209	209	213	213	213
Production	mio t	1.05	1.02	0.98	0.96	0.86	0.84	0.77
Total internal use	mio t	1.00	0.98	0.98	0.97	0.98	1.00	0.98
Balance	mio t	0.05	0.04	0.00	-0.01	-0.13	-0.16	-0.21
Per cap. consumption	kg/pc	9.5	9.4	9.3	9.2	9.4	9.5	9.3

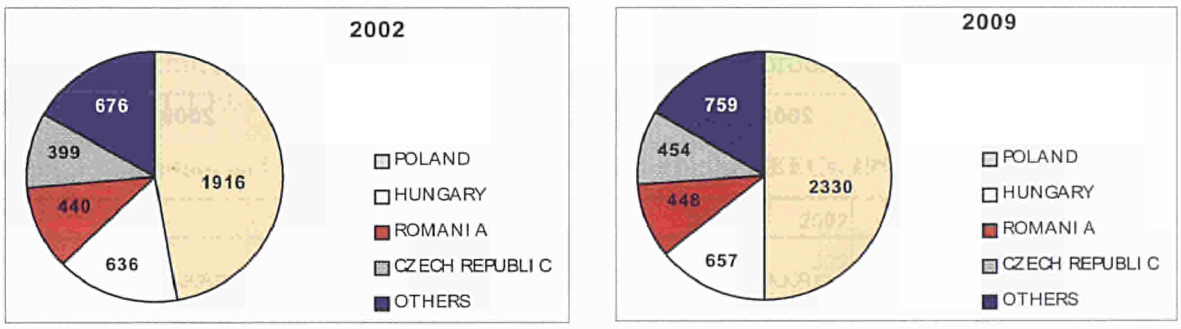
Per capita consumption of beef continued to decline in 2001 and 2002. However, declining domestic prices, increasing incomes and increasing prices for pork and poultry should tend to stabilise domestic consumption at 9.3 to 9.5 kg/capita in the projected period.

Total **internal use** in the CEECs would be relatively stable at levels of approximately 1 mio t through to 2009. As a consequence of stable use and declining domestic production net imports are expected to increase to 214 000 t by 2009. The main importers would be Poland, Romania, and Bulgaria. Slovenia and Slovakia would continue to export small quantities.

6. Pig meat

Pig meat is the most important meat produced and consumed in the CEECs. For the CEECs as a whole **production of pork** is estimated to increase from its low level in 2001 of 3.97 mio t to 4.07 mio t in 2002. The upward swing is expected to continue and production should reach 4.65 mio t in 2009, though somewhat dampened by relatively high cereal prices, which affect the costs of production. The biggest producers and consumers of pork would continue to be Poland, which would be able to dynamically expand production through to 2009 under domestic policies, Romania, Hungary and the Czech Republic.

Graph 2.4: Most Important Producers of Pig Meat in 2002 and 2009 (1000t)



Increasing incomes would lead to increasing consumption. Per capita **consumption** would expand from 39 kg in 2001 to 45.2 kg in 2009. Consumers in Hungary, Poland, and in Slovenia consume over 50 kg/capita and would increase their consumption further through to 2009.

Total consumption in the CEECs would expand by 610 000 t from 4.15 mio t in 2002 to 4.76 mio t in 2009. During the projection period the CEECs as an aggregate would appear to slightly increase their net trade deficit from 100 000t in 2001 to 110 000 t in 2009.

Table 2.12 Situation and perspectives of the pig meat market in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Slaughtered animals	mio	53.9	49.9	46.9	47.5	50.3	51.0	54.9
Slaughter weight	kg/head	81	81	81	83	83	83	83
Production	mio t	4.44	4.15	3.97	4.07	4.25	4.32	4.65
Total internal use	mio t	4.23	4.09	4.07	4.15	4.35	4.41	4.76
Balance	mio t	0.21	0.07	-0.10	-0.09	-0.09	-0.09	-0.11
Per cap. consumption	kg/pc	40.4	39.1	38.9	39.7	41.5	42.1	45.2

7. Poultry meat

The largest part of poultry production is that of broilers, although turkey production is gaining in importance in some countries. Traditionally other poultry play a larger role in some CEECs, especially ducks and geese, with a relative strong competitiveness on export markets.

Compared to pork production the poultry industry is generally structured on a large scale, and foreign direct investments play an important role, which partly explains the ability to continuously expand production over the last decade. However, in several countries small-scale production is highly important. Three countries dominate poultry meat production, namely Poland, Hungary and Romania.

Graph 2.5: Most important producers of poultry meat in 2002 and 2009 (1000t)

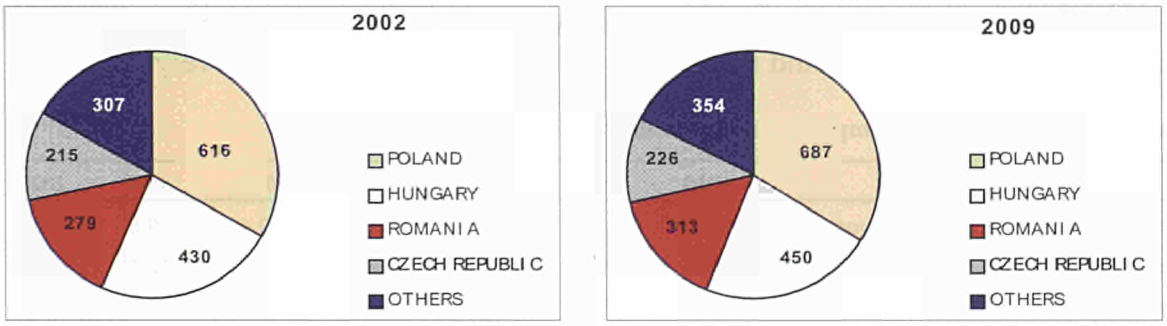


Table 2.13 Situation and perspectives of the poultry meat market in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Production	mio t	1.76	1.69	1.80	1.85	1.91	1.93	2.03
Total internal use	mio t	1.60	1.65	1.69	1.72	1.76	1.78	1.87
Balance	mio t	0.16	0.05	0.11	0.13	0.15	0.15	0.16
Per cap. consumption	kg/pc	15.31	15.75	16.17	16.43	16.82	16.97	17.82

Poultry meat production, like that of pig meat, is mostly demand driven. In relative terms the expansion of demand for poultry meat has been the strongest for all the meats. The projections confirm this trend, which is particularly linked to the increase in consumer income. **Consumption** would expand from 1.72 mio t in 2002 to 1.87 mio t in 2009. Per capita consumption should increase by 8.5% from 16.4 kg in 2002 to 17.8 kg in 2009.

Total production of poultry meat would increase to just over 2 mio t in 2009 compared to 1.85 mio t in 2002, slightly faster than domestic use. Therefore the exportable surplus would expand from 130 000 t in 2002 to 160 000 t in 2009. Hungary remains the most important exporter of poultry meat in the region.

8. Sheep and goat meat

The **production** of sheep and goat meat has nearly halved since 1992 from 227 000 t to 120 000 t in 2002. **Flocks** are expected to continue this downward trend, though less steeply than in the 1990s. One of the main factors for the decline is the limited market for sheep meat in the CEECs.

Table 2.14 Situation and perspectives of the sheep and goat meat market in the CEECs, 1999 - 2009

		1999	2000	2001	2002	2003	2004	2009
Production	mio t	**0.13**	**0.13**	0.13	0.12	0.12	0.12	0.11
Total internal use	mio t	0.11	0.12	0.11	0.11	0.11	0.11	0.10
Balance	mio t	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Per cap. consumption	kg/pc	1.09	1.12	1.09	1.06	1.04	1.02	0.94

It is expected that through to 2009 production would reduce further to a level of 110 000 t. The two biggest producers, Romania and Bulgaria, account each for more than 40 % of the total sheep and goat meat production. Beyond the two main producers, the production and consumption of sheep and goat meat are very limited in the CEECs. In total the CEECs have a minor exportable surplus.

9. Total meat consumption

During the projection period total meat consumption is projected to increase from 66.4 kg/capita in 2002 to 73.3 kg/capita in 2009, still well below the level of the early nineties (80 kg/capita). The entire increase comes from the rise in pig meat and poultry meat consumption, which would increase by 5.5 and 1.4 kg/capita respectively.

Table 2.15 Total meat consumption per capita in the CEECs, 1999 – 2009

		1999	2000	2001	2002	2003	2004	2009
Beef and veal	kg/pc	**9.5**	**9.4**	9.3	9.2	9.4	9.5	9.3
Pigs	kg/pc	**40.4**	**39.1**	38.9	39.7	41.5	42.1	**45.2**
Poultry	kg/pc	**15.3**	**15.8**	16.2	16.4	16.8	17.0	17.8
Sheeps and goats	kg/pc	1.1	1.1	1.1	1.1	1.0	1.0	0.9
Per cap. consumption	kg/pc	66.3	65.3	65.5	66.4	68.7	69.6	73.3

10. Conclusion

General economic conditions are foreseen to improve and the CEECs are expected to return to the path of strong economic growth. Rising consumer incomes might provide opportunities for CEEC agriculture and food processing as well as challenges. The opportunities are related to increasing demand for processed agricultural commodities as well as some expansion in consumed quantities of certain highly preferred agricultural commodities, such as fresh milk products, cheese, pig and poultry products.

Challenges will in particular be the ongoing restructuring of the primary and processing sectors in agriculture and the increasing integration of the CEEC and EU food markets. Confronted with a stagnating demand for bulk products and increasing competition on domestic and international markets, CEEC agriculture and food processing will need to restructure in order to move towards more competitive use of the significant agricultural potential which exists. This holds especially true for milk and beef production, where the restructuring is foreseen to continue.

During 1999 and 2000 deficits on many commodity markets, particularly for cereals, raised internal prices of some key commodities substantially above previous price levels. The good harvest of 2001 was used in many CEECs to replenish stocks, which helped to keep price level high during that year. The good harvest of 2002 might lead to additional pressure to increase stocks, if current policies and price levels were to be maintained.

Statistical annex

Table A.1 Situation and perspectives of cereal markets in the CEECs, 1999 - 2009

	AREA (1000 ha)							YIELD (t/ha)							PRODUCTION (mio t)							DOMESTIC USE (mio t)							BALANCE (mio t)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	1 591	1 650	1 627	1 598	1 589	1 591	1 599	4.35	3.91	4.53	4.19	4.32	4.36	4.56	6.93	6.45	7.38	6.69	6.86	6.93	7.29	6.33	6.38	6.49	6.46	6.82	6.93	7.46	0.59	0.08	0.89	0.23	0.04	0.00	-0.17
ESTONIA	324	333	273	315	315	315	317	1.25	2.11	2.09	2.06	2.17	2.20	2.35	0.41	0.70	0.57	0.65	0.69	0.69	0.74	0.80	0.81	0.80	0.82	0.76	0.76	0.78	-0.40	-0.11	-0.23	-0.17	-0.08	-0.07	-0.03
HUNGARY	2 402	2 743	3 071	2 924	2 893	2 885	2 848	4.73	3.65	4.81	4.70	4.98	5.06	5.52	11.37	10.02	14.78	13.74	14.40	14.61	15.73	9.44	9.25	9.28	9.42	9.46	9.49	9.69	1.93	0.77	5.50	4.32	4.93	5.12	6.04
LATVIA	416	420	444	442	450	441	442	1.88	2.20	2.09	2.18	2.27	2.27	2.30	0.78	0.92	0.93	0.96	1.02	1.00	1.02	0.95	0.99	0.93	0.99	1.02	1.04	1.11	-0.17	-0.07	-0.01	-0.02	0.00	-0.03	-0.09
LITHUANIA	1 013	980	915	935	959	929	931	2.02	2.71	2.57	2.60	2.79	2.82	2.97	2.05	2.66	2.35	2.43	2.68	2.62	2.77	2.07	2.47	2.36	2.37	2.52	2.59	2.97	-0.03	0.19	-0.01	0.06	0.16	0.03	-0.20
POLAND	8 742	8 850	8 873	8 721	8 723	8 726	8 739	2.96	2.53	3.09	3.07	3.21	3.26	3.47	25.86	22.42	27.38	26.74	28.04	28.45	30.31	27.73	26.53	27.72	27.46	27.98	28.25	29.62	-1.87	-4.11	-0.34	-0.71	0.06	0.21	0.68
SLOVAK REPUBLIC	733	812	826	836	815	807	792	3.86	2.71	4.23	4.26	4.46	4.51	4.80	2.83	2.20	3.49	3.56	3.63	3.64	3.80	2.92	2.71	3.02	2.86	2.66	2.69	2.85	-0.09	-0.51	0.48	0.70	0.97	0.95	0.95
SLOVENIA	91	103	103	104	104	105	108	5.14	4.81	4.76	5.07	5.38	5.49	6.05	0.47	0.49	0.49	0.53	0.56	0.57	0.65	0.97	0.99	0.98	0.99	1.14	1.16	1.29	-0.50	-0.49	-0.49	-0.46	-0.58	-0.59	-0.64
CEEC-8 TOTAL	15 312	15 892	16 131	15 874	15 849	15 798	15 775	3.31	2.89	3.56	3.48	3.65	3.70	3.95	50.69	45.88	57.37	55.31	57.87	58.53	62.31	51.21	50.12	51.58	51.36	52.37	52.90	55.78	-0.52	-4.24	5.79	3.94	5.50	5.63	6.53
BULGARIA	1 810	2 021	2 049	2 077	1 976	1 937	1 875	2.87	2.61	2.91	2.96	3.05	3.06	3.12	5.20	5.28	5.96	6.15	6.03	5.93	5.85	4.13	3.46	3.86	3.96	4.07	4.11	4.36	1.07	1.82	2.10	2.19	1.96	1.82	1.50
ROMANIA	5 371	5 654	6 294	5 939	5 704	5 690	5 614	3.17	1.85	3.00	2.83	2.89	2.90	2.94	17.03	10.47	18.88	16.79	16.47	16.47	16.49	17.41	16.18	15.33	15.02	15.38	15.49	16.19	-0.38	-5.71	3.55	1.77	1.09	0.98	0.30
CEEC-10 TOTAL	22 493	23 567	24 474	23 890	23 530	23 425	23 265	3.24	2.62	3.36	3.28	3.42	3.45	3.64	72.93	61.63	82.21	78.25	80.37	80.93	84.65	72.76	69.75	70.77	70.34	71.82	72.50	76.33	0.17	-8.12	11.44	7.90	8.54	8.43	8.32

Table A.2 Situation and perspectives of oilseed markets in the CEECs, 1999 – 2009

	AREA (1000 ha)							YIELD (t/ha)							PRODUCTION (1000 t)							DOMESTIC USE (1000 t)							BALANCE (1000t)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	377	354	373	369	379	378	369	2.63	2.57	2.82	2.72	2.89	2.93	3.12	994	911	1 052	1 005	1 095	1 105	1 152	534	624	688	677	691	692	692	460	287	365	328	404	413	460
ESTONIA	24	29	28	27	27	26	25	1.23	1.34	1.64	1.49	1.57	1.58	1.66	30	39	45	40	42	42	41	39	42	45	40	42	42	42	-9	-3	0	0	0	-1	-1
HUNGARY	734	437	470	549	581	588	624	1.63	1.59	1.95	1.74	1.83	1.86	1.99	1 198	694	915	956	1 064	1 094	1 242	1 009	819	951	992	998	998	999	189	-124	-36	-36	66	95	243
LATVIA	7	7	8	10	13	13	12	1.80	1.45	1.55	1.50	1.71	1.72	1.78	12	10	13	15	22	22	21	12	10	13	15	29	29	29	0	0	0	0	-6	-7	-8
LITHUANIA	84	56	36	50	66	62	57	1.37	1.46	1.78	1.50	1.71	1.71	1.75	115	81	65	75	112	107	100	29	30	31	32	31	31	31	86	51	34	43	81	76	69
POLAND	545	437	443	450	445	443	433	2.08	2.19	2.42	2.23	2.35	2.38	2.57	1 132	958	1 073	1 004	1 044	1 056	1 115	909	917	915	915	929	929	929	223	41	158	89	115	127	186
SLOVAK REPUBLIC	213	167	171	179	230	228	224	1.25	2.18	2.28	2.08	2.24	2.24	2.25	265	364	390	373	513	509	505	202	186	225	271	237	237	237	63	178	166	102	276	272	267
SLOVENIA	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	2.13	2.15	2.29	0	0	0	0	1	1	1	0	0	0	0	3	3	3	0	0	0	0	-2	-2	-2
CEEC-8 TOTAL	1 983	1 486	1 529	1 635	1 740	1 738	1 744	1.89	2.06	2.32	2.12	2.24	2.26	2.39	3 746	3 057	3 554	3 468	3 894	3 935	4 177	2 733	2 628	2 867	2 941	2 961	2 961	2 963	1 012	429	687	527	933	974	1 214
BULGARIA	597	515	427	471	584	586	635	1.02	0.81	0.94	0.94	0.83	0.82	0.78	611	420	401	442	482	478	492	320	215	243	268	269	269	270	291	205	158	174	212	208	223
ROMANIA	1 227	1 062	927	1 018	1 121	1 131	1 181	1.30	0.82	1.08	1.17	1.13	1.13	1.18	1 592	866	999	1 190	1 268	1 275	1 389	1 024	858	807	1 041	1 095	1 095	1 096	568	8	192	149	172	180	293
CEEC-10 TOTAL	3 808	3 063	2 883	3 124	3 445	3 454	3 561	1.56	1.42	1.72	1.63	1.64	1.65	1.70	5 949	4 342	4 953	5 101	5 643	5 688	6 058	4 078	3 701	3 916	4 250	4 325	4 326	4 328	1 871	642	1 037	850	1 318	1 362	1 730

Table A.3 Situation and perspectives of the milk markets in the CEECs, 1999 - 2009

	DAIRY COWS (1000)							YIELD (kg/cow)							PRODUCTION (1000 t)							DOMESTIC USE (1000 t)							NET BALANCE (1000 t)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	583	548	529	506	460	448	404	5 163	5 345	5 360	5 450	5 785	5 871	6 325	2 736	2 929	2 765	2 688	2 660	2 632	2 558	2 196	2 469	2 456	2 456	2 468	2 463	2 485	540	460	310	231	192	169	73
ESTONIA	159	138	132	130	119	115	99	4 221	4 558	4 598	4 638	5 304	5 384	5 800	626	629	606	603	634	620	571	368	389	382	382	456	455	448	258	240	223	221	178	165	123
HUNGARY	407	399	380	368	334	323	283	5 023	5 214	5 747	5 566	5 791	5 866	6 257	2 045	2 081	2 184	2 048	1 933	1 896	1 768	2 047	2 094	2 107	2 120	2 143	2 149	2 186	- 2	- 13	77	- 71	- 210	- 253	- 418
LATVIA	242	206	207	212	192	185	156	3 400	4 010	4 093	4 150	4 342	4 407	4 747	823	824	846	878	835	815	740	800	765	710	740	748	742	722	23	59	136	138	87	73	18
LITHUANIA	494	438	442	437	398	382	323	3 322	3 697	3 747	3 797	3 970	4 030	4 341	1 714	1 724	1 649	1 658	1 579	1 541	1 404	1 100	1 064	1 068	1 070	1 062	1 068	1 106	614	660	581	589	517	473	298
POLAND	3 471	3 296	3 047	2 991	2 747	2 665	2 350	3 433	3 488	3 823	3 862	4 240	4 303	4 636	11 915	11 494	11 650	11 551	11 648	11 468	10 896	11 329	11 150	11 127	11 135	11 201	11 340	11 943	586	344	523	416	447	128	-1 048
SLOVAK REPUBLIC	265	251	243	237	218	216	208	4 224	4 467	4 650	4 800	5 020	5 096	5 489	1 119	1 121	1 102	1 135	1 097	1 100	1 143	965	958	940	943	974	985	1 056	154	163	162	192	123	114	86
SLOVENIA	181	186	194	189	188	188	187	3 271	3 391	3 491	3 591	3 766	3 822	4 118	615	629	677	677	706	719	771	489	493	497	497	496	503	534	126	137	180	180	210	216	237
CEEC-8 TOTAL	5 802	5 461	5 173	5 068	4 656	4 523	4 011	3 722	3 924	4 152	4 191	4 530	4 597	4 950	21 593	21 432	21 479	21 238	21 092	20 791	19 852	19 293	19 381	19 288	19 343	19 547	19 705	20 481	2 300	2 051	2 191	1 895	1 545	1 086	- 629
BULGARIA *	424	434	415	409	388	370	303	3 257	3 198	3 205	3 225	3 426	3 477	3 746	1 484	1 488	1 420	1 410	1 328	1 288	1 135	1 484	1 489	1 423	1 413	1 394	1 420	1 559	0	- 2	- 3	- 3	- 66	- 132	- 424
ROMANIA	1 656	1 633	1 649	1 619	1 328	1 294	1 174	2 981	3 063	3 113	3 144	3 270	3 312	3 533	4 937	5 002	5 134	5 091	4 344	4 285	4 147	5 188	5 037	5 021	5 002	4 833	4 725	4 427	- 252	- 35	113	89	- 490	- 440	- 279
CEEC-10 TOTAL	7 882	7 528	7 237	7 096	6 372	6 187	5 487	3 554	3 709	3 874	3 909	4 200	4 261	4 580	28 014	27 921	28 033	27 739	26 763	26 364	25 134	25 965	25 907	25 732	25 758	25 774	25 851	26 467	2 048	2 014	2 301	1 981	989	513	-1 333

*) Production and domestic use includes sheep and goat milk, around 100 000 t annually

Table A.4 Situation and perspectives of the beef and veal market in the CEECs, 1999 - 2009

	PRODUCTION (1000 t)							DOMESTIC USE (1000 t)							BALANCE (1000 t)							PER CAPITA CONSUMPTION (kg)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	121	119	117	116	102	100	91	121	119	117	116	117	117	113	0	0	0	0	-15	-17	-21	11.8	11.6	11.4	11.3	11.3	11.4	11.0
ESTONIA	22	17	17	18	16	15	13	21	18	18	19	18	18	17	1	-1	-1	-1	-3	-3	-4	14.5	12.7	12.6	13.0	12.9	12.9	12.6
HUNGARY	63	62	58	56	51	49	44	61	63	65	66	66	66	63	2	-1	-7	-10	-15	-16	-19	6.0	6.2	6.4	6.6	6.5	6.5	6.2
LATVIA	25	25	22	25	22	21	18	34	34	32	33	32	32	30	-10	-9	-10	-8	-10	-11	-12	14.0	14.0	13.5	14.0	13.5	13.5	13.1
LITHUANIA	77	71	69	66	57	55	47	66	66	58	57	55	56	56	11	6	11	9	2	0	-8	17.8	17.5	15.5	15.2	15.0	15.1	15.1
POLAND	423	404	368	353	318	307	270	358	350	351	348	351	352	347	65	54	17	5	-33	-45	-78	9.2	9.0	9.0	8.9	9.0	8.9	8.7
SLOVAK REPUBLIC	54	48	43	55	50	49	48	55	49	41	46	46	46	45	-1	-1	2	9	3	3	1	10.2	9.1	7.5	8.4	8.5	8.5	8.3
SLOVENIA	50	50	55	53	53	54	56	48	47	48	48	54	53	48	2	2	7	5	0	1	8	23.9	23.9	24.1	24.3	27.0	26.6	23.9
CEEC-8 TOTAL	833	796	749	742	668	650	587	763	746	729	733	739	739	718	70	50	20	9	-71	-89	-131	10.3	10.1	9.8	9.8	9.9	9.9	9.6
BULGARIA	61	59	75	67	55	53	45	78	70	87	78	79	79	77	-17	-11	-12	-12	-24	-26	-32	9.5	8.8	11.0	9.9	10.0	10.0	9.8
ROMANIA	153	162	156	153	135	134	135	158	163	161	157	166	178	186	-5	-1	-5	-3	-31	-44	-50	7.0	7.3	7.2	7.0	7.4	8.0	8.4
CEEC-10 TOTAL	1 047	1 017	980	962	858	838	768	999	979	978	968	984	997	981	49	38	2	-6	-126	-159	-214	9.5	9.4	9.3	9.2	9.4	9.5	9.3

Table A.5 Situation and perspectives of the pig meat markets in the CEECs, 1999 – 2009

	PRODUCTION (1000 t)							DOMESTIC USE (1000 t)							BALANCE (1000 t)							PER CAPITA CONSUMPTION (kg)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	452	408	403	399	418	424	454	448	424	426	432	452	459	491	4	-16	-23	-33	-34	-35	-38	43.6	41.2	41.5	42.0	44.0	44.7	47.8
ESTONIA	31	30	30	32	33	33	34	39	37	38	38	39	39	40	-7	-7	-7	-6	-6	-6	-6	26.7	26.0	26.3	26.6	27.4	27.7	29.1
HUNGARY	706	701	638	636	646	648	657	564	574	585	591	600	603	612	142	126	53	46	46	46	45	55.7	56.7	57.7	58.3	59.2	59.5	60.4
LATVIA	40	39	35	38	41	41	43	65	64	63	64	67	67	69	-25	-25	-28	-26	-26	-26	-26	26.6	26.5	26.5	27.0	28.3	28.6	30.0
LITHUANIA	91	85	78	85	91	93	101	98	89	91	92	96	98	107	-7	-4	-13	-7	-5	-5	-5	25.2	23.5	24.0	24.3	26.1	26.5	29.0
POLAND	2 010	1 918	1 872	1 916	2 049	2 095	2 330	1 854	1 841	1 824	1 853	1 994	2 042	2 285	156	77	48	63	55	54	45	47.8	47.4	46.8	47.4	50.8	51.9	57.2
SLOVAK REPUBLIC	176	164	157	198	201	205	222	194	176	167	191	196	199	214	-18	-12	-10	6	6	6	117	35.9	32.5	30.8	35.3	36.1	36.7	39.6
SLOVENIA	72	62	72	72	80	81	88	83	85	87	89	96	98	104	-10	-22	-15	-17	-17	-17	-17	41.6	43.6	43.6	44.6	48.5	49.1	52.4
CEEC-8 TOTAL	**3578**	**3407**	**3285**	**3375**	**3559**	**3620**	**3928**	**3344**	**3290**	**3280**	**3349**	**3541**	**3604**	**3922**	**234**	**117**	**5**	**26**	**18**	**16**	**5**	**45.1**	**44.3**	**44.1**	**45.0**	**47.5**	**48.3**	**52.2**
BULGARIA	267	243	237	252	259	261	273	271	244	253	257	263	265	277	-4	-1	-16	-5	-5	-5	-5	33.0	30.7	30.9	32.3	33.3	33.5	35.1
ROMANIA	595	502	449	440	437	438	448	620	551	540	546	543	544	556	-25	-49	-92	-107	-106	-106	-108	22.8	20.5	23.0	23.3	24.3	24.4	25.1
CEEC-10 TOTAL	**4440**	**4152**	**3971**	**4066**	**4255**	**4319**	**4648**	**4235**	**4086**	**4074**	**4152**	**4347**	**4413**	**4756**	**205**	**66**	**-103**	**-86**	**-92**	**-94**	**-107**	**40.4**	**39.1**	**38.9**	**39.7**	**41.5**	**42.1**	**45.2**

Table A.6 Situation and perspectives of the poultry meat market in the CEECs, 1999 - 2009

	PRODUCTION (1000 t)							DOMESTIC USE (1000 t)							BALANCE (1000 t)							PER CAPITA CONSUMPTION (kg)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	205	209	212	215	216	218	226	209	212	214	216	218	219	227	-4	-3	-2	-1	-1	-1	-1	20.3	20.6	20.8	21.0	21.2	21.3	22.1
ESTONIA	8	7	7	8	8	8	7	19	19	19	20	20	20	19	-11	-12	-12	-12	-12	-12	-12	13.0	13.3	13.6	13.9	14.0	14.0	14.3
HUNGARY	438	366	422	430	436	438	450	255	260	265	270	275	277	290	183	105	157	160	161	161	161	25.2	25.7	26.2	26.7	27.1	27.3	28.6
LATVIA	6	7	8	8	9	8	8	20	21	23	25	26	26	25	-13	-13	-15	-17	-17	-17	-17	8.0	8.5	9.5	10.5	11.0	11.0	11.0
LITHUANIA	23	25	21	22	24	24	25	30	34	35	37	39	40	41	-7	-9	-14	-15	-15	-15	-15	8.2	9.2	9.6	10.0	10.7	10.8	11.1
POLAND	568	581	600	616	634	642	687	531	552	585	587	605	613	657	37	29	15	30	29	29	30	13.7	14.2	15.0	15.0	15.4	15.6	16.5
SLOVAK REPUBLIC	90	85	100	102	103	104	109	94	92	93	95	95	96	100	-4	-8	8	8	8	8	55	17.4	17.1	17.1	17.5	17.5	17.6	18.5
SLOVENIA	58	54	54	54	57	59	69	47	48	49	50	54	54	54	11	6	5	4	4	6	15	23.9	24.4	24.9	25.4	27.0	27.0	27.2
CEEC-8 TOTAL	**1 396**	**1 334**	**1 425**	**1 455**	**1 486**	**1 502**	**1 582**	**1 205**	**1 239**	**1 284**	**1 300**	**1 331**	**1 344**	**1 414**	**191**	**96**	**141**	**156**	**155**	**158**	**168**	**16.2**	**16.7**	**17.3**	**17.5**	**17.9**	**18.0**	**18.8**
BULGARIA	106	107	106	113	126	127	135	115	125	118	124	120	122	132	-9	-18	-12	-11	5	5	3	14.0	15.7	14.9	15.6	15.2	15.4	16.7
ROMANIA	262	253	273	279	296	298	313	285	284	290	297	311	313	327	-23	-31	-17	-18	-15	-15	-13	12.7	12.7	13.0	13.3	13.9	14.0	14.7
CEEC-10 TOTAL	**1 764**	**1 694**	**1 804**	**1 847**	**1 908**	**1 927**	**2 031**	**1 604**	**1 648**	**1 693**	**1 720**	**1 763**	**1 780**	**1 873**	**160**	**47**	**112**	**127**	**145**	**147**	**158**	**15.3**	**15.8**	**16.2**	**16.4**	**16.8**	**17.0**	**17.8**

Table A.7 Situation and perspectives of the sheep and goat meat markets in the CEECs, 1999 – 2009

	PRODUCTION (1000 t)							DOMESTIC USE (1000 t)							BALANCE (1000 t)							PER CAPITA CONSUMPTION (kg)						
	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009	1999	2000	2001	2002	2003	2004	2009
CZECH REPUBLIC	1	1	1	1	1	1	2	1	1	1	1	1	1	2	0	0	0	0	0	0	0	0.2	0.1	0.1	0.1	0.1	0.1	0.2
ESTONIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
HUNGARY	9	8	10	10	10	10	11	6	5	7	7	7	7	8	3	3	3	3	3	3	3	0.5	0.5	0.7	0.7	0.7	0.7	0.7
LATVIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LITHUANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
POLAND	3	3	3	3	3	3	4	0	1	1	1	1	1	2	2	2	2	2	2	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.1
SLOVAK REPUBLIC	3	3	3	3	3	3	3	1	1	1	1	1	1	1	2	2	2	2	2	2	2	0.2	0.2	0.1	0.2	0.2	0.2	0.2
SLOVENIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CEEC-8 TOTAL	**16**	**15**	**17**	**17**	**18**	**18**	**20**	**8**	**8**	**10**	**10**	**11**	**11**	**13**	**7**	**7**	**7**	**7**	**7**	**7**	**7**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**
BULGARIA	58	60	62	56	56	55	54	52	56	54	52	52	51	50	6	4	8	4	4	4	4	6.4	7.1	6.6	6.6	6.5	6.5	6.3
ROMANIA	54	53	49	47	45	43	36	53	53	50	48	46	45	37	1	0	-1	-1	-1	-1	-1	2.4	2.4	2.2	2.2	2.1	2.0	1.7
CEEC-10 TOTAL	**128**	**129**	**128**	**121**	**119**	**117**	**110**	**114**	**117**	**114**	**111**	**109**	**107**	**99**	**14**	**11**	**14**	**10**	**10**	**10**	**11**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**0.9**

Methodological Annex

The projections presented in this chapter are based on results of a partial equilibrium model. This European Simulation Model (ESIM) was initially developed by the USDA/ERS in co-operation with Josling and Tangermann and first used in Tangermann and Josling (1994). Thereafter, the development of ESIM followed different paths: the USDA/ERS developed ESIM further for the purpose of pursuing forecasts and policy analysis for numerous countries covered in their Production, Supply and Demand Database.

On the European side, ESIM had been further expanded in country coverage, and adaptation in structure to run with key variables produced by CGEs (Münch, 2000), mainly in the framework of EU funded research projects, as well as projects financed by several Candidate Countries. For the present analysis the model has been further developed within DG Agriculture with respect to the commodity structure, modelling of policies, the ability to carry out short and long-term forecasting and with respect to the phenomenon of subsistence production and consumption of milk in the CEECs.

Table A.8 Commodities Products and Factors in ESIM

Agricultural commodities	
Crops	Wheat, barley, maize, rye, other grains, rape seed, sunflower seed, soybeans, sugar
Livestock	Milk, beef and veal, pork, poultry, eggs
Forage area	Silage maize
Feeds	Manioc, corn gluten feed
Processed commodities	
Oils and cakes	Rape seed oil and cake
	Sunflower seed oil and cake
	Soybean oil and cake
Dairy products	Fresh milk products and liquid milk, butter, skimmed milk powder, cheese
Others	
Production factors and inputs	labour, capital, non-agricultural intermediates, feeds
Residual tradable feeds	other energy rich feeds, other protein rich feeds
Residual consumer goods	other commodities

ESIM is a price and policy driven comparative static agricultural world model with rich cross-commodity relations and the possibility to model price and trade policy instruments in great detail. It is a partial equilibrium model, i.e. macroeconomic variables (income, exchange rates) are exogenous. As a world model it includes all countries, though in greatly varying degrees of disaggregation. Typically one chooses between countries which are explicitly modelled and others which are combined in an aggregate: the so-called rest of the world (ROW). The model used for the analyses presented in this study includes ten CEEC (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia) and the EU-15. The agricultural sector is modelled with 17 agricultural commodities, 11 processed goods and 6 other commodities and production factors (see Table A.8).

Supply activities in ESIM are modelled for agricultural commodities as well as for selected processed goods. Crop and livestock supply functions are separated into two parts: a capacity (area, herd) and a yield part. This basically assumes separable supply activities. Crop supply depends on prices, costs, policies and technical progress. A similar system exists for livestock supply.

Apart from effective producer prices and shadow prices for products subject to production quotas, costs are a major determinant for supply. Costs are separated into components related to capital and labour as well as non-agricultural intermediates. Feed costs are an endogenous cost component of the model. These factors and inputs represent tradable (feed and capital costs) and non-tradable (labour) components. The effects of changes of relative prices between tradable and non-tradable factors and inputs on agricultural supply can be analysed, as they may happen with shifts in the real exchange rate. This is an especially important issue in transition economies (see Macours and Swinnen, 1997).

Total domestic use consists of human demand, feed demand, processing demand, and seed demand. While the latter is a transformation of the effective area (EA), the other domestic use components are directly modelled.

Processing involves oilseeds and milk as raw materials. Purchase and distribution of raw material among the processing activities, which depend on prices of raw materials and processed commodities.

Price and trade policies influence the price transmission from world to domestic markets. Individual country policies in the CEECs and in the EU-15 are reflected in the model. To better incorporate price and trade policies three different prices are defined for two price levels: world market and domestic market prices are wholesale prices. This price level is relevant for domestic use and processing. Moreover, the CAP trade and price policy instruments actually apply at this level. The producer or farm-gate price is derived from wholesale prices by deducting the marketing and processing margin. The farm-gate price, therefore, depends on the transaction costs of the downstream sector.

The activities in the fully modelled countries are formulated in detail especially for agricultural products. In ROW, however, activities are simplified. While this part is also price driven, supply is modelled through direct functions, consequently neglecting area, herds and yields. Moreover, policies are of limited specificity. The model, therefore, has only restricted abilities to project agricultural activities on a global scale, though it is capable of identifying the effects of European agricultural policies on world markets.

Foreign trade is the residual of domestic supply and total domestic use, i.e. trade flows are net figures.[58] Following a common approach well established in literature, the model is solved numerically for the equilibrium prices on world markets (e.g. Roningen and Dixit, 1989). The equilibrium condition for tradables is world market clearing, i.e. the sum of all net exports over the countries has to be very close to zero. For non-tradables, domestic markets require to clear. The vector of equilibrium world market prices, therefore, simultaneously clears aggregated supply and demand.

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[58] Gross trade models, such as most CGEs, relax this assumption by distinguishing between domestic and exportable goods via the Armington approach (see Banse, 1997a).

Changes of domestic policies alter world market prices to different degrees, which depend on the share of a particular country in world net exports. Therefore, a policy change in a small country in agricultural terms such as Slovenia alters world market prices less than a new policy in large countries like the EU-15. Nevertheless, even policies in small countries like Slovenia affect world market prices, though on a very limited scale.

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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 market projections for the EU and the CEECs countries, 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 medium-term projections for international agricultural markets.

The first comes from the US Department of Agriculture through its interagency World Agricultural Outlook Board (USDA Baseline), the second from the Food and Agricultural Policy Research Institute (FAPRI), with units at the University of Missouri-Columbia 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. It should be noticed that the latter set of information consists of the preliminary projections established by the OECD Secretariat whose final results were scheduled to be declassified after discussion by the OECD Working Party on Agricultural Policies and Markets at its meeting on 21 and 22 May 2002. These final projections which should be published in the OECD Agricultural Outlook, may have been subject to some modifications in the light of the discussion by the Working Party.

These forecasts constitute the most recent and comprehensive set of long-term agricultural projections available to date. However, it should be stressed that these forecasts were carried out at the end of 2001 and/or at the beginning of 2002 on the basis of information available at the end of 2001. Therefore, they do not all take full account of the most recent developments in the general economic situation and on agricultural markets, notably the devaluation and float of the Argentinean peso and the accession of China to the WTO. Furthermore, they assume the mere continuation of the FAIR Act in the US (cf. Chapter III, section 4.3). 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

The FAPRI, OECD and USDA provide for a short-term outlook marked by the continuous, albeit slow, recovery of agricultural markets after a longer than expected downturn. The medium-term prospects for agricultural markets would be mainly driven by an improved macro-economic environment with more broadly based, robust and sustainable growth. Combined with higher population, urbanisation and changes in dietary pattern, particularly in many emerging economies, these prospects for stronger economic growth would support a steady increase in food demand.

World trade in agricultural commodities would demonstrate strong growth, as demand for food products would outpace production in many developing countries. The tightening of the stock-to-use ratio would in turn sustain commodity prices over the medium term. Most of the growth would come from the non-OECD regions, which would constitute the main driving force behind these relatively favourable perspectives.

Notwithstanding the relative improvement in the market fundamentals of most agricultural sectors that is projected over the medium term, a prudent interpretation of these favourable perspectives is deemed necessary. These projections remain subject to many uncertainties that can be expected to moderate the positive pattern forecasted for

future trade and price growth. The most important include the future course of agricultural policy in many regions (notably the recently approved US Farm Security and Rural Investment Act of 2002), the new round of multilateral trade negotiations, the future macro-economic perspectives and the scope for further productivity growth in some regions.

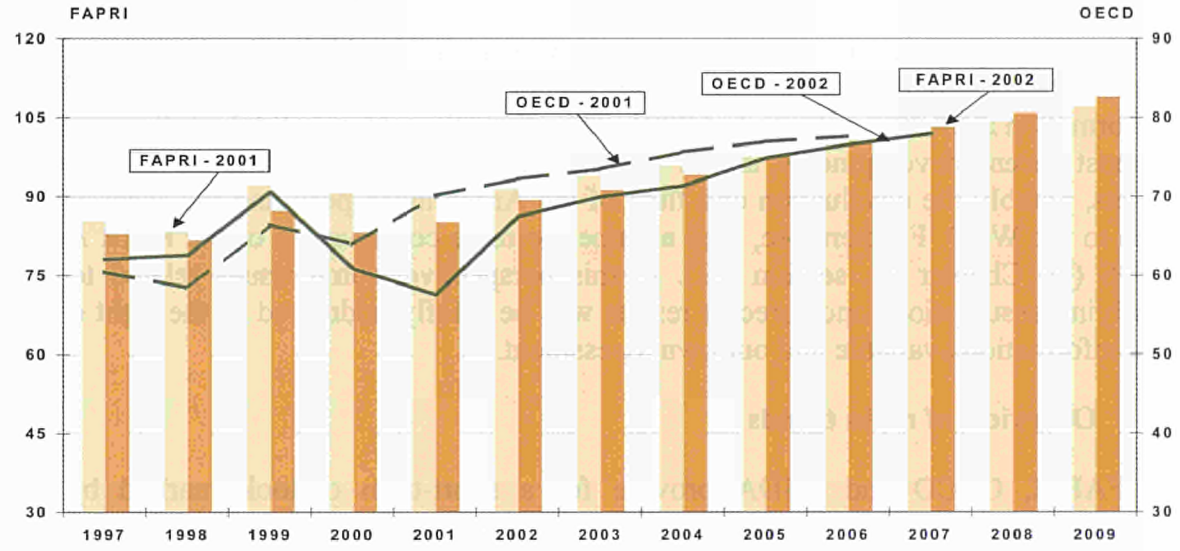
2.1 Overview per sector

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

Cereals

The world cereal markets are anticipated to slowly emerge from a prolonged downturn. An improved economic environment, population growth as well as changes in the dietary pattern in some major importing countries are foreseen to generate a strengthening of world demand and a tightening of stock-to-use ratios. Higher demand would outpace domestic supply in many developing countries, including China, North Africa and Latin America, and trigger a sustained expansion in global cereal trade. Total cereal trade would increase by between 40 and 47 mio t by 2009/10, i.e. at a much quicker pace than in the 1980s and 1990s.

Graph 3.1 Outlook for wheat net imports – comparison with the 2001 outlook, 1997 – 2009 (mio t)



Ref.: FAPRI (world net imports) and OECD (OECD zone).

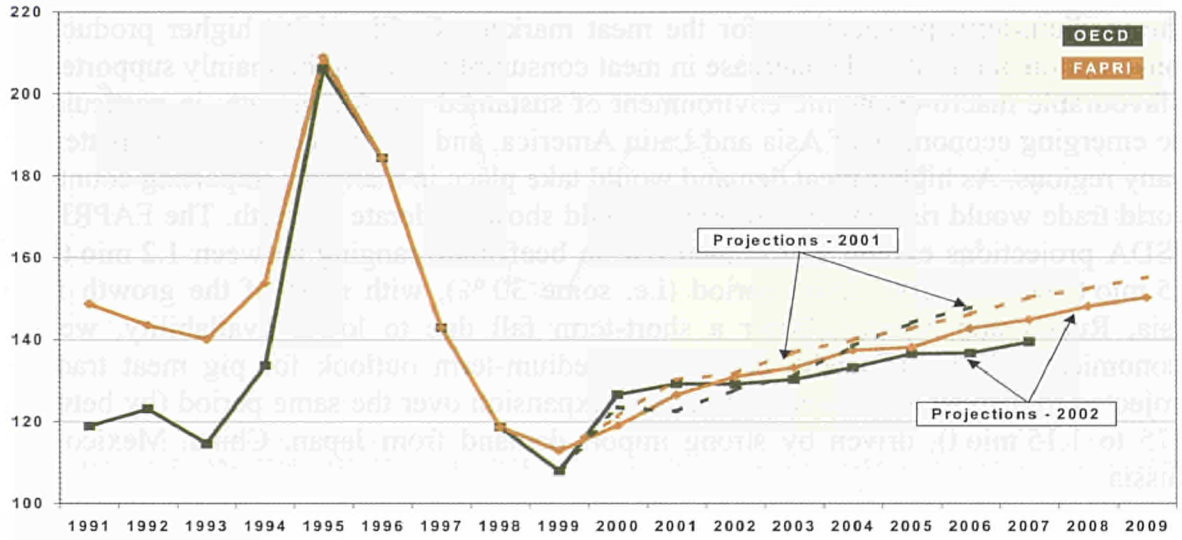
Global trade in wheat would strengthen with annual growth averaging about 2.3 %-3.1 %, whereas coarse grain trade would exhibit a similar pattern with an annual average ranging between 2.0 % and 3.1 % over the 2001/02-2009/10 period.

After having bottomed out at the turn of the century, world prices are projected to display a slow and moderate recovery over the medium term as supply adjusts and global demand strengthens. HRW wheat prices would reach approximately 145-150 $/t by 2009/10 according to the OECD and FAPRI projections[59]. Maize prices would exhibit a similar trend, standing at 110-111 $/t at the end of the projection period. Barley prices

[59] The SRW wheat, which broadly corresponds to EU wheat quality, generally quotes around 10 % below the HRW wheat reference.

would also trend upwards, rising from 121$/t in 2000/01 (Portland reference) to 139 $/t in 2009/10 in FAPRI projections and from 96 $/t to 100 $/t in 2007/08 in the OECD outlook. A similar outlook is projected for durum wheat prices that would rise from 175 $/t in the short-term to around 180 $/t by 2009/10.

Graph 3.2 Outlook for wheat world prices – comparison with the 2001 outlook, 1991 – 2009 ($/t)



Ref.: US FOB Gulf, HRW.

Oilseeds

If the short term developments of the oilseed sector are expected to continue to be affected by policy and macro-economic factors, the medium-term prospects are foreseen to demonstrate a relatively moderate recovery. The vigorous growth in demand for oilseed and oilseed products anticipated over the medium term by most agencies is forecast to contribute to the gradual restoration of market balance as supply exhibits more moderate increases. Global demand would benefit from the recovery in world economic growth which is projected to generate increased human consumption of vegetable oils as well as higher use of oilseed meals for the livestock sector. Trade in oilseeds is anticipated to increase faster over the projection period than in the 1980s, but more slowly than in the early 1990s.

The prices of oilseeds would display a continuous recovery over the next seven years driven by long-term demand growth. However, several factors including the sustained yield growth, the large production potential in South America and the continuation of a production-inducing policy in the US are expected to moderate future price trends. The OECD projections provide for average oilseed prices (i.e. soybean, rape seed and sunflower seed) at 237 $/t by 2007/08, whereas the FAPRI forecasts soybean prices at 229 $/t in 2009/10. Rape seed and sunflower seed would benefit from more favourable long-term vegetable oil demand -in comparison to meal- and would accordingly exhibit a stronger price pattern than soybean, with prices at 240 $/t and 271 $/t in 2009/10 respectively in the FAPRI projections.

Oilseed meal prices are expected to weaken in the short term on account of strong production growth, before increasing slowly over the rest of the period supported by an expanding consumption, and ranging between 178 $/t and 214 $/t.

Prospects of rising incomes drive the solid expansion in vegetable oil consumption. Palm oil and soybean oil would capture the greatest share of an expanding demand for and

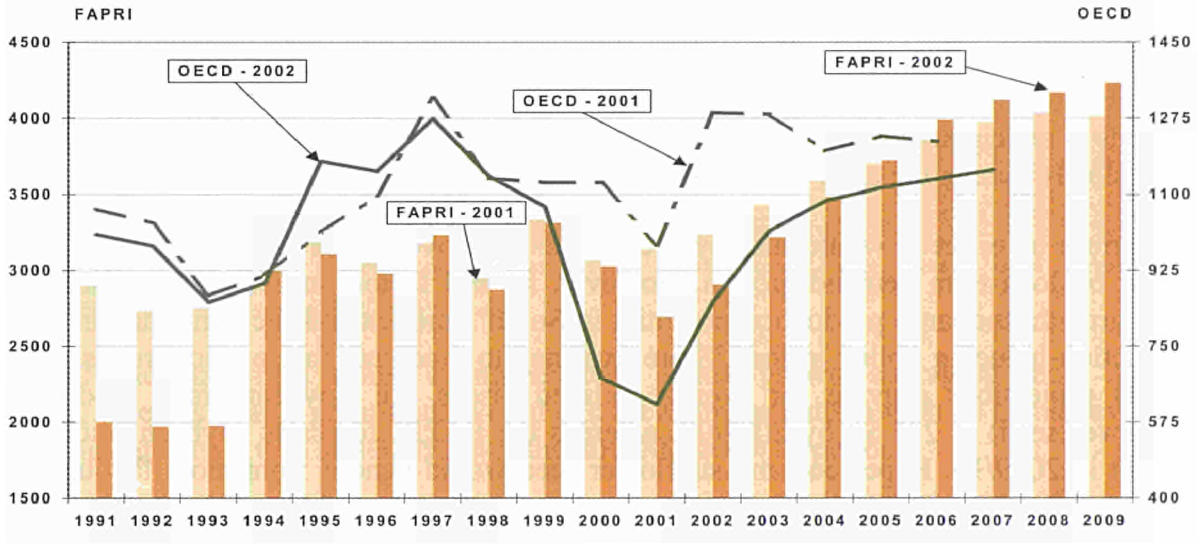
trade of vegetable oil. Growth in oilseed oil trade would average between 1.7 % and 2.8 % per annum, i.e. a much lower rate than in the 1990s. The strong dependence of trade in vegetable oil from developing countries, notably China and India, makes the outlook very sensitive to the economic prospects in these countries.

Meat

The medium-term perspectives for the meat markets would exhibit higher production, consumption and trade. The increase in meat consumption would be mainly supported by a favourable macro-economic environment of sustained income growth, in particular in the emerging economies of Asia and Latin America, and by changes in dietary pattern in many regions. As higher meat demand would take place in many net importing countries, world trade would rise and world prices would show moderate strength. The FAPRI and USDA projections exhibit a sustained rise in beef trade ranging between 1.2 mio t and 1.5 mio t over the 2001-2009 period (i.e. some 30 %), with most of the growth from Asia, Russia and Mexico. After a short-term fall due to lower availability, weaker economies and animal health crises, the medium-term outlook for pig meat trade is projected to display a renewed and marked expansion over the same period (by between 0.75 to 1.15 mio t), driven by strong import demand from Japan, China, Mexico and Russia.

Poultry meat would capture the largest proportion of the increased global meat demand thanks to low production costs (relative to beef and pig meat) and consumer preferences in many parts of the world. Trade in poultry meat is also projected to trend upwards, with increases in the range of 1.3 to 1.8 mio t. Much would depend on the prospects for import demand from China and Russia. On the export side, a weak currency, large availability of cheap feed grains and strong investments in the meat sector are all anticipated to enhance Brazil's market share over the medium term.

Graph 3.3 Outlook for beef net imports – comparison with the 2001 outlook, 1991-2009 ('000 t cwe)

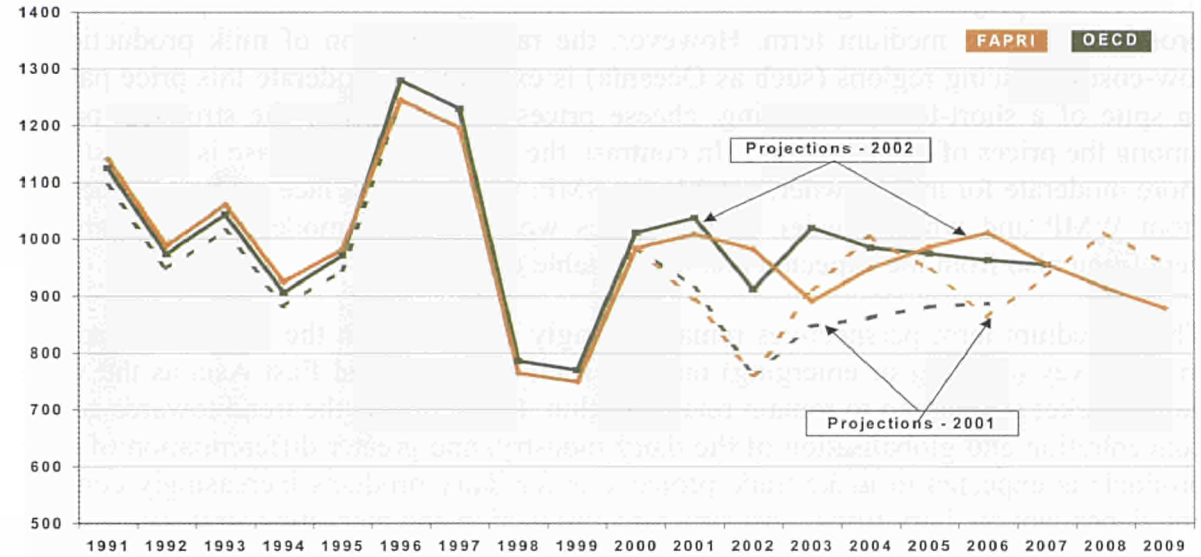


Ref.: FAPRI (world net imports) and OECD (OECD zone trade).

Beef prices would be supported over the medium term by a strong import demand, although the changing structure of the world beef market, the emergence of new exporting countries and the increasing competition from other meats should restrain upward beef price tendencies. Poultry and pig meat prices would display modest gains over the projection horizon as the continued improvement in feed efficiency, structural

changes and the swift emergence of low-cost producers would maintain world market prices under pressure.

Graph 3.4 Outlook for pig meat prices – comparison with the 2001 outlook, 1991 – 2009 ($/t)



Ref.: Iowa and Southern Minnesota barrow and gilt, lw.

These perspectives rely heavily on the assumption that the recovery from the recent economic downturn will turn into sustained economic growth over the medium term. They also assume that the recent disruptions in world meat markets caused by sanitary issues will not occur over the projection period as they could trigger higher market segmentation and limit market access for some potential meat exporters.

Milk and dairy products

The OECD and FAPRI foresee that the medium-term outlook for the dairy sector would remain dominated by a strong expansion in global demand for dairy products. The latter would reflect not only income growth in many regions of the world, but also changes in consumer preferences towards dairy products (as meat substitutes). Demand growth is projected to be strongest in the non-OECD zone, notably in Asia, Latin America and the Middle East.

World milk production would grow at the sustained pace of between 1.2 % and 1.9 % on annual average over the 2001-2007 period, supported by higher demand and price rises in a number of countries, mainly outside the OECD area and in those OECD countries not subject to production quotas.

If dairy consumption in the OECD area is not expected to demonstrate significant changes over the medium-term (with the exception of cheese and –to a lower extent- whole milk powder), solid and sustained growth in the demand for dairy products is projected in developing countries fuelled by growing population, rising disposable income, urbanisation and changing dietary pattern.

Although a significant part of this increasing demand is expected to be met by domestic production, scope for additional, albeit increasingly regionalized, trade is foreseen in Asia, the Middle East and the FSU. The structural change in world trade of dairy products from bulk dairy products (SMP and butter) towards higher value-added products (such as cheese and whey powder) that has been observed since the mid 1980s would consolidate over the next seven years according to the OECD outlook (although

trade in butter and SMP would still remain substantial). Technological advances are also projected to stimulate a rapid development in milk components.

The perspectives of stronger economic growth and a strengthening demand for dairy products are projected to generate a sustained recovery in world market prices of dairy products over the medium term. However, the rapid expansion of milk production in low-cost producing regions (such as Oceania) is expected to moderate this price pattern. In spite of a short-term weakening, cheese prices should display the strongest pattern among the prices of dairy products. In contrast, the pace of price increase is forecast to be more moderate for milk powder, notably for SMP, which should face greater competition from WMP and whey powder. Butter prices would recover modestly and gradually, benefiting also from the expected rise in vegetable oil prices.

These medium-term perspectives remain strongly dependent on the future development in some key (existing or emerging) markets such as Russia and East Asia as the world dairy market is foreseen to remain relatively thin. Furthermore, the trend towards further concentration and globalisation of the dairy industry, and greater differentiation of dairy products is expected to make trade projections for dairy products increasingly complex and dependent on dairy firms' cost structure, production and marketing strategy.

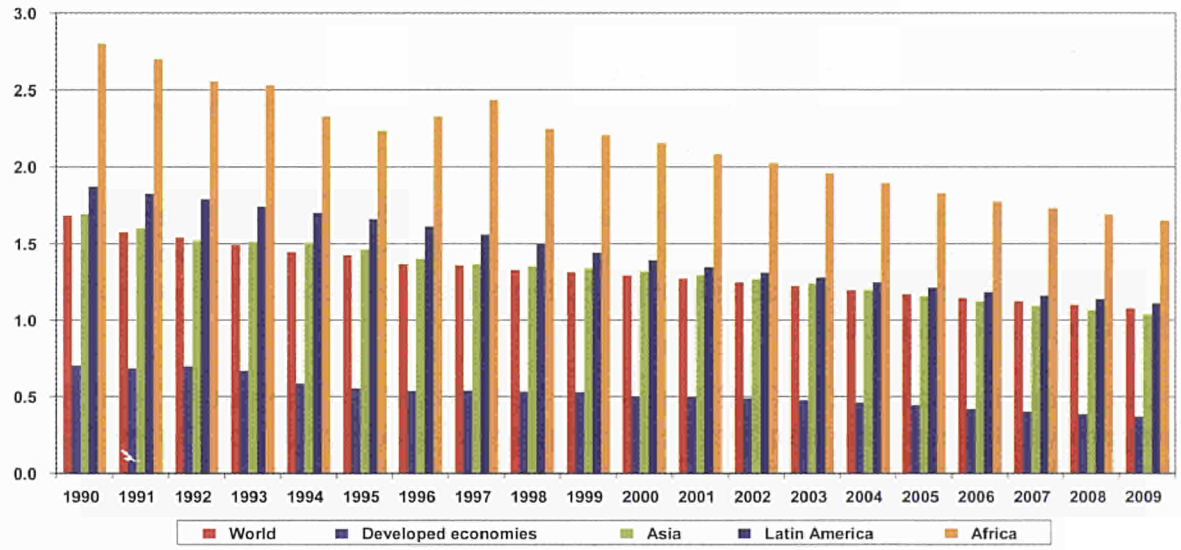
2.2 Underlying factors

Five main factors can be identified to explain these developments:

(1) Population growth

Population growth constitutes a 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 1.3 % in 2000.

Graph 3.5 Annual growth rate in population growth, 1990 – 2009 (in %)

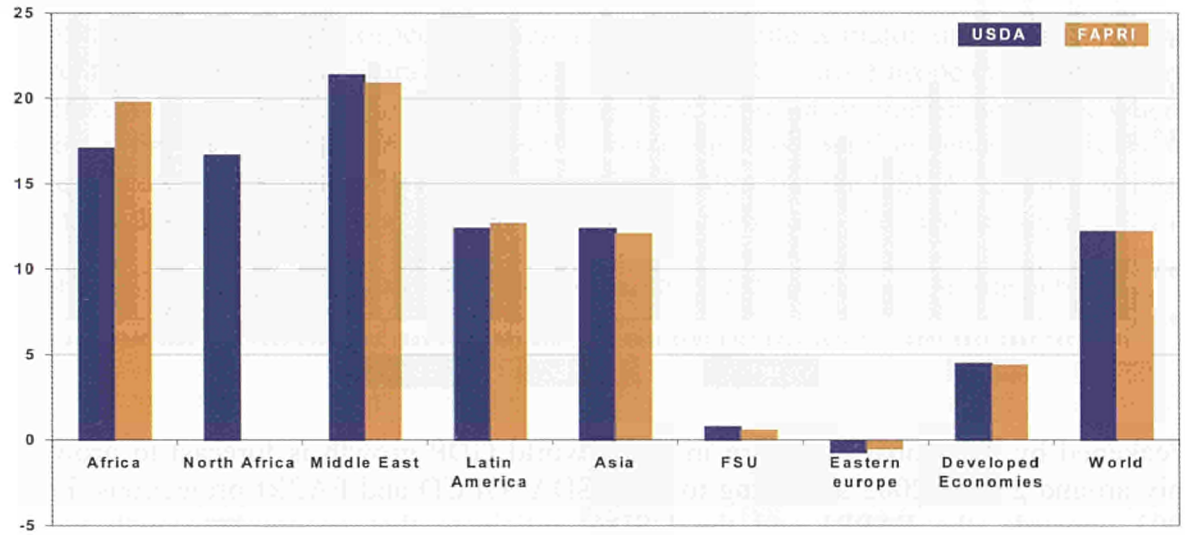


Source: FAPRI

This pattern is estimated to continue over the next seven years and overall world population is expected to increase by between 1.1 % and 1.2 % per year by the end of the decade. However, the decade is expected to witness some of the highest absolute annual increments in world population history. It is estimated that the world population will increase every year by some 75 to 80 mio persons over the decade. The pattern of

population growth will differ widely between regions, with Africa and the Middle East demonstrating the strongest increase of around 20 % over the next seven years.

Graph 3.6 Cumulative population growth, 2001 – 2011 (in %)

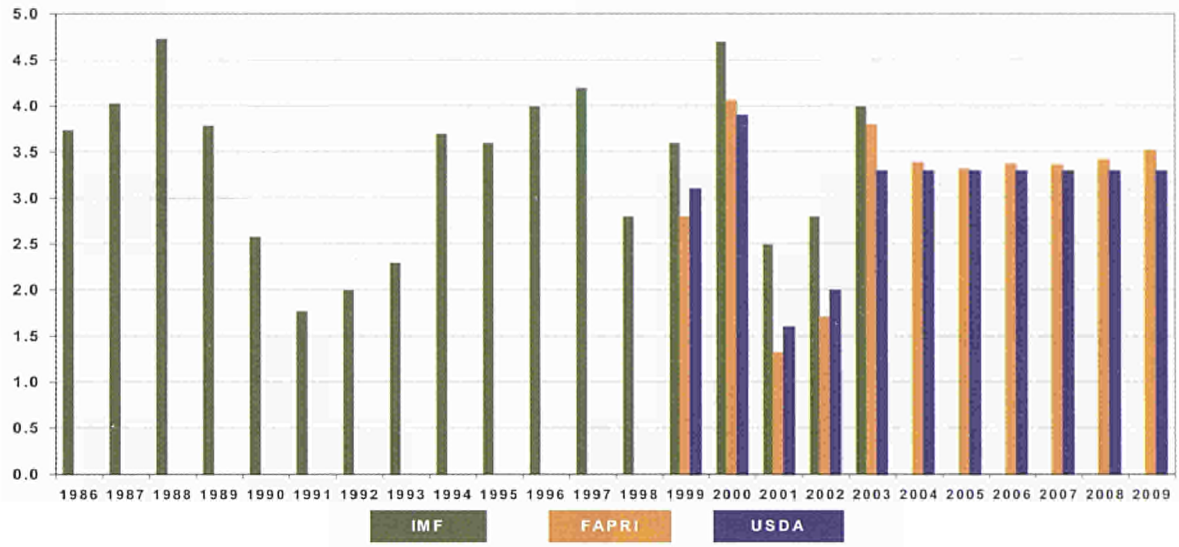


The strongest growth is expected in the Middle East where population would expand by around 2.0 % per annum in 2009. Africa's population growth would stand at around 1.5 %-1.6 % per year by 2009 in the USDA and FAPRI projections. This would constitute a sharp downwards revision from last year's USDA baseline where Africa's population was projected to expand at a steady 2.2 % per year at the end of the decade. The next fastest growing regions are Latin America and Asia, averaging between 1.0 % and 1.1 % per annum by 2009. More than 90 % of the increase in world population would take place in developing countries, with more than half in Asia. By contrast, transition economies are projected to exhibit a fall in their overall population.

(2) Strong rebound in world economic growth

The main contributing factor to the improvement in the medium-term outlook of agricultural markets in all baseline projections lies in the prospects for a favourable macro-economic environment based on sustained and balanced growth across most countries. The short-term economic outlook should remain dominated by the continuation of the marked slowdown that affected the world economy in 2001 and the subsequent recovery. Over the medium and long term, most agencies anticipate that long-term structural reforms and robust productivity growth should set the stage for a renewed sustained economic growth in most economies, with economic expansion above long-term averages in most regions. If Asia is foreseen to remain the major force in the expansion of the world economy, strong growth is expected in the transition economies of Eastern Europe and Russia, Africa and Latin America, leading to a significant narrowing of the growth differential between these regions. This broadly-based economic growth could then have major implications for global food demand as it could trigger significant changes in the food consumption pattern in many developing countries.

Graph 3.7 Outlook for world real GDP annual growth, 1986 – 2009 (in %)



Weakened by the global downturn in 2001, world GDP growth is forecast to grow by only around 2 % in 2002 according to the USDA, OECD and FAPRI projections. From 2003 onwards, the FAPRI and the USDA anticipate that economic growth would stabilise at approximately 3.3-3.4 % per year. If much of this growth is expected to be fuelled by emerging economies, the slow implementation of much awaited structural reforms -that would provide the fundamentals for long-term sustained economic development- should constrain growth prospects below the rates recorded during the 1990s in some of these countries.

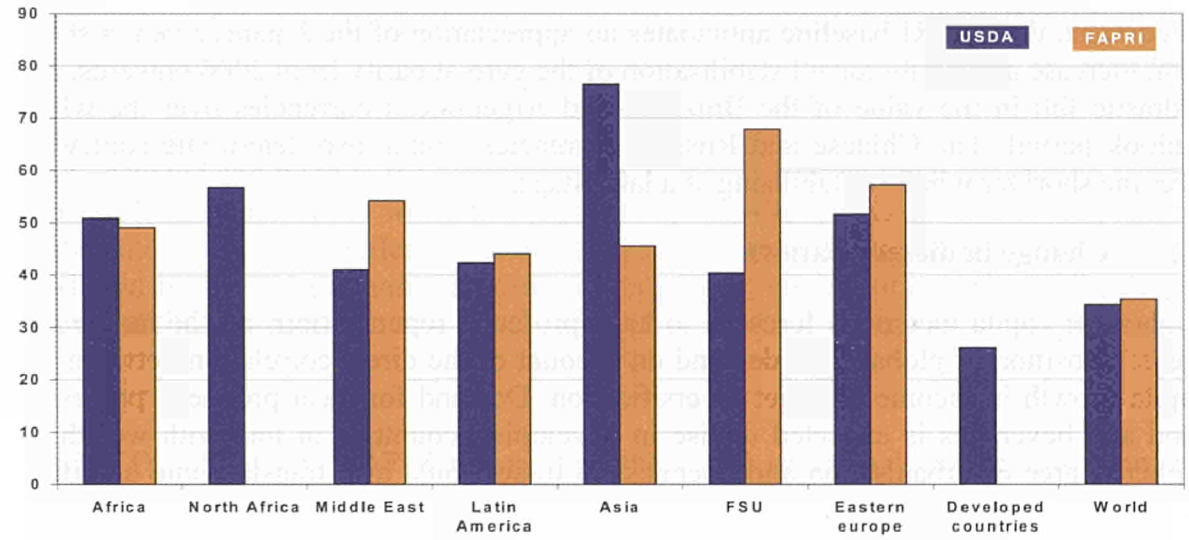
According to the USDA projections, Asian developing countries would exhibit a GDP growth averaging around 6 % per year (led by China that would display an annual growth rate slightly below 8 %), i.e. somewhat lower than in the 1990s. In the face of the severe drop in GDP growth recorded in 2001 and 2002 -below 2 %- Asian economies are only projected to rebound to a moderate growth pattern from 2003 onwards according to FAPRI. By contrast, the performance of Latin American economies is foreseen to be more mixed, with strengthening economic growth that would reach approximately 4.5 % a year on average over the medium term. In the short-term, these favourable perspectives would mainly rely on Brazil as Argentina is currently facing a severe financial and economic crisis partly caused by its currency peg to the dollar. If the situation is forecast to improve over the medium term, these countries would continue to rely heavily on foreign capital.

The moderate developments in oil prices that are assumed in the baseline projections provide the basis for an average economic growth at or above 4 % per year for Middle East countries, i.e. around the performance of the 1990s. In spite of some politically troubled countries which could drag overall growth down, Africa is forecast to display a healthy economic pattern, with GDP growth estimated above 4 % over the medium term. However, GDP growth per capita in Africa and the Middle East would continue to be outperformed by those of Asia and Latin America by a larger margin than given by their GDP growth rate differentials owing to their higher population prospects (cf. section (1) above).

Russia weathered the slow down in the world economy in 2000 and 2001 when it experienced high GDP growth thanks to a large depreciation of its currency, a significant improvement in its terms of trade and prudent fiscal policy. Over the medium term, the USDA, OECD and FAPRI baselines foresee the continuation of the expansion of the economy, albeit at lower level for the former agencies. This performance would in any

case constitute a substantial increase from the negative growth recorded in the 1990s (around –4 % per year). These prospects depend critically on the implementation of structural reforms towards the establishment of a market-based economy and the continuation of the integration of Russia into the global economy in terms of trade, foreign investment and currency convertibility. In that respect, the medium-term economic and financial prospects in that region constitute a major uncertainty for the future prospects of agricultural markets. Central and Eastern European countries are projected to exhibit solid growth over the medium term, in particular countries where market reforms and increased openness to trade and competition have already been implemented (such as Poland and Hungary). The FAPRI and the USDA forecast average growth in these countries between 4 % and 5 % per annum over the medium term.

Graph 3.8 Outlook for real GDP growth per region, 2001 - 2011 (cumulative growth in %)



After the worst economic downturn in over a decade, the economic situation in developed countries is foreseen to start improving in 2002 and to fully recover from 2003 onwards. Over the medium term, GDP growth is estimated to reach between 2.5 % and 3.0 %, i.e. above the rates achieved in the 1990s as structural adjustments undertaken throughout the second half of the 1980s and into the past decade created a foundation for growth. However, the path to recovery is forecast to show significant differences. After a marked slowdown in 2001, the US would, according to the three agencies, return to a long-term sustainable rate significantly above 3.0 % on average over the rest of the outlook period. Significant structural problems are still expected to constrain the Japanese economy on a modest growth path over the medium term at around 2.0 % per year. Owing to a milder slowdown, economic growth in the EU would show a more modest rebound and less robust medium-term growth perspectives than the US, with GDP stabilising at between 2.5 % and 3.0 % on annual average.

Whereas strong economic growth in the developed world should only have minor direct implications for the global demand for agricultural products[60], it is expected to have a much stronger effect on food consumption in the non-OECD zone owing to higher per capita-income elasticity.

[60] However, economic growth in developed countries is crucial for spurring growth at world level, which would then translate into higher food demand and global trade.

This environment of steady medium-term growth is foreseen to take place without significant inflationary pressures thanks to moderate oil prices over the medium term - combined with a lower dependence of the economy on energy- and to a significant productivity growth.

Exchange rate fluctuations have constituted a major factor affecting agricultural trade flows and prices over the recent past, notably the depreciation of the Euro and the Brazilian Real. The three sets of baseline projections differ significantly regarding their assumptions on currency prospects over the next seven years. The USDA baseline assumes no major change in relative exchange rates, with nevertheless a short-term appreciation of the euro in real terms up to 2004 before a slow depreciation over the longer run. The OECD baseline also assumes stable exchange rates in real terms. Accordingly, the US dollar would remain stable against the euro and weaken against the yen. Some depreciation of the Chinese and Russian currencies would also be projected. In contrast, the FAPRI baseline anticipates an appreciation of the Japanese yen, a short-term increase and a subsequent stabilisation of the euro at parity from 2004 onwards, and a drastic fall in the value of the Brazilian and Argentinean currencies over the whole outlook period. The Chinese and Russian currencies would also deteriorate somewhat over the short term before stabilising at a later stage.

(3) Change in dietary pattern

Higher per capita income is foreseen to have profound repercussions on the nature and the composition of global food demand on account of the 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 would also translate into 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) A differentiated pattern of food production and consumption should lead to some regional imbalance and increase trade

The prospects for trade over the medium term depend heavily on the differentiated pattern in domestic production and consumption at regional level. Although agricultural production is expected to increase in developing countries, the annual rate of increase of production in these countries is still projected to be lower than the increase in domestic consumption. This would result from the combined impact of the limited potential of available land and water (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 would lead to the emergence of some large countries and regions (such as China, South Korea, Indonesia and Middle East) as important and increasingly significant importers of agricultural products.

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

The implementation of the Uruguay Round Agreement on Agriculture (completed in 2000 by OECD countries and due by 2004 for developing countries) and further trade liberalisation in the framework of the new multilateral trade negotiations launched in Doha in 2001 may be expected to lower barriers and boost the demand for food imports over the medium term. The pace of economic reform towards greater liberalisation of markets and integration into the global economy (in terms of trade, investment flows and currency convertibility) in many regions, such as the transition economies, the FSU and China should also have a significant impact on international trade over the medium term.

3. Prospects per sector

This section is based on the projections[61] of some prominent forecasting organisations (OECD[62], FAPRI, USDA) and the Commission's internal assessment of possible 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 variables[63].

3.1 Cereals

The OECD, USDA and FAPRI foresee that the cereal sector will continue to recover after its prolonged weakness characterised by large availability, ample stocks and weak demand. Widespread economic growth, the expansion of the livestock sector and the gradual adjustment of supply to low prices are projected to combine to set the stage for a strengthening of world demand and a tightening of stock-to-use ratios. Limited production potential should generate a broad based expansion of cereal trade, particularly in developing economies, driven by rising income, diet diversification and higher demand for livestock products and feeds. These factors would fuel a gradual, albeit moderate, price recovery over the medium term.

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

62 In drafting this market analysis, the Commission had access to preliminary projections established by the OECD Secretariat in the context of its medium term outlook for the period 2002 to 2007. The final results were scheduled to be declassified after discussion by the OECD Working Party on Agricultural Policies and Markets at its meeting on 21 and 22 May 2002 and to be published in the OECD Agricultural Outlook. The discussion by the Working Party may have lead to modifications in the preliminary projections used in this report.

63 These projections are not intended to forecast what the future will be, but instead describe what may happen under a 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 references.

Short-term developments

The short-term estimates from the International Grains Council (IGC[64]) for the 2001/02 marketing year indicate a wheat crop at 580 mio t. The 2001 harvest would thus constitute the fourth consecutive fall in world wheat production from the 1997 record of 610 mio t. Significantly lower supply is found in the EU, India, China and North America. In contrast, wheat production increased mainly in the CEECs and the FSU (mainly Russia and Ukraine). By contrast, coarse grain production rose sharply to 891 mio t, i.e. some 23 mio t higher than the 2000 harvest[65]. Large crops were harvested in the CEECs, the FSU and China. First estimates for 2002/03 show a sharp rebound in world wheat production at 596 mio t, driven by large increases in the EU and India, whereas lower crops are foreseen in the CEECs and the FSU.

World demand for wheat in 2001/02 resumed increasing after three years of relative stagnation. Driven by food use in developing countries and feed usage in industrialised economies, total wheat consumption would reach 596 mio t in 2001/02, i.e. an increase of around 5 mio t as compared to 2000/01. As consumption is forecast to exceed production for the fourth year running, wheat stocks would fall further to 136 mio t in 2001/02 (i.e. a stock-to-use ratio of 15.6 %). Moreover, wheat stocks in the five major exporting countries would drop by 8 mio t to 44 mio t, their lowest level since 1996/97. Total wheat trade is set to rise in 2001/02 to 107 mio t, with the bulk of this increase taking place in the EU. Coarse grain consumption is estimated to increase by 14 mio t in 2001/02, leading to a renewed decline in total ending stocks of 160 mio t (69 mio t in the five major exporters). Total coarse grain trade would slightly fall to 107 mio t[66].

Supply

World wheat production is forecast to increase substantially faster over the medium term than in the 1990s, albeit at a significantly lower rate than during the two decades before. Wheat availability would grow at a sustained pace that ranges from 1.5 % on annual average in the FAPRI forecasts (i.e. 75 mio t over the 2001-2009 period) to 2.0-2.1 % in the USDA and OECD projections (i.e. around a 100 mio t increase by 2009/10). Transition economies and developing countries are foreseen by all major organisations to account for most of the increase in production. Total wheat production would thus reach between 653 and 680 mio t in 2009 as compared to 609 mio t in 1997 (an historical high).

As in recent decades, most of the growth in production would be generated from higher yields as wheat area would only expand moderately. The FAPRI and the USDA estimate that wheat yields would rise by an anticipated 1.4 % on annual average. These wheat productivity growth rates represent a marked slowdown as compared to the previous decades[67] but an improvement in comparison with the 1990s. On the contrary, the OECD

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64 The short-term estimates from the IGC allow to throw some light on the most recent developments in the world cereal markets. In that context, they may display some differences with the medium and long-term projections available in the first quarter of 2002 from the OECD, FAPRI and USDA.

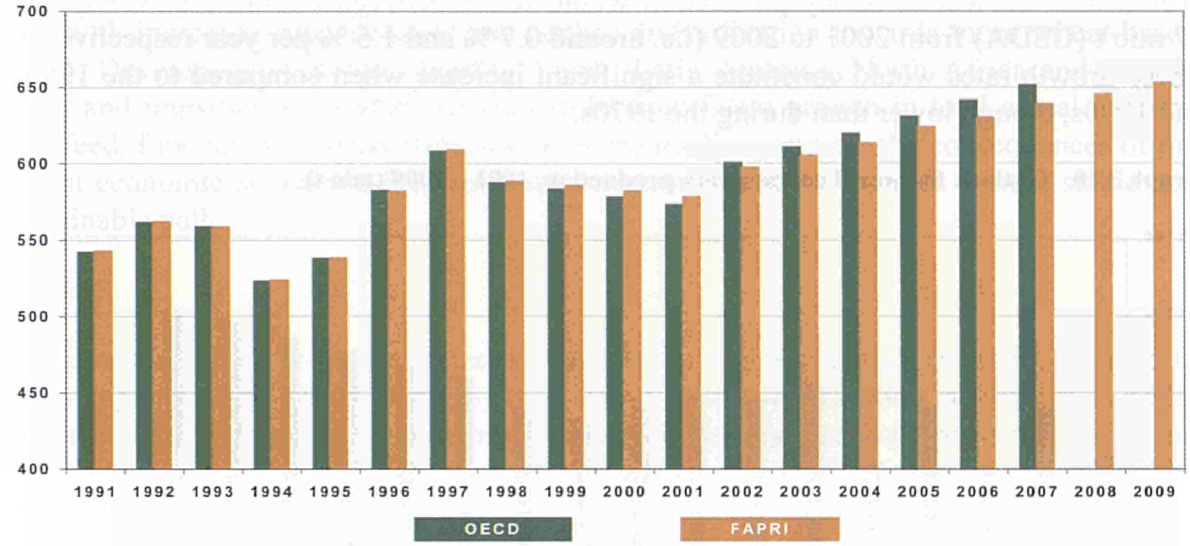
65 Higher coarse grain production would mainly result from a sharp recovery in barley and maize production that reached around 141 mio t and 595 mio t respectively.

66 Short-term forecasts from the IGC for the 2002/03 marketing year were only available for wheat production.

67 The slowdown in yield growth is attributed by some analysts to the lower quality of soils being brought into production and reduced budgets for research and development. The OECD (2001) argues that the combination of stricter environmental restrictions on the use of inputs, higher costs of

foresees that yield growth rates for wheat would be comparable to those of the last decade, i.e. at around 0.8 % and 1.2 % per year on average in the OECD and non-OECD zone respectively.

Graph 3.9 Outlook for world wheat production, 1991 – 2009 (mio t)



World wheat area, which has been declining since its record level in 1996 in line with the market and policy environment in some countries, is foreseen to bounce back in 2002 and to expand by some 11 mio ha in the USDA outlook over the whole 2001-2009 period supported by strengthening prices. The OECD projects that the total land allocated to wheat production in the OECD area and the non-OECD area would increase by some 2.4 % and 6 % respectively over the most recent years. However, land and water constraints in many countries (linked to urbanisation and climatic conditions) as well as sustained competition from other crops are expected to limit wheat area development over the medium term[68]. In that context, the FAPRI only foresees a very modest recovery in wheat area after 2001, with wheat area reaching 217 mio ha by 2009/10.

If information on total coarse grain is not fully comparable as the definition of this group differs across projections, some important trends can be identified. The two major coarse grains, i.e. maize and barley, are projected to exhibit an outlook characterised by a development in production stronger than over the most recent decade in the USDA and OECD projections. As for wheat, these organisations foresee that the majority of production growth would originate from yield growth, although scope would exist for a significant increase in total coarse grain area. FAPRI expects that the rise in coarse grain production would be mainly generated by increased productivity[69], as total coarse grain area would only grow by slightly more than 3 mio ha from 2001/02 to 2009/10, the decline in barley area partially offsetting the projected increase in maize area.

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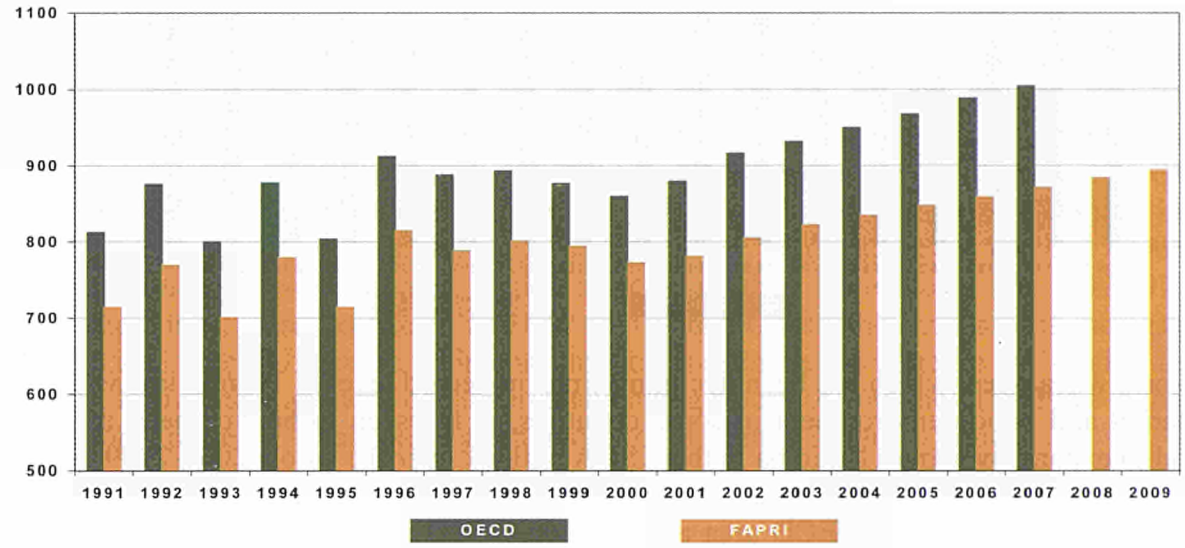
fertilisers and agro-chemical inputs and increasingly tighter water supply for irrigation may significantly contribute to this anticipated reduction in yield growth.

[68] It should be noted that land idling programmes in the EU and US have been set at or close to their maximum or reference base in most projections.

[69] Over the next seven years, productivity growth in maize production is expected to reach 1.1 % and 1.6 % per annum in the USDA and FAPRI projections respectively, whereas barley yields would rise by approximately 1.5 %, i.e. a significant increase compared to the 1980s and 1990s. The OECD provisional baseline depicts a more modest pattern at around 1.1 % for total coarse grains.

In the OECD projections, coarse grain production would rise by 125 mio t from 2001 to 2007 (i.e. 2.2 % per year). Growth in coarse grain production would be mainly driven by the expansion in maize production that would range over the 2001-2009 period between 99 mio t (FAPRI) and 140 mio t (USDA) (i.e. 2.0 % to 2.7 % per annum respectively). A growing demand for malting barley and sustained prices would support gains in barley production. Growth in barley production would reach between 8.5 mio t (FAPRI) and 17 mio t (USDA) from 2001 to 2009 (i.e. around 0.7 % and 1.5 % per year respectively). These growth rates would constitute a significant increase when compared to the 1980s and 1990s, though lower than during the 1970s.

Graph 3.10 Outlook for world coarse grain production, 1991 – 2009 (mio t)



Demand

After a marked slowdown in the 1990s, growth in wheat demand is forecast to gather pace over the 2001/02-2009/10 period and reach on average an annual rate ranging from 1.3 % (FAPRI) to 1.6 % (OECD and USDA), i.e. an increase of between 64 and around 85 mio t over the whole period. As most developed countries have already relatively high levels of per capita wheat consumption and only limited scope to increase it, developing countries would account for most of projected increase (although transition economies are also foreseen to show important gains). The USDA expects world per capita wheat consumption to increase slowly from 94 kg per year in 2000 to about 97 kg in 2009/10 driven by higher feed wheat demand in the EU, the FSU and the CEECs and by increased food use in Asia and the Middle East. Nevertheless, if projected growth rates in global wheat use are significantly higher than those observed in the 1990s, they would still fall short of the levels recorded in the 1970s and 1980s.

Total coarse grain consumption would follow a stronger pattern with a robust growth supported by widespread economic growth and expanding meat production estimated on annual average between 1.3 % (FAPRI) and 2.0 % (USDA, with the OECD at 1.7 %), i.e. an increase of between 89 and 135 mio t respectively over the forecast period. Demand for coarse grains would thus grow faster than during the 1980s and 1990s, but much slower than during the 1970s. Maize would constitute the main driving force behind this rise in demand, due to the expansion of livestock production[70], with an annual increase forecast between 1.4 % and 2.1 % respectively (corresponding to 71 and 111 mio t from

[70] About two thirds of global coarse grain production are used as animal feed.

2001/02 to 2009/10), whereas barley consumption would rise by 1.0 % and 1.6 % respectively on annual average (i.e. 12-19 mio t over the whole period).

This strong development in demand for cereals would be mainly derived from non-OECD (importing) countries, in relation to rising real incomes (and the associated gain in per capita meat consumption), population growth and continued urbanisation (changes in diet with increased meat demand and further diversification towards more wheat-based food). Developing countries –notably China, Latin America, North Africa and Middle East- and transition economies would exhibit significant growth in total cereal demand (for feed, food and industrial purposes) over the medium term as the consequences of the recent economic slowdown fade and their economies recover towards a more stable and sustainable path.

Trade

As domestic supply is not projected to meet the pace of a rapidly expanding demand in many regions of the world, this growth in world cereal consumption is foreseen to boost global trade. World cereal trade is projected to grow sharply higher than in the 1980s and 1990s. Unlike previous sets of baseline projections, the FAPRI and the USDA foresee that wheat trade would exhibit the strongest increase in grain trade over the medium term.

Table 3.1 Outlook for total imports in cereals, 2001 – 2009 (mio t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Wheat	106.7	85.1	128.1	108.9	21.4	23.8
Coarse grains	101.9	84.0	120.1	107.3	18.2	23.4
Maize	74.2	60.8	87.0	80.3	12.8	19.5
Barley	16.8	15.2	20.5	18.2	3.7	**2.9**
Total cereals	208.6	169.1	248.2	216.2	39.6	47.1

USDA figures include intra-FSU trade. FAPRI: net trade

Both FAPRI and USDA foresee a steady expansion in cereal trade from 2001/02 to 2009/10 ranging between 20 and 28 % for wheat (i.e. 21-24 mio t) and between 18 and 28 % for coarse grains (i.e. 18-23 mio t). The OECD outlook expects net exports from the OECD area to rise by 22 % for wheat and to decline by –9.9 % for coarse grains by 2007, as compared to the 1996-2000 average.

When looking at the regional breakdown of cereal net imports, most analysts expect that developments in cereal imports would be mainly driven by income growth and its associated impact on per capita meat consumption, and urbanisation with its effect on dietary pattern in some lower and middle-income regions, including China and South East Asia, Latin America, North Africa and Middle East. In contrast, the role of the FSU, one of the world's largest grain importers during the 1980s, is expected to remain limited over the medium term, with import demand at low levels over the projection period. However, if all organisations agree on the level and the driving forces underlying global trade growth, some significant differences exist on the distribution of medium-term import demand and export supply.

Table 3.2 Outlook for wheat net imports for major importing countries, 2001 – 2009 (mio t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	15.8	22.2	25.9	36.1	10.1	13.9
China	1.0	0.5	8.0	5.1	7.0	4.6
Indonesia	4.2	-	5.2	-	1.0	-
Japan	5.8	5.2	5.8	5.3	0.0	0.1
Africa & M. East	42.9	41.2	44.7	46.9	1.8	5.7
North Africa*	13.8	14.6	13.8	17.6	0.0	3.0

* Morocco, Algeria, Tunisia, Egypt

Net cereal imports from China are forecast to increase over the next seven years: Chinese wheat net imports would grow between around 5 mio t (FAPRI and OECD) and 7 mio t (USDA) from 2001/02 to 2009/10. In spite of further yield increases, China's wheat production is not expected to keep pace with domestic demand. FAPRI –that takes account of China's accession to the WTO- projects that in-quota imports should boost total wheat imports and exert pressure on domestic production, while stimulating domestic consumption. China would also turn from being a net exporter of coarse grains to become a net importer over the medium term. The FAPRI expects net coarse grain imports to reach 11 mio t by 2009/10. In their outlook, growth in coarse grain imports (mainly maize) would be gradually driven by the rapid expansion of China's livestock sector in response to sustained meat demand and by a feed demand that would outpace domestic production by the end of the projection period. The USDA foresees a similar, though slightly more modest pattern for Chinese cereal imports, with net wheat and coarse grain imports standing at some 6 to 7 mio t by 2009/10. Rising imports to meet an expanding livestock and higher feed demand are also projected by the OECD, although China would only exhibit a net coarse grain deficit of less than 1 mio t by 2007/08.

Besides China, other Asian countries that are expected to exhibit some increases in wheat import include the South East Asian countries, Pakistan and India. The latter, that has been a wild card player over the last few years alternating as an importer or an exporter of wheat depending on domestic availability, is foreseen to become a steady net wheat exporter by the USDA, whereas the FAPRI anticipates a declining export surplus over the whole projection period.

Cereal imports in Africa and the Middle East are expected to rise in response to sustained GDP expansion, high population growth and limited production potential. The FAPRI and the USDA projections show a 9 mio t increase in net cereal imports from 2001/02 to 2009/10, although with inverse trends between wheat and coarse grains. Mexico and other Latin American countries are also expected to be a source of import growth throughout the whole period as rising income boosts meat demand. Finally, growth in world barley trade of around 3 to 4 mio t is foreseen to take place mainly in China for malting barley and North Africa-Middle East (mainly Saudi Arabia) for feed barley. However, malting barley markets are anticipated to exhibit higher growth potential, as feed barley would face strong competition from other feed grains.

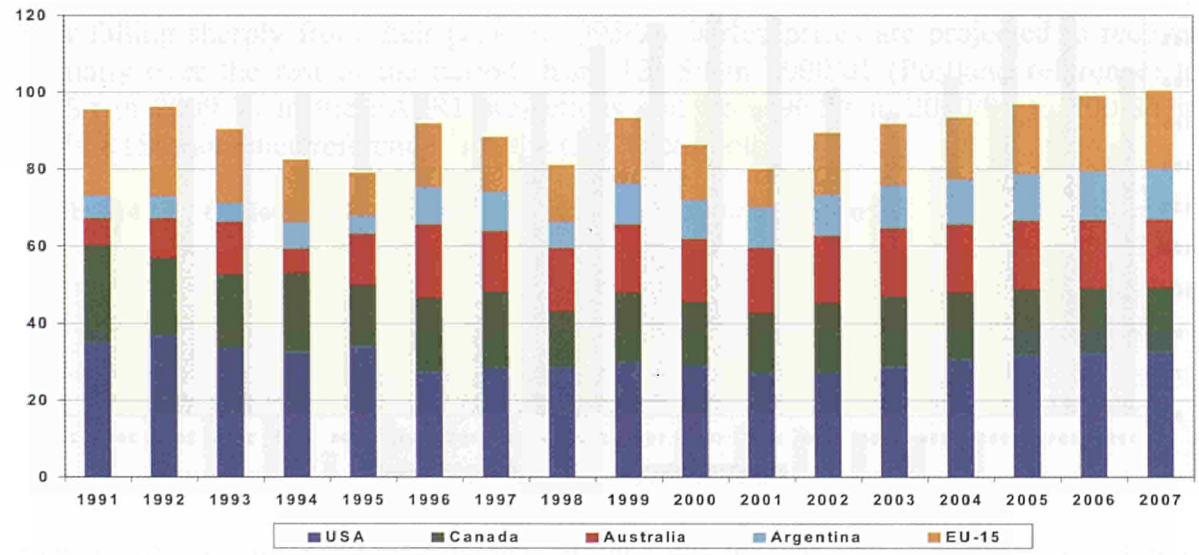
Table 3.3 Outlook for coarse grains net imports for major importers, 2001 – 2009 (mio t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	34.6	36.2	41.2	52.0	6.6	15.8
China	2.8	0.5	8.9	11.4	6.1	10.9
Indonesia	1.5	1.4	2.1	1.7	0.6	0.3
Japan	19.6	19.2	19.0	19.3	-0.6	0.1
Mexico	10.8	11.0	12.5	12.5	1.7	1.5
Other Lat. America*	10.5	7.2	13.2	8.8	2.7	1.6
Africa & M.East	26.0	24.9	32.9	27.7	6.9	2.8
North Afr. & M.East**	24.5	20.2	30.9	22.6	6.4	2.4

* excluding Argentina; only Algeria and Egypt in FAPRI

The USDA and FAPRI expect that these prospects for higher world wheat trade would mainly benefit the EU, the FSU and Argentina. Whereas Canada's market share in the global wheat trade would broadly stagnate, Australia's would exhibit a decline owing to limited yield growth and increased domestic demand. The OECD anticipates similar trends, although more favourable for the US at the expense of the EU. If Argentina is foreseen to benefit from an expanding production through area and yield increases and the devaluation of the peso, the EU is expected to gain from an enhanced competitiveness and abundant supply that would boost total wheat exports beyond the WTO limits on subsidised exports[71].

Graph 3.11 Outlook for wheat exports for the major wheat exporters, 1991 – 2007 (mio t)



Source: OECD

If Russia is foreseen to resume being a net wheat importer of some 2-3 mio t over the medium term on account of additional food demand for wheat, the USDA and OECD expect Ukraine and Kazakhstan to turn the FSU as a growing wheat producer and net exporter (for about 3 to 4 mio t). The FAPRI anticipates similar trends, albeit more favourable for Russia's net exports as they foresee a more modest pattern for wheat domestic demand. The sluggish recovery in the FSU's livestock industry is expected by

[71] These prospects would result from the implementation of Agenda 2000 (notably the cut in the cereal support price), favourable currency developments (in particular the $/€ exchange rate) and the moderate recovery in world market prices.

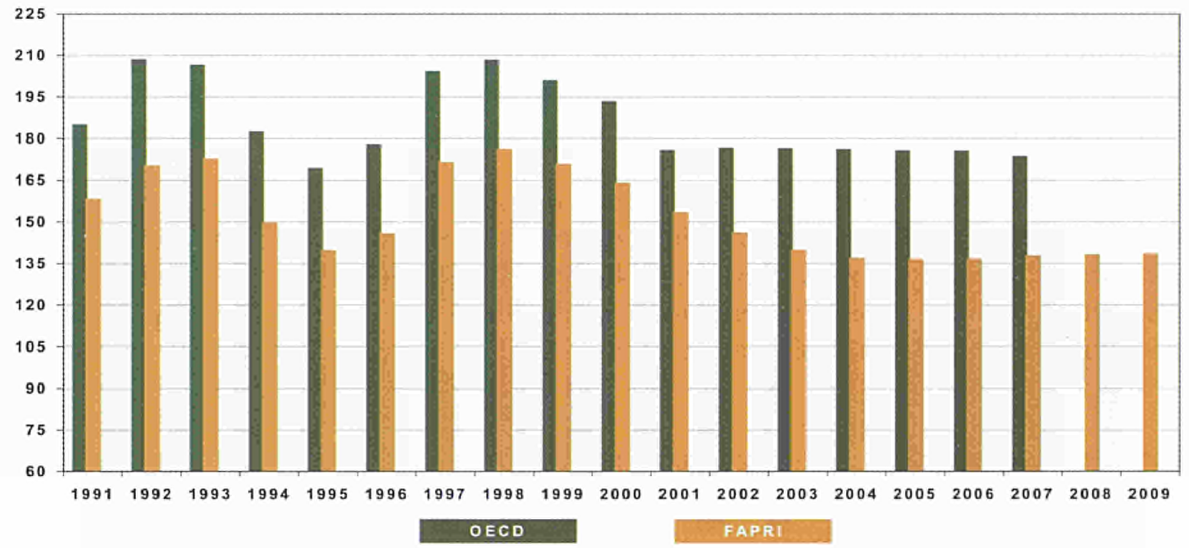
all agencies to generate moderate net exports of coarse grains over the next seven years. The latter would mostly concern barley and reach between 3-4 mio t in the USDA and FAPRI baselines and more than 9 mio t in the OECD projections (with the respective trends of Russia and Ukraine differing significantly across projections).

Additional maize import demand is expected to be met by the US, Argentina and –to a lesser extent- the CEECs and South Africa, as China would reduce its exports over the projection period. The EU is foreseen to capture a large part of the growth in barley trade at the expense of Canada and Australia (even if increased exports from the FSU and CEECs are also projected). According to the USDA, FAPRI and the OECD, a favourable exchange rate[72] and rising projected world prices should enable the EU to export significant quantities of barley without subsidies over the medium term.

Stocks and prices

After some strong rebuilding in 1997 and 1998, cereal stocks declined sharply over the last three years. Most organisations foresee that low cereal stock levels should be a feature of cereal markets over the medium term as total stocks are projected to recover only slowly from their current levels. Combined with a projected global increase in cereal demand, the stock-to-use ratio is expected to decline and maintain an upward pressure on world cereal prices over the medium term.

Graph 3.12 Outlook for world wheat stocks, 1991 – 2009 (mio t)



After bottoming out by the turn of the century, cereal prices are foreseen to recover slowly over the medium term from the current low levels as supply adjusts and global demand strengthens. According to the OECD and FAPRI projections, prices of common wheat (HRW, fob US Gulf) are projected to range around 140 and 145 $/t in 2007/08 respectively and 145-150 $/t by 2009/10 (SRW wheat, that broadly corresponds to EU common wheat quality, would quote around 10 % below these HRW wheat price projections).

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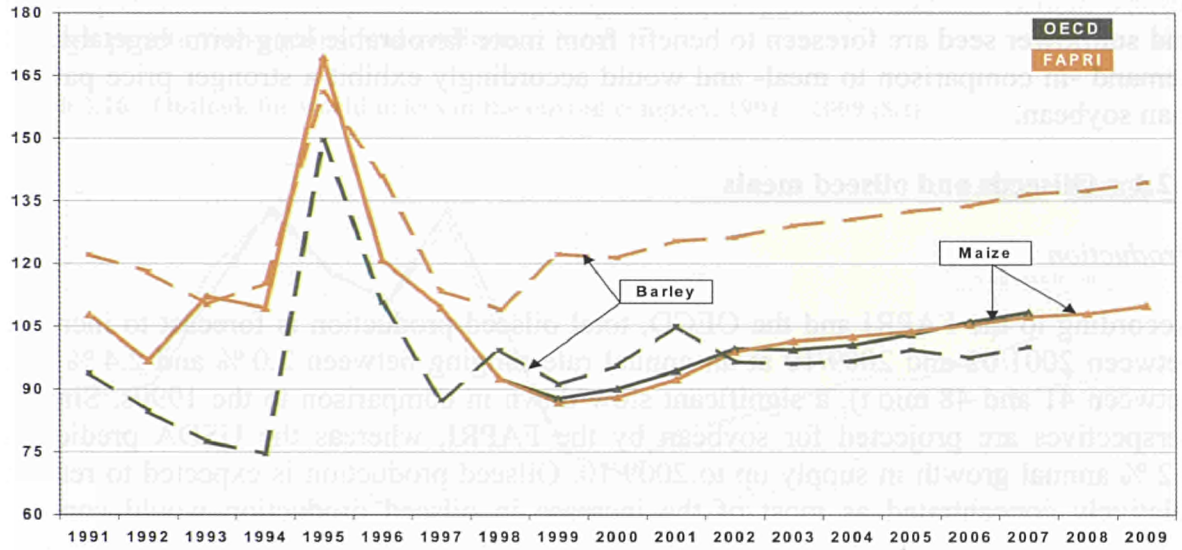
[72] In their analysis, the USDA assumes that the euro will strengthen slightly against the dollar from 2002 to 2004, and then weaken somewhat through the remainder of the projection period. The FAPRI assumes that the € would strengthen in nominal terms in the short-term and reach parity from 2004 onwards. By contrast, in the OECD projections, the $/€ exchange rate would remain stable at 0.9 throughout the period.

Prices of coarse grains should follow a similar moderate trend, with maize prices (fob US Gulf) projected at about 110-111 $/t at the end of the period by the FAPRI and the OECD. Durum wheat prices would stabilise at high levels, weakening slightly in the short-term from around 175 $/t in 2001/02 (for EU durum wheat quality) before rising slowly to approximately 180 $/t by 2009/10.

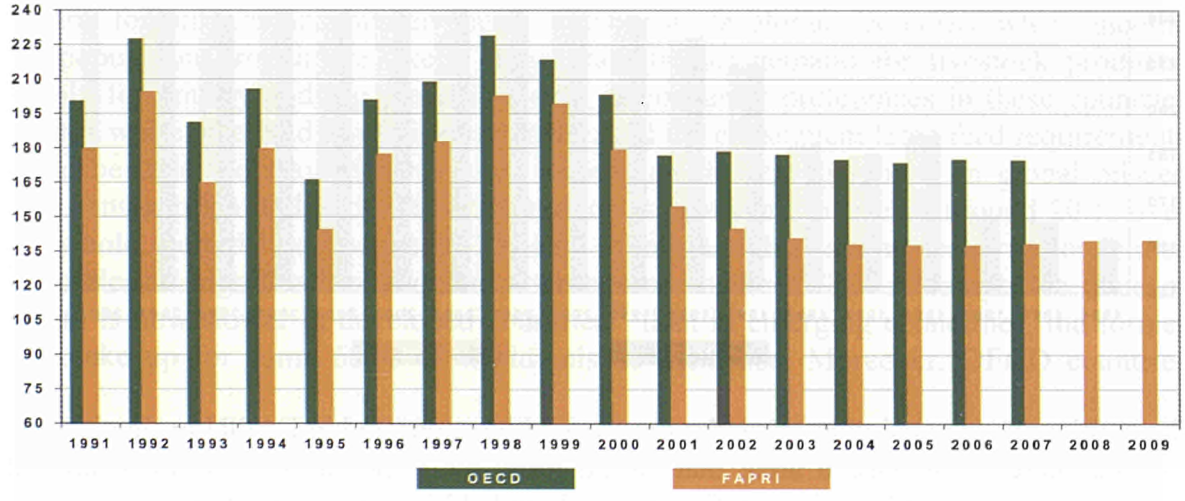
Graph 3.13 Outlook for world coarse grains prices, 1991 – 2009 ($/t)



Ref.: Maize: US yellow corn FOB Gulf; Barley: OECD-No.1 CW barley St Lawrence since 1995, Thunder Bay before; FAPRI Portland.

After falling sharply from their peak in 1995/96, barley prices are projected to recover gradually over the rest of the period, from 121 $/t in 2000/01 (Portland reference) to 139 $/t in 2009/10 in the FAPRI projections and from 96 $/t in 2000/01 to 100 $/t in 2007/08 (St Lawrence reference[73]) in the OECD outlook.

Graph 3.14 Outlook for world coarse grain stocks, 1991 – 2009 (mio t)



3.2 Oilseeds and oilseed products

[73] The St Lawrence quotation for barley prices constitutes the appropriate reference for EU barley qualities and trade destinations.

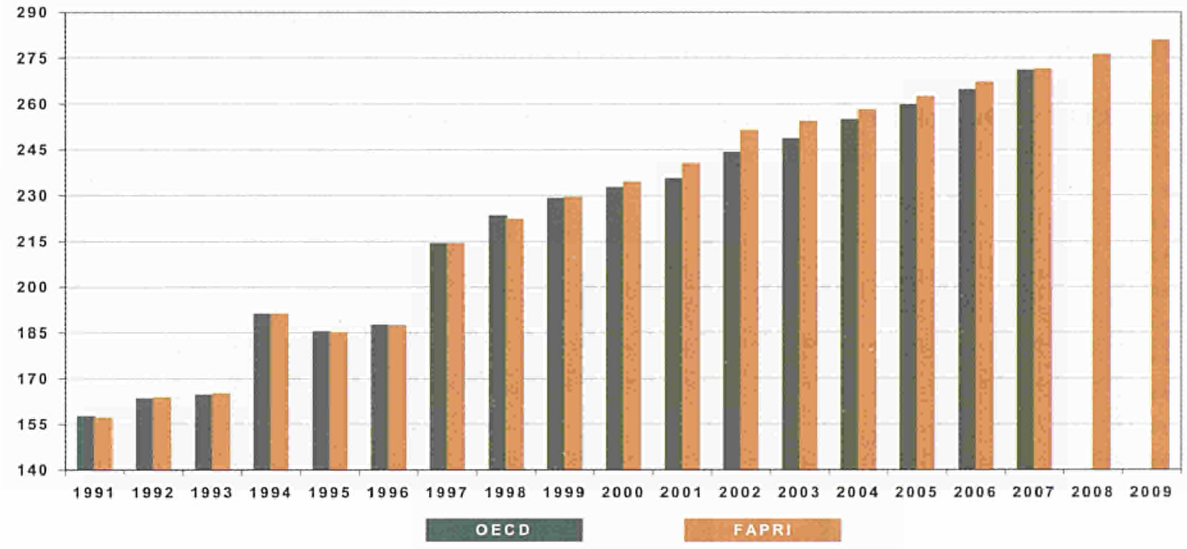
The medium-term prospects for the oilseed sector are expected to display a relatively moderate recovery. Short term developments are still foreseen to exhibit a slow and gradual supply adjustment in the oilseed sector owing to a combination of policy and macro-economic factors. However, the vigorous growth in demand anticipated over the medium term, notably from developing countries, for oilseed and oilseed products -in the form of vegetable oil for human consumption and oilseed meal from an expanding livestock sector- is forecast to sustain further growth in the oilseed sector, gradually restore market balance and support prices by the end of the outlook horizon. Rape seed and sunflower seed are foreseen to benefit from more favourable long-term vegetable oil demand -in comparison to meal- and would accordingly exhibit a stronger price pattern than soybean.

3.2.1 Oilseeds and oilseed meals

Production

According to the FAPRI and the OECD, total oilseed production is forecast to increase between 2001/02 and 2009/10 at an annual rate ranging between 2.0 % and 2.4 % (i.e. between 41 and 48 mio t), a significant slow down in comparison to the 1990s. Similar perspectives are projected for soybean by the FAPRI, whereas the USDA predicts a 3.2 % annual growth in supply up to 2009/10. Oilseed production is expected to remain relatively concentrated as most of the increase in oilseed production would concern soybean and would take place in the US, Brazil, Argentina and China. Production growth is foreseen to result from both area expansion and yield improvement (except in the US where oilseed area is projected to remain close to its 2001/02 level).

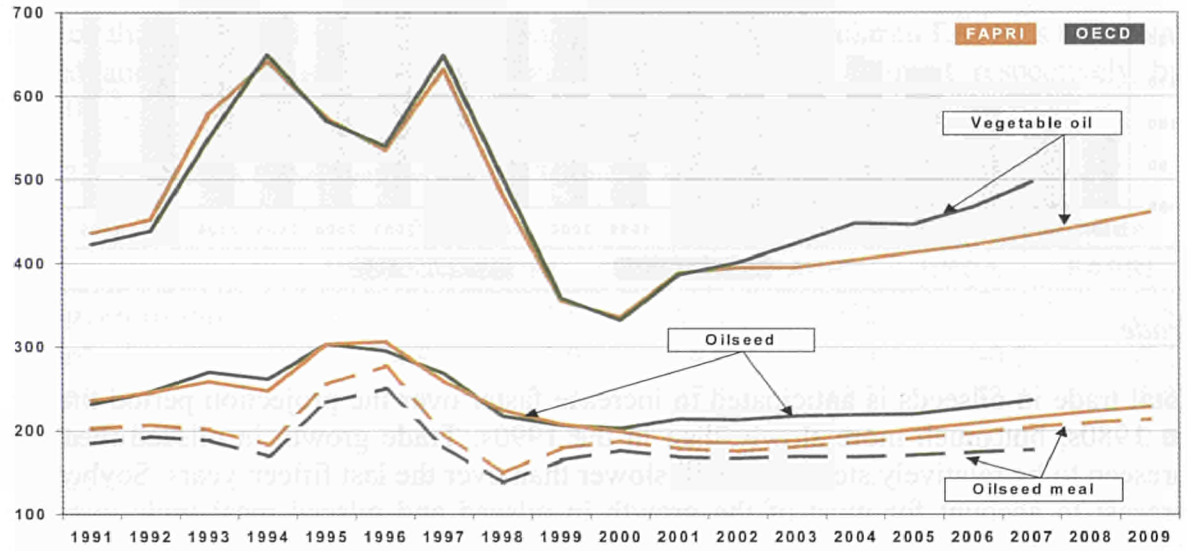
Graph 3.15 Outlook for world oilseed production, 1991 – 2009 (mio t)



The continuous expansion in oilseed output would be supported in FAPRI projections by a strong increase in oilseed area, that would grow by 7 mio ha -split between around 75 % for soybean, 14 % for sunflower seed and 11 % for rape seed- to stand at 129 mio ha by 2009/10 and further yield gains that would reach 10 % over the 2001/02-2009/10 period (i.e. 1.3 % per annum on average). A very similar pattern for area and yield growth is predicted by the OECD. Yet, all projections appear to indicate a relative stabilisation in the oilseed area in the OECD zone (notably the US). In spite of relatively low world market prices in the early part of the projection period, most of additional area allocated to oilseed production would be found in the low-cost exporting countries of South America (Brazil and Argentina).

In spite of the drop in sunflower and rape seed production in several countries in 2001 that boosted market prices, short term and medium-term developments would exhibit a slow and gradual supply adjustment in the oilseed sector as a combination of policy and macro-economic[74] factors is anticipated to make oilseed supply not fully responsive to market signals, notably in the US[75]. If many developing countries would see their oilseed sector constrained by low prices in the short run, the continued expansion in oilseed demand would favour some moderate recovery in market prices and -combined with modest increases in the price of competing crops- support production developments through productivity gains and additional land.

Graph 3.16 Outlook for world prices in the oilseed complex, 1991 – 2009 ($/t)



Ref.: Oilseed CIF Rotterdam; oilseed meal CIF Rotterdam; vegetable oil Fob Rotterdam. Provisional OECD: average oilseeds; FAPRI: soybean and soybean products.

Demand

The expected economic recovery over the medium term is foreseen to stimulate global demand for oilseeds and oilseed meals, notably in developing countries where income and population growth are likely to generate higher demand for livestock products, notably for poultry and pig meat. The shift in consumer preferences in these countries towards white meat and away from red meat, and the consequent large feed requirements would become the main driving force underlying the strong growth in global oilseed meal consumption. Oilseed meal consumption is estimated to rise by around 20 % over the whole period, i.e. between 25 and 32 mio t. This strong pattern constitutes nonetheless a significant slowdown as compared to the 1990s. Although the pace of growth is now slower in developed countries[76] than in emerging economies, the former still make up for some 60 % of world oilseed meal use. Moreover, OECD countries

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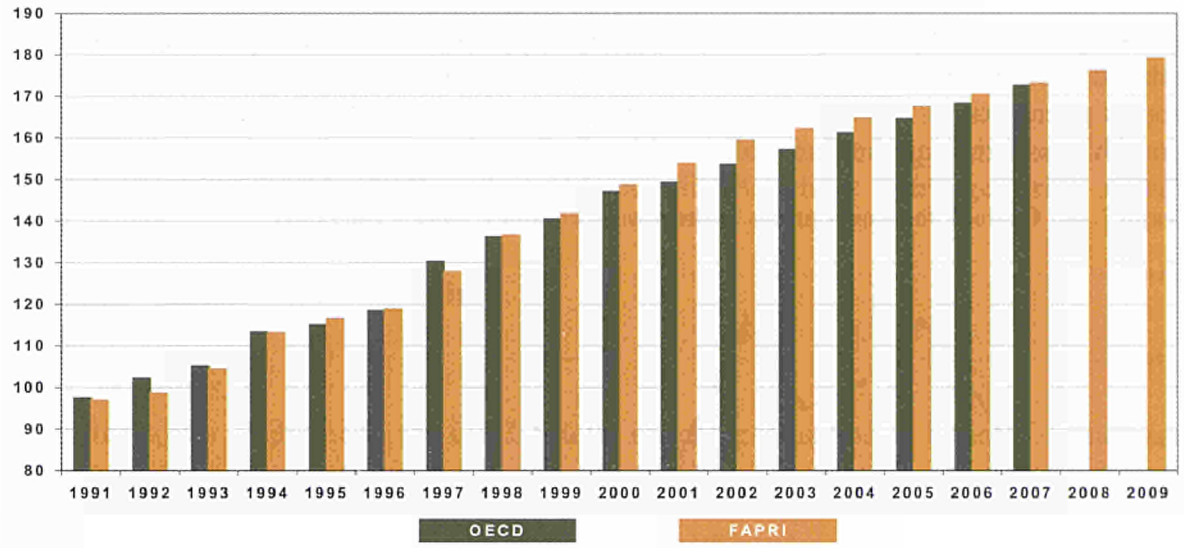
74 Mainly weak exchange rates in some major oilseed producing countries (especially in South America).

75 The importance of the US policy for the oilseed sector is foreseen to decline over the medium term as market prices recover. Whereas the OECD and the USDA projections assume that the loan rate would follow the FAIR Act formula or legislated minimum, the FAPRI baseline keeps the soybean loan rate constant at its 2001 level. Yet, they all foresee that the role of these payments will only cease towards the end of the projection period.

76 However the OECD markets are starting to mature in contrast to those of developing countries that now represent just over half the world consumption of oilseeds and over 65 % of vegetable oils.

would still account for the largest share of oilseed and oilseed meal import demand during most of the period, especially the EU and Japan.

Graph 3.17 Outlook for world oilseed meal consumption, 1991 – 2009 (mio t)



Trade

Total trade in oilseeds is anticipated to increase faster over the projection period than in the 1980s, but much more slowly than in the 1990s. Trade growth in oilseed meals is foreseen to be relatively steady but still slower than over the last fifteen years. Soybean is forecast to account for most of the growth in oilseed and oilseed meal trade over the medium term. According to the FAPRI and USDA projections, soybean trade would rise at annual rates ranging between 2.8 % and 3.3 % respectively over the next seven years, whereas soybean meal imports would grow by between 1.5 % and 2.4 % per year respectively. The combined exports of soybeans and soybean meals, on a soybean-equivalent basis, would thus grow according to the USDA from 109.7 mio t in 2001/02 to an estimated 145.3 mio t in 2010/11[77].

Table 3.4 Outlook for total imports in soybean and soybean products, 2001 - 2009 (mio t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Soya bean	56.9	52.1	73.7	65.1	16.8	13.0
Soya bean meal	42.1	35.9	50.8	40.3	8.7	4.4
Soya bean oil	8.3	7.0	10.9	8.0	2.6	1.0

USDA figures include intra-FSU and intra-EU trade. FAPRI: net trade

Notwithstanding some differences in the strength of world trade expansion, the FAPRI and USDA projections fundamentally converge on the overall medium-term prospects for a sustained growth in oilseed and oilseed meals. However, they differ substantially over the future trade perspectives for China.

China's domestic grain policy and recent shift towards maximising its large domestic crushing industry is forecast to translate into greater imports of oilseeds (rather than

[77] Whether oilseeds or oilseed products are imported depends on each importer's domestic policies and crushing capacity.

oilseed meals and oil). However, lower tariffs on soybean oil –following China's WTO accession- are projected by FAPRI to favour oil imports, thus exerting pressure on domestic crush margins and hindering the development of the crushing industry. Driven by strong oil consumption and increased demand for oilseed meals from the livestock industry (mainly for pig and poultry), China is foreseen by the FAPRI and the USDA to account for 46 % and 80 % respectively of the world's growth in soybean imports over the next seven years.

Whereas the USDA expects China to double its current level of soybean imports by 2009/10 (from 13.8 mio t in 2001/02 to 27.1 mio t in 2009/10), the FAPRI projections indicate a more moderate pattern with an additional 5.9 mio t of soybeans imported by 2009/10[78]. China's soybean meal imports are also projected much higher in the USDA baseline than in FAPRI's. The OECD projections are rather similar to FAPRI's with total oilseed and oilseed meal imports rising by 4.6 mio t and 1.8 mio t respectively by 2007/08[79].

Table 3.5 Outlook for soybean net imports for major importing countries, 2001-2009 (mio t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union*	18.3	18.5	17.9	19.0	-0.4	0.5
Japan*	4.9	5.0	4.7	5.1	**-0.2**	**0.1**
China	13.8	13.8	27.1	19.7	13.3	**5.9**
South Korea*	1.5	1.5	1.5	1.5	0.0	**0.0**
Mexico*	4.6	-	6.0	-	1.4	-
Taiwan*	2.4	2.3	2.6	2.3	0.2	**0.0**

* 'USDA: gross trade figures; include intra-EU trade.

The USDA, FAPRI and OECD baselines exhibit modest developments for EU imports. The USDA expects a very slight decline in EU soybean and soybean meal imports as lower prices of domestic feed grain due to the implementation of Agenda 2000 and abundant supplies would combine to reduce the level of import demand for oilseeds and oilseed products. By contrast, the OECD and FAPRI baselines project a small increase of less than 1 mio t for both oilseeds and oilseed meals. Besides the EU and China, the medium-term outlook for global oilseed import demand is projected to remain dominated by Japan, Mexico and South East Asia.

On the export side, Brazil, Argentina and the US are forecast to benefit from this growth in soybean and soybean meal trade, while Canada would maintain its predominance in the rape seed market. If the US are expected to capture a large share of the additional import demand in the short term as a favourable oilseed policy maintains US domestic production at high levels relative to other major exporters, firmer prices in ensuing years should help Brazil and, to a lesser extent, Argentina to increase supply and restore their export competitiveness. Brazil is projected in the FAPRI baseline to continue to expand its soybean production by more than 30 % by 2009/10 through both higher yields (8 %) and increased area (22 %). As this fast output expansion would outpace Brazil's processing infrastructure, most of exported oilseed products would be unprocessed (following also some major importer's preference for oilseeds over meals). By the end of

[78] These USDA projections constitute a major upwards revision from last year's baseline.

[79] It should be acknowledged that China's recent accession to the WTO –that could significantly impact these global perspectives- has only been accounted for in the FAPRI baseline.

the decade, Brazil is forecast to account for the largest share of the projected oilseed trade expansion and would almost catch up with the US on the export market.

If global import demand in soybean meal trade is forecast in the long run to be mainly driven by the EU, China and South East Asia (notably South Korea), a growing share of this demand would emerge widespread across many developing countries (from Africa and Latin America) and transition countries. According to the FAPRI and USDA outlook, Brazil and Argentina would capture 80 % of the expansion in world soybean meal trade between 2001/02 to 2009/10.

Table 3.6 Outlook for soybean meal net imports for major importing countries, 2001-2009 (mio t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union	15.1	14.7	14.6	15.4	-0.5	0.7
Eastern Europe*	2.9	2.9	3.6	3.3	0.7	**0.4**
China*	0.3	0.2	4.5	1.0	**4.2**	**0.8**
South Korea*	-	1.1	-	1.6	-	0.5

* USDA: Gross trade

Prices

Oilseed prices are foreseen to display a continuous recovery over the next seven years driven by long-term demand growth. However, this rise in oilseed prices would only be moderate owing to several factors, including sustained yield growth, a strong production potential in South America, the continuation of a policy favouring oilseed production in the US and uncertainties regarding world economic prospects. Oilseed meal prices are expected to weaken in the short term on account of strong production growth, before increasing slowly over the rest of the period supported by an expanding consumption.

The FAPRI foresees that prices of soybean and soybean products would bottom out around 2002/03 and recover slowly over the rest of the outlook period, with soybean and soybean meal prices reaching 229 $/t and 214 $/t respectively by 2009/10. The OECD outlook displays relatively similar price trends, although they relate to average oilseed prices (i.e. including rape seed and sunflower seed prices), with oilseed and oilseed meal prices at 237 $/t and 178 $/t respectively by 2007/08. However, the different price levels may also reflect the underlying assumption concerning the soybean loan rates in the US: the FAPRI assumes a continuation of the 2001/02 loan rate at 193 $/t throughout the whole projection period whereas the latter is set at 181 $/t in the OECD baseline from 2002/03 onwards.

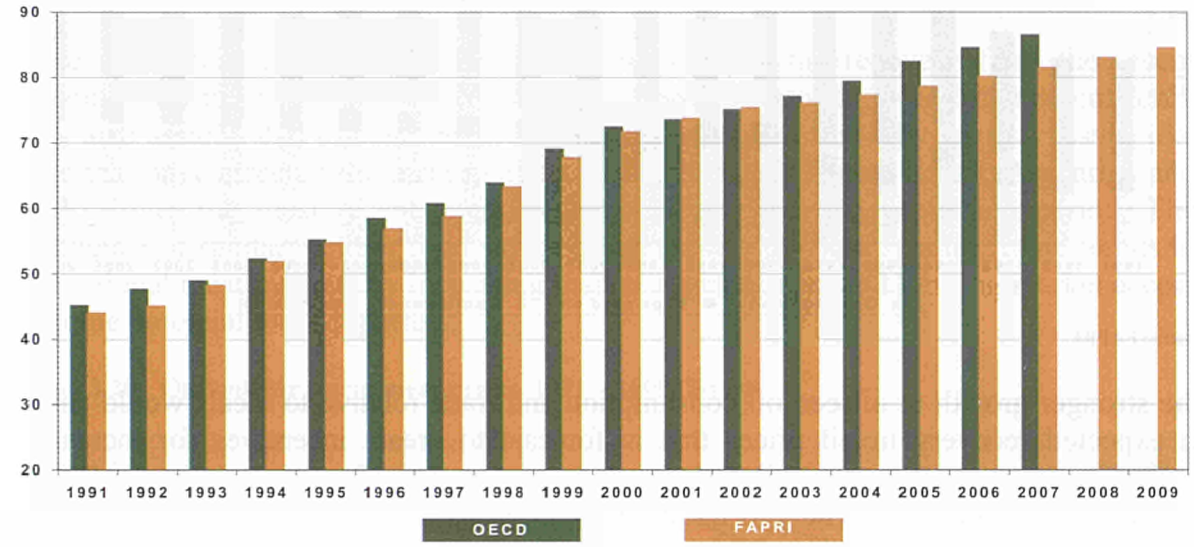
According to the FAPRI and OECD projections, rape seed and sunflower seed prices are foreseen to benefit from more favourable long-term vegetable oil demand -in comparison to meal- and would accordingly exhibit a stronger pattern than soybean prices. After a short-term drop associated with high world production stimulated by the recent price increases, rape seed and sunflower prices would trend upwards and reach 240 $/t and 271 $/t respectively in the FAPRI projections.

3.2.2 Vegetable oils

Vegetable oil has been the agricultural commodity with one of the most significant and continued growth rates over the last thirty years. Increasing income prospects are expected to maintain vegetable oil on its expansionary path, albeit at a more modest pace.

The FAPRI and OECD project that growth in vegetable oil consumption would average 1.7 % and 2.8 % per year respectively over the medium term[80]. Most of this additional consumption (of more than 11 mio t) is expected to be found in Asia and in Latin America, whereas slower growth is anticipated in Western Europe, the US and Japan.

Graph 3.18 Outlook for world oilseed oil and palm oil consumption, 1991 – 2009 (mio t)

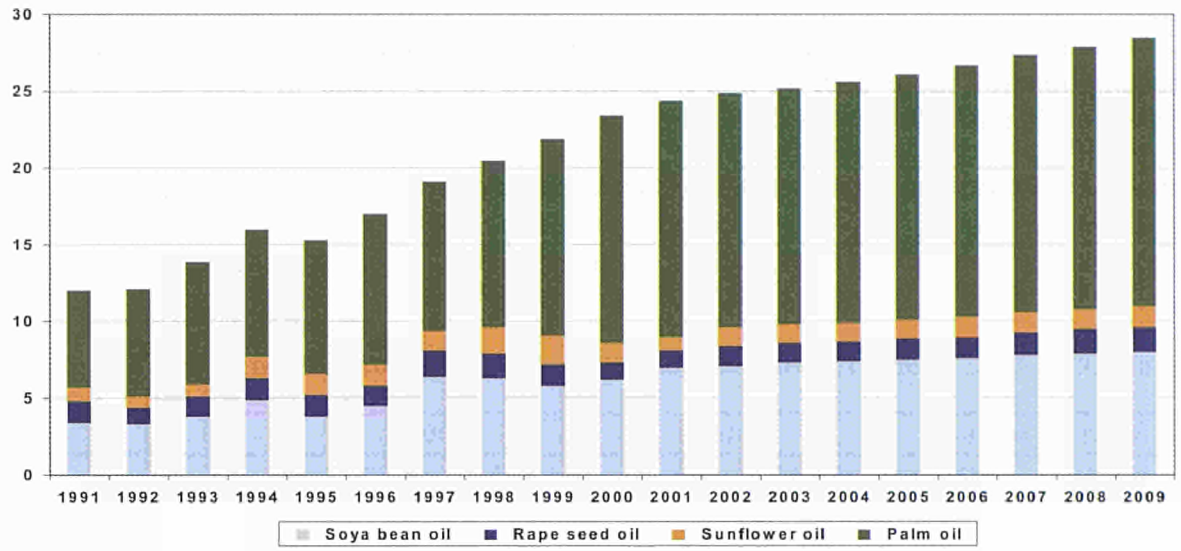


Income and population increases in China and India, which together account for more than a third of total world population, are expected to drive trade growth in vegetable oil from 2001/02 to 2009/10. Palm oil and soybean oil should absorb the largest share of additional consumption and trade. Palm oil trade is forecast to expand by 2.1 mio t (i.e. 1.6 % per year over the 2001/02-2009/10 period as compared to an average annual growth of about 9 % in the 1990s). China, the EU and India would remain the major palm oil importing countries. Malaysia and Indonesia constitute the two largest suppliers of palm oil (accounting for more than 80 % of world production and 95 % of world trade). These two countries are forecast to increase domestic supply of palm oil by 3 mio t over the next seven years (or 15 %).

Growth in world soybean oil trade is projected by the FAPRI and USDA to slow on annual average to 1.7 % and 3.5 % respectively over the next seven years, i.e. a much lower rate than those achieved in the 1980s and the 1990s, as additional demand stimulates domestic production in importing countries. Notwithstanding the diverse composition of global import demand, Chinese net imports, totalling more than 1 mio t by 2009/10, and, to a lesser extent, Indian imports would constitute the main driving force behind the growth in soybean oil trade.

Graph 3.19 Outlook for world oilseed oil and palm oil trade, 1991 – 2009 (mio t)

[80] The USDA outlook only provides for soybean oil consumption, for which it expects an annual increase of about 3.6 % on average.



Source: FAPRI.

The stronger growth in oilseed oil consumption and trade relative to meals would entail an expected recovery in oil prices that is forecast to create incentives for increased production in high-oil content oilseeds (such as rape and sunflower seeds in the EU as compared to soybeans)[81]. The FAPRI and OECD projections provide for medium-term prospects of vegetable oil prices rising to 435 $/t (soybean oil) and 498 $/t (average price of oilseed oils and palm oil) respectively by 2007/08 (fob Rotterdam). Palm oil prices would display a similar pattern with prices falling to a low in 2000/01 at around 272 $/t cif Rotterdam, before recovering gradually to 430 $/t and 498 $/t by the end of the projection period[82] in the OECD and FAPRI baseline respectively. However, the strong dependence of the global vegetable oil market on imports from developing countries makes these trade and price projections very sensitive to the macro-economic outlook in these countries.

3.3 Meat

The medium-term perspectives for meat focus on the three types of meat for which the EU is a net exporter (i.e. beef, pig meat and poultry meat). Most international organisations provide an outlook characterised by growing production, consumption and trade as well as world meat prices showing moderate strength. Prospects for rising meat demand would mainly emerge from a favourable macro-economic environment of sustained income growth, notably in Asia and Latin America.

World meat trade would increase and prices strengthen over the medium term as growing consumption is mostly expected to take place in countries that are net importers with limited possibilities to proportionally and competitively increase domestic supply (in quantity and quality). Recovering meat demand and strengthening feed prices would support world meat prices.

Table 3.7 Outlook for world meat imports, 2001 – 2009 ('000 t cwe)

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[81] In the FAPRI projections, demand for rape seed and sunflower oil is forecast to grow over the medium term by 16 % and 20 % respectively, in line with rising incomes and population, notably in China, India and other developing countries. After recovering in the short term from a sharp drop in 2001/02, trade in rape seed oil and sunflower oil is foreseen to display modest growth over the medium term.

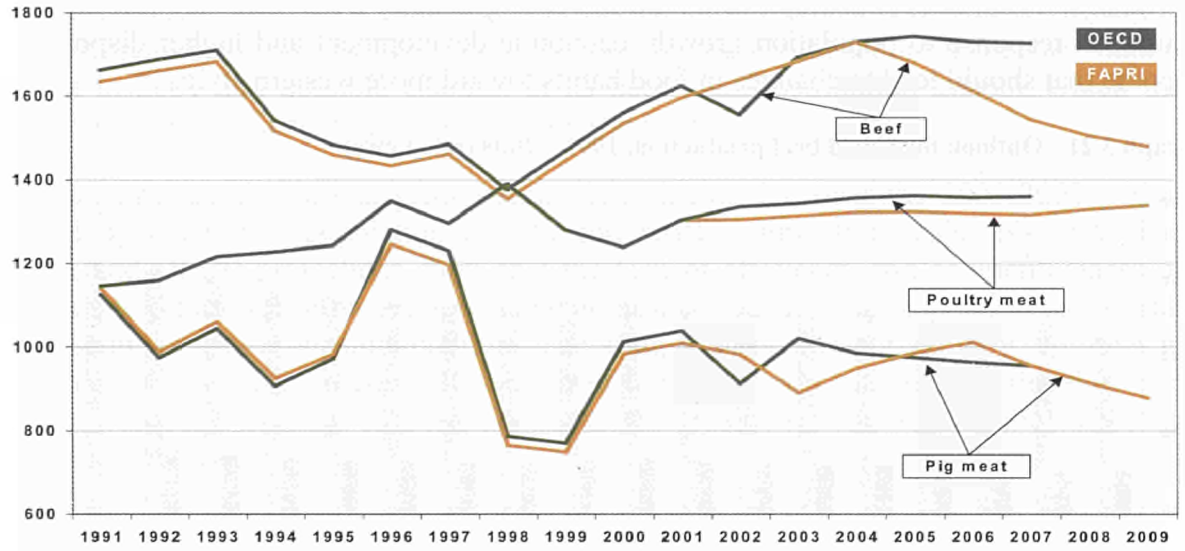
[82] Owing to their lower cost structure, major producing countries of palm oil would be relatively less affected by the low price level foreseen in the short term.

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Beef	4660	2693	5886	4232	1226	1539
Pork	2885	2258	3635	3414	750	1156
Poultry	4546	4984	5869	6797	1323	1813

FAPRI net trade

These projections rely heavily on the assumption that the recovery from the recent economic downturn will turn into sustained economic growth over the medium term. They also assume that disruptions in world meat markets caused by sanitary issues like those that have affected the meat markets in Japan, South Korea, Brazil, Argentina and the EU over the most recent years, will not occur over the projection period. The occurrence of sanitary and/or food safety crises could significantly alter future trends in international meat markets by increasing market segmentation and limiting market access for some potential meat exporters.

Graph 3.20 Outlook for world meat prices, 1991 – 2009 ($/t lw)



3.3.1 Beef and veal

Contrary to most recent trends, the animal disease outbreak -notably in the EU and Argentina- reinforced in 2001 the traditional split between the Pacific and the Atlantic markets, with major market and policy consequences.

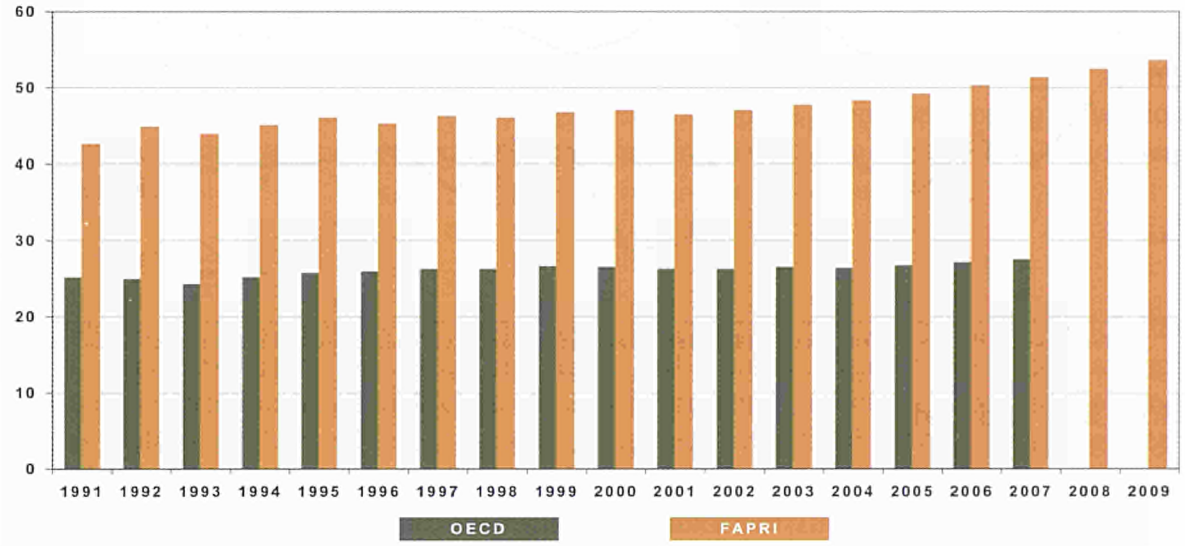
According to the USDA and FAPRI projections, world beef production is foreseen to increase strongly over the 2001-2009 period. The OECD and FAPRI anticipate an annual average growth ranging between 0.7 % for the OECD zone to 1.8 % for the whole world. Contrary to the non-OECD area, developed countries would only display an overall moderate beef production increase. Nevertheless, at country level substantial changes in beef production are projected by the OECD. They include strong rises in Canada and Mexico, more modest developments in Australia and the EU and a fall in US production. As regards prospects for the US beef sector, the USDA and the FAPRI projections seem to display similar trends in production growth but with different magnitude. If both agencies foresee a moderate expansion in the next US cattle cycle after a marked decline through 2004, the pace of recovery is much more robust in the FAPRI projections than in the USDA baseline.

As regards the non-OECD zone, all projections show a steady increase in beef production in China (at more than 4 % per year on average over the next seven years), in Brazil and Argentina (between 1-2 % and 2-3 % on annual average respectively). Prospects for Russia are rather mixed as the OECD projects a modest 2 % increase over the next five years whereas the FAPRI foresees a slight decrease.

Global beef consumption is expected to rise gradually between 1% and 1.7 % per year on average in the OECD and FAPRI projections respectively, in relation to income growth notably in emerging economies. In many developed countries, per capita consumption of beef is expected to stagnate or to fall, since consumers continue to substitute pig meat and poultry meat for beef. This development is particularly marked in the countries -such as the EU and Japan- that have been affected by animal health crises and where the breath and pace of the recovery in domestic beef demand remain a major source of uncertainty.

In contrast, after a short-term decline at the end of the nineties linked to the deterioration of the economic situation, beef demand is likely to increase in Asian countries (mainly China) and Latin America (led by Brazil, Argentina and Mexico) over the projection horizon. In Asia, beef consumption should increase gradually from relatively low current levels, in response to population growth, economic development and higher disposable income that should lead to changes in food habits toward more western style.

Graph 3.21 Outlook for world beef production, 1991 – 2009 (mio t cwe)



Ref.: OECD – data for OECD zone; FAPRI: data for selected countries.

The USDA and OECD do not expect that the growth in beef demand in China will generate significant import growth as they foresee that most additional beef consumption would be met by higher domestic production owing to China's trade policy. On the contrary, the FAPRI anticipates a small increase in China's net beef imports towards the end of the projection period (115 000 t) on account of some cuts in Chinese high meat tariffs in the wake of China's accession to the WTO. By contrast, additional beef consumption is projected to create additional market outlets for major beef exporters as limitations on feed production capacity (in terms of land and forage area) in many Asian countries are projected to constrain domestic production growth.

Table 3.8 Outlook for beef net imports for major importing countries 2001 – 2009 ('000 t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Russia *	600	592	904	768	304	176
Japan	940	940	1132	1082	**192**	142
South Korea	230	230	417	349	**187**	119
Philippines*	70	70	187	148	117	78
USA	381	440	-34	-239	-415	-679
Mexico *	430	422	730	546	300	**124**

USDA: * Gross trade

The USDA and FAPRI predict that total trade in beef should increase by between 1.2 mio t to 1.5 mio t (i.e. some 30 %) respectively over the 2001-2009 period. Much of the growth in imports is expected to come from Asia, Russia and Mexico. After their recent fall in the wake of the economic downturn, beef imports from Asia (in particular Japan, South Korea, Taiwan and the Philippines) are expected to resume growing over the next decade. Beef imports in Japan are projected to weaken in the short-term in the wake of the BSE scare in 2001. They would increase more substantially over the medium term when the recovery in consumption outpaces domestic production growth. Growth in South Korean beef imports would be supported by the liberalisation of the beef import market in 2001 and possible changes in its beef retail distribution system, which the WTO found discriminated in favour of domestic beef.

Beef imports are forecast to grow substantially in Mexico over the 2001-2009 period fuelled by economic, population growth and tariffs elimination under NAFTA. The USDA and OECD projections show that the lack of efficiency and competitiveness of Russia's livestock sector would not enable domestic production to respond to the overall increase in domestic consumption, thus generating additional imports. FAPRI foresees in turn that the gradual increase in Russian beef imports would be linked to the slow and modest recovery in beef consumption over the medium term and to the declining domestic production.

Rising import demand is expected to mainly benefit the US according to the USDA and FAPRI projections[83]. According to the FAPRI projections, other low-cost producers such as Australia, New Zealand and Canada would also exhibit export gains in the short run thanks to substantial and timely herd rebuilding, whereas Argentina, Brazil and the EU would lose some market share owing to sanitary problems. Over the medium term, Argentina and Brazil would resume increasing their beef exports thanks to improved productivity and currency devaluation. In contrast, the USDA forecasts a more moderate pattern for Argentina and Brazil with beef exports largely constrained by sanitary problems and for Australian exports affected by the country's important herd rebuilding.

As in last year's baseline, the OECD outlook displays a different picture with Canada, Argentina, Australia and Brazil projected to become the main beneficiaries of the expansion in the world beef market. The OECD is also far less optimistic about US export prospects –in the face of greater competitiveness and favourable exchange rates from other exporters- and foresees that US beef imports would remain at high levels over the next seven years.

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[83] With a 50 % rise in US exports by 2008, FAPRI expects the US to become the world's largest exporter and net exporter. The USDA foresees similar developments for US exports, with the US becoming net exporter by 2009.

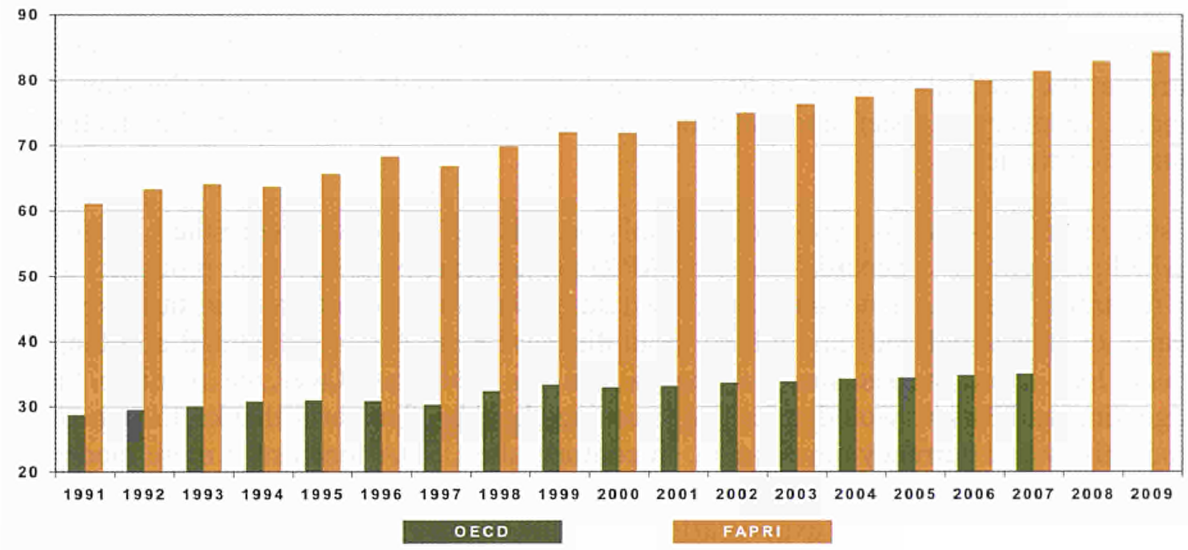
If some factors may be expected to exert some downward pressure on beef prices (including the changing structure of the world beef market, the emergence of new major exporters and the increasing competition from other meats), a sustained import demand - notably in the Pacific market- combined with limited growth in beef production should contribute to support market price developments over the medium term.

3.3.2 Pig meat

The pig meat sector is foreseen by all agencies to display a continuing increase in both production and consumption, driven by population and income growth in Asia and Latin America. After a short-term drop linked to lower availability, weaker economies and animal health crises, the medium-term outlook is expected to be characterised by a renewed and marked expansion in world trade. However, strong competition between exporters, sustained productivity growth and large supplies should prevent pig meat prices to rise substantially.

World pig meat production is projected by the OECD and FAPRI to continue to increase moderately over the medium term by between 7 and 15 %, i.e. a slower rate than in previous decades. The pig meat sector recently displayed an expansion of productive capacity and increased productivity. Higher concentration of production in some exporting countries is projected to raise productivity further and reduce production costs. However, pig meat expansion would remain constrained in some regions by greater competition from competitively priced poultry meat as well as by environmental and animal welfare standards.

Graph 3.22 Outlook for world pig meat consumption, 1991 – 2009 (mio t cwe)



Ref.: OECD: data for OECD zone; FAPRI: data for selected countries.

According to FAPRI, USDA and OECD projections, most of world production growth (i.e. between 7 and 11 mio t over the next seven years) is likely to occur in China (for more than 50 % of total world growth for FAPRI and the OECD). The prospects for production expansion in the other major pig meat producing countries differ widely across projections. Nevertheless, the US, EU, Brazil, Mexico, Poland and Canada are all foreseen to show significant production increase reaching in the OECD and FAPRI projections 150-747 000 t, 978-544 000 t, 513 000 t, 478-321 000 t, 200 000 t and 180 000 t respectively by 2007/08. Pig meat production in Japan is projected to decline, but at a much slower rate than in the previous decade.

The mature pig meat markets in the EU, US, Canada and Japan are expected to record moderate demand growth in line with income prospects and population. Slow consumption growth in these countries would be partially compensated by a stronger increase in Asia and Latin America (notably in China, Brazil and Mexico where per capita pig meat consumption is set to rise by 14 %, 16 % and 22 % respectively between 2001 and 2009 in the FAPRI projections), driven by population growth, low price expectations and the improvement in the general economic conditions.

Table 3.9 Outlook for pig meat net imports for major importing countries, 2001–2009 ('000 t cwe)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Japan	920	920	1099	1181	**179**	261
Russia *	600	599	775	612	**175**	13
South Korea *	120	65	155	105	**35**	**40**
Mexico	240	240	311	485	**71**	245
China Mainland	10	10	111	209	**101**	199
Hong Kong *	335	270	428	332	93	62

USDA: * Gross trade

Global trade in pig meat is forecast to increase further over the medium term with average annual growth rates ranging from 2.9 % in the USDA outlook to 5.3 % in the FAPRI projections (i.e. by 750 000 t and 1 150 000 t of additional imports from 2001 to 2009). Over the forecasting horizon, growth in pig meat trade would be mainly driven by strong demand from the major importing countries of Asia (notably Japan, China, Hong-Kong), Mexico and Russia.

Prospects for the pig meat sector in Russia are difficult to assess both on the supply side, where the pace of production recovery is foreseen to be closely linked to economic reforms, and on the demand side, with consumption growth associated with a still uncertain economic outlook and income distribution issues. Notwithstanding greater availability of cheap feed grains, the OECD and USDA foresee an expansion in Russia's import demand for pig meat as domestic production would remain hindered by inefficiencies associated with structural problems, insufficient capital investment and low infrastructure and management. In contrast domestic demand would continue growing as economic prospects improve. According to the USDA baseline, pig meat net imports would rise over the whole projection period to reach 775 000 t by 2009, i.e. a 175 000 t increase. The OECD similarly projects net imports to stand at 840 000 t in 2007, i.e. 360 000 t above their 2001 level. On the contrary, FAPRI expects that a recovery in domestic production will reduce total pig meat imports at approximately 600 000 t by the end of the period

Japan would remain the largest pig meat importer over the outlook horizon, with net imports amounting to more than 1.1 mio t. In spite of a strong short-term increase in the wake of the BSE scare, import growth should significantly decline as compared to the previous decade owing to the slowdown in the contraction of domestic output. Income and population growth should boost Mexico's import demand according to the FAPRI outlook as domestic production would be constrained by infrastructure and distribution problems. Conversely, the USDA and OECD projections suggest that the pig meat sector in Mexico should provide for stronger production growth, reducing the development in net imports to 71 000 t and -60 000 t respectively.

The USDA and FAPRI foresee that the increasingly export-oriented and low-cost producing pig meat industry of Brazil and Canada should capture most of the sustained rise in world pig meat trade. Brazil competitiveness is foreseen by FAPRI to benefit from further improvement in productivity (breeding and feeding programmes), domestic fiscal policies, favourable conditions for credit and investment in infrastructure, and a weakening currency. Significant restructuring, through concentration and vertical integration, and improved productivity in the production, marketing and processing sectors of the pork industry is expected to continue to boost Canadian competitiveness. Prospects are more mixed for the EU (the world's largest pig meat exporter that is expected to show moderate export growth) and the US which are foreseen to exhibit some market share loss due to increased competition from Brazil, Canada and emerging exporters such as Poland and Hungary.

Continued efficiency and productivity gains in feeding practices, stiffer competition from other meats and the swift emergence of low-cost exporting countries supported by weak currency should prevent pig meat prices to rise substantially over the medium term.

3.3.3 Poultry

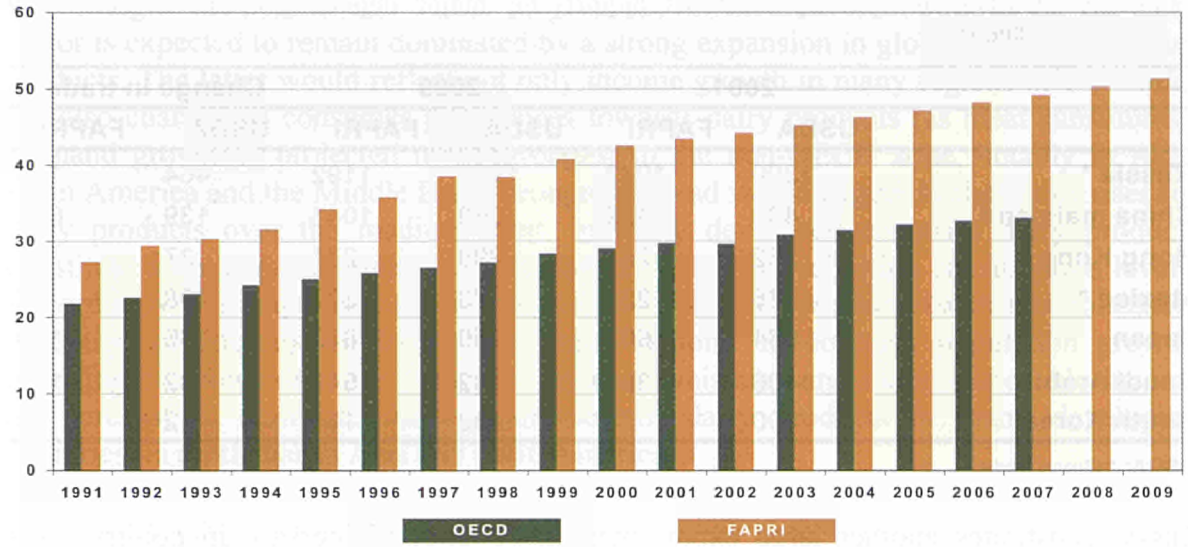
Over the 2001-2009 period, the outlook for poultry meat is projected to remain favourable, as all market fundamentals would demonstrate solid growth. If short-term developments have been marked by a series of disease crises in a number of regions, poultry meat has generally benefited from the BSE and FMD outbreaks. World production and consumption are forecast to continue to expand over the medium term at rates above those for beef and pig meat, albeit somewhat lower than during the 1990s. This expansion of the poultry meat sector would remain mainly driven by its low production cost (relative to beef and pig meat) and consumer preferences in many parts of the world (in line with changing diets towards western lifestyle and health considerations).

Poultry meat production and consumption are predicted by the OECD and FAPRI to increase sharply over the next seven years by slightly less than 20 %, i.e. an average annual growth of approximately 2.0 %. Production in the large producer countries (such as the US, China, EU, Brazil and Mexico) should continue to expand as domestic and global demand increase. Overall, most of the growth in production and consumption is to be found in the developing countries.

In most countries, poultry meat is foreseen to increase its share of meat consumption over the medium term driven by its price advantage relative to beef and pig meat, rising incomes and changing food demand pattern in many countries. Therefore, in many countries with a relatively low per capita consumption (China, Mexico, Russia and Eastern Europe), the expected improvement of the economic situation is anticipated to favour first the poultry sector. In addition, consumption should also increase, though more moderately, in countries with a relatively high per capita consumption due to a continuing shift in consumer preferences[84].

Graph 3.23 Outlook for world poultry meat consumption, 1991 – 2009 (mio t cwe)

[84] A strong rise in US per capita consumption of poultry meat ranging between 3 % and 8 % is projected by the OECD, FAPRI and the USDA for the next seven years. Chicken consumption would approach and sometimes exceed consumption of the traditional meat product, such as beef in the American continent.



Ref.: OECD: data for OECD zone; FAPRI: data for selected countries.

Since production in many of the countries with expected rapid growth in consumption (China, Middle East etc.) is only projected to expand at slower rates, increased demand is expected to generate a strong rise in trade (estimated at between 3 % and 4 % on annual average by the FAPRI and the USDA respectively over the 2001-2009 period). Most of the growth in trade is likely to take place in poultry cuts as opposed to whole birds.

China is expected to demonstrate a sustained rise in consumption which would outpace the growth in production, generating an increase in import volumes[85]. Net imports are foreseen at around 569 000 t in the USDA outlook by the end of the projection period, whereas the OECD and FAPRI[86] foresee a stronger pattern for Chinese imports over the medium term (at 741 000 t and 1 041 000 t respectively). Chinese imports would reflect consumer preferences for various low-value poultry products (notably for chicken feet, wings and offal) which are complementary to the demand for poultry meat products in many countries. Further trade liberalisation is foreseen by the USDA and FAPRI to boost net imports from Mexico, whereas the OECD projects a mere stagnation in Mexican net imports owing to falling domestic production costs associated with vertical integration in the poultry sector.

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[85] Even if poultry meat exports from China mainland are also expected to grow according to the OECD and USDA, notably for bone-less leg meat and processed poultry products.

[86] FAPRI projections take account of further liberalisation of the Chinese poultry market in the wake of China's accession to the WTO.

Table 3.10 Outlook for poultry meat net imports for major importing countries, 2001–2009 ('000 t)

	2001		2009		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Russia *	1300	1073	1764	1192	464	119
China mainland	430	429	569	1041	139	612
Hong Kong	262	240	299	271	**37**	**31**
Mexico *	375	230	573	327	198	**97**
Japan	684	663	850	803	166	140
Saudi Arabia	400	380	482	549	**82**	169
South Korea	100	78	132	117	**32**	**39**

USDA: * Gross trade

Russia constitutes another large export market. A renewed increase in poultry meat consumption is projected to be met by increased imports as domestic production would only display slow growth due to a lack of investment and remaining inefficiencies. The USDA and OECD foresee higher imports of some 500 000 t whereas the FAPRI projections suggest a more modest pattern for poultry meat consumption, resulting in net imports increasing by less than 120 000 t by 2009. The economic and political prospects over the medium term in this region constitute a source of uncertainty since they should impact not only the size of poultry meat imports in Russia but also global poultry trade.

All organisations foresee that Brazil and –to a lesser extent- the US and Thailand would strongly benefit from this projected rise in poultry meat trade. FAPRI expects Brazil exports to be supported by new large investments in broiler production in the Center-West region encouraged by fiscal and subsidies incentives as well as by the availability of large source of cheap feed grains. Brazil would also gain from currency depreciation which is anticipated to enhance Brazil's share of the world market. US exports would continue to benefit from a competitive production structure through vertical integration, high technology levels, access to low-cost feed products and efficient transport and storage infrastructure. Competition from these countries is anticipated to reduce export growth prospects for the other major exporters, such as the EU.

Poultry prices are expected to rise slightly over the medium term, supported by a strong demand. However, the emergence of low-cost exporters combined with the rapid growth in poultry meat production supported by moderate feed prices, continuous structural changes of the poultry sector and further productivity gains should combine to alleviate pressure on world prices and moderate future price trends over the next seven years.

3.4 Milk and dairy products

This outlook for the world milk and dairy products market focuses on milk production in some selected countries and on some dairy products, notably butter, cheese and milk powder, since only limited quantities of fresh milk are traded. Compared to other agricultural products, projections for the dairy sector are more limited as only few organisations establish long-term prospects for this sector[87].

[87] The USDA for example focuses only on the US dairy market in its most recent publication on long-term projections.

According to the FAPRI and OECD projections, the medium-term outlook for the dairy sector is expected to remain dominated by a strong expansion in global demand for dairy products. The latter would reflect not only income growth in many regions of the world, but also changes in consumer preferences towards dairy products (as meat substitutes). Demand growth is projected to be strongest in the non-OECD zone, notably in Asia, Latin America and the Middle East. Stronger demand would trigger further price rises for dairy products over the medium term. In many developed countries dairy products constitute a fundamental component of the diet with relatively high consumption levels. Accordingly, no major changes in the demand for dairy products (with the noticeable exception of cheese) are foreseen in these regions. In contrast, population growth, changing diet towards more "western" style, urbanisation and rising disposable income are forecast to stimulate the consumption of dairy products in many developing countries, in particular in Asia and Latin America.

A significant part of the increased demand in developing countries is forecast to be met by domestic production. If some countries of the non-OECD zone (in particular from South America) may become net exporter, most developing countries would however remain net importers of dairy products with most imports originating from developed countries.

The OECD and FAPRI projections depict a medium-term situation in which traditional major exporters, such as the EU, New Zealand and Australia will keep dominating the world market for dairy products thanks to technology-driven improved efficiency, geographical proximity to growing import markets as well as domestic policy changes (notably in the EU from 2005 onwards).

As increased demand for dairy products would be mainly driven by improved income levels, these medium-term projections appear highly dependent on the future economic and financial situation of many developing countries. In particular, any economic, financial or policy developments that would alter the pace of recovery in Russia could have major implications for future developments in world trade volume and prices given Russian share in the world dairy market.

3.4.1 Milk production

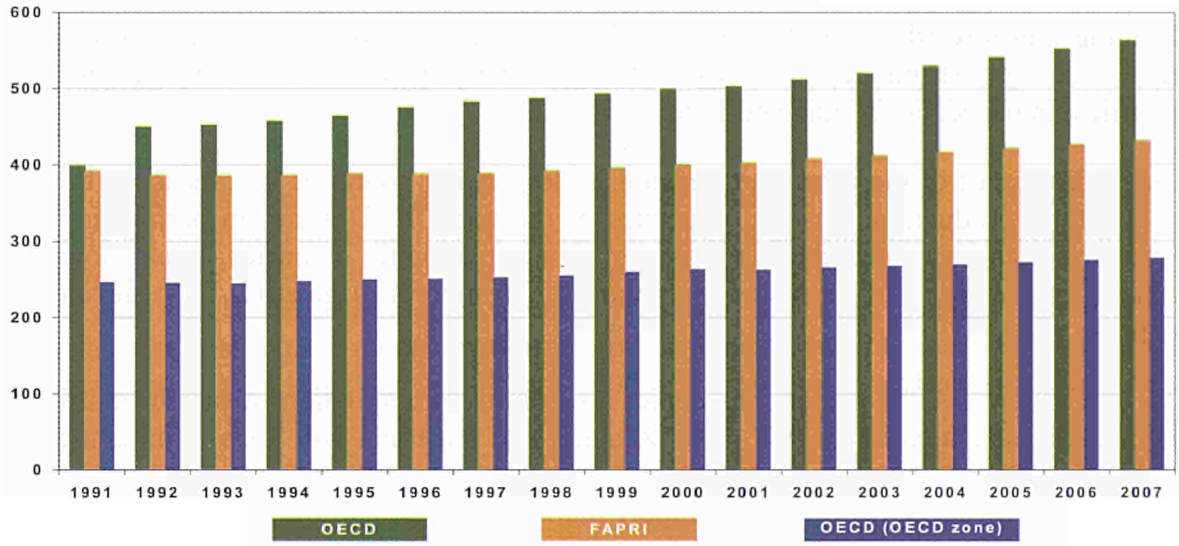
World milk production is foreseen by the FAPRI and the OECD to grow at the sustained pace of 1.2 % and 1.9 % on annual average respectively over the 2001-2007 period. After a relative slow down in 2001 estimated by the OECD and FAPRI in some major producing countries (EU, US and some Eastern European countries), milk production would resume expanding supported by increasing demand and price rises in a number of countries, mainly outside the OECD area and in those OECD countries not subject to production quotas.

The OECD baseline shows an increase in world milk production of 61 mio t (+12 %) from 2001 to 2007. Most of additional milk production would originate from the non-OECD area where milk output would grow by more than 18 % over the medium term. The greatest increase in milk output is forecast in China, India, Brazil and Argentina. As a consequence, the share of developing countries in world milk production is expected to rise significantly[88].

[88] The OECD predicts that the non-OECD share of world milk production would reach around 51 % by the end of the projection period. One consequence is that the share of milk from animals other than

The OECD and the FAPRI display diverging prospects for Russia's dairy sector. The FAPRI outlook provides for a 14% increase in Russian milk production owing to improved productivity that would outweigh the impact of a slightly declining dairy herd. On the contrary, the OECD projections suggest a relative stabilisation of the Russian milk sector in the short run after the break-up of collective farms. A modest recovery would later take place thanks to higher investment in the sector and further structural adjustment.

Graph 3.24 Outlook for world milk production, 1991 – 2007 (mio t)



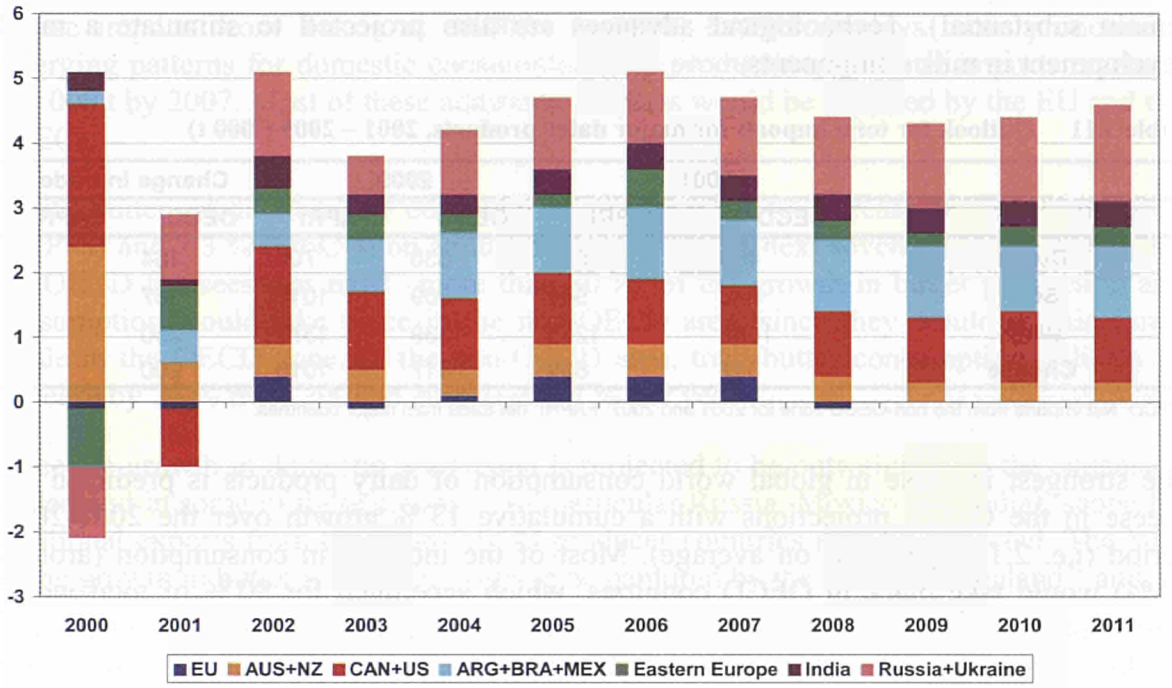
Ref.: OECD: data for total world and for the OECD zone; FAPRI: data for selected countries.

The OECD foresees that milk production in the OECD area should grow at a similar pace to that during the 1990s. Yet, the share in world output from developed countries operating under constraining dairy policies, in particular production quotas, would shrink. EU production would only increase when higher milk quotas are implemented in 2005. Australia and New Zealand, two major exporters of dairy products, are anticipated to benefit from increased demand in Asia to substantially increase milk production, albeit at a slower pace than in the 1990s. Whereas the OECD foresees that the dynamic expansion of milk production is to continue over the medium term at the substantial rate of 15 % and 30 % for these two countries, the FAPRI outlook appear more moderate with increases limited to 10 % and 15 % respectively.

A 9 % increase in milk production over the 2001-2007 period is forecast for the US driven by productivity growth (associated with better management, improved genetic potential and cheap feed grains). Thanks to continuing restructuring and quality improvement, milk production in the CEECs is expected to increase over the medium term (in particular Poland and the Baltic States), although growth rates should differ across countries.

cows is also forecast to expand (a significant share of milk produced in developing countries come from buffaloes, goats, sheep and camels).

Graph 3.25 Outlook for world milk production, annual changes, 2000 – 2011 (mio t)



Source: FAPRI (selected countries)

3.4.2 Dairy products

As fluid milk consumption should only exhibit a modest growth over the medium term, most of the milk production increase would be processed into dairy products. Global dairy consumption in the OECD area is not projected to demonstrate significant changes over the 2001-2007 period according to the OECD baseline. However, differentiated patterns are provided across the various types and forms of dairy products with, in particular, a strong increase in cheese (+10 %, i.e. +6.2 % per capita) and to some extent for whole milk powder consumption (+5.1 %, i.e. +1.5 % per capita), a mere stagnation in the consumption of butter (+1.0 %, i.e. –2.5 % per capita) and a marked decline for skimmed milk powder (-2.6 %, i.e. –5.9 % per capita).

On the contrary, the non-OECD area is expected to demonstrate marked increases in the overall consumption of dairy products (notably in Asia, Latin America and the Middle East). According to the OECD outlook, solid growth in dairy products consumption should concern all products, albeit to a lesser extent for skimmed milk powder. Whereas SMP demand would rise by 12.8 % (i.e. +1.5 % per capita) from 2001 to 2007, consumption of WMP, butter and cheese would exhibit a stronger pattern with growth of more than 20 % (i.e. more than 10 % per capita) from 2001 to 2007[89]. Growing population, improved economic conditions, increasing urbanisation and a shift towards "western" diet would constitute in these countries the main factors underpinning the rise in dairy products consumption.

The structural change in world trade of dairy products from bulk dairy products (SMP and butter) towards higher value-added products (such as cheese and whey powder) that

[89] The OECD outlook suggests that SMP, butter and cheese consumption would increase in the non-OECD zone by 22.8 %, 25 % and 25.6 % from 2001 to 2007 respectively (i.e. 10.4 %, 12.4 % and 13.0 % per capita).

has been observed since the mid 1980s would seem to consolidate over the next seven years according to the OECD outlook (although trade in butter and SMP would still remain substantial). Technological advances are also projected to stimulate a rapid development in milk components.

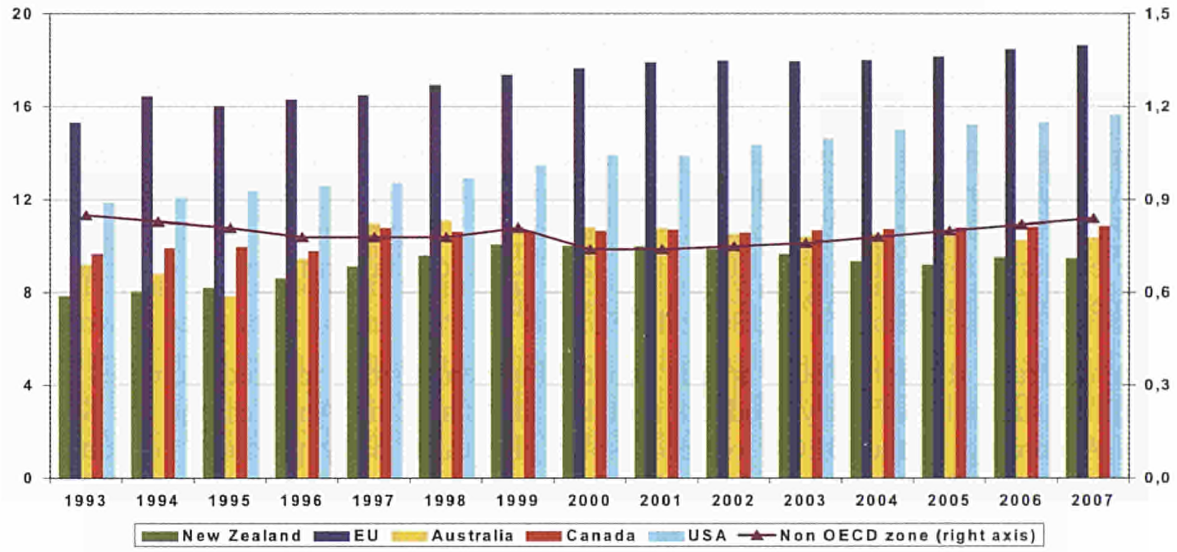
Table 3.11 Outlook for total imports for major dairy products, 2001 – 2009 ('000 t)

	2001		2009		Change in trade	
	OECD	FAPRI	OECD	FAPRI	OECD	FAPRI
Butter	466	612	630	700	164	88
SMP	642	941	809	1010	167	69
WMP	1089	1218	1339	1377	250	159
Cheese	317	839	517	1016	200	177

OECD: Net imports from the non-OECD zone for 2001 and 2007; FAPRI: net trade from major countries.

The strongest increase in global world consumption of dairy products is predicted for cheese in the OECD projections with a cumulative 13 % growth over the 2001-2007 period (i.e. 2.1 % per year on average). Most of the increase in consumption (around 60 %) would take place in OECD countries, which accounted for 80 % of total world consumption in 2001, and be met by increased domestic supply. The US and the EU would account for more than 80 % of this additional cheese demand. Total cheese exports and imports of the OECD countries are expected to rise by 24 % and 9 % respectively over the 2001-2007 period.

Graph 3.26 Outlook for world cheese per capita consumption, 1993 – 2007 (kg/capita)



Source: OECD

Net imports of cheese from the non-OECD area would grow by 63 % or 8.5 % annually until 2007. The OECD outlook shows that increasing cheese consumption in the Asian region would be mainly satisfied by imports (particularly in Japan[90], China and South Korea where domestic production is not foreseen to keep pace with rising consumption), largely from Australia and New Zealand, and to a lower extent from the EU. The increasing demand projected in Latin America should be supplied either by domestic production or by the expanding production in Argentina. After their sharp drop in 1998 and 1999 in the wake of the economic turmoil, Russian imports are anticipated to grow at

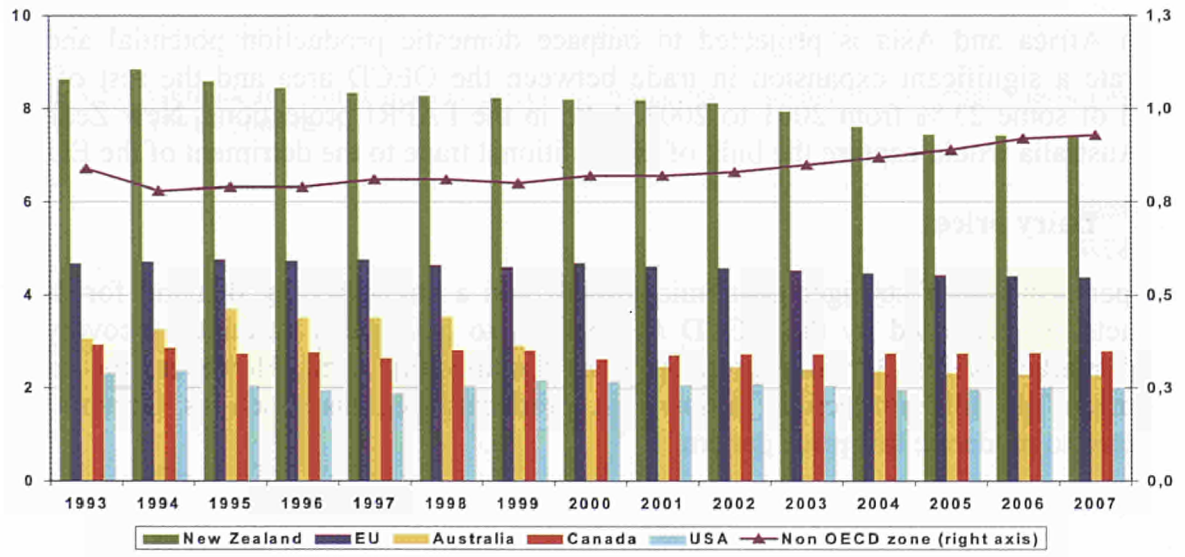
[90] The FAPRI baseline displays a declining Japanese cheese production.

a rather sustained pace over the medium term driven by an expanding consumption and modest increases in domestic production. Whereas the OECD baseline anticipates net cheese imports from Russia at 84 000 t in 2007, FAPRI displays more pronounced diverging patterns for domestic consumption and production, with net imports reaching 140 000 t by 2007. Most of these additional imports would be supplied by the EU and the CEECs.

World butter production and consumption are forecast to increase by between 1.8 % (FAPRI) and 2.3 % (OECD) on annual average over the next seven years. Nevertheless, the OECD foresees that most –more than 80 %- of the growth in butter production and consumption would take place in the non-OECD area, since they would remain fairly stable in the OECD zone. In the non-OECD area, total butter consumption is likely to increase by 25 % from 2001 to 2007 (i.e. 3.7 % per year).

Since the growth in domestic production is projected to be outweighed by the expansion of demand in some of these countries (in particular Russia, Mexico and India), scope for additional exports from the main OECD producer countries may be expected. The bulk of the growth in butter trade is foreseen to be captured by the EU, New Zealand[91] and, to a lesser extent, Australia. These perspectives for the world butter market would however remain strongly dependent on the Russian market. The FAPRI and OECD projections anticipate a rather modest import growth from this country (some 50 000 t increase from 2001 to 2007) by historical standards. Yet, given Russian's share of the world market in the most recent years, any change in import levels from Russia could have a significant impact on the future development in the size and price of the world butter market.

Graph 3.27 Outlook for world butter per capita consumption, 1993 – 2007 (kg/capita)



Source: OECD

The FAPRI and OECD baselines provide for similar perspectives for milk powder. Whereas they foresee sustained growth in world WMP consumption ranging between 1.6 % and 2.5 % per annum respectively, SMP would exhibit a more modest growth pattern of between 1.0 % and 1.3 % per year, owing to the projected decline in SMP

[91] The FAPRI projections suggest that New Zealand additional milk production would be mainly exported as cheese and WMP.

demand in the OECD area[92]. If the future growth perspectives for milk powder trade are broadly consistent in showing a steady rise in milk powder trade, their magnitude and pace differ significantly across the FAPRI and OECD projections. Furthermore, they significantly contrast from last year's projections where SMP trade was foreseen to decline over the medium term.

FAPRI expects that, after a short-term steep increase in 1999, SMP imports from Russia would drop back to low levels as production is foreseen to recover. Developing countries of Asia, Latin America and Africa would demonstrate a sharp reduction in their overall growth in import demand as total SMP imports from these countries would only increase by some 50 000 t by 2009/10. After several years of continuous decline, SMP imports from Japan and Mexico would increase slightly. EU SMP exports would rise rather slowly and modestly over the medium term, whereas the US –after an initial releasing of public stocks- would exhibit a declining trend in SMP exports. Greater profitability in other dairy markets (cheese and WMP) is foreseen to constrain the development in export supply from other traditional exporters (such as New Zealand and Australia). FAPRI foresees the overall growth in WMP trade to reach 13 % over the 2001-2009 period (as compared to a 7 % rise for SMP). Additional WMP import demand would be broadly spread over the non-OECD area and mainly draw on additional exports from New Zealand (70 % of the total growth), Argentina and Australia. By contrast, EU exports would stagnate at 480 000 t over the medium term.

After a significant drop in 2001, SMP exports from the OECD zone are foreseen to rebound and display a 26 % increase for the 2001-2007 period, with New Zealand and -to a much lower extent- Poland capturing the lion's share of this additional trade. Total WMP exports from the OECD area are expected to continue growing over the medium term, after a sharp increase observed in 2001. The growing demand in Latin America, North Africa and Asia is projected to outpace domestic production potential and to generate a significant expansion in trade between the OECD area and the rest of the world of some 23 % from 2001 to 2007. Like in the FAPRI projections, New Zealand and Australia would capture the bulk of the additional trade to the detriment of the EU.

3.4.3 Dairy prices

The perspectives of stronger economic growth and a strengthening demand for dairy products are projected by the OECD and FAPRI to generate a sustained recovery in world market prices of dairy products over the medium term. However, the rapid expansion of milk production in low-cost producing regions (such as Oceania) is expected to moderate this price pattern.

Cheese prices would display the strongest pattern among the prices of dairy products. After a short-term weakening, they would recover rapidly supported by the steady rise in global consumption[93]. In contrast, the pace of price increase is forecast to be more modest for milk powder, notably for SMP, which should face greater competition from WMP and whey powder. Having reached high levels in 2000 and 2001, milk powder prices would fall in 2002 before recovering from 2003 onwards. Butter prices would

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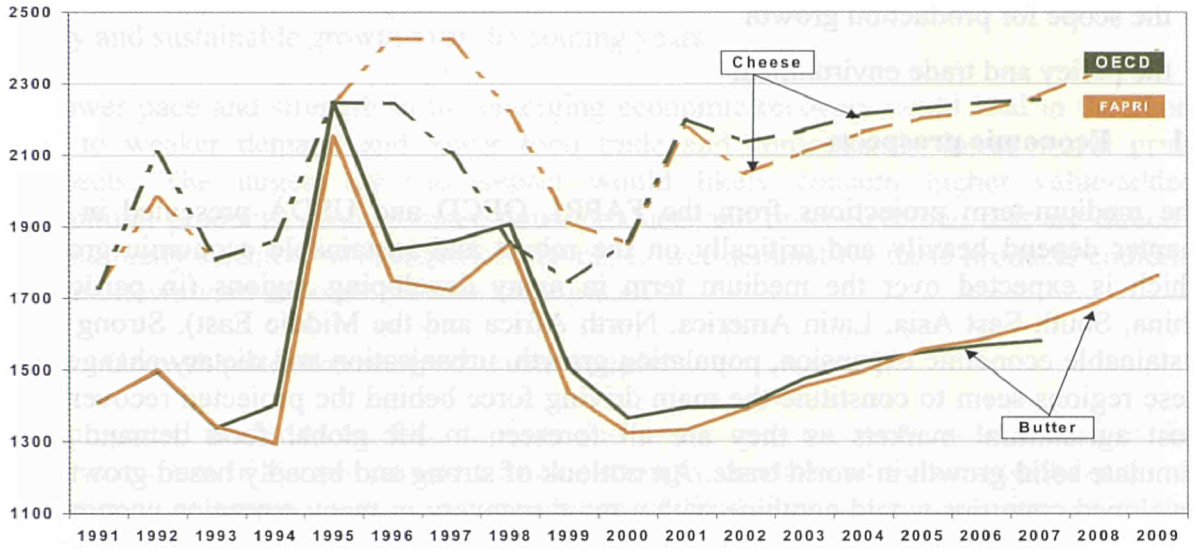
[92] Additional WMP consumption would be used for milk reconstitution, displacing SMP and condensed milk. In turn, SMP would also face competition from whey powder in animal feed and food processing.

[93] World market prices for cheddar should remain below EU domestic prices over the medium term, even if the gap is forecast to diminish somewhat. However, cheddar cheese is not fully representative of EU cheese production.

recover modestly and gradually, benefiting also from the expected rise in vegetable oil prices.

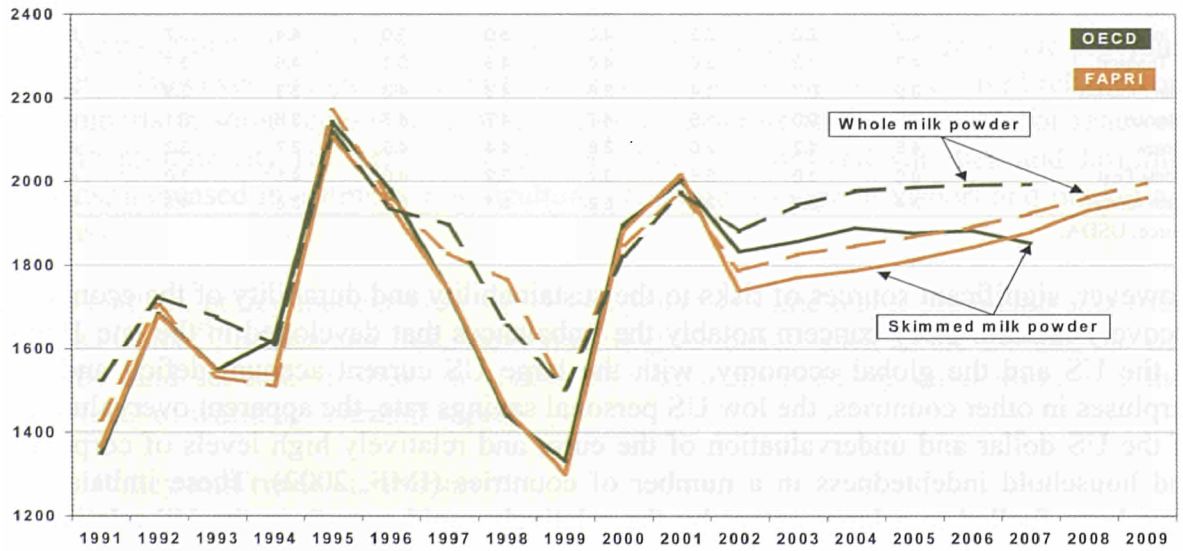
Graph 3.28 Outlook for world market prices for butter and cheese, 1991 – 2009 ($/t)



Ref.: Cheese: FOB export price cheddar cheese 40lb blocks, Northern Europe; butter: FOB export price Northern Europe.

These medium-term perspectives remain strongly dependent on the future development in some key (existing or emerging) markets such as Russia and East Asia as the world dairy market is foreseen to remain relatively thin. Furthermore, the trend towards further concentration and globalisation of the dairy industry, and greater differentiation of dairy products is expected to make trade projections for dairy products increasingly complex and dependent on dairy firms' cost structure, production and marketing strategy.

Graph 3.29 Outlook for world market prices for whole milk powder and skimmed milk powder, 1991 – 2009 ($/t)



Ref.: FOB export price Northern Europe.

4. Key issues

If the outlook for agricultural markets over the next seven years appears relatively favourable, as agricultural markets would gradually emerge from a prolonged downturn,

it clearly remains subject to some uncertainties. In this respect, three main areas of uncertainty can be identified:

- the economic prospects
- the scope for production growth
- the policy and trade environment

4.1 Economic prospects

The medium-term projections from the FAPRI, OECD and USDA presented in this chapter depend heavily and critically on the robust and sustainable economic growth which is expected over the medium term in many developing regions (in particular China, South East Asia, Latin America, North Africa and the Middle East). Strong and sustainable economic expansion, population growth, urbanisation and dietary changes in these regions seem to constitute the main driving force behind the projected recovery in most agricultural markets as they are all foreseen to lift global food demand and stimulate solid growth in world trade. An outlook of strong and broadly based growth in developed countries would combine with a rapid recovery in many emerging economies towards sustained expansion to set the stage for a prolonged high-growth period in almost all regions of the world without significant inflationary pressures (cf. table 3.12).

Table 3.12 USDA assumptions in real GDP annual growth, 2000 – 2011 (%)

	2000	2001	2002	2003	2004	2005	Average		
							1991-2000	2001-2005	2006-2011
World	3.9	1.6	2.0	3.3	3.3	3.3	2.7	2.7	3.3
Developed economies	3.4	1.2	1.5	2.7	2.6	2.6	2.3	2.1	2.6
Transition economies	5.1	3.4	3.5	3.9	3.9	3.8	-2.9	3.7	3.7
Eastern Europe	3.7	3.1	3.7	4.7	4.6	4.5	1.3	4.1	4.4
FSU	5.9	3.5	3.5	3.5	3.5	3.5	-4.4	3.5	3.4
Developing countries	5.6	2.6	3.5	4.9	5.1	5.1	4.9	4.2	5.2
East and Southeast Asia	7.4	4.2	4.9	6.2	6.3	6.3	7.3	5.6	6.4
China	8.0	7.5	7.3	7.8	7.8	7.8	10.1	7.6	7.8
Korea	8.8	2.5	3.5	5.4	5.2	5.0	6.3	4.3	5.0
Indonesia	4.8	2.0	2.5	4.0	5.0	5.0	4.4	3.7	5.0
Thailand	4.3	1.2	3.0	4.0	4.9	5.3	4.6	3.7	5.6
Latin America	3.9	0.7	1.4	3.6	4.3	4.3	3.3	2.9	4.3
Mexico	6.9	0.0	1.5	4.7	4.7	4.7	3.6	3.1	4.7
Brazil	4.5	1.2	2.0	3.8	4.4	4.5	2.7	3.2	4.5
Middle East	6.0	1.0	2.6	3.7	3.9	4.0	4.1	3.0	4.0
North Africa	3.4	3.5	3.7	5.2	5.1	5.0	3.0	4.5	4.7

Source: USDA.

However, significant sources of risks to the sustainability and durability of the economic recovery remain. They concern notably the imbalances that developed in the late 1990s in the US and the global economy, with the large US current account deficit and the surpluses in other countries, the low US personal savings rate, the apparent overvaluation of the US dollar and undervaluation of the euro, and relatively high levels of corporate and household indebtedness in a number of countries (IMF, 2002). These imbalances have been fuelled to a large extent by the relatively rapid growth in the US relative to other countries. There also remains concerns about the financial markets, that may still embody relatively optimistic expectations for corporate profitability and the pace of recovery, and about Japan where the economic situation continues to represent a source of serious concern.

Moreover, specific risks still exist for the medium-term outlook. The volatility of oil prices may become a potential risk to the recovery, especially if the security situation in the Middle East were to deteriorate further. Recent developments in Argentina show that

considerable downside risks still exist in this country, with possible contagion to other emerging countries of Asia and Latin America. Moreover, significant changes in relative exchange rates could still significantly affect agricultural trade and markets. The orderly reduction in the global imbalances and a supportive macro-economic policy framework would thus appear necessary to ensure investor confidence and the maintenance of a steady and sustainable growth over the coming years.

A slower pace and strength in the emerging economic recovery could lead in the short term to weaker demand and lower food trade and consequently lower world price prospects. The largest adverse impact would likely concern higher value-added agricultural products, such as meat, dairy products and processed food that are directly and indirectly sensitive to changes in income. Lower demand for these products could in turn put downward pressure on feed grain prices.

4.2 Growth potential in agricultural supply

The projected moderate increase in trade and prices over the medium term, one of the major outcomes of the projections, remains strongly conditioned by the slow adjustment of agricultural supply to the rapid expansion of food demand in some regions of the world. Yet, the extent to which production would become outpaced by a rising domestic consumption remains unclear as the scope for further production increase in some major importing regions constitutes a key uncertainty for the medium-term outlook, notably for crop products.

Like in the most recent decades, much of the growth in grain production is projected to be driven by productivity increase as the potential for additional land is foreseen to be limited in most regions -with the noticeable exception of Argentina, Australia, Hungary, Mexico and Russia- due to the expansion of urban areas, pressure on agricultural resources and environment, and climatic limitations. The projected price increases would not appear sufficient to reverse this trend.

If total cereal productivity growth is forecast to be broadly comparable over the next seven years to that of the 1990s, it should remain significantly lower than in the previous decades[94]. However, prospects for more favourable price levels and increased reliance on food imports in some regions may be expected to generate further research for renewed gains in productivity (in terms of wider adoption of improved varieties and farming methods, increased investment in agricultural structure, storage, transport and marketing systems).

In this context, policy management and development in some major producing countries -such as China[95], Russia and India- and exporting countries -such as the EU and the US with the land set-aside instrument- could also have far reaching implications for the future level of world agricultural supply.

4.3 Policy and trade environment

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[94] The extent to which future prospects for yield trends will be influenced by the development and diffusion of genetically modified organisms is still an open question.

[95] Uncertainties still exist also regarding the current level of grain stocks (as well as their marketability) in China and India. Recent information about a substantial upward revision of grain stocks in these countries tends to indicate higher than expected domestic availability and could hinder future trade prospects.

Future changes in agricultural and trade policies as well as the new round of multilateral trade negotiations may have important implications for the medium-term outlook for agricultural production, consumption, trade and prices as well as the functioning of agricultural markets. They include:

- the recently approved US Farm Security and Rural Investment Act of 2002: although preliminary analysis tends to indicate moderate downwards impact on US prices, further in-depth economic and trade analysis is needed, notably with respect to its repercussions for international trade and prices. The economic (mainly price-depressing) impact of the new counter-cyclical payments are of specific interest –as the main thrust of the subsidy regime- since they have the effect of reducing market signals, thus leading farmers to over-produce in times of surplus.

- the EU Mid-term review of the Agenda 2000 CAP reform planned in 2002 and 2003;

- the enlargement of the EU to the candidate countries of Central and Eastern Europe;

- as regards trade policy, the outcome of the new trade round at the WTO, the recent accession of China and Chinese Taipei to the WTO, the adoption of the so-called "double-profit" agreements with the CEECs candidate countries and the EBA initiative of the European Union;

- the emergence of new issues related to food safety, food quality and the environment.

Impact of the new US farm bill on world market outlook

A preliminary qualitative assessment

1. Introduction

The new US farm bill, the Farm Security and Rural Investment Act of 2002 (FSRIA), was approved in May 2002. This six-year farm bill (covering 2002-2007 crops) replaces the FAIR Act of 1996 and continues or modifies various agricultural programmes under 10 titles regarding notably farm income and commodity price support (title I), conservation and environment (title II) and foreign trade and food aid (title III).

According to the US Congress, the FSRIA is estimated to represent a total budgetary cost of some 296.5 bio $ over six years (the term of the new law). This constitutes an additional spending of 51.7 bio $. Most of the new spending is concentrated on the Title I commodity programmes and, to a lesser extent, on Title II (conservation). The average increase in commodity spending in the 2003-07 period above that foreseen at the end of the Fair Act is 79%, an increase from $9.3 billion per year to $16.9 billion. By 2007, Title II conservation programmes are expected to have increased by 100% from $ 2 billion foreseen under Fair to $ 4 billion.

However, since a significant part of the aid is linked to market price developments and given the price-depressing effect of the FSRIA, these budgetary estimates may underestimate the real budget cost of the new US farm bill.

2. The major characteristics of FSRIA

The commodity title of FSRIA marks a reversal of policy under the FAIR Act of 1996, which to an extent sought to decouple farm subsidies from market prices and yields. However, from 1998 the US introduced successive *ad hoc* supplementary payments designed to counteract low prices on crop commodity markets. In addition, the US relied increasingly on deficiency payments (under the loan programme) as market prices fell below the loan rate.

With the passing of FSRIA, the US has consolidated its abandonment of FAIR Act policy for farm support. Subsidies are to be based on current cropping patterns and/or current prices and yields, via the three basic mechanisms of support (marketing loans, direct payments, counter-cyclical).

The most important provisions can be summarised as follows:

- In the **arable crop sector** (cereals, oilseeds, protein crops and cotton), three basic programmes apply:
  - *Marketing Assistance Loans* (and *Loan Deficiency Payments*) are continued at rates fixed for the whole 2002-2007 period and set higher than in the FAIR Act, except for rice where they remain constant and soybean for which they drop by 5 %. For soybeans, the newly introduced fixed payment exceeds the drop in loan rate. Crop coverage benefits from these loans has been extended to grazing cereals and pulse crops (chickpeas, dry peas and lentils);

– *Fixed payments*, which replace the FAIR Act's PFC payments, are extended to soybeans and granted for each eligible crop in a reference period, irrespective of the current price and area planted. Unlike PFC payments which were reduced in annual steps, the new fixed payments remain constant over the whole 2002-2007 period at a higher rate than under the FAIR Act. They are paid on 85 % of the base area (this base area can be updated) and for the reference yields used in the FAIR Act;

– *Counter-cyclical payments* are a new price-linked payment made to producers on the basis of yields and crops grown in a base period. In detail, they are granted to producers when the "effective price" (the sum of the fixed payment and the official average market price or loan rate if the average market price is below the loan rate) is below a "target price". This payment is made on the basis of what the producer had grown in the reference period, irrespective of what he currently produces. These payments are calculated for the same base area as for the fixed payments. Producers can update their base area and can also update their reference yields for counter-cyclical payments.

Loan rates, fixed payments and target prices ($/t)

	Loan rate			Fixed payment		Counter-cyclical payment Target price	
	2001	2002-2003	2004-2007	2001	2002-2007	2002-2003	2004-2007
Wheat	*94.8*	102.9	101.1	*16.9*	19.1	141.8	144.0
Maize	*74.4*	78.0	76.8	*10.2*	11.0	102.4	103.5
Barley	*75.8*	86.4	85.0	*9.2*	11.0	101.5	102.9
Oats	*83.4*	93.0	91.6	*1.4*	1.7	96.5	99.2
Sorghum	*67.3*	78.0	76.8	*12.2*	13.8	100.0	101.2
Rice	*143.3*	143.3	143.3	*45.2*	51.8	231.5	231.5
Soybean	*193.3*	183.7	183.7	*NA*	16.2	213.1	213.1
Minor oilseeds	*205.0*	211.6	205.0	*NA*	17.6	216.1	222.7

In italics: levels under FAIR Act; NA = not aplicable

- A new **peanut program** is implemented, similar to arable crops with fixed payments, marketing loan assistance, a target price and counter-cyclical payments. In addition, transitional payments for the phasing-out of the quota are provided.

- Support to the **sugar sector** continues largely unchanged with the no-net-cost rule re-established, the marketing assessment and loan forfeiture penalty eliminated, and sales of domestic sugar subject to marketing allotments;

- The **dairy sector** continues to be supported through the dairy price support programme with intervention buying of butter, skimmed milk powder and cheese in order to support farm milk prices at 218 $/t (for 3.67 % fat content). A new counter-cyclical payment is introduced under a 3 ½ year National Dairy Market Loss Payment programme to make up 45 % of the difference between the market price in Boston for Class I milk and a target price set at 373 $/t. All producers are allowed to receive this payment on up to 1 089 t per producer and per year (corresponding approximately to a dairy herd of 140 animals).

Conservation and environment programs are reinforced with increased funding, expansion of existing programs and new incentive programs. Areas under the Conservation Reserve Program, the Wetland Reserve Program are increased. Annual

funding for the Environmental Quality Incentives Program is raised from 200 mio $ to 1.3 bio $ (with 60 % for livestock producers). New Conservation Security Program and Grassland Reserve Program are introduced with funding over the 6-year period totalling 2 bio $ and 254 mio $ respectively.

As regards **foreign trade and food aid**, the FSRIA maintains the major foreign food aid and agricultural export programs, notably the Export Enhancement Program and the Export Credit Guarantees. The funding for promotion programs designed to aid in the creation, expansion and maintenance of foreign markets for US agricultural products is increased (the Market Access Program and the Foreign Market Development Program from 90 mio $ and 27 mio $ in 2001 to 200 mio $ and 34.5 mio $ in 2007 respectively). Two new programs are introduced: the Technical Assistance for Speciality Crops and a Biotechnology and Agricultural Trade Program. Funding and programme flexibility for food aid under the Food for Progress, Food for Peace and Bill Emerson Humanitarian Trust is also increased.

3. The potential impact of FSRIA on world markets

The impact of FSRIA on world markets is expected mainly to come through the implemented changes in US commodity programmes. Thus the focus of this preliminary assessment of the potential impact of FSRIA on world markets will be exclusively on commodity programmes (title I of FSRIA).

A first quantitative assessment will follow once more information on the impact of the new US farm bill becomes available (FAPRI is currently finalising such an analysis). Without prejudging the results of an in-depth quantitative analysis of the medium-term impact of the FSRIA, some **qualitative assessment** can already be put forward:

- The increased level of support under the FSRIA with respect to the FAIR Act implies higher production levels than what market prices would generate and should thus exert further downward pressure on market prices. This could enhance the competitiveness of the US farm sector in the short term, and stimulate internal and external demand, while reducing imports of agricultural products. However, in the long-term, the capitalisation of support in land prices should increase production costs, and could lead to a deterioration of the financial situation of the US farm sector, thus generating an **ever increasing need for additional support**;

- The **downward pressure on world market prices** should be expected to affect agricultural producers around the world, with the noticeable exemption of US farmers. The latter, by remaining cushioned by deficiency payments (including the counter cyclical payments), would keep their level of production higher than what market prices would normally imply. The greatest impact would be felt in the **cereal sector** where the FSRIA is expected to increase the competitiveness of US products and entail higher production levels than what the continuation of the FAIR Act would generate. In contrast, oilseed production may be foreseen to decrease somewhat, thus releasing some pressure from market prices;

- For the European Union, the largest impact is to be expected on the **wheat sector**, and, to a lower extent, on coarse grains and meat production;

In analysing the real impact the FSRIA on world markets, special consideration should be given to the following factors:

- The precise degree of de-coupling of the counter-cyclical payments and their influence on land allocation (with strong incentives for producers to follow their historical pattern) both in order to minimise financial risk and because production conditions which favoured crop selection in the reference years are unlikely to alter significantly);
- The full extent of the adjustment of the base area and the reference yield;
- The lack of potential adjustment in the setting of loan rates;
- The full extent of the extension of the loan and LDP programmes to other crops;
- The relationship between target prices and projected medium-term price levels.

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Statistical annex

1. Medium-term outlook for cereals

1.1 Wheat

Table A.1 Outlook for world wheat production, 2001 – 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	573,7	600,9	611,2	619,9	631,2	641,8	651,8		
FAPRI	578,5	597,7	605,6	613,8	624,2	630,5	639,5	645,8	653,5

Table A.2 Outlook for world wheat consumption, 2001 – 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	591,1	600,1	611,3	620,2	631,6	641,9	653,8		
FAPRI	588,9	605,3	611,7	616,8	624,6	630,4	638,4	645,3	653,2

Table A.3 Outlook for world wheat stocks, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	175,7	176,5	176,3	176,0	175,6	175,5	173,5		
FAPRI	153,4	145,9	139,8	136,8	136,4	136,5	137,7	138,2	138,4

Table A.4 Outlook for world wheat market prices, 2001 - 2009 ($/t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	129,3	129,2	130,3	133,2	136,6	136,8	139,5		
FAPRI	126,5	131,0	133,1	137,4	138,1	142,7	144,8	148,1	150,1

US FOB Gulf, HRW

1.2 Coarse grains

Table A.5 Outlook for world coarse grain production, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	879,2	915,9	931,4	950,2	967,5	988,8	1004,3		
FAPRI	780,8	805,4	822,1	834,7	848,0	859,6	871,2	884,3	894,0

Table A.6 Outlook for world coarse grain consumption, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	905,4	914,4	932,7	952,5	968,8	987,3	1004,6		
FAPRI	805,4	814,9	826,5	837,5	848,3	859,7	870,6	882,9	893,9

Table A.7 Outlook for world coarse grain stocks, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	177,1	178,7	177,5	175,1	173,8	175,3	175,0		
FAPRI	154,7	145,2	140,9	138,1	137,8	137,7	138,3	139,7	139,8

Table A.8 Outlook for world coarse grain market prices, 2001 - 2009 ($/t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	94,4	99,7	99,5	100,7	103,1	106,1	108,5		
FAPRI	92,3	98,9	101,5	102,5	103,8	105,4	107,3	108,1	109,9

US yellow maize, fob Gulf

2. Medium-term outlook for oilseeds

2.1 Oilseed beans

Table A.9 Outlook for world oilseed production, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	235,6	244,1	248,6	254,8	259,9	264,6	271,1		
FAPRI (world)	240,5	251,5	254,3	258,2	262,6	267,2	271,6	276,2	281,0

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.10 Outlook for world oilseed consumption, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	235,5	242,8	248,7	254,8	260,1	265,3	271,5		
FAPRI (world)	241,5	250,5	254,4	258,6	263,0	267,5	272,0	276,5	281,2

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.11 Outlook for world oilseed stocks, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	17,4	18,7	18,7	18,7	18,4	17,7	17,3		
FAPRI (world)	17,5	18,5	18,4	18,0	17,7	17,3	17,0	16,6	16,4

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.12 Outlook for world oilseed market prices, 2001 - 2009 ($/t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	214,1	213,2	217,9	219,4	220,3	228,5	237,2		
FAPRI	188,0	186,0	188,9	195,9	202,1	209,0	216,8	223,5	229,5

OECD: average oilseeds, cif Rotterdam; FAPRI: US soyabeans, cif Rotterdam

2.2 *Oilseed meals*

Table A.13 Outlook for world oilseed meal production, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	149,4	153,7	157,3	161,3	164,7	168,4	172,8		
FAPRI (world)	154,6	160,4	163,0	165,6	168,3	171,1	174,0	176,9	180,0

Oilseeds = soya bean, sunflower and rapeseed

Table A.14 Outlook for world oilseed meal consumption, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	149,5	153,7	157,3	161,3	164,7	168,4	172,7		
FAPRI (world)	153,9	159,5	162,3	164,9	167,6	170,5	173,3	176,2	179,3

Oilseeds = soya bean, sunflower and rapeseed

Table A.15 Outlook for world oilseed meal market prices, 2001 - 2009 ($/t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	168,6	167,2	169,4	168,9	171,1	174,5	177,5		
FAPRI	179,0	176,0	181,3	186,8	191,9	198,2	204,8	210,0	214,2

OECD: average oilseed meals, cif Rotterdam; FAPRI: US soybean meals, cif Rotterdam

2.3 *Oilseed oil*

Table A.16 Outlook for world oilseed oil production, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	73,1	75,3	77,2	79,5	82,7	84,5	86,6		
FAPRI (world)	73,5	75,7	76,5	77,7	79,1	80,6	82,0	83,5	84,9

Oilseed oil = soya bean oil, sunflower oil, rapeseed oil and palm oil

Table A.17 Outlook for world oilseed oil consumption, 2001 - 2009 (mio t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	73,5	75,1	77,2	79,4	82,5	84,5	86,5		
FAPRI	73,7	75,4	76,1	77,3	78,6	80,1	81,5	83,0	84,5

Oilseed oil = soya bean oil, sunflower oil, rapeseed oil and palm oil

Table A.18 Outlook for world oilseed oil market prices, 2001 - 2009 ($/t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	386,7	401,1	424,4	448,9	447,5	467,7	497,7		
FAPRI	389,0	395,3	395,5	404,8	413,6	422,6	434,6	447,7	461,6

OECD: average oilseed oil, fob Rotterdam; FAPRI: soybean oil, fob Rotterdam.

3. Medium-term outlook for meat

3.1 Beef

Table A.19 Outlook for world beef production, 2001 - 2009 (mio t, cwe)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD (OECD zone)	26,2	26,2	26,4	26,3	26,6	27,0	27,4		
FAPRI (selected countries)	46,4	47,0	47,7	48,3	49,1	50,2	51,3	52,4	53,5

Table A.20 Outlook for world beef consumption, 2001 - 2009 (mio t, cwe)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD (OECD zone)	24,8	25,3	25,4	25,3	25,6	25,9	26,3		
FAPRI (selected countries)	46,1	46,7	47,3	48,0	48,8	49,6	50,7	51,8	52,9

Table A.21 Outlook for world beef prices, 2001 - 2009 ($/t lw)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	1624,6	1556,3	1693,0	1730,1	1742,4	1730,7	1727,4		
FAPRI	1596,6	1640,7	1683,6	1729,9	1680,6	1613,5	1545,2	1506,0	1481,2

Nebraska Direct Fed Steer price.

3.2 Pig meat

Table A.22 Outlook for world pig meat production, 2001 - 2009 (mio t, cwe)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD (OECD zone)	34,2	34,7	35,0	35,4	35,6	36,0	36,2		
FAPRI (selected countries)	73,4	74,8	76,2	77,4	78,6	79,9	81,4	82,9	84,3

Table A.23 Outlook for world pig meat consumption, 2001 - 2009 (mio t, cwe)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD (OECD zone)	33,1	33,6	33,8	34,2	34,4	34,8	35,0		
FAPRI (selected countries)	73,6	74,9	76,3	77,4	78,6	79,9	81,3	82,8	84,2

Table A.24 Outlook for world pig meat prices, 2001 - 2009 ($/t lw)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	1039,1	913,3	1021,1	986,0	975,7	964,1	955,9		
FAPRI	1009,9	983,7	892,3	950,0	987,0	1011,8	956,7	915,1	879,5

US price Iowa-Souther Minnesota, barrow and gilt price.

3.3 Poultry meat

Table A.25 Outlook for world poultry meat production, 2001 - 2009 (mio t, cwe)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD (OECD zone)	32,3	32,3	33,5	34,1	34,8	35,4	35,9		
FAPRI (selected countries)	45,3	46,1	47,2	48,3	49,3	50,4	51,4	52,5	53,6

Table A.26 Outlook for world poultry meat consumption, 2001 - 2009 (mio t, cwe)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD (OECD zone)	29,7	29,6	30,8	31,4	32,1	32,6	33,0		
FAPRI (selected countries)	43,4	44,2	45,2	46,2	47,1	48,2	49,2	50,2	51,3

Table A.27 Outlook for world poultry meat prices, 2001 - 2009 ($/t)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
OECD	1304,0	1335,8	1343,3	1357,4	1362,4	1358,4	1360,3		
FAPRI	1304,0	1306,1	1314,8	1323,1	1324,5	1320,3	1317,2	1329,5	1339,0

Wholesale weighted average broiler price US 12 cities

4. Medium-term outlook for milk and dairy products

Table A.28 Outlook for world production of dairy products, 2001 - 2009 (mio t)

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Milk	**OECD**	502,1	510,7	519,3	528,9	540,1	551,5	562,7		
	FAPRI	401,3	407,0	411,2	415,9	421,0	426,4	431,6	436,2	441,1
Butter	**OECD**	6,7	6,8	6,9	7,1	7,3	7,5	7,7		
	FAPRI	6,3	6,4	6,5	6,6	6,7	6,8	7,0	7,1	7,2
SMP	**OECD**	3,4	3,3	3,3	3,3	3,3	3,3	3,4		
	FAPRI	3,3	3,3	3,3	3,3	3,3	3,3	3,3	3,4	3,4
WMP	**OECD**	2,6	2,6	2,6	2,7	2,8	2,8	2,9		
	FAPRI	3,0	3,1	3,1	3,2	3,2	3,3	3,3	3,3	3,4
Cheese	**OECD**	15,7	16,1	16,3	16,7	17,0	17,4	17,8		
	FAPRI	13,7	14,0	14,3	14,5	14,8	15,0	15,3	15,5	15,7

FAPRI: data for selected countries

Table A.29 Outlook for world consumption of dairy products, 2001 - 2009 (mio t)

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Butter	**OECD**	6,8	6,9	7,0	7,2	7,4	7,6	7,8		
	FAPRI	6,0	6,1	6,1	6,2	6,3	6,5	6,6	6,8	6,9
SMP	**OECD**	3,2	3,4	3,4	3,3	3,3	3,4	3,4		
	FAPRI	2,7	2,8	2,8	2,9	2,9	2,9	3,0	3,0	3,0
WMP	**OECD**	2,5	2,5	2,6	2,6	2,7	2,8	2,9		
	FAPRI	2,0	2,0	2,1	2,1	2,1	2,2	2,2	2,3	2,3
Cheese	**OECD**	15,8	16,1	16,4	16,7	17,1	17,5	17,9		
	FAPRI	13,5	13,8	14,0	14,3	14,5	14,8	15,0	15,3	15,5

FAPRI: data for major countries

Table A.30 Outlook for world dairy products prices, 2001 - 2009 ($/t)

		2001	2002	2003	2004	2005	2006	2007	2008	2009
Butter	**OECD**	1397	1400	1478	1524	1550	1570	1583		
	FAPRI	1334	1393	1456	1498	1559	1585	1629	1690	1765
Cheese	**OECD**	2200	2138	2170	2215	2231	2247	2256		
	FAPRI	2178	2051	2108	2165	2202	2221	2266	2334	2392
SMP	**OECD**	2004	1833	1858	1891	1878	1884	1854		
	FAPRI	2017	1739	1772	1788	1813	1843	1880	1932	1963
WMP	**OECD**	1975	1881	1945	1979	1987	1992	1994		
	FAPRI	1973	1788	1826	1847	1870	1892	1924	1964	1998

Ref: Cheese: FOB export price cheddar cheese 40lb blocks, Northern Europe; others: FOB export price Northern Europe

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