

European Commission
Directorate-General for Agriculture

PROSPECTS FOR
AGRICULTURAL MARKETS
AND INCOME

2005 – 2012

July 2005

NOTE TO THE READERS

The medium-term perspectives presented in this publication consist of a set of market and sector income 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.

The projections and analyses for the EU-25 have been mainly carried out on the basis of the two economic models currently available in the Directorate-General for Agriculture and Rural Development of the European Commission. These modelling tools were already used to produce the impact assessment of the latest policy reform proposals. A first attempt to present and analyse these medium-term developments at regional level based on the CAPRI model is also given.

This report is based on the information available at the end of May 2005. The analysis covers the period between 2005 and 2012.

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Foreword

The Directorate-General for Agriculture and Rural Development 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 2012, based on a certain number of assumptions and on the statistical information available in May 2005.

This report contains two chapters. The first chapter centres on the market and income prospects for the 2005-2012 period within the EU and covers the following products: cereals, oilseeds, meat, eggs, milk and the main dairy products. Chapter II is dedicated to 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.

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
CNDP	Complementary National Direct Payment
Cwe	Carcass weight equivalent
DG AGRI	Directorate-General for Agriculture and Rural Development
EBA	“Everything But Arms” Initiative
EFTA	European Free Trade Association
EU	European Union
EU-25	European Union after the enlargement on May, 1 st 2004
EU-N10	New Member States of the European Union from May, 1 st 2004
EU-15	Member States of the European Union before May, 1 st 2004
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
FDI	Foreign Direct Investment
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
SAPS	Single Area Payment Scheme
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

EXECUTIVE SUMMARY

Projections for the EU-25

Market projections for the main agricultural products in the EU-25 were established under a specific set of assumptions. These cover the outlook for the macro-economic environment, with a gradual recovery of EU economic growth and a strengthening of the US\$ over the medium term. World agricultural commodity markets are assumed to show growing demand and trade. Trade policies are assumed to be governed by the Uruguay Round Agreement on Agriculture and no new multilateral trade agreement has been accounted for. All existing trade commitments are assumed to be met.

The medium-term perspectives for the cereal markets appear moderately positive thanks to the impact of the CAP reform and the return to higher set-aside levels in combination with more favourable world market conditions. In 2003 cereal production dropped to 230 mio t from 263 mio t in 2002 owing to exceptional weather conditions. Lower mandatory set-aside combined with more favourable climatic conditions led to a sharp rebound in 2004 as total cereal harvest reached 285 mio t, with 63 mio t produced in the new Member States. Production in 2005 would fall to 261 mio t, due to the return to higher set-aside levels and the introduction of decoupling in a number of countries.

The build-up of high levels of stock in 2004 would continue to leave the cereal markets in a fragile situation over the next two years. The impact of higher mandatory set-aside, the implementation of decoupling and moderate prospects for yield growth would combine to limit production growth over the medium term. This would generate a gradual fall in stock levels supported by further, though moderate, gains on the feed market and by more favourable conditions on world markets (and the assumed return to a slightly weaker euro) which would stimulate EU export opportunities.

This relatively positive picture for the overall balance of the EU cereals market does not however prejudge the specific difficulties that could arise for coarse grains, in particular for barley, and on a regional scope for soft wheat and maize (linked to the situation of the landlocked new member States of central Europe which may still be faced with infrastructure difficulties over the short to medium term).

Market perspectives for the EU oilseed sector are foreseen to be supported by productivity increases and favourable conditions on world markets. Despite the projected moderate increase in oilseed production, the EU will continue to remain a large net importer of oilseeds. The perspectives for cereals and oilseeds remain conditional on the implementation of the biofuel directive in the Member States.

The EU meat sector came back to a more normal situation after the extreme market conditions of the past few years, when it was hit by the second BSE scare and the FMD outbreak in 2001 and the avian flu in 2003.

EU-25 beef and veal consumption recovered rapidly after the BSE crisis and was higher than production in 2003 for the first time in 20 years. It is expected to remain so over the projection period as production would decrease to around 7.6 mio t by 2012, in line with the structural reduction of the dairy herd and the impact of the introduction of the single farm payment. A tight domestic supply and a steady demand are projected to keep beef

prices at a relatively high level, attracting more imports entering at full duty, notably from South America.

Pig and poultry production and consumption are expected to keep growing over the medium term, though at a slower pace than in the past decade, with increased trade flows between the new and old Member States. Sheep and goat production and per capita consumption are projected to decrease in line with past long-term trends and taking into account the possible impact of the decoupling of the ewe premium.

Overall meat consumption is projected to increase from 87.4 kg/head in 2004 to around 89 kg by the year 2012. Pig meat, with a share of about 50 %, is by far the most preferred meat by EU consumers, followed by poultry, recording a share of around 27 %, which has overtaken beef and veal since 1996.

Milk production in the EU-25 is projected to increase slightly over the medium term, in line with quota increases, to reach the level of 145 mio t by 2012. Milk production in the new Member States, which accounts for around 15 % of total EU production, is projected to remain stable at approximately 22 mio t, as increasing deliveries to dairies -in line with higher quotas- are offset by the reduction in subsistence milk production.

Production of butter in the new Member States would display some short-term growth in response to price increases towards EU levels. However, after the sharp fall recorded in 2004, EU-25 production of butter and SMP is projected to continue to decrease over the medium term, as more milk is used for the production of cheese and other high value-added dairy products. Cheese production and consumption are expected to maintain their sustained growth after the slowdown observed in 2002, thanks to the gradual rebound of economic growth.

These projections result in an overall increase in domestic milk demand in the form of dairy products. As supply remains limited by quotas, butter and SMP exports are foreseen to shrink and cheese exports to show only a limited increase.

Income estimates have been compiled on the basis of these market projections and the financial perspectives for the EU over the period 2005-2012. These medium-term income projections display a rather favourable outlook as the EU-25 agricultural income would grow by 11.7 % between 2004 and 2012 in real terms and per labour unit. This overall gain would however mask marked differences between the EU-15 and the new Member States. Whereas agricultural income in the EU-15 would show a rather modest development with a 4 % growth over the 2004-2012 period, it is foreseen to exhibit a more pronounced and positive trend in the new Member States where it would rise steadily by 50.4 % over the projection period (when assessed against 2003, i.e. before enlargement, farm income per labour unit in the new Member States would increase by 137 %).

Apart from generally positive price developments, this growth in income would be supported by the implementation of the CAP, the integration into the single market and most significantly by the sharp rise in the subsidies granted to agricultural producers in the new Member States (in the form of direct payments and rural development funds which aim at facilitating and promoting the restructuring and modernisation of the agricultural sector and the rural areas).

World agricultural markets

Short-term developments on world agricultural markets have recently been marked by the wide price fluctuations of 2003 and 2004. Over the medium term, world agricultural markets are projected to be essentially supported by rising food demand driven by an improved macro-economic environment, higher population, urbanisation and changes in dietary patterns.

After the relatively low harvest of 2002 and 2003, and the bumper crop of 2004 in most producing countries, the cereal sector is projected to return to its long-term production growth. Widespread economic growth and an expanding livestock sector are projected to combine to set the stage for a strengthening of world demand and maintaining a low stock-to-use ratio. Cereals trade would also expand, particularly in developing economies, driven by rising income, diet diversification and higher demand for livestock products and feeds, allowing for a gradual, albeit moderate price increase over the medium term. The medium-term prospects for the oilseed sector are expected to be relatively stable. After the high prices of 2003 and the subsequent drop, 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.

Meat markets, which are currently disrupted by trade restrictions following animal diseases (notably Avian Flu in South-East Asia and BSE in North America), are projected to be characterised by an expansion in production, consumption and trade with 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 remain firm 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). World meat market prices are expected to ease somewhat after the surge linked to the absence of major exporters from the world markets due to animal diseases (beef market for USA and Canada, and poultry for Thailand).

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). 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, triggering further price rises for dairy products over the medium term.

PROSPECTS FOR AGRICULTURAL MARKETS

AND INCOME

IN THE EUROPEAN UNION

1. PROSPECTS FOR AGRICULTURAL MARKETS AND INCOME IN THE EUROPEAN UNION

1.1. Introduction

This chapter summarises the main results and underlying assumptions of medium-term projections for the markets of some key agricultural products and for the sector income in the European Union for the period 2005 - 2012. The results presented are based on data and other information available at the end of May 2005 and constitute an update of the medium-term projections published in December 2004¹. In particular the projections take into account the short-term developments foreseen for 2005 on domestic and world markets.

These projections are established under a specific set of assumptions. The most important assumptions cover agricultural and trade policies, as well as the outlook for the macro-economic environment and for world agricultural commodity markets. These working hypotheses have been defined on the basis of the information available, which at the time of the analysis were judged the most plausible:

- (1) The implementation of the **single farm payment** scheme as part of the Common Agricultural Policy (CAP) reform decisions² allows Member States to choose among different options, which will influence the degree of “decoupling” of the payments. Member States have communicated their preferred option³ and, based on this information, it has been estimated that in 2012 approximately 90 % of the budgetary transfers in the form of direct payments (including national envelopes and top-ups) for the arable crops, milk, beef and sheep sectors will be part of the single farm payment for the EU-25 as a whole. The rate would be higher for the milk (100 %) and arable crops (93 %) sectors than for beef and sheep sectors (78 % and 73 % respectively).
- (2) All transitional measures of the CAP in the **new Member States**, i.e. the phasing-in of direct payments as well as the top-up possibilities and the production quotas, are expected to operate under the rules agreed upon in the 2002 Copenhagen summit. Eight out of the ten new Member States adopt the single area payment scheme, while Slovenia and Malta implement the current EU legislation on direct payments. From 2009 onwards the eight new Member States are assumed to adopt the regionalised system. Slovenia and Malta would implement the regionalised system from 2007 onwards. Enlargement to Romania and Bulgaria, foreseen for 2007, has not been taken into account in this projections.

¹ European Commission, Directorate-General for Agriculture *Prospects for Agricultural Markets and Income 2004 – 2011 for the EU-25*. December 2004. Brussels.

² It should be mentioned that the decisions to extend the scope of currently available instruments for rural development to promote food quality, meet higher standards and foster animal welfare and those relative to some specific sectors such as the nuts, dried fodder, starch potato, tobacco, olive oil and cotton sectors have not been incorporated in these market analyses.

³ A certain degree of incertitude remains on the detailed implementation rules, especially for the Member States which will introduce the single farm payment in 2006.

Box 1 The accession of Bulgaria and Romania to the EU

On the 25th of April 2005 the accession treaty with Bulgaria and Romania was signed. Membership of Bulgaria and Romania is foreseen for the 1st of January 2007. In case of the application of certain safeguards as regards the non-fulfilment of obligations of membership, the accession might be postponed by one year.

The negotiations of the agricultural chapter were concluded on June 4, 2004. The agreements foresee the applications of the same principles for accession as with the ten new Member States. In particular the agreements lay down:

- the reference quantities as regards quotas and direct payments which are determined on the basis of the period 1998 to 2002;
- a phasing-in of direct payments over a period of 10 years (2007-2016) starting with 25 % of the full amount in 2007, 30 % in 2008, 35 % in 2009 and 40 % in 2010. The increases foreseen thereafter are 10 % annually;
- the possibility to top-up the direct payments and possibilities of their co-financing via maximum 20 % of the Rural Development budget in the first three years;
- the possibility to apply the Single Area Payment Scheme (SAPS) for up to five years. This flat rate payment per hectare of agricultural area should facilitate the introduction of the single payment scheme;
- a milk quota of 3.057 mio t for Romania and 0.979 mio t for Bulgaria, with a restructuring reserve of 0.188 mio t and 0.039 mio t respectively. The sugar quota (A+B) amounts to 0.109 mio t for Romania and 4 752 t for Bulgaria. In addition, both countries received a MFN processing quota of 0.329 mio t and 0.198 mio t, respectively;
- specific measures for rural development in order to support semi-subsistence farmers undergoing restructuring and support for meeting standards for food safety, animal welfare and the environment.

The agricultural budget foreseen for the 2007-2009 period amounts to a total of 5.4 bio euro, of which 1.5 bio euro for Bulgaria and 3.9 bio euro for Romania. Rural development funds will address the specific needs of rural areas in the two accession countries, with a budget of 3.4 bio euro (or 63 % of the budget). Direct payments amount to 1.3 bio euro (24 % of the budget).

Agriculture in Bulgaria and Romania plays an important role in the economy, particularly in terms of employment: in 2003 about 27.7 % and 34.1 % of the active population were employed in agriculture in Bulgaria and Romania respectively, as compared to 5.8 % in the EU-25 and 17.5 % in the new Member States. In the EU-27 the two countries would add about 39 % agricultural employment, 12 % more area and 4 % to the agricultural value added. These figures illustrate the extensive nature and low profitability of agricultural production in the two accession countries as compared to the old and new Member States.

On accession Bulgaria and Romania would add about 6 % cereal production, 9 % oilseed production, 3 % beef, 1.5 % pork, and 3.1 % poultry production. The entry into

the EU single market will expose Bulgaria's and Romania's agri-food sector to sharp competition. Opportunities would open for Bulgaria's and Romania's agri-food sector as regional markets would become more accessible for their exports. However, infrastructure and transport costs, production standards and marketing of agri-food products would be critical factors in order to expand competitiveness and their ability to sell on the domestic and European markets.

Like in a number of new Member States, the duality in agriculture, i.e. the strong contrast between subsistence and market-oriented agriculture, would pose significant challenges. In several sectors, such as milk, pork and poultry, subsistence production and consumption plays a significant role in Romania's fragmented agriculture and partly also in Bulgaria. Subsistence agriculture, in particular when substantial parts of the domestic production are concerned would only exhibit a limited response to market signals. The restructuring of the whole sector would then depend on the long-term perspectives for revival of rural areas.

Trade integration with the EU-25 already reached a very high level in 2004: 68 % of Romania's agri-food exports and 58 % of its imports were conducted with the EU-25. For Bulgaria these figures stand at 57 % and 50 % respectively. This high degree of integration would indicate that accession should be a relatively smooth process from a trade perspective.

The preliminary assessment of the effects of accession on the Romanian and Bulgarian agricultural sectors shows a moderate expansion in production and exports in the cereal and oilseed sector, a stabilisation of milk production and a slight increase in beef production. In the latter case, the market shares of Romania and Bulgaria in the EU could increase.

Other sectors of the food industry, in particular milk and livestock processing, would face difficulties from today's perspective. However, investments have started to pick up, which might help to narrow the competitive gap until 2007. The further improvement in the raw material basis of these industries with regards to quality and production standards should remain a critical issue. The preliminary assessment identifies the pork, poultry and egg production as crucial due to high production costs and low average quality of agricultural products.

Agricultural production is not expected to reach its full production potential over the medium term due to structural impediments and despite a favourable geographical location at the Black Sea. However, conditions for agriculture in Bulgaria and Romania should significantly improve on accession and thus enhance the livelihood of the rural population. As already witnessed in the new Member States, agricultural income could be expected to substantially increase in relative terms thanks to improved market opportunities and the introduction of direct payments.

- (3) After a reduction to 5 % for the 2004/05 marketing year, the mandatory **set-aside rate** returned to the regulatory 10 % in 2005/06. The set-aside area is assumed to remain fixed at that level for the rest of the period. For those new Member States which opted for the single area payment scheme, the set-aside obligations would only apply from 2009 onwards.
- (4) It is also 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 2005-2012 period as no final agreement has been reached and the framework agreement for establishing modalities reached at the WTO in July 2004 does not contain sufficient details to be taken into account in this projection exercise.

The trade agreements that have been concluded by the EU prior to the end of May 2005, notably with the Least Developed Countries, have been included into the projections.

- (5) The **macro-economic environment** in the EU, after the poor performance of 2003 and the partial recovery of 2004, is expected to display a moderate growth in economic activity in the short term as accommodative macroeconomic policy conditions, continuous low inflation, progress in structural reforms, and a supportive global environment have increased the confidence of economic agents.

According to the short-term economic forecasts from the European Commission released in April 2005⁴, the economic activity in the EU decelerated in the second half of 2004. Nevertheless, supported by the continued buoyancy of global growth and trade, the pace of growth averaged 2.3 % in the EU-15 for the year as a whole. As a result of the unexpected deceleration experienced in the second half of last year, due in part to the oil price hike and the strength of the euro, the carryover into 2005 is lower than previously projected. But growth is projected to return to potential during the course of 2005 - reaching 1.9 % in the EU-15 - before accelerating to 2.2 % in 2006.

The consolidation of the recovery over 2005 and 2006 should be driven by an acceleration of domestic demand. The pace of investment expenditure in particular is expected to pick up accompanied by a more gradual recovery of private consumption. The labour market would respond to stronger economic activity. This would be supported by wage moderation and the restoration of confidence among consumers and entrepreneurs following the completion of structural reforms.

Despite the economic downturn observed in the old Member States over the last few years, economic growth has remained strong in the new Member States. Expanding domestic consumption and improving economic conditions in the

⁴ European Commission, Directorate-General for Economic and Financial Affairs. Economic Forecasts, Spring 2005. *European Economy* No.2/2005.

rest of Europe should result in an average growth rate of 4.3 % in the new Member States in 2005.

Overall EU-25 real GDP growth reached 2.4 % in 2004 and is expected to decelerate to 2 % in 2005, as the sharp rise in oil prices takes its toll before showing a subsequent albeit limited rebound in 2006 (2.3 %).

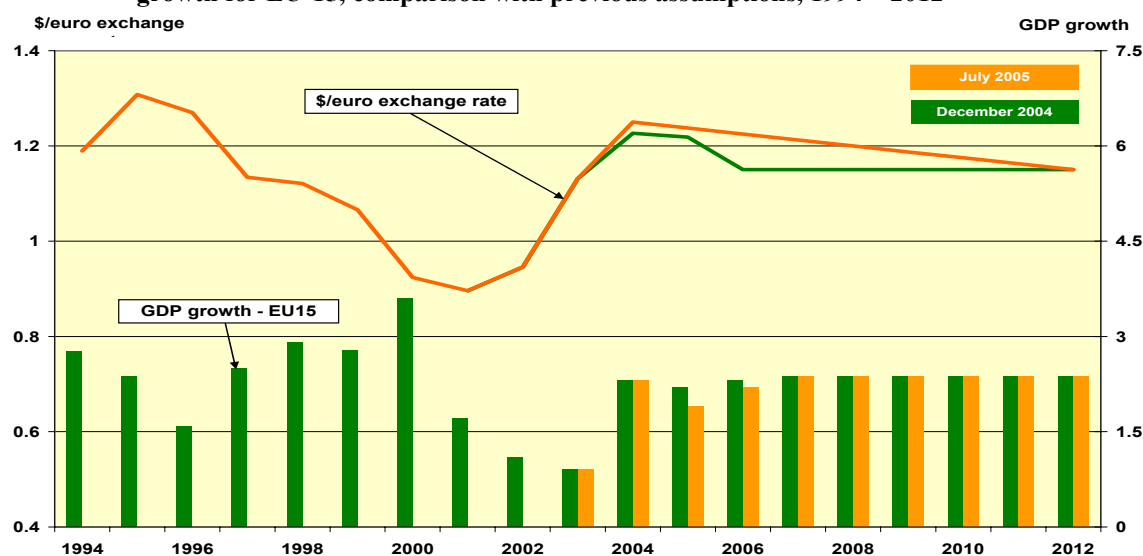
The international environment should also remain supportive as, after a vigorous GDP growth of 5 % in 2004 (the fastest pace since the seventies), the world economy is expected to ease to a still-robust 4.2 % in 2005 and marginally lower in 2006.

Table 1.1 Assumptions on macro-economic variables in the European Union, 2002 – 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Population growth (in%)											
EU25	0.3%	0.4%	0.2%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%
of which EU15	0.4%	0.4%	0.3%	0.4%	0.4%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
of which EUN10	-0.1%	0.0%	-0.9%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
GDP growth (in%)											
EU25	1.1%	1.0%	2.4%	2.0%	2.3%	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%
of which EU15	1.1%	0.9%	2.3%	1.9%	2.2%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
of which EUN10	2.4%	3.7%	4.9%	4.3%	4.5%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%
Inflation (in%)											
EU25	2.1%	1.9%	2.1%	1.9%	1.7%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
Exchange rate											
US\$/€	0.95	1.13	1.24	1.24	1.23	1.21	1.20	1.19	1.18	1.16	1.15

There exists a number a downside risks to this macro-economic outlook, notably further oil price hikes, disorderly exchange rate adjustments and more subdued consumer confidence which, if confirmed, would weigh on private consumption growth and could also hold back investment plans. On the upside, private consumption could pick up pace more rapidly, boosted, *inter alia*, by the beneficial impact of structural reforms.

Graph 1.1 Medium-term development in the \$/€ exchange rate (1 € = ... \$) and real GDP growth for EU-15, comparison with previous assumptions, 1994 – 2012



The medium-term prospects for economic growth in the EU should rely on a relatively strong domestic demand. They should also benefit from the sharp growth projected for many emerging economies. In this respect, economic growth would remain rather stable over the medium term at 2.5 %, with growth rates in the new Member States exceeding 4 % per year on average while those in the old Member States would stagnate at 2.4 % over the projection period. Inflation is also assumed to remain stable over the medium-term at around 1.9 %.

The \$/€ **exchange rate**, which reached approximately 1.3 during the year 2004, depreciated somewhat in the first half of 2005, reaching 1.2 by the end of June 2005. The euro is assumed to return gradually to 1.15 against the US dollar, as the impact of the short-term factors contributing to the recent weakening of the US dollar (including the swiftly growing current-account and budget deficits in the US) may be expected to give way to more fundamental structural factors.

- (6) Short-term developments on **world agricultural markets** have recently been marked by sharp price fluctuations. Whereas cereal and oilseed markets were affected by extreme climatic conditions which led to severe production drops in 2003 and bumper harvests in 2004 in various parts of the world, meat markets were disrupted by a series of sanitary crises (e.g. mad cow disease in North America and Avian flu in Asia). World dairy markets experienced extremely high prices, following firm demand from developing countries and limited supplies in most producing and exporting countries.

The medium-term outlook for world agricultural markets is foreseen to remain essentially supported by rising food demand driven by an improved macro-economic environment (with more broadly-based and sustainable growth), higher population, urbanisation and changes in dietary patterns, particularly in many emerging economies. World trade in agricultural commodities is expected to demonstrate sustained growth, as demand for food products should outpace production in many developing countries, while commodity prices are projected to display only moderate increases over the medium term.

After the low level recorded in 2004, world cereal prices are projected to recover over the medium term as supply adjusts to global demand growth, with wheat and maize prices reaching up to around 160 \$/t and 120 \$/t respectively by 2012/13. Oilseed prices are foreseen to display a certain stability over the forecast period, with soybean prices projected at 243 \$/t in 2012/13.

Meat markets are expected to show some stabilisation over the medium term, with world beef prices declining slightly after a short-term price surge due to trade disruptions related to sanitary crises. World dairy prices are expected to ease down somewhat after the strong increase of 2004, in line with projected rapid expansion of milk production in low-cost producing regions (such as Oceania), but to remain at relatively high level throughout the projection period⁵.

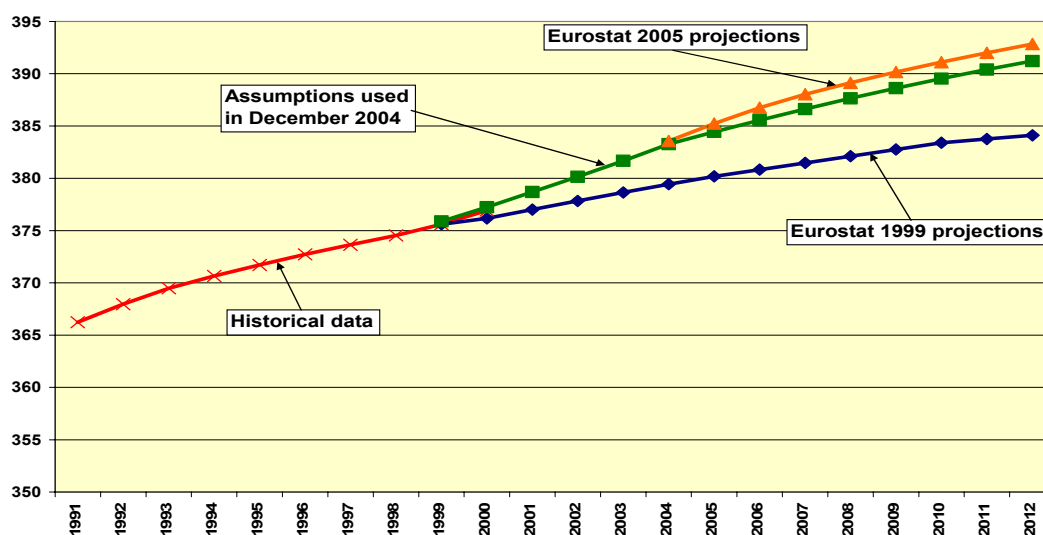
⁵ For more details, c.f. chapter II.

Box 2 Population projections for the EU

Population projections represent one of the macroeconomic assumptions that drive market prospects, especially for developing countries where sustained population growth coupled with increasing incomes should result in fast growing food demand. If the EU exhibits less dynamic developments than developing countries, it still represents one of the major markets in the world with 456 mio inhabitants with relatively high income.

Over the past few years our medium-term prospects for agricultural markets were carried out using the Eurostat 1999 population projections, corrected to take account of historical data. In April 2005 Eurostat published a new set of population projections until 2050 based on information provided by Member States.

Graph 1.2 EU-15 population: comparison between previous and current Eurostat projections and previous DG AGRI assumptions (mio inhabitants)



The Eurostat set of population projections is just one among several scenarios of population evolution based on assumptions related to fertility, mortality and migration. The central scenario does not take into account any future measures that could influence demographic trends and comprises four variants: the *baseline*, as well as 'high population', 'low population' and 'zero-migration' variants, all available on the Eurostat website⁶.

According to Eurostat central *baseline* scenario, the total population of the EU-25 is expected to increase by more than 13 million inhabitants over the next two decades, from 456.8 mio on 1 January 2004 to 470.1 mio on 1 January 2025. Population growth in the EU-25 until 2025 will mainly come from net migration, since total deaths in the EU-25 will outnumber total births from 2010. The effect of net

⁶ It should be noted that the assumptions used by Eurostat may differ from those adopted by National Statistical Institutes (for example, assumptions about migration levels in Italy and Slovenia). Therefore, the results published by Eurostat can be different from those published by Member States.

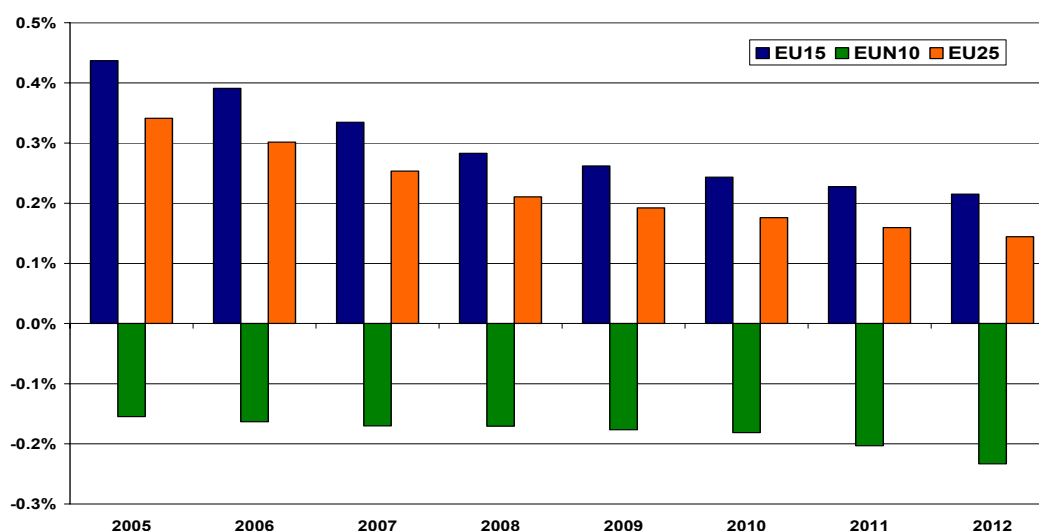
migration will no longer outweigh the natural decrease after 2025, when the population will start to decline gradually.

Over the long term (2050) Eurostat expects the share of the population of working age (between 15 and 64) in the total population to decrease strongly (-17 %) in the EU25, as is the share of the population aged between 0 and 14 (-20 %). As a result the proportion of elderly people (aged 65 and more) is expected to almost double (from 16.4 % in 2004 to 29.9 % in 2050). The proportion of very old people (aged 80 and more) is expected to almost triple in the EU25, from 4.0 % in 2004 to 11.4 % in 2050, with the highest proportions expected in Italy (14.1 %), Germany (13.6 %) and Spain (12.8 %). This means that whereas in 2004 there was one inactive person (young or elderly) for every two persons of working age, in 2050 there would be three inactive persons for every four of working age.

Largest declines will be observed in most of the new Member States where total population will shrink by 12 % throughout the projection period. Annual growth rates are already negative for the new Member States compared to the EU-15.

These developments are expected to have a major impact on the future perspectives for food demand in the EU, both in volume, quality and composition.

Graph 1.3 Annual growth rate of population in the EU



1.2. Arable crops

1.2.1. Key factors influencing the medium-term prospects for EU arable crop markets

The medium-term prospects for the EU crop markets are projected to be shaped by a series of factors. The most important can be described as follows:

- *The implementation of the 2003 CAP reform:* the introduction of the single farm payment and the reduction in the level of support in the cereal sector are expected to lead to a slight decline in cereal area (mainly affecting rye and durum wheat) and to a rise in voluntary set-aside as land with low profitability would move out of production;

- *The mandatory set-aside*: after a record 2004 harvest characterised by favourable weather conditions and a reduction from 10 % to 5 % in the mandatory rate of set-aside, the return to a mandatory set-aside level equivalent to the regulatory level of 10 % over the medium term is projected to significantly reduce the EU production potential and improve the cereal market balance, notably in the second half of the projection period;
- *Lower prospects for yield growth*: the significant slowdown in cereal yield growth observed in the EU over the last few years is expected to persist over the projection period;
- *Modest growth in the animal sector*: contrary to the past decade which was characterised by a steady development of the white meat sector (and the subsequent gains in cereal feed use), the next seven years are projected to exhibit a marked slowdown in the production growth of the pig meat, poultry meat and egg sectors. This should lead to a more moderate expansion of feed use of cereals;
- *Supportive world markets*: world market conditions for cereals and oilseeds are forecast by most international organisations to be moderately favourable, with notably an expanding world (import) demand (South East Asia);
- *The US\$/€ exchange rate*: the transmission of these favourable world market conditions to EU markets under the current policy conditions does crucially depend on the value of the euro relative to the US\$. The high exchange rate of more than 1.3 US\$/€ constrained the competitiveness of EU cereal production on both world markets and EU feed markets during large parts of 2004/05. Since April 2005 the weakening euro has improved the competitive position of European cereals on world markets. The medium-term perspectives should be further positively influenced by the assumed gradual weakening of the Euro to an exchange rate of 1.15 US\$/€ in 2012. The resulting improvement in the competitiveness of the crop sector would enable the EU to benefit from the moderately expanding world demand for cereals;
- *The impact of EU enlargement*:
 - *Importance of the new Member States*: in 2004 the contribution of the new Member States to the total EU cereal and oilseed production reached 29 %. The record 2004 harvest in the new Member States impressively demonstrates the production potential for arable crops;
 - *Integration of the new Member States into the single market*: the 2004/05 marketing year showed that the price pressure currently experienced in a number of southern landlocked new Member States due to high transport costs and the lack of important storing facilities is a significant limiting factor in the development of the competitiveness of these countries and their access to EU domestic and/or world markets. This situation currently results in a marked geographical segmentation of cereal (and to a lesser extent oilseed) markets in the EU. Increased investment in transport and storage infrastructure should become a crucial factor for the competitiveness of the crop sector in the new Member States. Because these investments will take time to effectively influence production and trade patterns, the economic perspectives for crop production as expressed in levels and volatility of producer prices might only gradually improve over the medium to long term. This should lead to less

positive medium-term perspectives for these southern new Member States than earlier analyses suggested.

Box 3 The situation in the new Member States one year after enlargement

The situation in the new Member States one year after enlargement appears generally positive, with however a marked difference between northern and southern new Member States. In most new Member States (notably Poland, the Baltic States and Slovenia) opportunities seem to outweigh the challenges on the single market. The situation in some southern new Member States appears relatively mixed and largely affected by the record cereal harvest, marketing infrastructure problems and the late operationability of the Community intervention system.

Most countries have been able to expand trade with the EU, with higher imports and exports. None of these developments in intra-trade can be seen as overly critical or destabilising. There are strong indications that membership has been very positive for the trade integration between the new Member States themselves.

Farm income increased significantly by 56 % in 2004 in nominal terms as compared to the previous year thanks to improved prices as well as to the granting of EU direct payments. This statistical figure however hides some of the institutional effects as regards the date of payment of these funds which in a number of countries took place only at the beginning of 2005.

Investment activities of farms (as well as of food industries) appear to be very high and the request for national and EU funds far outstrip the availability in most countries. This development is stronger than earlier expected before enlargement. It seems that the financial sector may have started to become more flexible as regards lending to agriculture since the risk of agriculture has been perceived as being lower than before membership. In some new Member States banks even established specific credit schemes for those farmers taking part in the Rural Development Programmes.

Land prices seem to have increased in the new Member States even if land purchases by foreigners remain generally restricted. This is in line with our expectation on the increasing profitability of agriculture after enlargement and the impact of the direct payments as well as the LFA premiums. Farmers in countries with a high share of land leasing have been particularly affected.

Producer prices have generally increased for livestock, meat and dairy products. Pork prices have especially benefited from the generally favourable market situation in the EU linked to the pork cycle. High quality beef prices increased significantly thanks to the strong demand from the old Member States for live animals. In the course of the year low quality beef prices increased as bovine animals became in short supply on domestic markets. On average, beef prices are significantly higher than before enlargement. Domestic demand for beef continues to be very weak as a response to the price levels and availability of quality meat. Poultry prices have increased in a number of new Member States supported by sustained export opportunities to the old Member States. On the contrary, poultry prices in Hungary have significantly declined since enlargement.

Milk markets are still characterised by a strong competition for high quality milk in particular in Poland, Lithuania, Latvia and Hungary. The spread between low and high quality milk prices is very high in these countries. Milk producers face some of the burdens of adjustment of the dairy sector, notably in Slovakia, Slovenia, Hungary and Poland. Hungary is one of the few countries where milk prices picked up again very recently.

Cereal prices tended to be lower than in 2003 which can be less attributed to enlargement than to the abundant cereal harvest in 2004. Contributing to this was the significant shortage of intervention stock capacity in Hungary, and some shortages in the Czech Republic and Slovakia, as well as the late operationability of the intervention system. Infrastructure difficulties resulting in high transport costs seem to have restricted the competitiveness of cereals produced in this region on EU and world markets. Producer prices declined most in Hungary as a result of early sales of farmers which had insufficient own storage capacities to bridge the gap between the harvest and the intervention period. It appears that current market stocks reached a very high level which might lead to continuous regional price pressure during the next marketing campaign. The northern new Member States appear to have been less affected by these problems, though cereal prices are also lower than in the drought year 2003.

The situation of the food industry in the new Member States is mixed. In most countries investments, consolidation and concentration have taken place at an increasing pace thanks to foreign direct and domestic investments. Challenges appear particularly strong in the milk industry as well as in the meat processing sector, where lacking standards and marketing difficulties seems to be the main issues in a number of countries. Favourable market opportunities in the EU, in particular for live animals, have helped to ease the negative impact of the low competitiveness of meat processors.

Consumers in Central Europe have been affected quite differently by food prices after enlargement. In most countries only a limited number of products have experienced a significant price increase. These are mainly sugar, beef (which is not important in the food diet), pork, poultry, bananas and oranges. Other prices like those of imported high value added dairy products have fallen. Prices increased mostly in those countries with limited competition among retailers and processors. The Czech Republic, Hungary, and Slovakia seem to be the counter-examples where food prices remained on average at the same level as in 2003 or declined slightly. In Slovenia and Malta food prices fell as well as a result of a general decline in agricultural raw product prices following enlargement.

- *Currency appreciation in the new Member States*: the strengthening against the euro of several currencies (in nominal and real terms) of the new Member States is assumed to persist over the medium term as the new Member States grow at a much faster pace than the economies of the Eurozone. Furthermore the continuous inflow of foreign direct investments at significant levels of GDP as well as the transfer of EU funds should also contribute to the trend (cf. *Box 6 FDI in agriculture and food industry in the new Member States and the two accession countries*). As a result, lower agricultural prices and payments when expressed in domestic currencies might reduce the incentives to use and expand the production potential. Since prices of tradable inputs such as fuel, fertiliser and machinery would equally fall when denominated in domestic currencies, the competitive situation of crop production vis-à-vis that in the Eurozone

should not be significantly affected. However, like prior to membership and despite the positive impact of the CAP on producer income, pressure for structural adjustment will arise from the declining competitiveness of the agricultural sector vis-à-vis other sectors of the economies.

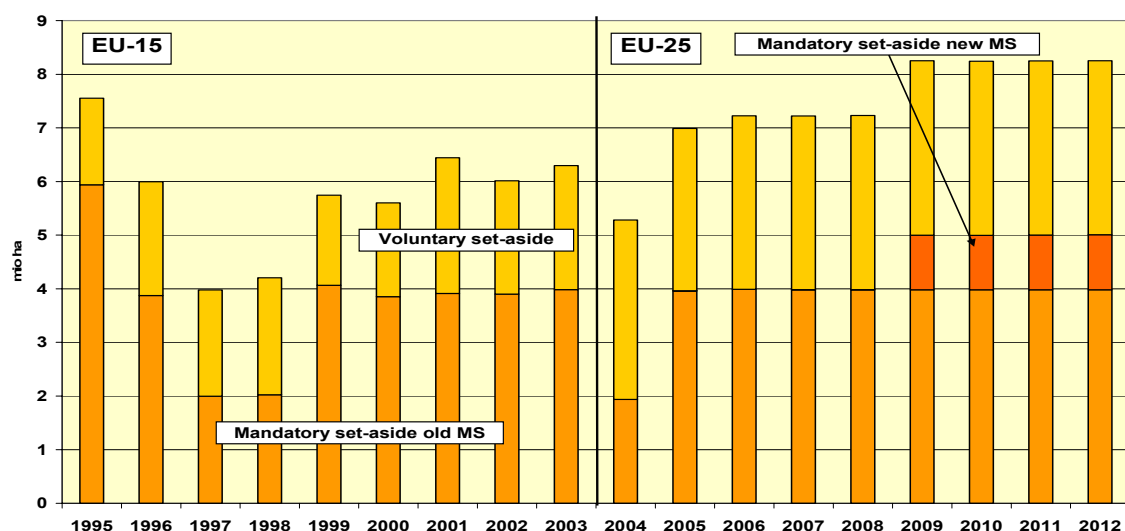
- *The biofuel policy:* the medium-term perspectives for cereals and oilseeds should become increasingly influenced by the biofuel policies of the Member States. This analysis takes the current biofuel policies of Member States as unchanged for the future. The isolated supply effect of the carbon credit instrument for renewable energy should be rather limited since markets are mainly determined by the national tax policy and regulations of Member States and their impact on the industry. Therefore, the medium-term perspectives for non-food oilseeds appear rather stable in the EU. Without further expansion of biofuel processing capacities, the contribution of cereals and oilseeds to the biofuel target of 5.75 % replacement of fossil transport fuels in 2010 would remain at 0.6 percentage points (c.f. box 5 *The development in biofuel use and the cereal and oilseed markets*).

1.2.2. Development in area allocation

In 2004 the total cereal, oilseed and protein crop area reached 60.2 mio ha after 58.9 mio ha in 2003. The increase in the level of set-aside from 5.3 mio ha in 2004 to 7 mio ha in 2005 (of which 4 mio ha are obligatory set-aside linked to the return to a 10 % mandatory rate and 3 mio ha are voluntary) is estimated to reduce the availability of area for cereal, oilseed and protein crop production in 2005 to 58.2 mio ha.

From 2006 onwards, mandatory set-aside is assumed to remain fixed at its historical level equivalent to the 10 % regulatory level. This represents some 4 mio ha in the old Member States, and will only expand marginally in those Member States which introduce decoupling at a later stage. From 2009 onwards 1 mio ha of mandatory set-aside would be added by the new Member States. The biggest contributors to mandatory set-aside in the new Member States should be Poland, Hungary, the Czech Republic and Slovakia. In the other new Member States, set-aside obligations would have little impact due to the exemption for small-scale farms and the relatively low amount of arable area.

Graph 1.4 Development of set-aside in the European Union (mio ha)



Voluntary set-aside, which increased from 2.3 mio ha in 2003 to 3.3 mio ha in 2004, is estimated at 3 mio ha in 2005. From 2006 onwards it would reach 3.2 mio ha owing to the introduction of decoupling in a number of countries. The slightly increasing competitiveness of cereal production over the medium term would limit the growth of voluntary set aside. These developments would take place at the expense of rye, durum wheat and barley areas, the profitability of which would drop sharply in some regions. It is still however unclear how much additional area would be set-aside in the new Member States, given the relatively large proportion of unused arable land.

As a result, total set-aside area would gradually increase from 5.3 mio ha in 2004 to 7.0 mio ha in 2005 and to 8.3 mio ha in EU-25 by 2012. The 3 mio ha increase against 2004 would significantly contribute to the balance of cereal markets.

Given the increase in set-aside land, cereal and oilseed and protein crop area would slightly decline over the medium-term from 60.2 mio ha in 2004 and 58.2 mio ha in 2005 to 57.7 mio ha in 2012. This fall would be linked to the increase in mandatory set-aside, the introduction of the single farm payment and the moderate development projected for the profitability of cereals, oilseed and protein crop production over the medium term.

After an initial sharp drop in 2005 to 50.9 mio ha, cereal area would remain relatively stable and reach 50 mio ha in 2012 (i.e. a further 0.9 mio ha fall). Oilseed area would remain stable at 6.8 mio ha in 2005 and then slightly increase by 0.4 mio ha to stand at 7.2 mio ha in 2012 (including the non-food oilseed production on set-aside area). Non-food oilseed production on set-aside land increased from 0.5 mio ha in 2004 to 0.9 mio ha in 2005 in line with the increase in mandatory set-aside. It would then remain relatively stable over the medium term constrained by the limits of the Blair House agreement. Protein crop area in the EU-25 is projected to stabilise at around 1.4 mio ha, of which 0.2 mio ha would come from the new Member States.

1.2.3. Prospects for cereal markets

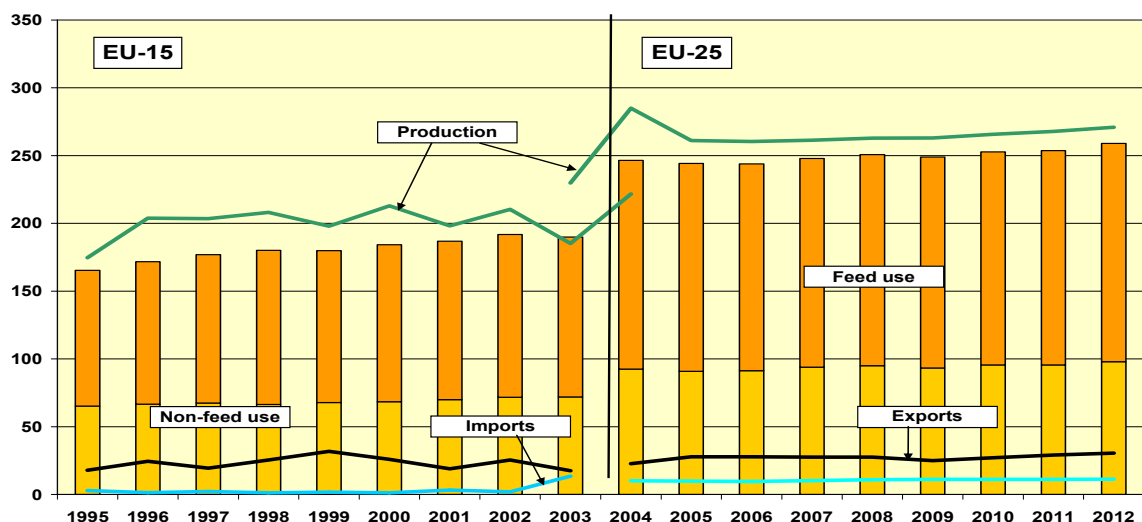
In 2003 EU-25 cereal production dropped to 230 mio t from 263 mio t in 2002 owing to exceptional weather conditions. Lower mandatory set-aside combined with more favourable climatic conditions led to a sharp rebound at 285 mio t in 2004, with about 63 mio t produced in the new Member States as compared to 222 mio t in the old Member States. Due to the return to higher set-aside levels and the introduction of decoupling in a number of countries, production in 2005 is estimated at 261 mio t (which would remain above the average harvest level).

Domestic use reached 243 mio t in 2004, which represents an expansion of 4 mio t from 2003, but only of 2 mio t against 2002. Most of this increase would materialise in feed use thanks to the significantly lower price levels than in the previous year and a slight growth in livestock production. In 2004 cereal exports reached 22.8 mio t hampered by the weak US\$. Nevertheless exports are estimated to be 2.6 mio t higher than in 2003.

The important harvest in 2004 enabled to replenish total cereal stocks which grew by more than 28 mio t to stand at 61 mio t. Though most of this stock increase would be found in private stocks, public stocks could reach approximately 16 mio t at the end of the 2004/05 marketing year, i.e. an increase of 12 mio t against 2003. Most of these stocks would concern soft wheat (9.7 mio t), rye (2.4 mio t), maize (2.1 mio t) and barley (1.5 mio t).

The carry over of stocks combined with an above average cereal harvest in 2005 should translate into continuous price pressure. This should favour a renewed, though small, increase in domestic use by 1.5 mio t to 244.9 mio t. Moreover, the expected stronger US\$ would support the competitiveness of European cereals on world markets. Exports are estimated to return to normal levels of 27.8 mio t (i.e. up 5 mio t from 2004). The combination of these factors should lead to a reduction of stock levels of 2 mio t, mainly in public stocks.

Graph 1.5 Development in cereal markets in the EU (mio t), 1995-2012



The medium-term projections depict an outlook for the EU cereal markets that would appear moderately positive for most EU cereals, with the noticeable exception of barley which would only gain competitiveness on domestic markets towards the end of the decade. However, the functioning of cereal markets in some producing regions could remain constrained by marketing inefficiencies. The latter could affect in particular the marketing of soft wheat and maize from southern central European countries. It is assumed that the market integration of these regions into the single market would gradually increase until 2008 alongside with improvements in infrastructure.

The medium-term prospects for yield growth in the EU would show a more modest pattern than earlier projections suggested, with an average annual growth estimated at approximately 0.8 % between 2005 and 2012. In the past years, yield growth slowed down considerably and future increases in the intensive cereal production basins of the old Member States now appear more limited. However, maize yields should continue to increase substantially throughout the EU. Some scope for further yield increase are also expected in the new Member States, which are on average at roughly half of the yield levels of the old Member States.

The projected rise in cereal yields would more than offset the decline in cereal area and entail a gradual expansion in cereal production over the medium term. After a pronounced short-term fall in 2005 at 261 mio t due to the increase in mandatory set-aside and lower levels of yield, EU-25 cereal production would resume expanding to reach 271 mio t in 2012.

Box 4 The impact of alternative \$/€ exchange rates on the cereal sector

The \$/€ exchange rate has considerably fluctuated over the past few years. In November 2002 the euro reached parity with the US \$, then continuously appreciated towards 1.34 \$/€ in December 2004 and from then on started to depreciate again. These movements in the \$/€ exchange rate have affected the competitiveness of European agriculture through the changes in:

- output prices: EU prices are denominated in euro whereas agricultural commodities are traded in US \$. The relation between these two prices could vary significantly in relation to exchange rate movements;
- production costs: appreciating currencies in nominal or in real terms increases the costs of production relative to output prices of those sectors which rely more on domestic factors such as labour and land than other sectors of the economy. A depreciating euro on the other hand has the opposite effect and decrease costs relative to output prices. The costs of land and labour for the agricultural sector would only adjust with a significant time lag, e.g. when a new land lease contract is negotiated. In other economic sectors which are more dependent on tradable inputs, such as energy, the effects of the variability of exchange rates would not be felt as early as in agriculture because the major cost components would vary similarly with the prices of output. A high share of tradable inputs in the cost structure would tend therefore to offset parts of the impacts of currency movements for output prices. Since the costs of production tend to remain relatively stable in agriculture as compared to other sectors of the economy, appreciating currencies would affect competitiveness (and depreciating currencies would positively influence competitiveness) more than in other sectors of the economy.

Another factor influencing the competitiveness of European products lies in their dependency on trade. The sectors with a high share of exports or imports relative to production should be relatively more affected than those with a large domestic base.

This text box aims at illustrating the sensitivity of the market projections to different assumptions on the exchange rate developments over the medium term. Therefore, in comparison to the central assumption of a medium-term exchange rate gradually reaching 1.15 US\$/€ in 2012, two alternative scenarios are evaluated: (1) a medium-term exchange rate of parity with the US\$ from 2007 onwards and (2) a medium-term exchange rate of 1.4 US\$/€ from 2007 onwards.

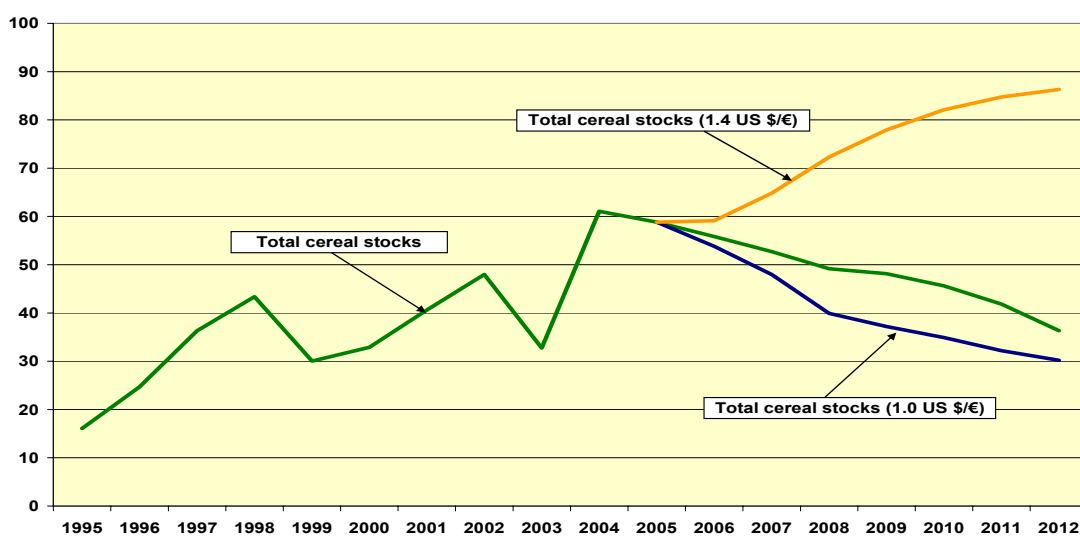
The sensitivity of cereal production to a depreciation of the euro is relatively limited. **The parity assumption** would lead to a demand-driven increase in EU cereal production of 1.7 % (or 4.8 mio t) as compared to the baseline. Thanks to a direct price transmission, oilseeds production would exhibit an even stronger increase ranging between 2.2 % to 4 % over the 2007-2012 period. The overall profitability of crop production would be higher than in the baseline generating a decline in voluntary set-aside of around 0.1 - 0.2 mio ha.

Cereal consumption would grow by some 2 % to 3 % until 2012 thanks to the expansion of feed use which would be supported, with a certain time lag, by the growth in the domestic demand and exports of pork, poultry and eggs. The gradual expansion

of the domestic market as well as the increase in oilseed area would constrain the rise in cereal exports by 1.8 to 2.8 mio t between 2006 and 2008 as compared to the central scenario. These developments would gain significance until 2012 and hinder the availability of cereal for exports, in particular for soft wheat by the end of the period. From 2010 onwards cereal export levels would be 0.7 to 4.4 mio t lower than in the baseline.

Public stocks would be significantly reduced and disappear by 2008 (including in landlocked regions with high transport costs). Stock levels in the EU would fall drastically to 30 mio t in 2012 as compared to 36 mio t in the baseline. In 2012 domestic prices for cereals would stand some 10 % - 12 % higher than in the baseline.

Graph 1.6 Development in total EU cereal stocks under different exchange rate assumptions (mio t)



Under the **exchange rate conditions of 1.4 US \$/€** over the medium term, the market situation would deteriorate as compared to the baseline. Cereal production would be slightly lower (between -0.2 % and -0.5 %) than in the baseline, whereas the relative decline in consumption would reach around -2.2 % on account of lower demand from the livestock sector. Oilseed production would show a more pronounced drop than cereals' production (at approximately 5.5 % to 6 %) as cereal prices would become more attractive. Moreover, imports of oilseeds would tend to substitute parts of domestic oilseed production. The overall crop profitability would decline and voluntary set-aside would increase by 0.1 mio ha in the EU to reach 3.3 - 3.4 mio ha (as compared to 3.2-3.3 mio ha in the baseline).

The ability to sell cereals on world markets at competitive conditions would decrease and exports would drop by 4 to 5 mio t against the baseline. Public and private stocks would accumulate to stand at 87 mio t in 2012 (against total stocks at about 36 mio t in the baseline). Public stocks would be significantly higher and reach a relatively high share of total stocks as compared to the 3 mio t in the baseline. Cereal prices would remain at intervention price level, i.e. some 8% to 19% lower than in the baseline.

Domestic consumption of cereals would exhibit an 11 mio t increase over the projection horizon to stand at 256 mio t in 2012. Cereal feed demand would continue to expand from 153 mio t in 2005 to 161 mio t in 2012. However, compared to the previous

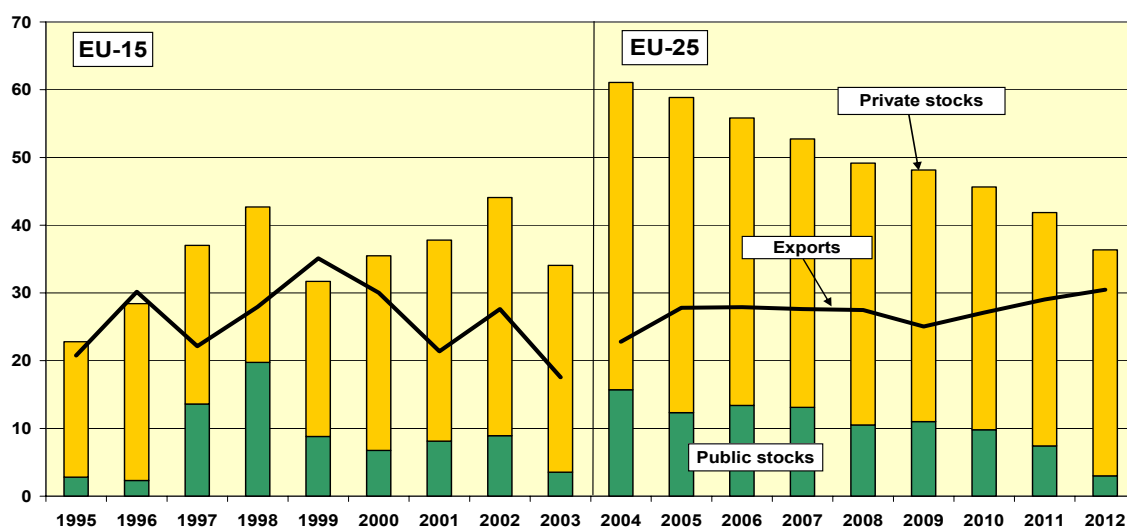
decade when feed use expanded by more than 20 mio t, the coming years would only exhibit a moderate growth. Industrial and human consumption would demonstrate a slight increase by 4.2 mio t until 2012.

Several factors would contribute to this moderate growth in cereal feed use. First, the increase in feeding efficiency will continue, in particular in the new Member States, resulting in lower feed use per ton of meat and livestock products than seen in the past. The overall increase in white meat and egg production in the EU is also projected to be lower than in the last decade. Feed cereals gained competitiveness in the 1992 and 1999 reforms and largely replaced cereal substitutes. Future additional gains in cereal consumption in this respect appear more limited.

Changing price relations over the medium term would result in a significant change in the composition of cereal feed use in the medium term. In the first half of the period soft wheat and regionally also maize would become more attractive in feed use, while barley would gain competitiveness in the second half of the period.

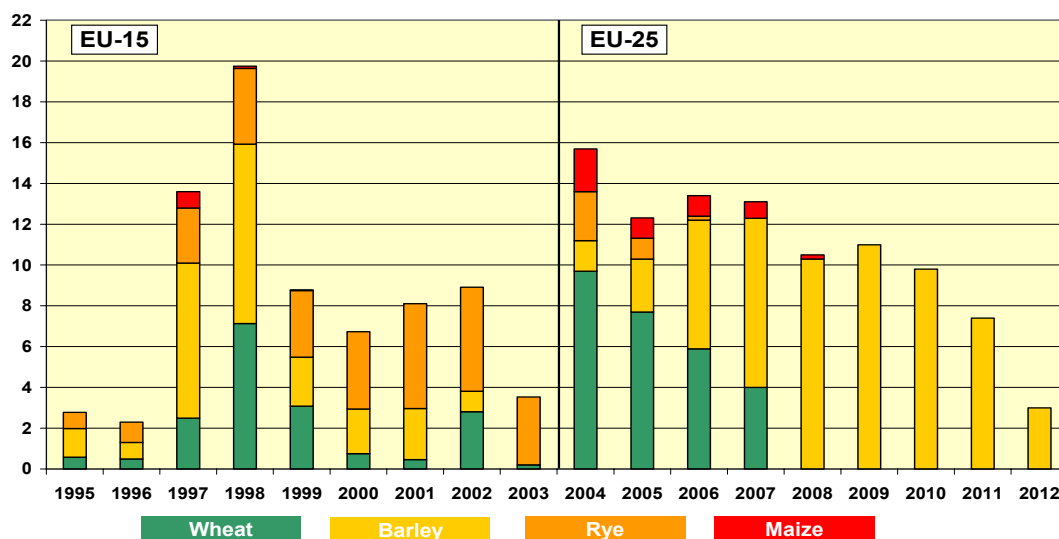
High levels of stock would continue to leave the cereal markets in a fragile situation over the next two years. During the first half of the projection period, the impact of higher mandatory set-aside and the implementation of decoupling would combine to limit production growth and, thanks to increasing exports, would generate a gradual fall in stock levels. Total cereal ending stocks would then stand at 36 mio t in 2012, some 22 mio t lower than in 2005.

Graph 1.7 Development in cereal stocks and exports in the EU (mio t), 1995-2012



In the short term most of the public stocks would consist of soft wheat, rye and maize. Rye public stocks would disappear by 2007. Soft wheat and maize stocks would be gradually reduced and disappear in 2008 and 2009 respectively. Barley would suffer from significant loss of competitiveness during that time and public stocks of barley would tend to accumulate. The competitiveness of barley would then improve, leading to a reduction in public stocks from 2009 onwards.

Graph 1.8 Composition of public stocks in the EU (mio t), 1995-2012



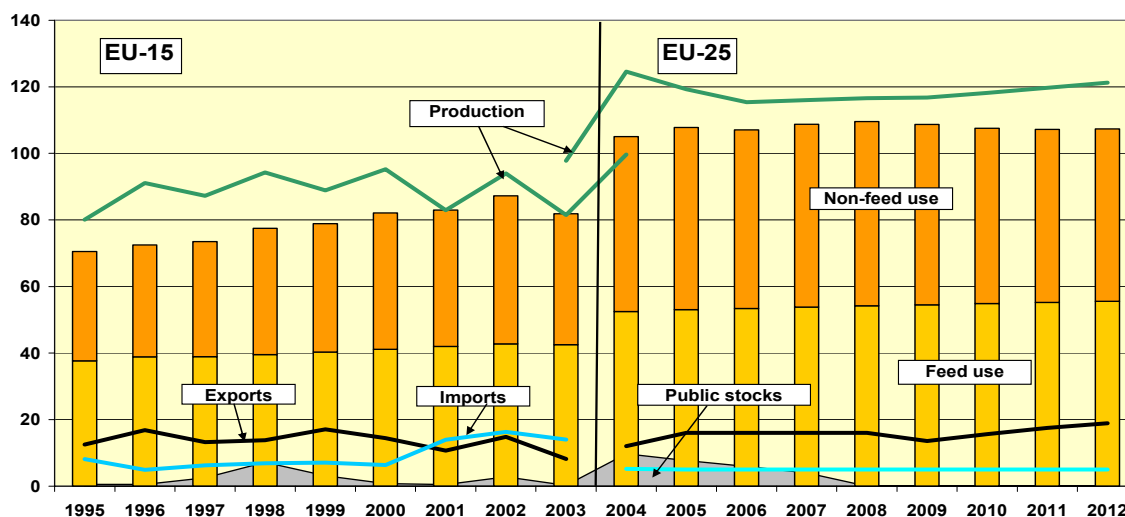
In summary, the medium-term prospects for cereal markets for the EU-25 should remain moderately positive thanks to the impact of the CAP reform and the return to a higher set-aside level which, combined with more favourable conditions on world markets, should contribute to the improvement of the balance of cereal markets after the record harvest of 2004. The assumed return to a slightly weaker euro over the medium term should also help to restore a moderate level of competitiveness for cereals. Specific difficulties could only arise for coarse grains, in particular for barley, and on a regional scope for soft wheat and maize.

1.2.4. *The perspectives for individual cereal markets*

The prospects for EU wheat markets should remain relatively favourable over the medium term. After a marked fall projected for 2005, linked to the introduction of decoupling and higher set-aside, common wheat production would resume growing over the medium term to stand at 121.2 mio t in 2012 as common wheat area would benefit from the declining profitability of barley. During the first half of the projection period, its competitive prices would further stimulate its domestic use, not only for feed demand, but also for industrial use (as high stock levels would weigh heavily on soft wheat prices). The introduction of set-aside in the new Member States would reduce soft wheat production by around 1 mio t in 2009. From 2010 onwards, the common wheat market would benefit from supportive world markets and 19 mio t of common wheat could be exported in 2012. With imports limited on average at 5 mio t, stocks would slowly decrease over the medium term from 25.7 mio t in 2005 to levels around 15 mio t in 2012. Public stocks would disappear in 2008.

The prospects for the durum wheat sector are expected to be characterised by a decline in harvested area due to the introduction of the single farm payment and the specific reduction in the level of support of the sector. Durum wheat area fell by approximately 0.6 mio ha against 2004 to stand at 3.3 mio ha in 2005. Improved market conditions would then stabilise harvested area at 3.6 mio ha from 2006 onwards. Domestic consumption of durum wheat should further increase to 10.9 mio t in 2012 thanks to the continuous growth in human consumption, whereas feed use would fall to 0.8 mio t (against 1.4 mio t in 2003 and 1.6 mio t in 2004). The EU-25 would remain an overall net importer of durum wheat, with total imports fluctuating around 1.5-1.7 mio t.

Graph 1.9 Development of soft wheat markets in the EU (mio t), 1995-2012



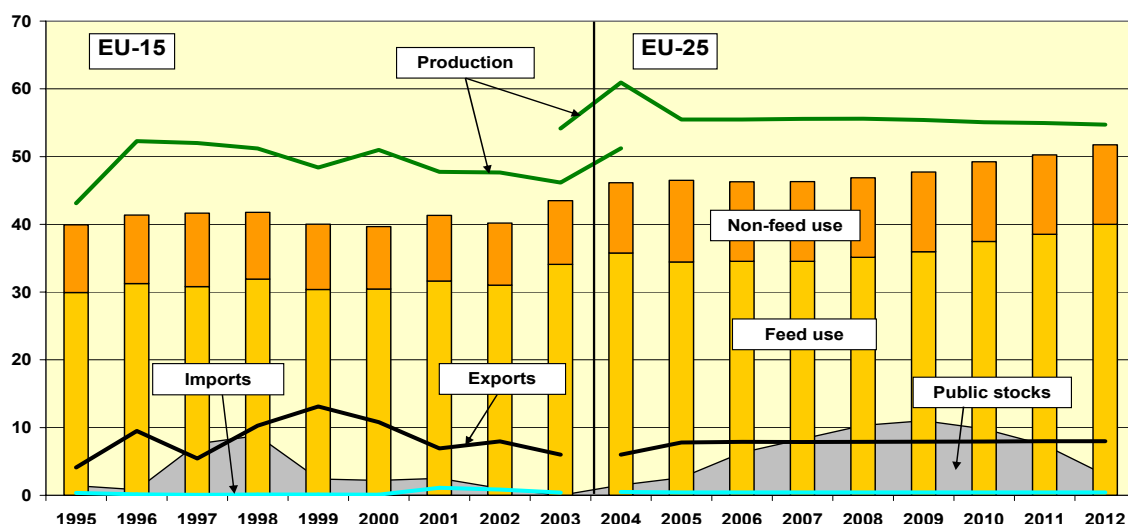
Prospects for maize markets would also remain positive over the medium term. In 2005 EU-25 production is projected to reach 47.6 mio t, i.e. some 5.5 mio t lower than in 2004. About 10.8 mio t would be produced in the new Member States, i.e. some 1.4 mio t below the 2004 harvest.

Maize production would increase by 5.7 mio t between 2005 and 2012 driven by significant yield growth as maize harvested area would remain relatively stable at 6 mio ha over the medium term. The increasing market integration of the new Member States would bear fruit in the second half of the projection period and lead to a further increase in maize use, in particular of feed use and industrial demand. Total use would rise from 49.3 mio t in 2005 to 54.4 mio t in 2012. The EU-25 would export some 2.5 mio t of maize on world markets whereas about a similar amount would still be imported in the western and northern parts of the EU.

In the first half of the projection period, marketing difficulties (high transport costs) are projected to largely separate maize deficit regions in the western parts of the EU from the maize surplus regions in the south east of the EU. They would also restrict export possibilities so that price expectations in the surplus regions would be lower than previously anticipated. As a consequence, the projected maize production surplus in the new Member States would gradually decline as continuous regional price pressure would hinder production growth and favour regional domestic use. However, this situation is foreseen to gradually improve thanks to the steady integration of western and eastern markets within the EU.

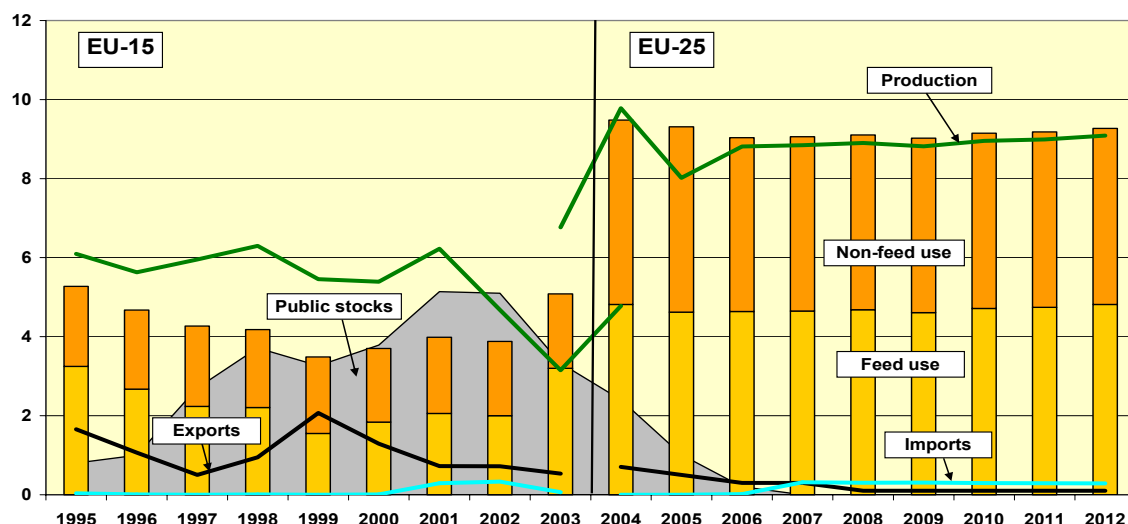
The prospects for the barley market are projected to be more difficult as the adjustment potential of the EU market should remain largely constrained by the relatively high support price of this cereal. Over the medium term, production would stagnate around 55 mio t owing to the limited profitability prospects of this cereal. Barley would also lose competitiveness on the feed market against feed wheat and maize in the first half of the projection period so that total feed use of barley would stagnate at 34 – 35 mio t. Domestic (feed) demand would strongly recover towards the end of the decade thanks to the projected increase in common wheat prices. A stagnating production combined with an expanding domestic demand and net exports stable around 7.5 mio t would enable total barley stocks to decline from an estimated 19.2 mio t in 2009 to 10.0 mio t in 2012, of which 3 mio t in public stocks.

Graph 1.10 Development of barley markets in the EU (mio t), 1995-2012



Limited adjustments are expected over the medium term in the rye sector as producers largely anticipated the implementation of the CAP reform decisions with a drastic reduction in rye area over the last years. The high level of rye intervention stocks that still exist at the end of the 2004/05 marketing year (2.4 mio t) and their gradual release over the next two years should weigh heavily on the short-term prospects for the rye market, with producer prices under substantial pressure. As a result, rye area would display a further reduction from 2.7 mio ha in 2004 to 2.6 mio ha in 2005.

Graph 1.11 Development of rye markets in the EU (mio t), 1995-2012



From 2009 onwards, the improvement in the market balance for rye would be insufficient to offset the limited profitability of this cereal and the stagnation in its harvested area at around 2.7 mio ha. Production (fuelled by yield growth) would reach 9.1 mio t in 2012 whereas domestic use would stand at 9.3 mio t, turning the EU into a slight net importer from 2008. The new Member States would develop modest market shares in the old Member States.

1.2.5. The major oilseeds

The medium-term prospects for the EU oilseed market are expected to be supported by productivity increases and the favourable developments projected for the world markets

(fuelled by continuous positive trends for global demand of vegetable oil). These perspectives would nevertheless remain conditional on the US\$/€ exchange.

Total food oilseed area of rapeseed, sunflower seed and soybean bottomed out in 2002 at 5.8 mio ha before increasing to 6.3 mio ha in 2004. It is foreseen to decrease to 5.9 mio ha in 2005 owing to the higher set-aside obligations. The favourable medium-term perspectives on the oilseed markets should lead to a steady increase in harvested area to 6.4 mio ha by 2012. A further 0.8 mio ha of non-food oilseed production would also take place on set-aside land.

Total food oilseed production stood at 17.4 mio t in 2004 and is estimated to decline to 16.7 mio t in 2005 in line with lower area and yields. It is forecast to display a slight increase over the medium term to 17.5 mio t in 2012 thanks to the projected growth in area and yield (in particular for rapeseed). Non-food oilseed production on set-aside land would also expand slightly from 2.2 mio t in 2005 to 2.4 mio t in 2012 as further increases are constrained by the limitations of the Blair House agreement.

The continuous favourable global and domestic perspectives for vegetable oil demand would lead to positive conditions for the EU oilseed sector. Domestic demand is foreseen to expand by a further 2 mio t to stand at 37.8 mio t in 2012 (mainly for soybeans, followed by rapeseed). The crushing demand for biodiesel production has been assumed to remain constant at the current level (c.f. box 5 *The development in biofuel use and the cereal and oilseed markets*).

The majority of the European oilseed production comes from rapeseed with a share of about 75 %, followed by sunflower seed with 20 % and by soybeans. From the three major oilseeds, rapeseed production would benefit most from the favourable market conditions. Over the medium term total rapeseed area and production would expand by 0.3 mio ha and about 1 mio t to stand at 4.7 mio ha and 14.8 mio t in 2012 respectively. Sunflower seed and soybeans would display a relative stagnation in their area, whereas their low yield growth potential would limit the increase in production.

Domestic use exhibits a different pattern than domestic production, with 44 % allocated to soybeans, 41 % to rapeseed, and 15 % to sunflower seed. Contrary to production, these shares would remain relatively unchanged over the medium term as vegetable oil and oil meal prices would not show major shifts in price relations.

Despite the projected moderate increase in oilseed production, the EU will continue to remain a large net importer of oilseeds (notably of soybeans and sunflower seed) with total imports increasing from 17 mio t in 2005 to 18.4 mio t in 2012. Exports on the other hand would continue to decline to reach 0.5 mio t in 2012.

Box 5 The development in biofuel use and the cereal and oilseed markets

The developments of the bioenergy markets have taken place in a larger political context set out by the obligations under the Kyoto-protocol on greenhouse gas emissions of 1997, the White Paper on “Energy for the future: Renewable sources of energy” (Com(97) 599 final) and the Communication on the implementation of the Community Strategy and Action plan on renewable energy sources (Com(2001) 69 final).

Since then a number of legal instruments have been adopted most notably the so-called Biofuel Directive (Council Directive 2003/30/EC on the use of biofuels or other renewable fuels on transport) as well as the Council Directive 2003/96/EC on the taxation of energy products and electricity. The Biofuel Directive defines indicative targets for the biofuel share of all transport fuels at 2 % by 2005 and 5.75 % by 2010 for the EU, while the second directive allows for tax reductions for energy from biomass. These two directives establish the economic backbone of the biofuel markets. The increasing crude oil prices in the last months have further contributed to the economic incentives to use biofuels.

Supply side incentives complement these demand side policies. Among these, the CAP mainly supports the production of renewable energy by decoupling the agricultural support from production and products, so that farmers have a better opportunity to seize chances on new markets such as biofuels. Moreover, two additional instruments directly support the production of renewable energies, i.e. the provision that non-food commodities can be produced on set-aside land and the energy crop premium of 45 euro/ha for a maximum of 1.5 mio ha.

A considerable technical progress in the biofuel sector has contributed to decreasing production costs which have favoured its competitiveness against mineral fuels. Moreover, it contributed to developing technologies suitable for extracting biofuels from non-conventional agricultural raw materials, such as wood. The latter is currently less advanced than bioethanol and biodiesel production from traditional agricultural raw materials but might become an important source of bioethanol production in the medium term.

Consequently the markets for biofuels, in particular that of biodiesel, have seen a steady increase in demand. Experts estimate that around 2.2 mio t of biodiesel are produced in the EU mainly in Germany, France and Italy. Since 2002 capacities increased by an estimated 35 %.

In the EU biodiesel is mainly produced from rapeseed. The crushing of rapeseed for biodiesel in the EU-25 can be estimated at 2.7 mio t in 2002, increasing to 4.6 mio t in 2004 and reaching about 5.2 mio t in 2005. The annual production of non-food rapeseed on set-aside area contributes to around 2.0 mio t of rapeseed on average, the rest of the additional crushing demand being satisfied from “normal” rapeseed production. The share of biodiesel use in total usable rapeseed production increased from 23% in 2002 to an estimated 40% in 2005 for the EU-25 on average. As a consequence, price differences between non-food and food rapeseed have nearly disappeared.

Furthermore bioethanol production from cereals has recently experienced rising investments into production capacities. Bioethanol in the EU is mainly produced from wheat, maize and sugar beet. An estimated 0.8 to 1 mio t of cereals was used for ethanol production in 2004 which might increase to 2.2 to 3 mio t in 2005, depending whether constructed capacities would be fully used. Bioethanol from cereal and sugar beet is mainly produced in France, Germany and Spain.

All these developments on the biofuel markets should influence the markets of traditional agricultural raw materials, because biofuel adds an alternative use to food, feed, and industrial use. This box aims at demonstrating the possible impacts of increased biofuel demand on cereal and oilseed markets.

The medium-term projections presented in this publication assume that the production capacities of bioethanol and biodiesel in 2004 remain constant over the medium term, with biodiesel as the main contributor to the biofuel targets. Without a significant expansion in biofuel production capacities, only about 0.6 percentage points contribution to the targets would be achieved by cereals and oilseeds.

Reaching the biofuel target of 5.75 % in 2010 should generate a significant expansion in biofuel demand as compared to the baseline. Based on an estimated use of transport fuels of approximately 330 mio t in the EU-25 by 2010, reaching the target in 2010 would imply the replacement of 19 mio t of fossil fuels. This target can be satisfied by biodiesel and bioethanol. Biodiesel has a similar energy content to fossil fuel, while the energy content of bioethanol is lower. For pure analytical reasons the replaced fossil fuel is expressed in bioethanol equivalent: 19 mio t of fossil fuel would translate into 25 mio t of bioethanol equivalent.

The impact of this additional demand on the EU cereal and oilseed markets should primarily hinge on the type of biofuel sources. As biofuels will be produced from an increasing number of products, the relative price developments of raw materials will determine their demand from the processing industry. Furthermore, the level of biofuel use should also be influenced by the degree of competition from other domestic uses such as food, feed and industrial usage.

Market and trade policies should affect the price reaction of domestic markets and the level of imports of raw materials. In the case of open markets such as oilseeds and vegetable oil, imports would limit domestic price reactions linked to an increasing biodiesel demand. A more significant response of domestic prices could be expected on cereal markets as the additional cereal demand would not be directly reflected in import flows.

Meeting the targets of the biofuel directive should have a major impact on the price developments on the EU cereal and oilseed markets through its effect on domestic production (for both area use and production intensity), on the structure of domestic demand, and on the trade pattern (decline in export flows and increasing imports).

Increase in domestic production

Higher prices should stimulate a significant expansion in cereal area, which would benefit from the provision for energy crop production on set-aside land. The potential impact on oilseed area is expected to be significantly lower owing to less important price increases, the Blair House agreement (which limits oilseed production on set-aside land to 1 mio t of soybean meal equivalent) and rotational and climatic

constraints. Under an extreme scenario with substantial price increases, the rise in domestic production of cereal and oilseed could meet 50 % of the additional demand from the biofuel directive.

Substitution in domestic use

Higher prices for cereals and oilseeds would have a considerable impact on their domestic use, mainly in food, feed and industrial demand. Feed demand for cereals would be substantially reduced, in particular for soft wheat and maize (which are the main raw materials for biofuel production). This would benefit not only the other cereals (e.g. barley and rye) which would partly replace wheat and maize in the animal feed complex, but also other competitively priced substitute feed products (such as wheat and maize gluten, and protein-rich rapeseed meal which are by-products of the ethanol and biodiesel production respectively). Demand from the biofuel market would also affect the industrial use of cereals. The diversion in domestic uses of cereals and oilseeds could under an extreme scenario satisfy around 25 % of the additional demand for biofuel.

Increasing biodiesel demand would trigger an important increase in rapeseed oil prices and increasingly substitute for human use. About 40 % of rapeseed is currently crushed for biodiesel production. This share should rise further depending on the demand and price increases. Food demand and other uses would then be increasingly satisfied by other (vegetable) oils (e.g. sunflower oil and soybean oil).

An increase in net imports

Reaching the 5.75 % target by 2010 would largely reduce the exports of EU cereals, with major impacts on world and domestic market prices which would exhibit substantial increases. Higher biodiesel demand would stimulate EU imports of rapeseed for processing and rapeseed oil, while triggering an important fall in exports.

Uncertainty

The impact of the biofuel directive on the markets for traditional agricultural raw materials remains subject to many uncertainties. They concern in particular:

- the level of the actual demand for agricultural raw materials, i.e. when and to what extent will other sources of biofuel become competitive;
- future technological improvements in biofuel production of cereals and oilseeds (e.g. new varieties);
- the degree of competitiveness of domestically produced biofuel based on cereal, sugar beet and oilseed as compared to fossil oil and imported biofuels, notably as regards the potential price increases resulting from the additional demand of cereals and oilseeds.

This analysis shows that the production potential of biofuels in the EU is relatively large and that the additional demand could lead to significant price increases for agricultural raw materials (notably cereals and oilseeds). Reaching the target of 5.75 % of all transport fuels by 2010 under restrictive trade assumptions should turn biofuel use into a major component of the EU domestic demand for cereal and vegetable oil.

1.3. Meat and livestock

1.3.1. Beef and veal

The EU beef and veal market was strongly disrupted by the BSE scares of 1996 and 2000/2001 and by the measures that were taken in response to these crises. It is estimated that in the period between 1996 and 2004 more than 8 mio animals were withdrawn in the framework of the slaughter schemes and around 6 mio calves were subject to emergency supply-side schemes⁷, in an effort to keep supply as close as possible to falling consumption.

The impact of these measures reinforced the structural reduction of the EU cattle herd due to the constant reduction of the dairy herd linked to the joint effect of constant milk quotas and increasing milk yields⁸. The suckler cow herd, which strongly developed during the nineties, has been slightly declining since the year 2000, as the Agenda 2000 CAP reform introduced more stringent stocking density constraints. Since then the number of suckler cows has decreased by around 0.5 mio heads which, cumulated with the structural decline of the dairy herd, has brought the total cow herd down by more than 1.6 mio animals in 3 years. All these factors had a profound impact on beef production which decreased by nearly 5 % between 1999 and 2004.

Beef production increased somewhat in 2004 due to the surge in slaughtering that took place by the end of the year in some of the Member States that apply decoupling as from 2005 (December 2004 slaughtering were 10 % higher than the average of past years). Beef production is projected to continue to slightly increase in the short term, following the assumed phasing out of the Over Thirty Months Scheme (OTMS) in the UK from the beginning of 2006⁹ and given a limited de-stocking of breeding animals linked to the introduction of decoupling of beef direct payments in 2005. In this respect, the introduction of the decoupled single farm payment is expected to have a significant impact on the beef sector. Combined with a relative slight increase in cereal feed prices, it is projected to reduce the incentives toward intensive beef production system and generally reduce production from unprofitable production systems, generating an overall reduction in EU beef production¹⁰. Over the medium term beef production is therefore expected to decrease to around 7.6 mio t by 2012, a reduction of around 420 000 tons from 2004.

⁷ Furthermore the culling linked to the outbreaks of Foot and Mouth disease (FMD) in the UK and to a much lesser extent in the Netherlands, France and Ireland in 2001 concerned around 850 000 cattle, essentially in the UK.

⁸ It is estimated that between 1990 and 2004 the EU dairy cow herd decreased by nearly 30 %.

⁹ On the 1st of December 2004 the UK Government announced the start of a managed transition towards the lifting of the OTM rule for animals born after the reinforced feed ban in August 1996 and its replacement with a system of testing of cattle for BSE. Any changes in the domestic OTM rule are unlikely to come into effect until the latter half of 2005, meaning that beef from over-thirty months' animals would possibly enter the food chain only in 2006.

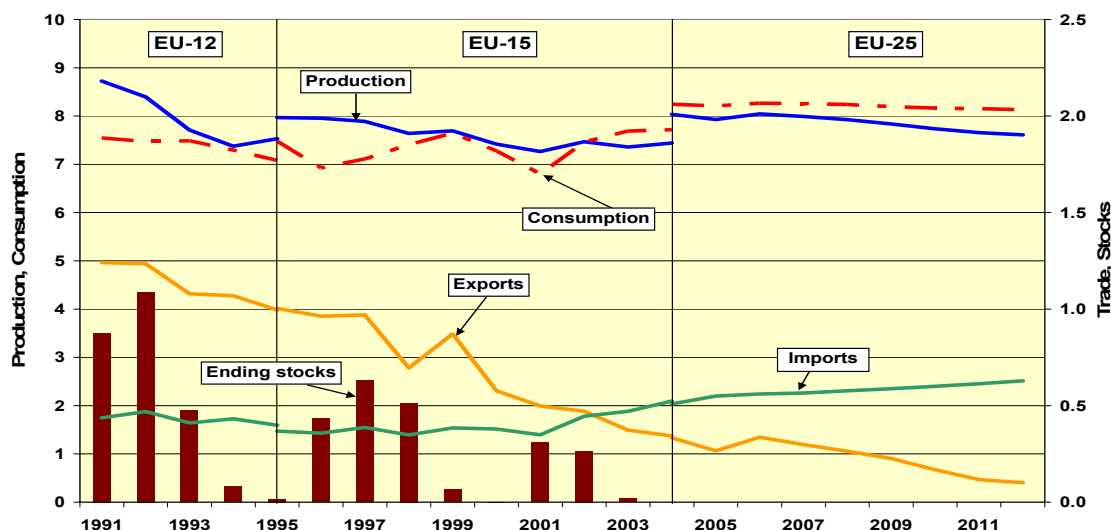
¹⁰ For more information on the impact of the CAP reform on beef production see European Commission, Directorate General for Agriculture, *CAP reform - medium-term prospects for agricultural markets and income in the European Union 2003-2010*, December 2003, Brussels

EU beef consumption quickly returned to pre-BSE level and since 2003 consumption has been higher than production. This net import status is expected to persist over the whole 2005-2012 period.

The enlargement of the EU in May 2004 did not result in dramatic disruptions of the beef market. On the contrary, the increase in trade between the old and the new Member States led to increasing prices in the new member States without prejudging further price increases also in the EU-15, which is confronted with low availabilities. The enlargement is not expected to have a deep impact on these projections as the new Member States only contribute to around 8 % of EU-25 beef and veal production and 6 % of EU-25 consumption. Beef production in the new Member States originates almost completely from the dairy herd. Even if a limited growth in suckler cow numbers was observed in the past few years, the EU-N10 beef herd is expected to continue to represent a limited share of the total beef herd (below 5 %) throughout the projection period.

The increase in trade flows (both in live animals and beef meat) from the new Member States to the EU-15 since enlargement, with its impact on beef availabilities and rising prices, has accentuated the decline in beef and veal consumption in the new Member States, with beef per capita consumption dropping to 6.7 kg/head in 2004¹¹. Beef consumption is projected to stagnate over the medium term as the potential increase fuelled by rising income level would be broadly offset by the sustained price increase¹² for beef observed since enlargement and by the low consumer preference for beef meat.

Graph 1.12 Outlook for the EU beef market (mio t), 1991-2012



A steady demand and a tight domestic supply are expected to result in firm prices over the projection period, attracting more imports entering at full duty, notably high-quality

¹¹ During the last ten years beef consumption fell dramatically in the new Member States (up to 50 %) in line with the strong reduction in beef production.

¹² Beef market prices have increased substantially in the new Member States upon enlargement, with increases ranging between 10 and 30 %. It is expected that the tight market within the EU could result in firm prices throughout the projection period.

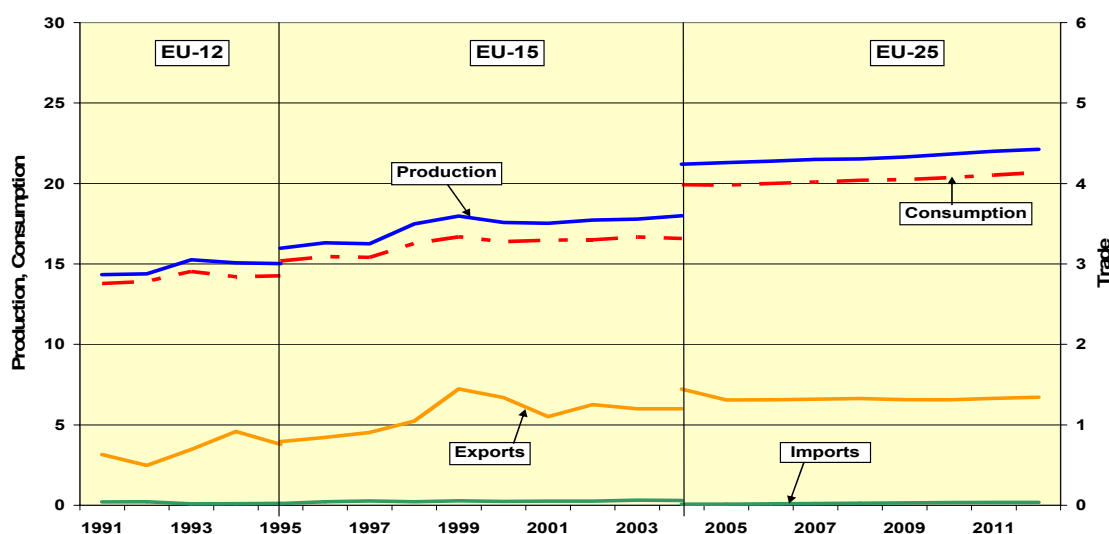
beef cuts from South America. Total beef imports are expected to reach 0.6 mio t by the end of the projection period. Extra-EU-25 exports will be more and more constrained by low domestic availability and lower competitiveness¹³ and, after a possible slight increase in 2006 thanks to temporarily increased availabilities linked to the end of the OTM in the UK, exports are projected to continue their declining trend, down to nearly 100 000 t by 2012.

1.3.2. Pig meat

EU-25 pig meat production decreased slightly in 2004 due to the strong contraction of the pig herd in the new Member States¹⁴ which more than compensated the increase in the EU-15. Over the medium term pig meat production, which is assumed to be driven mostly by demand (internal and external), is expected to increase but at a slower rate than in the nineties, due to the competition of poultry meat which is foreseen to capture most of the increase in overall meat consumption. EU-25 pig meat production is projected to reach around 22 mio t by 2012.

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 slight decrease observed in 2004, per capita pork consumption is projected to increase from 43.5 kg/year in 2004 to 44.4 kg/year by 2012, with a marked increase in the new Member States (supported by sustained economic growth and purchasing power).

Graph 1.13 Outlook for the EU pig meat market (mio t), 1991-2012



The new Member States have a greater role in the EU pig sector, representing around 15 % of EU-25 pig meat production and consumption. Since the enlargement producer prices have been steadily growing in the new Member States and are currently above the EU-25 average.

¹³ High domestic prices and a strong euro are expected to weaken further the competitiveness of EU beef exports.

¹⁴ Pig farmers in the new Member States were strongly affected by the low prices of 2002 and 2003 and their herd decreased by more than 10 % in 2 years (with breeding sows down by more than 15%).

The strong increase in extra-EU-25 pig meat exports of 2004¹⁵ is expected to be followed by a return to more normal exports levels in 2005. Over the medium term there is a scope for a slight increase in extra-EU-25 exports, while the intra community trade is projected to show stronger developments.

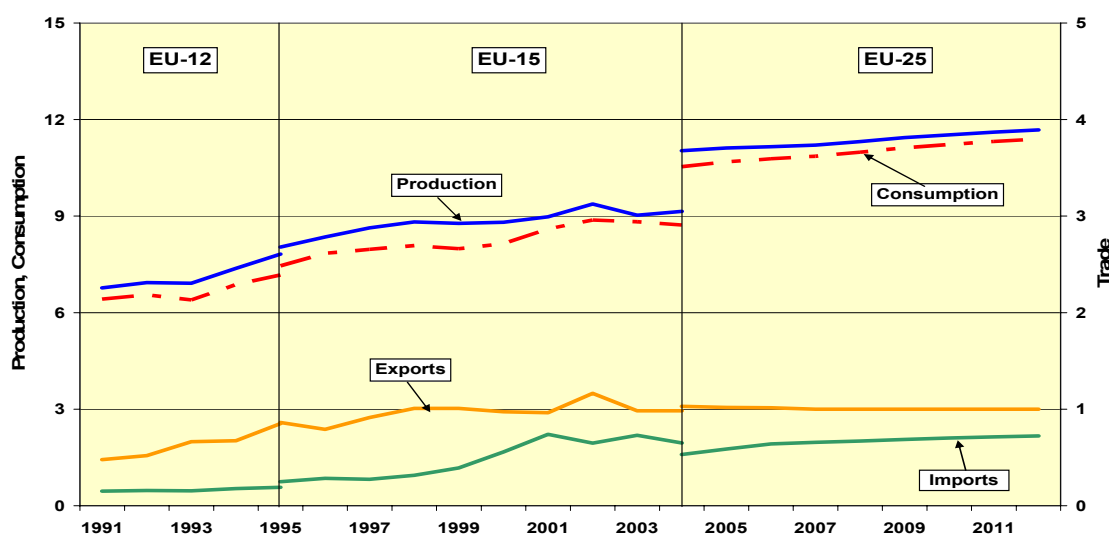
1.3.3. Poultry

Poultry production gradually recovered after the outbreak of avian flu in the Netherlands during spring 2003, which reduced EU production in 2003 by more than 2 %. Production in 2004 reached 11 mio t, slightly less than pre-2003 levels.

The medium-term outlook for poultry production remains relatively positive as competitive prices with respect to other meats, strong consumer preference and increased use in food preparations should continue to play in favour of poultry. Per capita consumption is projected to increase from around 23 kg/year in 2004 to about 24.5 kg/year by 2012, with a steeper growth in the new Member States, where it benefits from a growing consumer preference.

Production and consumption are expected to grow at a lower pace than in the nineties, in line with the slow down observed in most recent years (1999-2004), when production only grew on average by 1.9 % per year as compared to average growth rates of 2.3 % per year over the period 1995-1998.

Graph 1.14 Outlook for the EU poultry meat market (mio t), 1991-2012



Extra-EU-25 poultry exports are projected to stagnate in line with strong competition on the world markets by low cost producers and unfavourable US\$/€ and Brazilian Real/€ exchange rates¹⁶.

¹⁵ Japan introduced a ban on US beef after the appearance of BSE in December 2003. As a consequence, Japanese pig meat consumption and imports rose sharply to the benefit of EU exports (pig meat exports from the EU-15 increased by more than 10 % in 2004).

¹⁶ It has been assumed that, after the sharp devaluation of the last few years, the Brazilian Real would gradually depreciate by a further 30 % between 2005 and 2012.

Poultry imports, which have strongly increased between 1997 and 2001, decreased sharply in 2004 following the impact of avian flu on South East Asian poultry exporters (e.g. Thailand, which is the second largest poultry exporter to the EU) and of improved custom controls on salted meat. Imports are however assumed to resume growing over the longer term, with increased imports of frozen fillets and mainly cooked and processed poultry meat, which are replacing the imports of salted poultry meat¹⁷.

1.3.4. Consumption eggs

The prospects for the EU egg production appear moderately positive. Like poultry, egg production recovered from the avian flu in the Netherlands in 2003. Production of eggs reached 6.3 mio t in 2004 and is expected to further increase to 6.6 mio t in 2012 benefiting from increasing demand as well as lower feed costs particularly in the first half of the projection period. Consumption would expand from 6.2 mio t in 2004 to 6.4 mio t in 2012. Per capita consumption would increase from 13.51 kg/capita in 2004 to 13.64 kg/capita in 2012. Exports would develop between 0.2 and 0.3 mio t over the medium term.

1.3.5. Sheep and goat meat

The weak recovery in sheep/goat production after the foot and mouth disease epidemic of 2001 was halted by the drought of 2003 and its severe impact on pasture availability and the spreading of the blue tongue disease in the southern part of the continent¹⁸.

Production and per capita consumption are expected to follow a slight downward trend over the medium term, in line with past long-term trends and taking into account the potential impact of decoupling of ewe premiums in major producing countries (UK¹⁹, with 30 % of EU production, and Ireland have chosen to fully decouple ewe premiums while other key players like France are expected to keep a part of these payments coupled to animal numbers²⁰).

Production and consumption of sheep and goat meat in the new Member States are very small and not projected to develop over the medium term. Sheep and goat meat imports are foreseen to broadly stagnate at the level of existing TRQs or increase slightly in response to a somewhat better use of market access commitments granted to some third countries.

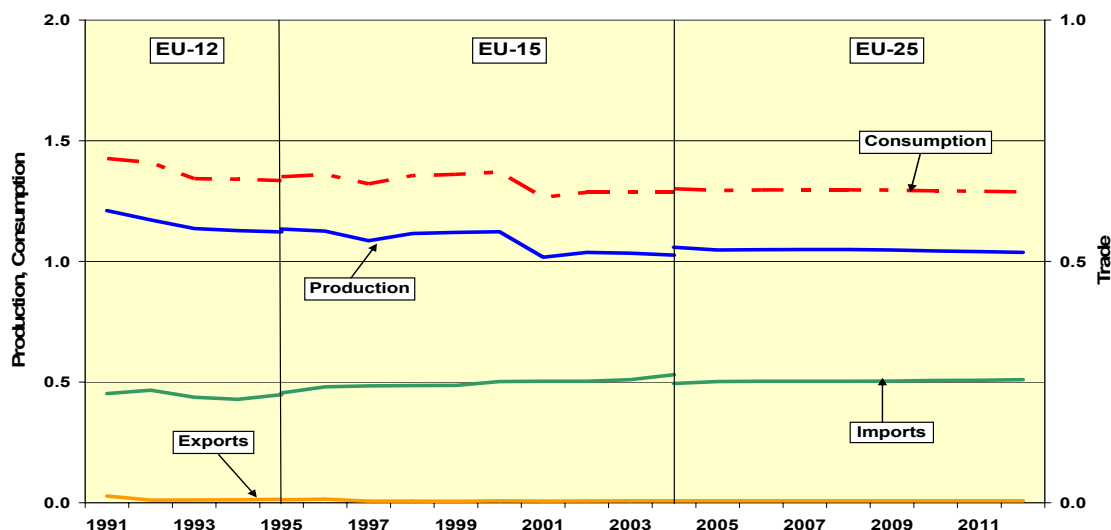
¹⁷ The present projections assume no import of salted poultry meat, as no definitive outcome of the WTO arbitration has been reached, pending the appeal that the EU has lodged against the findings of the WTO panel report issued on the 30th of May 2005.

¹⁸ The movement restrictions to control the spreading of the blue tongue disease result in disruption to trade and even to access slaughterhouses located in neighbouring regions (sheep and goat slaughtering in Spain decreased by nearly 4% in 2004).

¹⁹ According to the Meat and Livestock Commission (UK) the ewe premia represents on average 30 % of gross margins of sheep farms.

²⁰ Within defined national ceiling.

Graph 1.15 Outlook for the EU sheep and goat meat market (mio t), 1991-2012



1.3.6. Overall meat consumption

The 2000/2001 BSE scare caused a much more marked reduction in EU beef consumption (-12 %) than those of 1996 (which led to a short-term stability in total meat consumption), resulting in an overall reduction in meat consumption of 2 %. Both the pig and poultry sector were in a low production phase and were not ready to fully benefit from the drop in beef consumption.

The 2004 enlargement to 10 new Member States resulted in a reduction of the total EU-25 meat per capita consumption as less meat is consumed in the new Member States. In particular much less beef is consumed in the new Member States (7 kg/head compared to 20 kg/head in the EU15 in 2004). Beef and veal consumption in the new Member States is projected to remain rather stable at low level as the possible increase due to the rising income level would be broadly offset by the price increase linked to the enlargement and the low consumer preference for beef. Pork and poultry consumption levels in the new Member States are comparable to those of the old Member States. Pig meat is by far the preferred meat in the new Member States, where it represents on average nearly 60 % of total meat consumption. On the contrary sheep and goat consumption remains at extremely low levels with less than 300 grams per head per year²¹.

The following graph shows the evolution of per capita meat consumption in the EU over the period 1973-2004²² and presents the medium-term projections for the years up to 2012.

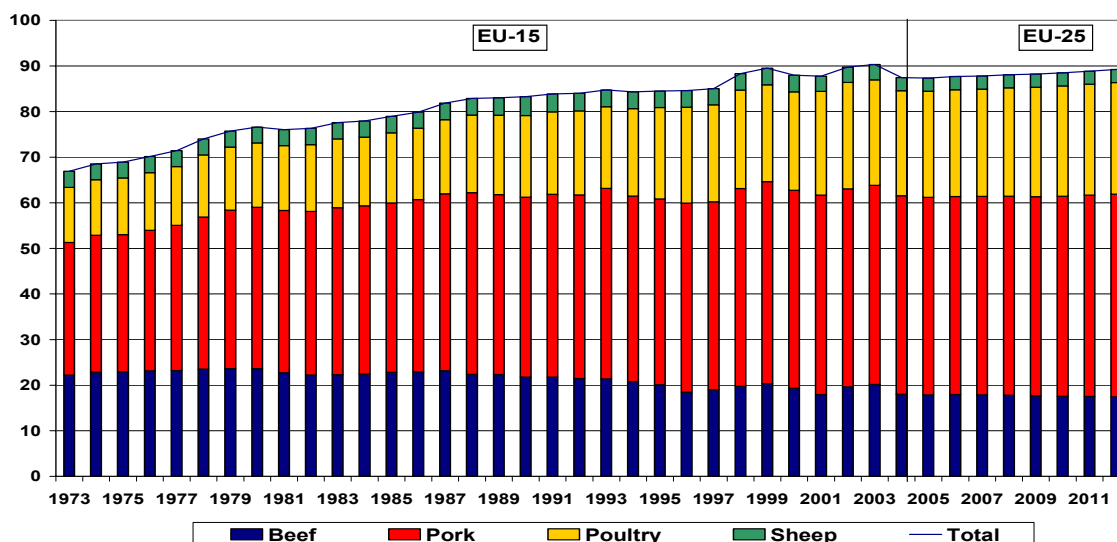
The long-term trend towards higher per capita consumption of meat slowed down at the beginning of the 1990s, but the large increases in meat consumption in 1998, 1999 and in 2002 and 2003 appear to be in contradiction with the view that meat consumption, in general, is saturated.

²¹ Sheep and goat consumption is higher in the islands of Malta and Cyprus.

²² All figures before 2004 are referring to EU 15. In order to allow a graphical 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.

The forecasts for the overall EU meat consumption that are presented in this document have been 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-25 is set to increase from 87.4 kg/head in 2004 to around 89 kg by the year 2012.

Graph 1.16 Meat per capita consumption in the EU, 1973 – 2012 (kg/head)



Pig meat, with a share of about 50 % is by far the most preferred meat by EU consumers, followed by poultry, with a share of around 26 %, which has overtaken beef/veal since 1996. The projections up to the year 2012 imply a further consolidation of poultry consumption with a corresponding decline in the shares of other types of meat.

1.4. Milk and dairy products

1.4.1. Milk

Milk production in the EU broadly follows the milk reference quantities, first introduced in 1984 to limit excess milk production. The increasing milk yields linked to improved genetics and feeding together with fixed production levels (limited by quotas) allowed for a dramatic reduction of the dairy herd, which shrunk by around 40 % in 20 years.

Over the past decades fat content increased for all Member States (from 3.87 % in 1982 to 4.11 % in 1996) and this has reinforced the trend towards lower number of dairy cows, as the increase in fat content reduces the margin for milk deliveries to dairies if the historical reference fat content is exceeded. A stabilisation in fat content (and even a slight decrease in some Member States) has been observed in the past few years (bringing the average for 2003 down to 4.05 %), as producers responded to the price signals sent by the dairy processors, who required less fat and more proteins. The increase in the protein content in milk has been less remarkable, with the protein content growing slightly and reaching 3.32 % in 2003.

Milk deliveries for the year 2004 were lower compared to the previous year (-0.3 % for the EU-25, with EU-15 at -1 % and an increase of more than 5 % in the new Member States). As a consequence milk production for the year 2004 is estimated to be 0.8 %

lower than the previous year, at 142.3 mio t (taking into account the overall increase in delivery ratio, more pronounced in the new Member States at nearly 75%).

Three years of gradual reduction in fat content were followed by an increase in fat content in 2004, partly compensated by the lower level of milk production. For this reason, the reduction in milk production was greater than the reduction in milk fat availabilities.

According to the provisional estimates for the milk quota year April 2004/March 2005, fat-adjusted milk deliveries exceeded by around 220 thousand tons the total EU-15 reference quantities for deliveries (representing an overshoot of less than 0.2 %). Lower deliveries compared to previous years in France and the UK (but also in Sweden) were more than compensated by overshoots in Italy and Germany.

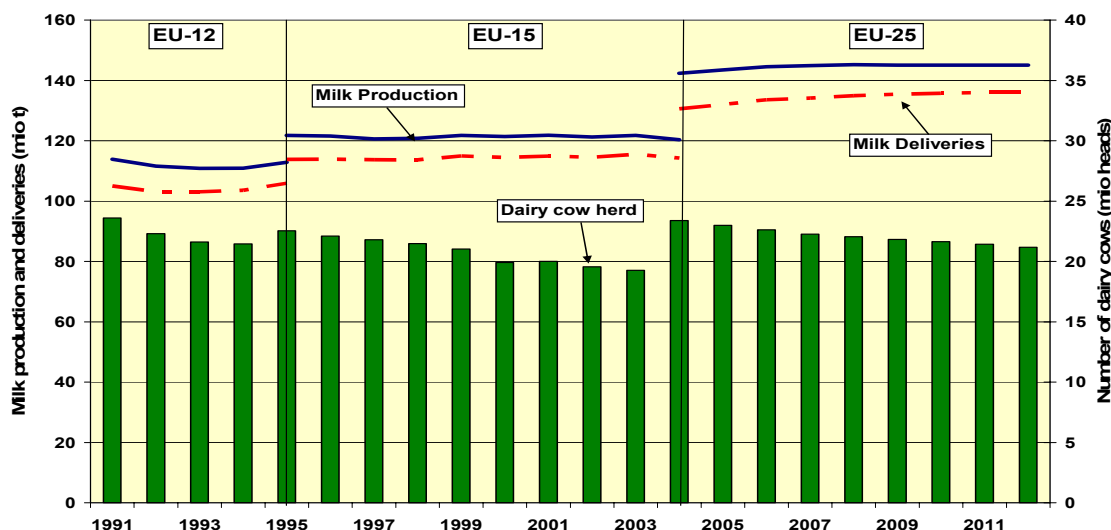
Over the projection period, milk production in the EU-25 is expected to broadly follow the evolution of the milk reference quantities, with total production close to 145 mio t by 2012. Milk deliveries are assumed to fully respect the milk reference quantities, in line with increasing quotas as from 2006, the ongoing enhanced enforcement in the Member States responsible for the majority of past overshoots and the underlying micro-economic rationale which makes it unprofitable to produce an extra litre of milk when the *superlevy* (associated fine) is higher than the price of milk²³.

In the old Member States production remains closely linked to milk quotas, as on farm consumption (which is not governed by quotas) only plays a minor role. The quota increases decided within the 2003 CAP reform are likely to slow down somewhat the long-term decline of the dairy herd. Assuming a further increase in milk yields of around 1.5 % per year on average over the forecast period, the number of dairy cows in the old Member States is projected to decline from 18.8 mio animals recorded in 2004 (December survey) to around 17.3 mio animals by the year 2012.

On-farm use of milk and direct sales are still very important in the new Member States, accounting for more than 25 % of total production. Over the projection period, subsistence production is expected to decline gradually due primarily to the projected positive development of rural economies and social security systems after enlargement, which should provide viable economic alternatives to subsistence farmers. These developments are expected to offset the foreseen milk quota increases in the new Member States. For the 10 new Member States total milk production, i.e. subsistence and market production, would remain relatively stable at approximately 22 mio t. Market production in the new Member States however would increase according to the quota increases agreed upon in the accession Treaty.

²³ To have an order of magnitude of the impact of a possible overshoot in milk deliveries, a simulation with an overrun of 1 mio t per year has been assessed. The additional milk (i.e. around 0.6 % of total EU milk production) is expected to result in an increase in production of the main dairy products ranging from a mere 0.1% increase for WMP to up to 5.3% for SMP. In relative terms, bulk products like butter (+0.8 %) and SMP (+5.3 %) would increase more than higher value-added products like cheese (+0.9 %), in line with their role as residual, directly supported products. However the biggest part of the additional milk availability would be absorbed for the production of cheese (around 40 % of milk) and butter (nearly 30 % of additional deliveries). Increasing production of dairy products is expected to exert pressure on prices, with SMP prices 2.9 % lower than in the baseline on average and butter and cheese prices projected to decrease by 1.8 % and 1.6 % respectively.

Graph 1.17 Outlook for the EU milk production, deliveries and dairy herd, 1991-2012



Average milk yield in the enlarged European Union is expected to reach 6.8 t/year in 2012 compared to the 6 t/year in 2004 (with yields more than 25 % lower in the new Member States, though projected to grow at a faster pace than in old Member States).

1.4.2. Cheese

Over the last 20 years, the EU cheese sector has been characterised by a strong and steady growth, both for production and consumption. Between 1995 and 2004 cheese production increased by nearly 15 %, with per capita consumption growing at a rate of 1.5 % per year on average. Cheese production absorbs more than 40 % of EU milk deliveries and is concentrated in four Member States (Germany, France, Italy and the Netherlands, which represent more than 75 % of EU cheese production). Intra-EU cheese trade also increased by more than 30 % between 1990 and 2002.

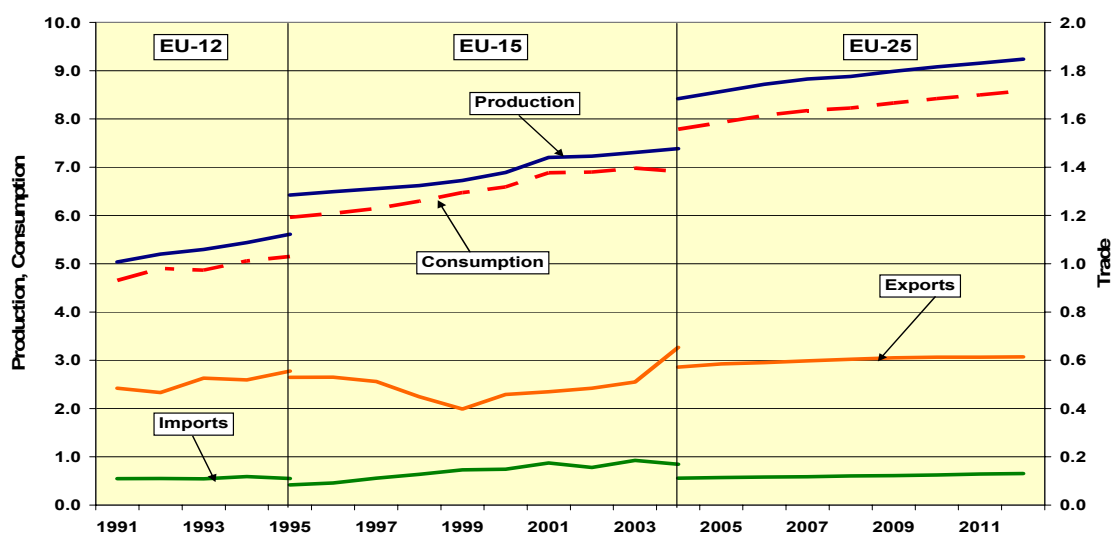
Record increases in cheese production in 2000 and 2001 (more than 7% in 2 years) were followed by a slow down in production growth²⁴ in 2002 and to a lesser extent in 2003. Cheese production showed a marked increase in 2004 (+1.9 %), confirming a recovery in cheese consumption and exports, in line with the gradual rebound in economic growth.

The increase in cheese production projected over the medium term would constrain the expansion of production of other dairy products: the additional 820 000 t of cheese that are expected to be produced during the period 2005-2012 (representing roughly 4.5 mio t of milk) will use more milk than the projected growth in deliveries following the quota increases for both the EU-15 (2006-2009) and the new Member States (2006), thus limiting the amount of milk available for the production of bulk dairy products like butter and SMP.

²⁴ A clear correspondence between the increase in cheese consumption in 2000-2001 and the dramatic decrease in beef consumption due to the BSE scare has not been proved. However, even if the recovery in beef consumption corresponded also to a slow down or even a stabilisation in cheese consumption, other factors like a less favourable economic environment may have played a role in the slow down in cheese consumption growth.

The medium and long-term outlook for the EU-25 cheese consumption is in general positive, although the rate of increase is expected to be lower than in past decades, notably for the old Member States, with per capita consumption in the EU-25 rising from 17 kg in 2004 to about 18.4 kg by 2012. This increase will be faster in the new Member States where cheese consumption is projected to grow by more than 35 % over the projection period, in line with increasing disposable income and expected changes in dietary patterns towards branded dairy products and processed food products (where cheese is an important ingredient).

Graph 1.18 Outlook for the EU cheese market (mio t), 1991-2012



The steady growth in domestic consumption is expected to absorb most of the increase in cheese production, limiting somewhat the growth in cheese exports, which are projected to stabilise above 600 000 t. Nearly half of cheese exports are expected to be exported without export refunds in view of the projected improvement in the competitiveness of EU cheese thanks to the anticipated price decrease triggered by the implementation of the CAP reform as well as to the increased world demand towards high value-added, branded, European cheeses.

1.4.3. Butter

EU-25 production of butter decreased by nearly 2.5 % in 2004 as more milk was used for the production of cheese and other high value-added dairy products following the strong increase in the consumption of these products. This is also due to slightly lower milk deliveries compared to previous years and to the first step of the reduction in butter intervention price decided under the 2003 CAP reform that should reduce the attractiveness of intervention purchases of bulk dairy products²⁵.

Upon enlargement it has been observed that, contrary to what many expected, only a limited increase in butter production took place in the new Member States. Additional milk production in the new member States was principally directed towards products like cream, which were in strong demand in the old Member States, notably Germany.

²⁵ The reduction in butter production may have been even bigger if the fat content in deliveries did not increase in 2004 (by 0.47 %), compensating somewhat the effect of lower milk deliveries.

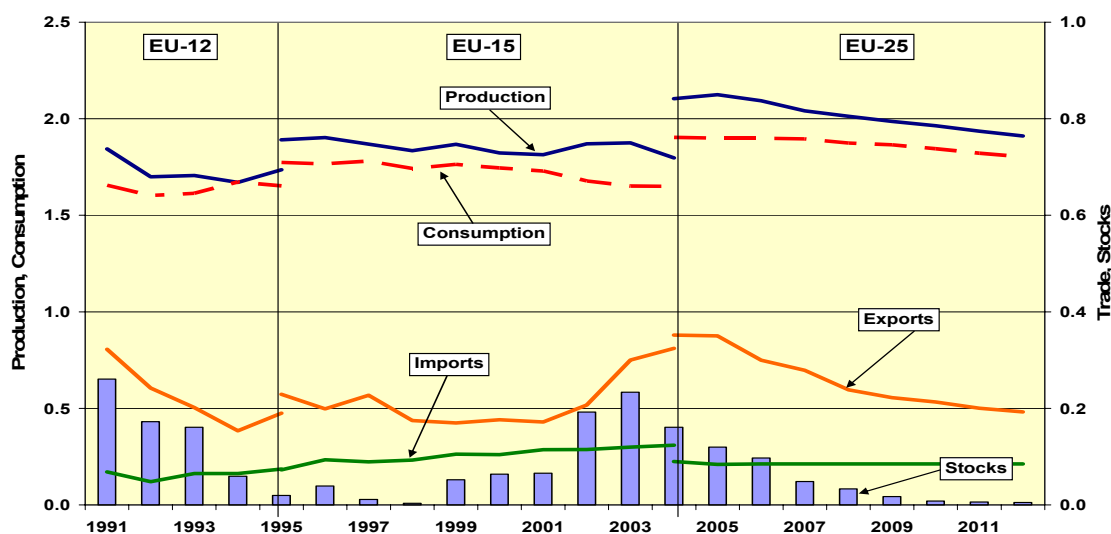
Butter prices in the new Member States increased on average by around 10 % between the first of May 2004 and the end of the year.

Butter production is projected to continue to decrease over the medium term in response to lower market and intervention prices. The quota increases decided for the period 2006/07-2008/09 are not expected to change this downward trend as the production of other dairy products is projected to absorb most of the additional deliveries.

Butter consumption still tends to decline despite some signs of stabilisation which were observed in recent years. Nearly 25 % of butter consumption benefits from aid to consumption (e.g. butter destined to the pastry industry). Projections for per capita consumption are set at around 3.9 kg by 2012, compared to the current level of about 4.2 kg (3.4 kg in the new Member States), i.e. -0.9 % per year on average, in line with the expected reduction of the aid to butter consumption in the framework of the implementation of the 2003 CAP reform.

EU-25 butter²⁶ exports increased significantly in 2003 and 2004 in response to increasing world butter demand and lower product availabilities in other major exporting countries. Butter exports, which are expected to continue to rely on export subsidies (though at a lower level), are projected to decrease over the medium term, in line with decreasing EU butter production, to the benefit of other exporters like New Zealand and Australia. Imports, most of which fall within the New Zealand import quota (76 700 t), are projected to stagnate over the medium-term.

Graph 1.19 Outlook for the EU butter market (mio t), 1991-2012



The projected balance sheet for butter shows that the decreasing production resulting from the lower attractiveness of butter should ease somewhat the pressure on intervention stocks, which are expected to continue to decline in the next few years. Domestic prices are projected to decrease substantially following the introduction of the support price cut under the 2003 CAP reform and to stabilise at a level above support level as supply decreases at a faster rate than consumption. The gap between domestic

²⁶ Including butter oil, in butter equivalent.

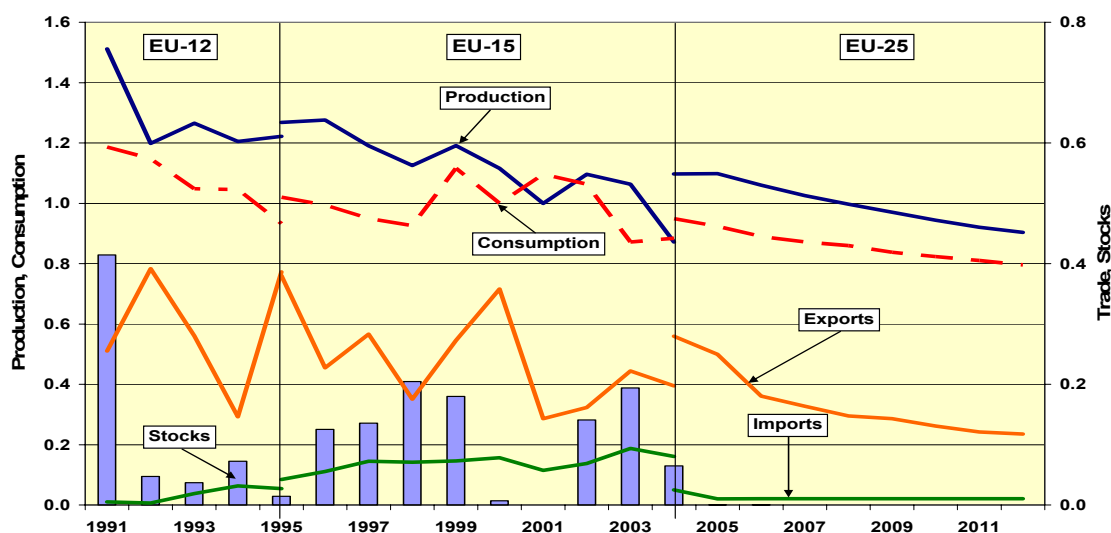
price and world market prices is therefore projected to remain substantial and should not allow for exports to take place without export refunds.

1.4.4. Skimmed milk powder

The EU production of SMP plummeted in 2004 with a 15 % drop as more milk proteins were required for the fast growing production of cheese and other high value-added dairy products. The lower milk deliveries of 2004, the lower attractiveness of SMP intervention after the first step of reduction in the SMP intervention price decided under the 2003 CAP reform (starting in July 2004) and the decrease in SMP production as by-product of a decreasing butter production may also explain this contraction.

Production is concentrated in Germany and France, which represent more than half of EU-25 SMP production. The new Member States currently contribute to some 20 % of total EU production (primarily in Poland), a share stable since 2001.

Graph 1.20 Outlook for the EU SMP market (mio t), 1991-2012



Over the medium term the downward trend for both production and consumption of SMP should continue as growing production of higher value-added dairy products will absorb an increasing share of EU milk. SMP aided consumption²⁷, which still represent nearly 45 % of total consumption (from nearly 70 % in the beginning of the nineties), is also projected to decrease as the 2003 CAP reform price cuts gradually reduce the ground for such aid.

The projections suggest a strong reduction in SMP production from 1.1 mio t in 2004 to around 0.9 mio t by 2012. Production in the new Member States is forecast to stabilise somewhat over the short term, before declining gradually as cheese production expands.

EU-25 SMP exports increased in 2003 and during most of 2004 in response to increasing world SMP demand and to lower product availabilities in other major exporting countries. SMP exports returned to more normal levels by the end of 2004, bringing extra EU-25 exports for 2004 at 280 000 t, 18 % less than the record level of

²⁷ For the use in calves feed.

2003. SMP exports are expected to decrease over the medium term, in line with decreasing production. Australia and New Zealand are the main producing countries which are expected to benefit from the gradual withdrawal of the EU from the world SMP markets.

The fall in production recorded in 2004 combined with sustained exports has allowed to sell out of intervention stocks nearly 130 000 t of SMP, leaving intervention stocks nearly empty. Over the medium term the reduction in production would outpace the slow decrease in consumption (that would benefit from lower prices following the implementation of the CAP reform price cuts), thus constraining exports and leaving intervention stocks empty. Domestic prices are projected to decrease in line with the CAP reform price cuts, but to stabilise from 2009 onwards, remaining above intervention price levels as SMP supply decreases at a faster rate than consumption.

***Box 6 FDI in agriculture and food industry in the new Member States
and the two accession countries***

This box provides a short overview on foreign direct investment (FDI) in the agriculture and food industry in the ten new Member States and the two accession countries (Bulgaria and Romania) over the period 1998-2004²⁸. The FDI plays an important role in providing capital combined with know-how and technology. This is a key contribution to the restructuring and modernisation of the food industry in the new Member States and candidate countries. Furthermore, the FDI enabled a number of firms to meet international health and sanitary standards and to increase competitiveness of the food processing sector. The impact may involve spillover effects up- and downstream in the food and agricultural sector.

The FDI transactions in the new Member States and the two accession countries experienced significant growth over the period 1998-2004. Over the period 1998-2003, the stock of total FDI in the new Member States nearly tripled from EUR 58 bio to EUR 168 bio, whereas it rose from EUR 5 bio to EUR 16 bio in Romania and Bulgaria. The largest volumes of FDI in absolute value were realised in Poland, the Czech Republic and Hungary totalling 79 % of all FDI inward stocks in the new Member States in 2003. The increase in total FDI stocks over the last seven years was highest in Slovakia (+366 %), Cyprus (+238 %), Estonia (+227 %), Bulgaria (+223 %), Poland (+219 %) and the Czech Republic (+218 %).

As compared to the EU-15, the agricultural and food sector in the new Member States and the accession countries is relatively large and more important for the whole economy, particularly in terms of employment. On average over the observed period, the food industry accounted for approximately 4 % of GDP, while the share of agriculture in total GDP stood at 3-4 % on average in the new Member States (ranging from 6 % in Lithuania to 2 % in Malta).

The food industry was among the first sectors where foreign investments appeared during the transition period. Drawing a considerable share of total FDI, it proved attractive to foreign companies as it benefited from a competitive cost structure, favourable investment conditions and legal compatibility and security after the EU accession. Total realised investments in the food industry amounted to EUR 10.4 bio in 2003 in the new Member States.

On average for all the new Member States, 18 % of the FDI stocks in the manufacturing sector and 6 % in the overall economy was directed towards the food industry until 2003. In some countries the percentage was much higher, e.g. the food industry in Lithuania attracted 37 % of the FDI in the manufacturing sector (or 11 % of the total FDI), in Poland 22% (or 9 % of the total FDI) and in Bulgaria 26 % (or 9 % of the total FDI), while this sector attracted relatively low FDI stocks in Slovenia (1.4 % of the

²⁸ In addition to data from Eurostat, information from several international and national sources such as UNCTAD, OECD, national banks and national foreign investment agencies were used. No data were available on FDI in food industry for Cyprus, Malta and Romania, and on FDI in agriculture for Malta.

total FDI). This share is significantly higher than the contribution of the food industries to GDP.

FDI stocks in the food industry increased by 121 % on average in the new Member States over the period 1998-2003. The highest increases were noted in Lithuania (+175 %), Poland (+160 %) and Slovakia (+138 %), while the FDI stocks exhibited a limited increase in the Slovenian (+4 %) and Bulgarian (+13 %) food industries.

Table 1.2 Inward FDI stocks in food industry 1998-2004 (EUR mio)

	1998	1999	2000	2001	2002	2003	2004	% change 2003/1998
10 new MS	4 725	5 566	6 584	7 775	8 350	10 427	n.a.	221%
Czech Republic	870	1 122	1 121	1 358	1 558	1 650	1 696	190%
Estonia	143	162	140	177	156	200	200	140%
Cyprus	n.a.	n.a.	n.a.	n.a.	31	n.a.	n.a.	n.a.
Latvia	64	79	106	117	103	111	93	173%
Lithuania	164	242	289	323	429	451	n.a.	275%
Hungary	1 107	1 248	1 478	1 882	2 022	1 976	n.a.	179%
Malta	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Poland	2 122	2 438	3 088	3 453	3 577	5 522	5 326	260%
Slovenia	68	45	42	48	77	71	n.a.	104%
Slovakia	187	230	319	417	429	445	n.a.	238%
2 CC	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bulgaria	295	358	373	377	333	n.a.	n.a.	113%
Romania	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	355	n.a.

Note: No data is available for Cyprus, Malta and Romania, the total for 10 new MS does not include Cyprus and Malta. Data for Romania estimated.

Like in other countries, agriculture was one of the least attractive sectors as it only received about EUR 0.5 bio of foreign investments or, if measured in percentage, some 0.4 % of the total FDI in the new Member States and about twenty times less when compared to the FDI in the food sector. However, the situation somewhat diverged across countries. In a number of new Member States the FDI in agriculture increased steadily over the analysed period starting from a relatively low level (Slovakia, Poland, Lithuania, Latvia). By contrast, it decreased or stagnated in Bulgaria and Romania. Some sharp fluctuations in the volume of FDI were noted, particularly for the Czech Republic, Hungary and Romania.

Whereas FDI in the agricultural sector is often limited to land acquisition, that sector also benefits from the spill-over effect from FDI in the food industry seeking to improve and to secure their raw material basis. In this process, know-how and technologies are often transferred to agriculture in combination with increased capital availability for investments.

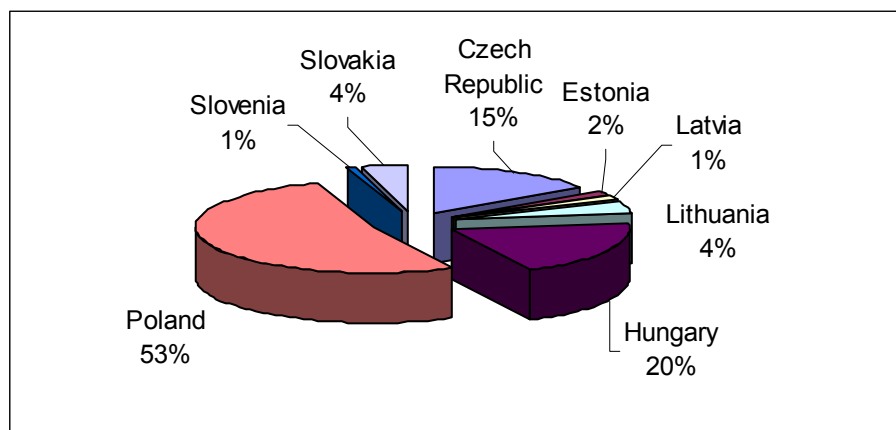
During the accession negotiations to the EU, the new Member States (except from Cyprus and Malta) were granted transitional periods during which they could maintain existing provisions of their legislation restricting the acquisition of agricultural land or forest, in derogation to the freedom of capital movement. The restriction in the purchase of land by foreigners in the new Member States is expected to constitute a significant constraint to the FDI in the agricultural sector.

Analysing FDI in agriculture and food industries together shows that the main beneficiaries among the new Member States were Poland, Hungary and the Czech Republic which accounted for 88 % of total FDI in the agriculture and food industry of

the new Member States. This is however largely in line with their share in the agricultural and food production of the new Member States.

The FDI in the agricultural and food sector of the new Member States originated from many countries. The EU-15 companies were the major investors, with shares varying from 93-95 % in the FDI in the agricultural and food sector in Cyprus, Estonia and the Czech Republic to 54 % in Lithuania. The highest investments came from Germany, the Netherlands, followed by Austria and France. Other major investors originated from outside the EU-15, notably from the United States and the EFTA countries (particularly Switzerland).

Graph 1.21 Distribution of FDI stock in agriculture and food industry in 2003



Only fragmented information is available on the distribution of FDI in the different sub-sectors of the food industry. According to the existing literature, FDI tends to be concentrated in higher value-added sectors of the food industry such as confectionary, tobacco, soft drinks, brewing and oil refining rather than in more resource-intensive activities such as milling or meat production. Alcoholic beverages, dairy and sugar production have also attracted substantial FDI flows.

In Poland the FDI concentrated mainly in confectionary, tobacco and beverages production. In most recent years, FDI flowed also in more traditional sectors of the Polish food industry such as fruit and vegetable processing and meat processing. The role of FDI was also predominant in the Hungarian food industry, where the share of companies with majority foreign ownership was over 50 % in the total sales of the food industry and over 68 % in the total equity. The level of foreign participation varies widely among sub-sectors. Foreign companies appeared to totally control vegetable oil, sugar, beer and tobacco production while their share was insignificant in the milling and wine industries. The FDI also plays an important role in the dairy and fruit and vegetable processing industries.

In general it appears that particularly large multi-national companies invested in the new Member States. Most investments seemed to be targeted at supplying domestic or regional markets in this fast growing and developing region. Nevertheless, some companies could also deliver to the old EU Member States or to the Eastern European markets (e.g. Russia, Ukraine) as they comply with international health and sanitary requirements and produce competitive food products. Poland can be held up as an example for the successful modernisation of its food sector as it recently became a net exporter of agricultural products with the old Member States.

1.5. Agricultural income

The medium-term perspectives for the income of the agricultural sector have been compiled on the basis of the medium-term projections for the main agricultural markets and of the economic accounts for agriculture, which constitute the statistical basis of the income measure²⁹.

Whereas the medium-term changes in the price and volume components of the arable crop and most animal sectors have been established in line with the market projections, those of the other agricultural sectors –mainly fruit, vegetables, wine and olive oil- have been assumed to follow historical trends.

The subsidy component of agricultural income has been established on the basis of:

- the estimated direct payments for the period 2005-2013 (single farm payment scheme and other direct payments as provided for in Reg. 1782/2003 – 1788/2003 as amended after the enlargement and the second reform package);
- the rural development component from the EAGGF (Guidance and Orientation) as given for the 2000-2006 period for the old Member States, for the 2004-2006 period for the new Member States and in the financial perspectives as proposed by the Commission for the 2007-2013 period for the EU-25. Only the current transfers to agricultural producers as other subsidies on production has been accounted for in the income calculation (thus excluding all the capital grants and investment aids as well as the support to operators outside agriculture). Member States have been assumed to fully use the rural development funds available to them (including the co-financing component of rural development funds);
- the main provisions of the Act of Accession regarding direct payments for the new Member States (progressive introduction, SAPS and the complementary national direct payments (CNDPs or “top-ups”) have been accounted for). As regards the CNDPs, it has been assumed that Member States will maintain their CNDP option announced for 2005 over the whole projection horizon (2005-2012) provided that they respect the conditions attached to their granting, notably the upper limit on the financial envelopes. In this respect the possibility for financing the CNDP from the national budget or from co-financing with rural development EU funds has been taken into account where relevant.

On the basis of these hypotheses, the medium-term projections for income display a rather favourable outlook as EU-25 agricultural income would grow by 11.7 % between 2004 and 2012 in real terms and per labour unit. However, this overall gain would mask marked differences between EU-15 and the new Member States.

Agricultural income in the EU-15 would show a more moderate development with a 4 % growth over the period 2004-2012. After a short-term decrease in 2005, agricultural income would rebound to its 2004 level and remain stable until 2007 only to be followed by a steady growth from 2008 onwards. The decline in 2005 would

²⁹ Agricultural income is defined as the factor income of the agricultural sector (formerly the net value added at factor cost), expressed in real terms and per annual work unit.

mainly result from a fall in crop value as the volume of production is expected to drop after the bumper harvests of 2004.

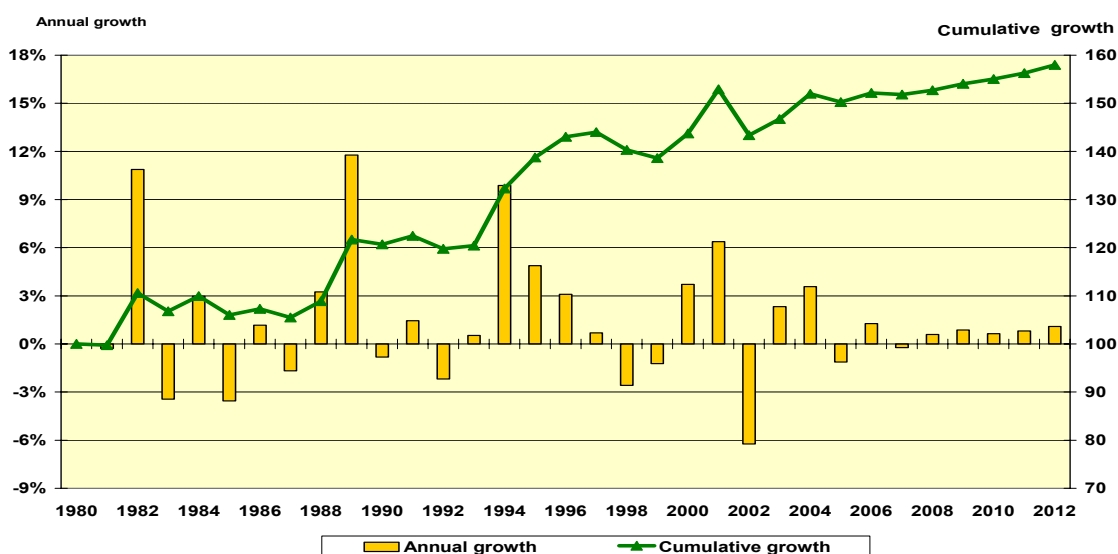
The value of crops will remain below the 2004 level until the middle of the forecast period as cereal production volumes would remain relatively stable. The recovery in 2006 would be supported by increasing meat values (with a marked increase in beef production) and higher subsidies with the introduction of the dairy premium.

Table 1.3 Outlook for agricultural income for EU-25, 2003 – 2012

	2003	2004	2006	2007	2008	2009	2010	2011	2012
Factor income in nominal terms									
EU-25	95,8	100	99,8	99,4	100,0	100,7	101,4	101,8	102,5
EU-15	98,2	100	99,1	98,4	98,5	98,9	99,1	99,5	100,1
EU-N10	64,3	100	109,7	113,2	119,5	123,9	130,5	131,3	132,7
Labour input									
EU-25	101,5	100	94,1	91,4	88,7	86,1	83,5	81,1	78,7
EU-15	101,7	100	95,5	93,3	91,1	89,0	87,0	85,0	83,0
EU-N10	101,2	100	92,2	88,5	84,9	81,5	78,3	75,1	72,1
Agricultural income in real terms per labour unit									
EU-25	94,4	100	102,2	102,9	104,6	106,4	108,2	109,8	111,7
EU-15	96,6	100	100,1	99,9	100,5	101,4	102,0	102,8	104,0
EU-N10	63,5	100	113,2	118,7	127,2	133,9	143,3	146,5	150,4

Over the medium term, the rise in the value of cereals (fuelled mainly by price increases), poultry and pork (supported by volume and price increases) would outweigh the decline in the value of milk production triggered by the fall in milk prices (as a result of the implementation of the reduction in price support in the milk sector as part of the 2003 CAP reform). The resulting modest growth in gross value added of the whole EU-15 agricultural sector would be further strengthened by the projected increase in the value of fruit and vegetables. However, factor income in nominal terms would remain slightly below the 2004 level throughout most of the period.

Graph 1.22 Outlook for agricultural income for EU-15 (in % and with 1980 = 100)



The reduction in total agricultural labour input for EU-15 is assumed to stabilise at the historical trend of around 2.3 % per year on average over the projection period owing to the slowdown recorded over the last few years. Consequently, agricultural income,

when expressed in real terms and per labour unit (i.e. full-time equivalent), is projected to increase by 4 % between 2004 and 2012 for the EU-15.

Agricultural income in the new Member States is foreseen to display a more pronounced picture with agricultural income steadily rising to exhibit a 50.4 % increase by 2012. The value of agricultural production is expected to remain below the 2004 level throughout the projection horizon as crop production would fall after the abundant harvest of 2004 and the restructuring of the animal sector would continue (however maize and poultry values are expected to increase over the forecast period)³⁰. The resulting decline in gross value added would be more than compensated by the sharp rise in the funds granted to agricultural producers in the new Member States.

The latter will be directed to the agricultural sector in the form of direct payments and national top-ups (around 75%) and rural development funds (around 25 %, including the co-financing element) as far as they are transferred to agricultural producers as current payments, with little compensatory elements and do not correspond to capital transfers such as investment grants³¹. The large increase in public support in the new Member States, which is largely decoupled, would aim at facilitating and promoting the restructuring and modernisation of the agricultural sector and the rural areas³².

The agricultural labour input in the EU-N10 countries is assumed to fall by 4 % on annual average over the next decade in line with the restructuring of the agricultural sector. This rapid fall in labour force would boost the rise in agricultural income: whereas farm income in real terms would increase by 8.5 % from 2004 to 2012, it would expand by 50.4 % between 2004 and 2012 when expressed per labour unit. When assessed against 2003 (i.e. before enlargement), farm income per labour unit in the new Member States would increase by 137 %.

The contribution of the EU-N10 countries to the overall EU-25 farm income would nevertheless remain rather limited at around 7 % in 2004 and 9 % in 2012 in line with the low productivity level in the new Member States (cf. *Box 7 Labour productivity and income in agriculture and in the economy*). In contrast, the projected increase in agricultural income in the new Member States would be remarkable when assessed against the prospects for the rest of the economy in these countries and average wages outside agriculture.

³⁰ It should be noted that the 2004 year was an exceptional year marked by the first implementation of the CAP (market measures), the access and integration into the single market and the bumper harvests. Against 2003, the value of production in 2012 would rise by 10 %.

³¹ These projections assume that the funds available for rural development under the financial perspectives will be fully used by the new Member States.

³² In this framework it should be mentioned that these projections do not fully take into account the multiplier effect of the funds granted as capital transfers on the future growth of the rural and agricultural economies.

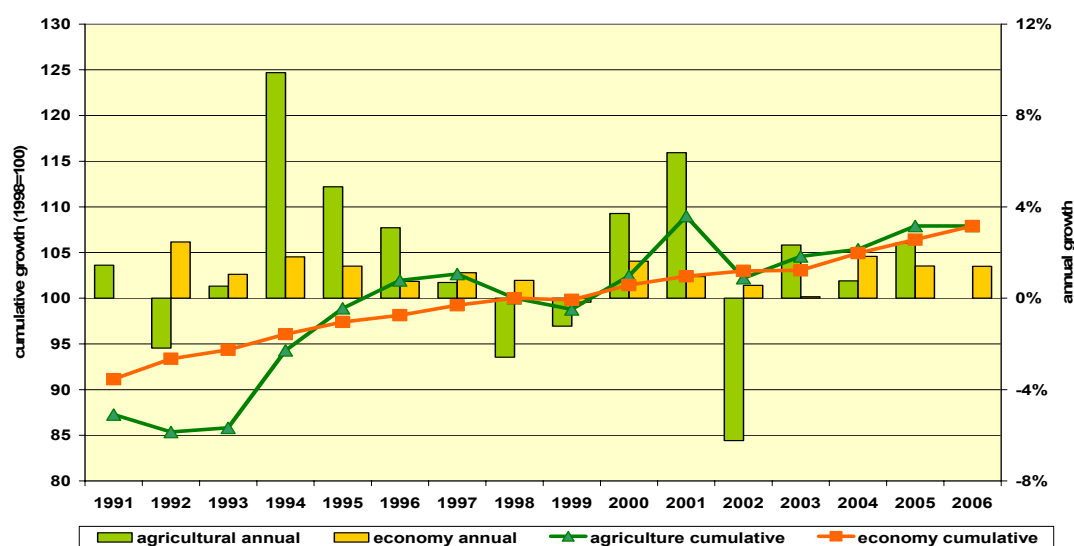
Box 7 Labour productivity and income in agriculture and in the economy

The development of labour productivity in agriculture and in the economy³³

This box aims at evaluating the development in labour productivity in agriculture by contrasting the development of net value added at factor cost per employed person in agriculture with the same measure for the economy. Between 1991 and 2004, agricultural labour productivity exhibited a positive development in the EU-15. After a sharp increase between 1992 and 1997 thanks to the 1992 CAP reform which led to a drastic improvement in the transfer efficiency of farm support, the overall agricultural labour productivity grew at about the same pace as the rest of the economy until 2004.

This performance has been strongly influenced by the marked slowdown in the EU economic growth. It also reflects the continuing structural adjustment in the agricultural sector (with a 2.5 % decline in labour input on annual average) and the impact of the deepening of the policy reform process with a further reduction in market price support and an increase in direct income support. However, labour productivity in agriculture displayed stronger fluctuations than the rest of the economy owing to its greater sensitivity to changes in climatic and sanitary conditions, and to the wide fluctuations in the market prices of agricultural goods (linked mainly to the demand of food products which is largely inelastic).

Graph 1.23 Development of real labour productivity in agriculture and in the economy in the EU-15 (1991-2006); index 1998=100



Labour productivity rose significantly in 2004 in the new Member States thanks to the rise in farm support (introduction of direct payments). It is projected to further increase over the medium term, though at a slower pace.

³³ The development of agricultural labour productivity is derived from the net value added at factor cost (NVA) and represents the income of all agricultural production factors (land, labour, capital), including those which are not owned by the agricultural household, per annual working unit.

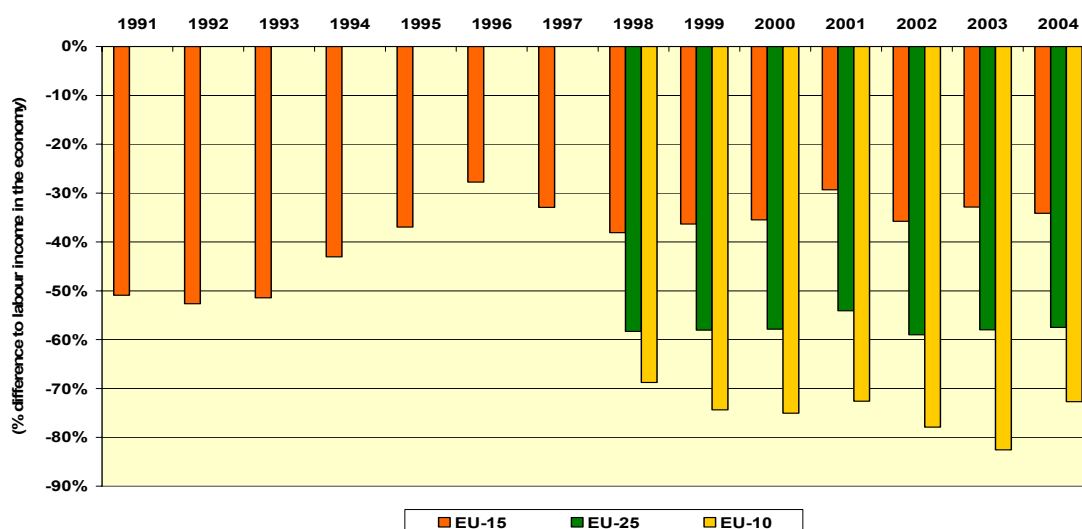
The relative performance of agriculture varies significantly between Member States. Agriculture usually lags behind in strongly growing economies (e.g. Ireland), while it is relatively better performing in countries with lower economic growth (e.g. Germany). This holds as well for the regional differentiation within a Member State: A well performing agricultural sector could be one of the stabilising factors of the rural economy, even if the share of agriculture in rural GDP is low and declining alongside the diminishing agricultural workforce.

The development of labour remuneration in agriculture and the economy

A comparative analysis of income levels per employed person³⁴ shows that agricultural income in the EU-15 was about 51 % lower on average than that in the rest of the economy in 1991. The improved income transfer efficiency of farm support brought about by the 1992 policy reform allowed the gradual reduction of the gap with the rest of the economy up to 28 % in 1996. After these exceptional years, agricultural income declined until 1998 and then resumed rising until 2004, though at a slower pace. The income gap with the rest of the economy remained stable between 30 % and 35 % in the EU-15.

The situation of agricultural labour income in the new Member States significantly improved in relative terms in 2004. Agricultural labour income increased by 68 % per non-salaried employed in agriculture as compared to 2003. However, the level of agricultural income –defined as entrepreneurial income- in the EU-N10 only represents some 6 % of the EU-15 level (even though the gap is slightly smaller at 11 % when assessed using the purchasing power parities). The accession to the EU halted the trend of declining agricultural income of the recent years and enabled to significantly narrow the income gap with the rest of the economy by some 10 percentage points. However, agricultural labour income still remains some 73 % lower than in the rest of the economy.

Graph 1.24 Development of the percentage labour income gap of agriculture



³⁴ The comparison is based on: for agriculture the entrepreneurial income (the net value added minus hired labour, rents paid, the balance of interests paid and received, and taxes with in some cases adjustments for taxes, inheritance systems and post co-operative structures) per person employed; for the overall economy, the compensation of employees per employed person.

Over the medium term, the income effect resulting from the restructuring of the farm sector in the new Member States is projected to be stronger than that of the direct payments observed during the first year of accession. This would indicate a relatively high economic efficiency of rural development funds.

1.6. Regional development of agriculture until 2012

Whereas the previous sections dealt with agricultural market and income perspectives at EU level, this section aims at presenting the projected developments for agricultural markets and income at regional level (NUTS II) under the current policy settings until 2012³⁵. The key characteristics considered in this section are the agricultural land allocation, livestock production and agricultural income³⁶.

As far as the development of agricultural land allocation until 2012 is concerned, the medium-term perspectives show that the overall EU-25 cereal acreage would fall by 4.6 % between 2001 and 2012 to 50.0 mio ha, whereas the particular decline in EU-15 and EU-N10 would account for 2.8 % and 9.3 % respectively. Map 1 presents how NUTS-II regions are affected by this decline. Most of the EU-25 regions show a decrease in total cereal acreage. However, an increase is expected for the most competitive regions like in the centre of France, in the eastern part of Germany or in the western part of Poland. Cereal acreage would also expand in regions with intensive livestock farms, like in the German regions of Weser-Ems and Münster, and in the Spanish regions of Andalucia and Cantabria.

Through the introduction of the single farm payment and the reduction in the level of support in the cereal sector, it is projected that set-aside and fallow land would rise, mainly at the expense of total cereal acreage - as land with low profitability would move out of production. Map 2 shows the development of set-aside and fallow land in a regionally differentiated way.

Total EU-25 oilseed acreage would increase over the medium term by 8.8 %, mainly driven by a significant expansion of rapeseed area thanks to productivity gains and favourable developments projected for world markets. Rapeseed area is expected to generally rise in the Baltic states as well as in the whole EU-15 with exemption of Ireland and the Scandinavian countries owing to climatic constraints.

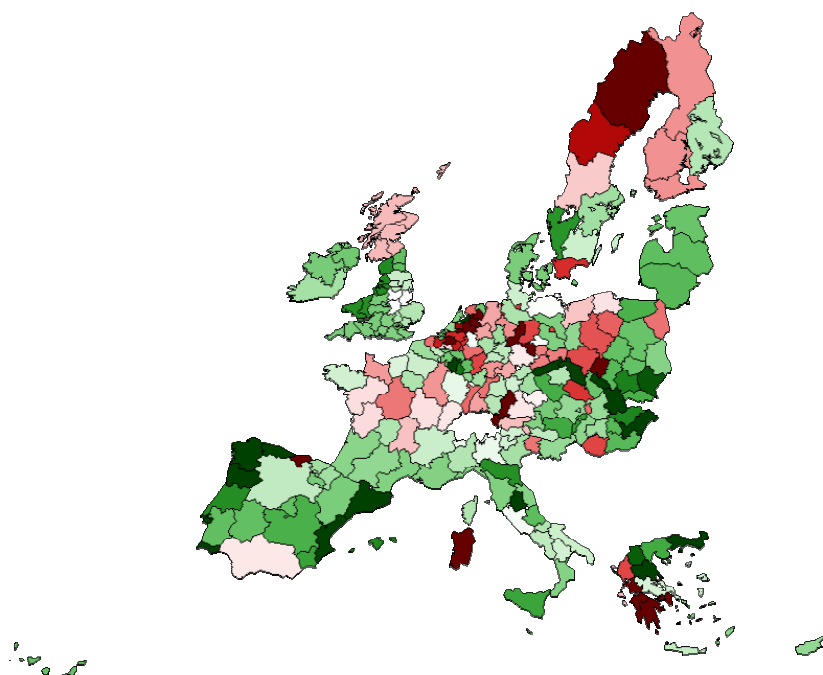
With regard to livestock production, the medium-term outlook show that EU-25 cattle herd would decrease by more than 10 %, mainly driven by the structural decline in dairy cow herd size, but also in relation with the successive phasing-out of beef activities in the Member States following the implementation of the decoupling of

³⁵ This analysis has been carried out using the model system CAPRI (Common Agricultural Policy – Regional Impact) – one of the modelling tools currently available in DG Agriculture and Rural Development of the European Commission. The European Commission is particularly grateful to the Department of economics and agricultural policy of the University of Bonn for its support in the preparation of this analysis.

³⁶ The period of analysis starts with the CAPRI base year 2001 (which is an average of the three years 2000, 2001 and 2002). Model results may slightly differ from the medium-term perspectives presented in the previous sections.

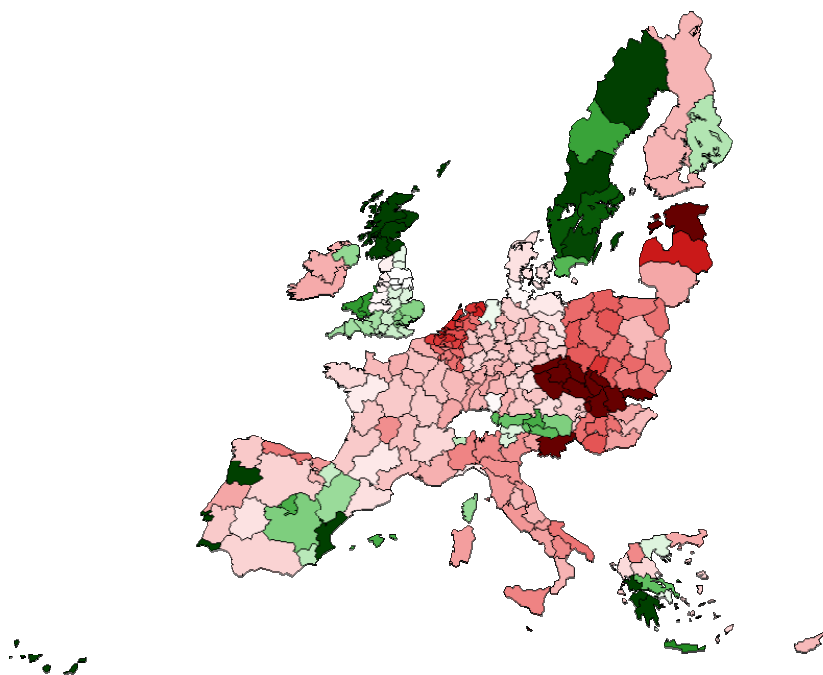
direct payments under the 2003 CAP reform. Map 3 presents the development of the overall cattle herd size in NUTS-II regions until 2012.

Map 1: Regional variation of cereals acreage in EU-25 from 2001 to 2012 (in %)

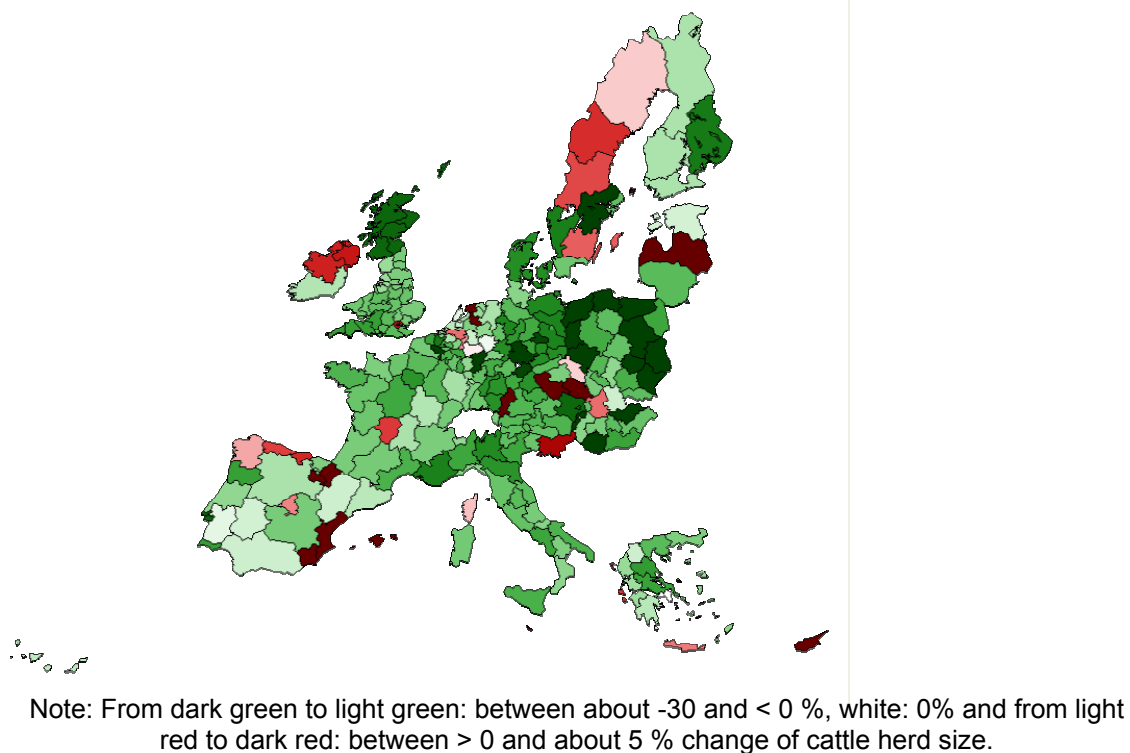
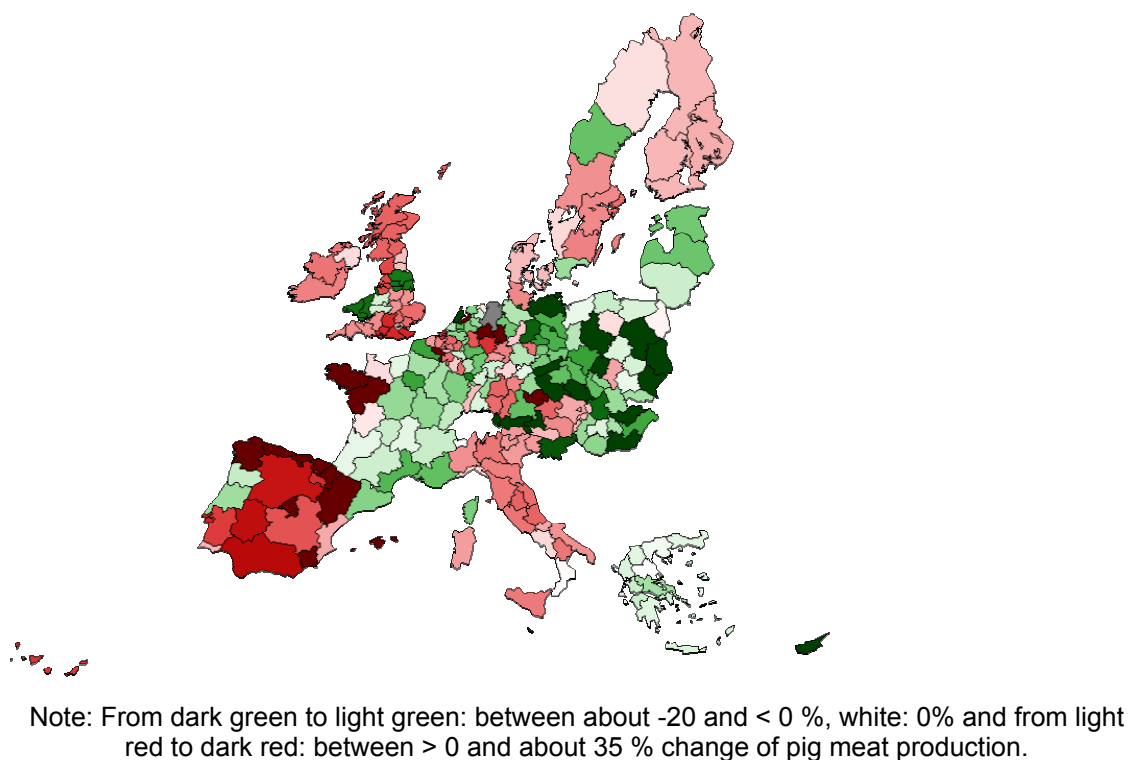


Note: From dark green to light green: between about -15 and < 0 %, white: 0 % and from light red to dark red: between > 0 and about 15% change of cereals acreage.

Map 2: Regional variation of set aside and fallow land in EU-25 from 2001 to 2012 (in %)



Note: From dark green to light green: between about -15 and < 0 %, white: 0% and from light red to dark red: between > 0 and about 50 % change of set aside and fallow land.

Map 3: Regional variation of cattle herd size in EU-25 from 2001 to 2012 (in %)**Map 4: Regional variation of pig meat production in EU-25 from 2001 to 2012 (in %)**

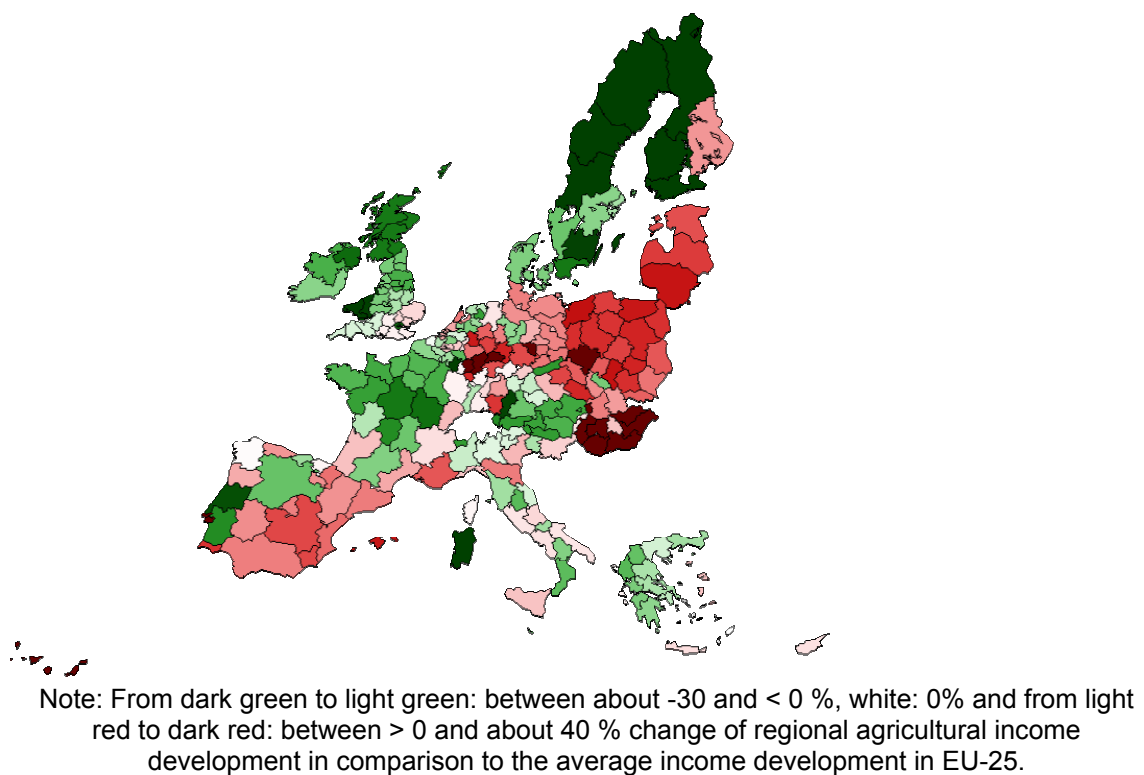
Specialised regions in Spain, France, Belgium and the Netherlands, keeping most of their cattle premiums coupled, are expected to expand their cattle fattening herd over

the medium term. Beef production in the new Member States would generally decline, with the exception of Latvia, Slovenia and some regions in the Czech Republic.

White meat production is assumed to further increase but at a lower rate than in the past decade. EU-25 countries are expected to produce 22 mio t of pig meat and 11.7 mio t of poultry meat in 2012, whereas EU-N10 contribution to total EU pig and poultry meat production would stand at 3.3 mio t and 2.2 mio t respectively. Map 4 shows the development of pig meat production in the NUTS-II regions of EU-25 over the medium term. Production is found to significantly expand in Spain, Denmark, Belgium and in the typical intensive livestock regions of France and Germany. For example, the two French regions Bretagne and Pays de la Loire are expected to increase their production by about 210 000 t and 200 000 t respectively between 2001 and 2012. Likewise, Castilla y Leon and Andalucia in Spain would exhibit a sustained development at 100 000 t and 90 000 t respectively.

The economic development of the EU-25 agricultural sector from 2001 to 2012 has been summarized by analyzing the development of agricultural income measured in real terms and per hectare of agricultural area. Map 5 shows the medium-term developments in regional agricultural income in comparison to the average agricultural income development in EU-25. These developments are comparable to the results displayed in the previous section, if this development had been expressed by labour unit and (parts of) rural development funds had been included. The overall results displayed in the map could however be distorted by the specific choice of the reference period for some sectors (e.g. cereals, oilseeds).

Map 5: Regional variation of agricultural income in comparison to the average change of agricultural income in EU-25 from 2001 to 2012 (in %)



It can be noted that in the Spanish, French and Italian Mediterranean riparian regions like Murcia, Valencia, Cataluna, Languedoc-Roussillon, Provence-Alpes-Côte d'Azur, Campania and Sicilia, overall agricultural income would surpassingly increase due to a

significant expansion in the high value adding permanent crop and vegetable production. Other regions would have to increase labour productivity in order to maintain competitiveness.

The strong increase in regional agricultural income in EU-N10 is largely driven by the access to and integration into the single market as well as by the implementation of the CAP with a sharp rise in funds granted to agricultural producers in form of direct payments and national “top-ups”³⁷.

In summary this regional analysis of the development of the EU-25 agricultural sector under current policy settings has shown that total cereal acreage would decline slightly between 2001 and 2012, whereas oilseed acreage and set aside and fallow land would increase significantly. However, total cereal acreage would expand over the medium term in the most competitive cropping regions. Regionally concentrated white meat production is also expected to increase further, whereas total EU-25 cattle herd is foreseen to decrease not only owing to the quota-driven structural decline in the dairy cow herd size, but also as a consequence of the slight abandonment of cattle fattening activities (notably in the Member States having fully decoupled their cattle premiums). Agricultural income measured in real terms and per hectare of agricultural area would show an above-average increase in regions able to specialise in high value-added production. Other regions would have to increase labour productivity in order to maintain competitiveness. The ten new Member States would largely benefit from their integration into the single market and the implementation of the CAP.

³⁷ Income increase would be even higher if (parts of) the considerable amount of rural development funds granted to agricultural producers in the new Member States had been additionally taken into account and if these developments had been expressed by labour input.

Table A.1 Total cereals market projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	229.8	284.8	261.1	260.3	261.3	262.9	263.0	265.8	267.8	270.9
of which EU-15	185.2	221.6	206.2	206.1	206.9	208.1	209.1	211.2	212.3	214.2
EU-N10	44.6	63.3	54.9	54.2	54.4	54.7	53.9	54.6	55.6	56.7
Consumption	239.1	243.3	244.9	244.5	246.5	248.8	249.0	251.2	252.6	256.0
of which bioenergy	0.0	0.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
of which EU-15	189.9	197.4	198.1	197.5	199.5	201.9	202.1	204.3	205.8	209.1
EU-N10	49.2	46.0	46.7	47.0	47.0	46.9	46.9	46.9	46.8	46.9
Imports	14.1	10.1	9.9	9.6	10.2	10.9	11.2	11.1	11.2	11.3
Exports	20.2	22.8	27.8	27.9	27.6	27.5	25.0	27.1	29.0	30.5
Beginning stocks	48.0	32.7	61.1	58.8	55.8	52.7	49.2	48.2	45.7	41.9
Ending stocks	32.7	61.1	58.8	55.8	52.7	49.2	48.2	45.7	41.9	36.4
of which intervention	3.5	15.7	12.3	13.4	13.1	10.5	11.0	9.8	7.4	3.0

EU-N10: Ten new Member States

Table A.2 Total wheat market projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	106.6	136.3	127.9	125.0	125.8	126.4	126.7	128.2	129.9	131.5
of which EU-15	90.3	111.3	106.5	105.1	105.8	106.4	107.2	108.4	109.6	110.8
EU-N10	16.3	25.0	21.4	19.9	19.9	19.9	19.5	19.8	20.2	20.7
Consumption	108.9	115.9	118.2	117.5	119.2	120.1	119.4	118.3	118.1	118.3
of which EU-15	91.8	96.5	98.8	98.0	99.7	100.6	100.0	99.2	99.0	99.3
EU-N10	17.1	19.4	19.4	19.5	19.5	19.5	19.3	19.1	19.0	18.9
Imports	6.0	6.7	6.5	6.2	6.2	6.6	6.7	6.7	6.7	6.7
Exports	10.3	13.3	16.5	16.4	16.4	16.4	14.0	16.0	17.9	19.3
Beginning stocks	19.4	13.0	26.7	26.4	23.7	20.0	16.0	15.5	15.5	15.5
Ending stocks	13.0	26.7	26.4	23.7	20.0	16.0	15.5	15.5	15.5	15.5
of which intervention	0.2	9.7	7.7	5.9	4.0	0.0	0.0	0.0	0.0	0.0

EU-N10: Ten new Member States

Table A.3 Total coarse grain projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	123.2	148.6	133.1	135.3	135.5	136.5	136.3	137.6	138.0	139.4
of which EU-15	95.0	110.3	99.6	101.0	101.1	101.7	101.9	102.7	102.6	103.3
EU-N10	28.2	38.3	33.5	34.3	34.5	34.8	34.4	34.8	35.4	36.0
Consumption	130.2	127.9	127.2	127.5	127.7	129.2	130.2	133.4	135.1	138.3
of which EU-15	98.1	100.8	99.3	99.5	99.7	101.2	102.1	105.1	106.8	109.8
EU-N10	32.1	26.6	27.4	27.5	27.5	27.5	27.6	27.7	27.8	28.0
Imports	8.1	3.4	3.4	3.3	4.0	4.2	4.5	4.4	4.4	4.5
Exports	9.9	9.5	11.3	11.5	11.2	11.0	11.1	11.1	11.1	11.1
Beginning stocks	28.5	19.8	34.4	32.4	32.1	32.7	33.1	32.6	30.1	26.3
Ending stocks	19.8	34.4	32.4	32.1	32.7	33.1	32.6	30.1	26.3	20.8
of which intervention	3.3	3.9	3.6	6.5	8.3	10.3	11.0	9.8	7.4	3.0

EU-N10: Ten new Member States

Table A.4 Soft wheat market projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	97.8	124.6	119.3	115.4	116.0	116.6	116.8	118.2	119.7	121.2
of which EU-15	81.5	99.6	97.9	95.5	96.2	96.7	97.4	98.5	99.6	100.6
EU-N10	16.3	24.9	21.3	19.9	19.9	19.9	19.4	19.7	20.1	20.6
Consumption	98.4	105.0	107.8	107.1	108.7	109.5	108.7	107.6	107.2	107.3
of which EU-15	81.9	86.1	88.5	88.0	89.7	90.5	89.8	88.9	88.6	88.8
EU-N10	16.5	19.0	19.2	19.1	19.1	19.0	18.9	18.7	18.6	18.5
Imports	3.8	5.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Exports	9.4	12.0	16.0	16.0	16.0	16.0	13.6	15.6	17.5	18.9
Beginning stocks	18.7	12.5	25.2	25.7	23.0	19.3	15.3	14.8	14.8	14.8
Ending stocks	12.5	25.2	25.7	23.0	19.3	15.3	14.8	14.8	14.8	14.8
of which intervention	0.2	9.7	7.7	5.9	4.0	0.0	0.0	0.0	0.0	0.0

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Table A.5 Barley market projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	54.1	60.9	55.5	55.5	55.6	55.6	55.4	55.1	55.0	54.7
of which EU-15	46.2	51.2	46.9	46.9	46.9	46.9	46.8	46.5	46.2	45.9
EU-N10	8.0	9.7	8.5	8.6	8.6	8.7	8.6	8.6	8.7	8.8
Consumption	51.9	46.1	46.5	46.3	46.3	46.9	47.7	49.2	50.3	51.7
of which EU-15	43.5	38.9	38.3	38.1	38.1	38.7	39.3	40.7	41.7	43.1
EU-N10	8.4	7.2	8.2	8.2	8.2	8.2	8.4	8.5	8.6	8.7
Imports	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Exports	6.5	6.0	7.8	7.9	7.9	7.9	7.9	7.9	8.0	8.0
Beginning stocks	6.9	3.4	12.7	14.3	16.0	17.8	19.0	19.2	17.5	14.6
Ending stocks	3.4	12.7	14.3	16.0	17.8	19.0	19.2	17.5	14.6	10.0
of which intervention	0.0	1.5	2.6	6.3	8.3	10.3	11.0	9.8	7.4	3.0

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Table A.6 Maize market projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	41.4	53.1	47.6	49.6	49.6	50.3	50.5	51.7	52.0	53.3
of which EU-15	33.8	41.0	36.8	38.3	38.3	38.9	39.0	40.1	40.1	41.0
EU-N10	7.7	12.2	10.8	11.2	11.3	11.4	11.4	11.6	11.9	12.3
Consumption	43.6	50.8	49.3	50.2	50.2	51.0	51.3	52.5	53.0	54.4
of which EU-15	35.7	44.3	42.9	43.5	43.6	44.3	44.7	45.8	46.3	47.6
EU-N10	7.9	6.6	6.5	6.7	6.6	6.6	6.6	6.7	6.6	6.7
Imports	5.6	2.4	2.5	2.5	2.5	2.6	2.6	2.5	2.6	2.6
Exports	2.0	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Beginning stocks	9.9	11.4	13.6	11.9	11.4	10.7	10.1	9.4	8.6	7.7
Ending stocks	11.4	13.6	11.9	11.4	10.7	10.1	9.4	8.6	7.7	6.8
of which intervention	0.0	2.1	1.0	1.0	0.8	0.2	0.0	0.0	0.0	0.0

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Table A.7 Area under arable crops and set-aside in the EU, 2003-2012 (mio ha)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cereals	51.3	52.4	50.9	50.7	50.6	50.5	50.0	50.0	49.9	50.0
of which EU-15	36.3	36.9	35.7	35.6	35.5	35.5	35.4	35.4	35.3	35.2
EU-N10	15.0	15.5	15.2	15.2	15.1	15.0	14.6	14.6	14.7	14.7
Soft wheat	18.3	19.3	19.5	19.0	19.0	18.9	18.8	18.8	18.9	18.9
Durum wheat	3.8	3.9	3.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Barley	13.4	12.9	12.8	12.8	12.7	12.7	12.5	12.4	12.3	12.2
Maize	6.2	6.5	6.1	6.0	6.0	6.0	5.9	6.0	6.0	6.1
Rye	2.6	2.7	2.6	2.8	2.8	2.8	2.7	2.7	2.7	2.7
Other cereals	7.1	7.0	6.7	6.5	6.5	6.5	6.4	6.4	6.4	6.4
Oilseeds (1)	5.9	6.3	5.9	6.3	6.3	6.3	6.3	6.3	6.4	6.4
of which EU-15	4.2	4.5	4.3	4.6	4.6	4.6	4.6	4.7	4.7	4.7
EU-N10	1.7	1.8	1.6	1.7	1.7	1.7	1.6	1.7	1.7	1.7
Rapeseed	3.5	3.9	3.6	3.9	3.9	3.9	3.9	3.9	3.9	4.0
Sunflower seed	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Soybean	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Protein crops	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Flax and Hemp	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Silage (2)	4.6	4.4	4.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Total arable crops	63.7	64.8	62.5	62.5	62.4	62.3	61.8	61.8	61.8	61.8
Compulsatory set-aside	4.0	1.9	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
of which EU-15	4.0	1.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
EU-N10	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
of which non-food oilseeds	0.9	0.5	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Voluntary set-aside	2.3	3.3	3.0	3.2	3.2	3.2	3.3	3.2	3.2	3.2
Total set aside	6.3	5.3	7.0	7.2	7.3	7.3	8.3	8.2	8.2	8.3
Total COP	70.0	70.0	69.5	69.7	69.6	69.6	70.0	70.0	70.0	70.1

(1) major oilseeds on non set-aside land;

(2) excluding grass silage;

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Table A.8 Total oilseed market projections for the European Union, 2003-2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	16.1	19.2	18.9	18.4	18.8	19.2	19.5	19.1	19.5	19.9
of which EU-15	12.7	14.9	15.5	14.9	15.2	15.5	15.8	16.2	16.5	16.9
EU-N10	3.4	4.3	3.5	3.6	3.6	3.7	3.6	3.0	3.0	3.0
of which non-food	2.3	1.8	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4
Consumption	32.8	33.3	35.7	36.4	36.9	37.3	37.6	37.4	37.6	37.8
of which bioenergy	3.6	4.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
of which EU-15	30.9	30.9	33.2	33.8	34.3	34.7	35.0	35.3	35.5	35.7
EU-N10	1.9	2.4	2.5	2.5	2.6	2.6	2.6	2.1	2.0	2.1
Imports	21.1	17.9	17.1	18.4	18.3	18.5	18.4	18.6	18.5	18.4
Exports	1.0	4.6	0.4	0.5	0.3	0.3	0.3	0.3	0.4	0.5
Beginning stocks	7.6	9.8	4.1	4.4	4.5	4.6	4.6	4.6	4.6	4.6
Ending stocks	9.8	4.1	4.4	4.5	4.6	4.6	4.6	4.6	4.6	4.7

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Table A.9 Beef/veal market projections for the EU-25, 2003 – 2012 ('000 t cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Gross Indigenous Production	8 069	8 132	8 020	8 153	8 101	8 033	7 942	7 843	7 763	7 716
Live Imports	7	9	3	3	3	3	3	3	3	3
Live Exports	93	106	95	112	112	112	112	112	112	112
Net Production	7 983	8 035	7 928	8 044	7 992	7 924	7 833	7 734	7 654	7 607
EU 15	7 359	7 440	7 414	7 473	7 429	7 352	7 260	7 158	7 075	7 027
EU N10*	625	595	514	571	563	572	574	576	578	581
Import	440	509	549	560	566	577	588	600	614	628
Exports	390	333	266	337	298	264	226	169	116	101
Stocks changes	- 204	0	0	0	0	0	0	0	0	0
Consumption	8 265	8 244	8 210	8 267	8 260	8 238	8 195	8 165	8 151	8 134
Per Capita Consumption	18.1	18.0	17.9	17.9	17.9	17.8	17.7	17.6	17.5	17.5
EU 15	20.1	20.1	20.0	20.1	20.0	19.9	19.7	19.6	19.5	19.5
EU N10*	7.7	7.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Ending stocks (Intervention)	34	0	0	0	0	0	0	0	0	0

Table A.10 Pig meat market projections for the EU-25, 2003 – 2012 ('000 t cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Gross Indigenous Production	21 324	21 276	21 207	21 314	21 405	21 515	21 544	21 665	21 837	22 015
Live Imports	0	0	0	0	0	0	0	0	0	0
Live Exports	17	17	17	17	17	17	17	17	17	17
Net Production	21 307	21 259	21 190	21 297	21 388	21 498	21 527	21 648	21 820	21 998
EU 15	17 793	17 996	18 101	18 224	18 248	18 243	18 247	18 352	18 512	18 664
EU N10*	3 514	3 263	3 089	3 073	3 140	3 254	3 281	3 296	3 309	3 334
Import	25	15	14	18	23	27	30	33	36	37
Exports	1 330	1 445	1 309	1 310	1 320	1 327	1 312	1 311	1 329	1 343
Stocks changes	- 135	- 90	0	0	0	0	0	0	0	0
Consumption	20 137	19 919	19 895	20 005	20 091	20 197	20 246	20 371	20 527	20 692
Per Capita Consumption	44.1	43.5	43.3	43.4	43.5	43.6	43.7	43.9	44.1	44.4
EU 15	43.7	43.2	43.5	43.7	43.5	43.6	43.6	43.8	44.1	44.3
EU N10*	46.3	45.0	42.5	42.0	43.5	43.8	43.9	44.1	44.3	45.0

* EU N10: Ten new Member States

Table A.11 Poultry meat market projections for the EU-25, 2003 – 2012 ('000 t cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Gross Indigenous Production	10 847	11 036	11 119	11 160	11 209	11 317	11 444	11 527	11 612	11 681
Live Imports	0	0	0	0	0	0	0	0	0	0
Live Exports	5	4	4	4	4	4	4	4	4	4
Net Production	10 842	11 032	11 115	11 156	11 205	11 313	11 440	11 523	11 608	11 677
EU 15	9 027	9 144	9 170	9 157	9 181	9 220	9 315	9 382	9 445	9 471
EU N10*	1 815	1 888	1 945	1 999	2 024	2 093	2 126	2 141	2 164	2 206
Import	641	532	587	639	657	671	686	701	713	723
Exports	969	1 029	1 018	1 015	1 000	1 000	1 000	1 000	1 000	1 000
Consumption	10 514	10 535	10 684	10 780	10 862	10 984	11 126	11 225	11 321	11 400
Per Capita Consumption	23.0	23.0	23.3	23.4	23.5	23.7	24.0	24.2	24.3	24.5
EU 15	23.1	22.7	22.9	23.1	23.2	23.4	23.6	23.7	23.9	24.0
EU N10*	22.6	24.4	25.0	25.0	25.5	25.8	26.3	26.6	26.9	27.2

Table A.12 Sheep/Goat meat market projections for the EU-25, 2003–2012 ('000 t cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Net Production	1 048	1 058	1 047	1 048	1 049	1 049	1 047	1 043	1 041	1 037
EU 15	1 024	1 046	1 024	1 024	1 025	1 025	1 023	1 019	1 016	1 012
EU N10*	24	12	23	24	24	24	24	24	25	25
Import	256	247	251	252	252	252	252	253	254	255
Exports	4	4	4	4	4	4	4	4	4	4
Consumption	1 301	1 301	1 294	1 296	1 297	1 297	1 295	1 292	1 290	1 288
Per Capita Consumption	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
EU 15	3.3	3.4	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
EU N10*	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4

Table A.13 Meat per capita consumption projections in the EU, 2003 – 2012 (kg/head)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
EU-25										
Beef and Veal	18.1	18.0	17.9	17.9	17.9	17.8	17.7	17.6	17.5	17.5
Pork	44.1	43.5	43.3	43.4	43.5	43.6	43.7	43.9	44.1	44.4
Poultry	23.0	23.0	23.3	23.4	23.5	23.7	24.0	24.2	24.3	24.5
Sheep Goat	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Total EU-25	88.1	87.4	87.3	87.6	87.7	88.0	88.1	88.4	88.8	89.1
of which EU-15										
Beef and Veal	20.1	20.1	20.0	20.1	20.0	19.9	19.7	19.6	19.5	19.5
Pork	43.7	43.2	43.5	43.7	43.5	43.6	43.6	43.8	44.1	44.3
Poultry	23.1	22.7	22.9	23.1	23.2	23.4	23.6	23.7	23.9	24.0
Sheep Goat	3.3	3.4	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
Total EU-15	90.3	89.4	89.7	90.2	90.0	90.1	90.2	90.4	90.7	90.9
of which EU-N10*										
Beef and Veal	7.7	7.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Pork	46.3	45.0	42.5	42.0	43.5	43.8	43.9	44.1	44.3	45.0
Poultry	22.6	24.4	25.0	25.0	25.5	25.8	26.3	26.6	26.9	27.2
Sheep Goat	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Total EU-N10*	77.0	76.8	74.6	74.1	76.0	76.7	77.3	77.7	78.3	79.3

Table A.14 Consumption egg market projections for the EU-25, 2003 – 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Usable production	6.2	6.3	6.3	6.4	6.4	6.5	6.5	6.6	6.6	6.6
of which EU-15	5.3	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.6
EU-N10	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Consumption	6.1	6.2	6.2	6.2	6.2	6.3	6.3	6.3	6.3	6.4
of which EU-15	5.1	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.4	5.4
EU-N10	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
Imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Per capita consumption	13.3	13.5	13.5	13.5	13.5	13.5	13.5	13.6	13.6	13.6
EU-15	13.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.8
EU-N10	12.3	12.6	12.6	12.6	12.7	12.7	12.8	12.8	12.9	12.9

* EU N10: Ten new Member States

Table A.15 Milk production, deliveries and dairy herd in the EU-25, 2003 – 2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total production (mio t)	143.5	142.3	143.4	144.5	144.9	145.2	145.1	145.0	145.0	145.0
EU 15	121.8	120.4	121.4	122.4	122.8	123.2	123.1	123.1	123.1	123.1
EU N10*	21.7	22.0	22.0	22.1	22.1	22.0	22.0	22.0	22.0	22.0
Deliveries (mio t)	130.9	130.6	132.0	133.6	134.2	134.9	135.4	135.7	136.0	136.0
Delivery ratio (in %)	91.3	91.8	91.5	92.4	92.6	92.9	93.3	93.6	93.8	93.8
Fat content (in %)	4.05	4.07	4.06	4.06	4.06	4.07	4.07	4.07	4.07	4.08
Protein content (in %)	3.32	3.32	3.33	3.33	3.33	3.33	3.33	3.34	3.34	3.34
Milk yield (kg/dairy cow)	5931	6018	6187	6340	6457	6555	6615	6677	6739	6813
EU 15	6275	6323	6508	6677	6801	6891	6936	6979	7022	7077
EU N10*	4536	4739	4866	4956	5042	5154	5256	5371	5497	5634
Dairy cows (mio heads)	23.9	23.4	23.0	22.6	22.3	22.0	21.8	21.6	21.4	21.2
EU 15	19.3	18.8	18.5	18.2	17.9	17.8	17.7	17.6	17.5	17.3
EU N10*	4.7	4.6	4.5	4.4	4.3	4.2	4.1	4.0	3.9	3.8

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

Table A.16 Cheese market projections for the EU-25, 2003 – 2012 ('000 t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total production ⁽¹⁾	8 272	8 419	8 568	8 717	8 825	8 879	8 988	9 081	9 152	9 237
EU 15	7 289	7 385	7 522	7 654	7 745	7 763	7 846	7 910	7 956	8 014
EU N10	983	1 034	1 047	1 062	1 080	1 116	1 142	1 170	1 196	1 223
Imports	139	111	114	116	118	120	123	125	128	131
Exports	574	572	586	590	598	605	610	613	613	614
Human consumption ⁽²⁾	7 660	7 788	7 927	8 072	8 174	8 225	8 331	8 422	8 498	8 584
Per capita consumption (16.8	17.0	17.3	17.5	17.7	17.8	18.0	18.1	18.3	18.4
EU 15	17.8	18.0	18.2	18.5	18.6	18.6	18.7	18.8	18.8	18.8
EU N10	11.6	11.9	12.2	12.4	12.7	13.3	13.9	14.7	15.4	16.2

(1) Including cheese used for processed cheese. Excluding farm cheese

(2) Excluding processed cheese and farm cheese.

Table A.17 Butter market projections for the EU-25, 2003 – 2012 ('000 t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total production	2 156	2 104	2 125	2 093	2 041	2 013	1 986	1 964	1 935	1 910
EU 15	1 875	1 797	1 810	1 788	1 750	1 734	1 717	1 697	1 670	1 648
EU N10*	281	307	315	305	291	279	269	267	265	263
Imports	93	90	84	85	85	85	85	85	85	85
Exports	322	352	350	300	279	239	222	213	200	193
Total consumption	1 901	1 904	1 900	1 900	1 896	1 874	1 865	1 845	1 822	1 803
per capita consumption (4.16	4.16	4.14	4.13	4.11	4.05	4.02	3.97	3.92	3.87
EU 15	4.33	4.30	4.28	4.27	4.23	4.15	4.12	4.06	3.99	3.94
EU N10*	3.34	3.43	3.38	3.39	3.45	3.51	3.50	3.50	3.49	3.53
Intervention Stocks										
Ending stocks	223	161	120	97	48	33	17	8	6	5
Stock changes	31	-62	-41	-22	-49	-15	-16	-9	-2	-1

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

EU N10: ten new member states

Table A.18 SMP market projections for the EU-25, 2003 – 2012 ('000 t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total production	1 286	1 097	1 098	1 060	1 025	997	970	944	921	903
EU 15	1 063	872	884	854	820	789	768	750	741	732
EU N10*	223	225	214	206	205	208	202	194	180	171
Imports	58	25	10	10	10	10	10	10	10	10
Exports	341	280	250	180	164	148	143	131	121	117
Total consumption	948	949	923	890	872	860	838	823	810	796
EU 15	885	868	854	827	809	797	776	766	753	742
EU N10*	63	81	69	63	63	63	61	58	57	54
Stock changes	55	-107	-65	0	0	0	0	0	0	0
Intervention Stocks										
Ending stocks	194	65	0	0	0	0	0	0	0	0
Stock changes	53	-129	-65	0	0	0	0	0	0	0

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

* EU N10: ten new Member States

PROSPECTS FOR
WORLD AGRICULTURAL MARKETS

2. PROSPECTS FOR WORLD AGRICULTURAL MARKETS

2.1. 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, the outlook of world markets is mainly assessed on the basis of reports and projections released by different international organisations, experts and foreign institutions, notably on the basis of two sets of medium-term projections for international agricultural markets.

The first comes 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 second 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. In some cases reference is made to the USDA baseline, produced by the US Department of Agriculture through its interagency World Agricultural Outlook Board.

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 2004 and/or at the beginning of 2005 on the basis of information available at the end of 2004. Therefore, they do not all take full account of the most recent developments in the general economic situation and on agricultural markets, like the possible impact of the second case of BSE in the USA. Whereas these projections take into account recent changes in domestic policies in the main producing countries (e.g. the implementation of the 2003 CAP reform in the EU), they assume the mere continuation of the current WTO agreement. 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.

2.2. Overview of main trends

The FAPRI and OECD provide for a short-term outlook marked by the stabilisation of agricultural markets after the wide price fluctuations of 2003 and 2004. 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.

Strong growth in world trade in agricultural commodities would take place even in an environment where in most cases demand for food products would be broadly matched by domestic production.

Notwithstanding the relative improvement in the market fundamentals of most agricultural sectors that is projected over the medium term, a prudent interpretation of these perspectives is deemed necessary. These projections remain subject to many uncertainties that can be expected to moderate the relatively positive pattern forecasted for future trade and price growth. The most important include the new round of multilateral trade negotiations, the future course of agricultural policy in many regions,

the future macro-economic perspectives and the scope for further productivity growth in some regions.

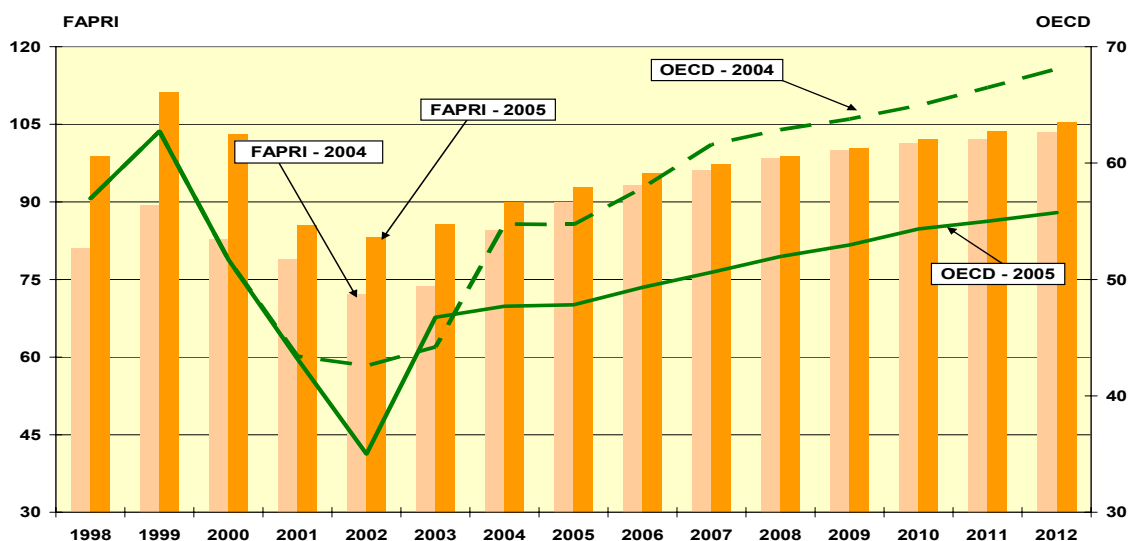
2.2.1. Overview per sector

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

Cereals

World cereal trade is anticipated to continue to recover from the downturn of the period 1999-2002. 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 stimulate 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 35 and 45 mio t by 2012/13, i.e. at a much quicker pace than in the 1980s and 1990s.

Graph 2.1 Outlook for wheat net imports – comparison with the 2004 outlook, 1998 – 2012 (mio t)



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

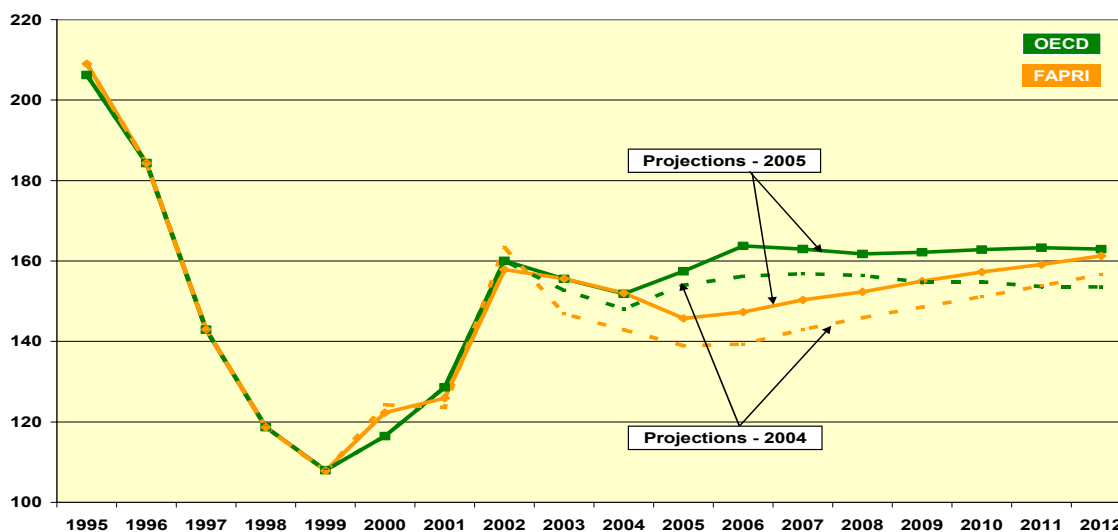
N.B.: FAPRI 2005 projections differ substantially from those published in 2004 concerning EU-15 wheat net exports for the period 1994-2004.

Global trade in wheat would increase with annual growth averaging about 2 %, whereas coarse grain trade would exhibit a similar pattern with an annual average of 2.3 % over the 2004/05-2012/13 period.

After bottoming out by the turn of the century, cereal prices recovered slowly over the following three years, as supply was affected by severe climatic conditions and demand showed a marked recovery. Prices, which fell in 2004 for almost all cereals in response to the exceptional harvest in many producing countries, are expected to recover in the next few years and stay firm over the medium term as supply adjusts only slowly to a strengthening global demand. According to the FAPRI and OECD projections, prices of common wheat (HRW, fob US Gulf) are projected to range around 161 and 163 \$/t in 2012/13 respectively. Barley prices fell to low levels in 2004/05, after the peak recorded in 2003/04. FAPRI expects barley prices to stabilise at low level over the short term and

gather pace only at the end of the projection period, increasing from 84 \$/t in 2004/05 (Canada feed) to 90 \$/t in 2012/13.

Graph 2.2 Outlook for world wheat prices – comparison with the 2004 outlook, 1995 – 2012 (\$/t)



Ref.: US FOB Gulf, HRW.

Oilseeds

The medium-term prospects for the oilseed sector are foreseen to demonstrate a stabilisation after the price peak of 2003 and the subsequent fall. The vigorous growth in demand for oilseed and oilseed products anticipated over the medium term by most agencies is forecast to stimulate a rapid increase in supply. 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 slight increase over the medium term, after the price rise and fall of 2002-2004, as 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 257 \$/t by 2012/13, whereas the FAPRI forecasts soybean prices at 243 \$/t at the end of the projection period. 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 250 \$/t and 280 \$/t in 2012/13 respectively in the FAPRI projections.

Oilseed meal prices are expected to stabilise over the rest of the period, ranging between 162 \$/t and 193 \$/t.

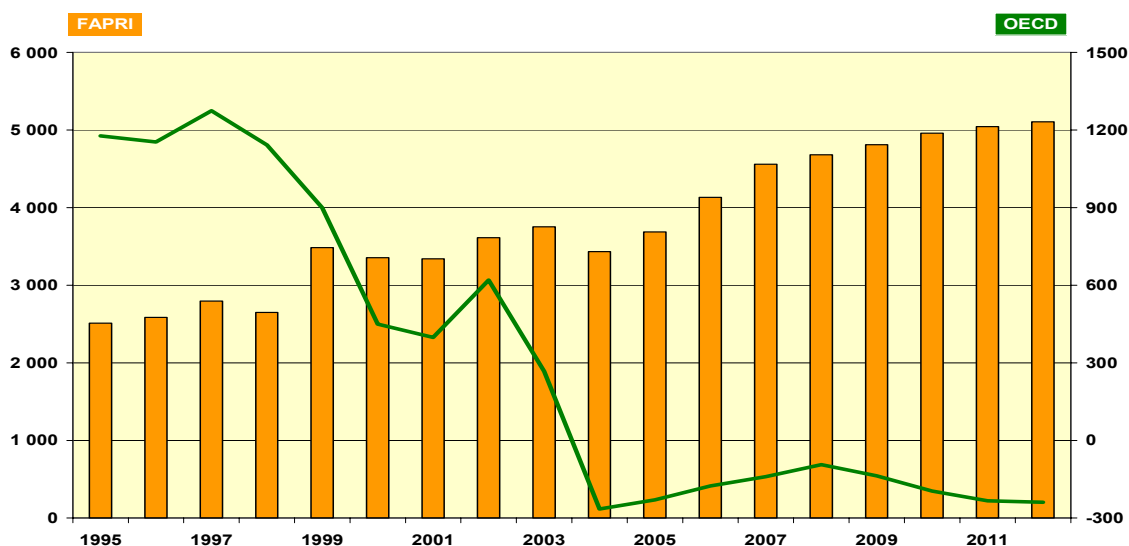
Prospects of rising incomes drive the solid expansion in vegetable oil consumption. Palm oil and soybean oil would capture the greatest share of an expanding demand for and trade of vegetable oil. Growth in soybean oil trade would reach 4.2 % on annual average, i.e. a much lower rate than in the 1990s when it reached growth rates of 9 % per year. 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 projections exhibit a sustained rise in beef trade of nearly 1.7 mio t over the 2004-2012 period (i.e. nearly 50 %), with most of the growth from Asia, Mexico and Egypt while Russia shows only a moderate increase since the introduction of TRQs in 2003.

Graph 2.3 Outlook for beef net imports, 1995-2012 ('000 t cwe)



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

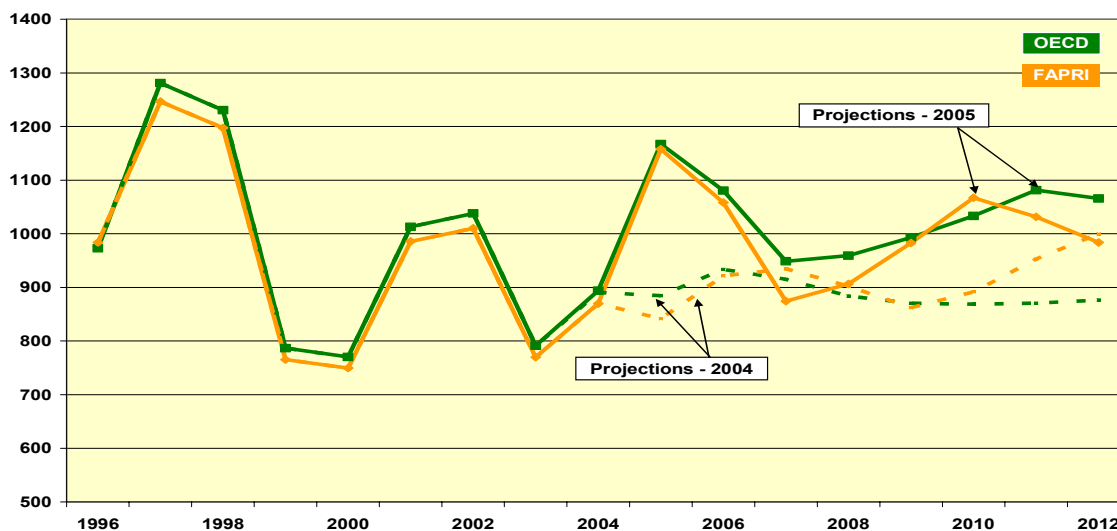
After the recent short-term fall due to lower availability, weaker economies and animal health crises, the outlook for pig meat trade is projected to display a renewed expansion over the 2004-2012 period (increasing by around 1 mio t according to FAPRI and OECD), driven by strong import demand from Japan, China and Mexico.

Poultry meat would capture a large 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 an increase estimated by FAPRI at around 1.3 mio t. Much would depend on the prospects for import demand from China and Japan, as Russian imports are broadly limited by import quotas. On the export side, a weak currency, large availability of cheap feed grains and strong investments in the meat sector are all anticipated to further enhance and consolidate Brazil's market share over the medium term.

After the very high prices recorded in the past couple of years, mostly due to the trade disruptions linked to the BSE in North America, beef meat prices are expected to ease gradually and stabilise over the medium term at around 1600 \$/t. Prices remain supported 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 very 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 2.4 Outlook for pig meat prices – comparison with the 2004 outlook, 1996 – 2012 (\$/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 2004-2012 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 and the Middle East. Technological advances are also projected to stimulate a rapid development in milk components.

A stronger economic growth and a strengthening demand for dairy products generated a rapid recovery in world market prices of dairy products in 2003 and 2004. Over the medium term, however, the rapid expansion of milk production in low-cost producing regions (such as Oceania –which in the past few years has been affected by adverse weather conditions- and China) is expected to moderate this price pattern. Supported by the steady rise in global consumption, cheese prices would display relatively high prices over the medium term, after a short-term weakening following the price peak of 2004, with a more pronounced pattern in the OECD projections. The FAPRI and OECD projections diverge on the pace of price developments for milk powders, with SMP and WMP price increasing by 18 % and 17 % in FAPRI projections, while the OECD forecasts milk powder prices to remain stable at the high level of 2004. FAPRI expects butter prices to continue growing after a temporary slow down in 2005, and reach 2 040 \$/t by 2012. The OECD projects butter prices to remain stable at 2004 levels over the medium-term.

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.

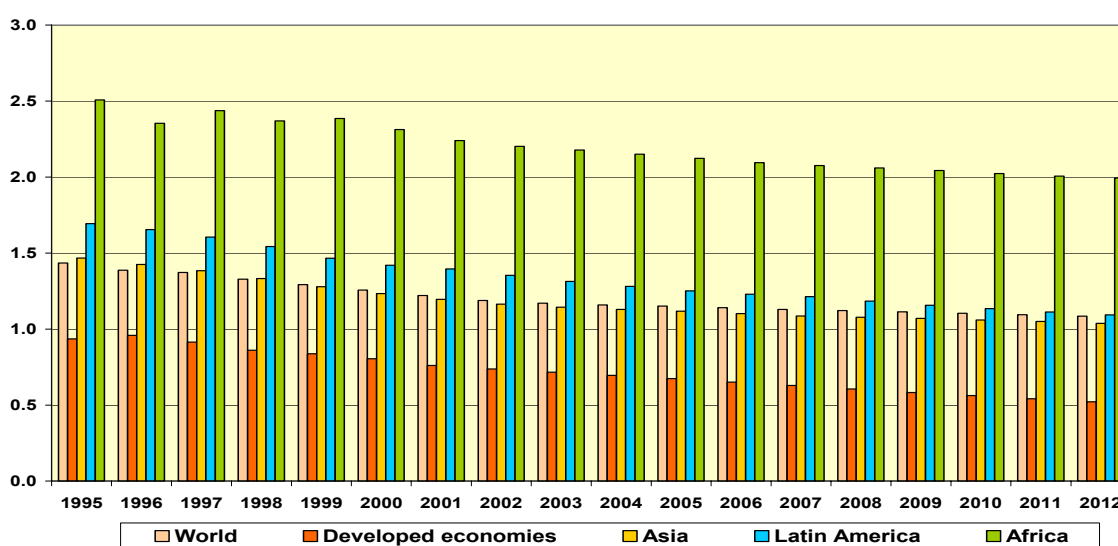
2.2.2. Underlying factors

Five main driving factors can be identified to explain these developments:

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 2.5 Annual growth rate in population growth, 1996 – 2012 (in %)

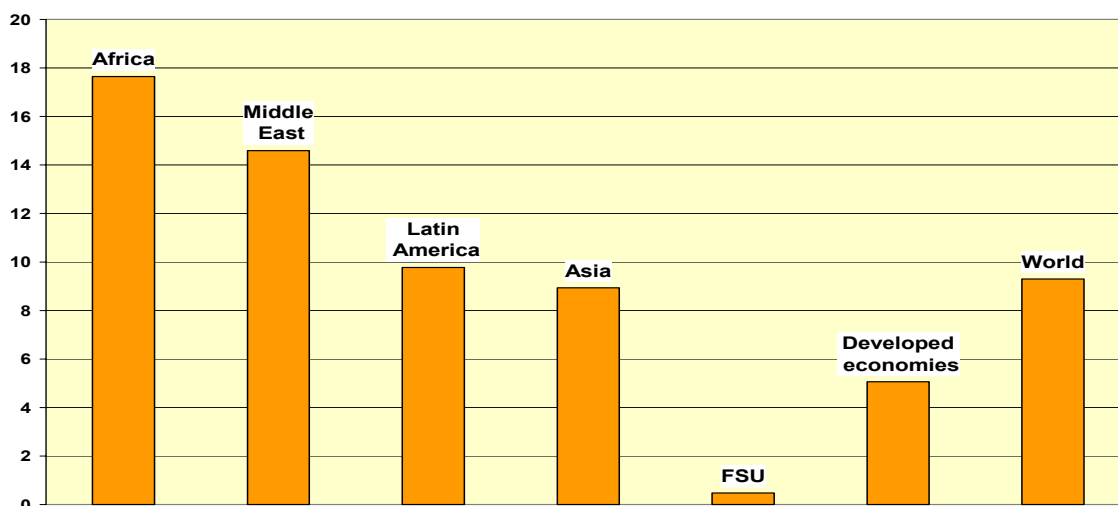


Source: FAPRI, OECD (Developed Countries)

This pattern is estimated to continue over the next seven years and the overall world population is expected to increase by 1.1 % per year by the beginning of the next 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 projection period. The pattern of population growth will differ widely between regions, with Africa and the Middle East demonstrating the strongest increase of between 18 % and 15 % respectively over the next eight years.

Graph 2.6 Cumulative population growth, 2004 – 2012 (in %)

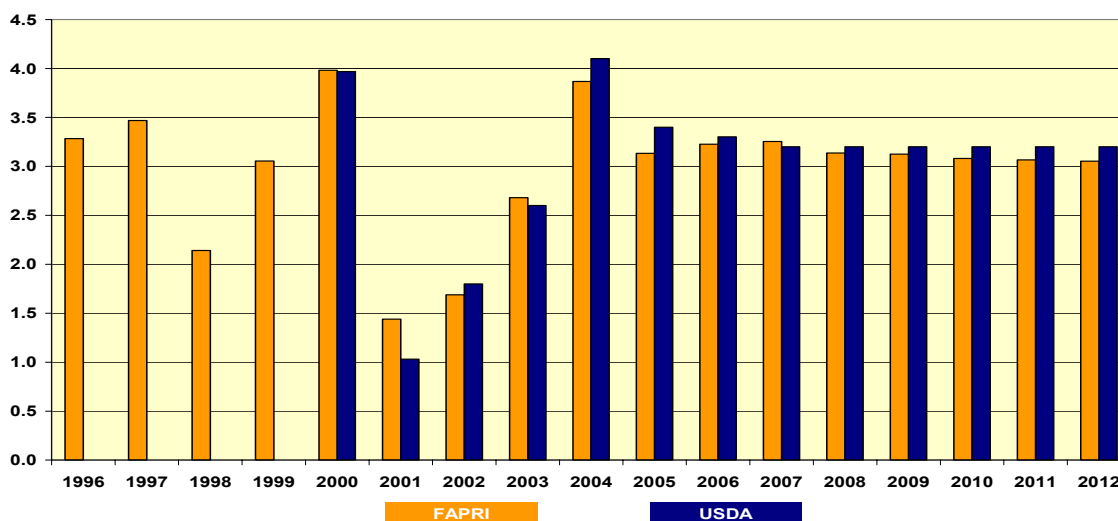


Source: FAPRI

The strongest annual growth is expected in Africa where population would expand by around 2.1 % across the forecast period and reach 2 % in 2012. By 2012 Middle East's population would grow at around 1.6 % in the FAPRI projections. The next fastest growing regions are Latin America and Asia, averaging between 1.1 % and 1 % per annum by 2012. More than 90 % of the increase in world population would take place in developing countries, with more than half in Asia. By contrast, most of the new EU Member States and other transition economies are projected to exhibit a fall in their overall population.

Strong world economic growth over the medium term

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 increase which followed the drop that affected the world economy in 2001. 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 2.7 Outlook for world real GDP annual growth, 1996 – 2012 (in %)

Weakened by the global downturn in 2001, world GDP growth is forecast to grow by more than 3 % in 2005 according to the USDA and FAPRI projections, after a peak at around 4 % in 2004. From 2006 onwards, the FAPRI and the USDA anticipate that economic growth would stabilise at approximately 3.1-3.3 % per year. If much of this growth is expected to be fuelled by emerging economies, the slow implementation of 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.

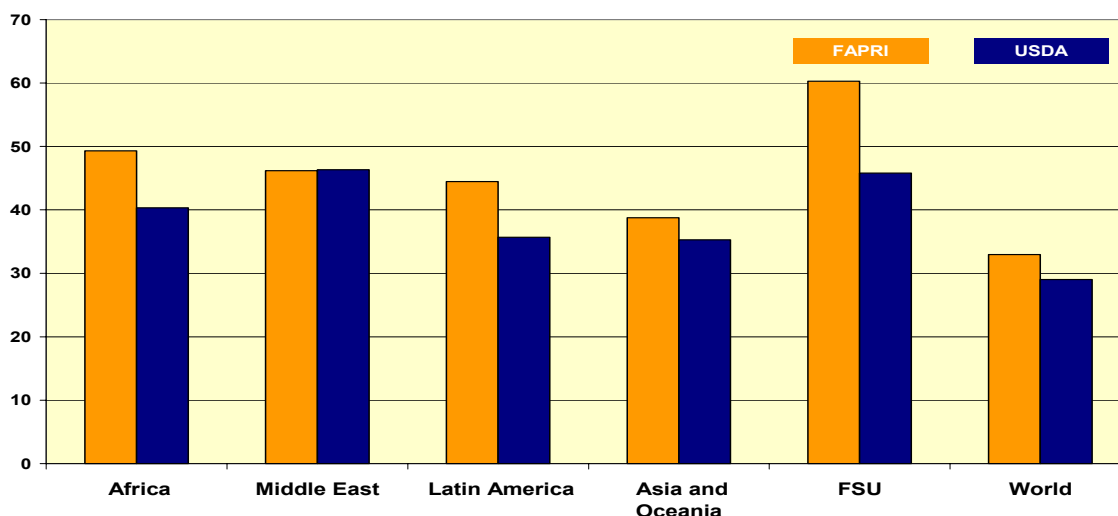
According to the USDA projections, Asian developing countries would exhibit a GDP growth averaging around 4 % per year (led by China that would display an annual growth rate of 7.3 %), i.e. somewhat lower than in the 1990s. A similar performance is projected for Latin American economies, with strengthening economic growth that would reach approximately 4 % a year on average over the medium term.

The moderate developments in oil prices that are assumed in the baseline projections – below the recent surge in oil prices at more than 50 \$/barrel - provide the basis for an average economic growth at or above 4.5 % per year for Middle East countries, i.e. surpassing 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 and FAPRI baselines foresee the continuation of the expansion of the economy. This performance would in any case constitute a substantial increase from the negative growth recorded in the 1990s (around –4 % per year). These prospects appear to depend critically on the process of implementation of structural reforms towards 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.

Graph 2.8 Outlook for real GDP growth per region, 2004 - 2012 (cumulative growth in %)



After the worst economic downturn in over a decade, the economic situation in developed countries improved sharply in 2004 and is assumed to return to average growth rates from 2006 onwards. Over the medium term, GDP growth is estimated to reach around 2.4 %, 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 economic growth in the US quickly returned to a remarkable 4.4 % in 2004 and is expected to keep a long-term sustainable rate significantly above 3.0 % 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 1.7 % per year. Owing to a milder slowdown, economic growth in the EU-15 would show a more modest rebound and less robust medium-term growth perspectives than in the US, with GDP stabilising just above 2 % on annual average.

Whereas strong economic growth in the developed world should only have minor direct implications for the global demand for agricultural products³⁸, it is expected to have a much stronger effect on food consumption in the non-OECD zone owing to higher per capita-income elasticity.

This environment of steady medium-term growth is foreseen to take place without significant inflationary pressures thanks to assumed moderate oil prices over the medium term -combined with a lower dependence of the economy on energy- and to a significant productivity growth. The recent surge in oil prices, which has not been taken into account in any projections, together with high freight costs and a continuing strong economic growth in China may lead to increasing inflation.

³⁸ 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.

Exchange rate fluctuations have constituted a major factor affecting agricultural trade flows and prices over the recent past, notably the depreciation of the US\$ 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 broadly assumes that, after a further depreciation of the U.S. dollar in the near term, the dollar will appreciate again starting in 2007. A return to a strengthening dollar reduces U.S. agricultural competitiveness and constrains export growth. This would be partially offset by longer term global economic growth, which increases the demand for U.S. exports. In the USDA baseline China is assumed to maintain a policy of a fixed nominal exchange rate relative to the U.S. dollar. However, even with a fixed nominal exchange rate, higher projected inflation in China than in the United States implies some real appreciation of the Chinese currency.

The OECD baseline assumes that the exchange rates against the US dollar that prevailed in 2004 are maintained throughout the projection period for most countries. Surprisingly, some depreciation of the Chinese³⁹ and Russian currencies would also be projected, as well as further depreciation for Argentinean and Brazilian currencies. An appreciation of the Japanese yen is anticipated by the FAPRI baseline, together with a continuation of the slow increase of the euro over the short term and a drastic fall in the value of the Brazilian and Argentinean currencies over the whole outlook period.

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).

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.

³⁹ The Chinese currency is assumed to appreciate somewhat against the dollar over the short term before depreciating over the medium term.

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 by 2004 for developing countries) and further trade liberalisation in the framework of the new multilateral trade negotiations launched in Doha in 2001 is expected to lower barriers and increase 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 FSU and China should also have a significant impact on international trade over the medium term.

2.3. Prospects per sector

This section is based on the projections⁴⁰ of some prominent forecasting organisations (OECD, FAPRI and in some cases 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 variables⁴¹.

2.3.1. Cereals

An abundant 2004 harvest followed two years of low world cereal production, especially for the year 2002. After a renewed fall in production level in 2005, more in line with average production levels of past years, OECD and FAPRI foresee that the cereal sector will return to its growing long-term trend. Widespread economic growth and the expansion of the livestock sector are projected to combine to set the stage for a strengthening of world demand and maintaining a low stock-to-use ratio. This would also generate a broad-based expansion in cereal trade, particularly in developing economies, driven by rising income, diet diversification and higher demand for livestock products and feeds. These factors would allow for a gradual, albeit moderate, price increase over the medium term.

Short-term developments

The short-term projections from the International Grains Council (IGC⁴²) for the 2005/06 marketing year indicate a wheat crop at 604 mio t, more than 20 mio t lower than in 2004. The 2005 harvest would thus constitute a return to more normal production levels, after many years of consecutive fall in world wheat production and the bumper crop of 2004. Wheat production is expected to decrease almost everywhere, with the exception of the US and Far East Asia.

⁴⁰ 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.

⁴¹ 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.

⁴² 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 2005 from the OECD, FAPRI and USDA.

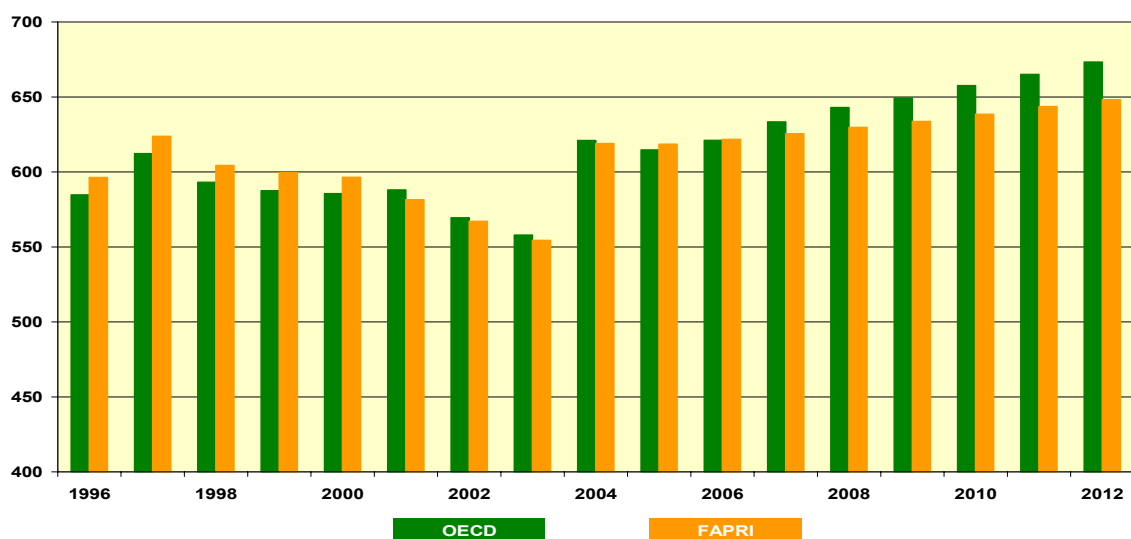
Coarse grain production is expected to decrease substantially to 963 mio t in 2005, i.e. some 47 mio t lower than the 2004 harvest⁴³.

World demand for wheat in 2004/05 resumed increasing after years of relative stagnation. Driven by food use in developing countries and feed usage in industrialised economies, total wheat consumption reached 613 mio t in 2004/05, i.e. an increase of nearly 20 mio t as compared to 2003/04. Wheat consumption in 2005/06 is expected to decrease to 607 mio t, in line with lower wheat production. Stocks increased in 2004/05 reaching 136 mio t, after several years of gradual reduction. Wheat stocks in the five major exporting countries increased by 10 mio t to 50 mio t. Wheat stocks are expected to grow slightly in 2005/06. Total wheat trade is set to continue to increase in 2005/06 to 106.5 mio t, with the bulk of this increase taking place in Canada and in the EU. Despite an increase of 20 mio t in 2004/05 in coarse grain consumption, these cereals would display a dramatic growth in total ending stocks to 178 mio t (91 mio t in the five major exporters). Total coarse grain trade would decrease somewhat in 2005/06 and reach 103 mio t.

Supply

Over the medium term world wheat production is forecast to increase more substantially than in the 1990s, albeit at a significantly lower rate than during the two decades before. Wheat availability would grow at a sustained pace of 1.3 % and 1.8 % on annual average (compared to the 2000-2004 average⁴⁴) in the OECD and FAPRI forecasts respectively (i.e. 65 and 90 mio t). 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 648 and 673 mio t in 2012 (according to FAPRI and the OECD respectively) as compared to the historical high of 610 mio t in 1997.

Graph 2.9 Outlook for world wheat production, 1996 – 2012 (mio t)



⁴³ Lower coarse grain production would result from a lower production for both barley and maize that reach around 140 mio t and 670 mio t respectively.

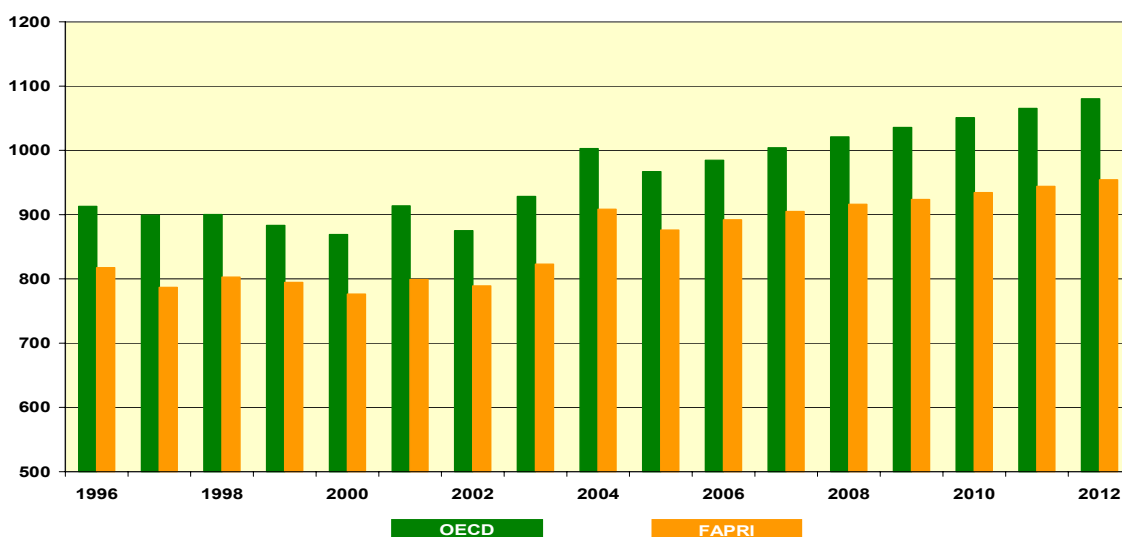
⁴⁴ Due to the huge variations recorded in 2003 and 2004 the comparison is made between the projections in 2012 and the average for the period 2000-2004.

As in recent decades, most of the growth in production would be generated from higher yields as wheat area would only expand moderately. FAPRI and OECD estimate that wheat yields would rise by an anticipated 1.2 to 1.3 % on annual average. These wheat productivity growth rates represent a marked slowdown as compared to the previous decades⁴⁵ but an improvement in comparison with the 1990s.

World wheat area, which has been declining since its record level in 1996 in line with the market and policy environment in some countries, bounced back in 2004 and is projected to increase again moderately in 2005 and then decline slightly over the medium term at around 220 mio ha in the FAPRI outlook⁴⁶. 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 term⁴⁷.

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 much stronger than over the most recent decade in the OECD projections. Like for wheat, this organisation foresees 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 productivity⁴⁸, as total coarse grain area would remain more or less stable over the projection period, the decline in barley area offsetting the projected increase in maize area. In the OECD projections, coarse grain production would rise by 77 mio t from 2004 to 2012 (i.e. 0.9 % per year). A growing demand for malting barley and sustained prices would support gains in barley production.

Graph 2.10 Outlook for world coarse grain production, 1996 – 2012 (mio t)



⁴⁵ 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.

⁴⁶ The OECD projects a slight increase of around 8 mio ha in wheat area over the medium term.

⁴⁷ 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.

⁴⁸ Over the next seven years, productivity growth in maize production is expected to reach 1.8 % per annum in the FAPRI projections, whereas barley yields would only rise by approximately 0.8 % per year.

Demand

After a marked slowdown in the 1990s, growth in wheat demand is forecast to gather pace over the 2005/06-2012/13 period and reach on average an annual rate ranging from 1 % (FAPRI) to 1.2 % (OECD), i.e. an increase of between 50 and around 61 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). 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 growth supported by widespread economic growth and expanding meat production, estimated on annual average between 1.7 % (FAPRI) and 1.9 % (OECD), i.e. an increase of between 120 and 150 mio t respectively over the forecast period. Demand for coarse grains would thus grow faster than during the 1980s and 1990s. According to the FAPRI projections this rise in demand would come mainly from maize and to a much limited extent from barley, due to the expansion of livestock production⁴⁹, with an annual increase forecast of 2 % for maize and 0.7 % for barley (corresponding to 110 mio t of maize and 8 mio t of barley between the period 2000-2004 and 2012/13).

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 continue with more stable and sustainable path.

Trade

World cereal trade is projected to grow stronger than in the 1980s and 1990s, boosted by rising demand and supply.

Table 2.1 Outlook for total imports in cereals, 2004 – 2012 (mio t)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Wheat	105.2	89.9	124.5	105.3	19.3	15.4
Coarse grains	99.9	95.6	126.1	114.4	26.2	18.8
Maize	76.3	76.5	99.6	91.6	23.3	15.1
Barley	14.5	13.8	16.9	17.0	2.4	3.2
Total cereals	205.1	185.5	250.6	219.7	45.5	34.2

FAPRI: net trade

FAPRI foresees a steady expansion in cereal trade from 2004/05 to 2012/13 ranging between 17 % for wheat (i.e. 15 mio t) and 20 % for coarse grains (i.e. 19 mio t). USDA predicts a more marked expansion in cereal trade ranging between 18 % for wheat (i.e.

⁴⁹ About two thirds of global coarse grain production are used as animal feed.

19 mio t) and 26 % for coarse grains (i.e. 26 mio t). The OECD outlook expects wheat net exports from the OECD area to rise by 16 % over the forecast period and net exports of coarse grains to grow by more than 50% throughout the next 7 years.

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 South East Asia, Latin America, North Africa and Middle East.

Table 2.2 FAPRI outlook for wheat net imports for major importing countries, 2004–2012 (mio t)

	2004	2012	Change in trade
Total Asia *	31.9	35.6	3.7
Japan	5.3	5.5	0.2
China	7.0	7.0	0.0
Africa and M. East **	33.6	40.1	6.5
North Africa ***	15	17	2.5

* Japan, China, South Korea, Taiwan, India, Pakistan, Other Asia

** North Africa, Iran, Other Africa and Middle East

*** Morocco, Algeria, Tunisia, Egypt

After the sharp increase recorded in 2004, net cereal imports from China are forecast to remain rather constant at around 7 mio t over the forecast period according to FAPRI and only to increase slightly in the OECD projections. In spite of further yield increases, China's wheat production is expected to stay systematically below domestic demand.

South East Asian countries, Pakistan and India are expected to exhibit some increases in wheat import. India has been a wild card player over the last years alternating as an importer or an exporter of wheat depending on domestic availability, and is foreseen to become a steady net wheat importer by the FAPRI over the end of the projection period. Conversely, the OECD projects a slightly positive net trade balance over the projection period.

Cereal imports in Africa and the Middle East are expected to rise moderately in response to GDP expansion, high population growth and limited production potential. The FAPRI projections show a 10 mio t increase in net cereal imports from 2004/05 to 2012/13, although with different trends between wheat and coarse grains. Mexico and other Latin American countries are expected to continue to increase their imports throughout the whole period.

Table 2.3 Outlook for coarse grains net imports for major importers, 2004 – 2012 (mio t)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
China	2.0	1.8	7.2	3.4	5.2	1.6
Japan	20.0	19.6	19.7	18.9	-0.3	-0.7
Mexico	10.4	9.4	18.3	12.7	7.9	3.3
North Afr. & M.East*	24.9	26.5	30.3	30.0	5.4	3.5

* FAPRI: Africa & M.East

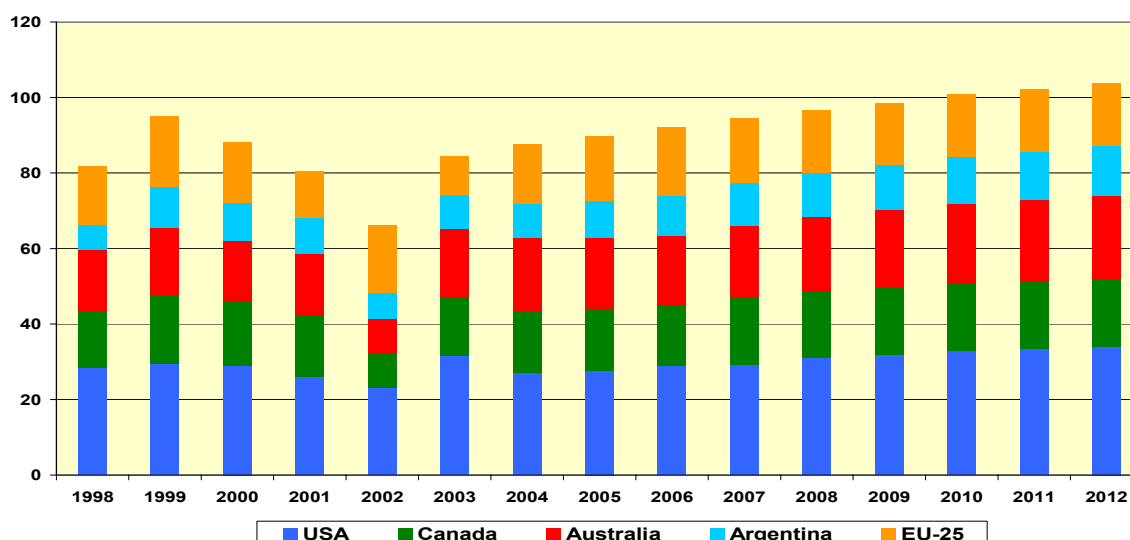
The FAPRI expects that these prospects for higher world wheat trade would mainly benefit Argentina, Australia, Ukraine and other former Soviet republics. Whereas Canada, the EU and Russia would display a broadly stagnating market share in global wheat trade, the US would exhibit a decline in its export position owing to a limited yield growth and an increased domestic demand. The OECD anticipates similar trends,

although more favourable for the US at the expense of the EU. Argentina increases its market share, benefiting from an expanding production through area and yield increases.

The OECD expects Russia to remain a growing wheat producer and net exporter (for about 7-8 mio t over the medium term). FAPRI anticipates similar trends, albeit less favourable for Russia's net exports as they foresee a more dynamic pattern for wheat domestic demand.

The uncertain recovery in the FSU's livestock industry is expected by FAPRI to generate moderate net exports of coarse grains over the next seven years. The latter would mostly concern barley and reach 7 mio t in 2012. OECD projections indicate a slight net importing position for Russia throughout the forecast period.

Graph 2.11 Outlook for wheat exports for the major wheat exporters, 1998 – 2012 (mio t)



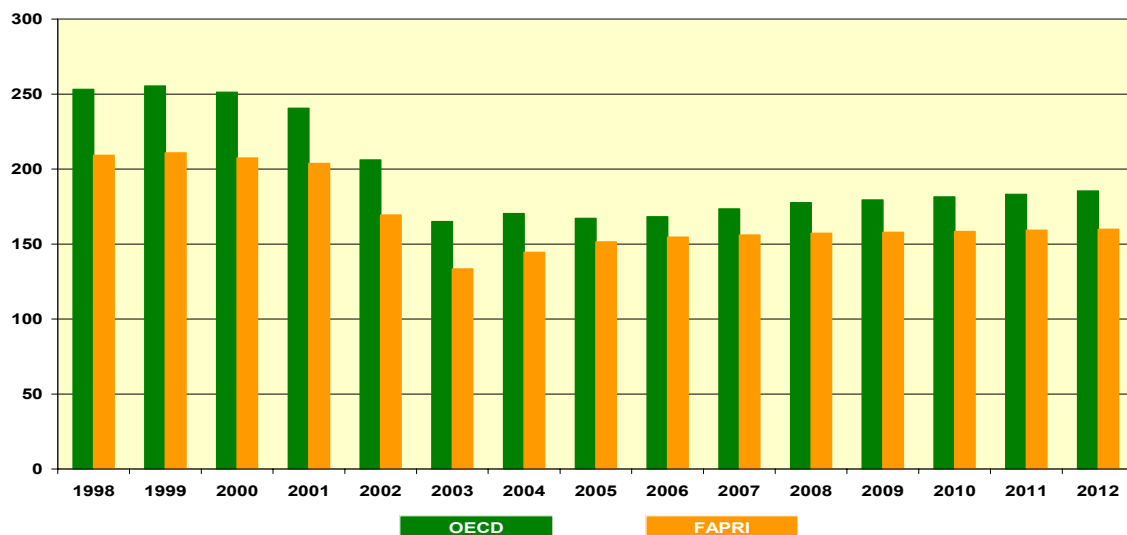
Source: OECD

Additional maize import demand is expected to be met mostly by the US (with expected growing market share from 64 % in 2004 to 72 % in 2012) and Argentina (stable at 16-17 % of market share). FAPRI expects China to turn into a net importer over the projection period. The EU and Australia are foreseen to capture a large part of the growth in barley trade at the expense of Canada.

Stocks and prices

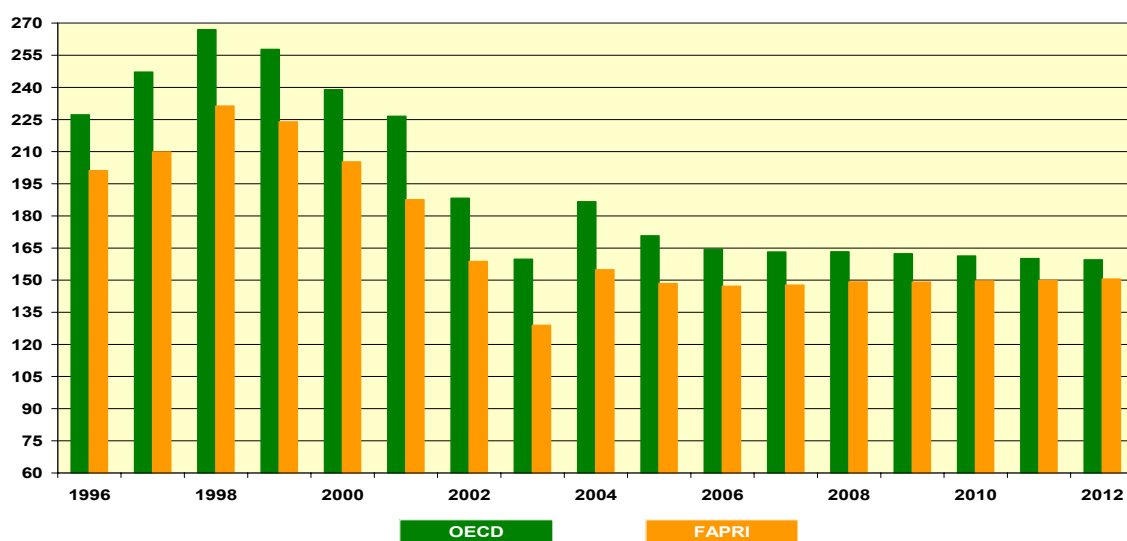
After some strong rebuilding in 1997 and 1998, cereal stocks declined sharply over the 2001-2003 period. The abundant harvest of 2004 halted this trend but most organisations foresee that low cereal stock levels should continue to be a feature of cereal markets over the medium term as total stocks are projected to broadly remain at their 2004 levels. Combined with a projected global increase in cereal demand, the stock-to-use ratio is expected to remain low and maintain an upward pressure on world cereal prices over the medium term.

Graph 2.12 Outlook for world wheat stocks, 1998 – 2012 (mio t)



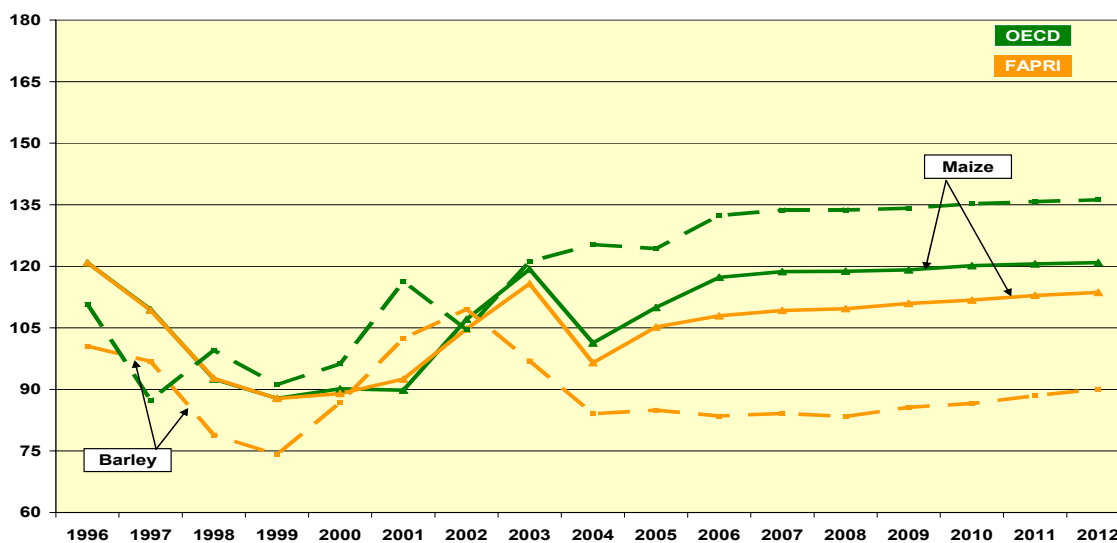
After bottoming out by the turn of the century, cereal prices recovered slowly over the following three years, as supply was affected by severe climatic conditions and demand showed a marked recovery. Prices, which fell in 2004 for almost all cereals in response to the exceptional harvest in many producing countries, are expected to recover in the next few years and stay firm over the medium term as supply slowly adjusts to a strengthening global demand.

Graph 2.13 Outlook for world coarse grain stocks, 1996 – 2012 (mio t)



According to the FAPRI and OECD projections, prices of common wheat (HRW, fob US Gulf) are projected to range around 161 and 163 \$/t in 2012/13 respectively (SRW wheat, that broadly corresponds to EU common wheat quality, would quote around 10 % below these HRW wheat price projections).

Prices of coarse grains should follow a similar moderate trend, with maize prices (fob US Gulf) projected at about 114-121 \$/t at the end of the period by the FAPRI and the OECD respectively.

Graph 2.14 Outlook for world coarse grains prices, 1996 – 2012 (\$/t)

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

After falling sharply from their peak in 1995/96, barley prices reached a new high in 2002/03 and fell again to low levels in 2004/05. FAPRI expects barley prices to stabilise at low level over the short term and gather pace only at the end of the projection period, increasing from 84 \$/t in 2004/05 (Canada feed) to 90 \$/t in 2012/13. OECD projects a slightly higher growth from 125 \$/t in 2004/05 to 136 \$/t in 2012/14 (St Lawrence reference⁵⁰).

2.3.2. Oilseeds and oilseed products

The medium-term prospects for the oilseed sector are expected to be relatively stable. After the high price of 2003 and the subsequent drop, 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.

Oilseeds and oilseed meals

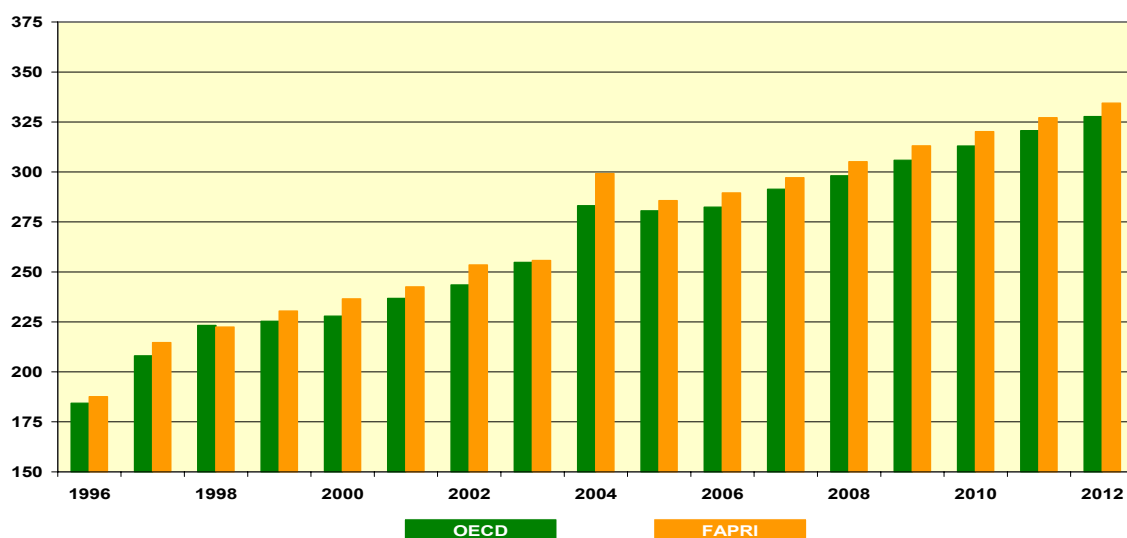
Production

According to the OECD and FAPRI, total oilseed production is forecast to increase between 2003/04 and 2012/13 at an annual rate ranging between 2.8 % and 3 % (i.e. between 73 and 79 mio t), still slower in comparison to the 1990s. Oilseed production is expected to remain relatively concentrated as most of the increase in oilseed production

⁵⁰ The St Lawrence quotation for barley prices constitutes the appropriate reference for EU barley qualities and trade destinations.

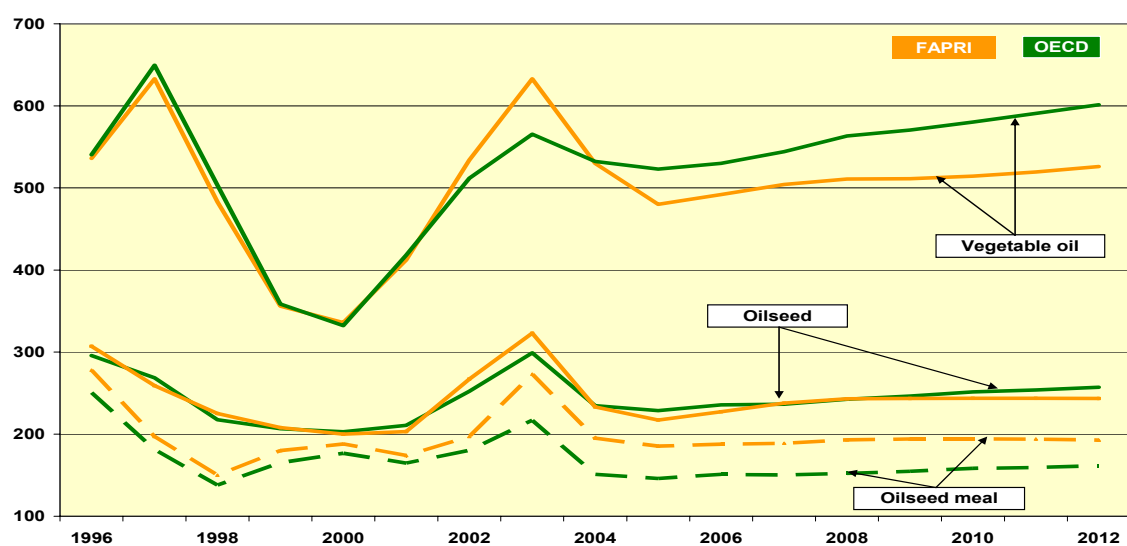
would concern soybean and would take place in the US, Brazil and Argentina. Production growth is foreseen to result from both area expansion and yield improvement (except in the US where oilseed area is projected to grow only slightly).

Graph 2.15 Outlook for world oilseed production, 1996 – 2012 (mio t)



In FAPRI projections the continuous expansion in oilseed output would be supported by a strong increase in oilseed area that would grow by 12.7 mio ha, split between around 12.4 mio ha for soybean and 0.8 mio ha for sunflower seed, whereas rape seed area is projected to decrease by 0.5 mio ha by 2012/13. A very similar pattern for area and yield growth is predicted by the OECD. Yet, all projections appear to indicate only a slight increase in the oilseed area in the OECD zone (notably the US) in spite of relatively high world market prices throughout 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).

Graph 2.16 Outlook for world prices in the oilseed complex, 1996 – 2012 (\$/t)



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

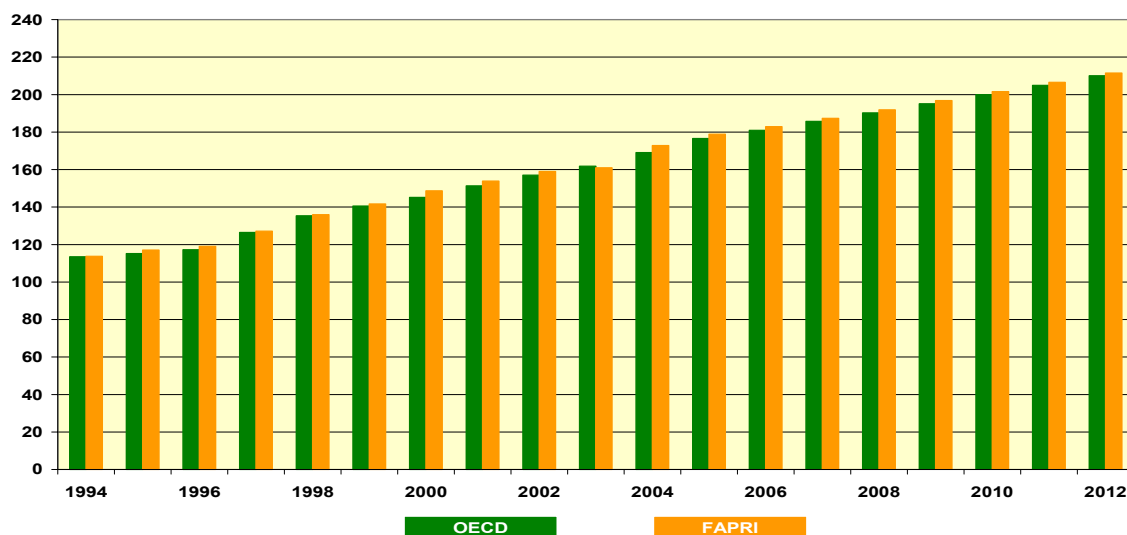
After the abundant harvest of 2004/05, short-term and medium-term developments would exhibit a slow and gradual supply adjustment in the oilseed sector as a combination of

policy and macro-economic⁵¹ factors is anticipated to make oilseed supply not fully responsive to market signals, notably in the US⁵². Many developing countries would benefit from the expansion in oilseed demand which would support production developments through productivity gains and additional land (given also the modest increases in the price of competing crops).

Demand

The continued economic growth 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.

Graph 2.17 Outlook for world oilseed meal consumption, 1994 – 2012 (mio t)



Oilseed meal consumption is estimated to rise by around 25 % over the whole period, i.e. between 39 and 41 mio t. This strong pattern constitutes nonetheless a slight slowdown as compared to the 1990s. Although the pace of growth is now slower in developed countries⁵³ than in emerging economies, the former still make up for more than 50 % of world oilseed meal use. Moreover, OECD countries would still account for the largest share of oilseed and oilseed meal import demand during most of the period, especially the EU and Japan.

Trade

Total trade in oilseeds is anticipated to increase over the projection period at a faster rate than in the 1980s, but 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

⁵¹ Mainly weak exchange rates in some major oilseed producing countries (especially in South America).

⁵² The importance of the US policy for the oilseed sector is foreseen to decline over the medium term as markets are expected to stay firm.

⁵³ The OECD markets are starting to mature in contrast to those of developing countries that now represent more than 40% of world consumption of oilseeds and over 65 % of vegetable oils.

forecast to account for most of the growth in oilseed and oilseed meal trade over the medium term. According to the FAPRI and the USDA projections, soybean trade would rise at annual rates ranging between 4.2 and 4.3 % respectively over the next eight years, whereas soybean meal imports would grow by around 3 % per year.

Table 2.4 Outlook for total imports in soybean and soybean products, 2004 - 2012 (mio t)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Soya bean	62.7	57.2	87.6	79.3	24.9	22.2
Soya bean meal	48.4	45.0	60.9	57.0	12.5	12.0
Soya bean oil	9.8	9.0	13.2	12.4	3.4	3.5

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

China's domestic grain policy and recent shift towards maximising its large domestic crushing industry should translate into greater imports of oilseeds (rather than oilseed meals and oil). However, lower tariffs on soybean oil –following China's WTO accession- are projected by the OECD to favour oil imports, thus exerting some 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 OECD and the FAPRI to account for 70 % and 75 % respectively of the world's growth in soybean imports over the next seven years.

Whereas the FAPRI expects China to increase by 75 % its current level of soybean imports by 2012/13 (from 21.8 mio t in 2004/05 to 38.3 mio t in 2012/13), the OECD projections indicate a slightly more moderate pattern with an additional 15.6 mio t of soybeans imported by 2012/13.

The OECD baseline exhibits modest developments for EU imports, with a small increase of less than 3 mio t for oilseeds and 4.5 mio t for oilseed meals⁵⁴. Besides the EU and China, the medium-term outlook for global oilseed import demand is projected to remain dominated by Mexico and, to a lesser extent, by Japan and South East Asia.

Table 2.5 Outlook for soybean net imports for major importing countries, 2004-2012 (mio t)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union*	15.9	15.8	14.5	15.9	-1.4	0.1
Japan*	5.0	5.0	5.1	5.3	0.1	0.3
China	22.0	21.8	40.7	38.3	18.7	16.5
South Korea*	1.6	1.6	1.9	1.6	0.3	0.1
Mexico*	4.5	-	6.9	-	2.4	-
Taiwan*	2.4	2.3	2.7	2.5	0.3	0.2

* USDA: gross trade figures; including intra-EU trade.

On the export side, Brazil and Argentina are forecast to benefit from the growth in soybean and soybean meal trade, while Canada would maintain its predominance in the rape seed market. The US are not expected to capture a large share of the additional import demand and FAPRI even projects a contraction of US export volumes. Brazil is projected in the FAPRI baseline to continue to expand its soybean production by one third by 2012/13 through mainly increased area (30 %) but also higher yields (6 %). This

⁵⁴ FAPRI displays stagnant EU soybean imports, while USDA shows even a slight reduction of 1.4 mio t over the projection period.

fast output expansion would be accompanied by a growing processing infrastructure allowing also for an increase in oilseed meal production. By the end of the decade, Brazil is forecast to account for the largest share of the projected oilseed trade expansion and would capture more than 15 % in percentage point of the US export market share.

If global import demand in soybean meal trade is forecast in the long run to be mainly driven by the EU and South East Asia (notably South Korea), a growing share of this demand would be widespread among many developing countries (from Africa and Latin America) and transition countries. According to the FAPRI outlook, Brazil and Argentina would capture almost entirely the expansion in world soybean meal trade between 2004/05 to 2012/13.

Prices

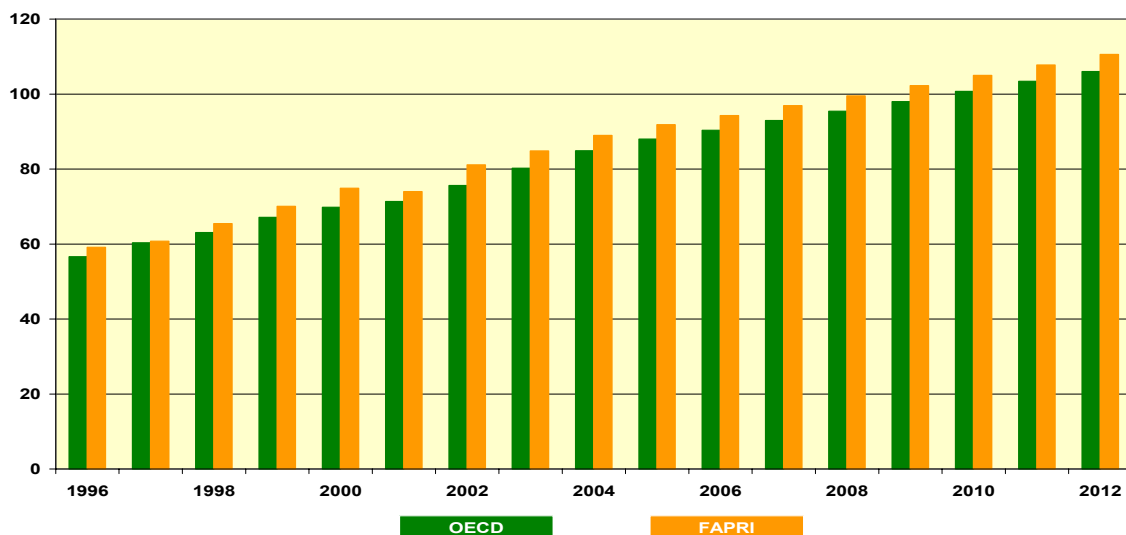
After the strong decrease in 2004 and an expected further weakening in 2005, oilseed prices are foreseen to display a moderate growth over the next seven years supported by long-term demand growth. This price stabilisation at moderate level would result from increased availabilities due to sustained yield growth, strong production potential in South America and the continuation of a policy favouring oilseed production in the US. Oilseed meal prices are expected to remain weak over the medium term after the peak of 2003 and the fall of 2004.

Both FAPRI and the OECD foresee that prices of soybean and soybean products would decrease somewhat in 2005/06 after the steep fall of 2004 which followed the price peak of 2003. Prices are then expected to remain stable over the rest of the outlook period, with soybean and soybean meal prices reaching 243 \$/t and 193 \$/t respectively by 2012/13 according to FAPRI. 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 257 \$/t and 162 \$/t respectively by 2012/13.

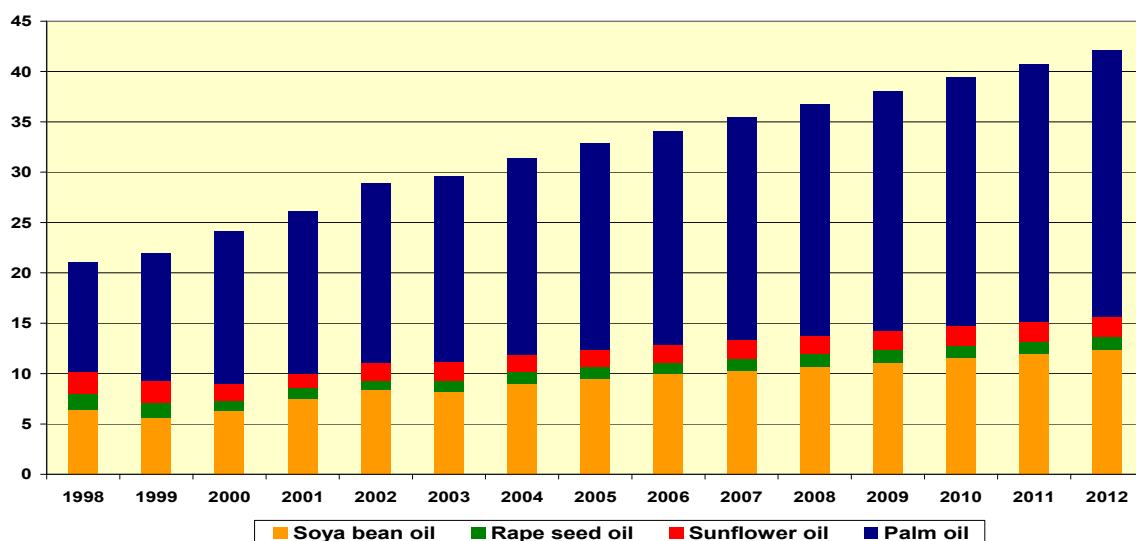
According to the FAPRI projections, rape seed and sunflower seed prices are foreseen to benefit from more favourable long-term vegetable oil demand -in comparison to meal- and would accordingly exhibit a stronger pattern than soybean prices. After the 2004 and 2005 drop associated with high world production stimulated by the 2003 price increases, rape seed and sunflower prices would stabilise at around 250 \$/t and 280 \$/t respectively in the FAPRI projections.

Vegetable oils

Vegetable oil has been the agricultural commodity with one of the most significant and steady 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 OECD and FAPRI project that growth in vegetable oil consumption would average 2.8 % per year over the medium term. Most of this additional consumption (of more than 20 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 2.18 Outlook for world oilseed oil and palm oil consumption, 1996 – 2012 (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 2004/05 to 2012/13. Palm oil and soybean oil should absorb the largest share of additional consumption and trade. Palm oil trade is forecast to expand by 7 mio t (i.e. 3.9 % per year over the 2004/05-2012/13 period as compared to an annual average 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 85% of world production). These two countries are forecast to increase supply of palm oil by 8.3 mio t over the next seven years (or by more than 30 %).

Graph 2.19 Outlook for world oilseed oil and palm oil trade, 1998 – 2012 (mio t)

Source: FAPRI.

Growth in world soybean oil trade is projected by the FAPRI to grow by 4.2 % per year on average 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 3.6 mio t by 2012/13, and, to a lesser extent, Indian imports would constitute the main driving force behind the growth in soybean oil trade.

The stronger growth in oilseed oil consumption and trade relative to meals would entail higher oil prices, which are 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)⁵⁵. The FAPRI projections provide for medium-term prospects of vegetable oil prices rising to 526 \$/t (soybean oil) after the high level of 2003 (633 \$/t) and the expected low of 2005 (480 \$/t). The OECD average price of oilseed oils and palm oil is projected to increase over the medium term to reach 600 \$/t by 2012/13 (fob Rotterdam). After the high level reached in 2003, palm oil prices would display a similar pattern with prices reaching around 430 \$/t cif Rotterdam in 2012/13. 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.

2.3.3. Meat

The medium-term perspectives for meat focus on 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, with sometimes diverging features. 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 remain at relatively high level over the medium term even after the shortages linked to animal diseases 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).

Table 2.6 Outlook for world meat imports, 2004 – 2012 ('000 t cwe)

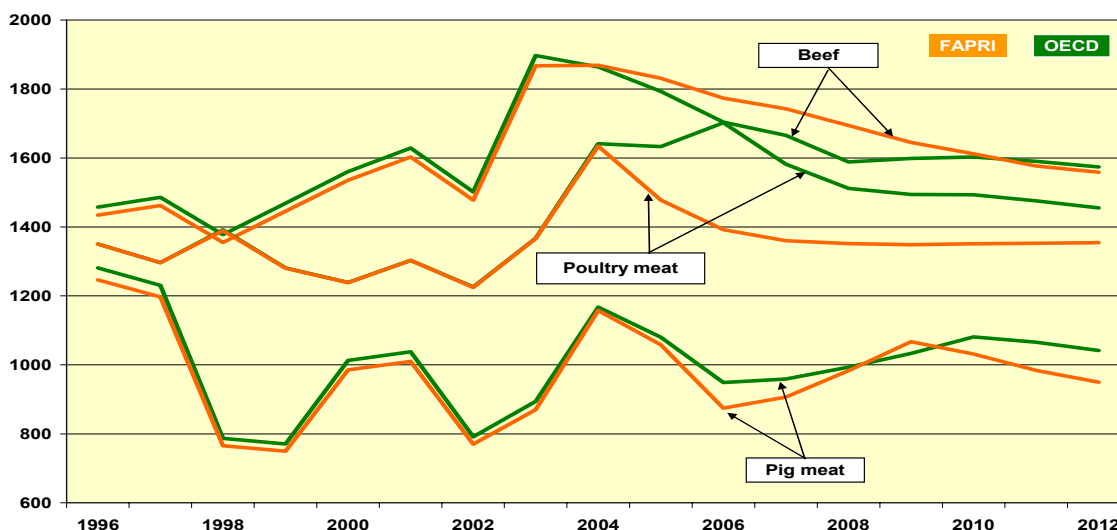
	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Beef	5777	3434	6584	5106	807	1672
Pork	4122	3116	5070	4231	948	1115
Poultry	6136	5103	8049	6690	1913	1586

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 East Asia, Brazil, Argentina, Canada, the US 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.

⁵⁵ In the FAPRI projections, demand for rape seed and sunflower oil is forecast to grow over the medium term by 7 % and 14 % respectively, in line with rising incomes and population, notably in China, India and other developing countries. Trade in rape seed oil is foreseen to display a slight downward trend over the medium term (-3.7 %) while sunflower oil trade is expected to increase by nearly 25% over the forecast period.

Graph 2.20 Outlook for world meat prices, 1996 – 2012 (\$/t lw)



Beef and veal

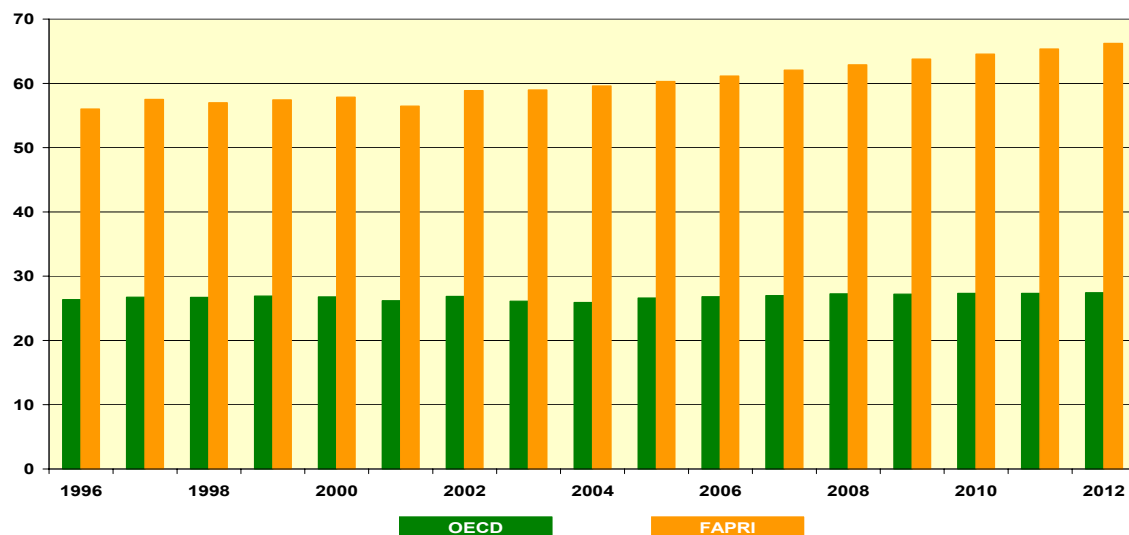
The animal disease outbreaks of the last few years -notably in the EU and Argentina-together with the appearance of BSE in Canada and in the US reinforced the traditional split between the Pacific and the Atlantic markets, with major market and policy consequences. The impact of the north American cases of BSE can still be felt on world beef trade, with a contraction of US shipments (mainly to Japan) and consequent positive effects on other beef exporters, notably Australia, but also on pig meat and poultry trade.

According to the OECD and FAPRI projections, world beef production is foreseen to increase over the 2004-2012 period. The OECD and FAPRI anticipate an average annual growth ranging between 0.6 % for the OECD zone to 1.3 % 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 a more modest development in US production. As regards prospects for the US beef sector the FAPRI projections foresee a moderate expansion in the next US cattle cycle after the low point reached in 2004.

As regards the non-OECD zone, all projections show a steady increase in beef production in Brazil (between 1.8 % and 2.4 % per year on average over the next seven years according to the OECD and FAPRI), in Argentina (0.6 % and 1.8 % on annual average respectively) and China (where both agencies foresee a remarkable annual growth rate of 3.8%). Prospects for Russia are rather mixed as the OECD projects a 8.5 % increase over the next seven years whereas the FAPRI foresees a decrease of 15%.

Global beef consumption is expected to rise gradually by around 1.6 % per year on average in the FAPRI projections 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 beef meat with pig and poultry meat.

Graph 2.21 Outlook for world beef production, 1996 – 2012 (mio t cwe)



Ref.: OECD – data for OECD zone; FAPRI: data for selected countries.

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 over the projection horizon in Asian countries (mainly China, India, Indonesia, Japan and Thailand) and to a lesser extent in Latin America (Brazil, Argentina and Mexico). In Asia, beef consumption should increase gradually from relatively low levels, in response to population growth, economic development and higher disposable income that should lead to changes in food habits toward more western style.

The OECD does 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 an increase in China's net beef imports towards the end of the projection period (300 000 t) on account of some cuts in Chinese high meat import tariffs in the wake of China's accession to the WTO. Moreover, 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 2.7 Outlook for beef net imports for major importing countries 2004 – 2012 ('000 t)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Russia	650	645	435	743	-215	98
Japan	604	604	1482	1122	878	518
South Korea	200	200	389	388	189	188
Philippines	125	125	190	213	65	88
China	-	82	-	104	-	22
USA	1392	1419	825	176	-567	-1243
Mexico	270	260	556	626	286	366

USDA = gross imports, except USA net imports

The FAPRI predicts that total trade in beef should increase by 1.7 mio t (i.e. nearly 50 %) over the 2004-2012 period. Much of the growth in imports is expected to come from Asia, Mexico, Egypt and Russia. Beef imports from Asia (in particular Japan, South Korea, Taiwan and the Philippines) are expected to continue growing over the next decade. Beef imports in Japan are projected to increase gradually over the medium term when the recovery in consumption after the BSE scare outpaces domestic production

growth. The OECD projections show that the improvements in efficiency and competitiveness of Russia's livestock sector would only enable a gradual increase in domestic production which would be insufficient to fully respond to the increasing domestic consumption, thus generating additional imports. FAPRI foresees that the gradual increase in Russian beef imports would be linked to the declining domestic production which would outpace the expected slow down in beef consumption over the medium term.

FAPRI expects the gradual recovery of US exports after the BSE crisis to absorb 75 % of world import demand growth. Other low-cost producers such as Brazil and Argentina would also exhibit export gains in the short run thanks to substantial and timely herd rebuilding. Australia and New Zealand are also expected to increase their exports.

As in last year's baseline, the OECD outlook displays a different picture with Canada projected to expand its production by 35 % and therefore its market share in the world beef market.

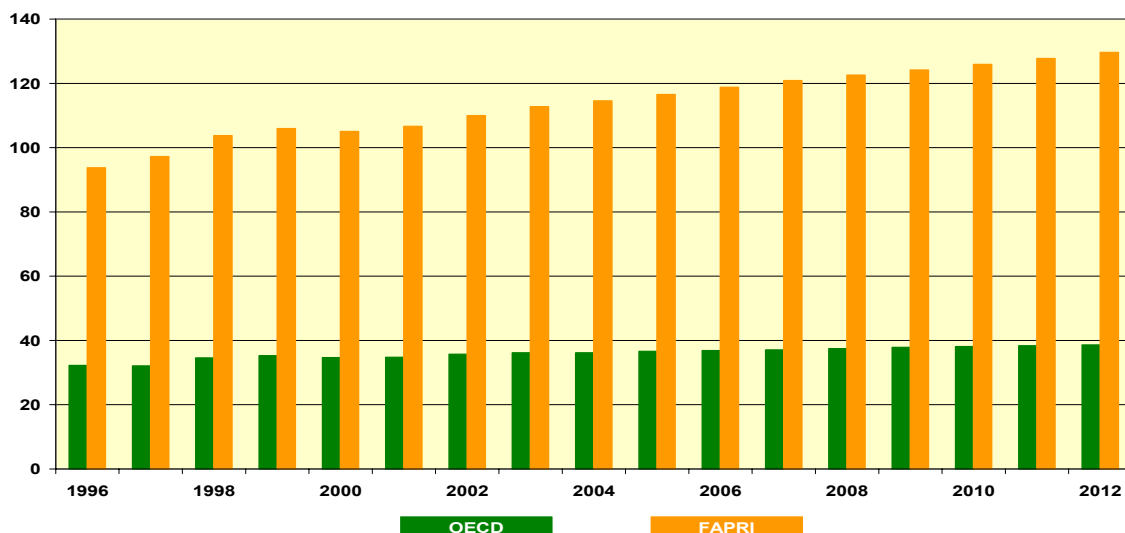
If some factors may be expected to exert some downward pressure on beef prices (including the changing structure of the world beef market, the emergence of new major exporters and the increasing competition from other meats), a sustained import demand - notably in the Pacific market- combined with limited growth in beef production should contribute to support market price developments over the medium term. After the very high prices recorded in the past couple of years mostly due to the trade disruptions linked to the BSE in North America, beef prices are expected to ease gradually and stabilise over the medium term at around 1600 \$/t.

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 pig meat sector is expected to be characterised by solid expansion in world trade. However, strong competition between exporters, sustained productivity growth and large supplies should bring pig meat prices down in the short-term and prevent any substantial rise over the projection period.

World pig meat production is projected by the OECD and FAPRI to continue to increase moderately over the medium term by between 7 % (OECD zone) and 13 %, 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.

According to OECD and FAPRI projections, most of world production growth (i.e. between 8.5 and 9.6 mio t over the next seven years) is likely to occur in China (for nearly 60 % of total world growth for FAPRI). The prospects for production expansion in the other major pig meat producing countries differ widely across projections. Nevertheless, Brazil, Mexico, Canada and Russia are all foreseen to show significant production increase (ranging between 43-30%, 21-24%, 9-20% and 17-20% in the OECD and FAPRI projections respectively). Pig meat production in Japan is projected to decline, but at a slower rate than in the previous decade.

Graph 2.22 Outlook for world pig meat production, 1996 – 2012 (mio t cwe)

Ref.: OECD: data for OECD zone; FAPRI: data for selected countries.

The mature pig meat markets in the EU, US and Canada are expected to record moderate demand growth in line with income prospects and population. Pig meat consumption in Japan, after the increase induced by the BSE crisis in the past few years is set to grow only slightly over the projection period. Slow consumption growth in these countries would be partially compensated by a stronger increase in Asia and Latin America (notably in China and to a lesser extent Mexico where per capita pig meat consumption is set to rise by 13 % and 18 % respectively between 2004 and 2012 in the FAPRI projections), driven by population growth, low price expectations and the improvement in the general economic conditions.

Table 2.8 Outlook for pig meat net imports for major importing countries, 2004–2012 ('000 t cwe)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Japan	1225	1225	1411	1482	186	257
Russia	500	499	525	435	25	-64
South Korea	200	189	296	246	96	57
Mexico	415	365	747	544	332	179
China Mainland	88	-242	131	142	43	384
Hong Kong	317	317	430	390	113	73

USDA = gross imports

Global trade in pig meat is forecast to increase further over the medium term with average annual growth rates ranging between 3.9 % in the FAPRI projections and 2.6 % in the USDA outlook (i.e. by 1 100 000 t and 950 000 t of additional imports from 2004 to 2012). 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, mainland China, Hong-Kong) and Mexico.

Prospects for the pig meat sector in Russia are still difficult to assess and are reflected 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. The introduction of quotas on meat imports has added another distorting element in these projections. Notwithstanding greater availability of cheap feed grains, the OECD and the

USDA foresee a slight increase in Russia's import demand for pig meat (FAPRI on the contrary projects a contraction in pig meat imports). Domestic production, which is still hindered by inefficiencies associated with structural problems, insufficient capital investment and low infrastructure and management is expected however to benefit from slightly higher domestic prices due to higher border protection and growing domestic demand as economic prospects improve.

Japan would remain the largest pig meat importer over the outlook horizon, with net imports amounting to nearly 1.5 mio t. Following 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. According to all agencies, income and population growth should boost Mexico's import demand, which is set to increase by 179, 102 and 332 thousand t according to the FAPRI, OCDE and USDA respectively.

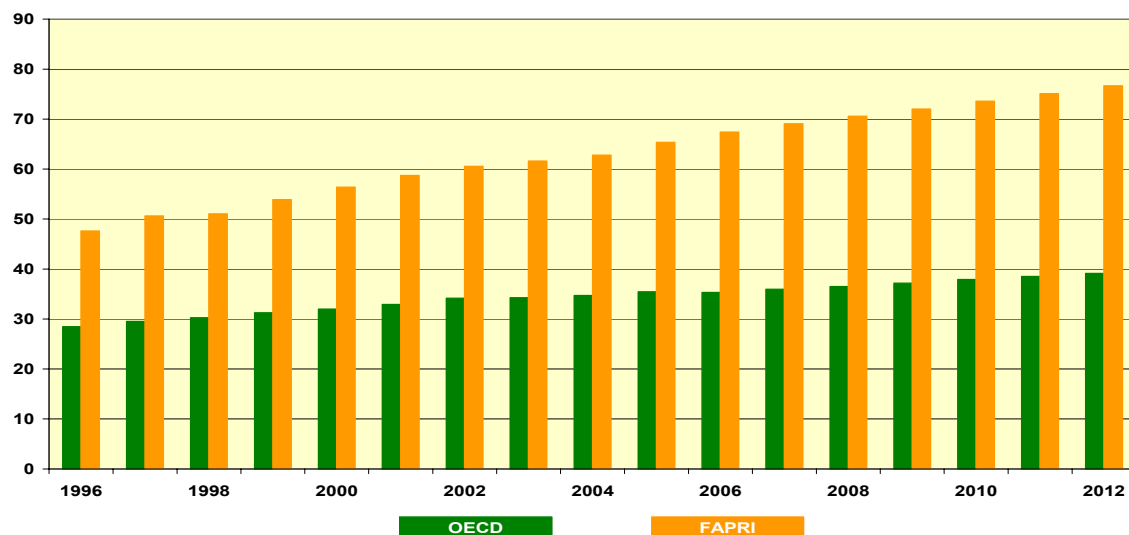
The USDA and FAPRI foresee that the increasingly export-oriented and low-cost producing pig meat industry of Brazil and Canada should capture most of the sustained rise in world pig meat trade (more than 60 % of total trade growth according to FAPRI). Brazil competitiveness is foreseen by FAPRI to benefit 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. The EU, world's largest pig meat exporter, is expected to show moderate export growth according to USDA (+9 %) the OECD (+5 %) and FAPRI (+12 %). The US is projected to increase its exports (with expected increases ranging between 287 000 t according to FAPRI and 200 000 t in the OECD projections).

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.

Poultry

Over the 2004-2012 period, the outlook for poultry meat is projected to remain favourable, as all market fundamentals would demonstrate solid growth. In the past few years poultry meat has generally benefited from the BSE and FMD outbreaks. However, the widespread Avian Flu epidemic since 2003 has completely disrupted production and trade in many areas of the world, notably South East Asia but also the US and Canada. 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 costs (relative to beef and pig meat) and consumer preference in many parts of the world (in line with changing diets towards western lifestyle and health considerations).

Graph 2.23 Outlook for world poultry meat production, 1996 – 2012 (mio t cwe)



Ref.: OECD: data for OECD zone; FAPRI: data for selected countries.

Poultry meat production and consumption are predicted by FAPRI to increase sharply over the next seven years (by more than 20 %, i.e. an average annual growth of approximately 2.5 %). Production in the large producing 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 countries with a relatively low per capita consumption (such as China, Mexico and Russia), the 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 preferences⁵⁶.

Table 2.9 Outlook for poultry meat net imports for major importing countries, 2004–2012 ('000 t)

	2004		2012		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Russia	1000	929	1485	1049	485	120
China Mainland	220	-30	305	362	85	392
Hong Kong	200	200	214	196	14	-4
Mexico	524	355	777	356	253	1
Japan	500	498	626	894	126	396
Saudi Arabia	435	410	459	537	24	127
South Korea	30	30	45	117	15	87

USDA = gross imports

⁵⁶ A strong rise in US per capita consumption of poultry meat ranging between 9 % and 12 % 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.

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 3.4 % and 3.5 % on annual average by the FAPRI and the USDA respectively over the 2004-2012 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. Net imports are foreseen at around 85 000 t in the USDA outlook by the end of the projection period, whereas the FAPRI and the OECD foresee a stronger pattern for Chinese imports over the medium term (at 392 000 t and 425 000 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. Whereas the OECD and USDA project further growth in Mexican poultry imports (by 32 % and 48 % respectively), FAPRI expects a stabilisation in imports throughout the projection period.

The import quotas on Russian meat imports introduced in 2003 are expected to limit poultry import volumes at 1 050 000 t according to FAPRI, as the steady increase in meat consumption is projected to be met by increased production, which would display rapid growth in spite of the lack of investment and remaining inefficiencies. The OECD and USDA assume that Russia's poultry imports will exceed the TRQ limit and reach 1 217 000 and 1 485 000 respectively by 2012.

All organisations foresee that Brazil, Thailand and to a lesser extent the US would benefit from this projected rise in poultry meat trade. Brazil may also gain from currency depreciation. With the assumed return to normal sanitary conditions, Thailand is expected to recover its share of the world poultry 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.

After the recent peak due to lower availability linked to the presence of avian flu in South East Asia, poultry prices are expected to decrease over the next few years as strong demand stimulates supply worldwide. Prices are then expected to stabilise at a relatively high level as 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 respond to the projected strong increases in demand over the next seven years.

2.3.4. 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 powders, 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 sector⁵⁷.

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 or maintain prices at high level 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 New Zealand, Australia and to a lesser extent the EU will keep dominating the world market for dairy products thanks to technology-driven improved efficiency, geographical proximity to growing import markets as well as changes in domestic policy (notably in the EU from 2004 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 growth in Russia could have major implications for future developments in world trade volume and prices given Russian share in the world dairy market.

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 2004-2012 period. After the relative 2003-2004 slow down in some major producing countries (notably the US, New Zealand and Australia), 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.

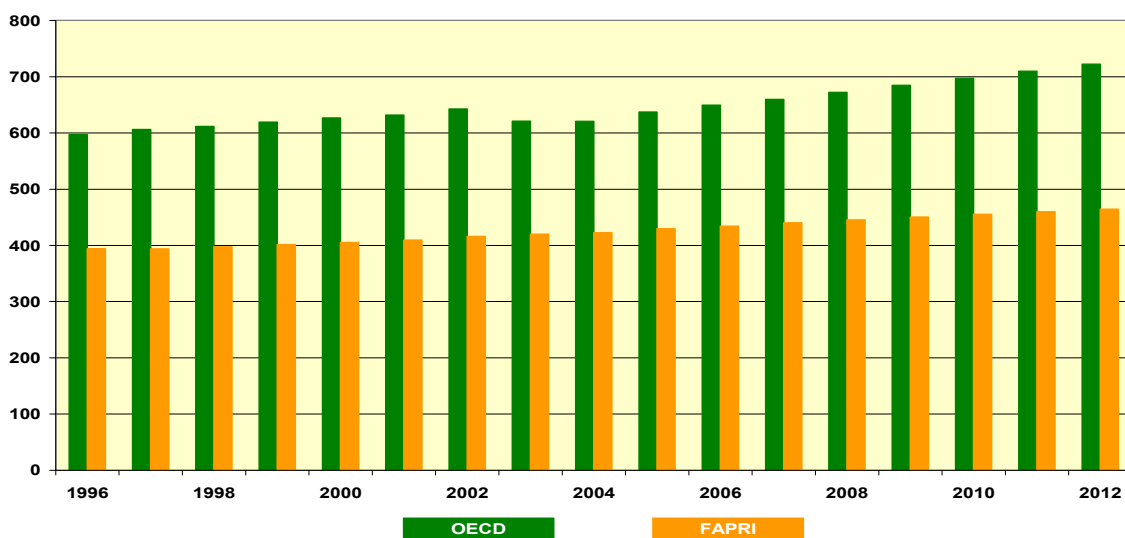
The OECD baseline shows an increase in world milk production of more than 100 mio t (+16 %) from 2004 to 2012. Most of additional milk production would originate from the non-OECD area. The greatest increase in milk output is forecast in China, India, Brazil

⁵⁷ The USDA for example focuses only on the US dairy market in its publication on long-term projections.

and Argentina. As a consequence, the share of developing countries in world milk production is expected to rise significantly.

OECD and FAPRI have revised downwards their projections on Russian milk production which is now estimated to increase between 3.7 % and 7.7 % respectively over the projection period. The two agencies' projections diverge on the origin of this moderate growth: whereas the OECD projects only a slight increase in milk yield coupled with a slightly increasing dairy cow herd, FAPRI's production growth results from substantial increase in productivity that would outweigh the impact of a declining dairy herd.

Graph 2.24 Outlook for world milk production, 1996 – 2012 (mio t)



Ref.: OECD: data for total world; FAPRI: data for selected countries.

The OECD foresees that milk production in the OECD area should grow at a similar pace to that recorded 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 2006. 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 will continue over the medium term at the substantial rate of 15 % and 27 % for Australia and New Zealand respectively, the FAPRI outlook appears more optimistic for Australia (+29 %) and more moderate for New Zealand (+20 %).

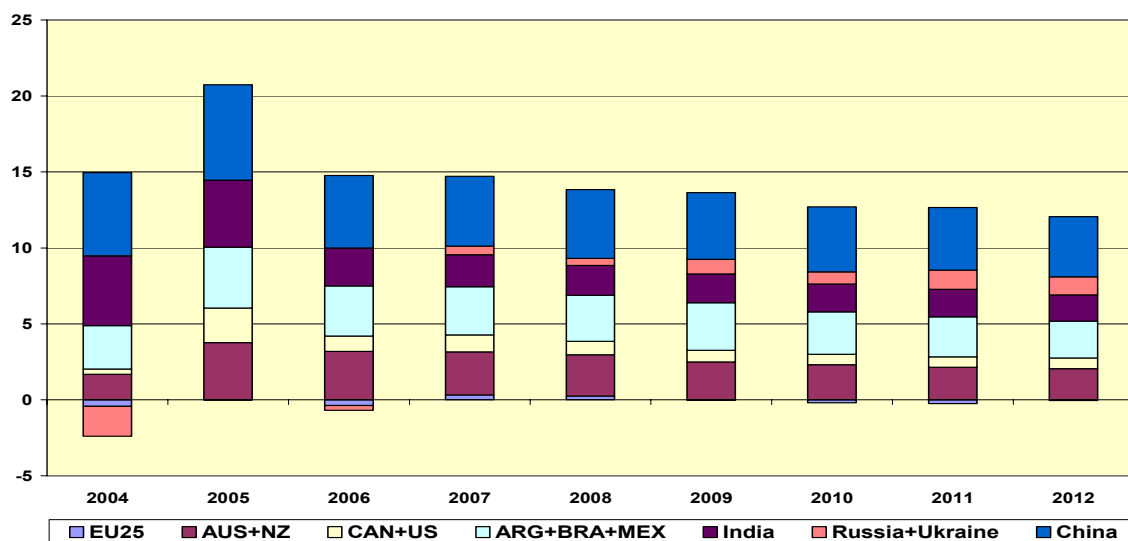
Over the 2004-2012 period US milk production is forecast to increase by 9 % according to FAPRI and 13 % for the OECD, supported by productivity growth (associated with better management, improved genetic potential and cheap feed grains).

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 2004-2012 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 consumption (+14.7 %, i.e. +10.3 % per capita)

and slight decrease for whole milk powder (-3.2 %, i.e. -6.8 % per capita) and butter consumption (-3 %, i.e. -6.1 % per capita). A marked decline is projected for skimmed milk powder (-20.6 %, i.e. -23.6 % per capita).

Graph 2.25 Outlook for world milk production, annual changes, 2004 – 2012 (mio t)



Source: FAPRI (selected countries)

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, the 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 10 % (i.e. +0.5 % per capita) from 2004 to 2012, consumption of WMP, butter and cheese would exhibit a stronger pattern with growth of more than 22 % (i.e. more than 11 % per capita) from 2004 to 2012⁵⁸. 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 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 in terms of quantities involved). Technological advances are also projected to stimulate a rapid development in milk components.

OECD projections indicate a sustained growth in global world consumption of cheese in the OECD projections with a cumulative 17 % growth over the 2004-2012 period (i.e. 1.6 % per year on average). Most of the increase in consumption (around 67 %) would take place in OECD countries, which accounted for more than 75 % of total world consumption throughout the projection period, and would be met by increased domestic supply. The US and the EU would account for 90 % of this additional cheese demand in OECD countries. The OECD outlook shows that increasing cheese consumption in Japan

⁵⁸ The OECD outlook suggests that cheese, WMP and butter consumption would increase in the non-OECD zone by 24 %, 22 % and 26 % from 2004 to 2012 respectively (i.e. 13 %, 11 % and 15 % per capita).

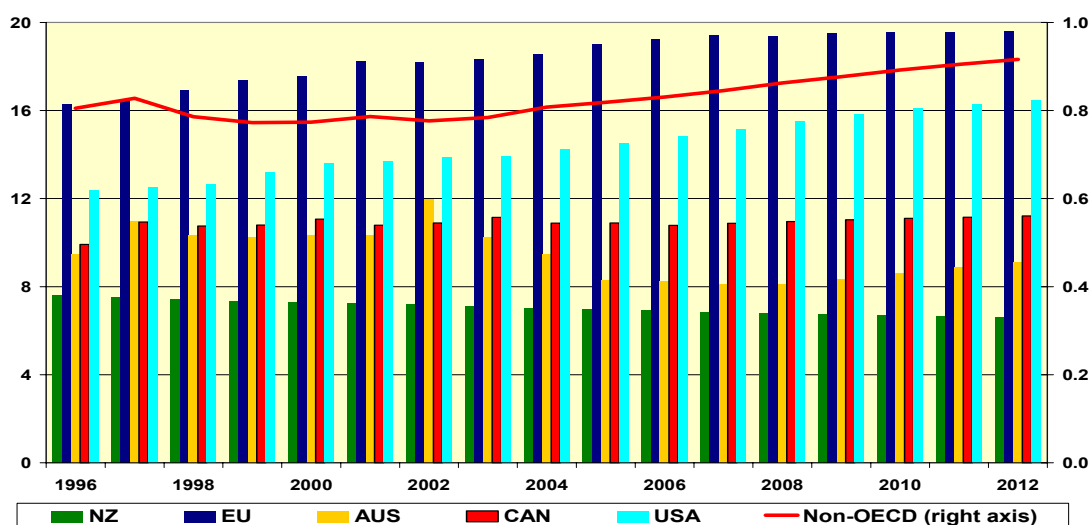
would be entirely satisfied by increased imports (+14%) largely from Australia and New Zealand, as production is expected to stagnate.

Table 2.10 Outlook for total imports for major dairy products, 2004 – 2012 ('000 t)

	2004		2012		Change in trade	
	OECD	FAPRI	OECD	FAPRI	OECD	FAPRI
Butter	370	695	450	797	80.4	102.6
SMP	832	1132	873	1266	40.9	134.5
WMP	873	1601	1098	1812	225.0	211.1
Cheese	333	1073	521	1376	188.6	302.8

OECD: Net imports from the non-OECD zone; FAPRI: net trade from major countries.

Graph 2.26 Outlook for world cheese per capita consumption, 1996 – 2012 (kg/capita)



Source: OECD

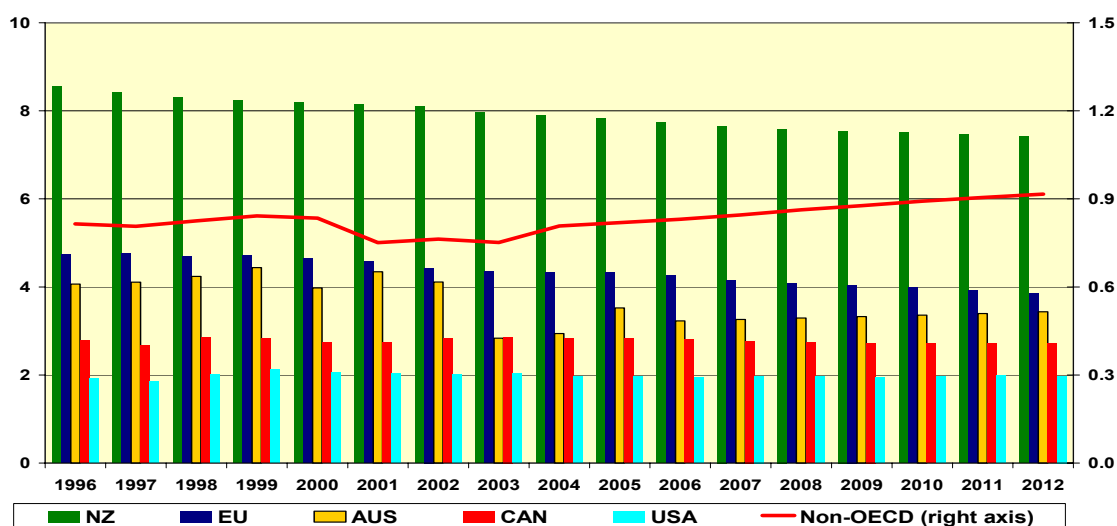
Even if more domestic milk is channelled to the production of cheese, net imports of cheese from the non-OECD area would increase by 56 % or 4.6 % annually until 2012 according to the OECD. The increasing demand projected in Latin America should be supplied either by domestic production or by the expanding 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 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 290 000 t in 2012, FAPRI foresees net imports reaching 207 000 t by 2012. Most of these additional imports would be supplied by the EU.

World butter production and consumption are forecast to increase by 1.3 % and 1.5 % respectively (OECD) on annual average over the next seven years. Nevertheless, the OECD foresees that all the growth in butter production and consumption would take place in the non-OECD area, since it would decrease in the OECD zone. In the non-OECD area, total butter consumption is likely to increase by 26 % from 2004 to 2012 (i.e. 2.3 % per year on average).

Since the growth in domestic production is projected to be outweighed by the expansion of demand in some of these countries (in particular India, China, Russia and Mexico), 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 New Zealand,

Australia and, to a lesser extent, the EU. These perspectives for the world butter market would however remain strongly dependent on the Russian market, which, according to the OECD, is projected to increase its imports by around 80 000 t, while FAPRI anticipate a stability in Russian imports. Yet, given Russia'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 2.27 Outlook for world butter per capita consumption, 1996 – 2012 (kg/capita)



Source: OECD

The OECD baseline provides for sustained growth in world WMP consumption by 1.3 % per annum on average while SMP consumption would decrease by nearly 1 % per year, owing to the projected strong decline in SMP demand in the OECD area⁵⁹. Future perspectives for milk powder trade diverge on the size of the increase: FAPRI foresees a 13 % increase in WMP trade compared to a 26 % for the OECD. SMP trade is expected to grow by between 5 and 12 % respectively.

Developing countries of Asia, Latin America and Africa would display a slow down in their overall growth in import demand, with total SMP imports from these countries increasing by some 160 000 t by 2012. After several years of continuous decline, SMP imports from Japan and Mexico would increase slightly. EU SMP exports would decrease over the medium term, whereas the US –after an initial releasing of public stocks- would exhibit a slightly declining trend in SMP exports. Greater profitability in other dairy markets (cheese and WMP) is foreseen to constrain the development in SMP export supply from other traditional exporters (such as New Zealand and Australia). Additional WMP import demand would be broadly spread over the non-OECD area and mainly draw on additional exports from Australia and New Zealand (75 % of the total growth), and Argentina. By contrast, EU exports would stagnate at around 500 000 t over the medium term according to FAPRI.

If the OECD foresees that SMP exports from the OECD zone would only increase slightly throughout the 2004-2012 period, New Zealand and Australia would display a strong growth (by more than 25 %), capturing the lion's share of the reduced EU exports (-52 % over the 2004-2012 period). Total WMP exports from the OECD area are

⁵⁹ Additional WMP consumption would be used for milk reconstitution, displacing SMP and condensed milk. SMP would also face competition from whey powder in animal feed and food processing.

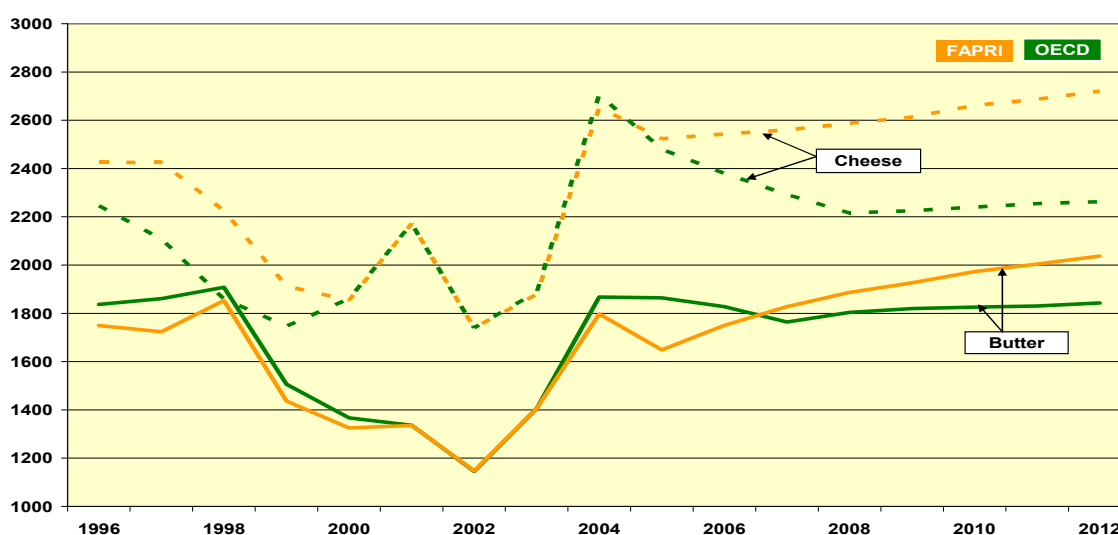
expected to continue growing over the medium term. The growing demand in Latin America, North Africa and Asia is projected to outpace domestic production potential and to generate a significant expansion in trade between the OECD area and the rest of the world (+26 % from 2004 to 2012). New Zealand and Australia would capture the bulk of the additional trade to the detriment of the EU.

Dairy prices

A stronger economic growth and a strengthening demand for dairy products led to a rapid recovery in world market prices of dairy products in the past couple of years. Over the medium term, however, the expansion of milk production in low-cost producing regions (such as Oceania) is expected to moderate this price pattern.

Supported by the steady rise in global consumption, cheese would display relatively high prices over the medium term, after a short-term weakening following the price peak of 2004, with a more pronounced pattern in the OECD projections.

Graph 2.28 Outlook for world market prices for butter and cheese, 1996 – 2012 (\$/t)

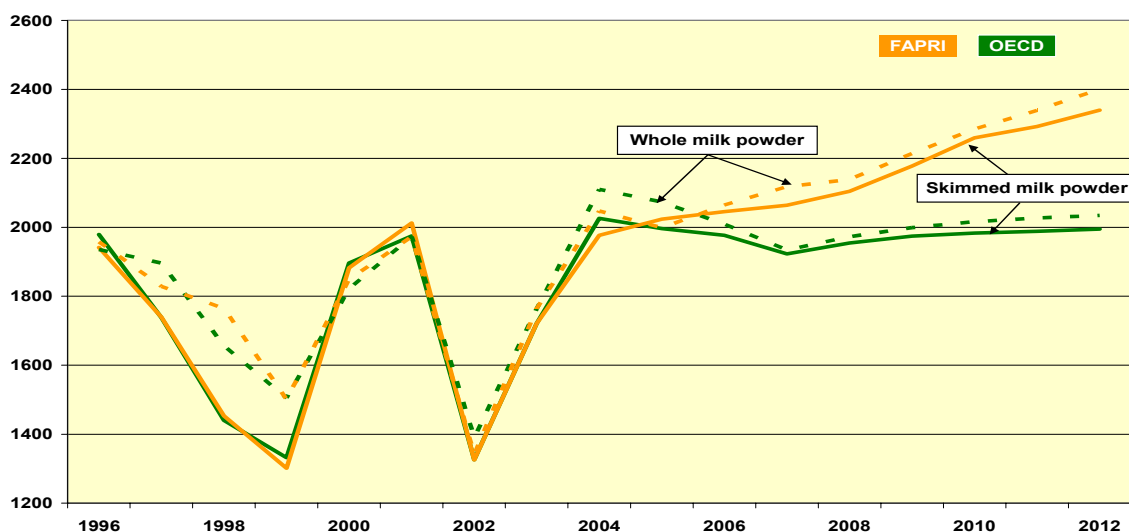


Ref.: Cheese: FOB export price cheddar cheese 40lb blocks, Northern Europe; butter: FOB export price Northern Europe.

The FAPRI and OECD projections diverge on the pace of price developments for milk powders, with SMP and WMP price increasing by a further 18 % and 17 % in FAPRI projections, while the OECD forecasts milk powder prices to remain stable at the high 2004 levels. FAPRI expects butter prices to continue growing after a temporary slow down in 2005, and reach 2 040 \$/t by 2012. The OECD projects butter prices to remain stable at their 2004 levels over the medium term.

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 2.29 Outlook for world market prices for whole milk powder and skimmed milk powder, 1996 – 2012 (\$/t)



Ref.: FOB export price Northern Europe.

2.4. Key issues

If the outlook for agricultural markets over the next seven years appears relatively favourable it clearly remains subject to some uncertainties. In this respect, four main areas of uncertainty can be identified:

- the economic prospects
- the scope for production growth
- the policy and trade environment
- the disruptions linked to animal diseases

2.4.1. *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 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 2.11).

Table 2.11 USDA assumptions in real GDP annual growth, 2004 – 2012 (%)

	2004	2005	2006	2007	2008	Average		
						1991-2000	2001-2005	2006-2012
World	4.1	3.4	3.3	3.2	3.2	2.8	2.6	3.2
European Union (EU25)	2.2	2.4	2.4	2.4	2.4	2.0	1.7	2.4
USA	4.4	3.3	3.2	3.0	2.9	3.3	2.6	2.9
Former Soviet Union	6.6	5.0	4.8	4.8	4.8	-4.3	5.9	4.8
Asia	5.3	4.0	3.7	3.7	3.8	3.2	3.4	3.9
China	9.4	7.5	7.3	7.3	7.3	10.2	8.3	7.3
Indonesia	4.3	4.8	5.0	5.0	5.0	4.4	4.0	5.0
South Korea	5.0	4.4	5.2	5.4	5.3	6.2	4.5	5.2
Thailand	6.9	6.0	5.3	5.3	5.3	4.5	5.4	5.3
Latin America	4.0	3.8	3.9	3.9	3.9	3.4	1.8	3.9
Brazil	3.4	3.5	3.7	3.9	3.9	2.7	2.0	3.9
Mexico	3.9	4.0	4.0	4.0	4.0	3.6	1.9	4.0
Africa	3.7	4.5	4.3	4.3	4.3	2.7	3.6	4.3
Middle East	5.9	5.3	5.8	5.1	4.4	3.8	3.5	4.6

Source: USDA

However, significant sources of risk 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 and budgetary deficits and the surpluses in other countries, the low US personal savings rate, the apparent undervaluation of the US dollar and overvaluation of the euro, and relatively high levels of corporate and household indebtedness in a number of countries. 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. After the strong devaluation of the past few years, significant changes in relative exchange rates in Latin American countries 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 economic growth could lead 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.

2.4.2. 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 capacity of adjustment of agricultural supply to the rapid expansion of food demand in some regions of the world.

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, Brazil, Australia,

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 decades⁶⁰. 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 China⁶¹, Russia and India- and exporting countries -such as the EU and the US could also have far reaching implications for the future level of world agricultural supply.

2.4.3. *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 2003 EU CAP reform (the impact of the implementation of the Single Farm Payment and of the reform of some common market organisations), the recent enlargement of the EU to 10 new Member States and the future enlargement to the two accession countries (Bulgaria and Romania), and the emergence of new issues related to food quality and the environment.

2.4.4. *Sanitary and animal health issues*

A number of animal disease outbreaks have hit major producing and exporting countries in the past few years (BSE in the EU, Japan, Canada, and USA; Avian influenza in South East Asia and North America; Foot and Mouth disease in the EU and South America; Newcastle disease in US). Most projections assume normal conditions concerning animal disease over the medium-term. This means that the current epidemics are assumed to ease and become rapidly under control and that no new diseases will appear during the projection period.

The recent experience showed that whatever the scale of the epidemics - some outbreaks were limited to a few cases – their impact on markets was dramatic, with disrupted production patterns and trade flows and pronounced effect on market prices. Therefore any appearance of animal disease in the future, which is more probable than assuming the absence of such outbreak, could have drastic and significant repercussions on trade and world market prices, even if limited to a defined region.

⁶⁰ The extent to which future prospects for yield trends will be influenced by the development and diffusion of genetically modified organisms remains an open question.

⁶¹ Uncertainties still exist also regarding the current level of grain stocks (as well as their marketability) in China and India.

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Statistical annex**1. Medium-term outlook for cereals****1.1 *Wheat*****Table A.19 Outlook for world wheat production, 2003 – 2012 (mio t)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	557.9	621.1	614.7	621.2	633.5	643.1	649.3	657.7	665.2	673.4
FAPRI	554.4	619.0	618.6	621.8	625.5	629.7	633.7	638.6	643.7	648.2

Table A.20 Outlook for world wheat consumption, 2003 – 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	593.0	605.2	607.3	609.5	617.6	628.4	636.9	645.2	652.9	660.6
FAPRI	590.4	607.9	611.7	618.7	624.1	628.6	633.1	638.1	642.9	647.5

Table A.21 Outlook for world wheat stocks, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	165.0	170.3	167.1	168.2	173.5	177.6	179.4	181.4	183.1	185.3
FAPRI	133.4	144.5	151.4	154.6	156.0	157.2	157.8	158.4	159.2	159.9

Table A.22 Outlook for world wheat market prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	155.5	151.9	157.4	163.7	163.0	161.7	162.2	162.8	163.3	162.9
FAPRI	155.6	152.0	145.7	147.3	150.3	152.3	155.0	157.2	159.1	161.3

US FOB Gulf, HRW

1.2 *Coarse grains***Table A.23 Outlook for world coarse grain production, 2003 - 2012 (mio t)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	928.4	1 002.9	966.8	984.5	1 004.1	1 021.0	1 035.7	1 051.0	1 065.4	1 080.3
FAPRI	822.9	908.5	876.1	891.9	904.8	916.0	923.8	934.3	944.0	954.2

Table A.24 Outlook for world coarse grain consumption, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	959.5	980.4	987.0	995.1	1 009.7	1 025.3	1 041.0	1 056.3	1 070.9	1 085.1
FAPRI	852.7	882.6	882.5	893.2	904.4	914.5	923.8	933.8	943.8	953.5

Table A.25 Outlook for world coarse grain stocks, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	159.8	186.6	170.8	164.5	163.2	163.2	162.3	161.3	160.1	159.6
FAPRI	129.0	154.8	148.5	147.2	147.7	149.2	149.2	149.6	149.8	150.5

Table A.26 Outlook for world barley market prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	121.1	125.3	124.3	132.4	133.7	133.7	134.1	135.3	135.8	136.2
FAPRI	96.9	84.1	84.9	83.5	84.2	83.4	85.6	86.6	88.5	90.1

FAPRI: Canada feed; OECD: N° 1 CW barley St Lawrence

Table A.27 Outlook for world maize market prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	119.3	101.3	110.0	117.3	118.7	118.8	119.1	120.1	120.6	120.9
FAPRI	115.7	96.5	105.2	107.9	109.2	109.6	110.9	111.7	112.9	113.6

US yellow maize, fob Gulf

2. Medium-term outlook for oilseeds

2.1 *Oilseed beans*

Table A.28 Outlook for world oilseed production, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	254.8	283.2	280.5	282.4	291.3	298.1	305.8	313.0	320.7	327.7
FAPRI	255.7	299.2	285.6	289.6	297.2	305.1	313.1	320.1	327.2	334.4

Oilseed = rape seed, soya bean and sunflower seed

Table A.29 Outlook for world oilseed consumption, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	257.1	270.2	279.6	285.7	292.8	299.1	305.9	312.8	320.1	327.3
FAPRI	257.6	276.7	285.0	290.7	297.1	303.9	311.3	318.4	325.6	332.8

Oilseed = rape seed, soya bean and sunflower seed

Table A.30 Outlook for world oilseed stocks, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	19.9	32.8	33.7	30.4	28.9	27.9	27.7	27.9	28.4	28.8
FAPRI	42.1	64.5	65.2	64.0	64.1	65.3	67.1	68.9	70.5	72.1

Oilseed = rape seed, soya bean and sunflower seed

Table A.31 Outlook for world oilseed market prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	299.0	234.6	228.6	235.6	236.6	242.4	246.3	251.3	253.7	257.3
FAPRI	323.0	233.0	217.3	227.2	237.8	243.0	243.4	243.5	243.6	243.4

OECD: average oilseeds, cif Rotterdam; FAPRI: US soyabeans, cif Rotterdam

2.2 Oilseed meals

Table A.32 Outlook for world oilseed meal production, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	161.7	169.9	176.4	180.8	185.9	190.3	195.2	200.0	205.1	210.2
FAPRI	161.7	174.2	179.9	183.8	188.2	192.8	197.8	202.7	207.6	212.5

Oilseeds = soya bean, sunflower and rapeseed

Table A.33 Outlook for world oilseed meal consumption, 2003- 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	161.8	169.1	176.6	180.9	185.7	190.3	195.1	199.9	205.0	210.1
FAPRI	161.0	172.8	178.8	182.9	187.3	191.8	196.8	201.7	206.6	211.5

Oilseeds = soya bean, sunflower and rapeseed

Table A.34 Outlook for world oilseed meal market prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	217.0	151.1	146.0	151.1	150.4	152.1	154.7	158.3	159.5	161.5
FAPRI	273.0	195.0	185.4	187.9	188.9	193.1	194.2	194.1	193.9	192.7

OECD: average oilseed meals, cif Rotterdam; FAPRI: US soybean meals, cif Rotterdam

2.3 Oilseed oil

Table A.35 Outlook for world oilseed oil production, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	82.7	85.9	88.9	91.3	94.0	96.5	99.1	101.8	104.5	107.1
FAPRI	86.0	90.7	93.2	95.6	98.2	100.8	103.6	106.3	109.1	111.9

Oilseed oil = soya bean oil, sunflower oil, rapeseed oil and palm oil

Table A.36 Outlook for world oilseed oil consumption, 2003 - 2012 (mio t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	80.2	84.8	88.0	90.4	92.9	95.5	98.0	100.7	103.4	106.0
FAPRI	84.8	89.0	91.8	94.3	96.9	99.5	102.2	105.0	107.8	110.6

Oilseed oil = soya bean oil, sunflower oil, rapeseed oil and palm oil

Table A.37 Outlook for world oilseed oil market prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	565.4	532.2	522.9	529.8	544.3	563.3	570.6	580.1	590.8	601.4
FAPRI	633.0	530.0	480.1	491.9	504.2	510.8	511.3	514.5	519.2	526.0

OECD: weighted average price of oilseed oil and palm oil, fob European port; FAPRI: soybean oil, fob Rotterdam

3. Medium-term outlook for meat

3.1 *Beef*

Table A.38 Outlook for world beef production, 2003 - 2012 (mio t, cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD (OECD zone)	26.1	26.2	26.8	27.0	27.2	27.4	27.3	27.4	27.5	27.5
FAPRI (selected countries)	59.0	59.6	60.3	61.2	62.1	62.9	63.8	64.5	65.4	66.2

Table A.39 Outlook for world beef consumption, 2003 - 2012 (mio t, cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD (OECD zone)	25.9	26.6	27.3	27.5	27.6	27.8	27.8	28.0	28.0	28.1
FAPRI (selected countries)	52.5	52.9	53.6	54.5	55.5	56.4	57.4	58.3	59.3	60.2

Table A.40 Outlook for world beef prices, 2003 - 2012 (\$/t lw)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	1 897	1 864	1 793	1 704	1 666	1 588	1 598	1 603	1 590	1 574
FAPRI	1 867	1 868	1 831	1 773	1 742	1 694	1 645	1 612	1 577	1 559

Nebraska Direct Fed Steer price

3.2 *Pig meat*

Table A.41 Outlook for world pig meat production, 2003 - 2012 (mio t, cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD (OECD zone)	36.2	36.5	36.9	37.2	37.4	37.8	38.2	38.4	38.7	38.9
FAPRI (selected countries)	112.8	114.5	116.6	118.8	120.9	122.6	124.2	125.9	127.8	129.7

Table A.42 Outlook for world pig meat consumption, 2003 - 2012 (mio t, cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD (OECD zone)	35.1	35.2	35.7	36.0	36.4	36.7	37.0	37.3	37.6	37.9
FAPRI (selected countries)	91.2	93.2	94.9	96.9	98.8	100.3	101.8	103.4	105.1	106.7

Table A.43 Outlook for world pig meat prices, 2003 - 2012 (\$/t lw)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	894	1 167	1 080	949	959	993	1 033	1 081	1 066	1 041
FAPRI	870	1 158	1 058	874	906	983	1 067	1 031	984	949

US price Iowa-Souther Minnesota, barrow and gilt price

3.3 Poultry meat

Table A.44 Outlook for world poultry meat production, 2003 - 2012 (mio t, cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD (OECD zone)	34.3	35.5	36.1	36.1	36.7	37.3	37.9	38.7	39.3	40.0
FAPRI (selected countries)	61.6	62.8	65.3	67.4	69.1	70.6	72.0	73.6	75.1	76.7

Table A.45 Outlook for world poultry meat consumption, 2003 - 2012 (mio t, cwe)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD (OECD zone)	32.6	33.5	34.2	34.1	34.8	35.4	36.1	36.8	37.5	38.1
FAPRI (selected countries)	52.4	52.7	55.4	57.2	58.7	60.1	61.4	62.8	64.2	65.6

Table A.46 Outlook for world poultry meat prices, 2003 - 2012 (\$/t)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
OECD	1 367	1 641	1 633	1 702	1 582	1 511	1 494	1 493	1 476	1 455
FAPRI	1 366	1 634	1 478	1 392	1 360	1 352	1 348	1 351	1 352	1 355

Wholesale weighted average broiler price US 12 cities

4. Medium-term outlook for milk and dairy products

Table A.47 Outlook for world production of dairy products, 2003 - 2012 (mio t)

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Milk	OECD	621.2	620.8	637.4	649.5	660.0	672.5	684.9	697.2	709.9	722.4
	FAPRI	420.2	422.8	429.7	434.5	440.2	445.5	450.6	455.2	459.8	464.6
Butter	OECD	7.1	8.2	8.3	8.4	8.4	8.6	8.8	9.0	9.2	9.4
	FAPRI	7.0	7.2	7.4	7.6	7.7	7.8	8.0	8.1	8.2	8.3
SMP	OECD	3.8	3.4	3.4	3.3	3.3	3.2	3.2	3.2	3.2	3.2
	FAPRI	3.6	3.4	3.6	3.7	3.7	3.8	3.8	3.9	3.9	3.9
WMP	OECD	2.6	3.6	3.7	3.7	3.8	3.8	3.9	4.0	4.1	4.2
	FAPRI	3.4	3.4	3.6	3.7	3.7	3.8	3.9	4.0	4.1	4.1
Cheese	OECD	16.7	17.5	17.9	18.3	18.6	18.9	19.3	19.7	20.0	20.4
	FAPRI	13.7	14.1	14.4	14.7	14.9	15.2	15.4	15.7	15.9	16.1

FAPRI: data for selected countries

Table A.48 Outlook for world consumption of dairy products, 2003 - 2012 (mio t)

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Butter	OECD	7.8	8.0	8.2	8.3	8.4	8.5	8.7	8.9	9.1	9.3
	FAPRI	6.7	7.0	7.1	7.2	7.3	7.5	7.6	7.7	7.7	7.8
SMP	OECD	3.6	3.7	3.6	3.5	3.5	3.4	3.4	3.4	3.4	3.4
	FAPRI	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.3	3.3	3.4
WMP	OECD	3.1	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.7	3.8
	FAPRI	2.2	2.2	2.2	2.3	2.4	2.4	2.5	2.5	2.6	2.6
Cheese	OECD	17.1	17.3	17.7	18.1	18.4	18.8	19.2	19.6	19.9	20.2
	FAPRI	13.4	13.8	14.0	14.3	14.5	14.8	15.0	15.2	15.4	15.7

FAPRI: data for selected countries

Table A.49 Outlook for world dairy products prices, 2003 - 2012 (\$/t)

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Butter	OECD	1 392	1 867	1 864	1 828	1 764	1 804	1 819	1 825	1 830	1 843
	FAPRI	1 406	1 797	1 649	1 751	1 828	1 887	1 927	1 973	2 004	2 037
Cheese	OECD	1 877	2 706	2 479	2 379	2 294	2 216	2 226	2 241	2 254	2 263
	FAPRI	1 879	2 653	2 524	2 544	2 560	2 588	2 613	2 661	2 687	2 721
SMP	OECD	1 733	2 026	1 995	1 976	1 924	1 955	1 975	1 983	1 988	1 995
	FAPRI	1 721	1 976	2 023	2 045	2 064	2 104	2 178	2 259	2 292	2 340
WMP	OECD	1 752	2 110	2 072	2 009	1 935	1 973	1 999	2 016	2 027	2 034
	FAPRI	1 764	2 047	1 999	2 065	2 118	2 139	2 214	2 285	2 339	2 401

Ref: Cheese: FOB export price cheddar cheese 40lb blocks, Northern Europe; others: FOB export price Northern Europe