

**European Commission**  
**Directorate-General for Agriculture and Rural Development**

**PROSPECTS FOR**  
**AGRICULTURAL MARKETS**  
**AND INCOME**  
**IN THE EUROPEAN UNION**

**2007 – 2014**

*July 2007*



## **NOTE TO THE READERS**

The forecasts 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-27 have been mainly carried out on the basis of three economic models currently available in the Directorate-General for Agriculture and Rural Development of the European Commission.

This report is based on the information available at the end of June 2007. The changes in legislation proposed or adopted since that date have not been taken into account. Moreover the projections do not take account of any potential outcome of the multilateral trade negotiations within the framework of the Doha Development Round. The analysis covers the period between 2007 and 2014.



**List of acronyms and abbreviations**

ACP	Africa-Caribbean-Pacific countries
AI	Avian Influenza
BSE	Bovine Spongiform Encephalopathy
BTL	Biomass to liquid
CAP	Common Agricultural Policy
CNDP	Complementary National Direct Payment
Cwe	Carcass weight equivalent
DDG	Dried distiller grain
DG AGRI	Directorate-General for Agriculture and Rural Development
DG TREN	Directorate-General for Energy and Transport
EAGGF	European Agricultural Guidance and Guarantee Fund
EBA	“Everything But Arms” Initiative
ESIM	European Simulation Model
EU	European Union
EU-27	European Union after the enlargement on January, 1 <sup>st</sup> 2007
EU-25	European Union after the enlargement on May, 1 <sup>st</sup> 2004
EU-10	Member States that joined the European Union on May, 1 <sup>st</sup> 2004
EU-2	Bulgaria and Romania
EU-12	All Member States that have joined the EU since May, 1 <sup>st</sup> 2004
EU-15	Member States of the European Union before May, 1 <sup>st</sup> 2004
FADN	Farm Accountancy Data Network
FAO	Food and Agriculture Organisation of the United Nations
FAPRI	Food and Agricultural Policy Research Institute
FMD	Foot-and-Mouth Disease
GDP	Gross Domestic Product
GMO	Genetically modified organism
H5N1	Highly pathogenic avian influenza virus
Ha	Hectare
Kg	Kilogram
Mio	Million
OECD	Organisation for Economic Co-operation and Development
PRIMES	Energy system model used by DG TREN

SAPS	Single Area Payment Scheme
SPS	Single Payment Scheme
SMP	Skimmed Milk Powder
t	Metric tonne
TRQ	Tariff-Rate Quota
URAA	Uruguay Round Agreement on Agriculture
US	United States of America
USD	US Dollar
USDA	United States Department of Agriculture
WMP	Whole Milk Powder
WTO	World Trade Organisation

## EXECUTIVE SUMMARY

The market projections presented in this report for cereals, oilseeds, sugar, meat and dairy products in the EU-27 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. They also concern world agricultural commodity markets which are projected to show growing demand and trade. This report is based on the information available at the end of June 2007. Whereas the projections take into account the phasing out of maize intervention, they do not consider the latest Commission proposal to set at zero the set-aside rate for autumn 2007 and spring 2008. Furthermore, the projections do not take account of the potential outcome of the multilateral trade negotiations within the framework of the Doha Development Round. Therefore, the Uruguay Round Agreement on Agriculture and other existing trade commitments are assumed to remain unchanged and to be met over the period 2007-2014.

The medium-term projections depict an outlook for the EU **cereal markets** that would appear positive for most EU cereals thanks to the expansion of domestic consumption and cereal exports. Domestic use of cereals is foreseen to increase slightly thanks to the emerging bioethanol and biomass demand in the wake of the initiatives taken by Member States in the framework of the biofuel directive and the biomass action plan. Second generation biofuel processing technologies would become economically viable by the end of the projection period and start contributing to industrial scale to the biofuel production in the EU. Bioethanol production on cereal basis is expected to become a less marginal market outlet from 2010 onwards. On the other hand feed demand would stagnate and then slightly decline due to the increasing use of protein feed residues from biofuel production. The EU would also increasingly benefit from a growing world demand and relatively high world price levels supported by the assumed strengthening of the USD over the medium term. These developments on the internal and external markets would result in relatively balanced cereal markets over the medium term in most EU regions. Public stocks would largely disappear in the early projection period and reach levels of 11 mio t at the end of the projection period.

The phasing-out of maize intervention would substantially reduce the risk of structural surpluses in Hungary, Slovakia, Bulgaria and Romania even under conditions of higher than average maize harvests. Public stocks of maize would largely disappear in Hungary in 2007 mainly supported by the expected low maize harvest in Romania. The availability of maize at competitive prices in northern and central European markets would lead however to a certain crowding-out of barley and partly also of wheat from animal feed. The risks of increasing intervention stocks of barley in Germany as well as of soft wheat in areas with weak transport infrastructure in the EU-12 Member States and Austria would increase particularly under higher than foreseen harvests. From 2009 onwards the on-going trade integration, the improving domestic use in Bulgaria and Romania and the foreseen introduction of the SPS and mandatory set-aside from 2011 in those EU-10 Member States that adopted the SAPS, as well as in Bulgaria and Romania from 2014, should further lead to lower risks for structural surpluses in regional cereal intervention.

Market perspectives for the EU **oilseed sector** are foreseen to be supported by productivity increases, favourable conditions on world markets and the increasing biodiesel demand in the EU. The production potential for non-food oilseeds would however remain constrained by the limitations of the Blair House agreement (with a maximum production of 1 mio t of soybean meal equivalent on set aside land). Despite the projected moderate increase in oilseed production, the EU will continue to remain a large net importer of oilseeds.

The **sugar** markets are characterised by a phase of transition until 2009 during which the reform of the sugar CMO will be implemented. The market situation for the short term is characterised by a high level of total stocks, the beginning of the restructuring of the sugar industry, the phasing-down of in-quota tariffs within the EBA agreement as well as the build-up of the bioethanol industry. The withdrawal of sugar quota for 2 mio t for 2007 would lead to a reduction of some of the short-term market risks most notably the high level of stocks, however, at a certain expense of competitive restructuring. From 2010 onwards the sugar markets are expected to reach balance between domestic production, exports and foreseen imports from the least developed countries in the world. The main influencing factor for the size of EU domestic production over the medium to long term would be the quantity of imports realised from EBA countries. Production is forecasted to remain strong in France, Germany, and the UK as well as in Poland, where cost competitiveness should be the major driver of restructuring. The main medium-term downwards risks as for the European sugar industry are the slow take-up of restructuring as well as the high level of market stocks which could weigh heavily on the prospects post 2009.

The medium-term perspectives for **animal products** are relatively positive for poultry, pig meat and the dairy markets, while beef meat production is expected to continue to decline. Total per capita meat consumption would recover from the 2006 market disruption due to Avian Influenza and is projected to increase by 3.2 % altogether by the end of the forecast period.

**Beef** production is projected to decline over the medium term below the level of 7.6 mio t in 2014 in line with the structural reduction of the dairy herd and the impact of decoupling. As consumption would exhibit a more modest decline throughout the projection period, imports are expected to increase in order to fill the gap and reach 741 000 t by 2014.

**Pig meat** production and consumption are projected to increase over the medium term, though at a slower pace than in the past decade, due to the competition from poultry meat and higher feed prices. Extra-EU exports would be facing increasing competition from low-cost producing countries, but EU intra-trade is expected to continue expanding over the forecast period.

The market outlook for **poultry meat** would be affected by the future developments regarding Avian Influenza. The appearance of the H5N1 strain of this virus in the EU in early 2006 caused a short-term disruption in the market balance of poultry meat, with weakening consumer confidence and export opportunities, and thus falling prices leading to lower production. The current report assumes that no further cases would occur over the medium term. As such the medium-term outlook for EU poultry production remains relatively positive as competitive prices with respect to other meats and strong consumer preference should play in favour of poultry. The conclusion of trade agreements with Brazil and Thailand on a new import regime will result in increased imports over the short



term that would be followed by moderate growth over the medium term. As extra-EU exports are projected to exhibit a continued decline, the EU-27 would become a net importer of poultry meat by the end of the forecast period.

**Sheep and goat meat** production is projected to decline gradually in line with past long-term trends and the impact of decoupling of ewe premiums in the major producing countries. Imports are expected to remain stable throughout the medium term with a slight increase at the end of the projection period in order to meet domestic demand that is projected to decline at a slightly lower rate than production during the later years.

Overall **meat consumption** is projected to increase from the estimated 84 kg/head in 2006 to around 86.7 kg/head by the year 2014. Pig meat would remain the most preferred meat by EU consumers with a share of about 50 %, followed by poultry that would increase its share to 28 % (+1.8 %).

The recently observed decline in EU milk production at a time of favourable market environment characterised by high internal and world prices has a profound impact on the current medium-term perspectives for milk supply and dairy commodity markets. As a result the medium-term outlook for EU milk production has been revised downwards compared to the previous reports. EU-27 **milk production** is projected to expand at a modest rate over the short term in line with the increase in production quotas granted to eleven member states of the EU-15. However, over the medium term milk production would decline gradually to the level of 148.2 mio t in 2014, driven by a steady decrease in subsistence production in the EU-12. The EU-27 dairy herd is projected to fall from 24.2 mio heads in 2006 to around 22 mio animals by 2014.

EU-27 **cheese** production is expected to expand further over the medium term by 10 % altogether, driven by continued strong increases in the EU-12. Exports are foreseen to expand over the short term, but the growth in domestic consumption would absorb most of the increase in cheese production, leading to a steady decline in exports over the medium term.

Due to the lower milk supply and increasing production of higher value added dairy products, bulk dairy products would continue their decline over the projected period. EU-27 **butter** production is foreseen to fall slightly below 2 mio t in 2014. Lower availabilities and increasing competition on the world market would lead to declining butter exports. Intervention stocks, which were emptied in the first semester of 2007, will remain empty until the end of 2014.

The medium-term developments show a continuation of the downward trend for **SMP** output, albeit at a more limited rate. SMP exports are expected to fall further over the forecast period as the decline in production combined with a stagnating domestic demand would maintain EU prices well above world market prices.

**Agricultural income** estimates have been compiled on the basis of these market projections and the financial perspectives for the EU over the period 2007-2013. The medium-term income projections display a rather favourable outlook as the EU-27 agricultural income would grow by 21 % between 2006 and 2014 in real terms and per labour unit.

This overall gain would mask marked differences between EU-15, the EU-10 and EU-2. Whereas agricultural income in the EU-15 would show a more moderate development with a 9.9 % growth over the period 2006-2014, it is foreseen to display a more pronounced picture in the EU-10 and EU-2 where it would rise steadily by 24.9 % and 71.8 % respectively by 2014. Apart from the 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 EU-12.

## 1. INTRODUCTION

This report summarises the main results and underlying assumptions of medium-term projections for the markets of some key agricultural products (cereals, oilseeds, sugar, meat and dairy) and for the sector income in the European Union for the period 2007-2014. The results presented are based on data and other information available at the end of June 2007. In particular the projections take into account the short-term developments foreseen for 2007 and 2008 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 payment scheme** as part of the Common Agricultural Policy (CAP) reform decisions allows Member States to choose among different options, which will influence the degree of “decoupling” of the payments. On the basis of Member States decisions, it has been estimated that in 2014 approximately 91 % 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 decoupled single farm payment for the EU-27 as a whole. The rate would be higher for the milk (100 %) and arable crop (96 %) sectors than for beef and sheep sectors (79 % and 82 % respectively).
- (2) All transitional measures of the CAP in the **EU-12**, 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 accession treaties. Ten Member States of the EU-12 adopt the single area payment scheme (SAPS), while Slovenia and Malta implement the EU legislation on direct payments prevailing under Agenda 2000. From 2011 onwards the eight Member States of the 2004 enlargement applying SAPS are assumed to adopt the regionalised system that Romania and Bulgaria would implement in 2014. Slovenia and Malta would implement the regionalised system from 2007 onwards.
- (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 EU-12 Member States which opted for the single area payment scheme, the set-aside obligations would only apply from 2011 onwards and from 2014 onwards in Bulgaria and Romania.
- (4) The prospects take into account the **phasing out of maize intervention** until 2009/10. Maximum intervention levels will be 1.5 mio t in 2007/08, 0.7 mio t in 2008/09 with no intervention from 2009/10 onwards.
- (5) 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

to remain below the annual URAA limits, whereas imports under current and minimum access are fully incorporated.

In addition, since this report is based on the information available at the end of June 2007, no account could be taken of any potential outcome of the multilateral trade negotiations within the framework of the Doha Development Round. Therefore, the URAA commitments are assumed to remain unchanged over the period 2007-2014.

- (6) The **macro-economic environment** in the EU showed signs of a return to robust economic growth in 2006. After reaching annual average GDP growth rates above 2 % in 2004, economic activity was more subdued in 2005 with a growth rate of 1.7 %. Growth returned to its potential of 3 % in 2006 and would reach 2.9 % in 2007 and 2.6 % in 2008. It would remain at this level throughout the projection period.

According to the 2007 spring short-term economic forecasts from the European Commission<sup>1</sup>, the recovery is underpinned by an acceleration in domestic and export demand. This includes, more specifically, a relatively strong pick-up in the pace of investment expenditure and a recovery of private consumption in line with the steady improvement of the labour markets. Moreover, the impact of high oil prices and the slowdown of the US economy were relatively muted.

Despite the stagnant GDP growth observed in the EU-15 over the last few years, economic growth has remained strong in the EU-12. Expanding domestic consumption and improving economic conditions in the rest of Europe resulted in an average growth rate of 4.7 % in the EU-10 in 2005 and 5.9 % in 2006. Growth should reach 5.5 % in 2007 and remain at 5.1 % from 2008 onwards.

The accession of Bulgaria and Romania in 2007 added two rapidly growing economies with, however a low level of income. The catch-up process is assumed to continue with EU Membership supported by access to the single market as well as to regional funds and implementation of the CAP. Bulgaria and Romania would grow stronger than the rest of the EU at levels above 6 % over the medium term. The strong decline of population however should weigh heavily on the long-term growth potential of these two countries.

The international environment is expected to remain supportive. World GDP growth (excluding the EU) should ease somewhat from 5.8 % in 2006 to slightly below 5.5 % over the forecast period. This is mainly explained by a slowdown in the manufacturing sector at global level. The outlook for the United States is scaled down by the ongoing cooling in the housing sector, while prospects for most other regions, notably the emerging markets, remain bright.

There exists a number of downside risks to this macro-economic outlook, notably further oil price hikes, disorderly exchange rate adjustments and more subdued consumer confidence which would weigh on private consumption growth and could also hold back investment plans. On the upside, private

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<sup>1</sup> European Commission, Directorate-General for Economic and Financial Affairs. Economic Forecasts, Spring 2007. *European Economy* No.2/2007.

consumption could increase its currently observed strong pace, boosted, inter alia, by the beneficial impact of structural reforms of the major economies of the Eurozone.

**Table 1: Assumptions on macro-economic variables in the European Union, 2006 – 2014**

	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Population growth (in%)</b>									
<b>EU27</b>	<b>0.4%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>
of which EU15	0.5%	0.4%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%
of which EU10	0.0%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
of which EU2	-0.3%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.5%	-0.5%	-0.5%
<b>GDP growth (in%)</b>									
<b>EU27</b>	<b>3.0%</b>	<b>2.9%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.7%</b>
of which EU15	2.8%	2.7%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
of which EU10	5.9%	5.5%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
Bulgaria	6.1%	6.1%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
Romania	7.7%	6.7%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%
<b>Inflation (in%)</b>									
<b>EU27</b>	<b>2.3%</b>	<b>2.2%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.1%</b>
<b>Exchange rate</b>									
<b>US\$/€</b>	<b>1.26</b>	<b>1.33</b>	<b>1.34</b>	<b>1.31</b>	<b>1.28</b>	<b>1.25</b>	<b>1.22</b>	<b>1.19</b>	<b>1.15</b>

The **\$/€ exchange rate**, which reached 1.32 during the year 2004, depreciated somewhat in the first half of 2005, reaching 1.18 by the end of December 2005. The euro gained strength in 2006, reaching 1.27 in May and falling only slightly in June to 1.26. The second semester was characterised by a slight increase to 1.29 in November. The average exchange rate stood at 1.25 for 2006. The euro saw a peak of 1.36 at the end of April and then gradually fell to levels of 1.34 by June 2007. The euro is assumed to return gradually to 1.15 against the US dollar by 2014, 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.

## 2. ARABLE CROPS

### 2.1. Cereals

#### 2.1.1. Overall prospects

The low world cereal harvest in 2006/07 and the steady rise in global cereal consumption led to extremely high cereal prices close to those seen under similar circumstances in 1996. These price increases were further reinforced by the biofuel boom in the US which influenced the markets only punctually, most notably the maize markets. The biofuel demand for cereals in the EU did not contribute to these developments since less than 1% of all cereals produced in 2006/07 were used for this purpose. As a result of the low harvest world cereal stocks in the main exporting countries are at low levels.

The EU is expected to record two successive lower than average harvests in 2006/07 and 2007/08 which should clear most of the intervention stocks. The exceptionally high price level in the EU provided greater market fluidity in the land locked EU-10 Member States even in presence of very high transport costs. Thus market stocks fell to a very low level. These two factors should contribute to firmer cereal prices for the early part of the projection period until market stocks in the EU would replenish. The phasing-out of maize intervention will assure fluidity of maize markets in Hungary, Slovakia, Bulgaria and Romania over the medium term and, thus, considerably reduce the risks of regional structural surpluses even in presence of high harvests and continuously high transport costs.

The fundamental medium-term drivers point to an outlook for the EU cereal markets that would appear positive for most EU regions. These are mainly the expansion of domestic consumption and cereal exports. Domestic use of cereals is foreseen to increase thanks to the growth in the emerging bioethanol and biomass industry in the wake of the initiatives taken by Member States in the framework of the biofuel directive and the biomass action plan.

The slight growth of the livestock sector in combination with the availability of low-priced residuals from the biofuel production would lead to a slight decline of cereal feed use. On the other hand, the EU should increasingly benefit from a growing world demand supported by the assumed strengthening of the USD over the medium term. These developments on the internal and external markets would result in relatively balanced cereal markets over the medium term in most EU regions.

#### 2.1.2. Area allocation

Total cereal area would remain fairly stable over the projection period around 51 mio ha in the EU-25. The accession of Bulgaria and Romania would add around 7.6 mio ha, bringing the total cereal area of the EU-27 towards 59 mio ha.

The medium-term projections only foresee a slight change of area use for the individual cereals. Barley would continue to slightly lose competitiveness as compared to soft wheat and oilseeds. Barley area would decline from 13.9 mio ha in 2007 to 13.2 mio ha in 2014. Soft wheat area would increase from 22.7 mio ha in 2007 to 23.2 mio ha in 2014. High prices, supported by a tight market situation, particularly for food qualities, would lead to a slight increase in rye area to 2.9 mio ha which would remain on that level over the medium term.

The accession of Bulgaria and Romania increased the maize production potential by a third, i.e. bringing an additional 3.1 mio ha. The favourable prospects for maize profitability in the four main new maize producing Member States would lead to a slight increase of total maize area of the EU-27 from 8.6 mio ha in 2007 to 8.8 mio ha in 2014, despite the introduction of set-aside in 2011 and 2014 in the EU-10 and EU-2 respectively. The gradual phasing-out of maize intervention until 2009 would lead to a short-term drop of around 0.3 mio ha in maize area, mainly in Hungary and Romania, when compared to the continuation of maize intervention.

Set-aside area gradually increased up to 7.2 mio ha in 2006, of which 4 mio ha came from compulsory set-aside. From 2011 onwards, the EU-10 should add 1 mio ha of mandatory set-aside when they shift from the Single Area Payment Scheme towards the regional Single Payment Scheme. Bulgaria and Romania would contribute for a further 0.5 mio ha of mandatory set aside from 2014. The extension of the SAPS in the concerned EU-10 Member States by two more years would lead to an additional annual production of 4.5 mio t of cereals in the EU-10 in 2009 and 2010 and about 1.5 mio t in Bulgaria and Romania in 2012 and 2013. The increasing demand of feedstock from the biofuel and biomass sector would likely favour the production of cereals for energy purposes on mandatory set-aside land in intensive production regions by the end of the projection period. Two main factors might weaken the efficiency of set-aside as supply control instrument over the medium term: (1) the introduction of the SPS which allows exercising set-aside on eligible but non cereal, oilseed and protein crop area as well as (2) the tradability of set-aside rights which might lead to the move of set-aside land into less productive areas.

The reform of the sugar Common Market Organisation would entail an increase of cereal and oilseed area of approximately 0.5 mio ha after the transition period finishing in 2009 and consequently a reduction in the area devoted to sugar beet production from 2.2 to 1.7 mio ha. The expected strong expansion of bioethanol production from sugar beet is expected to contribute to a stabilisation of the total sugar beet area, particularly in the most competitive sugar production regions. Of this 0.5 mio ha additional area for cereals, oilseeds and protein crops, about 0.3 mio ha would be allocated to oilseed production, 0.1 mio ha to soft wheat production and about 0.1 mio ha to maize. The impact of the sugar reform on cereal production therefore appears relatively limited to an additional production of around 1.3 mio t of cereals (0.6 mio t of soft wheat and 0.7 mio t of maize). Rapeseed production would also increase by 1.1 mio t.

### *2.1.3. Cereal yields*

Cereal yield growth until 2014 would show a more modest pattern than earlier projections suggested, with an average annual growth estimated at approximately 0.8 % between 2007 and 2014. Cereal yields in the EU-25 would increase from 4.7 t/ha in 2006 to 5.1 t/ha in 2014. In 2014 average cereal yield would reach 6.1 t/ha in the EU-15 while they would stand at 3.7 t/ha in the EU-10. In Bulgaria and Romania cereal yields are presently at 3 t/ha and would then slightly increase to 3.1 t/ha at the end of the projection period. Despite on-going restructuring, particularly in Romania, production would remain below its potential.

The underlying yield trend linked to technical progress in cropping as well as to new varieties would stand at 1.1 % per year in the EU-12 whereas the EU-15 should exhibit lower growth of some 0.5 % per year. Maize yields would see a modest growth of 0.4 %

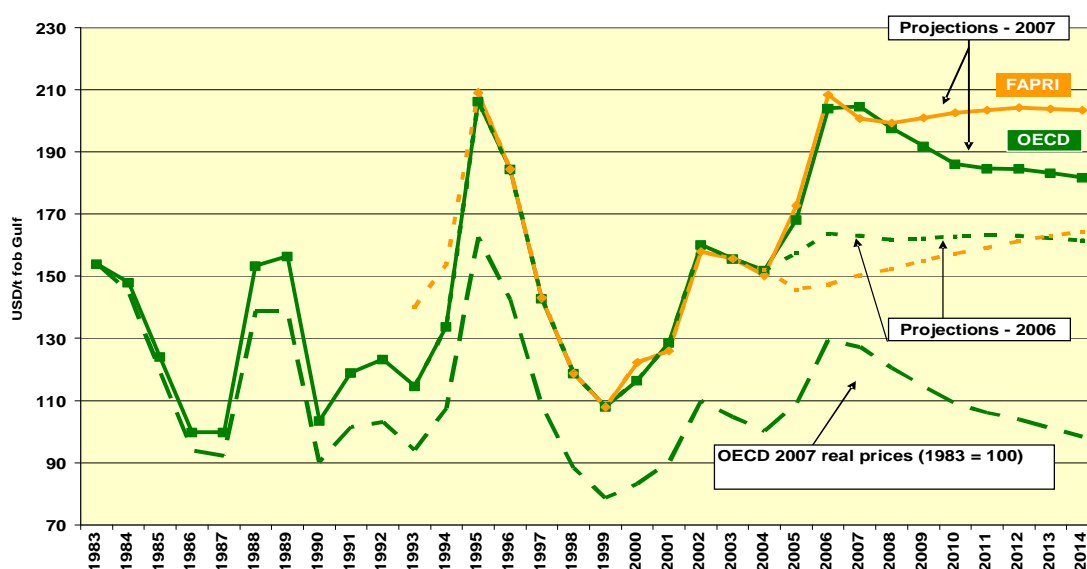
per year, with yields appearing to remain virtually stable in the main producing regions in the western part of the EU.

The analysis of the yield growth trends between 1980 and 2006 shows a differentiated pattern between northern and southern as well as western and eastern Member States and most notably between the 1980s and the period between 1995 and 2006. Yield growth in the EU-15 slowed down considerably over the last decade. This could suggest that production is at the technological frontier even in the most competitive regions. Therefore, future annual gains in yields would appear limited. Apart from the limited gains from technological progress through the introduction of new varieties, the other main factors contributing to this development include the impact of higher production standards as well as increasing constraints on resources such as water availability in southern EU Member States. However, in the EU-12, yield growth had picked up shortly before and after accession, though at significantly lower rates than a fully fledged catch-up process would suggest (on account of the slower than expected structural change).

#### 2.1.4. *The development of cereal prices*

The favourable conditions on world markets as well as the increasing domestic demand should favour higher cereal prices in nominal terms than in the past decade. However, despite the hikes in 1983, 1989, 1995, 2003 and 2006 cereal prices should continue their trend of real decline over the medium term, which is pointing to the fact that production is increasing faster than demand, despite frequent price hikes due to adverse weather conditions. Already world prices in 2007/08 should reach a lower level than in 2006/07 thanks to the expected higher harvests in major exporting nations most notably in the US and Australia.

**Graph 1** Development in nominal and real world market prices, hard red winter fob Gulf (US/t), 1983-2014

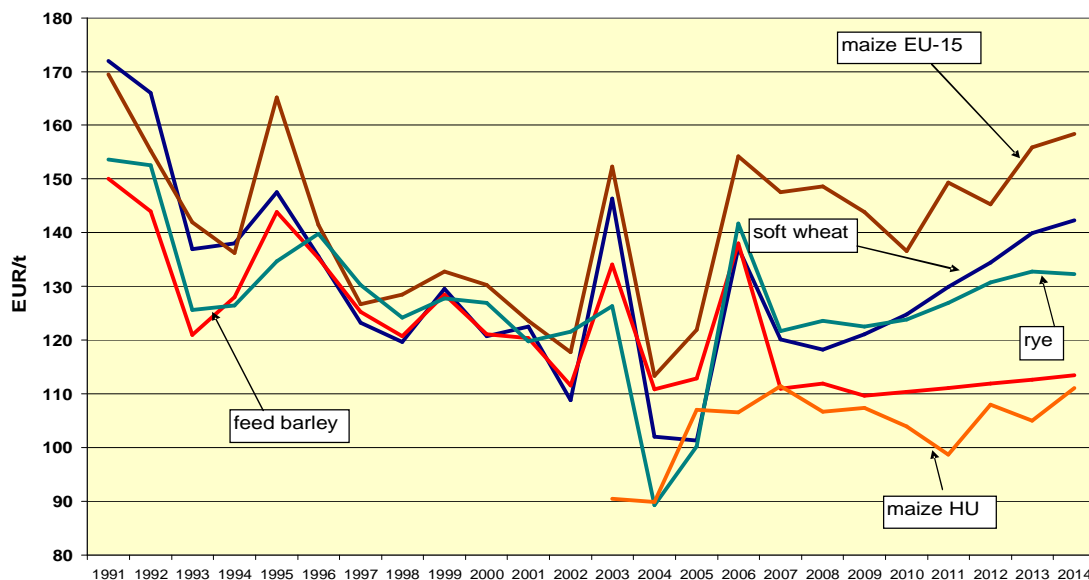


The price hikes seen for maize should slow down because of the expected record harvest and the lower growth of maize ethanol production capacities in the US according to the analysis of OECD and FAPRI. The latter is due to the decreasing profits for the US ethanol industry. The bioethanol production in Europe, which currently has a marginal share in domestic use, would only influence the domestic markets over the medium term



(balanced however by the emerging second generation technologies at the end of the projection period).

**Graph 2 Development in nominal cereal prices in the EU (EUR/t), 1991-2014**



Price levels in the EU reached very high levels in 2006. The higher but somewhat below average harvest expected in 2007 should already lead to a lower level of prices during that marketing year. Soft wheat prices in the EU would exhibit an increase after an initial drop in 2007 and 2008 mainly due to the picking-up of domestic demand in the EU as well as good export opportunities thanks to the assumed weakening euro and the relatively high levels of world maize prices. The phasing-out of maize intervention would assure the fluidity of internal maize markets. Average EU-15 price levels would reach 160 euro/t at the end of the projection period and prices would reach 110 euro/t in Hungary with similar levels in Slovakia, Austria, the Czech Republic, Bulgaria and Romania. Market prices for rye would stay firm and follow the development of bread-making wheat prices, thus reaching levels of 130 euro/t by 2014. The increasing competition between maize and barley in key western European feed markets would constrain the potential increase barley prices over the medium term.

### **How do high cereal prices influence consumer prices?**

This box compares consumer and agricultural producer prices over the last seven years and attempts to examine the degree of transmission of price changes along the supply-chain, notably between the producer and consumer stages. It also takes reference of two external studies carried out in 2003 for the European Commission on price transmission and concentration in the food chain<sup>2</sup>.

#### **High agricultural prices are only partially felt in consumer prices ...**

The prices in agriculture are more volatile than consumer prices even on an aggregate level, with peak prices in the last seven years recorded in 2004 and in 2007 (coinciding with low world cereal harvests and high world cereal prices). Over the last seven years agricultural producer prices tended to slightly decline in nominal terms and more strongly in real terms, while consumer prices in general and for food steadily increased in nominal terms (as well as slightly in real terms for the food price index).

The fluctuations of agricultural producer prices are not fully felt in consumer prices for the following reasons:

- The share of agricultural raw materials in food production costs tends to decrease with degree of manufacturing. More decisive for the costs are labour, capital and energy prices (as shown in graph 3).
- The competitive structure of the food supply-chain, including the concentration in retailing and processing, in some food sectors and countries may induce price transmission from consumer prices to agricultural prices rather than the opposite.
- Over the medium- to long-term there is no significant evidence of partial transmission of price changes between the farm and consumer levels, although this may happen in the short run.
- Increasing household income causes consumer behaviour to change: a steadily declining share of income is spent on food, though nominal spending still increases. The weight of food in the consumer price index of the EU is 13.9 %, that of bread 2.5 % and of meat 3.6 % in 2007. These numbers correspond to average spending patterns in the EU.
- The quantity of agricultural raw materials consumed increases less than expenditure on food, with increasing consumer preferences for higher value-added food.
- Agricultural producer prices followed a long-term trend in declining in real terms.

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<sup>2</sup> AgraCeas, 2003, "Study on price transmission in the Agro-Food Sector" 2003, and University of Bologna, 2003 "Concurrence et concentration dans le secteur agro-alimentaire".

**... with bread prices almost not influenced by fluctuating cereal prices ...**

Only extreme peaks in prices tend to lead to slightly higher consumer prices. The main reason for this being the fact that the share of cereals in bread production costs is around 5 %. The main cost factors again are labour, energy and capital. Therefore, bread prices even increased in times of extremely low cereal prices like in 2002, 2003 and 2005. Nominal cereal producer prices benefited only to a limited extent from the increasing consumer prices for bread. In real terms however, producer prices of cereals have declined over the last seven years.

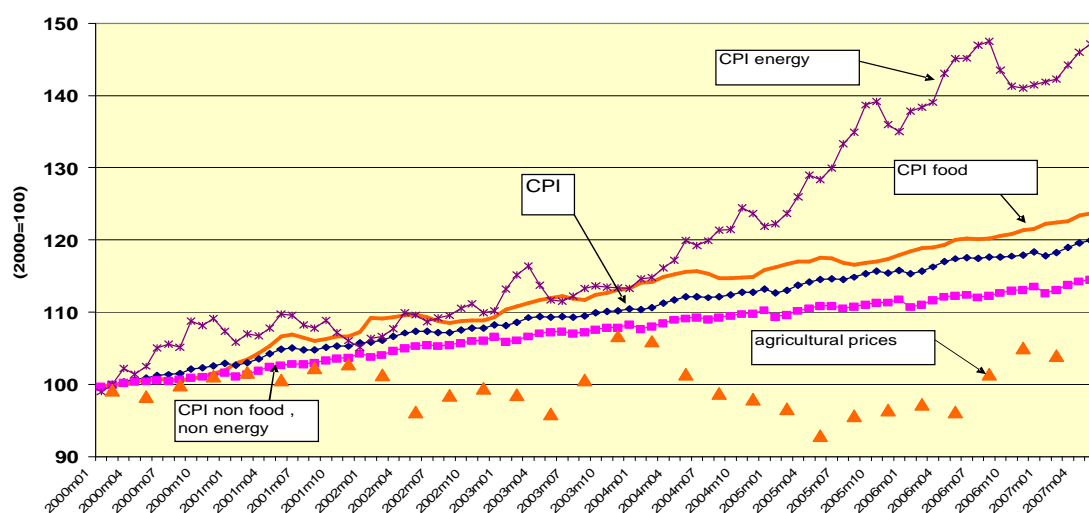
The 33 % increase of wheat prices between 2005/06 and 2006/07 lead to an increase of bread prices by 1.7 %. The impact of higher energy prices influences bread prices more significantly. Furthermore, the impact on the overall inflation should be marginal as the weight of bread in the consumer price index is about 2.5 %.

**... in contrast to producer prices for animals and meat consumer prices ...**

Changes in cereal prices are more directly reflected in the producer prices for animals owing to the high share of feedstuff in the costs of producing animals. The cost share of feedstuff is about 50 % to 70 % in pork and poultry in production costs. However, animal prices tend to react with a delay. Consumer prices of meat saw a steady increase over the last seven years to almost about the same as the trend in nominal producer prices for livestock. Price fluctuations at producer level were felt at consumer level, though not fully.

The share of agricultural raw materials in meat consumer prices is about 40 %, meaning that labour, capital and energy costs are less influential than in the cereal sector. Furthermore, the potential asymmetry in the transmission of price changes between the producer and consumer levels need further investigation (e.g. meat prices could change less in case of a decline in animal prices than of an increase). Finally, the impact of higher meat prices has again little impact on total consumer prices because of the small weight of meat in the consumer price index (at 3.6 %).

**Graph 3: Development of nominal agricultural producer price indices and consumer price indices (CPI) in the EU (2000=100)**

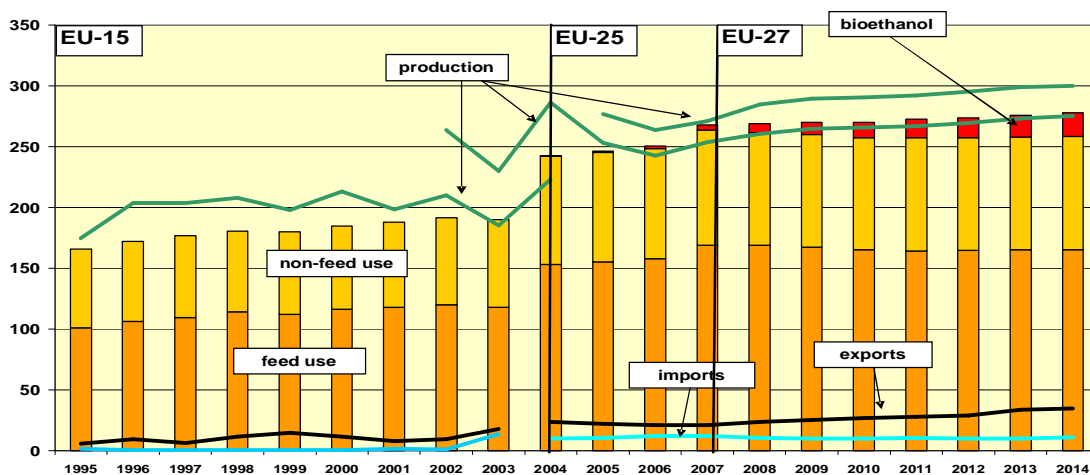


### 2.1.5. The EU cereal markets

The relatively stable cereal area and the low yield growth should constitute important factors contributing to the relatively balanced situation on the cereal markets over the projected period for most of the regions in the EU. Cereal production in the EU-27 is expected to reach 300 mio t in 2014, i.e. an increase of 29 mio t from 271 mio t estimated for 2007. Most of this increase would come from wheat production which would expand from 129 mio t to 148 mio t over the projected period and from maize production which would increase from 54 mio t to 63 mio t. In contrast barley production would show a slight fall and then a stabilisation at 57.5 mio t in 2014 in line with the decline in area use mostly at the benefit of rapeseed area.

The accession of Bulgaria and Romania in 2007 would increase cereal production of the EU by some 17 mio t in 2007 which is below potential. Cereal production would then expand gradually to 25.4 mio t in 2013 thanks to the favourable market conditions, the access to the single market and the introduction of the CAP. The introduction of mandatory set aside in 2014 would reduce production by 1 mio t. Domestic use would gradually expand to 22 mio t in 2014 thanks to the anticipated restructuring of the livestock sector by 2011. Maize would contribute about half of the expansion of production and domestic use.

**Graph 4 Development in cereal markets in the EU (mio t), 1995-2014**



Domestic consumption of cereals would exhibit a 10 mio t increase over the projection horizon from 268 mio t to 278 mio t in 2014 thanks to the growth in the emerging bioethanol and biomass industry. Currently bioethanol processing is a marginal market outlet for agriculture which presently consumes 3 mio t and might expand to 4.5 mio t in 2007. The impact of the bioethanol demand would increase pace and about 19 mio t of cereals could be marketed via this outlet, following the initiatives assumed to be taken in the Member States. The phasing-out of the maize intervention could contribute to more favourable conditions for investments into the bioethanol industry in Hungary, Bulgaria and Romania. However, actual investments into biofuel activities in these regions materialise only slowly from the plans drawn up in recent years. Cereal demand for bioethanol production would increase by 15 mio t between 2007 and 2014. This strong development represents a significant upwards revision as compared to the January 2007 publication. These figures take into account the potential demand following the

implementation of the biofuel directive and are based on energy market projections of PRIMES, an energy market model of the European Commission in DG TREN. The incorporation rates would reach 3.6 % in 2010 and 5 % in 2014 (including biodiesel). By the end of the projection period it is likely that second generation biofuel technologies will become commercially viable and lead to a slow down in the cereal and sugar beet demand for bioethanol production.

Total cereal feed demand would gradually decline to 165 mio t towards the end of the projection period. Soft wheat feed use as well as that of barley would decline most and be increasingly replaced by biofuel demand. Several factors would contribute to these developments on the feed market: first, the increase in feeding efficiency will continue, in particular in the EU-12, resulting in lower feed use of cereals per ton of meat and livestock products than recorded in the past. Second, the overall increase in white meat and egg production in the EU is projected to be significantly lower than in the last decade. These developments on the meat markets owe to slower population growth and already high per capita meat consumption in most regions as well as a projected further decline for the EU market share on the world meat markets over the coming years. Thirdly, the relatively high cereal prices projected over the forecast period as well as the availability of cheap protein-rich residuals of biofuel production should favour higher protein feed use, particularly in pork, poultry and egg production.

Over the medium term changing price relations would also result in a significant change in the composition of cereal feed use. Barley would maintain regional competitiveness in feed use in the early part of the projection period in the western part of the EU. The increasing penetration of cheap maize from the land locked EU-12 Member States due to the phasing-out of maize intervention as well as because of relatively high prices for soft wheat following its increasing use in bioethanol production, maize feed use would become more attractive during the last two thirds of the projection period. The increasing availability of maize from the land locked EU-12 Member States would trigger a drop in prices in the western European maize markets from 2008 onwards. This development would take place at the expense of feed wheat and feed barley.

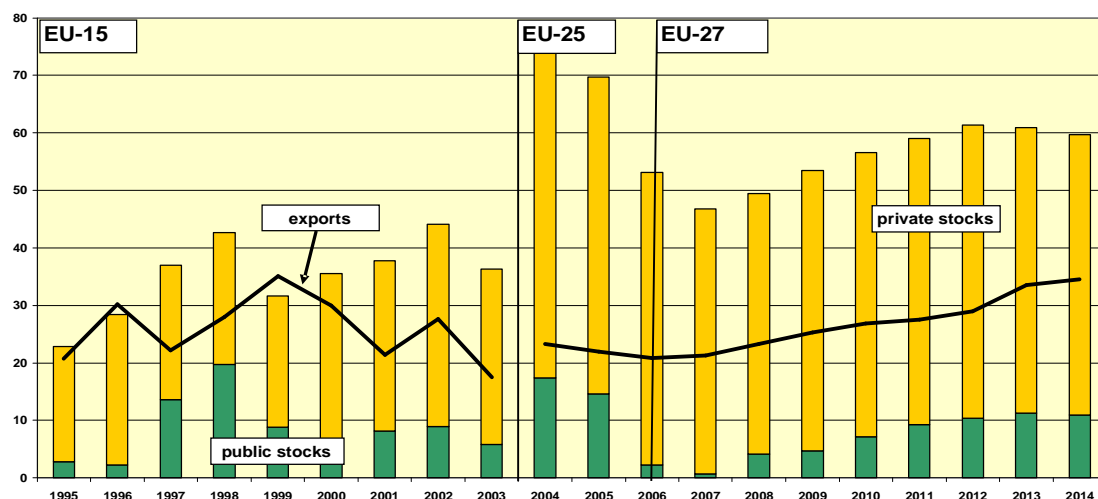
Bulgaria and Romania are expected to show a decline in feed demand following the restructuring of their livestock sector after enlargement. From 2009 onwards feed demand in these two countries would resume expanding and reach 18 mio t in 2014. Human demand would remain stagnant at 3.3 mio t due to the decline in population and despite the continuing strong income growth after accession.

Favourable perspectives on world markets would support an expansion in EU cereal exports over the medium term. Total EU exports would increase from an estimated 21 mio t in 2007 to 34 mio t in 2014. Soft wheat should notably benefit from these developments. The supportive outlook for world markets would be mainly based on the following factors: (1) the increasing imports of cereals from (North) Africa, Middle East and South East Asian countries; (2) the assumed strengthening of the USD against the euro; (3) the rapid expansion of cereal-based bioethanol production in a number of exporting countries that should enable the EU to expand its market share on the world market until 2014.

Under the political settings of the present WTO agreement and the bilateral trade agreements currently in place, cereal imports should remain fairly stable at around 10 to 11 mio t over the projection period. Particularly the recorded maize imports of 4 to 5 mio t in the last two years should decline again due to the increasing availability of

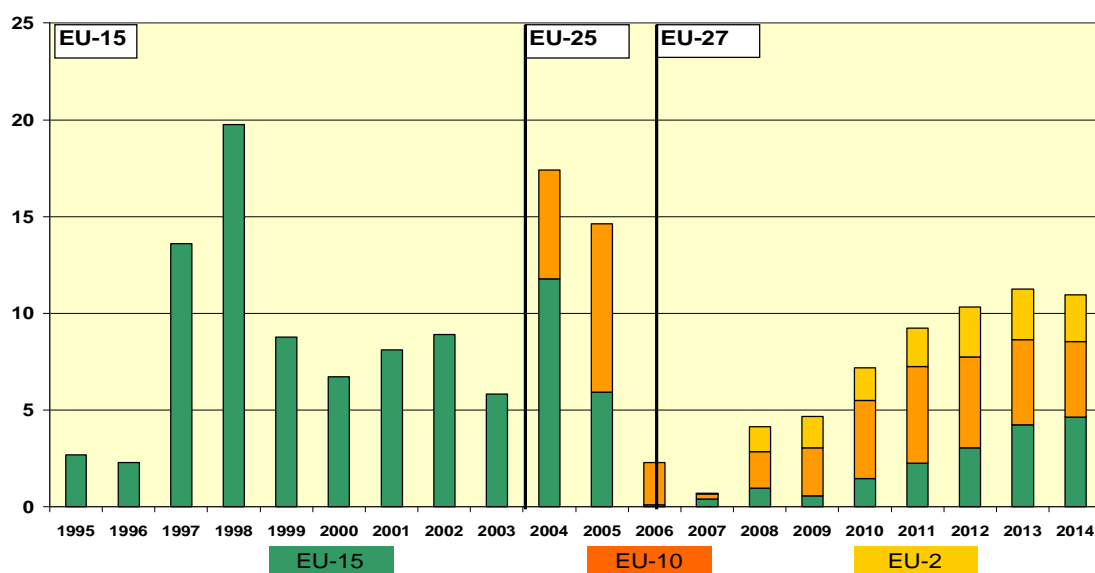
maize of EU origin in the deficit regions in the northern European and eastern Mediterranean parts of the EU. The need for imports should further increase at the end of the period particularly after the assumed introduction of mandatory set aside in Romania and Bulgaria in 2014. However, the accession of Bulgaria and Romania should not significantly change the trade perspectives of the EU.

**Graph 5 Development in cereal stocks and exports in the EU (mio t), 1995-2014**



Cereal stocks in the EU should exhibit a marked fall in 2006 from 69.7 to 53.2 mio t in the EU-25. In the following years stock levels should continue to stay around that level in the EU-27 before gradually increasing and stabilising at 60 mio t by 2014. Most EU regions are expected to show rather favourable conditions with rapidly declining stocks (notably public stocks) thanks to the lower harvest in 2006 and in 2007 as well as expanding domestic use, lower yield growth and an increasing participation in world markets. The phasing-out of the maize intervention would significantly reduce the risks of structural surpluses in presence of high harvests in Hungary and Slovakia as well as Romania and Bulgaria over the medium term. However, the crowding-out of barley and soft wheat in feed use by maize could lead to increasing stocks in the western parts of the EU (barley) and in the land locked EU-12 Member States (soft wheat).

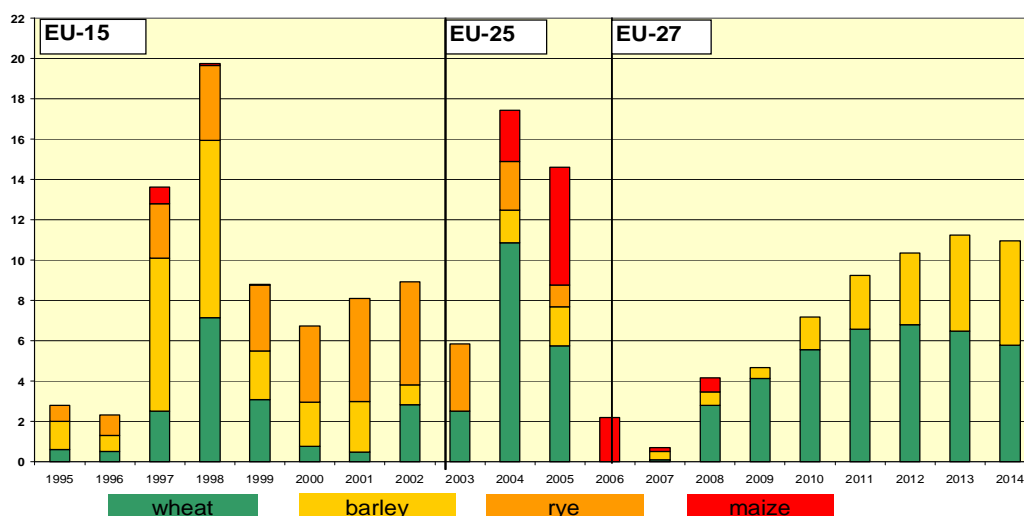
**Graph 6 Regional distribution of public stocks in the EU (mio t), 1995-2014**



Public stocks of cereals fell from a peak of 17.4 mio t in 2004 to 14.6 mio t in 2005 and reached 2.2 mio t in 2006. The expected low harvest in 2007 as well as the phasing-out of the maize intervention should keep stocks growing only gradually to 11 mio t in 2014. The regional distribution of public stocks would be more evenly spread between in the different parts of the EU due to the phasing-out due to the phasing out of the maize intervention. However, risks of increasing stocks still remain for barley in Germany in case of higher harvests than projected as well as for wheat in the EU-12 due to infrastructure problems and related high transport costs.

In summary, the medium-term prospects for cereal markets for the EU-27 should remain moderately positive for the majority of regions in the EU as the impact of the CAP reform, the phasing out of maize intervention, the moderate prospects for yield growth, the emerging bioethanol market as well as the expected gradual integration of Bulgaria, Hungary, Slovakia and Romania into the single market in combination with more favourable conditions on world markets are projected to globally ensure the balance of cereal markets until 2014.

**Graph 7 Composition of public stocks in the EU (mio t), 1995-2014**



## 2.2. The EU oilseed markets

The medium-term prospects for the EU oilseed market are expected to be supported by productivity increases, the favourable developments projected for world markets (fuelled by continuous positive trends for global demand of vegetable oil) and - more importantly - the increasing demand for biodiesel in the EU. The recent growth in the use of rapeseed oil for biodiesel production has pushed up the market potential for rapeseed and rapeseed oil in Europe. For the first time in 2005 the non-food use of rapeseed oil became more important than the food use.

These developments should provide further incentives for increasing rapeseed production as well as for increasing imports of rapeseed oil as observed in recent years. Rapeseed oil prices reached record levels in the last two years and are bound to further increase. Rapeseed prices on the other hand increased only modestly. One of the reasons for that is the shortage of crushing capacities in the EU. The recent increase of crushing facilities as well as the expected strongly increasing demand for biodiesel should lead to a better transmission of rapeseed oil and rapeseed meal prices to rapeseed prices than in the past. The projections include the recent trends in biodiesel demand and increase of

production capacities until 2014. The expected ongoing trend of allocating crushing and biodiesel production capacities in the EU should lead to an increase of oilseed imports.

Total oilseed area of rapeseed, sunflower seed and soybean bottomed out in 2002 at 6.6 mio ha before increasing to 7.0 mio ha in 2004 (of which 0.8 mio ha as non-food oilseeds on set-aside land). In 2005 oilseed area fell to around 6.8 mio ha of which 0.8 mio ha of oilseeds on set-aside land. In 2006 oilseed area increased to 7.4 mio ha. The accession of Bulgaria and Romania adds a substantial production potential of 2 mio ha, most notably for sunflower seed. The very favourable medium-term perspectives on the oilseed markets should lead to a steady increase in harvested area to 10.3 mio ha by 2014. The non-food oilseed area is expected to remain stable at 0.8 mio ha in 2014 due to the constraints imposed by the Blair House agreement (with a maximum of 1 mio t of soybean meal equivalent). From 2009 onwards the expansion of rapeseed area appears constrained by the rotational limits reached in most of its producing regions. New varieties of sunflower seed could widen market opportunities for biodiesel as well, though the yield potential of this oilseed seems limited due to the constraining water availability in the main producing regions.

Total oilseed production stood at 19.7 mio t in 2005 and reached 20.1 mio t in 2006 in the EU-25. Romania and Bulgaria would add 4.3 mio t in 2007. Production in the EU-27 would thus reach 26.2 mio t. Production is estimated to increase to 34.6 mio t supported by the expansion in oilseed area and the strong growth in rapeseed yields (1.8 % per year). Rapeseed production would account for most of the growth as sunflower and soybean seed production should remain relatively stable. Non-food oilseed production on set-aside land would also expand slightly from 2.6 mio t in 2006 to 3.1 mio t in 2014. Any further increase of non-food oilseed production on set-aside land remains constrained by the Blair House agreement which effectively limits the total oilseed production potential of the EU.

Domestic demand is foreseen to expand by a further 18 mio t between 2007 and 2014 to stand at 66.6 mio t (mainly for rapeseed, followed by soybeans). This increase of domestic use would be supported mainly by the growing biodiesel demand which would increase by 9 mio t to 20 mio t in 2014. Imports of rapeseed oil and biodiesel would increase as well as the blending with other vegetable oils over the projection period in order to meet domestic demand. However, most of the crushing would take place in the EU. The production of rapeseed in Ukraine and in Russia could develop to be a viable source for imports. Biodiesel production in the EU would double between 2007 and 2014.

### **2.3. The sugar market**

The reform of the sugar market affects the economic framework for sugar beet production and processing in two stages: (1) the transition phase until 2009/10 with a stepwise reduction of the reference prices, the offer of aided restructuring and phasing-in of increasing import rights for the least developed countries in the framework of the EBA initiative; (2) the complete opening of the EU sugar markets for EBA imports as well as restoring competitiveness of European sugar production from 2010/11 onwards. A restructuring of the sugar industry and sugar beet production would follow the relative regional competitiveness, if market signals would be the main driver of restructuring.

The competitiveness of regions is related to production costs for sugar beet, structure of the processing industry and transport systems. The competitive production regions are



mostly located in France, Belgium and parts of Germany. These regions appear suitable also for biofuel production from sugar beet and would be suited to keep most of their present sugar beet production, if processing industries remain competitive.

However, the production costs of sugar beet is just one factor of competitiveness of the supply chain and could be offset by economies of scale in the sugar processing industry, like in the case of southern regions in the UK vs. Ireland. The latter has slightly lower levels of sugar beet producing costs. Nevertheless the limited scale of Irish sugar beet processing is the limiting factor for its competitiveness.

Low production costs can be found in Poland, the Czech Republic Slovakia and Hungary. Moreover, sugar processing saw significant investments in the past. Therefore, adjustments should take place rather on the basis of considerations of scale and structure of regional sugar production.

Many of the medium-term perspectives would be defined by the pace of restructuring in the short term because it determines who would bear the costs of adjustment and how much structural burden would be carried forward, i.e. within the transition period until 2009 where restructuring funds would cushion the change or after the transition period when costs would have to be taken on by industry and sugar beet farmers themselves. Nevertheless, over the short to medium term sugar beet production can be expected to decline in the least competitive regions of the EU. Such a restructuring would boost the competitiveness of the European sugar and beet ethanol industry, if restructuring is left to market considerations and not to across the board quota cuts on a temporary or permanent basis.

The restructuring would be accompanied by the creation of sustainable new market outlets for sugar beets and beet sugar marked by gains in competitiveness in mainly three areas:

- (1) Beet sugar would increasingly gain in competitiveness relative to the isoglucose production from cereal starch following the stepwise implementation of the reform of the sugar market;
- (2) The recent initiatives taken by the European Commission and Member States in order to foster energy security and increase green house gas savings in the context of the Biofuels Strategy could have positive medium-term effects for sugar beet markets with a significant potential. Beet growers in the most competitive regions of the EU, most notably in France, Belgium and Germany would benefit from this trend and find additional market outlets. The size of the future bioethanol production from sugar beet is not yet clear as it depends on future investments decisions but could cover an area of up to 250 000 ha;
- (3) Over the next seven years world market prices for sugar might stand at a relatively high level in relation to the surging world bioethanol demand as well as to the lower level of EU exports than in the past. This could have positive implications for the competition of imports and domestic production in EU markets.

The pace of restructuring of the EU sugar sector would determine how much and when it will profit from these positive medium-term factors. The sugar market projections take these positive as well as some negative medium-term driving factors into account as judged from current conditions and knowledge. Most notably these are:

- the slow uptake of restructuring, estimated for this analysis at 500 000 t for 2007/08;
- the expanding biofuel demand;
- the accession of Bulgaria and Romania adds an import quota of 530 000 t;
- the stepwise increase of the EBA imports over the medium term as well as the assumption of a sufficient competitiveness of sugar production in the concerned exporting countries;
- the binding limit of the WTO export quantities for sugar of 1.3 mio t of unprocessed sugar;
- export and import figures do not display sugar in processed commodities.

The analysis carries important limitations: projections were made for sugar beet in white sugar equivalent only and include explicitly the bioethanol demand. Isoglucose markets from cereal starch were not included into the balances but treated in other commodities such as maize. In deviation to reality and due to technical constraints, the projection year 2006 (marketing year 2006/07) is taken as a normal 12 months campaign and not the exceptional 15 months period fixed for 2006/07.

The temporary withdrawal of 2 mio t of sugar quota in 2007/08 would limit the production potential in that year. The regional distribution of the cut takes positively into account those regions which already used the restructuring fund. However, out of quota production in 2007/08 slightly increased as well such that the total production figure for the production of beet sugar equivalent decreases less than the temporary withdrawal of quota. This temporary step already reduces total market stocks of sugar by 0.8 mio t to 7.3 mio t. This figure still appears very high when compared to a domestic use of 18.6 mio t in the EU. Therefore, further restructuring efforts would be necessary in order to reduce the downward risks for sugar markets in the EU.

The projections foresee a gradual reduction of sugar beet production to 16.6 mio t in 2009 from 20.3 mio t in 2005. The post-2009 period would see a further fall of production to 15.6 mio t in 2014. The emerging biofuel production would contribute to stabilise sugar beet production despite the significant price pressure for the beet sugar market due to the slow restructuring and the accumulated high levels of stocks until the end of the transition period in 2009. The sugar beet area would fall from 2.2 mio ha in 2005 (excluding Bulgaria and Romania) to 1.7 mio ha in 2014 in the EU-27.

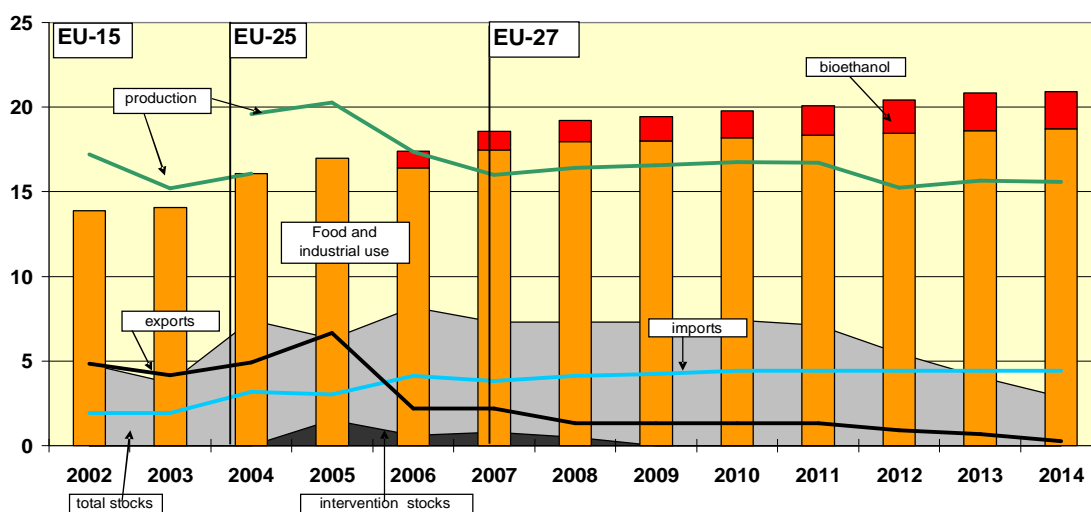
Domestic use of sugar beet would increase from 16.2 mio t and 17.8 mio t including Bulgaria and Romania in 2005 to 20.9 mio t in the EU-27 by 2014. The main reason for this increase in domestic use would be the emerging biofuel industry which would gradually raise demand to 2.2 mio t of white sugar equivalent until 2014. Additionally sugar demand should increase due to falling prices and the increasing competitiveness vis-à-vis other products in industrial demand such as isoglucose from cereal starch. The accession of Romania and Bulgaria adds some 60 000 t of production and a consumption of around 725 000 t. It is assumed that the production in Romania and Bulgaria would remain in place regardless of any economy of scale considerations.

The main driving element of restructuring would be the level of imports. Here it is assumed that the EBA countries would have the competitiveness to deliver the quantities of import. From 2010 onwards, these countries would reach a level of exports to the EU

of around 2.2 mio t. Total imports would reach 4.4 mio t coming mainly from ACP, EBA, Balkan countries as well as from the import quota given after the accession of Bulgaria and Romania. These figures exclude sugar in processed commodities. Exports of unprocessed sugar would remain at the WTO limit. A lower level of exports would increase significantly the pressure for adjustment.

The high level of stocks projected until 2009 would be reduced over time and fall to 2.9 mio t at the end of the projection period. Sugar stocks would then reach levels that may be considered as normal by other crop standards. The high domestic availability of sugar would lead to pressure on market prices for sugar from 2010 onwards taking account of the assumed slow pace of restructuring until 2009. Most of the pressure for supply adjustment would be expected for 2011 and 2012. This development would benefit domestic use. Prices for beets for bioethanol, however, would remain relatively firm throughout the period under the condition that the bioethanol demand expands like foreseen.

**Graph 8 Development in sugar markets in the EU (mio t), 2002-2014**



The limited uptake of the restructuring funds bears a major downside risk factor in spite of the temporary withdrawal of quota in 2007. The first major risk is due to the potential amount of imports within the EBA initiative and the consequence of high adjustment costs for the sector post 2009.<sup>3</sup> The second major downside risk factor is the high level of total stocks on the markets which would weigh heavily on the medium-term perspectives post 2009 with the anticipated reported burden of restructuring leading to low prices in 2010 and 2011.

#### **2.4. The impact of a minimum 10% obligation for biofuel use in the EU-27 in 2020 on agricultural markets**

The new 10% minimum target in 2020 has also to be seen relative to the existing legislation which put the target at 5.75% in 2010. According to analysis of DG TREN the current biofuel directive would fail to produce an incorporation of 5.75% in 2010,

<sup>3</sup> The level of imports received from EBA countries with EU prices at around 400 euro/t depend on whether major investments in these economies would be made.

because markets and technologies have too little time to react. Over the longer run however, an incorporation of 6.9% could be expected by 2020. The new legislation would therefore increase biofuel demand by 3.1 percentage points and lead to a more evenly spread consumption pattern across the EU Member States than the present biofuel directive. The transport fuel replaced would be 34.8 mtoe under the new and 23.8 mtoe under current legislation.

#### 2.4.1. *The 10% minimum requirement by 2020 and key assumptions*

The analysis is based on the energy demand from the EU-27 on the projections of DG TREN for 2020. It also takes into account current trends in developments of production capacities over the next couple of years. A significant increase of incorporation should be expected from 2012 onwards in order to be able to reach the 10% goal in 2020.

Assuming this development of biofuel demand in the EU-27, the main factors determining the impact on agricultural markets are:

- (1) **First and second generation biofuel technologies:** The outlook on this issue crucially depends on the future costs of production and speed of development of second generation technologies to industrial scale and not at least the possible cost improvements in production of first generation biofuels. Current estimates of costs show that second generation feedstock are 30% (second generation bioethanol) to 70% (BTL) more expensive than respective production of first generation fuels under present conditions and prices in the EU. Despite significant unknowns the assumed share of the contribution is assumed to be 30% of domestic needs by 2020.
- (2) **The available arable land:** Since agricultural production serves food, feed, industrial and also renewable energy use, any change in competitiveness of any of these four main outlets, leads to competition for arable land. These considerations also rely on the amount of total land available for cropping activities.
- (3) Current policies are assumed to remain in place in the future, notably the set-aside requirement. Therefore, energy crops can be grown on set aside land. However, the restrictions of the *Blair House Agreement* on the production of non-food oilseeds on set-aside land remain constraining and limit the oilseed production potential.
- (4) *Second generation biofuels and area requirement:* Second generation feedstock yield significantly higher energy per hectare. For example, energy yields per hectare of cereals would increase by 30%-40% if the straw and the grain would be used. One of the highest yielding energy crops is maize if the whole plant is used. Thus less area is needed to produce the same amount of energy. Moreover, non-agricultural land could be used as well (e.g. for short term coppice, waste wood), as well as non-land based sources such as animal waste and slaughtering residuals.
- (5) **The share of diesel and petrol in total transport fuel use:** In Europe diesel is more consumed than petrol. With tax policies assumed remaining constant some 55% of the consumption of transport fuel in 2020 would be diesel. Any change in

fuel taxation policies in Member States which would swing the preference to petrol will bear significant consequences for the composition of feed stock demand for biofuel.

- (6) **The import policies as regards feedstock and biofuel:** The current state of policies result in an open market for biodiesel, oilseeds and vegetable oils. The ethanol market is currently protected. For the second generation feedstock, high transport costs rather than tariffs would be the limiting factor on the import side. For second generation feedstocks an import share of 25% has been assumed and would mainly be wood chips from temperate climate zones.
- (7) **The location of biofuel industries for the European market,** i.e. whether in Europe or in exporting nations such as Brazil or the US. Under the assumption of unchanged trade policies, this will mainly concern the question whether seeds or vegetable oils or biodiesel will be imported. This would bear consequences on the markets of by-products. The main driver here would be the relative opportunities on by-product markets. The analysis assumes that production of biodiesel would remain in the EU considering its present international competitiveness.
- (8) **The level of world market and domestic prices** of feed stock determine the profitability of biofuels in the competition with fossil fuels and of production for other renewable energy uses such as heating and cooling. The analysis calibrates world market price developments on those of FAPRI and the OECD with appropriate adjustments for quality and transport costs. With this the projections incorporate also part of the biofuel policies of other countries such as the US. The latest world market price projections see prices of soft wheat (European qualities) at 175 USD/t (fob Rotterdam), barley at 130 USD/t (fob Canada) and maize at 180 USD/t (cif Western Europe) by 2020.
- (9) **The level of fossil oil prices:** The analysis bases itself on a price of 48 EUR per barrel. Higher prices will increase the competitiveness of biofuel, lower prices will have a negative impact. The assumed price level allows for a competitive biodiesel production in Europe over the medium term.

#### 2.4.2. *Impact on agricultural markets in 2020*

Under a 10% minimum obligation about 59 mio t of cereals or about 18% of domestic use would be used as first and including straw also as second generation feed stock. Most of the cereals used would be soft wheat and maize, the rest would fall mainly on barley. The projected yield increases of about 1% per year would lead to 38 mio t more cereal production in 2020 than currently seen. Moreover 2 mio ha of additional cereals grown on set aside land could provide some 14 mio t.

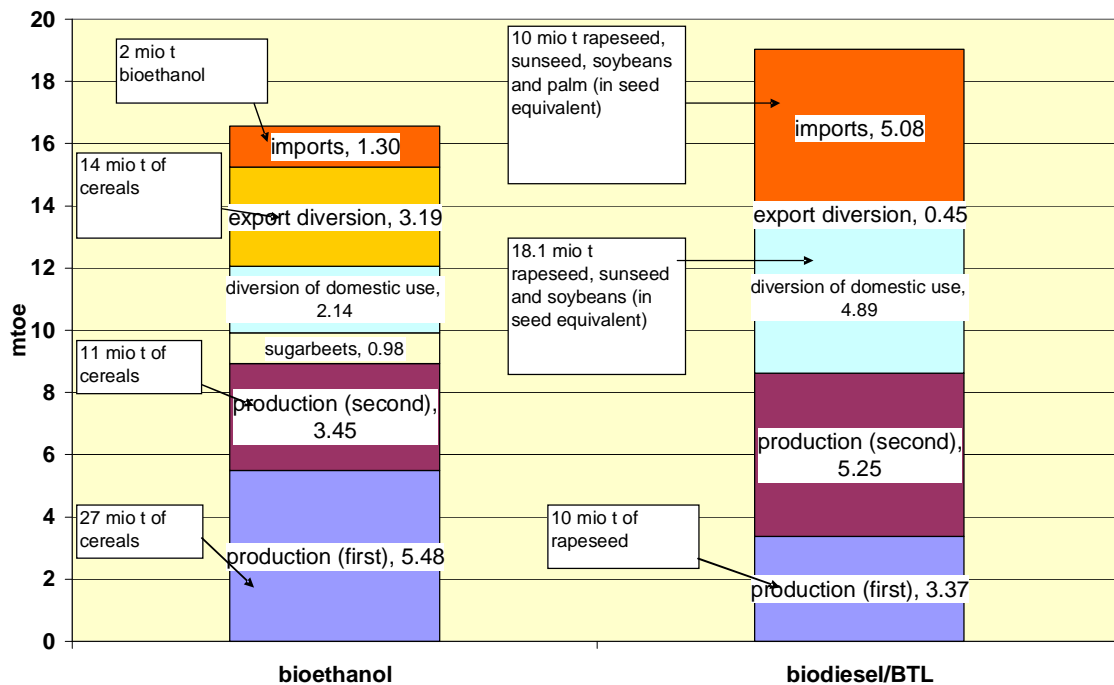
Domestic use of cereals would significantly increase while exports would decrease over time. Cereal prices would appear stable and reach 120 EUR/t in real terms or 150 EUR/t in nominal terms. Maize prices would be significantly above intervention prices following the increase of domestic use and the subsequent real stabilisation of the cereal price complex. The long run impact of biofuels on cereal prices is in the range of 3% to 6% as compared to 2006 prices. The second generation biofuel production would reach about a third of the domestic biofuel production largely by incorporating the straw and wood

based cellulosic material into production. Of this wood based materials some imports of 1.75 mtoe equivalent could be expected.

Oilseed markets would appear similarly firm, particularly the sunseed market which would see significant increases of prices (+15%) because of the small global production potential. The developing production of rapeseed in Russia and Ukraine would on the other hand keep rapeseed prices at moderate levels. Prices would increase between 8% and 10%. Soybean oil prices would show a significant increase due to the development of biodiesel industries in other parts of the world, in particular in Brazil and the US. The prices of by-products are economically best used as animal feed and second best as burning them in the biofuel production process. They would see a significant fall in prices.

The consequences of these developments for the livestock sector would appear relatively moderate to neutral. The cattle production would benefit from the availability of dried distiller grain (DDG), the by-product of bioethanol production from cereals, at very competitive prices. DDG is protein, fibre rich and contains energy (based on the fats and oils in cereals) and could equally substitute some of the silage maize in cattle feed. The abundant availability of DDG would lead to prices which would rather reflect transport costs.

**Graph 9 Sources of feedstocks for bioethanol and biodiesel production in 2020 (mtoe)**



Pork and poultry production would equally benefit from cheaper protein feeds partly from bioethanol but more importantly from the biodiesel production. Similarly prices for rapeseed and partly also soybean meal would drop significantly as well by some 25% (soymeal) to 40% (rapemeal). This will partly offset the increasing feed costs caused by the price impact on the cereal complex. Shifting feed to a protein richer content would be another cost dampening factor. Livestock production itself could produce biogas using parts of the waste. This would open additional opportunities for livestock production.

Bioenergy production represents one of the major main stream opportunities for agriculture over the medium to long term in the EU. The 10% incorporation rate realised over this long period until 2020 together with newly available technologies assures a sustainable path in providing the EU with renewable transport fuels without disrupting domestic and world markets. Imports would serve around 20% of the biofuel production. About half of them would be first generation feedstock and mainly oilseeds and vegetable oils.

### **3. MEAT AND LIVESTOCK**

#### *3.1.1. 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 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 production limiting milk quotas and increasing milk yields<sup>4</sup>. The suckler cow herd, which strongly developed during the nineties, has been slightly declining since the year 2000, due to more stringent stocking density constraints of the CAP. Since then the number of suckler cows has decreased by around 0.2 mio heads which, cumulated with the structural decline of the dairy herd, has brought the total EU-15 cow herd down by almost 1.9 mio animals in 6 years. All these factors had a profound impact on EU-15 beef production which decreased by more than 5 % between 1999 and 2006.

Despite the end of the “Over Thirty Months Scheme” and the clearing of cow meat (from animals born after 1996) for human consumption in the UK, the EU-25 beef production increased only marginally in 2006 to reach 7.9 mio t, as a result of higher production in the EU-10 (linked to higher carcass weights). The impact of enlargement on production in 2007 will be limited due to the low level of beef production in the EU-2, estimated to stand at approximately 172 000 t in 2006. However, Bulgaria and Romania have imported increasing volumes of beef from third countries during recent years, 131 000 t in 2006.

The main factor influencing medium-term projections on the beef sector is the impact of decoupling, which (combined with an increase in cereal feed prices) is projected to reduce the incentives toward intensive beef production systems and generally reduce production from unprofitable production systems, generating an overall decline in EU beef production.

Market developments in the EU-12 will have a moderate impact on these projections as these Member States only contribute to around 10 % of EU-27 beef and veal production and 9 % of EU-27 consumption. Beef production in the EU-12 originates almost entirely from the dairy herd. Even if a limited growth in suckler cow numbers was observed in the past few years, the aggregated EU-10 and EU-2 beef herds would continue to represent a limited share of the total beef herd throughout the projection period. Over the medium term EU-27 beef production is therefore expected to decrease to about 7.6 mio t by 2014, a reduction of around 518 000 tons from 2006.

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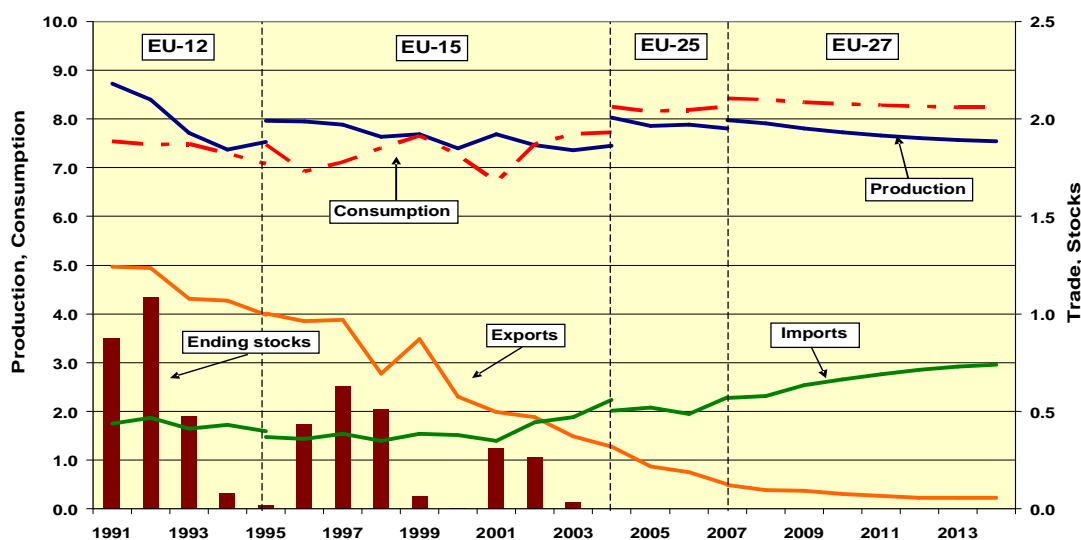
<sup>4</sup> It is estimated that between 1990 and 2005 the EU-15 dairy cow herd decreased by nearly 32 %.

The increase in trade flows (both in live animals and beef meat) from the EU-10 to the EU-15 since enlargement resulted in lower beef availabilities and rising prices and accentuated the decline in beef and veal consumption in the EU-10, with beef per capita consumption dropping to 6.3 kg in 2006. Overall EU beef consumption is projected to decline gradually over the medium term as the potential increase fuelled by rising income levels would be offset broadly by the sustained price increase<sup>5</sup> for beef and by the low consumer preference for beef meat in the EU-10.

A steady (albeit slightly declining) demand and tight domestic supply are expected to result in firm prices over the projection period. Following a short-term setback in 2006 due to the increase in EU production, the import restrictions imposed on Brazil as a consequence of FMD and the temporary suspension of Argentinean exports, total beef imports are expected to resume their growth and reach 741 000 t by the end of the projection period.

EU-25 meat exports fell by 13 % in 2006 as a combined effect of the strong euro, high internal prices and lower export refund levels as well as the steady domestic demand. Over the medium term extra-EU meat exports will continue to be constrained by low domestic availability and lower competitiveness on the world market (due to high internal prices versus low producer prices in the competing exporting countries) and are thus projected to decline further. The abolition of export refunds for live animals for slaughter led to a decline in live animal exports in 2006 (-53 %) that are projected to remain at a low level throughout the forecast period.

**Graph 10 Outlook for the EU beef market (mio t), 1991-2014**



<sup>5</sup> Beef market prices have increased substantially in the EU-10 Member States upon enlargement, with increases ranging between 10 and 30 %. The tight market within the EU would result in firm prices throughout the projection period.



### 3.1.2. Pig meat

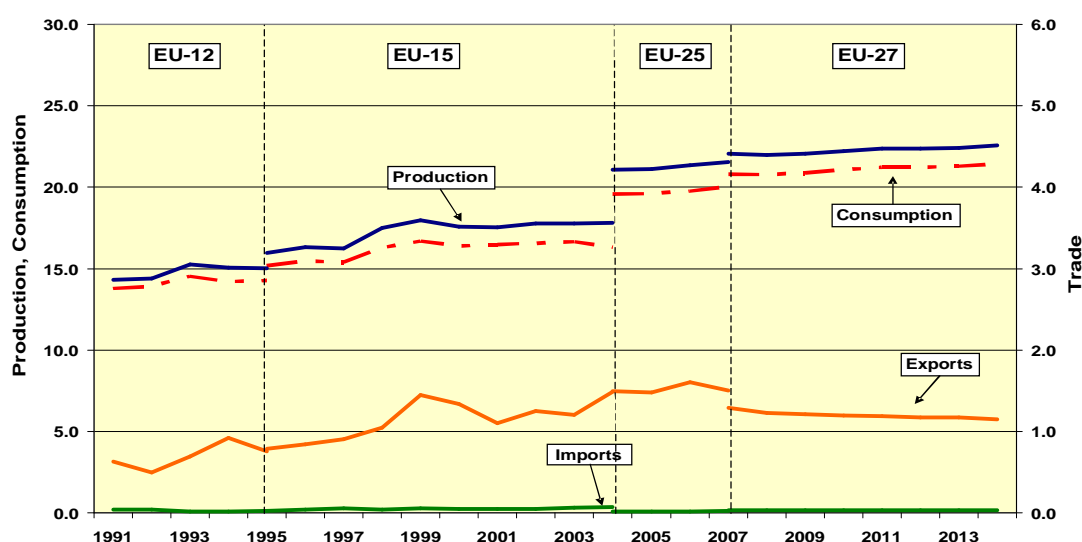
After the decline in 2004 due to the strong contraction of the pig herd in the EU-10<sup>6</sup> EU-25 pig meat production remained stable in 2005 and increased by 1.2 % in 2006. Production in the EU-2 stood at 489 000 t in 2006, implying that the impact of accession on total EU production is limited. Over the medium term pig meat production is expected to increase at a slower rate than in the nineties, due to the competition of poultry meat on the demand side and higher feed prices. EU-27 pig meat production is projected to reach around 22.6 mio t by 2014, an increase of 3.2 % compared to 2006.

The medium-term outlook for pig meat consumption is positive as pig meat is likely to remain the most favoured meat by consumers. Per capita consumption in the EU-2 stood at 26.7 kg in 2006, compared to 42.8 kg in the EU-25. Higher availabilities on the domestic market and a partial shift of consumer preferences from poultry meat to pig meat in the course of the Avian Influenza scare contributed to the firm demand in 2006. Over the medium term, EU-27 per capita pork consumption is projected to increase from 41.9 kg in 2006 to 43.2 kg by 2014, with a marked increase in the EU-12 (supported by sustained economic growth and purchasing power).

Pig meat imports into the EU-25 reached the level of 20 000 t (+38.5 %), while exports increased by 8.1% and amounted to 1.6 mio t in 2006 driven by increased sales to the Russian market (with Brazilian pig meat suffering from a Russian FMD embargo).

The impact of accession will be a reduction of the total volume of extra-EU exports, as the EU-2 accounts for approximately 14 % of EU-25 exports. EU-27 exports exhibit a declining trend over the medium term, as EU exports would not be able to keep up with increasing competition from low-cost producing countries, which are further helped by the relative strength of the euro against their currencies and the lower EU production growth. On the other hand, EU intra-trade is expected to continue its expansion.

**Graph 11 Outlook for the EU pig meat market (mio t), 1991-2014**



<sup>6</sup> Pig farmers in the EU-10 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%).

### 3.1.3. Poultry

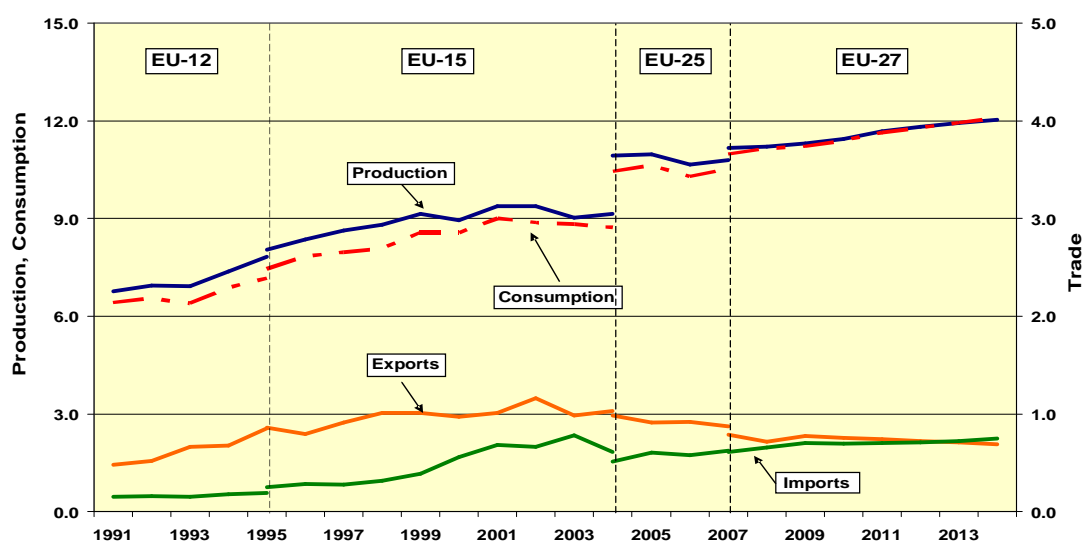
EU-25 poultry meat production decreased to 10.6 mio t (-2.9 %) in 2006 as a consequence of the lower (internal and external) demand due to the Avian Influenza scare. Bulgarian and Romanian production of poultry meat in 2006 amounted to 324 000 t (3 % of EU-25 production).

The short-term disruption due to Avian Influenza is not expected to alter the medium-term outlook for poultry production that 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. EU-27 per capita consumption is projected to increase from 22 kg in 2006 to 24.3 kg by 2014, driven by growing consumer preference in the EU-12 and a recovery from the Avian Influenza in the EU-15.

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

Despite the temporary ban by several third countries in response to the Avian Influenza cases, EU-25 exports recorded a slight (0.9 %) increase and amounted to 922 000 t in 2006. This increase in exports was entirely made up by non-refunded exports. EU-27 poultry exports are projected to decline gradually over the medium term due to strong competition on the world markets by low cost producers and unfavourable \$/€ and Brazilian Real/€ exchange rates.

**Graph 12 Outlook for the EU poultry meat market (mio t), 1991-2014**



Due to the lower domestic demand and the partial bans on third country supply by the EU (established as Avian Influenza protection measures), EU-25 poultry meat imports decreased to 578 000 t (-4 %) in 2006. The conclusion of agreements with Brazil and Thailand on a new regime for imports into the EU will result in increased imports over the short term and a more moderate growth over the medium term. With the decline of extra-EU exports, the EU-27 is projected to become a net importer of poultry meat by the end of the projection period.

The accession of Romania and Bulgaria will affect the volume of extra-EU trade, leading to a decline in extra-EU-27 poultry meat exports and imports by 8.5 % (to 789 000 t) and 13.6 % (to 611 000 t) respectively. EU-2 third country imports would decrease significantly, being for a large part substituted by intra-EU trade.

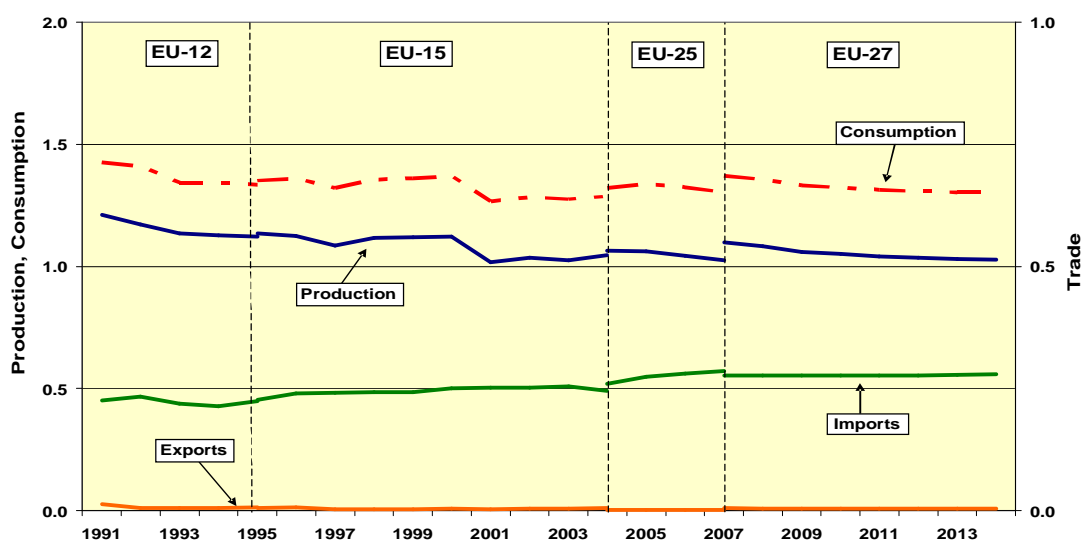
#### 3.1.4. Consumption eggs

The prospects for the EU egg production appear moderately positive. Like poultry, egg production recovered from the Avian Influenza in the Netherlands in 2003. Production of eggs reached 6.3 mio t in 2004 and is expected to further increase to 6.4 mio t in 2006. The accession of Bulgaria and Romania will add 0.2 mio t of production. The share of subsistence production is particularly high in egg production and restructuring after accession would mostly concern the market-oriented sector. Their development would be constrained by increased feed costs (as compared to the situation before accession) as well as competition from other regions. Overall production would stay fairly stable over the projection period mainly due to subsistence production. Production in the EU-27 would reach 7 mio t in 2014 and remain fairly stable. Consumption would see a slight increase from 6.8 to 7 mio t over the projection period. Exports would see a gradual decline over the medium term.

#### 3.1.5. Sheep and goat meat

For the first time ever, outbreaks of Bluetongue disease have occurred in Northern Europe during the month of August 2006, affecting some production regions of the Netherlands, Belgium and Germany. France, Italy and Portugal have also reported outbreaks in late autumn, and the ensuing movement restrictions to control the spreading of the Bluetongue disease have disrupted intra-EU trade. EU-25 sheep meat production amounted to 1 043 000 t in 2006, a 1.5 % decrease compared to the previous year. Slaughtering was lower than the year before in Ireland, the UK, France, Greece and Germany.

**Graph 13 Outlook for the EU sheep and goat meat market (mio t), 1991-2014**



Following the enlargement in 2007, EU-27 production is set to reach 1.1 mio t, the EU-2 contributing with approximately 74 000 t of sheep meat production. The medium-term projections foresee a gradual decline in sheep and goat meat production, in line with past

long-term trends and the impact of decoupling of ewe premiums in the major producing countries.

EU-25 imports of sheep meat increased further in 2006 to reach 276 000 t (+2.2 %), with Australia, New Zealand and Uruguay almost completing their import quotas to the EU, while the fill-rates of Argentina, Chile and Iceland were 35 %, 82 % and 51 % respectively.

Over the medium term sheep and goat meat imports would remain stable throughout the medium term with a slight increase at the end of the projected period in order to meet domestic demand in a context of falling production. Per capita consumption is expected to decline from 2.8 kg to 2.6 kg over the medium term due to the relatively high price of sheep meat and lower consumer preference.

### *3.1.6. Overall meat consumption*

Following the 2000/2001 BSE scare and the 2003 Avian Influenza in the Netherlands, the EU consumption pattern was again disrupted in late 2005 and in 2006 due to the highly pathogenic Avian Influenza scare and eventual outbreak. Poultry consumption fell sharply in a number of Member States that has led to an estimated decline in aggregate per capita consumption of 0.9 kg in the EU-25 in 2006. The decline in poultry consumption could not be totally offset by increasing pork and beef and veal consumption, resulting in a drop in the overall level of EU per capita meat consumption by 0.6 kg.

As the 2004 enlargement with ten additional Member States resulted in a reduction of the average EU meat per capita consumption, the enlargement in 2007 will lead to a further reduction, since average per capita meat consumption in the EU-2 is even lower than that of EU-10 (in 2006, average per capita meat consumption stood at an estimated 56.6 kg in the EU-2, 77.1 kg in the EU-10 and 87.4 kg in the EU-15).

Beef and veal consumption in the EU-2 has been higher than in the EU-10, due to the preference for low quality beef, of which an increasing amount was sourced from extra-EU imports (42 % in 2006). Sheep meat is also consumed at a higher per capita rate, at around 2 kg. Like in the EU-25, pork is by far the preferred meat in the EU-2, where it represents on average approximately 50 % of total meat consumption. Poultry consumption accounts for around 30 % of meat consumed.

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.

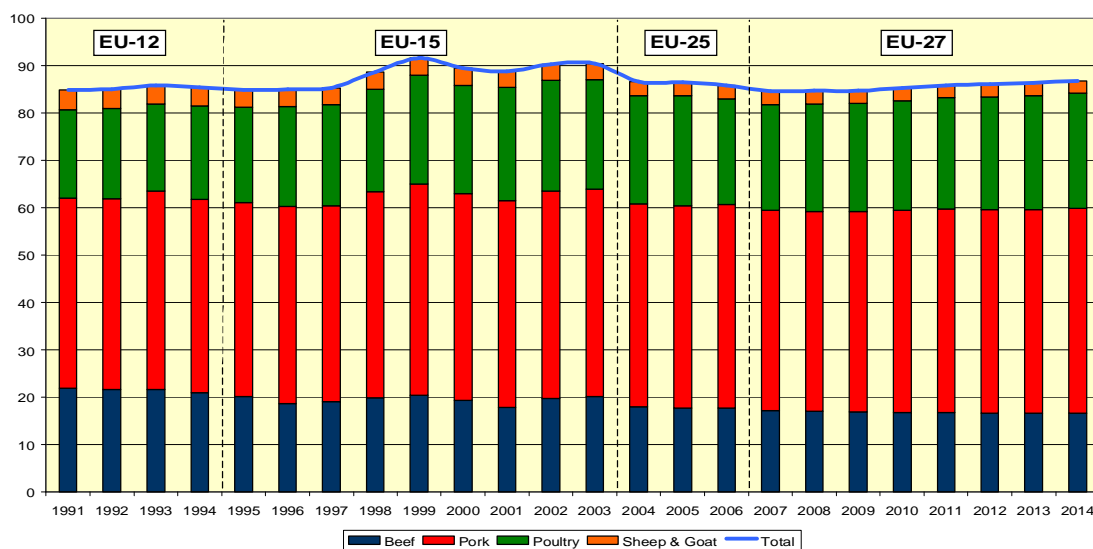
The forecasts for the overall EU meat consumption that are presented in this document have been established without imposing any overall constraints and reflect the projected evolution for the individual types of meat as presented above. According to these projections by individual sectors, total meat consumption in the EU-27 is set to increase from 84 kg/capita in 2006 to around 86.7 kg/capita by the year 2014.

The graph below shows the evolution of per capita meat consumption in the EU over the period 1991- 2014.

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 2014 exhibit a further expansion of poultry consumption with a corresponding decline in the shares of beef, sheep and goat meat. The consumption of pig meat is projected to grow at a lower rate than poultry, but is foreseen to maintain its 50 % share in total meat consumption.

**Graph 14 Meat per capita consumption in the EU, 1991 – 2014 (kg/person)**



### 3.1.7. World market perspectives

According to FAPRI, USDA and the OECD-FAO, the medium-term perspectives for the meat markets would exhibit higher production, consumption and trade. The increase in meat consumption would be generated by a favourable macro-economic environment of sustained economic growth and growing global incomes, population growth and changes in dietary pattern in most developing regions, who would account for 80 % of the expected world consumption growth. Various production constraints in a number of countries would enable consumption to grow faster than production, leading to a higher dependency on meat imports. FAPRI predicts a 28 % growth in total meat trade over the period 2007-2016, with low-cost producers of Latin America gaining an increasing share of global meat trade.

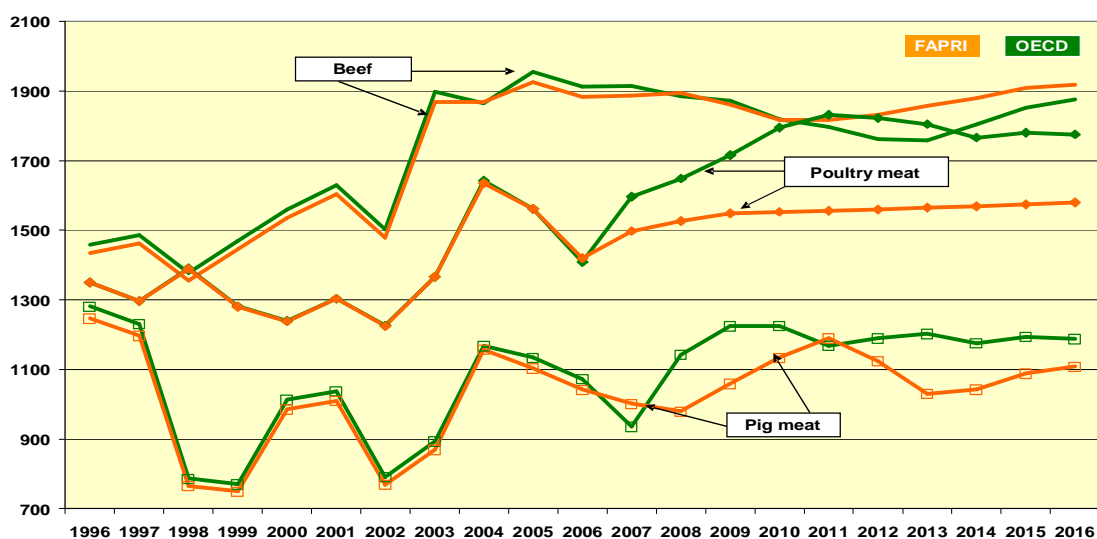
The FAPRI projections exhibit a sustained rise in beef trade, growing at an average rate of 3.5 % per annum between 2007 and 2016. Increased demand for beef will be driven by income and population growth in Egypt, Mexico, and the Philippines, trade reversals of China and the EU and a recovery of demand from BSE in Japan and South Korea. Projections on Russian imports differ among the main forecasting institutions, with FAPRI projecting that imports would peak in 2009 and decline thereafter, the USDA assuming that TRQs will limit import growth until 2009 after which growth is expected, and the OECD-FAO projecting a gradual increase throughout the forecast period, albeit from a lower import level in 2007. On the exporting side, Brazil would account for most of the gains, capturing an increasing share of world beef exports.

The outlook for pig meat trade is projected to display a continuous expansion over the 2007-2016 period (increasing by around 2.5 % per year according to FAPRI), driven by strong import demand from Japan, South Korea, Taiwan, China and Mexico. Productivity growth, a favourable domestic policy environment and depreciating currency would enable Brazil to capture increasing market shares in price-sensitive markets and those less concerned about FMD. Canada and the USA are projected to

increase their presence in the world market. Again, the projections for Russian imports differ from one forecast to the other. Both the USDA and OECD-FAO project an overall increase, but at differing rates (+30 % and +11 % respectively). FAPRI on the other hand foresees an overall decline in Russian imports (-10.8 %) as the import quotas with high duty rates would discourage imports and foster domestic production growth.

Trade in poultry meat is expected to recover from Avian Influenza and exhibit an upward trend, with an increase of 2.3 % per annum according to FAPRI over the period 2007-2016. Import growth is expected to be driven by demand in East Asia, Saudi Arabia and Mexico. Russia would remain the largest importer of poultry meat. On the export side, a weak currency and low production costs would maintain Brazil's strong presence on the world market over the medium term. Exports from the USA are foreseen to increase and Thailand is projected to regain market shares by shifting to cooked and higher value added products and as a consequence of the EU poultry TRQ regime.

**Graph 15 Outlook for meat commodity prices, 1996 – 2016 (\$/t)**



Beef meat prices are expected to ease gradually over the short-term, and strengthen moderately over the longer term to reach approximately 1900 \$/t by 2016. Growing demand for poultry and pig meat would elevate the prices of these commodities that are foreseen to increase strongly over the short term and then stabilise over the medium term. The level of increase differs between OECD-FAO and FAPRI, with the latter expecting the stabilisation of poultry price at a lower level and a more pronounced effect of the pig cycle over the medium term.

#### 4. MILK AND DAIRY PRODUCTS

##### 4.1.1. 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, and limited output levels due to production quotas allowed for a dramatic reduction of the dairy herd, which shrunk by around 40 % in 20 years. This trend of declining dairy cow numbers was supported by the increase in fat content for the EU-15 Member States during 1982-1996 (from 3.87 % in 1982 to 4.11 % in 1996),

as an increase in fat content reduces the margin for milk deliveries to dairies if the historical reference fat content is exceeded.

The reduction of the EU-25 dairy herd continued in 2006 with an estimated decline of 3.1 %, mainly resulting from increasing cow productivity and decreasing milk prices<sup>7</sup> that narrow producer margins. The 4.3 % decline in the EU-10 indicates, in parallel with the request of a number of Member States to transfer quotas from direct sales to deliveries, the continuation of restructuring in the EU-10 dairy sector.

EU-25 milk deliveries in the calendar year 2006 are expected to have declined by approximately 700 thousand t to 130.8 mio t (-0.5 % compared to 2005), driven by a 0.7 % decrease in the EU-15 as declining deliveries in the first three months of 2006, with producers cutting output in order to avoid high over-quota production and the resulting super-levy fines, were not followed by increased deliveries despite a 1 152 thousand t increase in the available milk production quota for the EU-25 coming from the quota increases decided for the EU-15 for the quota year 2006/07 and the decision to grant eight Member States of the EU-10 their respective restructuring reserves<sup>8</sup>. Although deliveries in the EU-10 are estimated to have increased by 0.7 %, this growth remains under the potential rate enabled by the extra quotas.

The enlargement of the EU to 27 members on January 2007 has led to an increase in EU cow's milk production by approximately 6 mio t that accounts for approximately 4 % of the EU-27 production. The impact on EU deliveries is lower (with an increase of 1.9 mio t) since only approximately 32 % of the milk produced is being delivered to dairies on aggregate, due to the high share of subsistence production.

Developments in the first five months of 2007 indicate a much lower rate of recovery in EU milk production than previously assumed. These short-term developments have a profound impact on the current medium-term perspectives for milk supply and dairy commodity markets. As a result the medium-term perspective for EU milk production has been revised downwards when compared to the January 2007 publication, since the previous expectation that a large number of Member States would increase production in the first quarter of 2007 in order to fill the 2006/07 quotas did not materialise, as in a number of Member States the level of expansion remained below the rate necessary to reach quota fulfilment. Furthermore, deliveries in a number of important producing countries (most notably France and to a minor degree in Germany, accounting together for approximately 40 % of EU deliveries) have slowed down and even fell below the level of 2006 in the second quarter of 2007. This, taking place in a market environment characterised by high internal and world prices, indicates that a number of Member States are unlikely to increase production and fulfil their respective quotas, despite the price incentive. As a consequence, over the short term EU-15 milk production is not foreseen to grow beyond the rate of quota increase.

EU-27 milk production is projected to expand at a modest rate over the short term in line with the increase in production quotas granted to eleven member states of the EU-15, but over the medium term, milk production would decline gradually to the level of 148.2 mio t in 2014, driven by a steady decline in subsistence production in the EU-12.

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<sup>7</sup> Although the compensation by direct payments have dampened the impact of falling milk prices in the EU-15.

<sup>8</sup> The Acts of accession in respect of Cyprus and Malta did not include provision for such a reserve

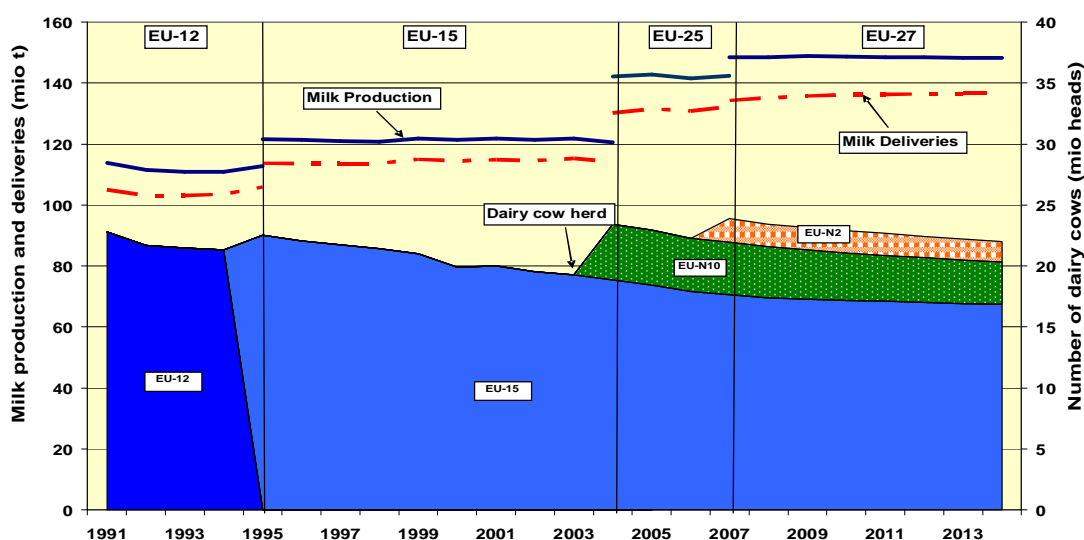


While in the EU-15 production remains closely linked to milk quotas as on-farm consumption (which is not governed by quotas) only plays a minor role, the on-farm use of milk and direct sales are still very important in the EU-12, accounting for almost 22 % of total production in the EU-10 and above 73 % in the EU-2. 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 projected to trigger a decline in subsistence milk production, leading to a gradual, but modest reduction of total milk production over the medium term. In 2014 EU-10 would account for 21.6 mio t and EU-2 for 5.8 mio t of milk production. At the same time, milk delivery ratios will continue expanding over the projection period.

Milk deliveries are assumed to fully respect the milk reference quantities in line with the aforementioned quota increase in the EU-15 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 milk.

The EU-27 dairy herd is projected to decline from 24.2 mio heads in 2006 to around 22 mio animals by 2014, mainly driven by strong reductions in the EU-12 due to continued restructuring of the dairy sector.

**Graph 16 Outlook for the EU milk production, deliveries and dairy herd, 1991-2014**



The average milk yield in the enlarged European Union is forecasted to reach 6.7 t/dairy cow in 2014 compared to the 6.0 t/dairy cow in 2006 (with yields 25 % lower in the EU-10 and 54 % lower in the EU-2 compared to the EU-15 level, though this gap is projected to narrow over the medium term) as a consequence of further efficiency gains and the aforementioned restructuring in the EU-12.

#### 4.1.2. Cheese

Over the last two decades, the EU cheese sector has been characterised by a strong and steady growth, both for production and consumption. Between 1995 and 2006 EU-15 cheese production increased by 24 %, and EU-10 production by 95 %. Cheese production absorbs more than 40 % of EU milk deliveries and is concentrated in five Member States, namely Germany, France, Italy, the Netherlands and Poland, which



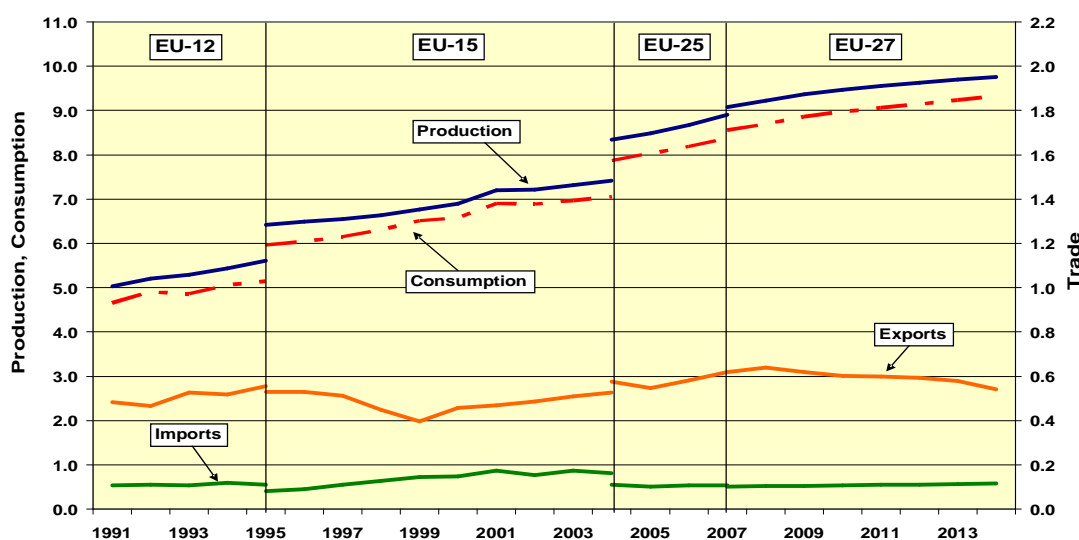
represent around 74 % of EU-25 cheese production. Intra-EU-25 cheese trade has increased by approximately 40 % between 1999 and 2006.

Following two years of rapid expansion in 2000-2001 (almost 7 % altogether), EU-15 cheese production remained stable in 2002, but has continued its increasing trend over the last four years, growing by around 1.5 % each year. Production in the EU-10 has been increasing rapidly over the last three years, with a cumulated growth of 18.6 % during 2004-2006. EU-25 cheese production stood slightly below 8.7 mio t in 2006, an increase of 2.2 % from the 2005 level.

The accession of Bulgaria and Romania does not have a big impact on the EU cheese market as the level of production in these two countries is very low (although cheese production has been increasing over the past years in both countries). Production in the EU-2 increased by 5.8 % (to 160 thousand t) in 2006.

EU-27 cheese production is expected to expand further over the medium term by 10 % altogether between 2006 and 2014, mainly driven by continued strong increases in the EU-12. The projected increase would constrain the expansion of production of bulk dairy products: the additional 922 000 t of cheese that are expected to be produced during the period 2007-2014 (representing roughly 5 mio t of milk) would outweigh the projected increase in milk delivered (+3.9 mio t) over the same period, reducing the amount of milk available for the production of bulk dairy products like butter and SMP.

**Graph 17 Outlook for the EU cheese market (mio t), 1991-2014**



The medium and long-term outlook for EU-27 cheese consumption remains positive, although the rate of increase is expected to be lower than in past decades, notably for the EU-15, with per capita consumption in the EU-27 rising from 17 kg in 2006 to about 18.8 kg by 2014. The increase will be faster in the EU-12 where per capita cheese consumption is projected to grow by 51 % 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).

Despite the reduction of export refunds for cheese during the first half of 2007, extra-EU-27 exports are forecast to increase further over the short term. However over the medium term, the steady growth in domestic consumption is expected to absorb most of the increase in cheese production, limiting the availabilities for cheese exports, which are

projected to decline gradually to the level of 540 000 t. Imports are projected to expand slightly, due to better use of preferential import quotas and the effect of trade liberalisation between the EU and Switzerland as of June 2007.

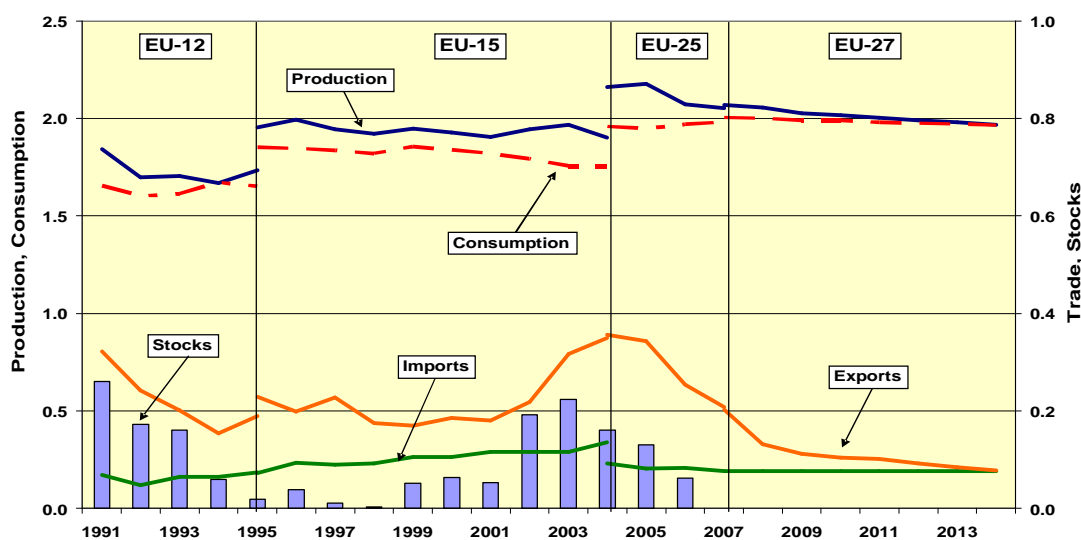
#### 4.1.3. Butter

Following the increase in 2005, EU-25 butter production decreased by 4.9 % in 2006, with output falling in both EU-15 (-4.8 %) and EU-10 (-6 %). Germany, France and Ireland are the main butter producers accounting for approximately 50 % of EU-25 output. Production in the EU-2 has increased considerably since 2004, reaching 16 thousand t in 2006 (from 7 thousand t in 2003), but the EU-2 only accounts for less than 1 % of total EU production.

EU-27 butter production is foreseen to decline further over the medium term as the projected increase in the production of higher value-added dairy products would outweigh the increase in milk deliveries, leading to limited availabilities for butter production. EU-27 butter production is expected to decline slightly below 2 mio t in 2014 from 2.1 mio t in 2006 (-5.8 %).

Despite some signs of stabilisation during the most recent years, overall EU-27 butter consumption is projected to follow a declining trend, partly as a consequence of the reduction of the level of disposal aids for butter to zero. Previously, almost 25 % of butter consumption benefited from consumption aid (e.g. butter destined to the pastry industry). Projections for per capita consumption are set at around 4 kg by 2014, compared to the current level of 4.1 kg (2.4 kg in the EU-12), i.e. -0.4 % per year on average, despite a slight increase of consumption in the EU-2.

**Graph 18 Outlook for the EU butter market (mio t), 1991-2014**



EU-25 butter exports<sup>9</sup> have been declining continuously since their peak in 2004 (at 356 000 t) and are expected to fall further over the medium term by 69 % on aggregate, in line with decreasing EU butter production. Imports, most of which fall within the New Zealand import quota at preferential tariffs (76 700 t), are projected to stagnate over the medium-term. This implies that by the end of the forecast period the EU butterfat surplus

<sup>9</sup> Including butter oil, in butter equivalent.

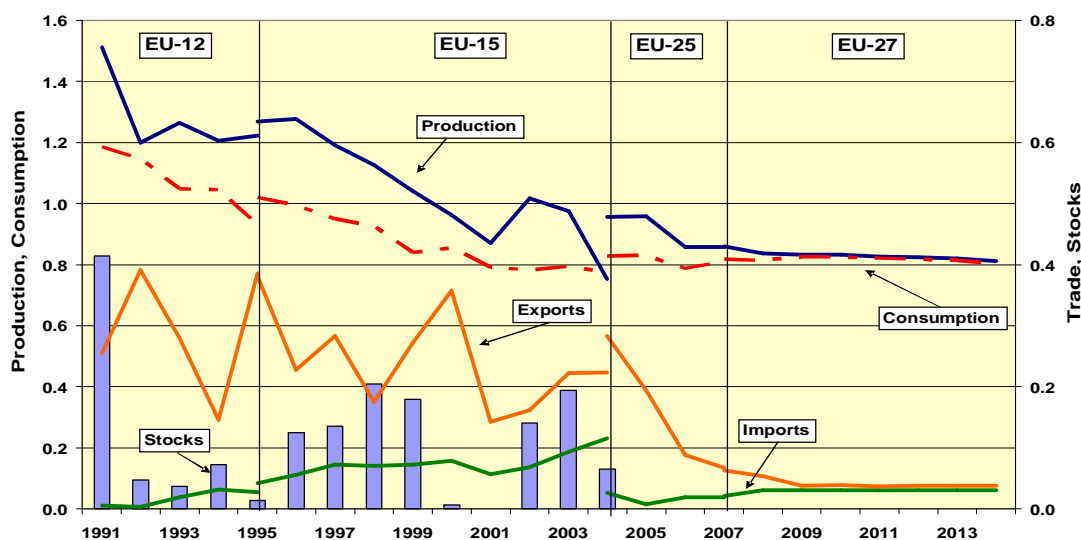
will disappear as exports will decline to the level of imports. The drop in butter production during the second half of 2006 led to the sale of butter out of intervention throughout the autumn and winter months, leading to a reduction in physical intervention stocks by 62 thousand t. Continued sales out of intervention in 2007 resulted in the level of intervention stocks falling to zero, and the projected market developments throughout the forecast period mean that intervention stocks would remain empty until the end of 2014.

Domestic prices are projected to remain firm and well above the intervention price throughout the medium term as the decline in supply would outpace the steady fall in demand. The gap between domestic price and world market price is projected to remain substantial and should not allow for exports to take place without export refunds<sup>10</sup>.

#### 4.1.4. Skimmed milk powder

EU-25 SMP production fell considerably in 2006 by 10.5 % due to lower availabilities of milk protein from reduced milk deliveries in the EU-15 and higher protein uptake for the production of higher value added dairy products in both EU-15 and EU-10. Production is concentrated in Germany, France and Poland, who represent more than half of EU-25 SMP production. In the EU-2 SMP production remained marginal in 2006 at the aggregated level of 3 300 t.

**Graph 19 Outlook for the EU SMP market (mio t), 1991-2014**



The medium-term developments show a continuation of the downward trend for SMP output, albeit at a more limited rate. The projections suggest a reduction in EU-27 SMP production from 861 000 mio t in 2006 to 811 000 t in 2014.

Internal demand fell slightly in 2006 but is expected to rebound over the short term and remain firm throughout the projected period above 800 000 t. The share of SMP aided consumption<sup>11</sup> has been declining over the last decade (from nearly 70 % in the beginning of the nineties). In October 2006 the aid level was reduced to zero in line with

<sup>10</sup> Note that the current market projection does not take account of the decision in June 2007 to reduce the level of export refunds to zero.

<sup>11</sup> For the use in calves' feed.

the CAP reform price cuts and market price developments. The level of aided consumption should remain at zero over the medium term. EU-25 SMP exports declined by 55 % in 2006 and are expected to fall further over the forecast period as the decline in production combined with stable domestic demand would limit the availabilities for exports. As a consequence, exports will only slightly exceed the level of imports, almost eradicating the net exporter status of the EU.

The reduction in supply in 2004 and 2005 has allowed to sell out of intervention almost 194 000 t of SMP, leaving intervention stocks empty. The market for SMP is expected to remain balanced throughout the projection period with no necessity to offer products for intervention buying-in. The domestic price is projected to remain well above the intervention price level as a consequence of shrinking protein availabilities and a firm demand. After a short-term parity in 2007, the EU price is projected to increase at a faster rate than the world market price and exceed that by approximately 8 % over the medium term.

#### *4.1.5. World market perspectives*

The OECD-FAO and FAPRI foresee that the medium-term outlook for the dairy sector would remain dominated by substantial expansion in global demand for dairy products. The strong demand would be driven by income and population growth in many regions of the world, and by changes in consumer preferences towards dairy products. Demand growth is projected to be strongest in the non-OECD zone, most notably in Southeast Asia, the Far East and North Africa.

A significant part of this increasing demand is expected to be met by domestic production, as world milk production would increase over the medium term, with the most rapid expansion taking place in China, India and Latin America. Milk production in Argentina is expected to recover over the forecast period, but would remain highly dependent on weather conditions.

Australia and New Zealand are projected to expand their combined market share in butter and WMP exports, with a stable market share for cheese but declining share of SMP exports. The USA and India are expected to increase SMP exports substantially.

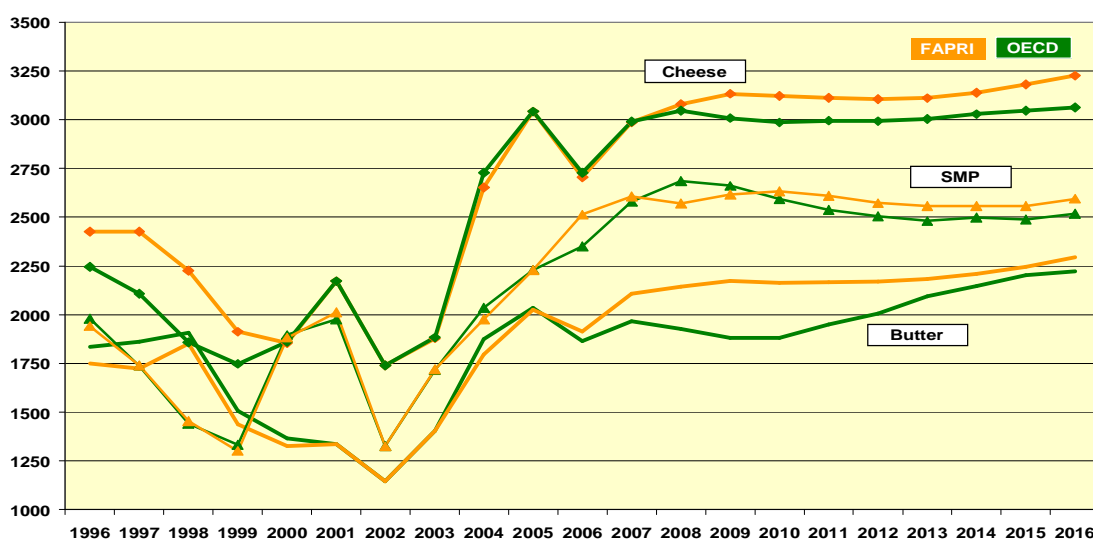
Apart from Oceania, Uruguay would also gain from the increase in cheese exports that are expected to grow by 26 % over the 2007-2016 period according to FAPRI. Ukraine would remain an important exporter of cheese, with export quantities highly dependant on Russian imports, that are expected to increase over the medium term. On the other hand butter exports from Ukraine would grow modestly, as the production growth of butter in Russia would accommodate the increase in domestic demand. Increasing Chinese output would eventually lead to a declining rate of import growth, particularly for WMP. India would account for most of global butter production and capture an increasing market share until 2011 that would gradually diminish thereafter as domestic demand growth would absorb the increasing supply.

Dairy production in Argentina and Brazil would exhibit a strong growth, making Argentina a key player on the world dairy market and enabling Brazil to become a net exporting country for all major commodities.

FAPRI predicts that Southeast Asian countries, together with China and Japan would generate most of the growth in SMP trade, as they rely heavily on imports. These countries are also expected to increase imports of cheese and butter.

The steady growth in import demand and the gradual growth in global supplies are forecasted to generate upward pressure on dairy product prices over the short term that would be followed by a slight decline as production expands in reaction to higher prices. Over the longer term firm demand would put upward pressure on prices. World dairy prices are expected to remain at the elevated levels of 2007 throughout the medium term.

**Graph 20 Outlook for dairy commodity prices, 1996 – 2016 (\$/t)**



## 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 measure<sup>12</sup>.

Whereas the medium-term changes in the price and volume components of the arable crops 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 payment scheme and other direct payments as provided for in Reg. 1782/2003 – 1788/2003 as amended after the enlargement and the successive reform packages);
- the rural development component from the EAGGF (Guidance and Orientation) as given for the 2000-2006 period for the EU-15, for the 2004-2006 period for the EU-10 and in the financial perspectives as decided by the Commission for the 2007-2013 period for the EU-27. Only the current transfers to agricultural producers as other subsidies on production have been accounted for in the income calculation (thus excluding all the capital grants and investment aids as

<sup>12</sup> 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.

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 EU-10 and EU-2 (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 the EU-10 Member States will maintain their CNDP option announced for 2006 over the whole projection horizon (2006-2013) 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-27 agricultural income would grow by 21 % between 2006 and 2014 in real terms and per labour unit. However, this overall gain would mask marked differences between EU-15, the EU-10 and EU-2.

Relative to the EU-12, agricultural income in the EU-15 would show a more moderate development with a 9.9 % growth over the period 2006-2014 driven by the increasing value of crops, beef, poultry and milk, and supported by the expected continuation of the growth in value of fruit and vegetables.

The positive medium-term developments for beef and milk values would be driven by the strong increase in prices (next to declining and stable production volumes respectively), while increasing wheat, oilseed and poultry values would be attributed to higher prices and volumes alike. The value of pork production is projected to remain stable, as the increase in production volume would be offset by a lower producer price.

**Table 2 Outlook for agricultural income for EU-27, 2005 – 2014**

	2005	2006	2008	2009	2010	2011	2012	2013	2014
<b>Factor income in nominal terms</b>									
EU-27	96.0	100.0	102.2	103.4	103.4	104.5	105.9	107.6	109.7
EU-15	96.9	100.0	100.0	100.8	100.5	101.6	103.1	104.7	106.8
EU-10	93.2	100.0	113.6	117.2	120.3	119.8	118.2	118.4	119.8
EU-2	87.1	100.0	118.2	121.4	121.4	124.7	130.7	135.9	138.2
<b>Labour input</b>									
EU-27	102.7	100.0	93.5	90.4	87.4	84.6	81.8	79.2	76.6
EU-15	101.9	100.0	95.5	93.3	91.1	89.0	87.0	85.0	83.0
EU-10	102.8	100.0	93.1	89.9	86.7	83.7	80.8	77.9	75.2
EU-2	103.9	100.0	90.3	85.7	81.5	77.4	73.5	69.8	66.3
<b>Agricultural income in real terms per labour unit</b>									
EU-27	95.4	100.0	104.6	107.2	108.6	111.1	114.1	117.3	121.0
EU-15	96.9	100.0	100.5	101.7	101.8	103.3	105.3	107.3	109.9
EU-10	92.9	100.0	114.5	118.8	122.6	122.8	121.9	122.7	124.9
EU-2	86.1	100.0	124.6	131.8	135.8	143.2	154.1	164.6	171.8

The resulting growth in gross value added of the whole EU-15 agricultural sector would lead to a gradual increase in factor income in nominal terms over the short term. 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. Consequently, agricultural income, when expressed in real terms and per labour unit (i.e. full-time equivalent), is projected to increase by 9.9 % between 2006 and 2014 for the EU-15.

Agricultural income in the EU-10 is foreseen to display a more pronounced picture with agricultural income steadily rising to exhibit a 24.9 % increase by 2014. The value of agricultural production would show a gradual increase over the baseline period, driven by increasing crop, poultry, milk and pork values and assuming a further increase in the value of fruit and vegetables production.

Following two years of decline in 2005 and 2006, the value of cereal production is projected to increase, but remain below the peak level of 2004 as the increase in wheat production value (driven by volume and price increases) will be accompanied by a decline in the value of maize production (due to lower prices). The value of oilseeds is foreseen to increase markedly over the medium term as the increase in rapeseed value will be supported by higher sunflower seed value. In the meat sector, pork and poultry production values would show a favourable outlook, with increasing production values throughout the period fuelled by higher volumes. Milk production values would benefit from the projected higher price level, but beef and sheep/goat production values are foreseen to decline at a steady pace as a consequence of lower volumes, and despite a higher price level.

Supported by the sharp rise in the funds granted to agricultural producers in the EU-10, nominal factor income would exhibit a growth of 19.8 % by 2014. The available funds will be directed to the agricultural sector in the form of direct payments and national top-ups and rural development funds 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 grants<sup>13</sup>. The large increase in public support in the EU-10, which is largely decoupled, would aim at facilitating and promoting the restructuring and modernisation of the agricultural sector and the rural areas<sup>14</sup>.

The agricultural labour input in the EU-10 countries is assumed to fall by 3.5 % on annual average over the forecast period 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 decline by 6.1 % from 2006 to 2014, it would expand by 24.9 % between 2006 and 2014 when expressed per labour unit. When assessed against 2003 (i.e. before enlargement), farm income per labour unit in the EU-12 would increase by 127 %.

Agricultural income in the EU-2 is foreseen to display a positive development, steadily rising to exhibit a 71.8 % increase by 2014. The value of agricultural production would increase over the baseline period, driven by increasing crop production values due to higher maize, rapeseed and wheat volumes and prices alike. Beef and pork production values would decline, while the values of milk and poultry production would increase slightly over the medium term (due to increasing volumes for poultry and higher prices for milk). Similarly to the EU-25, the favourable development in value of production depends greatly on the assumed continuation of growing forage, fruit and vegetable production values that have exhibited considerable growth (72 % on aggregate) between 1998 and 2006.

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<sup>13</sup> These projections assume that the funds available for rural development under the financial perspectives will be fully used by the EU-12.

<sup>14</sup> 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.

Higher input prices would dampen the increase in production value, but the growth in subsidies after accession to the EU would facilitate a significant increase in factor income that would expand by 38.2 % in nominal terms by 2014. Assuming a gradual decline in farm labour at the rate of 5 %, factor income in real terms and per labour unit is projected to increase 71.8 % by 2014<sup>15</sup>.

The contribution of the EU-12 to the overall EU-27 farm income (in real terms) would nevertheless remain rather limited at around 9 % for the EU-10 and 7 % for the EU-2 in 2014, in line with the low productivity levels in these Member States.

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<sup>15</sup> The rate of growth presented in this baseline assumes a stable macroeconomic environment in the EU-10 throughout the baseline period. The eventual development in factor income in real terms will highly depend on the actual macroeconomic conditions (and in particular currency appreciation/depreciation, GDP deflation and GDP growth) that could alter the current favourable outlook and limit the possibility to absorb labour outflow from the farm sector.



**Table A.1 Total cereals market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>286.2</b>	<b>253.2</b>	<b>242.6</b>	<b>270.9</b>	<b>284.8</b>	<b>289.4</b>	<b>290.4</b>	<b>292.1</b>	<b>295.1</b>	<b>298.7</b>	<b>299.9</b>
of which EU-15	223.4	195.0	193.1	200.0	202.9	206.8	206.8	208.4	210.4	212.5	214.4
EU-10	62.8	58.2	49.4	53.9	57.6	58.2	58.9	58.5	59.2	60.8	61.1
EU-2				17.0	24.4	24.4	24.7	25.2	25.5	25.4	24.4
<b>Consumption</b>	<b>242.6</b>	<b>246.4</b>	<b>250.4</b>	<b>268.1</b>	<b>269.0</b>	<b>270.1</b>	<b>270.1</b>	<b>272.5</b>	<b>274.0</b>	<b>275.8</b>	<b>277.8</b>
of which food and industrial	78.4	78.8	79.5	82.1	82.0	81.9	82.1	82.3	82.4	82.6	82.8
of which feed	153.2	155.5	157.6	169.2	168.8	166.9	164.6	164.3	164.6	164.9	165.1
of which bioenergy	0.7	2.0	3.0	4.5	7.7	10.2	12.6	15.1	16.4	17.7	19.3
of which EU-15	190.4	196.4	201.2	197.6	201.2	202.0	201.6	203.8	204.6	204.9	206.6
EU-10	52.2	50.0	49.2	50.4	48.5	48.9	49.0	48.7	48.9	48.8	49.5
EU-2				20.0	19.4	19.1	19.5	20.0	20.5	22.1	21.7
Imports	10.1	10.2	12.1	12.0	10.3	9.9	9.6	10.4	10.1	10.2	11.1
Exports	23.3	22.0	20.8	21.3	23.3	25.3	26.8	27.5	28.9	33.6	34.5
Beginning stocks	44.4	74.7	69.7	53.2	46.8	49.5	53.4	56.6	59.1	61.3	60.9
Ending stocks	74.7	69.7	53.2	46.8	49.5	53.4	56.6	59.1	61.3	60.9	59.7
of which intervention	17.4	14.6	2.2	0.7	4.2	4.7	7.2	9.2	10.3	11.2	10.9
of which EU-15	11.8	5.9	0.1	0.4	1.0	0.6	1.5	2.3	3.1	4.3	4.7
of which EU-10	5.6	8.7	2.2	0.3	1.9	2.5	4.0	5.0	4.7	4.4	3.9
of which EU-2				0.1	1.3	1.6	1.7	2.0	2.6	2.6	2.4

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.2 Total wheat market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>136.0</b>	<b>123.4</b>	<b>116.8</b>	<b>128.6</b>	<b>136.1</b>	<b>140.1</b>	<b>140.1</b>	<b>141.3</b>	<b>143.6</b>	<b>145.8</b>	<b>147.6</b>
of which EU-15	111.6	101.4	98.9	101.8	105.5	108.9	108.4	109.8	111.5	113.1	114.9
EU-10	24.4	21.9	17.9	20.0	21.5	22.0	22.5	22.1	22.6	23.2	23.7
EU-2				6.8	9.1	9.2	9.2	9.4	9.5	9.5	9.0
<b>Consumption</b>	<b>115.7</b>	<b>117.0</b>	<b>115.6</b>	<b>124.0</b>	<b>125.2</b>	<b>126.0</b>	<b>126.3</b>	<b>128.2</b>	<b>128.8</b>	<b>129.3</b>	<b>130.7</b>
of which food and industrial	55.2	56.1	57.1	59.3	59.8	60.4	60.9	61.4	62.0	62.4	63.0
of which feed	54.7	55.2	52.5	57.8	56.2	54.3	52.5	51.9	51.4	50.7	50.5
of which bioenergy	0.5	1.0	1.4	2.0	4.2	6.0	7.9	9.8	10.4	11.1	12.1
of which EU-15	96.6	98.4	97.7	97.9	100.8	102.2	102.7	104.7	105.7	106.3	107.6
EU-10	19.1	18.6	17.9	19.0	17.4	16.9	16.6	16.5	16.2	16.0	16.0
EU-2				7.1	7.0	6.9	7.0	7.0	7.0	7.0	7.0
Imports	7.4	7.0	5.8	6.7	6.4	6.3	6.2	6.1	6.0	5.9	5.8
Exports	13.7	13.6	12.3	13.0	15.3	17.2	17.5	18.0	18.6	22.6	23.4
Beginning stocks	15.1	29.0	28.8	23.5	21.8	23.8	27.1	29.7	30.8	33.0	32.7
Ending stocks	29.0	28.8	23.5	21.8	23.8	27.1	29.7	30.8	33.0	32.7	31.9
of which intervention	10.9	5.8	0.0	0.1	2.8	4.1	5.5	6.6	6.8	6.5	5.8
of which EU-15	8.0	3.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0
of which EU-10	2.9	2.7	0.0	0.1	1.4	2.5	3.8	4.5	4.2	3.9	3.4
of which EU-2				0.1	1.1	1.6	1.7	2.0	2.6	2.6	2.4

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.3 Total coarse grain projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>150.2</b>	<b>129.8</b>	<b>125.8</b>	<b>142.2</b>	<b>148.7</b>	<b>149.3</b>	<b>150.3</b>	<b>150.7</b>	<b>151.5</b>	<b>153.0</b>	<b>152.3</b>
of which EU-15	111.8	93.6	94.3	98.2	97.4	97.9	98.4	98.5	98.8	99.4	99.5
EU-10	38.4	36.2	31.5	33.8	36.1	36.2	36.4	36.4	36.6	37.6	37.4
EU-2				10.2	15.2	15.2	15.5	15.8	16.0	15.9	15.4
<b>Consumption</b>	<b>126.9</b>	<b>129.4</b>	<b>134.8</b>	<b>144.0</b>	<b>143.9</b>	<b>144.1</b>	<b>143.8</b>	<b>144.2</b>	<b>145.1</b>	<b>146.4</b>	<b>147.1</b>
of which food and industrial	23.3	22.6	22.4	22.9	22.1	21.6	21.2	20.8	20.5	20.1	19.8
of which feed	98.5	100.4	105.1	111.4	112.6	112.6	112.1	112.4	113.2	114.2	114.6
of which bioenergy	0.2	1.0	1.6	2.5	3.5	4.2	4.8	5.4	5.9	6.6	7.2
of which EU-15	93.8	98.0	103.4	99.7	100.4	99.8	98.9	99.1	98.9	98.6	98.9
EU-10	33.1	31.4	31.4	31.5	31.0	32.0	32.3	32.2	32.7	32.8	33.5
EU-2				12.9	12.4	12.2	12.6	13.0	13.5	15.0	14.6
Imports	2.7	3.2	6.3	5.3	3.9	3.6	3.4	4.3	4.1	4.3	5.3
Exports	9.5	8.4	8.5	8.3	8.0	8.1	9.4	9.5	10.3	10.9	11.1
Beginning stocks	29.3	45.7	40.9	29.7	25.0	25.7	26.4	26.9	28.2	28.3	28.2
Ending stocks	45.7	40.9	29.7	25.0	25.7	26.4	26.9	28.2	28.3	28.2	27.8
of which intervention	6.6	8.9	2.2	0.6	1.4	0.6	1.7	2.7	3.6	4.8	5.2
of which EU-15	3.8	2.9	0.1	0.4	0.7	0.6	1.5	2.2	3.1	4.3	4.7
of which EU-10	2.8	6.0	2.2	0.2	0.5	0.0	0.2	0.5	0.5	0.5	0.5
of which EU-2				0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.4 Soft wheat market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>124.3</b>	<b>114.8</b>	<b>108.4</b>	<b>120.0</b>	<b>126.9</b>	<b>130.8</b>	<b>130.7</b>	<b>131.8</b>	<b>134.0</b>	<b>136.0</b>	<b>137.8</b>
of which EU-15	99.9	92.9	90.6	93.3	96.3	99.7	99.0	100.4	102.0	103.4	105.2
EU-10	24.3	21.9	17.9	20.0	21.4	22.0	22.5	22.1	22.6	23.1	23.6
EU-2				6.7	9.1	9.2	9.2	9.4	9.4	9.5	9.0
<b>Consumption</b>	<b>104.6</b>	<b>106.7</b>	<b>105.7</b>	<b>114.1</b>	<b>115.3</b>	<b>116.0</b>	<b>116.4</b>	<b>118.3</b>	<b>118.9</b>	<b>119.4</b>	<b>120.8</b>
of which food and industrial	46.5	47.5	48.3	49.9	50.5	51.0	51.5	52.0	52.6	53.1	53.6
of which feed	53.1	54.3	52.1	57.4	55.8	53.9	52.1	51.6	51.0	50.3	50.2
of which bioenergy	0.5	1.0	1.4	2.0	4.2	6.0	7.9	9.8	10.4	11.1	12.1
of which EU-15	86.1	88.8	88.4	88.6	91.5	92.9	93.5	95.4	96.4	97.0	98.3
EU-10	18.5	17.9	17.3	18.4	16.8	16.3	16.0	15.9	15.6	15.5	15.5
EU-2				7.1	6.9	6.9	6.9	7.0	7.0	7.0	7.0
Imports	5.8	5.0	4.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Exports	12.3	12.5	11.0	12.0	14.3	16.2	16.5	17.0	17.6	21.6	22.4
Beginning stocks	12.3	25.4	26.0	21.7	20.4	22.4	25.7	28.3	29.4	31.6	31.3
Ending stocks	25.4	26.0	21.7	20.4	22.4	25.7	28.3	29.4	31.6	31.3	30.5
of which intervention	10.9	5.8	0.0	0.1	2.8	4.1	5.5	6.6	6.8	6.5	5.8
of which EU-15	8.0	3.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0
of which EU-10	2.9	2.7	0.0	0.1	1.4	2.5	3.8	4.5	4.2	3.9	3.4
of which EU-2				0.1	1.1	1.6	1.7	2.0	2.6	2.6	2.4

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.5 Barley market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>60.9</b>	<b>52.6</b>	<b>54.5</b>	<b>58.5</b>	<b>57.9</b>	<b>58.0</b>	<b>58.2</b>	<b>57.6</b>	<b>57.6</b>	<b>57.6</b>	<b>57.5</b>
of which EU-15	51.2	43.2	46.2	48.2	46.0	46.1	46.1	46.1	46.0	46.0	45.9
EU-10	9.7	9.4	8.3	8.6	9.7	9.8	9.9	9.4	9.5	9.5	9.6
EU-2				1.7	2.1	2.1	2.1	2.1	2.1	2.1	1.9
<b>Consumption</b>	<b>47.9</b>	<b>48.3</b>	<b>51.6</b>	<b>54.5</b>	<b>51.7</b>	<b>50.4</b>	<b>50.1</b>	<b>50.1</b>	<b>49.3</b>	<b>48.6</b>	<b>49.1</b>
of which food and industrial	8.8	8.7	8.3	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.8
of which feed	36.3	35.9	38.7	41.4	38.1	36.8	36.5	36.4	35.7	35.0	35.5
of which bioenergy	0.2	0.7	1.1	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.1
of which EU-15	38.8	39.7	42.6	44.0	42.8	41.6	41.2	41.0	40.2	39.3	39.9
EU-10	9.1	8.6	9.1	8.7	7.5	7.5	7.5	7.7	7.7	7.8	7.8
EU-2				1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Imports	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Exports	6.7	5.8	6.0	5.8	5.4	5.7	6.9	7.0	7.6	8.2	8.3
Beginning stocks	7.8	14.5	13.3	10.6	9.1	10.1	12.3	13.8	14.6	15.7	16.7
Ending stocks	14.5	13.3	10.6	9.1	10.1	12.3	13.8	14.6	15.7	16.7	17.2
of which intervention	1.6	1.9	0.0	0.4	0.7	0.6	1.7	2.7	3.6	4.8	5.2
of which EU-15	1.2	1.7	0.0	0.4	0.7	0.6	1.5	2.2	3.1	4.3	4.7
of which EU-10	0.4	0.2	0.0	0.0	0.0	0.0	0.2	0.5	0.5	0.5	0.5
of which EU-2				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.6 Maize market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>53.1</b>	<b>47.7</b>	<b>44.4</b>	<b>53.9</b>	<b>59.4</b>	<b>59.8</b>	<b>60.7</b>	<b>61.7</b>	<b>62.6</b>	<b>63.9</b>	<b>63.1</b>
of which EU-15	41.0	35.0	33.1	34.3	35.1	35.5	36.0	36.1	36.4	36.8	36.9
EU-10	12.1	12.7	11.3	11.5	11.6	11.6	11.7	12.3	12.7	13.6	13.2
EU-2				8.1	12.7	12.7	13.0	13.3	13.6	13.5	13.0
<b>Consumption</b>	<b>46.2</b>	<b>49.3</b>	<b>50.8</b>	<b>58.1</b>	<b>60.1</b>	<b>61.6</b>	<b>61.8</b>	<b>62.1</b>	<b>63.9</b>	<b>65.6</b>	<b>65.7</b>
of which food and industrial	8.4	8.1	7.9	8.7	8.5	7.5	8.7	9.9	8.3	8.7	6.1
of which feed	37.5	40.6	42.3	47.9	49.1	51.1	49.6	48.2	51.2	52.0	54.0
of which bioenergy	0.0	0.3	0.5	1.0	1.9	2.6	3.0	3.5	4.0	4.6	5.1
of which EU-15	37.7	41.3	42.3	38.4	40.1	40.8	40.1	40.4	41.0	41.3	41.0
EU-10	8.5	8.0	8.5	9.2	9.5	10.4	11.0	10.7	11.3	11.2	12.0
EU-2				10.5	10.5	10.3	10.7	11.1	11.6	13.1	12.7
Imports	2.1	2.5	5.1	4.0	3.0	2.6	2.5	3.2	3.1	3.4	4.4
Exports	1.7	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.5	2.5	2.5
Beginning stocks	12.2	19.5	18.4	15.0	12.7	13.0	11.6	10.8	11.2	10.5	9.6
Ending stocks	19.5	18.4	15.0	12.7	13.0	11.6	10.8	11.2	10.5	9.6	8.9
of which intervention	2.5	5.8	2.2	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
of which EU-15	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
of which EU-10	2.3	5.8	2.2	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0
of which EU-2				0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.7 Total oilseed market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>20.1</b>	<b>19.7</b>	<b>20.1</b>	<b>26.2</b>	<b>28.7</b>	<b>29.2</b>	<b>30.4</b>	<b>31.0</b>	<b>32.2</b>	<b>33.1</b>	<b>34.6</b>
of which EU-15	15.2	15.3	15.3	17.0	19.6	20.2	20.9	21.4	22.1	22.9	23.8
EU-10	4.9	4.4	4.8	4.9	4.8	4.5	4.8	4.8	5.1	5.0	5.4
EU-2				4.3	4.3	4.5	4.7	4.9	5.0	5.2	5.3
of which non-food set aside	1.8	2.8	2.6	2.6	2.7	2.7	2.8	2.8	2.9	3.0	3.1
<b>Consumption</b>	<b>36.6</b>	<b>40.9</b>	<b>43.6</b>	<b>48.7</b>	<b>52.0</b>	<b>54.1</b>	<b>58.0</b>	<b>59.8</b>	<b>63.8</b>	<b>66.0</b>	<b>66.6</b>
of which bioenergy	4.6	7.4	8.1	10.2	11.3	13.4	16.2	17.6	19.6	20.2	19.5
of which EU-15	34.2	38.3	41.0	42.7	45.9	47.9	51.7	53.3	57.2	59.2	59.7
EU-10	2.4	2.5	2.6	2.7	2.7	2.8	2.8	2.9	3.0	3.1	3.1
EU-2				3.3	3.3	3.4	3.5	3.6	3.6	3.7	3.8
Imports	18.1	21.7	24.0	23.9	24.3	26.0	28.6	29.4	32.5	33.5	32.3
Exports	1.2	0.6	0.5	0.3	0.5	0.8	0.3	0.3	0.3	0.3	0.3
Beginning stocks	7.6	8.1	8.1	8.1	9.4	9.9	10.2	10.9	11.2	11.9	12.3
Ending stocks	8.1	8.1	8.1	9.4	9.9	10.2	10.9	11.2	11.9	12.3	12.3

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.8 Sugar market projections for the European Union, 2004-2014 (mio t)**

	2004	2005	2006*	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>19.6</b>	<b>20.3</b>	<b>17.4</b>	<b>16.1</b>	<b>16.4</b>	<b>16.6</b>	<b>16.8</b>	<b>16.7</b>	<b>15.2</b>	<b>15.7</b>	<b>15.6</b>
of which bioenergy	0.0	0.0	1.0	1.1	1.3	1.4	1.6	1.8	2.0	2.2	2.2
of which EU-15	16.1	16.5	14.4	12.6	13.4	13.6	13.9	13.8	12.5	12.9	12.8
EU-10	3.5	3.6	3.0	3.4	2.9	2.8	2.8	2.8	2.6	2.7	2.7
EU-2		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Consumption</b>	<b>16.1</b>	<b>17.0</b>	<b>17.4</b>	<b>18.6</b>	<b>19.2</b>	<b>19.4</b>	<b>19.8</b>	<b>20.1</b>	<b>20.5</b>	<b>20.8</b>	<b>20.9</b>
of which bioenergy	0.0	0.0	1.0	1.1	1.3	1.4	1.6	1.8	2.0	2.2	2.2
of which EU-15	13.8	14.3	14.5	14.9	15.3	15.4	15.6	15.9	16.1	16.3	16.4
EU-10	2.3	2.7	2.9	3.0	3.1	3.2	3.3	3.3	3.4	3.5	3.5
EU-2		0.8	0.8	0.7	0.8	0.9	0.9	0.9	0.9	1.0	1.0
Imports	3.2	3.0	4.1	3.8	4.1	4.2	4.4	4.4	4.4	4.4	4.4
Exports	4.9	6.7	2.2	2.2	1.3	1.3	1.3	1.3	0.9	0.7	0.3
Beginning stocks	7.4	6.3	8.2	7.3	7.3	7.3	7.4	7.1	5.4	4.0	2.9
Ending stocks	6.3	8.2	7.3	7.3	7.3	7.4	7.1	5.4	4.0	4.0	2.9
of which intervention	0.0	1.5	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

2006\*: The analyses assumes a 12 months campaign year 2006/07. In fact, the campaign has been exceptionally prolonged to 15 months, i.e. 01.07.2006 -30.09.2007. Therefore, figures for 2006 should be interpreted with care.

**Table A.9 Area under arable crops and set-aside in the EU, 2004-2014 (mio ha)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Cereals</b>	<b>52.4</b>	<b>51.5</b>	<b>50.2</b>	<b>58.1</b>	<b>59.0</b>	<b>59.1</b>	<b>59.3</b>	<b>58.8</b>	<b>58.8</b>	<b>58.9</b>	<b>58.6</b>
of which EU-15	36.9	36.0	34.9	35.4	35.2	35.2	35.2	35.2	35.2	35.2	35.2
EU-10	15.5	15.5	15.3	15.6	16.1	16.2	16.3	15.8	15.8	15.9	16.0
EU-2				7.2	7.6	7.7	7.7	7.8	7.8	7.8	7.5
Soft wheat	19.7	19.8	18.6	22.7	22.6	22.8	23.0	22.9	23.1	23.2	23.2
Durum wheat	3.9	3.5	3.0	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Barley	12.9	13.1	13.3	13.9	13.8	13.8	13.7	13.5	13.4	13.3	13.2
Maize	6.5	6.1	5.7	8.6	9.0	9.0	9.0	8.9	8.9	9.0	8.8
Rye	2.8	2.5	2.3	2.6	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Other cereals	7.0	7.1	7.1	7.3	7.2	7.3	7.2	7.2	7.2	7.2	7.2
<b>Oilseeds (1)</b>	<b>6.2</b>	<b>6.0</b>	<b>6.6</b>	<b>9.1</b>	<b>8.9</b>	<b>8.9</b>	<b>9.0</b>	<b>9.1</b>	<b>9.3</b>	<b>9.3</b>	<b>9.5</b>
of which EU-15	4.4	4.0	4.5	4.9	4.9	5.0	5.0	5.1	5.2	5.2	5.3
EU-10	1.9	1.9	2.1	2.2	2.1	1.9	2.0	2.0	2.1	2.1	2.2
EU-2				2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Rapeseed	3.7	3.9	4.3	5.1	5.2	5.1	5.2	5.2	5.3	5.3	5.5
Sunseed	2.2	1.7	2.0	3.7	3.4	3.4	3.5	3.6	3.6	3.7	3.7
Soyabeans	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
<b>Sugar beet</b>	<b>2.2</b>	<b>2.2</b>	<b>2.0</b>	<b>0.0</b>	<b>1.9</b>	<b>1.8</b>	<b>1.8</b>	<b>1.8</b>	<b>1.7</b>	<b>1.7</b>	<b>1.7</b>
<b>Protein crops</b>	<b>1.4</b>	<b>1.4</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>Flax and Hemp</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Silage (2)</b>	<b>5.1</b>	<b>5.2</b>	<b>5.0</b>	<b>5.0</b>	<b>4.9</b>	<b>4.9</b>	<b>4.9</b>	<b>4.8</b>	<b>4.8</b>	<b>4.8</b>	<b>4.7</b>
<b>Total selected arable crops</b>	<b>67.5</b>	<b>66.4</b>	<b>65.3</b>	<b>73.7</b>	<b>76.1</b>	<b>76.2</b>	<b>76.4</b>	<b>75.9</b>	<b>76.0</b>	<b>76.1</b>	<b>76.0</b>
Compulsatory set-aside	1.9	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.5
of which EU-15	1.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
EU-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
EU-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
of which non-food oilseeds	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Voluntary set-aside	3.1	3.0	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3
Total set aside	5.0	7.0	7.2	7.2	7.3	7.2	7.2	8.3	8.3	8.3	8.8
<b>Total</b>	<b>71.7</b>	<b>72.6</b>	<b>71.7</b>	<b>80.1</b>	<b>82.5</b>	<b>82.6</b>	<b>82.8</b>	<b>83.4</b>	<b>83.4</b>	<b>83.6</b>	<b>83.9</b>

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

EU-10: Member States that joined the European Union on May, 1st 2004

(2) excluding grass silage;

EU-2: Bulgaria and Romania.

**Table A.10 Beef/veal market projections for the EU-27, 2005 – 2014 ('000 t cwe)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Gross Indigenous Production</b>	<b>8 125</b>	<b>8 113</b>	<b>8 014</b>	<b>7 942</b>	<b>7 838</b>	<b>7 756</b>	<b>7 689</b>	<b>7 634</b>	<b>7 595</b>	<b>7 567</b>
<b>Live Imports</b>	<b>2</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Live Exports</b>	<b>83</b>	<b>63</b>	<b>48</b>	<b>43</b>	<b>52</b>	<b>48</b>	<b>44</b>	<b>41</b>	<b>38</b>	<b>35</b>
<b>Net Production</b>	<b>8 044</b>	<b>8 064</b>	<b>7 980</b>	<b>7 913</b>	<b>7 801</b>	<b>7 722</b>	<b>7 659</b>	<b>7 608</b>	<b>7 572</b>	<b>7 547</b>
of which EU-15	7 279	7 271	7 206	7 148	7 078	7 017	6 967	6 926	6 896	6 876
EU-10	575	616	602	596	567	563	559	548	544	538
EU-2	191	178	172	169	156	142	133	133	132	133
<b>Import</b>	<b>614</b>	<b>620</b>	<b>568</b>	<b>578</b>	<b>633</b>	<b>664</b>	<b>692</b>	<b>712</b>	<b>729</b>	<b>741</b>
<b>Exports</b>	<b>213</b>	<b>185</b>	<b>124</b>	<b>96</b>	<b>93</b>	<b>77</b>	<b>65</b>	<b>59</b>	<b>59</b>	<b>56</b>
<b>Stocks changes</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Consumption</b>	<b>8 445</b>	<b>8 499</b>	<b>8 424</b>	<b>8 395</b>	<b>8 341</b>	<b>8 310</b>	<b>8 285</b>	<b>8 262</b>	<b>8 242</b>	<b>8 232</b>
<b>Per Capita Consumption</b>	<b>17.3</b>	<b>17.3</b>	<b>17.1</b>	<b>17.0</b>	<b>16.9</b>	<b>16.8</b>	<b>16.7</b>	<b>16.7</b>	<b>16.6</b>	<b>16.6</b>
of which EU-15	19.9	19.9	20.0	20.0	19.8	19.7	19.6	19.5	19.4	19.4
EU-10	6.3	6.3	6.2	6.1	5.9	5.8	5.8	5.8	5.8	5.7
EU-2	9.8	10.7	5.8	5.3	5.3	5.3	5.4	5.4	5.4	5.5
<b>Ending stocks (Intervention)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.11 Pig meat market projections for the EU-27, 2005 – 2014 ('000 t cwe)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Gross Indigenous Production</b>	<b>21 601</b>	<b>21 885</b>	<b>22 075</b>	<b>21 999</b>	<b>22 076</b>	<b>22 258</b>	<b>22 394</b>	<b>22 389</b>	<b>22 453</b>	<b>22 583</b>
<b>Live Imports</b>	<b>0</b>	<b>5</b>	<b>11</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>
<b>Live Exports</b>	<b>29</b>	<b>33</b>	<b>37</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>
<b>Net Production</b>	<b>21 572</b>	<b>21 857</b>	<b>22 049</b>	<b>21 972</b>	<b>22 049</b>	<b>22 232</b>	<b>22 367</b>	<b>22 363</b>	<b>22 426</b>	<b>22 557</b>
of which EU-15	17 923	18 050	18 125	18 071	18 093	18 215	18 291	18 252	18 268	18 383
EU-10	3 177	3 313	3 437	3 420	3 485	3 553	3 619	3 665	3 719	3 740
EU-2	472	494	486	481	471	464	457	446	439	434
<b>Import</b>	<b>84</b>	<b>105</b>	<b>34</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>
<b>Exports</b>	<b>1 286</b>	<b>1 410</b>	<b>1 291</b>	<b>1 225</b>	<b>1 217</b>	<b>1 200</b>	<b>1 187</b>	<b>1 173</b>	<b>1 171</b>	<b>1 154</b>
<b>Stocks changes</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Consumption</b>	<b>20 370</b>	<b>20 552</b>	<b>20 792</b>	<b>20 785</b>	<b>20 870</b>	<b>21 069</b>	<b>21 218</b>	<b>21 228</b>	<b>21 293</b>	<b>21 440</b>
<b>Per Capita Consumption</b>	<b>41.6</b>	<b>41.9</b>	<b>42.2</b>	<b>42.1</b>	<b>42.3</b>	<b>42.6</b>	<b>42.8</b>	<b>42.8</b>	<b>42.9</b>	<b>43.2</b>
of which EU-15	42.3	42.2	42.8	42.8	42.9	43.1	43.3	43.2	43.2	43.4
EU-10	44.7	46.0	45.8	45.0	45.2	45.7	46.3	46.4	46.7	47.3
EU-2	25.5	26.7	25.6	26.0	26.5	27.3	27.9	28.3	28.8	29.3

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.12 Poultry meat market projections for the EU-27, 2005 – 2014 ('000 t cwe)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Gross Indigenous Production</b>	<b>11 298</b>	<b>10 976</b>	<b>11 163</b>	<b>11 218</b>	<b>11 298</b>	<b>11 454</b>	<b>11 675</b>	<b>11 809</b>	<b>11 929</b>	<b>12 037</b>
<b>Live Imports</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Live Exports</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Net Production</b>	<b>11 294</b>	<b>10 972</b>	<b>11 160</b>	<b>11 215</b>	<b>11 295</b>	<b>11 451</b>	<b>11 672</b>	<b>11 806</b>	<b>11 926</b>	<b>12 034</b>
of which EU-15	9 055	8 705	8 838	8 865	8 917	9 029	9 192	9 285	9 368	9 441
EU-10	1 911	1 943	1 956	1 965	1 989	2 026	2 075	2 108	2 140	2 169
EU-2	328	324	366	384	389	396	405	412	418	424
<b>Import</b>	<b>756</b>	<b>708</b>	<b>611</b>	<b>655</b>	<b>700</b>	<b>697</b>	<b>705</b>	<b>710</b>	<b>723</b>	<b>747</b>
<b>Exports</b>	<b>881</b>	<b>863</b>	<b>789</b>	<b>718</b>	<b>777</b>	<b>756</b>	<b>738</b>	<b>723</b>	<b>707</b>	<b>693</b>
<b>Consumption</b>	<b>11 169</b>	<b>10 817</b>	<b>10 982</b>	<b>11 152</b>	<b>11 217</b>	<b>11 393</b>	<b>11 639</b>	<b>11 793</b>	<b>11 942</b>	<b>12 088</b>
<b>Per Capita Consumption</b>	<b>22.8</b>	<b>22.0</b>	<b>22.3</b>	<b>22.6</b>	<b>22.7</b>	<b>23.0</b>	<b>23.5</b>	<b>23.8</b>	<b>24.1</b>	<b>24.3</b>
of which EU-15	23.1	21.9	22.4	22.6	22.7	23.0	23.4	23.7	24.0	24.2
EU-10	23.7	24.5	24.0	24.5	24.7	25.0	25.5	25.9	26.4	26.9
EU-2	17.4	17.4	16.5	17.3	17.5	18.3	19.7	19.8	19.5	20.2

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.13 Sheep/Goat meat market projections for the EU-27, 2005–2014 ('000 t cwe)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Net Production</b>	<b>1 139</b>	<b>1 113</b>	<b>1 099</b>	<b>1 084</b>	<b>1 060</b>	<b>1 050</b>	<b>1 042</b>	<b>1 036</b>	<b>1 030</b>	<b>1 027</b>
of which EU-15	1 044	1 025	1 007	991	969	960	952	947	941	938
EU-10	19	18	17	16	14	13	13	13	13	13
EU-2	76	69	74	77	77	77	77	77	76	75
<b>Import</b>	<b>266</b>	<b>273</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>278</b>	<b>279</b>
<b>Exports</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Consumption</b>	<b>1 399</b>	<b>1 380</b>	<b>1 370</b>	<b>1 356</b>	<b>1 332</b>	<b>1 323</b>	<b>1 314</b>	<b>1 308</b>	<b>1 304</b>	<b>1 301</b>
<b>Per Capita Consumption</b>	<b>2.9</b>	<b>2.8</b>	<b>2.8</b>	<b>2.8</b>	<b>2.7</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>
of which EU-15	3.4	3.4	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.1
EU-10	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EU-2	2.1	1.9	2.3	2.5	2.4	2.4	2.4	2.3	2.3	2.3

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.14 Meat per capita consumption projections in the EU, 2005 – 2014 (kg/head)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>EU-27</b>										
<b>Beef and Veal</b>	17.3	17.3	17.1	17.0	16.9	16.8	16.7	16.7	16.6	16.6
<b>Pork</b>	41.6	41.9	42.2	42.1	42.3	42.6	42.8	42.8	42.9	43.2
<b>Poultry</b>	22.8	22.0	22.3	22.6	22.7	23.0	23.5	23.8	24.1	24.3
<b>Sheep Goat</b>	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6
<b>Total EU-27</b>	<b>84.6</b>	<b>84.0</b>	<b>84.4</b>	<b>84.5</b>	<b>84.5</b>	<b>85.1</b>	<b>85.7</b>	<b>85.9</b>	<b>86.2</b>	<b>86.7</b>
<b>of which EU-15</b>										
<b>Beef and Veal</b>	19.9	19.9	20.0	20.0	19.8	19.7	19.6	19.5	19.4	19.4
<b>Pork</b>	42.3	42.2	42.8	42.8	42.9	43.1	43.3	43.2	43.2	43.4
<b>Poultry</b>	23.1	21.9	22.4	22.6	22.7	23.0	23.4	23.7	24.0	24.2
<b>Sheep Goat</b>	3.4	3.4	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.1
<b>Total EU-15</b>	<b>88.7</b>	<b>87.4</b>	<b>88.6</b>	<b>88.7</b>	<b>88.6</b>	<b>89.0</b>	<b>89.4</b>	<b>89.5</b>	<b>89.7</b>	<b>90.0</b>
<b>of which EU-10</b>										
<b>Beef and Veal</b>	6.3	6.3	6.2	6.1	5.9	5.8	5.8	5.8	5.8	5.7
<b>Pork</b>	44.7	46.0	45.8	45.0	45.2	45.7	46.3	46.4	46.7	47.3
<b>Poultry</b>	23.7	24.5	24.0	24.5	24.7	25.0	25.5	25.9	26.4	26.9
<b>Sheep Goat</b>	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
<b>Total EU-10</b>	<b>75.0</b>	<b>77.1</b>	<b>76.3</b>	<b>75.9</b>	<b>76.1</b>	<b>76.8</b>	<b>77.8</b>	<b>78.3</b>	<b>79.1</b>	<b>80.3</b>
<b>of which EU-2</b>										
<b>Beef and Veal</b>	9.8	10.7	5.8	5.3	5.3	5.3	5.4	5.4	5.4	5.5
<b>Pork</b>	25.5	26.7	25.6	26.0	26.5	27.3	27.9	28.3	28.8	29.3
<b>Poultry</b>	17.4	17.4	16.5	17.3	17.5	18.3	19.7	19.8	19.5	20.2
<b>Sheep Goat</b>	2.1	1.9	2.3	2.5	2.4	2.4	2.4	2.3	2.3	2.3
<b>Total EU-2</b>	<b>54.8</b>	<b>56.6</b>	<b>50.2</b>	<b>51.0</b>	<b>51.7</b>	<b>53.4</b>	<b>55.3</b>	<b>55.9</b>	<b>56.1</b>	<b>57.3</b>

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.15 Consumption egg market projections for the EU-27, 2004 – 2014 (mio t)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Usable production</b>	<b>6.3</b>	<b>6.3</b>	<b>6.4</b>	<b>6.9</b>	<b>6.9</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>
of which EU-15	5.3	5.4	5.4	5.6	5.7	5.7	5.8	5.8	5.8	5.8	5.8
EU-10	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
EU-2				0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<b>Consumption</b>	<b>6.2</b>	<b>6.2</b>	<b>6.3</b>	<b>6.8</b>	<b>6.8</b>	<b>6.8</b>	<b>6.9</b>	<b>6.9</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>
Imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0
<b>Per capita consumption</b>	<b>13.5</b>	<b>13.6</b>	<b>13.8</b>	<b>14.7</b>	<b>14.7</b>	<b>14.8</b>	<b>14.8</b>	<b>14.8</b>	<b>14.9</b>	<b>15.0</b>	<b>15.1</b>
EU-15	13.7	13.8	13.8	13.7	13.7	13.7	13.8	13.8	13.9	13.9	14.0
EU-10	12.7	12.6	13.7	13.8	13.9	13.9	14.0	14.1	14.1	14.2	14.2
EU-2	13.9	14.2	14.4	15.3	15.5	15.8	16.1	16.4	16.8	17.1	17.5

EU-10: Ten new Member States

EU-2: Bulgaria and Romania

**Table A.16 Milk production, deliveries and dairy herd in the EU-27, 2005 – 2014**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Total production (mio t)</b>	<b>148.9</b>	<b>147.5</b>	<b>148.4</b>	<b>148.5</b>	<b>148.7</b>	<b>148.6</b>	<b>148.5</b>	<b>148.4</b>	<b>148.3</b>	<b>148.2</b>
of which EU-15	120.7	119.7	120.1	120.4	120.7	120.7	120.7	120.7	120.7	120.7
EU-10	21.9	21.8	22.2	22.1	22.0	22.0	21.9	21.8	21.7	21.6
EU-2	6.3	6.0	6.1	6.1	6.0	6.0	5.9	5.9	5.9	5.8
<b>Deliveries (mio t)</b>	<b>133.5</b>	<b>132.8</b>	<b>134.3</b>	<b>135.1</b>	<b>135.8</b>	<b>136.1</b>	<b>136.3</b>	<b>136.4</b>	<b>136.6</b>	<b>136.7</b>
<b>Delivery ratio (in %)</b>	<b>89.6</b>	<b>90.0</b>	<b>90.5</b>	<b>91.0</b>	<b>91.3</b>	<b>91.6</b>	<b>91.8</b>	<b>91.9</b>	<b>92.1</b>	<b>92.2</b>
<b>Fat content (in %)</b>	<b>4.04</b>	<b>4.04</b>	<b>4.02</b>	<b>4.02</b>	<b>4.02</b>	<b>4.02</b>	<b>4.03</b>	<b>4.03</b>	<b>4.03</b>	<b>4.03</b>
<b>Protein content (in %)</b>	<b>3.35</b>	<b>3.35</b>	<b>3.36</b>	<b>3.37</b>	<b>3.37</b>	<b>3.37</b>	<b>3.37</b>	<b>3.37</b>	<b>3.38</b>	<b>3.38</b>
<b>Milk yield (kg/dairy cow)</b>	<b>5970</b>	<b>6089</b>	<b>6212</b>	<b>6339</b>	<b>6420</b>	<b>6490</b>	<b>6553</b>	<b>6617</b>	<b>6680</b>	<b>6737</b>
of which EU-15	6550	6682	6813	6924	6994	7029	7064	7101	7137	7164
EU-10	4830	5005	5131	5288	5447	5630	5780	5932	6090	6254
EU-2	3175	3077	3145	3245	3215	3259	3310	3363	3414	3463
<b>Dairy cows (mio heads)</b>	<b>24.9</b>	<b>24.2</b>	<b>23.9</b>	<b>23.4</b>	<b>23.2</b>	<b>22.9</b>	<b>22.7</b>	<b>22.4</b>	<b>22.2</b>	<b>22.0</b>
of which EU-15	18.4	17.9	17.6	17.4	17.3	17.2	17.1	17.0	16.9	16.9
EU-10	4.5	4.3	4.3	4.2	4.0	3.9	3.8	3.7	3.6	3.5
EU-2	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7

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

EU-10: Member States of the European Union from May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.17 Cheese market projections for the EU-27, 2005 – 2014 ('000 t)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Total production (1)</b>	<b>8 641</b>	<b>8 834</b>	<b>9 078</b>	<b>9 227</b>	<b>9 369</b>	<b>9 466</b>	<b>9 551</b>	<b>9 628</b>	<b>9 696</b>	<b>9 756</b>
of which EU-15	7 525	7 637	7 753	7 846	7 933	8 001	8 060	8 112	8 158	8 203
EU-10	965	1 037	1 146	1 192	1 239	1 267	1 296	1 322	1 345	1 366
EU-2	151	160	178	189	196	197	196	194	192	188
<b>Imports</b>	<b>94</b>	<b>100</b>	<b>102</b>	<b>104</b>	<b>106</b>	<b>108</b>	<b>110</b>	<b>112</b>	<b>114</b>	<b>116</b>
<b>Exports</b>	<b>551</b>	<b>585</b>	<b>620</b>	<b>638</b>	<b>618</b>	<b>601</b>	<b>601</b>	<b>592</b>	<b>578</b>	<b>542</b>
<b>Human consumption (2)</b>	<b>8 184</b>	<b>8 350</b>	<b>8 560</b>	<b>8 693</b>	<b>8 857</b>	<b>8 974</b>	<b>9 061</b>	<b>9 148</b>	<b>9 232</b>	<b>9 331</b>
<b>Per capita consumption (kg)</b>	<b>16.7</b>	<b>17.0</b>	<b>17.4</b>	<b>17.7</b>	<b>17.9</b>	<b>18.1</b>	<b>18.3</b>	<b>18.4</b>	<b>18.6</b>	<b>18.8</b>
of which EU-15	18.6	18.8	19.0	19.1	19.2	19.3	19.4	19.4	19.5	19.6
EU-10	11.4	12.4	13.6	14.2	15.3	16.0	16.3	16.7	17.1	17.4
EU-2	4.7	5.1	5.9	6.4	7.3	8.1	8.7	9.4	10.2	11.2

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

(2) Excluding processed cheese and farm cheese.

EU-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.18 Butter market projections for the EU-27, 2005 – 2014 ('000 t)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Total production</b>	<b>2 195</b>	<b>2 089</b>	<b>2 070</b>	<b>2 057</b>	<b>2 026</b>	<b>2 017</b>	<b>2 004</b>	<b>1 991</b>	<b>1 979</b>	<b>1 967</b>
of which EU-15	1 917	1 826	1 805	1 794	1 768	1 759	1 748	1 739	1 730	1 720
EU-10	262	246	247	244	237	238	238	235	234	233
EU-2	15	16	18	19	21	20	18	17	16	15
<b>Imports</b>	<b>80</b>	<b>84</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>
<b>Exports</b>	<b>338</b>	<b>248</b>	<b>203</b>	<b>132</b>	<b>112</b>	<b>104</b>	<b>101</b>	<b>92</b>	<b>85</b>	<b>78</b>
<b>Total consumption</b>	<b>1 968</b>	<b>1 993</b>	<b>2 006</b>	<b>2 002</b>	<b>1 991</b>	<b>1 990</b>	<b>1 980</b>	<b>1 975</b>	<b>1 972</b>	<b>1 966</b>
<b>per capita consumption (kg)</b>	<b>4.03</b>	<b>4.07</b>	<b>4.08</b>	<b>4.07</b>	<b>4.03</b>	<b>4.02</b>	<b>4.00</b>	<b>3.98</b>	<b>3.97</b>	<b>3.96</b>
of which EU-15	4.48	4.52	4.53	4.51	4.46	4.45	4.42	4.39	4.37	4.35
EU-10	2.89	2.89	2.90	2.89	2.88	2.86	2.83	2.83	2.86	2.84
EU-2	0.95	1.01	1.06	1.12	1.15	1.20	1.25	1.30	1.36	1.42
<b>Intervention Stocks</b>										
Ending stocks	130	62	0	0	0	0	0	0	0	0
Stock changes	-31	-68	-62	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-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania

**Table A.19 SMP market projections for the EU-27, 2005 – 2014 ('000 t)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Total production</b>	<b>962</b>	<b>861</b>	<b>861</b>	<b>836</b>	<b>833</b>	<b>833</b>	<b>827</b>	<b>825</b>	<b>820</b>	<b>811</b>
of which EU-15	760	691	691	670	662	661	656	654	651	641
EU-10	198	167	167	164	168	169	168	168	166	166
EU-2	4	3	3	3	3	3	3	3	3	3
<b>Imports</b>	<b>10</b>	<b>21</b>	<b>21</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>
<b>Exports</b>	<b>190</b>	<b>85</b>	<b>64</b>	<b>54</b>	<b>38</b>	<b>39</b>	<b>37</b>	<b>38</b>	<b>38</b>	<b>37</b>
<b>Total consumption</b>	<b>847</b>	<b>798</b>	<b>818</b>	<b>814</b>	<b>827</b>	<b>825</b>	<b>821</b>	<b>818</b>	<b>813</b>	<b>804</b>
of which EU-15	785	727	757	761	768	766	761	757	754	746
EU-10	45	60	54	49	55	55	56	56	55	55
EU-2	16	10	7	4	4	4	4	4	4	4
Stock changes	-65	0	0	0	0	0	0	0	0	0
<b>Intervention Stocks</b>										
Ending stocks	0	0	0	0	0	0	0	0	0	0
Stock changes	-65	0	0	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-10: Member States that joined the European Union on May, 1st 2004

EU-2: Bulgaria and Romania