

**PROSPECTS FOR
WORLD AGRICULTURAL MARKETS**

1. Introduction

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

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

These forecasts constitute the most recent and comprehensive set of long-term agricultural projections available to date. However, it should be stressed that these forecasts were finalised during the first half of 2001 on the basis of information available at the end of 2000. Therefore, they do not take full account of the most recent developments in the general economic situation and on agricultural markets, notably the impact on EU and world markets of the recent BSE and FMD crises in the EU animal sector. In this perspective, some issues related to key underlying assumptions and forecast results will be briefly addressed in the light of the latest information available and our own assessment.

2. Overview of main trends

In the initial years of the outlook period, agricultural markets would gradually recover from the marked and prolonged downturn that resulted in weak agricultural commodity prices. Longer-term developments in the agricultural markets would reflect an improved macro-economic environment with more broadly based, robust and sustainable growth. Combined with higher population and changes in dietary pattern, notably in many emerging economies, these prospects for stronger economic growth would support a steady increase in food demand.

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

However, if the main trends in market fundamentals may all reasonably be expected to be positive, it is important to stress that these projections remain subject to many uncertainties that should moderate the strong pattern forecasted for future trade and price growth. The most important include the future course of agricultural policy reforms, the new round of multilateral trade negotiations, the future macro-economic perspectives (especially in view of the short-term concerns about a steeper-than-expected downturn in world growth led by a marked slowdown in the US and a stalling recovery in Japan) and

the scope for further productivity growth in some regions. Some recent market developments, such as the crises in the animal sector of the EU, could also have a significant impact on the outlook of agricultural markets. In view of these uncertainties, a cautious assessment of these relatively favourable prospects is deemed necessary.

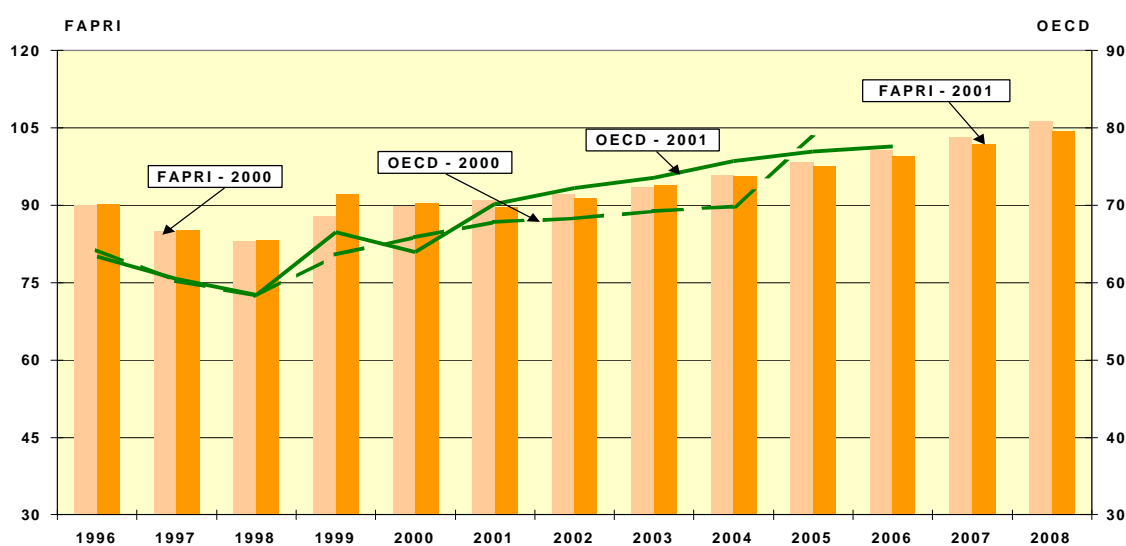
2.1 Overview per sector

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

Cereals

World cereal markets would gradually emerge from a short-term situation marked by large supply, ample stocks and relatively weak demand. Over the medium term, higher cereal demand, fuelled by an improved economic environment, population growth as well as changes in the dietary pattern in some major importing countries, would generate a tightening of stock-to-use ratios. As domestic supply is not projected to meet the pace of a rapidly expanding demand in many developing countries, including China, North Africa and Latin America, the growth in cereal consumption would set the stage for a solid increase in global cereal trade. After 15 years of relative stagnation, total cereal trade is foreseen to increase by 17 % by 2008/09, with coarse grains exhibiting a stronger pattern driven by increasing meat consumption in many developing countries and the ensuing expansion of their livestock sector.

Graph 3.1 Outlook for wheat net trade – comparison with the 2000 outlook, 1996 – 2008 (mio t)



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

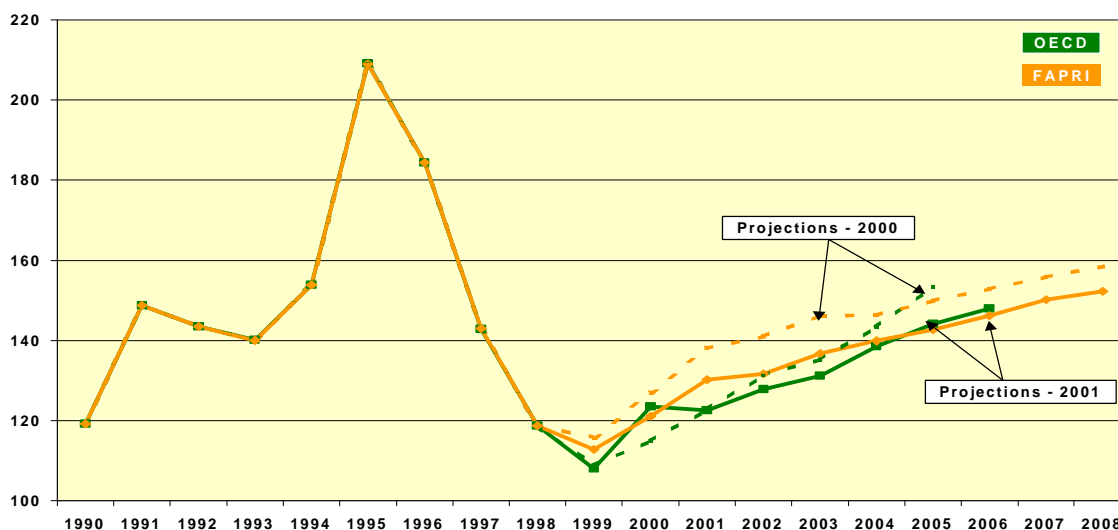
Global trade in coarse grains would strengthen with annual growth averaging about 2.2 %-2.6 %, whereas wheat trade would demonstrate a more modest pattern with an annual average ranging between 1.3 % and 1.8 % over the 2000/01-2008/09 period.

After bottoming out in 1999/00, world prices would exhibit a modest and gradual recovery over the medium term as supply adjusts and global demand strengthens. HRW wheat prices would reach 152 \$/t by 2008/09 in the FAPRI projections⁵⁹, whereas maize

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

prices would exhibit a similar trend at 112 \$/t by the end of the projection period. A similar price outlook is projected by the OECD, with HRW wheat, maize and barley prices strengthening over the medium term to 148 \$/t, 108 \$/t and 101 \$/t respectively by 2006/07. Durum wheat prices would follow a similar trend, rising from around 150 \$/t in 2000/01 (for EU durum wheat quality) to 180 \$/t by 2008/09.

Graph 3.2 Outlook for wheat world prices – comparison with the 2000 outlook, 1990 – 2008 (\$/t)



Ref.: US FOB Gulf, HRW.

Oilseeds

The oilseed sector is still foreseen to demonstrate a slow and modest recovery from a current situation characterised by very weak prices, stemming from excess supplies, relatively weak demand and a combination of policy and macro-economic factors (notably the support system in the US). In the longer run, the robust expansion in the demand for oilseed and oilseed products that is anticipated by most agencies would contribute to gradually restore market balance as supply exhibits only moderate increases. Global demand would benefit from the consolidation of the recovery in world economic growth that would stimulate increased human consumption of vegetable oils as well as the use of oilseed meals for the livestock sector. Trade in oilseeds is anticipated to increase faster over the projection period than in the 1980s, but more slowly than in the early 1990s.

The prices of oilseeds and oilseed products would remain at depressed levels in the short term, before strengthening over the rest of the period thanks to an improved demand. By 2008/09, soybean prices would reach 236 \$/t in the FAPRI projections (the OECD anticipates a similar, though more positive, pattern with soybean prices at 256 \$/t by 2006/07). Soybean meal prices would broadly stagnate over the medium term, ranging between 199 \$/t and 208 \$/t in 2008/09.

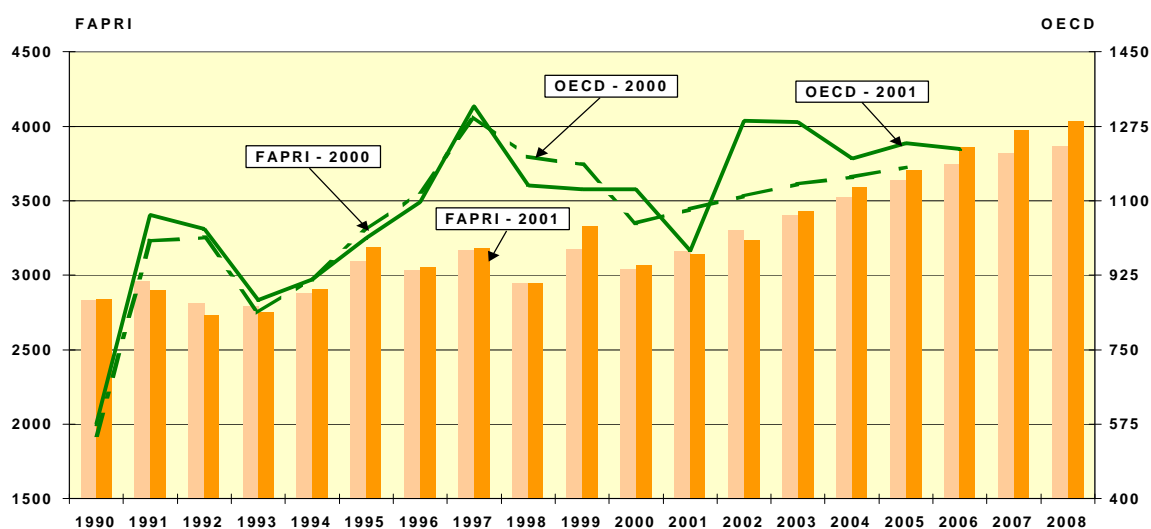
Prospects of rising incomes drive the solid expansion in vegetable oil consumption. Palm oil and soybean oil would capture the greatest share of an expanding demand for and trade of vegetable oil. Growth in oilseed oil trade would be stronger than that of oilseeds and oilseed meals, though lower than in the 1990s. The strong dependence of trade in vegetable oil from developing countries, notably China, India and Pakistan, makes the outlook very sensitive to the economic prospects in these countries.

Meat

The general perspectives for the global meat markets would be rather favourable over the medium term with growing production, consumption and trade. The increase in meat consumption would be supported by a favourable macro-economic environment of sustained income growth, in particular in the emerging economies of Asia and Latin America. As higher meat demand would take place in net importing countries, world trade would rise and world prices strengthen over the medium and long term. The FAPRI and USDA projections exhibit an expansion in beef trade ranging between 0.8 mio t and 0.95 mio t over the 2000-2008 period (i.e. by 18 % and 30 % respectively), with most of the growth from Russian, Asian and Mexican imports. Pig meat trade is projected to rise by around 0.6 mio t over the same period (i.e. 25-30 %), driven by strong import demand from China, Japan, Russia and Mexico.

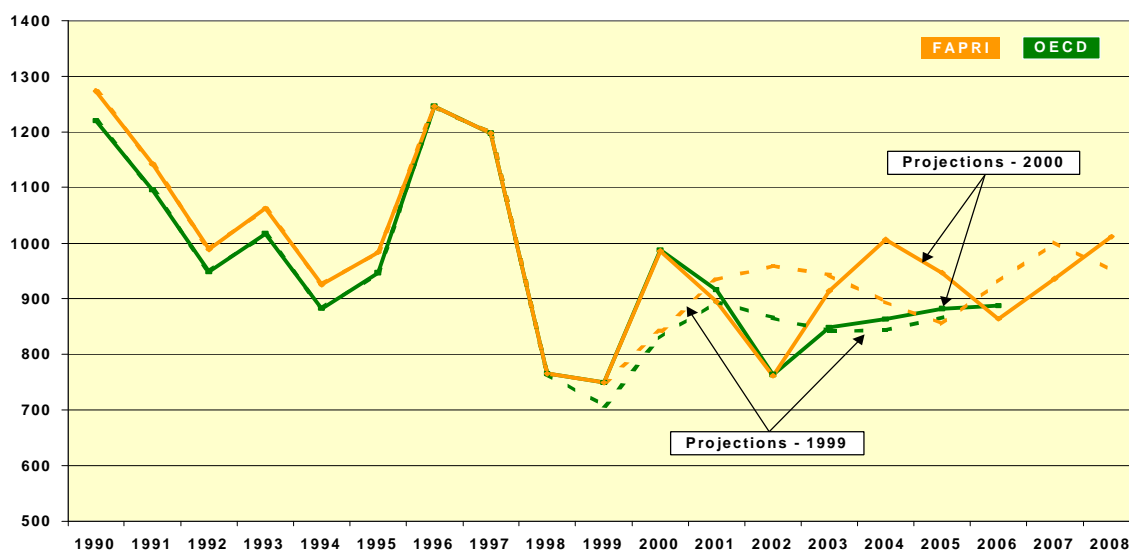
Poultry meat would capture the largest proportion of the increased global meat demand thanks to low production costs and consumer preferences. Trade in poultry meat is also projected to trend upwards, with increases in the range of 0.6 to 1.1 mio t (i.e. between 15 % and 22 %). Much would depend on the prospects for import demand from China and Russia, with Russian import demand closely linked to the pace of recovery of the production sector and to the economic and political outlook.

Graph 3.3 Outlook for beef net trade – comparison with the 2000 outlook, 1990 - 2008 ('000 t cwe)



Source: FAPRI (world trade) and OECD (OECD zone trade).

Beef prices would strengthen over the medium term supported by a strong demand and limited growth in production. The magnitude of the recovery would nevertheless remain dependent on the strength of the economic rebound in some key importing countries of the non-OECD area. Furthermore, the changing structure of the world beef market, the emergence of new exporting countries and the increasing competition from other meats should restrain upward beef price tendencies. Poultry and pig meat prices are generally expected to rise over the projection horizon. However, structural changes and technological improvement in the meat sector should support production growth and thus moderate future price trends. The increasing number of export suppliers and greater competition between meats should also contribute to maintain world prices under pressure.

Graph 3.4 Outlook for pig meat prices – comparison with the 2000 outlook, 1990 – 2008 (\$/t)

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

Milk and dairy products

The OECD and FAPRI projections suggest a rather favourable medium-term outlook for the milk and dairy markets. Stimulated by higher demand and stronger producer prices, milk production is set to expand in a number of countries, mainly outside the OECD area. According to the OECD, world cow milk production is projected to increase by 67 mio t from 2000 to 2006 (i.e. 12 %), with strong gains in China, India, Brazil, Argentina and Mexico.

Higher demand for dairy products would mainly originate from developing countries where growing population, rising disposable income, urbanisation and changing dietary pattern would set the stage for a strong and sustained rise in the consumption of dairy products, in particular of cheese and butter. In contrast, global demand for dairy products in the OECD area is not projected to show major changes over the medium term (even if cheese and whole milk powder are expected to experience some significant gains). As domestic production would not keep pace with the overall demand for dairy products in some regions of the non-OECD area (mainly China, South East Asia, Middle East and the FSU), scope for additional, though increasingly regionalised, trade is foreseen. The OECD anticipates that the gradual shift in world trade from supply-led bulk dairy products (i.e. SMP and butter) towards higher value added products (such as cheese) that has been observed since the mid-1980s, would continue over the medium term.

After the sharp decline recorded in 1999 for cheese and milk powder and in 2000 for butter, world market prices of dairy products are predicted to increase over the medium term, supported by the return of economic growth and a strengthening demand. The prices of most dairy products would stand at levels above those experienced in the early and late 1990s. Cheese prices would demonstrate the strongest rise, thanks to very favourable developments on the demand side. Butter prices would experience a more modest pattern, as they would remain strongly linked to the uncertain Russian market. After peaking in 2000, milk powder prices should fall a little in 2001 and resume increasing from 2003 onwards. These perspectives would remain dependent on the future developments in some key emerging markets and on the potential impact of the changes in national dairy policies that have been adopted or scheduled in a certain number of countries.

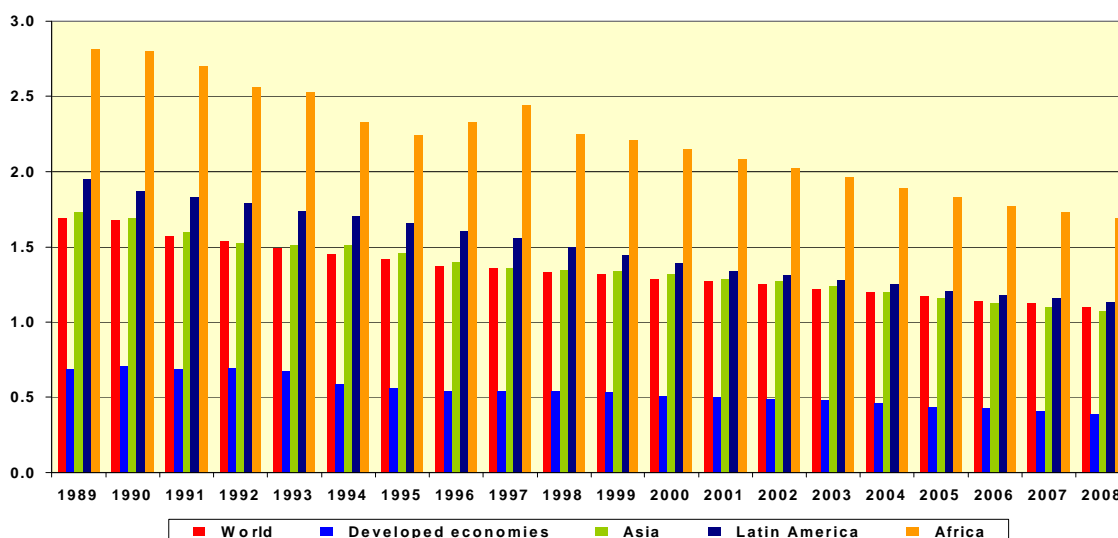
2.2 Underlying factors

Five main factors can be identified to explain these developments:

(1) Population growth

Population growth constitutes a traditional determinant for food demand. Global annual population growth has been steadily declining since the second half of the 1960s, falling from 2.1 % in the 1960s to 1.3 % in 2000. This pattern is estimated to continue over the next seven years and overall world population is expected to increase by between 1.1 % and 1.2 % per year in 2008.

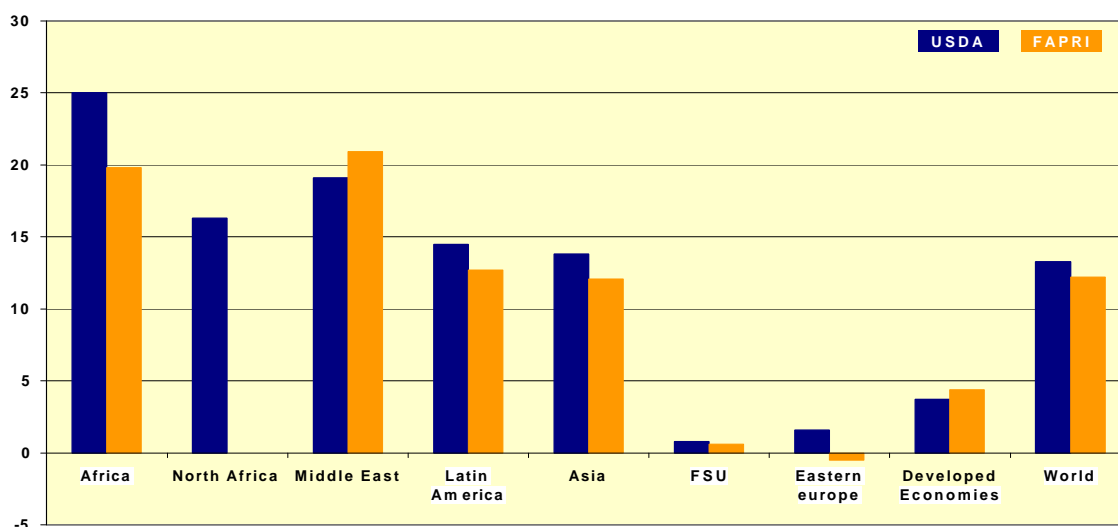
Graph 3.5 Growth rate in population growth, 1989 – 2008 (in %)



Source: FAPRI

However, the decade is expected to witness some of the highest absolute annual increments in world population history. It is estimated that the world population will increase every year by between 75 and 80 mio persons over the decade. The pattern of population growth will differ widely between regions, with Africa and the Middle East demonstrating the strongest increase of around 20 % or more over the next seven years.

Graph 3.6 Cumulated population growth, 2001 – 2010 (in %)

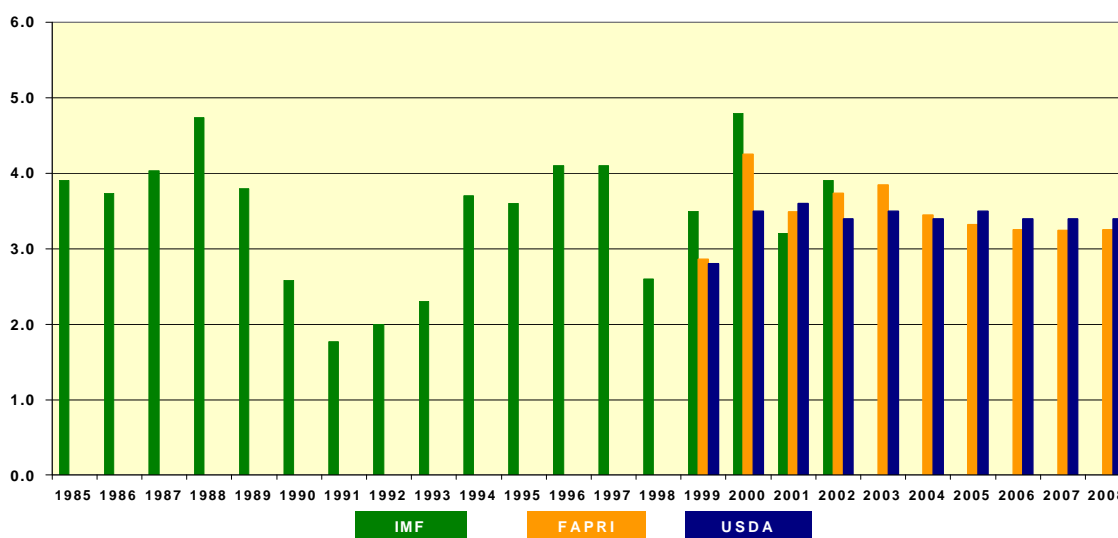


In 2008, Africa's population growth would stand at 2.2% in USDA projections whereas FAPRI foresees a more modest growth pattern at 1.7%. Conversely, FAPRI projections assume stronger growth in the Middle East where population would expand by 2.0% per annum in 2008 versus 1.7% according to the USDA. The next fastest growing regions are Latin America and Asia, averaging between 1.1% and 1.3% per annum by 2008. More than 90% of the increase in world population would take place in developing countries, with more than half in Asia.

(2) Strong economic growth in developing and transition economies

The main contributing factor to the improvement in the medium-term outlook of agricultural markets lies in the prospects for a favourable macro-economic environment based on more solid and balanced growth. If the short-term economic outlook has somewhat deteriorated, it is expected to remain mainly dominated by the continuing recovery from the global slowdown observed in 1997 and 1998. Over the medium term, most leading agencies anticipate that long-term structural reforms in the crisis-affected countries should provide the basis for a robust and sustainable economic growth in many emerging economies, though at a lower rate than previously observed. If Asia is foreseen to remain the major force in the expansion of the world economy, strong and sustained growth is expected in the transition economies, Africa and Latin America, leading to a significant narrowing of the growth differential between these regions. Moreover, the proportion of households with middle and high-income levels is foreseen to rise in these countries, with significant importance on food consumption pattern.

Graph 3.7 Outlook for world real GDP annual growth, 1985 – 2008 (in %)



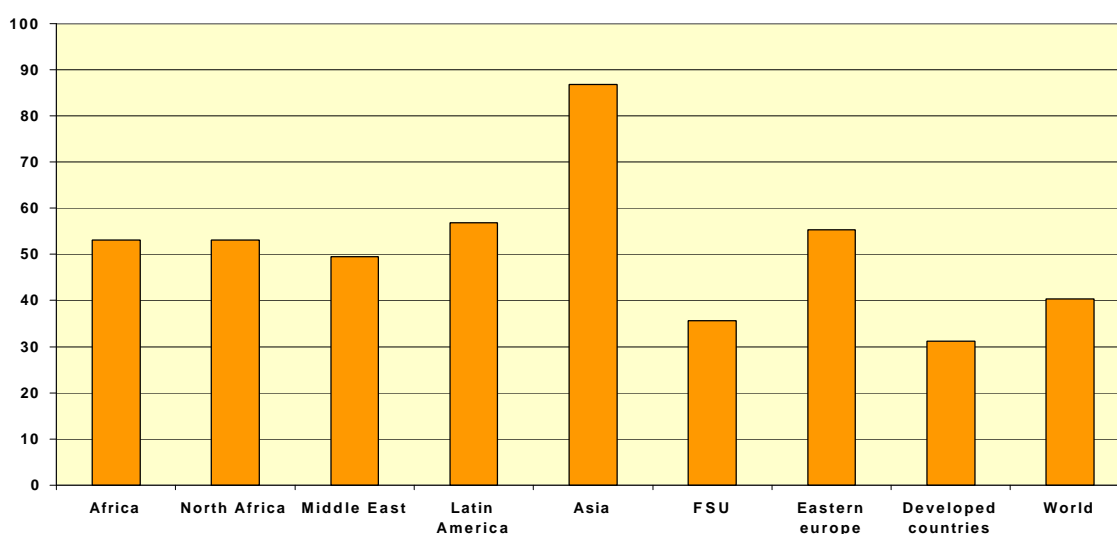
After a more rapid than anticipated recovery from the Asian financial crisis in 1999 and 2000, thanks to the continued strength of the US economy, the robust expansion in Europe and the nascent recovery in Japan, global GDP growth is forecast to average around 3.5% per year according to the USDA and FAPRI projections over the 2001-2005 period (as compared to an average of 2.6% from 1991 to 2000). From 2006 onwards, economic growth would stabilise around 3.3% per year. Much of this growth is expected to be fuelled by emerging economies. In these countries, it is anticipated that sound macro-economic policies –notably tighter monetary and fiscal policies- and further structural and institutional reforms –especially in the financial and corporate sectors- should provide the fundamentals for long-term sustained economic development, but at a lower rate than before the Asian crisis.

Asian developing countries would exhibit a GDP growth averaging more than 6 % (led by an annual growth rate of around 8 % in China), i.e. substantially lower than in the early 1990s. In the wake of a milder-than-expected downturn in 1999, Latin American economies are foreseen to display a strengthening of economic growth, which would reach more than 4.5 % a year on average over the medium term. Nevertheless, these favourable perspectives would rely heavily on the implementation of further policy reforms, reduced debts, growing intra-regional trade and high foreign direct investment.

Despite the relatively moderate increase in real oil prices assumed in the projections of most international agencies, average economic growth for Middle East countries would reach slightly more than 4 % per year, i.e. above the performance of the 1980s and 1990s. Africa, with the exception of some politically troubled countries, is forecast to display a generally healthy economic pattern, with GDP growth estimated at above 4 % over the medium term. However, GDP growth in Africa and the Middle East, when expressed per capita, would be outperformed by those of Asia and Latin America by a larger margin than given by their GDP growth rate differentials owing to their higher population prospects (cf. section (1) above).

After some significant growth in 2000, Russia and the other countries from the FSU would experience economic expansion over the medium term of around 3 % and more than 4 % in the USDA and FAPRI baselines respectively. This performance would constitute a substantial increase from the negative growth recorded in the 1990s (around – 5 % per year). These prospects depend on further progress towards the establishment of a market-based economy and the continuation of the integration of the FSU into the global economy in terms of trade, foreign investment and currency convertibility. Medium-term economic and financial prospects in that region constitute a major uncertainty for the future prospects of agricultural markets. Central and Eastern European countries would display vigorous growth over the medium term, in particular countries where market reforms and increased openness to trade and competition have been implemented. Average growth in these countries is forecast to reach between 4 % and 5 % per annum.

Graph 3.8 Outlook for real GDP growth per region, 2001 - 2010 (cumulative growth in %)



Source: USDA.

In spite of a short-term slowdown in the early years of the projection period, the economic situation in developed countries is foreseen to remain favourable over the medium term. GDP growth is estimated to reach between 2.5 % and 3.0 %, i.e. higher

than in the 1990s, as structural adjustments undertaken throughout the second half of the 1980s and into the past decade created a foundation for growth. After several years of very strong gains, the US economy is foreseen to slow in 2001 and 2002 in the USDA projections, before returning to a long-term sustainable rate of 3.2 % over the rest of the outlook period. The FAPRI and the OECD anticipate a stronger and more robust pattern for the US economy, with growth rates averaging between 3.5 % and 3.7 % over the medium term. Significant structural problems, especially in the financial and corporate sectors, are expected to constrain the Japanese economy on a modest growth path over the medium term at between 1.5 % and 2.0 % per year. Economic growth in the EU is expected to gain momentum in the short run at more than 3.0 %. It would then stabilise at between 2.5 % and 3.0 % on average over the medium term.

While stronger economic growth in the developed world should only have a minor direct influence on the global demand for agricultural products⁶⁰, it is expected to have a much stronger effect on food consumption in the non-OECD zone owing to higher per capita-income elasticity.

This environment of steady medium-term growth is foreseen to take place without significant inflationary pressures. In spite of the recent increase in oil prices that more than doubled in 1999 and 2000, there is no expectation of a significant impact on GDP growth and inflation over the medium term as oil has become a less important factor in the world economy since the 1970s. Oil prices would exhibit some moderate gains in real terms over the medium term.

If large exchange rate fluctuations triggered significant changes in agricultural trade flows and prices over the recent past (cf. notably the depreciation of the Euro and the Brazilian Real), currency prospects over the next seven years are expected to exhibit a more stable pattern. The euro, the Canadian \$ and the Japanese yen are projected by the FAPRI and the OECD to appreciate slightly versus the US \$ over the next seven years, whereas currencies from China and Mexico would depreciate. The FAPRI outlook also suggests some currency depreciation in Brazil and most countries of South East Asia. Diverging prospects are anticipated for the Russian Ruble, with a medium-term depreciation in the FAPRI projections versus an appreciation in the USDA outlook.

(3) Change in dietary pattern

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

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

(4) A differentiated pattern of food production and consumption should lead to some regional imbalance and increase trade

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

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

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

3. Prospects per sector

This section is based on the projections⁶¹ of some prominent forecasting organisations (OECD, FAPRI, USDA, FAO) and the Commission's internal assessment of possible development in world agricultural markets over the medium term. Its main objective is not to compare these different estimates or to give the most realistic levels of global supply, demand and trade of the different commodities at a given time, but only to assess the possible development of world markets over the next seven years. As a consequence, the absolute levels of the different variables considered must be interpreted with caution, and should be seen as providing an order of magnitude instead of a precise estimate of the level of these variables⁶².

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

⁶² These projections are not intended to forecast what the future will be, but instead describe what may happen under a specific set of assumptions and circumstances. The projections represent one plausible long-run scenario that presumes a continuation of the current agriculture and trade policies, with no major weather or political shocks, and with specific assumptions regarding the global macro-economy, international developments, productivity growth and other factors affecting food production, consumption and trade. It is obviously impossible to give a comprehensive view of all macroeconomic and policy assumptions adopted by each analyst. These can be found in the documents mentioned in reference.

3.1 Cereals

If the cereal sector is foreseen in the short term to continue to recover from a market situation in the late 1990s marked by large supply, ample stocks and weak demand, most projections tend to depict an outlook for world cereal markets that appears rather favourable over the medium term. Improved economic perspectives over the medium term and the gradual adjustment of supply to prices at historical lows should set the stage for a strengthening of world demand and a tightening of stock-to-use ratios. Limited production potential in some countries and supply adjustments should generate a broad based expansion of cereal trade, driven by rising income, diet diversification and higher demand for livestock products and feeds in some developing countries. These factors would generate a significant, though moderate price recovery over the medium term.

Short-term developments

The short-term estimates from the International Grains Council (IGC⁶³) for the 2001/02 marketing year indicate a wheat crop forecast at 579 mio t. The 2001 harvest would thus constitute the fourth consecutive fall in world wheat production from the 1997 record of 610 mio t. Significantly lower supply is anticipated in the EU, India, Pakistan and, to a lesser extent, in the US. In contrast, wheat production is forecast to increase in the CEECs, the FSU (mainly Russia and Ukraine), Australia, North Africa and Iran. Coarse grain production would in turn increase sharply to 883 mio t, 16 mio t higher than the 2000 harvest⁶⁴. Large crops are foreseen in China, Europe, Canada and South Africa. There should be smaller harvests in the US and Brazil.

World demand for wheat is anticipated to resume increasing after three years of relative stagnation. Driven by food use in developing countries and feed usage in industrialised economies, total wheat consumption would reach 600 mio t in 2001/02, i.e. an increase of around 7 mio t as compared to 2000/01. As consumption is forecast to exceed production for the fourth year running, wheat stocks would fall further to 94 mio t in 2001/02 (i.e. a stock-to-use ratio of 15.6 %). Moreover, wheat stocks in the five major exporting countries would drop by 10 mio t to 37 mio t, their lowest level since 1996/97. Total wheat trade is set to rise in 2001/02 to 104 mio t, with the bulk of this increase taking place in China and other Asian markets, notably Indonesia⁶⁵.

Supply

Over the medium term, world wheat production is forecast to increase substantially faster than in the early 1990s but significantly lower than during the two decades before. Wheat availability would grow at a sustained pace that ranges from 1.4 % on annual average in the FAPRI forecasts (i.e. 70 mio t over the 2000-2008 period) to 1.8-2.0 % in the USDA and OECD projections respectively (i.e. around 90 mio t in the USDA outlook). Developing countries and transition economies are foreseen by all major organisations to

⁶³ The short-term estimates from the IGC allow to throw some light on the most recent developments in the world cereal markets. In that context, they may display some differences with the medium and long-term projections published at the beginning of 2001 by the OECD, FAPRI and USDA.

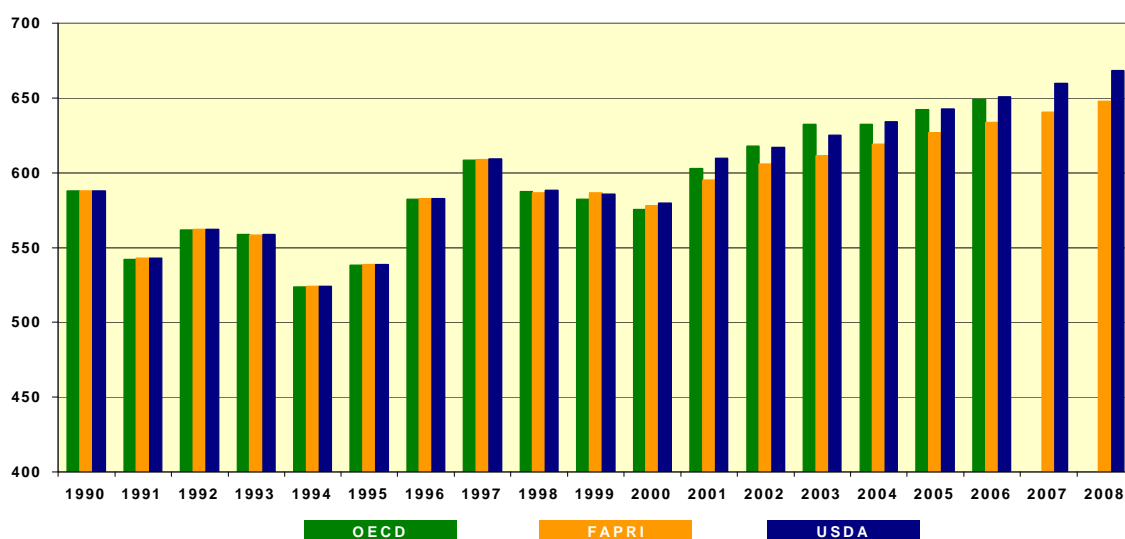
⁶⁴ Higher coarse grain production would mainly result from a sharp recovery in maize production that would reach around 600 mio t, while barley production would remain broadly stable at 134 mio t.

⁶⁵ Short-term forecasts from the IGC for consumption, trade and stocks of coarse grains were not available when this report was finalised.

account for most of the increase in production. Total wheat production would reach between 650 and 670 mio t in 2008 as compared to 609 mio t in 1997 (a record high).

As in recent decades, most of the growth in production would be generated from higher yields as wheat area would only expand moderately. Wheat yields are estimated to rise by an anticipated 1.1-1.2 % on annual average by the FAPRI and the USDA and 0.9 % by the OECD. These wheat productivity growth rates represent a marked slowdown as compared to the previous decades but an improvement over the early 1990s⁶⁶.

Graph 3.9 Outlook for world wheat production, 1990 – 2008 (mio t)



World wheat area, which has been declining since its record level in 1996 in line with the market and policy environment in some countries, is foreseen to bounce back in 2001 and to expand by 9 and 14 mio ha in the USDA and OECD outlook respectively over the rest of the forecasting period supported by strengthening prices. However, land and water constraints in many countries (linked to urbanisation and climatic conditions) as well as sustained competition from other crops are expected to limit wheat area development over the medium term⁶⁷. In that context, the FAPRI only foresees a very modest recovery in wheat area after 2001, with wheat area reaching 220 mio ha by 2008/09.

Information on total coarse grain is not fully comparable as the definition of this group differs across projections. Yet, the two major coarse grains, i.e. maize and barley, exhibit an outlook characterised by a development in production stronger than over the most recent decade in the USDA and OECD projections. As for wheat, these organisations foresee that production growth would be supported by both yield growth and, though to a lower extent, some increase in total area (notably for maize). Conversely, FAPRI expects that the rise in coarse grain production would be mainly generated by increased

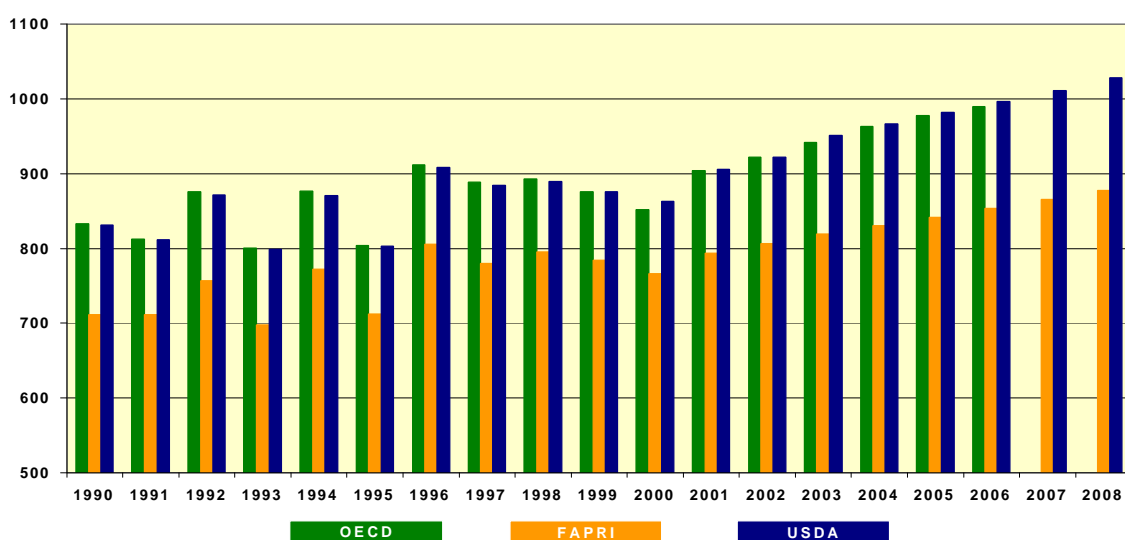
⁶⁶ The slowdown in yield growth is attributed by some analysts to the lower quality of soils being brought in production and reduced budgets for research and development. The OECD argues that the combination of stricter environmental restrictions on the use of inputs, higher costs of fertilisers and agro-chemical inputs and increasingly tighter water supply for irrigation may significantly contribute to this anticipated reduction in yield growth.

⁶⁷ It should be noted that land idling programmes in the EU and US have been set at or close to their maximum or reference base in most projections.

productivity⁶⁸, as total coarse grain area would only grow by slightly more than 3 mio ha, the decline in sorghum area partially offsetting the projected increase in maize and barley area.

In the OECD projections, coarse grain production would rise by 138 mio t from 2000 to 2006 (i.e. 2.5 % per year). Growth in coarse grain production would be mainly driven by the expansion in maize production that would range over the 2000-2008 period between 92 mio t (FAPRI) and 127 mio t (USDA) (i.e. 1.8 % to 2.5 % per annum respectively). A growing demand for malting barley and attractive prices would support gains in barley production. Growth in barley production would reach between 14 mio t (FAPRI) and 16 mio t (USDA) from 2000 to 2008 (i.e. around 1.2 % and 1.4 % per year respectively). These growth rates would constitute a significant increase when compared to the 1980s and 1990s, though lower than during the 1970s.

Graph 3.10 Outlook for world coarse grain production, 1990 – 2008 (mio t)



Demand

After a marked slowdown in the early 1990s, growth in wheat demand is forecast to gather pace over the 2000/01-2008/09 period and reach on average an annual rate ranging from 1.1 % (FAPRI) to 1.5 % (OECD and USDA), i.e. by between 52 and around 75 mio t over the whole period. As most developed countries have already relatively high levels of per capita wheat consumption and only limited scope to increase it, developing countries would account for most of projected increase (although transition economies are also foreseen to show important gains). The USDA expects world per capita wheat consumption to increase slowly from 99 kg per year in 2000 to about 100 kg over the medium term driven by higher feed wheat demand in the FSU, other transition economies, China and the EU⁶⁹. Nevertheless, if projected growth rates in global wheat use are significantly higher than those observed in the 1990s, they would still fall short of the

⁶⁸ Over the next seven years, productivity growth in maize production is expected to slow down to 1.6 % per annum in the USDA and FAPRI projections, whereas barley yields would rise between 0.8 % and 1.0 % respectively, i.e. a significant increase compared to the 1980s and 1990s. A similar pattern is foreseen by the OECD.

⁶⁹ World per capita consumption of wheat fell sharply from a peak of 107 kg in 1990 to 97 kg in 1995 owing to the drastic fall in demand in the FSU and the CEECs.

levels recorded in the 1970s and 1980s.

Total coarse grain consumption would follow a stronger pattern with a robust growth estimated on annual average between 1.4 % (FAPRI) and 2.2 % (OECD, with the USDA at 1.8 %), i.e. an increase of between 90 and 164 mio t respectively over the forecast period. Demand for coarse grains would thus grow faster than during the 1980s and 1990s⁷⁰, but much slower than during the 1970s. Maize would constitute the main driving force behind this rise in demand, due to the expansion of the poultry and pig meat sectors⁷¹, with an annual increase forecast between 1.4 % and 2.0 % respectively (corresponding to 73 and 108 mio t from 2000/01 to 2008/09), whereas barley consumption would rise by 1.1 % and 1.2 % respectively on annual average (i.e. 12-14 mio t over the whole period).

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

Trade

As domestic supply is not projected to meet the pace of a rapidly expanding demand in many regions of the world, this growth in world cereal consumption is foreseen to boost global trade. World cereal trade is projected to grow sharply higher than in the 1980s and 1990s. Reversing a decline that began in the early 1980s, coarse grains are expected to exhibit the strongest increases in grain trade in response to higher meat consumption and the consequent increase in feed demand (maize would also benefit from higher yields and lower prices than wheat).

Table 3.1 Outlook for total trade in cereals, 2000 – 2008 (mio t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Wheat	105.6	90.6	117.3	104.4	11.7	13.9
Coarse grains	101.3	91.5	124.3	109.3	23.0	17.8
Maize	72.5	67.3	89.3	82.4	16.8	15.1
Barley	18.6	17.8	21.8	19.3	3.2	1.5
Total cereals	206.9	182.0	241.6	213.7	34.7	31.7

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

Both FAPRI and USDA foresee a steady expansion in cereal trade from 2000/01 to 2008/09 ranging between 11 and 15 % for wheat (i.e. 12-14 mio t) and 20-23 % for coarse grains (i.e. 18-23 mio t). The OECD outlook expects net exports from the OECD

⁷⁰ Demand for coarse grains in the 1990s had been restrained by the restructuring in the livestock and feeding industry of the transition economies and the economic slowdown in the Far East Asia.

⁷¹ About two thirds of global coarse grain production are used as animal feed.

area to rise by 25 % for wheat and 40 % for coarse grains by 2006, as compared to the 1995-99 average.

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

Table 3.2 Outlook for wheat net imports for major importing countries, 2000 – 2008 (mio t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	7.8	26.7	17.2	33.6	9.4	6.9
China	1.5	1.0	3.1	5.4	1.6	4.4
Indonesia	3.7	-	5.1	-	1.4	-
Japan	5.5	5.5	5.5	5.4	0.0	-0.1
FSU	0.7	0.6	-1.3	0.9	-2.0	0.3
Africa & M. East	39.8	40.4	45.7	41.4	5.9	1.0
North Africa*	15.5	15.4	17.4	17.3	1.9	1.9

* excluding Lybia

Net cereal imports from China are forecast to increase over the next seven years: Chinese wheat net imports would grow between around 0.4-1.6 mio t (OECD and USDA) and 4.4 mio t (FAPRI) from 2000/01 to 2008/09. These modest gains in relation to earlier expectations may be seen as the net result of agricultural and trade policy changes combined with somewhat slower growth in demand and rising yields. China would also turn from being a net exporter of coarse grains in 2000/01 for around 1.5 mio t to become a net importer over the medium term. The FAPRI expects net coarse grain imports to reach more than 8 mio t by 2008/09. In their outlook, growth in coarse grain imports (mainly maize) would be gradually driven by the rapid expansion of China's livestock sector in response to sustained meat demand and by a feed demand that would outpace domestic production by the end of the projection period. The USDA foresees a similar, though slightly more modest pattern for Chinese cereal imports, with net wheat and coarse grain imports standing at 3 mio t and 7 mio t respectively by 2008/09⁷². Rising imports to meet an expanding livestock and higher feed demand are also projected by the OECD, so that China would become a net coarse grain importer of 4.6 mio t by 2006/07.

Besides China, other Asian countries that are expected to exhibit some increases in wheat import include the South East Asian countries, Pakistan and India. The latter, that has

⁷² The new grain policy in 1999 towards strict quality standards on government grain purchases and the gradual elimination of purchases of low-quality grains is foreseen to reduce grain supply. Yet, abundant grain stocks are expected to limit the rapid development of cereal imports in the short-term. Over the medium-term, lower grain production should generate higher prices, greater incentives towards high-quality grains and larger imports.

been a wild card player over the last few years alternating as an importer or an exporter of wheat depending on domestic availability, is foreseen to become a growing net wheat importer.

Cereal imports in Africa and the Middle East are expected to rise in response to sustained GDP expansion, high population growth and limited production potential. Altogether coarse grain imports are projected to increase by about 3 to 5 mio t from 2000/01 to 2008/09, whereas wheat imports would grow between 1 and 6 mio t. Mexico and other Latin American countries are also expected to be a source of import growth throughout the whole period as rising income boosts meat demand. Finally, growth in world barley trade of around 2 to 3 mio t is foreseen to take place mainly in China for malting barley and Saudi Arabia for feed barley. However, malting barley markets are anticipated to exhibit higher growth potential, as feed barley would face strong competition from other feed grains.

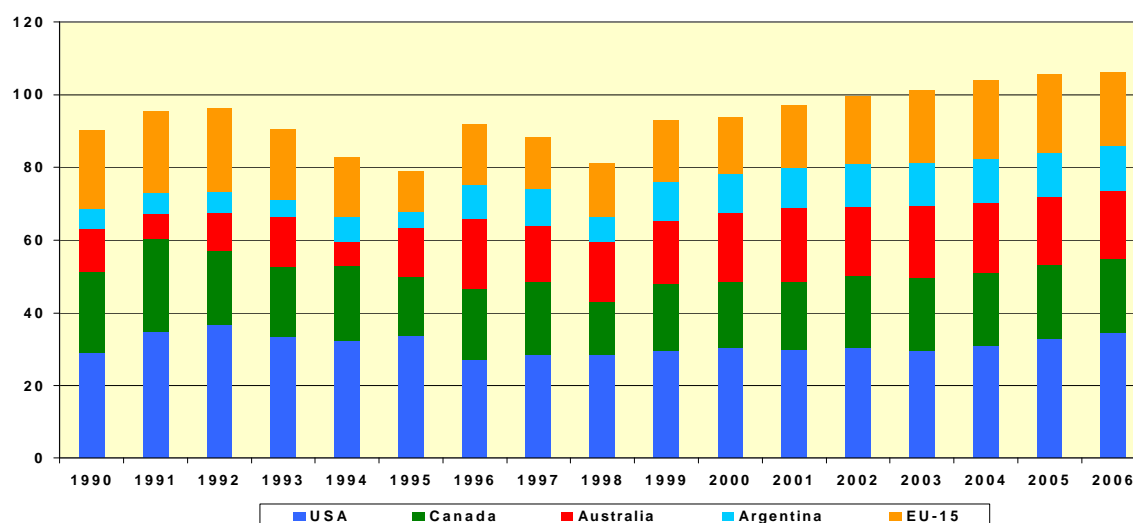
Table 3.3 Outlook for coarse grains net imports for major importers, 2000 – 2008 (mio t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	33.2	36.4	44.8	50.5	11.6	14.2
China	-1.4	-1.7	6.9	8.1	8.3	9.7
Indonesia	1.1	1.2	1.9	1.6	0.8	0.5
Japan	20.0	19.7	19.8	19.2	-0.2	-0.6
Mexico	9.5	10.0	12.3	11.7	2.8	1.8
Other Lat. America*	9.9	9.6	13.4	10.8	3.5	1.2
Africa & M.East	25.5	24.5	30.3	27.0	4.8	2.5
North Afr.** & M.East	24.8	21.1	29.7	22.9	4.9	1.8

* excluding Argentina; ** only Algeria and Egypt in FAPRI

Prospects for higher world wheat trade would mainly benefit the traditional exporters such as the US, Canada, the EU, Australia and Argentina. Whereas Canada's market share in the global wheat trade would broadly stagnate, Australia's would exhibit a decline.

Graph 3.11 Outlook for wheat exports for the major wheat exporters, 1990 – 2006 (mio t)



Source: OECD

The US is foreseen by all organisations to reap the lion's share of the additional import demand, although its global market share would somewhat diminish. If Argentina is

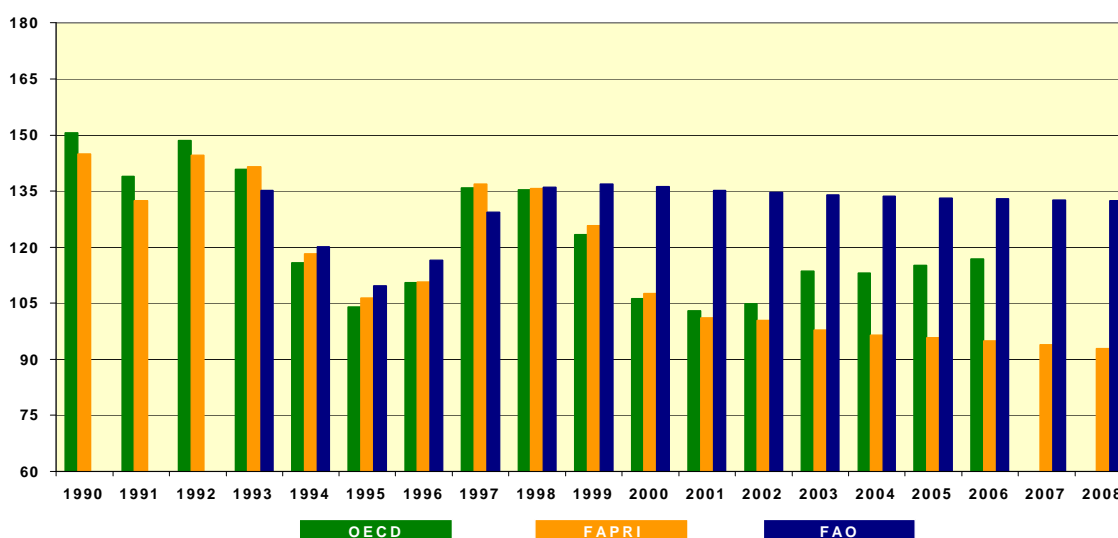
foreseen to benefit from a larger import demand, the EU is clearly expected to be the main winner as it would benefit from an improved competitiveness and abundant supply that should enable the EU to export beyond its WTO limits on subsidised exports. These prospects would result from the implementation of Agenda 2000 (notably the cut in cereal support price), favourable currency developments (in particular the €/\$ exchange rate) and the recovery in world market prices.

Additional maize import demand is expected to be met by the US, Argentina and Eastern European countries, as China would reduce its exports over the projection period. Finally, the EU is foreseen to capture most of the growth in barley trade at the expense of Canada and Australia. According to the USDA, FAPRI and the OECD, a favourable exchange rate⁷³ and rising projected world prices should enable the EU to export most of its barley without subsidies over the medium term.

Stocks and prices

After some strong rebuilding in 1997 and 1998, cereal stocks declined sharply over the last two years. Most organisations foresee that low cereal stock levels should be a feature of cereal markets over the medium term. Combined with a projected global increase in cereal demand, the stock-to-use ratio is expected to tighten and generate an increase in world cereal prices over the medium term.

Graph 3.12 Outlook for world wheat stocks, 1990 – 2008 (mio t)

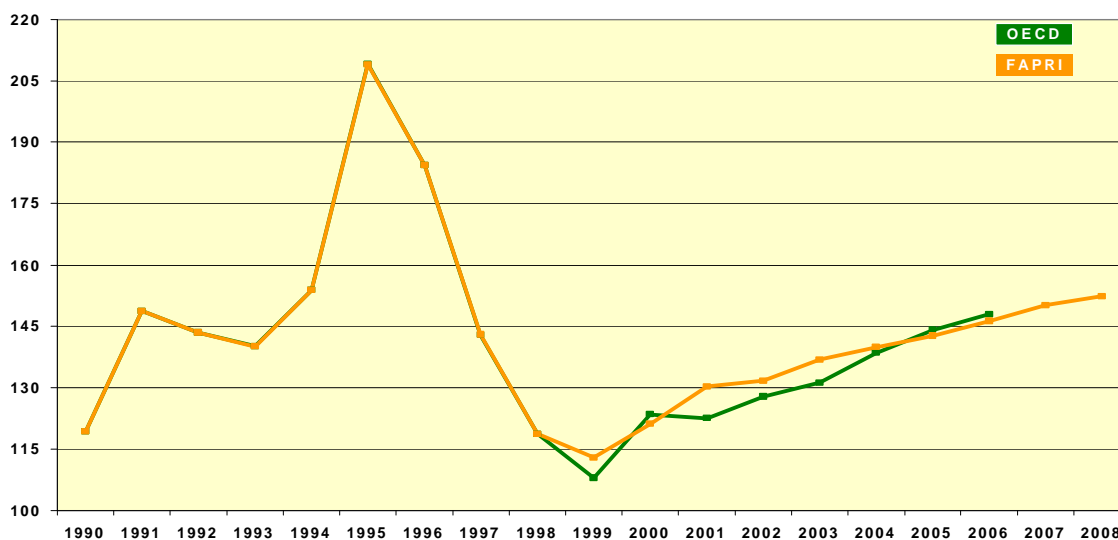


After bottoming out by the turn of the century, cereal prices are foreseen to recover slowly over the medium term from the current low levels as supply adjusts and global demand strengthens. According to the FAPRI projections, prices of common wheat (HRW, fob US Gulf) are projected to range around 152 \$/t by 2008/09 (SRW wheat, that

⁷³ In their analysis, the OECD and FAPRI assume that the € would strengthen in nominal terms versus the US \$ from 2001 onwards. Whereas the €/\$ exchange rate would quickly fall from 1.08 in 2000 to around parity from 2002 onwards in the OECD projections, the FAPRI foresees a much stronger pattern as the € would appreciate substantially throughout the period reaching 0.9 in 2008. Conversely the USDA anticipates that the EU economic development would continue to lag behind US growth so that the € would remain weak and depreciate up to 2004 (when it quotes slightly less than 1.25). From 2005 onwards, the USDA indicates some appreciation in nominal terms at around 1.20 (a mere stabilisation in real terms).

broadly corresponds to EU common wheat quality, would quote around 10 % below these HRW wheat price projections).

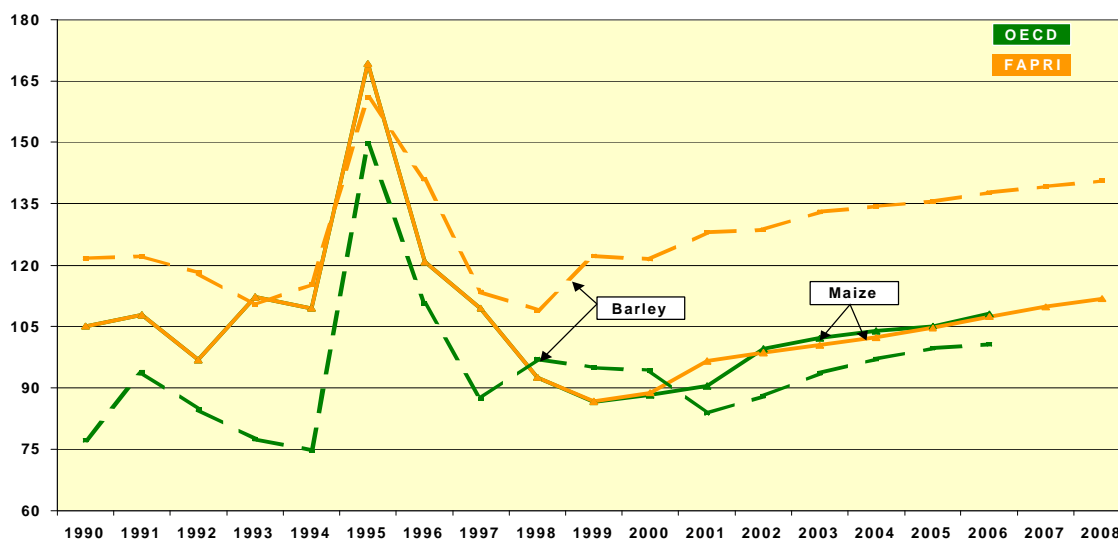
Graph 3.13 Outlook for world wheat prices, 1990 – 2008 (\$/t)



Ref.: US FOB Gulf, HRW.

Prices of coarse grains should follow a similar trend, with maize (fob US Gulf) prices projected at about 112 \$/t by the end of the period. The OECD foresees similar developments with wheat and coarse grain prices strengthening over the medium term and reaching 148 \$/t and 108 \$/t respectively by 2006/07. Durum wheat prices would also trend upwards, rising from around 150 \$/t in 2000/01 (for EU durum wheat quality) to about 180 \$/t by 2008/09.

Graph 3.14 Outlook for world coarse grains prices, 1990 – 2008 (\$/t)

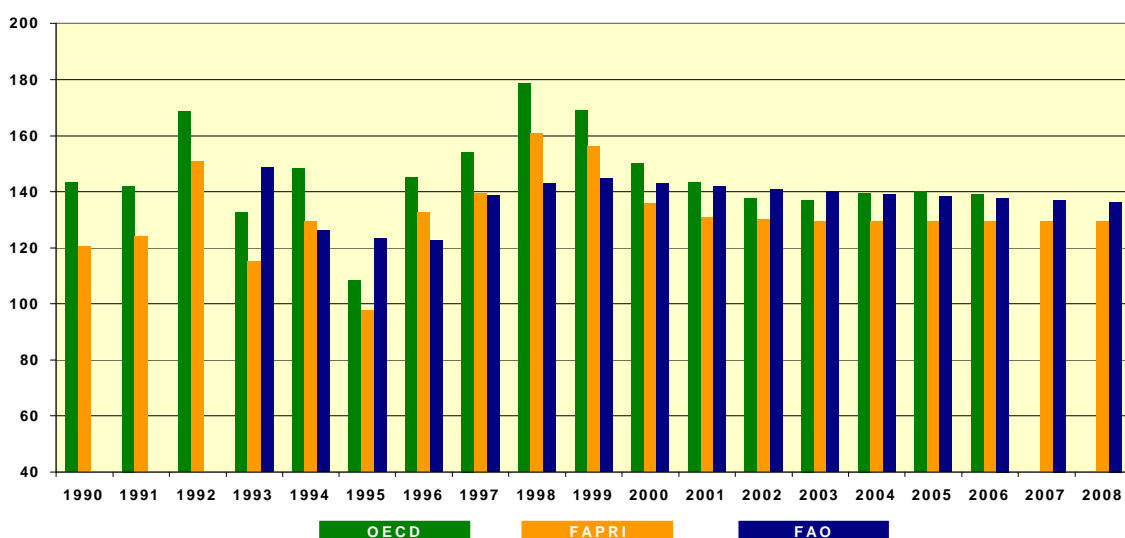


Ref.: Maize: US yellow corn FOB Gulf; Barley: OECD-No.1 CW barley St Lawrence since 1995, Thunder Bay before; FAPRI Portland.

After falling sharply from their peak in 1995/96, barley prices are projected to recover gradually over the rest of the period: from 109 \$/t in 1998/99 (Portland reference) to

141 \$/t in 2008/09 in the FAPRI projections and from 84 \$/t in 2001/02 to 101 \$/t (St Lawrence reference⁷⁴) in the OECD outlook.

Graph 3.15 Outlook for world coarse grain stocks, 1990 – 2008 (mio t)



3.2 Oilseeds and oilseed products

The medium-term prospects for the oilseed sector are still expected to display a relatively modest recovery after a short-term situation characterised by excess supplies and very low prices. However, the vigorous growth in demand anticipated over the medium term – notably from developing countries- for oilseed and oilseed products (in the form of vegetable oil for human consumption and oilseed meal from an expanding livestock sector) is forecast to sustain further growth in the oilseed sector, gradually restore market balance and support prices by the end of the outlook horizon.

3.2.1 Oilseeds and oilseed meals

According to the OECD and the FAPRI, total oilseed production is forecast to increase between 2000/01 and 2006/07 at an annual rate ranging between 1.6 % and 1.9 % respectively (i.e. around 25 mio t). Similar growth rates are projected by the USDA and FAPRI for soybean up to 2008/09. Most of the increase in oilseed production is foreseen to take place in the US, Brazil, Argentina, China and India and to result from both area expansion and yield improvement (except in the US where oilseed area in 2008/09 is foreseen to remain close to its 2000/01 level).

FAPRI expects that the continuous expansion in oilseed output would be supported by both an increase in oilseed area, that would strongly increase by 7.1 mio ha to stand at 113.6 mio ha by 2008/09 (split between around 2/3 in soybean and 1/3 in rape/sunflower seed), and further yield growth that would reach 9 % over the 2000/01-2008/09 period (i.e. 1.1 % per annum on average).

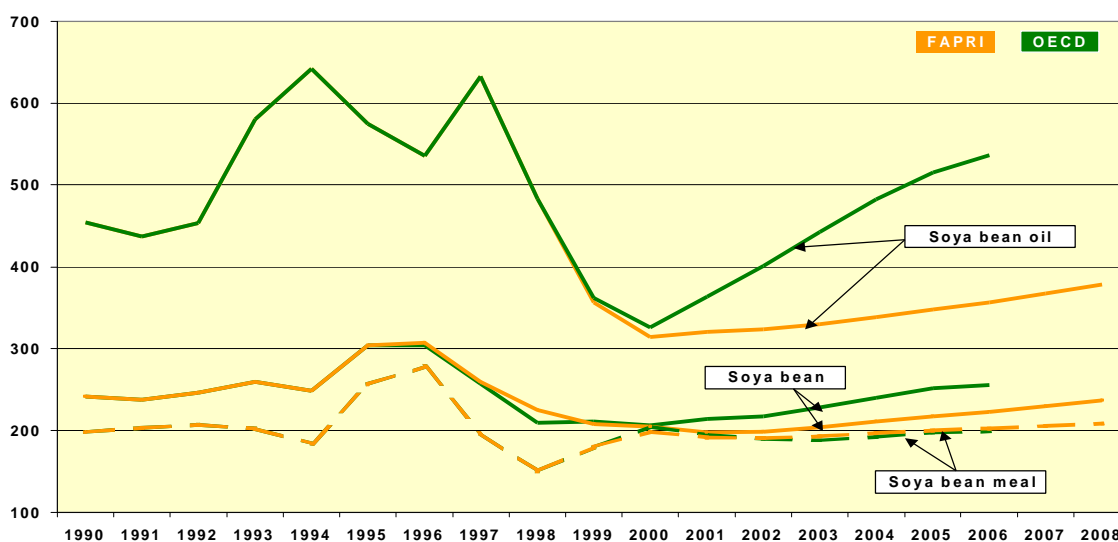
⁷⁴ The St Lawrence quotation for barley prices constitutes the appropriate reference for EU barley qualities and trade destinations.

If the OECD foresees similar trends in yields, it anticipates a more moderate pattern in area expansion, with an additional oilseed area of only 3 mio ha over the next five years. Yet, all projections appear to indicate a relative stabilisation in the oilseed area in the OECD zone (notably the US). In contrast and despite low world prices in the early part of the projection period, most of additional area allocated to oilseed production would be found in the low-cost exporting countries of South America (Argentina and Brazil).

Current low oilseed prices still result from a relative excess supply, slower demand growth and a combination of policy and macro-economic⁷⁵ factors. In the short term, supply is anticipated to adjust slowly to this low price level owing to policy factors, notably in the US⁷⁶ where soybean production is only partly responsive to market signals as producers are largely sheltered from current low prices thanks to the loan deficiency payment (LDP) system.

The importance of this instrument is foreseen to decline over the medium term as global demand strengthens, stocks fall and market prices recover. The OECD, USDA and FAPRI projections expect that the role of these payments will cease by around 2004/05 when average prices start rising above the loan rate.

Graph 3.16 Outlook for world prices in the soya bean complex, 1990 – 2008 (\$/t)



Ref.: US Soya bean CIF Rotterdam; Soya bean meal CIF Rotterdam; Soya bean oil CIF Rotterdam.

However, low market prices and tight financial conditions would in turn constrain area and yield growth in many developing countries in the short term. Over the medium term, an expanding demand would favour some moderate recovery in market prices and support production developments thanks to productivity gains and availability of land resources.

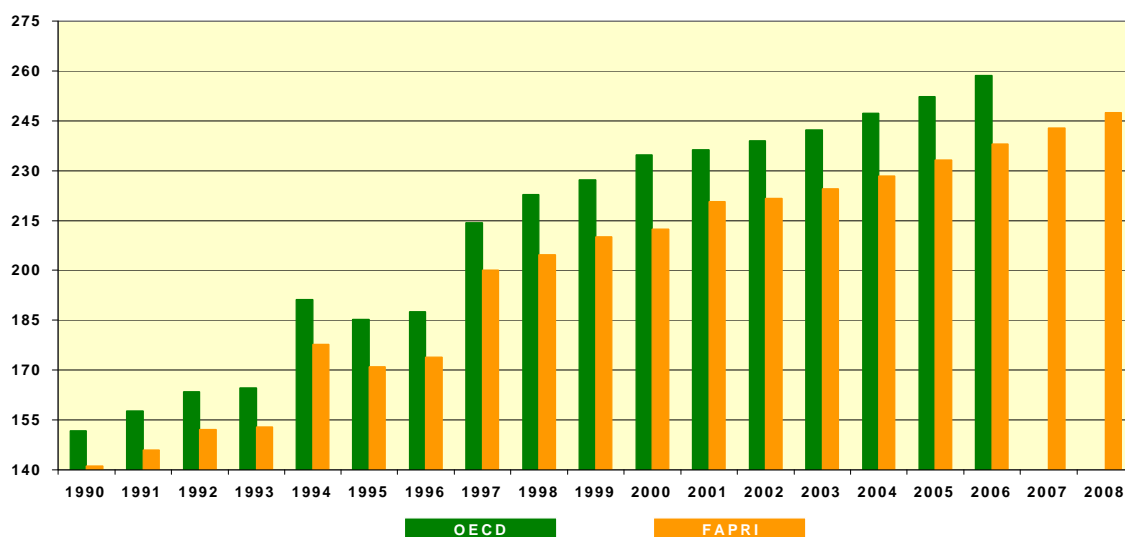
The consolidation of the economic recovery over the medium term is expected to stimulate import demand for oilseeds and oilseed meals, notably in developing countries where income growth is likely to generate higher demand for livestock products, notably for poultry and pig meat. The shift in consumer preferences in these countries towards

⁷⁵ Notably the recent currency depreciation that was observed in some major oilseed producing countries (in particular Brazil).

⁷⁶ Beyond the policy incentives, developments in the US soybean area also reflect higher input costs for maize that limit plantings of that crop.

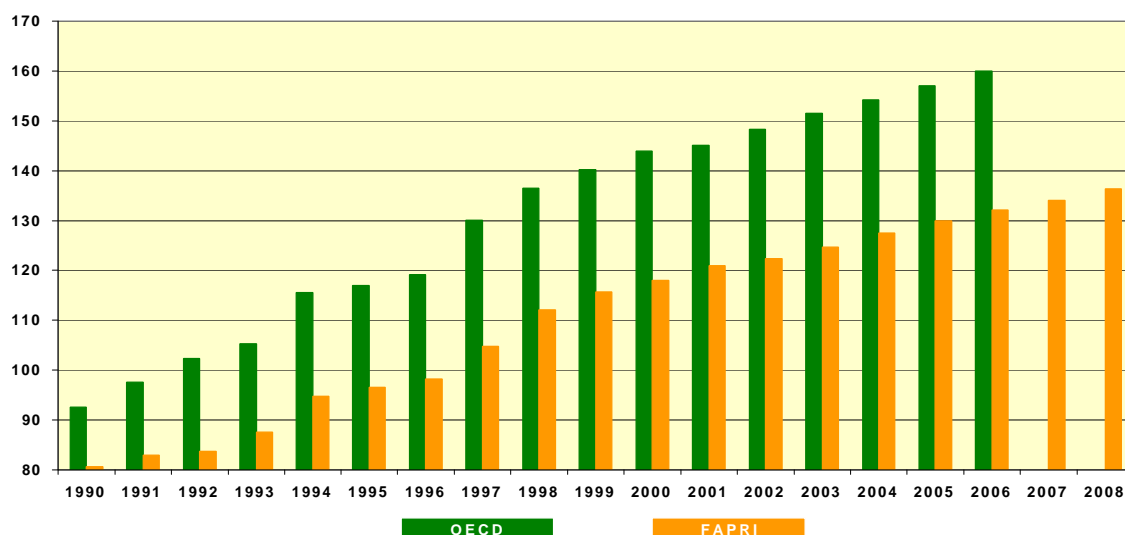
white meat and away from red meat, and the consequent large feed requirements would become the main driving force underlying the strong growth in global oilseed meal consumption.

Graph 3.17 Outlook for world oilseed production, 1990 – 2008 (mio t)



Additional oilseed meal consumption is estimated between 14 and 16 mio t by 2006/07. Although the pace of growth is now slower in developed countries⁷⁷ than in emerging economies, the former still make up for 60 % of world oilseed meal use. Moreover, OECD countries would still account for the largest share of oilseed and oilseed meal import demand, especially the EU and Japan.

Graph 3.18 Outlook for world oilseed meal consumption, 1990 – 2008 (mio t)



Total trade in oilseeds is anticipated to increase faster over the projection period than in the 1980s, but much more slowly than in the early 1990s. After a marked short-run slowdown in the wake of the Asian crisis at the end of last decade, global trade is forecast to strengthen as economies recover towards a more sustainable economic path. Trade

⁷⁷ However the OECD markets are starting to mature in contrast to developing countries that represent now just over half the world consumption of oilseeds and over 60 % of vegetable oils.

growth in oilseed meals is foreseen to be relatively steady but still slower than over the last fifteen years. Soybean is forecast to account for most of the growth in oilseed and oilseed meal trade over the medium term.

According to the USDA and FAPRI projections, soybean trade would rise at annual rates ranging between 1.2 % and 3.6 % respectively over the next seven years, whereas soybean meal imports would grow by between 0.7 % and 2.1 % per year respectively. The combined exports of soybeans and soymeals, on a soybean-equivalent basis, would thus grow according to the USDA from 95.3 mio t in 2000/01 to an estimated 116.5 mio t in 2010/11.

If the FAPRI and USDA projections do not fundamentally diverge on the overall medium-term prospects for sustained growth in oilseed and oilseed meals, they differ mainly over the composition of future trade flows, notably for the two major importers the EU and China. Whether oilseeds or oilseed products are imported depends on each importer's domestic policies and crushing capacity.

Table 3.4 Outlook for total trade in soybean and soybean products, 2000 - 2008 (mio t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Soya bean	45.2	41.9	51.1	58.0	5.9	16.2
Soya bean meal	39.9	33.1	47.9	35.7	8.0	2.6
Soya bean oil	7.8	5.9	9.4	6.7	1.6	0.7

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

The USDA foresees a significant decline in EU soybean and soybean meal imports as lower prices of domestic feed grain due to the implementation of Agenda 2000 and abundant supplies would combine to reduce the level of import demand for oilseeds and oilseed products. In contrast, the FAPRI expects EU imports to continue to grow over the next seven years⁷⁸⁷⁹.

Table 3.5 Outlook for soybean net imports for major importing countries, 2000-2008 (mio t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union	15.4	16.0	14.1	17.3	-1.3	1.3
Japan	4.8	4.8	4.8	4.8	0.0	0.0
China	7.1	7.7	9.7	15.3	2.6	7.7
South Korea	1.7	1.7	1.5	2.0	-0.2	0.3
Mexico	4.2	-	5.0	-	0.8	-
Taiwan	2.3	2.4	2.9	2.4	0.6	0.0

⁷⁸ Whereas the ban on animal protein meals adopted in December 2000 is not taken into account in the USDA projections, it is anticipated to generate an additional 1 mio t of soybean meal consumption in the EU in 2000/01 and 2001/02 according to the FAPRI outlook.

⁷⁹ The OECD outlook, prepared before the adoption of the ban on the use of animal bone and meat in animal feed, suggests a moderate growth in total EU imports. Oilseed imports would slightly rise to offset the small decrease in domestic oilseed production while oilseed meal imports would decline from current levels as the competitiveness of domestic grains improves thanks to the Agenda 2000 reform.

China's domestic grain policy and recent shift towards maximising its large domestic crushing industry would translate into greater imports of oilseeds (rather than oilseed meals and oil). Driven by strong oil consumption and increased demand for oilseed meals from the livestock industry (mainly for pig and poultry), China is foreseen to account for around half the world's growth in soybean imports. Whereas the FAPRI expects China to double its current level of soybean imports by 2008/09 (from 7.7 mio t in 2000/01 to 15.3 mio t in 2008/09), the USDA projections indicate a more moderate pattern with an additional 2.6 mio t of soybeans imported by 2008/09 and a further 2.7 mio t increase in soybean meal imports⁸⁰. The OECD provides for a "middle ground" picture with total oilseed and oilseed meal imports rising by 3 mio t and 1 mio t respectively by 2006/07⁸¹.

Besides the EU and China, the medium-term outlook for global oilseed import demand is projected to remain dominated by Japan, Mexico and South East Asia.

On the export side, the US, Brazil and Argentina are forecast to increase their market share of the world soybean market, while Canada would maintain its predominance in the rape seed market. If the US are expected to capture a large share of the additional import demand in the short term as a favourable oilseed policy maintains US domestic production at high levels relative to other major exporters, firmer prices in ensuing years should help Brazil and, to a lesser extent, Argentina to increase supply and restore their export competitiveness. By the end of the decade, Brazil is forecast to account for the largest share of the projected oilseed trade expansion.

In the long run, if global import demand in soybean meal trade is forecast to be mainly driven by the EU, China and South East Asia (notably South Korea), a growing share of this demand would emerge widespread across many developing countries (from Africa and Latin America) and transition countries. According to the FAPRI and USDA outlook, Argentina and Brazil would capture around 80 % of the expansion in world soybean meal trade between 2000/01 to 2008/09.

Table 3.6 Outlook for soybean meal net imports for major importing countries, 2000-2008 (mio t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union	14.7	15.0	14.4	16.5	-0.3	1.5
Eastern Europe*	2.4	2.4	3.1	2.6	0.7	0.2
China*	1.0	0.8	3.7	0.3	2.7	-0.5
South Korea*	-	1.0	-	1.4	-	0.4

* Gross export for USDA

Oilseed and oilseed meal prices are expected to remain at depressed levels in the short term, before increasing slowly over the rest of the period supported by an expanding demand. The pace and magnitude of the recovery differ across projections. The FAPRI foresees that prices of soybean and soybean products would bottom out around 2001/02 and recover slowly over the rest of the outlook period, with soybean and soybean meal prices reaching 236 \$/t and 208 \$/t respectively by 2008/09. The OECD outlook displays

⁸⁰ Strong import growth in oilseeds and oilseed meals is foreseen by the USDA as it anticipates that the inefficiencies in the Chinese crushing sector should limit its long-term competitiveness.

⁸¹ It should be acknowledged that the accession of China to the WTO over the 2000-2008 projection period could significantly impact these global perspectives.

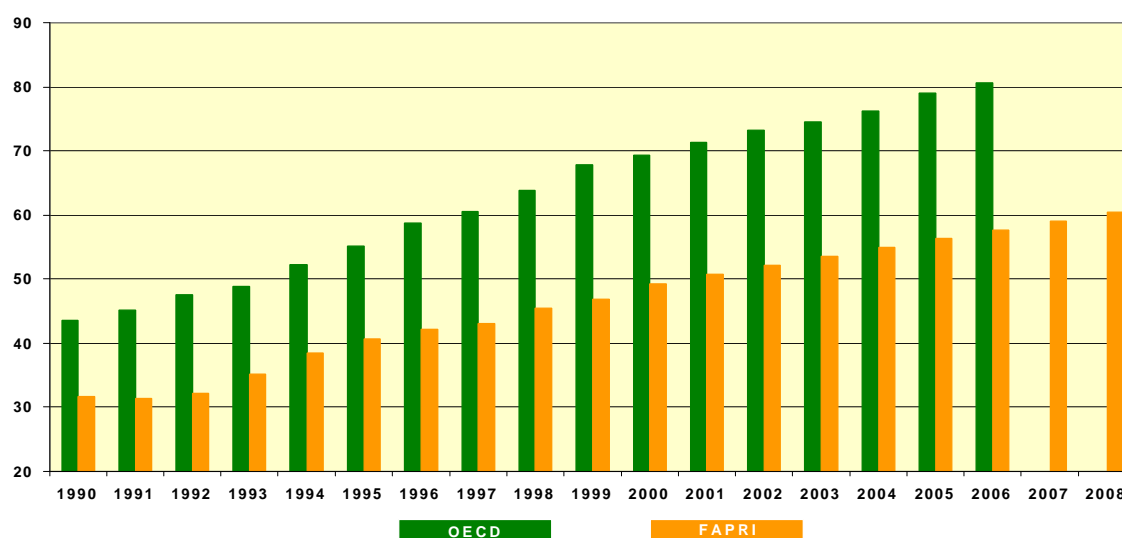
similar price trends, although more bullish for soybeans, with soybean and soybean meal prices at 256 \$/t and 199 \$/t respectively by 2006/07. These differences in the outlook for soybean prices mainly reflect differing underlying assumptions concerning the soybean loan rates in the US: the FAPRI assumes a continuation of the 2000/01 loan rate at 193 \$/t throughout the whole projection period whereas the latter is set at 181 \$/t in the OECD and the USDA baselines from 2001/02 and 2002/03 onwards respectively.

According to the FAPRI and OECD projections, rape seed and sunflower seed prices are foreseen to further decline at the turn of the century (down to 180 \$/t and 190-219 \$/t respectively) before recovering rather modestly over the medium term⁸². Prices of rape seed and sunflower seed meals would exhibit an even more modest recovery than seeds.

3.2.2 Vegetable oils

Vegetable oil has been the agricultural commodity with one of the most significant and continued growth rates over the last twenty years. Increasing income prospects are expected to maintain vegetable oil on its expansionary path. The OECD and FAPRI project that growth in vegetable oil consumption would average 2.4 % per year over the medium term⁸³. Most of this additional consumption (of more than 11 mio t) is expected to be found in Asia and in Latin America, whereas slower growth is anticipated in Western Europe, the US and Japan.

Graph 3.19 Outlook for world oilseed oil and palm oil consumption, 1990 – 2008 (mio t)



Income growth in China, India and Pakistan, which together account for more than a third of the total world population, is expected to drive trade growth in global vegetable oil from 2000/01 to 2008/09. Palm oil –the main lower-cost oil⁸⁴- and soybean oil should absorb the largest share of additional consumption and trade. Palm oil trade is forecast to expand by 4.6 mio t (i.e. 3.9 % per year over the 2000/01-2008/09 period as compared to a growth of about 9 % a year in the early 1990s). China, the EU and India would remain

⁸² By 2006/07, rape seed prices would reach between 204 \$/t (FAPRI) and 236 \$/t (OECD), whereas sunflower seed prices would stand at 208 \$/t and 264 \$/t in the respective projections.

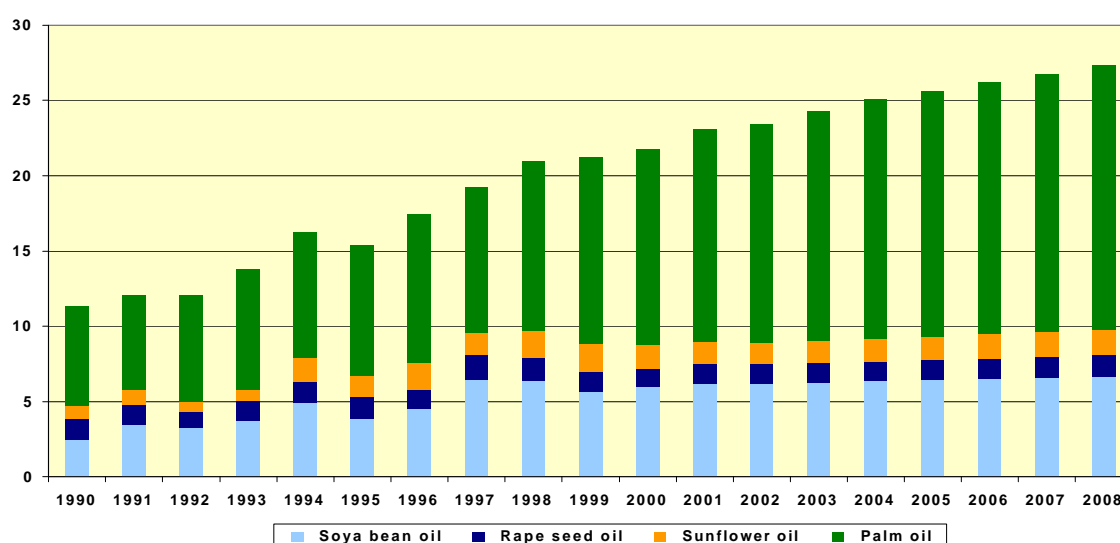
⁸³ The USDA outlook only provides for soybean oil consumption, for which it expects an annual increase of about 2 % on average.

⁸⁴ Thanks to low production costs in US \$ terms and high productivity relative to other oilseeds.

the major palm oil importing countries. Malaysia and Indonesia constitute the two largest suppliers of palm oil (accounting for more than 75 % of world production and 95 % of world trade). These two countries are forecast to increase domestic supply of palm oil by 6.3 mio t over the next eight years (or 34 %), in spite of the anticipated slowdown that may be expected from the reduction in the rate of increase in new tree plantings that took place in the wake of the financial crisis, particularly in Indonesia.

World soya bean oil trade is projected by the FAPRI and USDA to grow on annual average by between 1.5 % and 2.5 % respectively over the next seven years, i.e. at a much lower rate than those achieved in the 1980s and the early 1990s, as additional demand stimulates domestic production in importing countries. Chinese imports, totalling around 1 mio t by 2008/09, and, to a lesser extent, Indian imports would constitute the main driving force behind the growth in soybean oil trade.

Graph 3.20 Outlook for world oilseed oil and palm oil trade, 1990 – 2008 (mio t)



Source: FAPRI.

The strong growth in oilseed oil consumption and trade relative to meals and beans combined to an expected recovery in oil prices is forecast to create incentives for increased production in high-oil content oilseeds (such as rape and sunflower seeds in the EU as compared to soybeans)⁸⁵.

The medium-term prospects for vegetable oil prices appear more favourable than for other oilseed products thanks to a strongly growing demand⁸⁶. In spite of the current large availability of vegetable oils and palm oil, this sustained demand is forecast to support a steady recovery in oil prices, notably in the second half of the decade when growth in palm oil production starts slowing down. The FAPRI and OECD projections provide for medium-term prospects of soybean oil prices rising at an average annual rate ranging between 2.3 % and 8.7 % and reaching between 357 \$/t and 536 \$/t respectively by

⁸⁵ In the FAPRI projections, demand for rape seed and sunflower oil is forecast to grow over the medium term in line with rising incomes and population, notably in China, India and other developing countries. However, trade in rape seed oil and sunflower oil is only foreseen to display modest growth as most consumption increase would be met by higher domestic production.

⁸⁶ Furthermore, prices of oilseeds and oilseed meals would face a strong competition from abundant cereal supplies in the short term.

2006/07 (cif Rotterdam). Palm oil prices would display a similar pattern with prices falling to a low in 2001/02 at around 291 \$/t cif Rotterdam, before recovering slowly to 413 \$/t by the end of the projection period⁸⁷. OECD and FAPRI price projections for palm oil differ about the timing and the pace of the price recovery, with the OECD forecasting an earlier and stronger rebound in palm oil prices.

Finally, it should be acknowledged that the strong dependence of the global vegetable oil market on imports from developing countries makes the projections very sensitive to the macro-economic outlook in these countries.

3.3 Meat

The meat prospects focus on the three types of meat for which the EU is a net exporter (i.e. beef, pig meat and poultry meat). Most international organisations foresee rather favourable perspectives for the meat markets over the next seven years as they provide an outlook characterised by growing production, consumption and trade as well as world meat prices showing moderate strength. Prospects for rising meat demand would mainly emerge from a favourable macro-economic environment of sustained income growth, notably in Asia and Latin America.

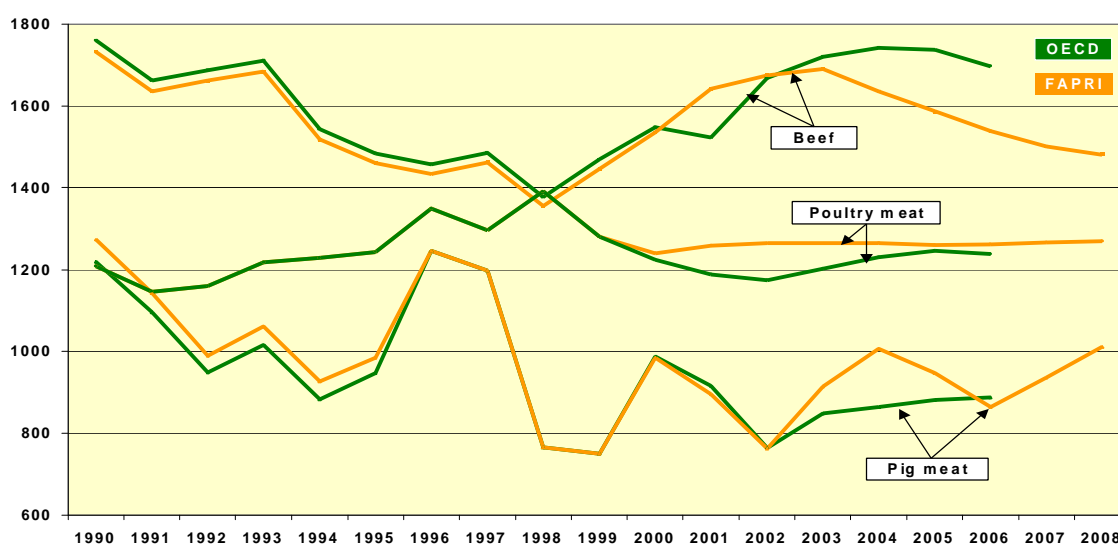
Table 3.7 Outlook for world meat trade, 2000 – 2008 ('000 t cwe)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Beef	4258	3071	5041	4037	783	966
Pork	2237	2252	2886	2831	649	579
Poultry	5029	4076	6121	4688	1092	612

FAPRI net trade.

As growing consumption is mostly expected to take place in countries that are net importers with limited possibilities to proportionally and competitively increase domestic supply (in quantity and quality), world trade would increase and world prices for meat strengthen over the medium and long term.

Graph 3.21 Outlook for world meat prices, 1990 – 2008 (\$/t lw)



⁸⁷ Owing to their lower cost structure, major producing countries of palm oil would be relatively less affected by the low price level foreseen in the short term.

These projections rely heavily on the assumption that the recovery from the economic and financial crisis that has been observed over the late 1990s in the Asian emerging economies, the transition countries and Latin America, would turn into sustained economic growth over the medium term.

Furthermore, the beginning of the decade has been marked by disruptions in world meat markets caused by sanitary issues (Japan, South Korea, Brazil, Argentina, EU). Sanitary and food safety issues could strongly alter future trends in international meat markets by increasing market segmentation and limiting market access for some potential meat exporters⁸⁸.

3.3.1 Beef and veal

The traditional split between the Pacific market and the Atlantic market will become less and less relevant if more Latin American countries succeed in securing foot-and-mouth disease free status (FMD-free). Such an evolution in the framework of a more homogenous world market with increasing prices could have potentially large implications for the structure of world beef markets, in terms both of exporters' market shares and prices. The OECD also asserts that the market is developing a new segmentation along lines of consumer and processor preferences between grass-fed and grain-fed beef. The strong demand for grain-fed beef, notably in South Korea and Japan, that currently favours the US and Canada may generate some changes in production practices in exporting countries such as Argentina and Australia (that traditionally produce grass-fed beef).

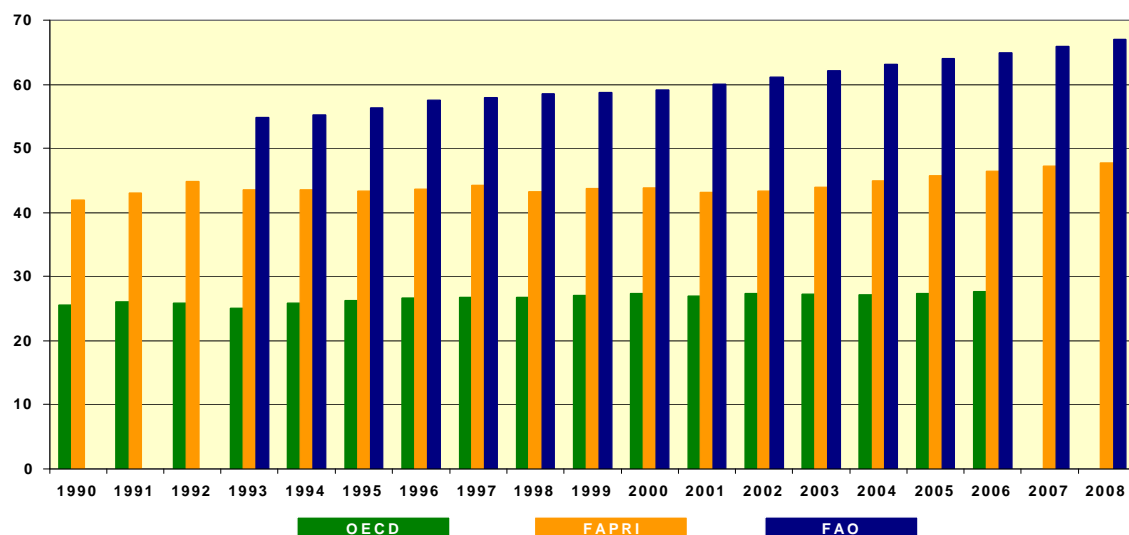
World beef production is foreseen to increase over the 2000-2008 period at a pace ranging between 1 % and 2 % on annual average according to the FAPRI, FAO and USDA projections, with most of the increase concentrated in the non-OECD area. The OECD predicts a mere stagnation of beef production in the OECD area (0.2 %), the small increases in Canada, Australia and Mexico being broadly offset by the fall in US production. As regards prospects for the US beef sector, the USDA and the FAPRI projections seem to display similar trends in production growth but with different magnitude. Over the medium term, the USDA foresees a moderate expansion in the next US cattle cycle (after a marked decline through 2003, an emphasis on grain-fed beef production and a smaller cattle inventory). In contrast, FAPRI anticipates a stronger development for US beef output with an 8 % growth and the US cattle inventory bottoming out earlier in 2002 but expanding at slower pace. All projections exhibit a robust increase in beef production in China (around 30 % over the next seven years), Brazil and Argentina (at around 15 %) and, to a lesser extent, in the FSU (5 %).

Global beef consumption is expected to rise gradually between 1% and 2 % per year on average in the FAPRI, FAO and USDA projections, in relation to income growth in particular in lower income countries. In many developed countries, per capita consumption of beef is expected to stagnate or to fall, since consumers continue to substitute pig meat and poultry meat for beef. This development is particularly marked in the US where beef consumption per capita is foreseen to fall significantly from around 45 kg in 2000 to 43.9 kg (FAPRI), 41.9 kg (USDA) and 41 kg (OECD) in 2008.

⁸⁸ It should be mentioned that the potential impacts of the BSE crisis in the EU are only incorporated in the FAPRI projections.

In contrast, increasing beef demand is likely to occur in Asian countries (mainly China and Japan) and Latin America (led by Brazil, Argentina and Mexico) over the projection horizon, after a short-term decline at the end of the nineties linked to the deterioration of the economic situation. In Asia, beef consumption should increase gradually, from relatively low current levels, in response to population growth, economic development and higher disposable income that should lead to changes in food habits toward more western style⁸⁹.

Graph 3.22 Outlook for world beef production, 1990 – 2008 (mio t cwe)



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

Whereas growth in beef demand is likely to generate little import growth in China as Chinese trade policies are expected to favour domestic supply, limitations on feed production capacity (in terms of land and forage area) in many Asian countries are projected to constrain domestic production growth, thus creating additional market outlets for major exporters.

Table 3.8 Outlook for beef net imports for major importing countries 2000 – 2008 ('000 t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Russia *	450	445	697	688	247	243
Japan	1000	1000	1113	1095	113	95
South Korea	268	268	518	424	250	156
Mexico *	400	400	622	525	222	125

USDA: * Gross trade

The USDA and FAPRI predict that total trade in beef should increase by between 800 000 t and 950 000 t (i.e. 18 % and 30 %) respectively over the 2000-2008 period. Much of the growth in imports is expected to come from Asia, the FSU and Mexico. After their recent fall in the wake of the economic downturn, beef imports in Japan and South Korea are expected to continue to resume growing over the next decade. Owing to the fall in domestic production levels (gradual in Japan and in line with the rebuilding of

⁸⁹ Even if some markets such as Japan may no longer exhibit the rapid growth recorded in the late 1980s and early 1990s.

the cattle herd in South Korea), imports would account for around 70 % and 60-70 % of domestic consumption respectively. If import growth may turn out to be rather modest in the mature Japanese market, South Korean beef imports may be boosted by the liberalisation of the beef import market in 2001 and possible changes in its beef retail distribution system, which the WTO found discriminated in favour of domestic beef.

Beef imports are forecast to grow substantially in Mexico between 2000 and 2008. A strong increase in domestic demand would outpace the slow recovery in domestic production, which had been affected by low profitability, credit problems in the second half of the 1990s, and drought conditions in 1999. The FAPRI baseline shows that after a sharp increase in beef import levels in the short term, the recovery of the beef production sector from 2003-2004 onwards allows beef imports to decline somewhat.

The prospects for the FSU remain a major source of uncertainty over the medium term. The USDA and FAPRI predict that, due to moderate-income growth and competition from pig meat and poultry meat, beef consumption would only display a slow recovery over the medium term. Domestic production would continue to fall slowly up to 2006 and stagnate afterwards at low levels. As a result, after a sharp drop in total imports associated with the elimination of food aid in 2000, beef net imports would rise gradually over the projection period -though reverting to their mid-1990s level- and level off at the end of the period at about 690 000 t.

The increasing import demand is expected to mainly benefit the US according to the USDA, FAO and FAPRI projections⁹⁰. Other low-cost producers such as Argentina, Brazil and Canada would also exhibit export gains, whereas Australia and New Zealand would lose some market share. In contrast, the OECD outlook displays a different picture with Canada, Argentina, Australia and Brazil projected to become the main beneficiaries of the expansion in the world beef market. The OECD is also far less optimistic about US export prospects and foresees that US beef imports would remain at high levels over the next seven years⁹¹.

Strong import demand combined with limited growth in beef production should improve future prospects for beef prices over the short and medium term. Yet, a series of factors, including the changing structure of the world beef market, the emergence of new major exporters and the increasing competition from other meats, are expected to exert downward pressure on beef prices. Finally, a cautious assessment of these medium-term prospects for global beef trade and prices is deemed necessary as they strongly rely on the strength of the economic perspectives in some major importing regions (South East Asia, Japan and the FSU).

⁹⁰ With a 20 % rise in US exports by 2005, FAPRI expects the US to become the world's largest exporter and net exporter by 2006. The USDA foresees more modest gains for US exports, though the US would also become net exporter by 2008.

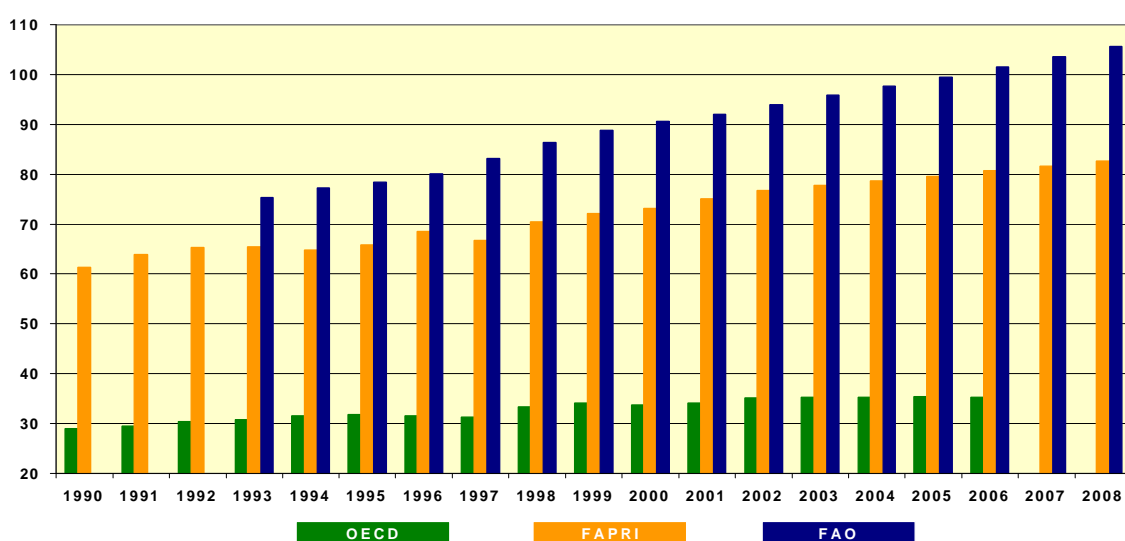
⁹¹ The USDA and the OECD, that do not incorporate the impact of the BSE crisis and FMD on the beef sector in their projections foresee that EU beef exports would broadly remain at or below WTO limits on subsidised exports. In contrast, the FAPRI baseline suggests that, after an initial drop in 2000 and 2001 in the wake of the BSE crisis, EU beef exports would recover slightly beginning in 2003, but would remain below the WTO limits over the medium term.

3.3.2 Pig meat

The OECD, FAO, FAPRI and the USDA foresee a medium-term outlook for pig meat characterised by a renewed increase in world production and consumption, and a marked expansion in world trade. The strong competition between exporters, sustained productivity growth and large supplies should however prevent pig meat prices to rise substantially.

World pig meat production is projected to continue to increase moderately over the medium term by between 13 and 17 %, i.e. a slower rate than in previous decades. The pig meat sector recently displayed an expansion of productive capacity and increased productivity. Higher concentration of production in some exporting countries is projected to raise productivity further and reduce production costs. However, pig meat expansion would remain constrained in some regions by greater competition from competitively priced poultry meat as well as by environmental and animal welfare standards. According to FAPRI and USDA projections, most of world production growth (i.e. between 10 and 13 mio t over the next seven years) is likely to occur in China (for around 50 % of total world growth in FAPRI), Canada, Brazil and Mexico. In contrast, production in the US and the EU are forecast to show more modest growth. Pig meat production in Japan is projected to decline, but at a much slower rate than in the previous decade.

Graph 3.23 Outlook for world pig meat consumption, 1990 – 2008 (mio t cwe)



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

The mature pig meat markets in the EU, US, Canada and Japan are expected to record moderate demand growth in line with income prospects and population. Slow consumption growth in these countries would be partially compensated by a stronger increase in Asia and Latin America (notably in Mexico, Brazil and China where total pig meat consumption is set to rise by around 18 % between 2000 and 2008), driven by expectations of low prices and the improvement in the general economic conditions.

Prospects for the pig meat sector in Russia are difficult to assess both on the supply side, where the pace of production recovery should be closely linked to economic reforms, and on the demand side, with consumption growth associated with an uncertain economic outlook and income distribution issues. The FAPRI, FAO, OECD and USDA foresee an expansion in Russia's import demand for pig meat due to the slow recovery in pig meat production (if not a further decline) that would remain restricted by structural problems

(small size units), limited availability of feed grains, and infrastructure and institutional constraints. In contrast domestic demand would continue growing as economic prospects improve modestly. Pig meat net imports would rise over the whole projection period and reach 400 000 t by 2008, i.e. a 100 000 t increase.

Global trade in pig meat is forecast to increase further over the medium term with growth rates ranging from 17 % in the FAO projections to 26 % in the FAPRI outlook and 29 % in the USDA projections (i.e. by around 600 000 t of additional imports from 2000 to 2008). Over the forecasting horizon, growth in pig meat trade would be mainly driven by strong demand in major importing countries of Asia (notably Japan and China), Russia and Mexico.

Japan would remain the largest pig meat importer over the outlook horizon, with net imports amounting to about 1 mio t. However, the pace of import growth would significantly decline as compared to the previous decade thanks to the slowdown in the contraction of domestic output. Growing population and improved income levels should boost Mexico's import demand according to the FAPRI outlook as domestic production would be constrained by infrastructure and distribution problems. Conversely, the USDA and OECD projections suggest that the pig meat sector in Mexico should benefit from on-going restructuring driven by the NAFTA agreement. Improved technology and better integration and co-ordination of operators would enable Mexico to raise pig meat output and exports, only restrained by relatively high feed costs.

Table 3.9 Outlook for pig meat net imports for major importing countries, 2000–2008 ('000 t cwe)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Japan	880	880	1034	950	154	70
Russia *	500	299	601	408	101	109
South Korea *	140	110	129	42	-11	-68
Mexico	95	95	144	209	49	114
China - Hong Kong *	154	220	210	266	56	46

USDA: * Gross trade

Taiwan imports are forecast to rise over the medium term as the increase in consumption is expected to outpace the growth in domestic production that would remain largely below the pre- FMD levels. Owing to the FMD outbreak in 2000, South Korean exports fell, notably to the remunerative Japanese market, prompting a decline in import levels as domestic production remained on the South Korean market. Over the medium term, South Korean exports resume growing, generating a fall in total net imports.

The OECD, FAO, USDA and FAPRI foresee that the increasingly export-oriented and low-cost producing pig meat industry of North America should capture most of the sustained rise in world pig meat trade. Significant restructuring, through concentration and vertical integration, and improved productivity in the production, marketing and processing sectors of the pork industry is expected to boost North American, notably Canada's, competitiveness. However, new exporting countries are emerging on the world pig meat market, in particular Brazil, Mexico and South Korea. These countries would gain market shares at the expense of the EU, the world's largest pig meat exporter, whose pig meat exports would stagnate over the medium term.

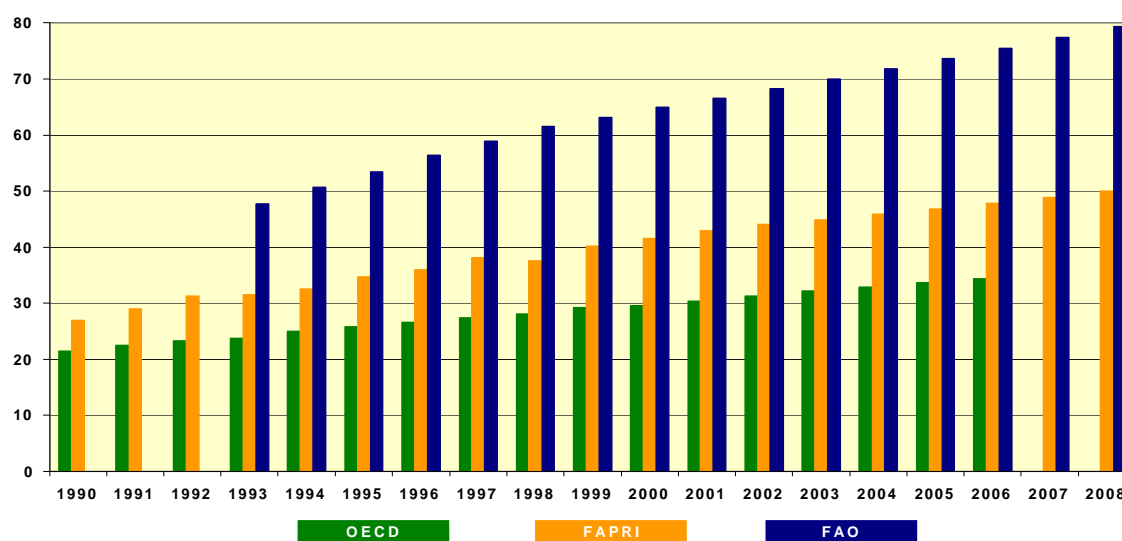
If pig meat prices are generally expected to rise over the medium term, the magnitude of this recovery should remain largely constrained by the continued efficiency and productivity gains in feeding practices, increased competition from other meats and the emergence of new exporting countries.

3.3.3 Poultry

The medium-term outlook for poultry meat is foreseen to be favourable, as all market fundamentals would demonstrate solid growth. World production and consumption are forecast to continue to expand over the next seven years at rates well above those for beef and pig meat, though somewhat lower than during the 1980s. This expansion of the poultry meat sector would be mainly driven by its low production cost (relative to beef and pig meat) and consumer and social preferences in many parts of the world (in line with changing diets towards western lifestyle and health considerations).

Poultry meat production and consumption are predicted by the OECD, FAO and FAPRI to increase sharply over the next seven years by more than 20 %, i.e. an average annual growth of 2.5 %. Production in the large producer countries (such as China, US, Brazil, EU and Mexico) should continue to expand as domestic and global demand increases. Overall, most of the growth in production and consumption is to be found in the developing countries, notably in the expanding economies of Asia.

Graph 3.24 Outlook for world poultry meat consumption, 1990 – 2008 (mio t cwe)



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

In most countries, poultry meat is foreseen to capture the largest proportion of the increased meat demand over the medium term. FAPRI estimates that half of the growth in per capita meat consumption in the next decade would be accounted for by the increase in poultry consumption. These developments would be mainly driven by the price advantage of poultry relative to other meats, rising incomes and changing food demand pattern in most of these countries. Therefore, in many countries with a relatively low per capita consumption (China, Mexico and Eastern Europe), the expected improvement of the economic situation is anticipated to favour first the poultry sector. In addition,

consumption should also increase, though more moderately, in countries with a relatively high per capita consumption due to a continuing shift in consumer preferences⁹².

Since production in most of the countries with expected rapid growth in consumption (China etc.) is only projected to expand at slower rates, increased demand is expected to generate a strong rise in trade (estimated at 15 %, 22 % and 26 % by the FAPRI, the USDA and the FAO respectively over the 2000-2008 period). Most of the growth in trade is likely to take place in poultry cuts as opposed to whole birds.

The FAPRI and USDA projections exhibit a sustained growth in China mainland consumption, which would outstrip production, generating an increase in import volumes⁹³. Net imports are foreseen at around 970 000 t in the USDA outlook by the end of the projection period, whereas the FAPRI and the OECD foresee a more cautious development for China over the medium term (at 840 000 t and 740 000 t respectively). Chinese imports would benefit from consumer preferences for the various poultry products (notably for dark meat, feet and wings) which would be complementary to the demand for poultry meat products in many countries. Net imports from Mexico are projected to decline in the OECD and FAPRI outlook as growth in domestic production would outpace an increasing internal consumption thanks to falling production costs due to declining feed prices and comprehensive vertical integration in the poultry sector.

Table 3.10 Outlook for poultry meat net imports for major importing countries, 2000–2008 ('000 t)

	2000		2008		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Russia *	1000	895	1248	790	248	-105
China mainland	815	770	968	842	153	72
Hong Kong	320	286	389	326	69	40
Mexico *	270	159	368	148	98	-11
Japan	565	546	610	623	45	77
Saudi Arabia	373	352	398	411	25	59
South Korea	64	51	100	61	36	10

USDA: * Gross trade

The other large export destination is Russia. Prospects for poultry meat imports are divergent across the FAPRI and USDA projections, as much should depend on the pace of modernisation of the domestic production sector. If the USDA and the FAO foresee a gradual recovery in domestic output, the latter is forecast to be insufficient to prevent imports rising in line with the increase in domestic consumption. Conversely, the FAPRI projections suggest a stronger pattern for poultry meat production owing to improved production structure, resulting in net imports falling by more than 100 000 t by 2008. The economic and political prospects over the medium term in this region constitute a source of major uncertainty since they should impact not only the size of poultry meat imports in Russia but also global poultry trade.

⁹² A strong rise in US per capita consumption of poultry meat is projected by the FAPRI and the OECD (more than 5 kg per head over the next seven years). Chicken consumption would approach and sometimes exceed consumption of the traditional meat product, such as beef in the American continent.

⁹³ Even if poultry meat exports from China mainland are also expected to grow according to the USDA, notably for further processed and de-boned poultry products.

All organisations foresee that the US and Brazil would reap most of the projected rise in poultry meat trade. The US would continue to benefit from a competitive production structure through vertical integration, high technology levels, access to low-cost feed products and efficient transport and storage infrastructure. Brazil would also gain from large and cheap feed grain supplies, high productivity (boosted by foreign investment) and currency depreciation which are all anticipated to enhance Brazil's share of the world market. Competition from these two countries is anticipated to reduce export growth prospects for the two other major exporters, the EU and Thailand.

Poultry prices would trend upwards over the medium term, supported by a strong demand notably from Asia. However, the rapid growth in poultry meat production supported by the structural changes of the poultry sector and continuing technological improvement is foreseen to alleviate pressure on world prices and moderate future price trends over the medium term.

3.4 Milk and dairy products

This outlook for the world milk and dairy products market focuses on milk production in some selected countries and on some dairy products, notably butter, cheese and milk powder, since only limited quantities of fresh milk are traded. Compared to other agricultural products, projections for the dairy sector are more limited as only few international organisations establish long-term prospects for this sector⁹⁴.

The FAPRI and OECD projections depict a medium-term outlook for the dairy sector that would be mainly driven by a gradually strengthening demand for dairy products stimulated by the economic recovery, notably in Asia, Latin America and the Middle East. Stronger demand would generate higher prices for dairy products over the medium term. In many developed countries dairy products constitute a fundamental component of the diet with consumption levels close to saturation. Therefore, little change in the demand for dairy products (with the noticeable exception of cheese) is foreseen in these regions. In contrast, rising disposable income, urbanisation and changing dietary pattern are forecast to boost dairy products consumption in some developing countries, in particular in Asia and Latin America.

In developing countries a significant share of this increased demand would be primarily supplied by domestic production. However, production growth would not be sufficient to meet this additional demand. Therefore, except in a few countries of South America that are expected to become more active in the export market, many developing countries should remain net importers of dairy products with most imports originating from developed countries. In the short term, the OECD and FAPRI projections exhibit some gains in the export market shares of New Zealand and Australia at the expense, to some extent, of the EU. These two countries would benefit from lower production costs and geographical proximity to growing import markets, whereas the EU is expected to remain constrained by the URAA limits on export subsidies. From 2005 onwards, the cut in the EU support prices would improve somewhat EU export competitiveness.

As increased demand for dairy products would be mainly driven by improved income levels, these medium-term projections appear highly dependent on the future economic

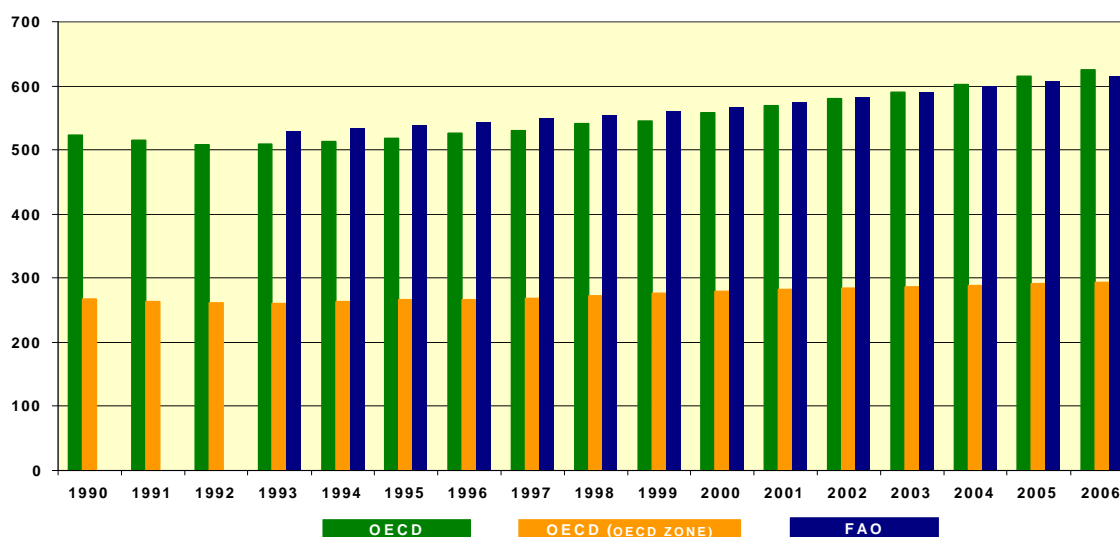
⁹⁴ The USDA for example focuses only on the US dairy market in its most recent publication on long-term projections.

and financial situation of many developing countries. In particular, any economic, financial or policy developments that would alter the pace of recovery in Russia could have major implications for future developments in world trade volume and prices given Russian share in the world dairy market.

3.4.1 Milk production

After stagnating in the first half of the 1990s, world milk production resumed growing towards the end of the last decade. As consumption and producer prices start to recover, milk production would expand in a number of countries, mainly outside the OECD area and in those OECD countries not subject to production quotas.

Graph 3.25 Outlook for world milk production, 1990 – 2006 (mio t)



The OECD shows an increase in world milk production of 67 mio t (+12 %) from 2000 to 2006. Milk production in the non-OECD area would grow by 2.9 % on annual average over the medium term. The greatest increase in milk output is forecast in China, India, Brazil, Argentina and Mexico. As a consequence, the share of developing countries in world milk production is expected to rise significantly⁹⁵.

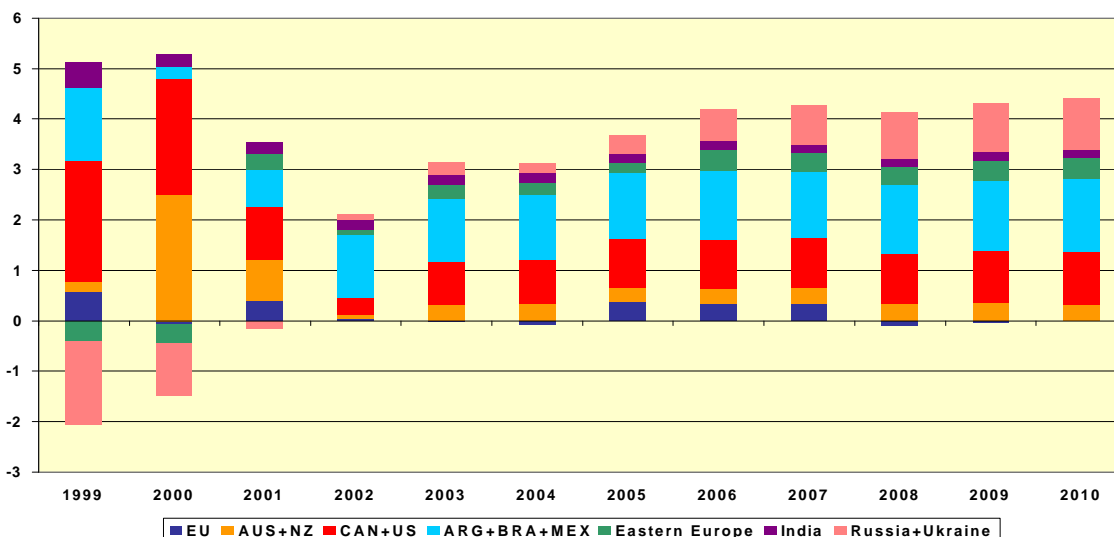
The OECD and the FAPRI display diverging prospects for Russia's dairy sector: whereas the OECD projections suggest that the fall in dairy output would slow significantly, the FAPRI outlook provides a more bullish picture with productivity gains and an increased herd (in the second half of the decade, after a short-term reduction).

The OECD foresees that milk production growth in the OECD area should continue at the same pace as in the second half of the 1990s. Yet, the share in world output from developed countries operating under constraining dairy policies, in particular production quotas, would shrink. If Australia and New Zealand, two major exporters of dairy products, are anticipated to benefit from increased demand in Asia, they are nevertheless expected to display slower output growth in dairy production as compared to the early

⁹⁵ The OECD predicts that the non-OECD share of world milk production would reach around 53 %. One consequence is that the share of milk from animals other than cows is also forecast to expand (a significant share of milk produced in developing countries come from buffaloes, goats, sheep and camels).

1990s. An important increase in milk production is forecast for the US driven by strong domestic demand, notably for cheese. In the CEECs milk production is likely to increase over the medium term (in particular Poland), although growth rates should differ across countries.

Graph 3.26 Outlook for world milk production, annual changes, 1990 – 2010 (mio t)



Source: FAPRI (selected countries)

3.4.2 Dairy products

As fluid milk consumption should only exhibit a modest growth over the medium term, most of the milk production increase would be processed into dairy products. The OECD projections suggest that if global dairy consumption in the OECD area is not forecast to show major changes over the 2000-2006 period, differing patterns could be identified across the various types and forms of dairy products with, in particular, a strong increase in cheese (+11.1 %, i.e. +7.2 % per capita) and whole milk powder consumption (+18.0 %, i.e. +13.9 % per capita) and a mere stagnation in the consumption of skimmed milk powder (+1.5 %, i.e. -2.0 % per capita) and butter (0 %, i.e. -3.4 % per capita).

Conversely, the OECD outlook for the overall consumption of dairy products in developing countries (notably in Asia, Latin America and the Middle East) is marked by strong increases. Solid growth in dairy products consumption should concern all products, though to a lesser extent for milk powder. Whereas SMP and WMP demand would rise by around 14 % (+5 % per capita) up to 2006, consumption of butter and cheese would show growth of more than 30 % (i.e. more than 20 % per capita) from 2000 to 2006. Growing population, improved economic conditions, increasing urbanisation and a shift towards “western” diet would constitute in these countries the main factors underpinning the rise in dairy products consumption.

Table 3.11 Outlook for trade for major dairy products, 2000 – 2008 ('000 t)

	2000		2008		Change in trade	
	OECD	FAPRI	OECD	FAPRI	OECD	FAPRI
Butter	476	567	565	598	89	31
SMP	802	1014	630	890	-172	-124
WMP	1082	1217	1135	1383	53	166
Cheese	362	743	457	873	95	130

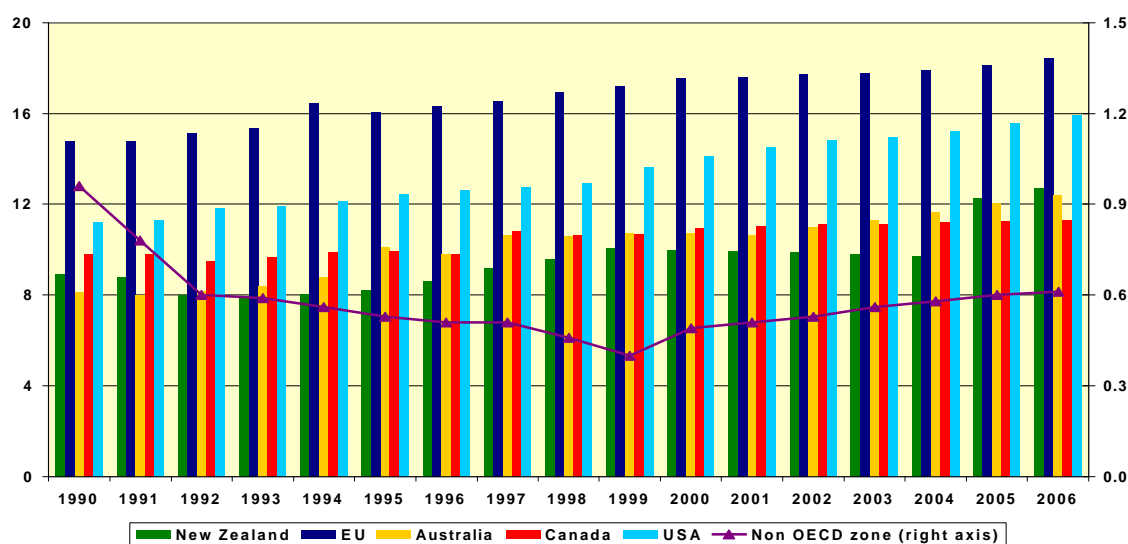
OECD: Net imports from the non-OECD zone for 2006; FAPRI: net trade from major countries.

The gradual shift in world trade of dairy products from bulk dairy products (SMP and butter) towards higher value added products (such as cheese and whey powder) that has been observed since the mid 1980s would appear to continue over the medium term according to the OECD outlook (although trade in butter and SMP would still remain substantial).

The strongest increase in global world consumption of dairy products is predicted for cheese in the OECD projections with a cumulative 15 % growth over the 2000-2006 period (i.e. 2.4 % per year on average). Most of the increase in consumption (around 60 %) would take place in OECD countries, which accounted for 84 % of total world consumption in 2000, and be met by increased domestic supply. The US and the EU would account for more than half of this additional cheese demand. Total cheese imports and exports of the OECD countries are expected to rise by 8 % and 14 % respectively over the 2000-2006 period.

Net imports of cheese from the non-OECD area would grow by 26 % or around 4 % annually until 2006. Increasing cheese consumption in the Asian region would be mainly satisfied by imports (particularly in Japan where domestic production is not foreseen to keep pace with rising consumption), largely from Australia and New Zealand. In Latin America, the increasing demand would be supplied either by domestic production or by the expanding production in Argentina. After their sharp drop in 1998 and 1999 in the wake of the economic turmoil, Russian imports are anticipated to grow at a rather moderate pace over the medium term. These additional imports would be supplied by the EU and the CEECs. However, a recovery in Russia's imports to their pre-rouble crisis levels could result in more favourable developments in world trade volume and prices.

Graph 3.27 Outlook for world cheese per capita consumption, 1990 – 2006 (kg/capita)

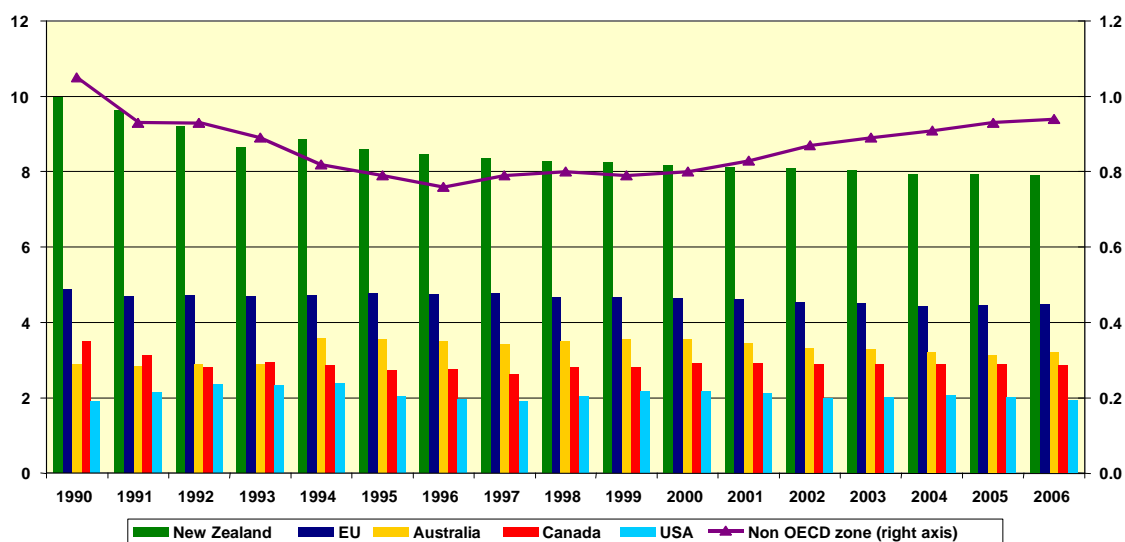


Source: OECD

World butter production and consumption are forecast to increase by between 2.0 % (FAPRI) and 2.5 % (OECD) on annual average over the next five years. Nevertheless, the OECD foresees that most –if not all- of the growth in butter production and consumption would take place in the non-OECD area, since they would remain fairly stable in the OECD zone. In the non-OECD area, total butter consumption is likely to increase by 29 % from 2000 to 2006 (i.e. 4.3 % per year). In contrast to previous expectations, per capita consumption is foreseen to rise at a sustained pace (2.8 % per year on average) from 0.8 kg in 2000 to 0.94 kg per person.

However, as domestic production would not be able to keep pace with the overall demand in some of these countries, scope for additional exports from the main OECD producer countries can be expected. The bulk of the growth in butter trade is projected to be captured by New Zealand and the EU. It should be noticed that the medium-term perspectives for the world butter market strongly depend on the Russian market: the FAPRI and OECD projections anticipate a rather modest import growth from this country. Yet, given Russian's share of the world market in the most recent years, any change in import levels from Russia could have a significant impact on the future development in the size and price of the world butter market.

Graph 3.28 Outlook for world butter per capita consumption, 1990 – 2006 (kg/capita)



Source: OECD

The FAPRI and OECD baselines provide for similar perspectives for milk powder. Whereas they foresee sustained growth in world WMP consumption ranging between 1.4 % and 2.4 % per annum respectively, SMP would exhibit a more modest growth pattern of between 0.8 % and 1.1 % per year, owing to the overall stagnation of SMP demand in the OECD area⁹⁶. If the future growth perspectives for milk powder trade are broadly consistent in showing a decline in SMP imports and a steady rise in WMP trade, their magnitude and pace differ significantly across the FAPRI and OECD projections.

FAPRI expects that, after a short-term steep increase in 1999, SMP imports from Russia would drop back to low levels as production is foreseen to recover. Developing countries of Asia, Latin America and Africa would reduce their overall import demand by around 130 000 t by 2008/09. SMP imports from Japan and Mexico would also fall slightly. In contrast, Brazilian imports would rise strongly as domestic demand outstrips production. US and EU SMP exports would drop from their 2000 levels owing to WTO limits on subsidised exports. Greater profitability in other dairy markets (cheese and WMP) prompt declines in export supply from other traditional exporters (such as New Zealand and Australia), whereas Poland would show some growth in SMP export and recover from the impact of the recent Russian economic crisis. FAPRI foresees overall growth in WMP trade to reach 14 % over the 2000-2008 period (as compared to a -12 % fall for SMP).

⁹⁶ Additional WMP demand would be used for milk reconstitution, displacing SMP and condensed milk. In turn, SMP would also face competition from whey powder in animal feed and food processing.

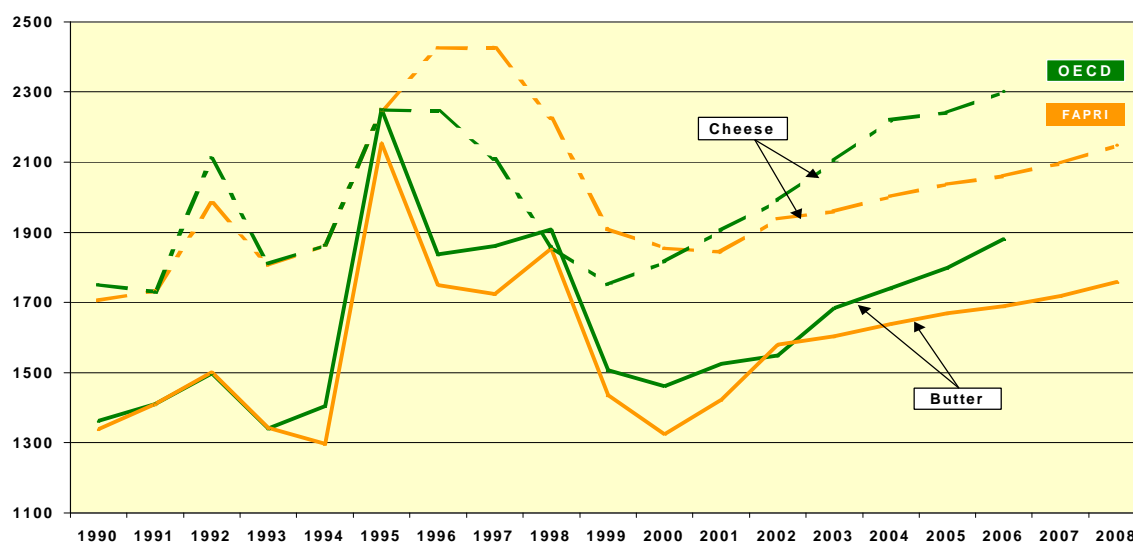
Additional WMP import demand would be broadly spread over the non-OECD area and mainly draw on additional exports from the New Zealand (two-thirds of the total growth), Argentina and Australia. EU exports would barely stagnate at 530 000 t over the medium term.

The OECD anticipates a stronger decline in SMP trade from the OECD area at around 21 %. New Zealand, Poland and Argentina would increase their share of the international market of SMP to the detriment of the EU and Australia. The medium-term prospects for WMP are in turn expected to be more favourable. Increasing consumption -mainly in Latin America, North Africa and Asia- beyond domestic supply capacity is expected to generate a significant expansion in trade between the OECD area and the rest of the world of 5 % from 2000 to 2006. Like in the FAPRI projections, New Zealand and Australia would capture the bulk of the additional trade to the detriment of the EU.

3.4.3 Dairy prices

These projections for supply and demand are foreseen by the OECD and FAPRI to generate a recovery in world market prices of dairy products over the medium term above the level experienced in the early 1990s. After the sharp decline in 1999 generated by the economic crisis, prices are forecast to increase gradually over the medium term in line with the return of economic growth and a strengthening demand.

Graph 3.29 Outlook for world market prices for butter and cheese, 1990 – 2008 (\$/t)



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

Cheese prices are foreseen to recover quickly supported by the steady rise in global consumption⁹⁷. In contrast, the pace of price increase after the year 2000 is forecast to be more modest for milk powder, notably for SMP, which should face greater competition from WMP and whey powder. Having reached high levels in 2000, milk powder prices should fall in 2001 before picking up again from 2003 onwards.

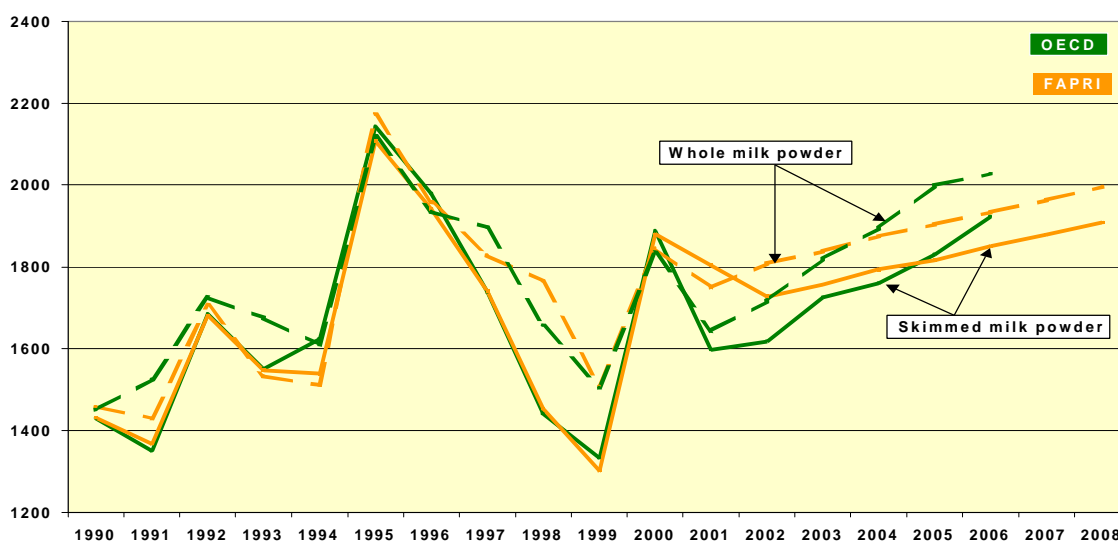
Butter prices would also recover gradually, though remaining strongly linked to developments in the Russian market (the major import market) where commercial imports

⁹⁷ World market prices for cheddar are foreseen to remain far below EU domestic prices over the medium term, even if the gap is forecast to diminish somewhat. However, cheddar cheese is not fully representative of EU cheese production.

have always been fairly uneven since the early 1990s. They should also benefit from the expected rise in vegetable oil prices.

These medium-term perspectives remain strongly dependent on the future development in some key (existing or emerging) markets such as Russia and China. Furthermore, changes in national dairy policies that have recently been adopted or that are scheduled in a number of countries (Australia, Japan, US, EU, Switzerland) could also have a significant impact on the world dairy markets over the medium term.

Graph 3.30 Outlook for world market prices for whole milk powder and skimmed milk powder, 1990 – 2008 (\$/t)



Ref.: FOB export price Northern Europe.

4. Key issues

If the outlook for agricultural markets over the next seven years appears rather positive, as agricultural markets would emerge from a prolonged downturn marked by very weak agricultural commodity prices, it clearly remains subject to some uncertainties. In this respect, three main areas of uncertainty can be identified:

- the economic prospects
- the scope for production growth
- the policy and trade environment

4.1 Economic prospects

The medium-term projections from the OECD, USDA and FAPRI presented in this chapter depend heavily on the robust and sustainable economic growth, which is expected over the medium term in developing regions (in particular China, South East Asia, Latin America, North Africa and the Middle East). Buoyant economic expansion, population growth and dietary changes in these regions would constitute the main driving force behind the recovery in most agricultural markets as they are all foreseen to lift global food demand and stimulate solid growth in world trade. An outlook of strong and broadly based growth in developed countries would combine with a rapid recovery in many emerging economies towards sustained expansion to set the stage for a prolonged high-growth period in almost all regions of the world without significant inflationary pressures (cf. table 3.12).

However, since the publication of these very favourable macro-economic projections, short-term prospects for global growth have weakened significantly and concerns remain about a steeper-than-expected downturn in world growth, led by a marked slowdown in the US, a stalling recovery in Japan and moderate growth in the EU and in a number of emerging economies (notably those with a close link with the US economy). If a number of factors, including falling interest rates in the US, receding inflationary risks and reduced external and financial vulnerability of many emerging economies, may suggest a relatively moderate and short-lived slowdown, risks of a less favourable outcome are still significant.

Table 3.12 USDA assumptions in real GDP annual growth, 1999 – 2010 (%)

	1999	2000	2001	2002	2003	2004	Average		
							1991-2000	2001-2005	2006-2010
World	2.8	3.5	3.6	3.4	3.5	3.4	2.6	3.5	3.4
Developed economies	2.6	3.1	3.0	2.8	2.8	2.7	2.3	2.8	2.7
Transition economies	2.2	3.3	3.7	3.8	3.7	3.7	-3.3	3.7	3.4
Eastern Europe	2.6	4.0	4.6	5.2	5.1	4.9	1.3	4.9	4.1
FSU	2.1	3.0	3.3	3.2	3.1	3.1	-4.7	3.2	3.0
Developing countries	3.2	5.2	5.4	5.6	5.6	5.5	4.8	5.5	5.2
East and Southeast Asia	6.1	6.9	7.0	7.1	6.9	6.8	7.3	6.9	6.4
China	7.1	8.0	8.2	8.5	8.3	8.2	10.1	8.3	7.7
Korea	9.1	8.0	7.2	6.6	6.2	6.0	6.1	6.4	5.6
Indonesia	0.2	4.5	5.1	6.0	6.2	5.9	4.3	5.8	5.0
Thailand	4.0	4.2	4.5	5.0	5.2	5.2	4.6	5.0	5.0
Latin America	0.8	3.5	4.4	4.8	5.0	4.8	3.2	4.7	4.5
Mexico	3.7	5.8	5.2	5.1	5.1	5.1	3.5	5.1	5.1
Brazil	0.8	3.2	4.2	5.0	5.4	5.1	2.6	4.9	4.6
Middle East	0.7	4.5	4.1	4.2	4.1	4.1	3.8	4.1	4.1
North Africa	3.6	5.4	5.3	4.8	4.5	4.3	3.2	4.6	4.1

Source: USDA.

This is particularly the case of the global imbalances that have developed over the past few years with the uneven pattern of economic growth in the US, Japan and the EU, the resulting increase in the external account imbalances and the seemingly misalignment of their currencies in view of the medium-term fundamentals. A deeper slowdown in US economic growth could have high spill-over effects and impact negatively on the rest of the world –with lower economic activity and abrupt currency alignment- if only partially offset by a moderate economic expansion in the EU and a modest recovery in Japan.

Moreover, if the situation in many emerging countries of Asia and Latin America has recently dramatically improved, some still remain fragile and vulnerable. The strengthening of economic fundamentals and the consolidation and continuation in the reform process would appear necessary to ensure investor confidence and the maintenance of a steady and sustainable growth over the coming years.

The deterioration of the economic situation of emerging countries could lead in the short term to weaker demand, lower food exports from developed countries and consequently lower world price prospects. The larger adverse impact would likely concern higher value added agricultural products, such as meat, dairy products and processed food that are directly and indirectly sensitive to changes in income. Lower demand for these products could in turn put downward pressure on feed grain prices.

4.2 Growth potential in agricultural supply

The projected increase in trade and prices over the medium term, one of the major outcomes of the projections, is strongly conditioned by the slow adjustment of agricultural supply to the expansion of food demand in some regions of the world. Yet, the extent to

which production would become increasingly outpaced by a rising domestic consumption remains unclear as the scope for further production increase in some major importing regions constitutes a key uncertainty for the medium-term outlook, notably for crop products.

Like in the recent decades, much of the growth in grain production is projected to be derived from productivity increase as the potential for additional land is foreseen to be limited in most regions due to the expansion of urban areas, pressure on agricultural resources and environment, and climatic limitations. The projected price increases would not appear sufficient to reverse this trend.

If total cereal productivity growth is forecast to be higher over the next seven years than in the early 1990s, it would remain significantly lower than in the past decades⁹⁸. However, prospects for more favourable price levels and increased reliance on food imports in some regions could stimulate the research for further gains in productivity (in terms of wider adoption of improved varieties and farming methods, increased investment in agricultural structure, storage, transport and marketing systems).

Policy management and development in some major importing countries –such as China- and exporting countries -such as the EU and the US with the land set-aside instrument- could also have far reaching implications for the future level of world agricultural supply.

4.3 Policy and trade environment

Future changes in agricultural policies as well as the new round of multilateral trade negotiations may have important implications for the medium-term outlook of agricultural products. They include the new farm legislation in the US after 2002 when the 1996 Federal Agriculture Improvement and Reform (FAIR) Act expires and the EU's 'mid-term review' of Agenda 2000 planned for 2002 and 2003.

As regards trade policy, the outcome of the new trade round at the World Trade Organisation (WTO) and accession of new Members (such as China) may also be expected to shape the pace towards trade liberalisation and future developments in agricultural policy reform towards greater market orientation. The possible emergence of new regional trade agreements and of new issues related to food safety, food quality and the environment may also be foreseen to impact future developments in agricultural production, consumption and trade as well as the functioning of agricultural markets.

⁹⁸ The extent to which future prospects for yield trends will be influenced by the development and diffusion of genetically modified organisms is still an open question.

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Statistical annex**1. Medium-term outlook for cereals****1.1 *Wheat*****Table A.1 Outlook for world wheat production, 2000 – 2008 (mio t)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	575.4	602.8	618.0	632.2	632.4	642.3	649.0		
FAPRI	578.2	595.3	606.0	611.4	619.3	626.8	633.7	640.5	647.9
USDA	579.9	609.7	616.9	625.1	634.1	642.7	650.9	659.9	668.4

Table A.2 Outlook for world wheat consumption, 2000 – 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	592.4	606.1	616.2	623.4	632.8	640.4	647.2		
FAPRI	596.4	601.8	606.7	613.9	620.7	627.6	634.6	641.6	648.9

Table A.3 Outlook for world wheat stocks, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	106.3	103.0	104.8	113.6	113.2	115.1	116.9		
FAPRI	107.6	101.1	100.4	97.9	96.4	95.7	94.9	93.8	92.8

Table A.4 Outlook for world wheat market prices, 2000 - 2008 (\$/t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	123.5	122.6	127.8	131.2	138.5	144.1	147.9		
FAPRI	121.2	130.2	131.6	136.8	139.9	142.7	146.3	150.1	152.3

US FOB Gulf, HRW

1.2 *Coarse grains***Table A.5 Outlook for world coarse grain production, 2000 - 2008 (mio t)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	852.1	904.2	922.2	942.3	962.8	978.2	990.3		
FAPRI	766.2	793.7	806.4	819.0	830.6	842.0	853.8	865.9	877.5
USDA	863.0	906.2	922.1	951.4	966.4	981.6	996.9	1011.0	1028.4

Table A.6 Outlook for world coarse grain consumption, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	871.0	911.1	927.9	942.7	960.2	977.7	991.2		
FAPRI	786.9	798.4	807.1	819.8	830.7	841.7	853.9	865.9	877.5

Table A.7 Outlook for world coarse grain stocks, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	150.0	143.2	137.4	137.0	139.6	140.1	139.2		
FAPRI	135.5	130.9	130.2	129.4	129.3	129.6	129.5	129.5	129.5

Table A.8 Outlook for world coarse grain market prices, 2000 - 2008 (\$/t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	88.3	90.5	99.6	102.2	103.9	105.1	108.1		
FAPRI	88.8	96.5	98.6	100.4	102.3	104.6	107.4	109.8	111.8

US yellow maize, fob Gulf

2. Medium-term outlook for oilseeds

2.1 *Oilseed beans*

Table A.9 Outlook for world oilseed production, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	234.8	236.3	239.0	242.3	247.2	252.3	258.6		
FAPRI (selected countries)	212.4	220.7	221.7	224.7	228.4	233.3	238.1	242.8	247.6

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.10 Outlook for world oilseed consumption, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	233.6	235.6	239.4	244.4	249.2	253.3	258.8		
FAPRI (selected countries)	204.0	209.0	210.9	214.2	217.4	221.2	225.0	228.7	232.4

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.11 Outlook for world oilseed stocks, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	21.0	21.7	21.4	19.3	17.3	16.3	16.1		
FAPRI (selected countries)	15.9	18.0	18.5	18.3	17.9	17.5	17.3	17.0	16.6

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.12 Outlook for world soybean market prices, 2000 - 2008 (\$/t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	206.4	213.7	217.4	228.5	239.7	251.6	255.7		
FAPRI	204.5	197.4	198.4	203.4	211.0	217.4	223.0	229.6	236.3

US soyabeans, cif Rotterdam

2.2 Oilseed meals

Table A.13 Outlook for world oilseed meal production, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	144.0	145.2	148.4	151.4	154.2	157.1	160.4		
FAPRI (selected countries)	132.0	134.5	136.1	138.4	140.7	143.2	145.8	148.4	150.9

Oilseeds = soya bean, sunflower and rapeseed

Table A.14 Outlook for world oilseed meal consumption, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	144.0	145.2	148.4	151.6	154.2	157.1	160.1		
FAPRI (selected countries)	118.1	120.9	122.4	124.7	127.6	130.0	132.1	134.1	136.5

Oilseeds = soya bean, sunflower and rapeseed

Table A.15 Outlook for world soybean meal market prices, 2000 - 2008 (\$/t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	204.5	194.6	189.8	187.7	192.1	197.4	198.8		
FAPRI	198.5	191.1	190.4	192.5	196.8	199.8	202.4	205.3	208.2

CIF Rotterdam

2.3 Oilseed oil

Table A.16 Outlook for world oilseed oil production, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	69.8	71.5	73.0	74.5	76.2	79.2	80.8		
FAPRI (selected countries)	62.7	65.1	66.5	68.3	70.0	71.5	73.0	74.4	75.9

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

Table A.17 Outlook for world oilseed oil consumption, 2000 - 2008 (mio t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	69.4	71.4	73.3	74.5	76.3	79.1	80.7		
FAPRI	49.2	50.8	52.1	53.5	54.9	56.3	57.7	59.1	60.5

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

Table A.18 Outlook for world soybean oil market prices, 2000 - 2008 (\$/t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	325.7	363.8	401.4	442.0	482.7	515.2	536.4		
FAPRI	314.5	320.6	323.4	330.2	338.4	347.6	356.7	366.9	377.9

Fob Rotterdam

3. Medium-term outlook for meat

3.1 *Beef*

Table A.19 Outlook for world beef production, 2000 - 2008 (mio t, cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD (OECD zone)	27.4	26.9	27.3	27.2	27.1	27.4	27.7		
FAPRI (selected countries)	43.9	43.1	43.4	44.0	44.9	45.7	46.5	47.2	47.8

Table A.20 Outlook for world beef consumption, 2000 - 2008 (mio t, cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD (OECD zone)	26.9	26.4	26.4	26.4	26.4	26.6	26.9		
FAPRI (selected countries)	43.3	42.7	42.9	43.5	44.4	45.2	45.9	46.7	47.2

Table A.21 Outlook for world beef prices, 2000 - 2008 (\$/t lw)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	1547.2	1522.2	1668.9	1719.4	1742.2	1736.8	1697.5		
FAPRI	1535.5	1642.3	1675.5	1689.6	1635.0	1585.9	1538.3	1500.9	1481.5

Nebraska Direct Fed Steer price.

3.2 *Pig meat*

Table A.22 Outlook for world pig meat production, 2000 - 2008 (mio t, cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD (OECD zone)	34.6	35.0	36.1	36.2	36.3	36.3	36.3		
FAPRI (selected countries)	73.2	75.0	76.8	77.8	78.7	79.6	80.7	81.7	82.7

Table A.23 Outlook for world pig meat consumption, 2000 - 2008 (mio t, cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD (OECD zone)	33.6	34.1	35.1	35.2	35.3	35.3	35.3		
FAPRI (selected countries)	72.8	74.7	76.5	77.5	78.3	79.3	80.3	81.3	82.3

Table A.24 Outlook for world pig meat prices, 2000 - 2008 (\$/t lw)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	987.3	915.8	763.1	848.1	863.3	881.6	887.3		
FAPRI	985.5	895.0	761.6	914.1	1006.1	946.8	864.3	936.0	1011.5

US price Iowa-Souther Minnesota, barrow and gilt price.

3.3 Poultry meat

Table A.25 Outlook for world poultry meat production, 2000 - 2008 (mio t, cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD (OECD zone)	32.2	33.0	34.0	35.0	35.8	36.6	37.4		
FAPRI (selected countries)	42.6	43.9	45.2	46.2	47.2	48.2	49.3	50.4	51.6

Table A.26 Outlook for world poultry meat consumption, 2000 - 2008 (mio t, cwe)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD (OECD zone)	29.5	30.3	31.3	32.2	32.9	33.7	34.3		
FAPRI (selected countries)	41.5	42.9	44.0	44.9	45.9	46.8	47.8	48.9	50.0

Table A.27 Outlook for world poultry meat prices, 2000 - 2008 (\$/t)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
OECD	1223.5	1188.9	1173.4	1202.5	1230.5	1246.3	1237.7		
FAPRI	1239.0	1258.1	1263.7	1264.2	1264.3	1260.4	1261.9	1266.2	1268.7

Wholesale weighted average broiler price US 12 cities

4. Medium-term outlook for milk and dairy products

Table A.28 Outlook for world production of dairy products, 2000 - 2008 (mio t)

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Milk	OECD	558.8	569.9	580.7	590.8	602.7	615.2	625.7		
	FAPRI	386.1	389.5	391.7	394.8	397.9	401.7	405.9	410.2	414.3
Butter	OECD	7.1	7.2	7.4	7.6	7.8	8.0	8.2		
	FAPRI	5.8	6.2	6.3	6.3	6.4	6.5	6.6	6.7	6.7
SMP	OECD	3.4	3.5	3.5	3.4	3.5	3.5	3.5		
	FAPRI	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2
WMP	OECD	2.7	2.8	2.8	2.8	2.9	3.0	3.1		
	FAPRI	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4
Cheese	OECD	15.0	15.3	15.7	16.0	16.4	16.8	17.3		
	FAPRI	12.7	13.0	13.2	13.4	13.6	13.9	14.1	14.3	14.5

FAPRI: data for selected countries

Table A.29 Outlook for world consumption of dairy products, 2000 - 2008 (mio t)

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Butter	OECD	7.0	7.3	7.4	7.6	7.8	8.0	8.2		
	FAPRI	5.3	5.7	5.7	5.8	5.9	6.0	6.1	6.2	6.2
SMP	OECD	3.3	3.4	3.5	3.5	3.5	3.5	3.5		
	FAPRI	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6
WMP	OECD	2.7	2.8	2.8	2.8	2.9	3.0	3.1		
	FAPRI	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Cheese	OECD	15.0	15.3	15.7	16.1	16.4	16.8	17.2		
	FAPRI	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.9	14.1

FAPRI: data for major countries

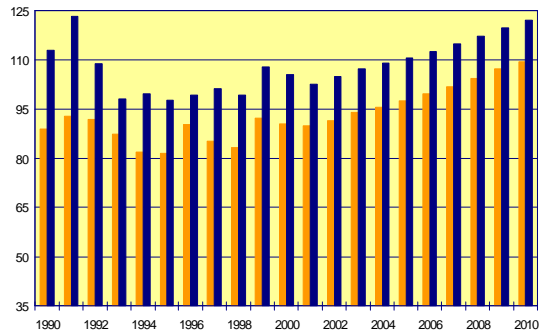
Table A.30 Outlook for world dairy products prices, 2000 - 2008 (\$/t)

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Butter	OECD	1462	1525	1548	1683	1741	1799	1880		
	FAPRI	1325	1422	1579	1603	1639	1670	1689	1719	1758
Cheese	OECD	1816	1904	1990	2103	2221	2242	2301		
	FAPRI	1854	1844	1938	1959	2002	2037	2061	2097	2148
SMP	OECD	1888	1597	1618	1726	1760	1830	1923		
	FAPRI	1880	1804	1728	1757	1794	1816	1851	1878	1908
WMP	OECD	1835	1644	1716	1820	1896	1999	2028		
	FAPRI	1846	1749	1808	1838	1875	1904	1934	1963	1996

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

Outlook for world wheat trade, 1990 – 2010

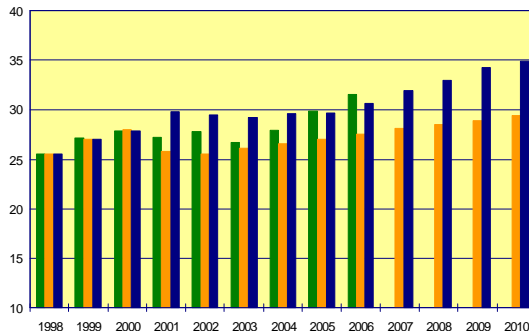
(mio t)



FAPRI: net trade

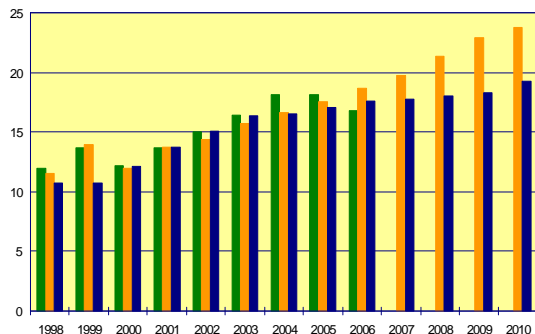
Outlook for wheat net exports – US

(mio t)



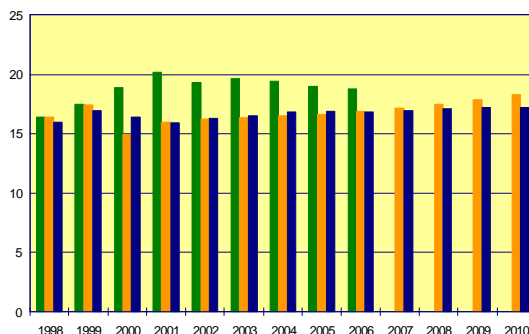
Outlook for wheat net exports – European Union

(mio t)



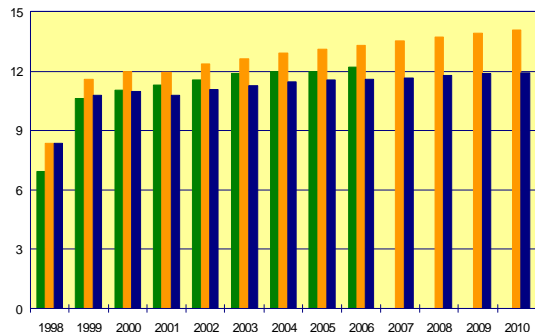
Outlook for wheat net exports – Australia

(mio t)



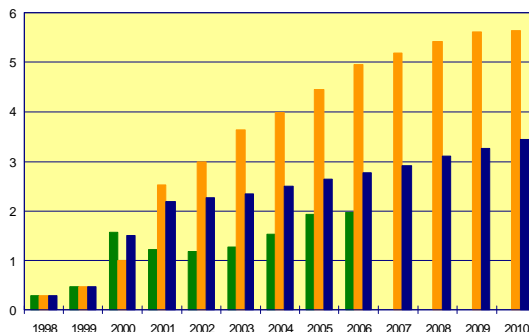
Outlook for wheat net exports – Argentina

(mio t)



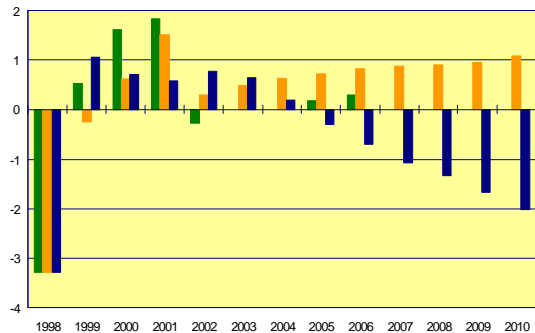
Outlook for wheat net imports – China

(mio t)



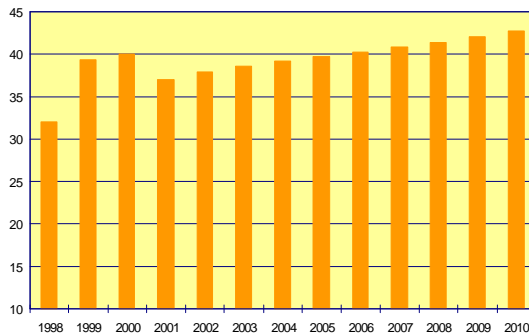
Outlook for wheat net imports – FSU

(mio t)



Outlook for wheat net imports – Africa and Middle East

(mio t)

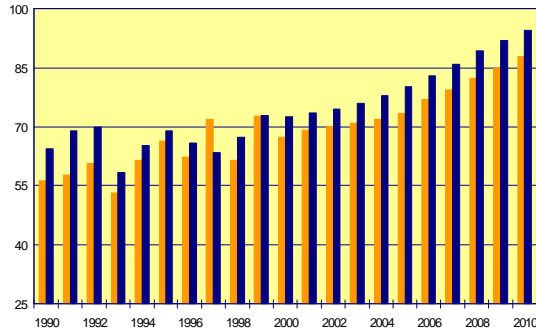


OECD

FAPRI

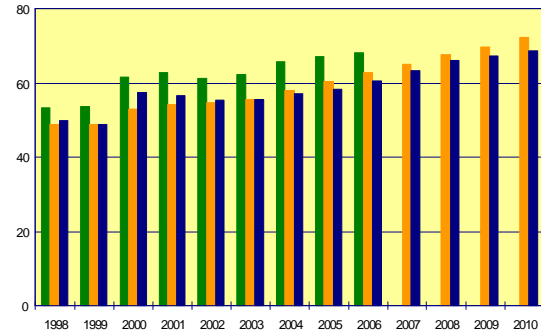
USDA

Outlook for world maize trade, 1990 – 2010 (mio t)



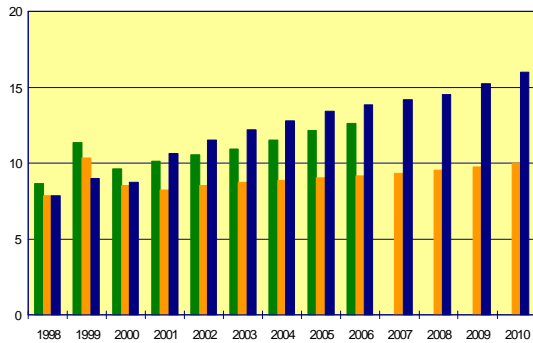
FAPRI: net trade

Outlook for maize net exports – US (mio t)



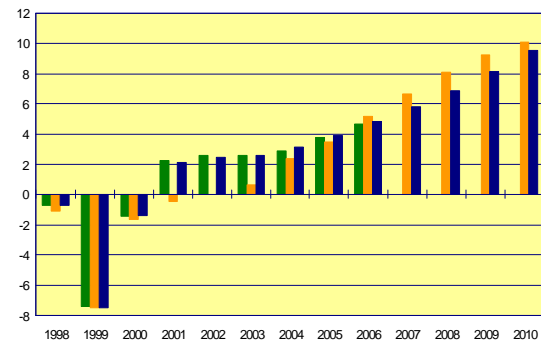
OECD: coarse grains

Outlook for maize net exports – Argentina (mio t)

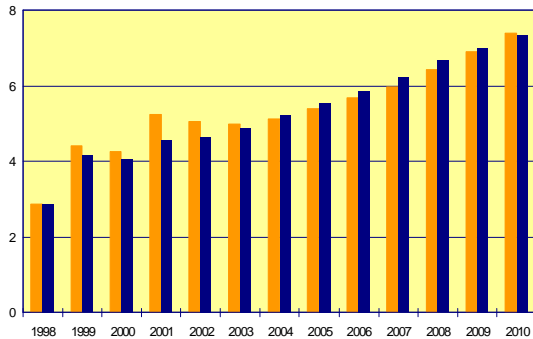


OECD: coarse grains

Outlook for coarse grains net imports – China (mio t)

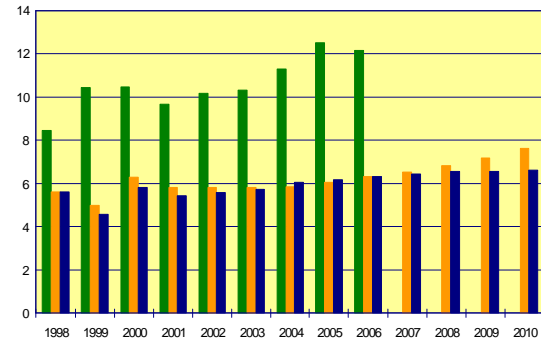


Outlook for maize net imports – South East Asia (mio t)



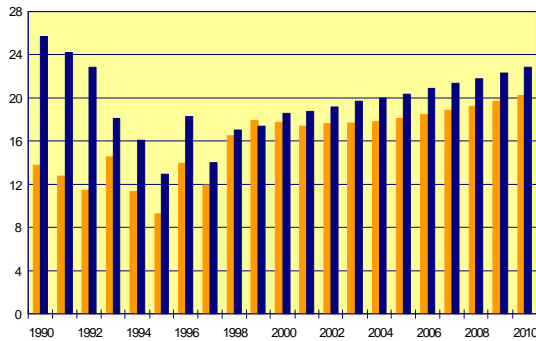
South East Asia: Malaysia, Indonesia, Thailand & Philippines

Outlook for maize net imports – Mexico (mio t)



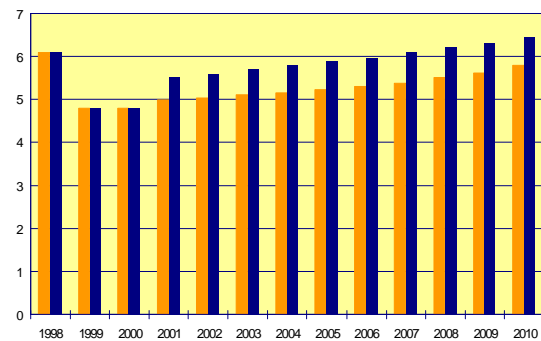
OECD: coarse grains

Outlook for world barley trade, 1990 – 2010 (mio t)



FAPRI: net trade

Outlook for barley net imports – Saudi Arabia (mio t)

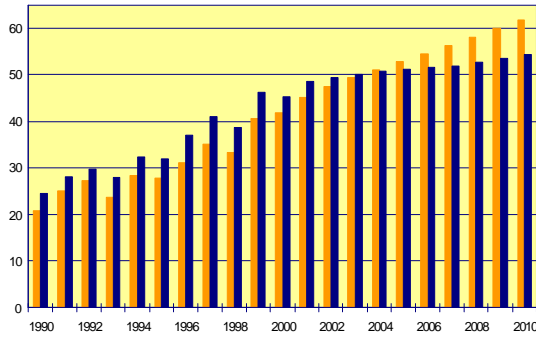


OECD

FAPRI

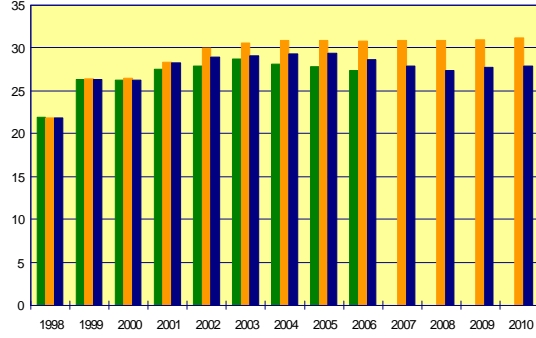
USDA

Outlook for world soybean trade, 1990 – 2010 (mio t)



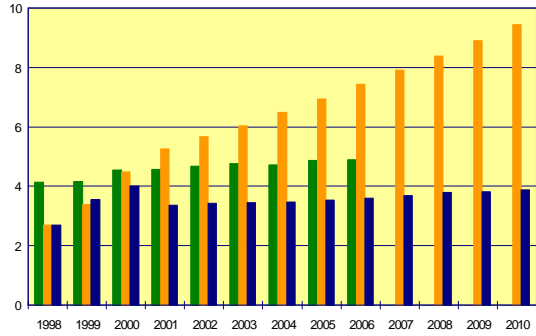
FAPRI: net trade

Outlook for soybean bean net exports – US (mio t)



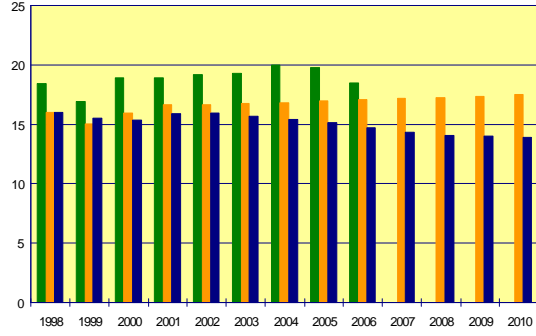
OECD: total oilseeds

Outlook for soybean net exports – Argentina (mio t)



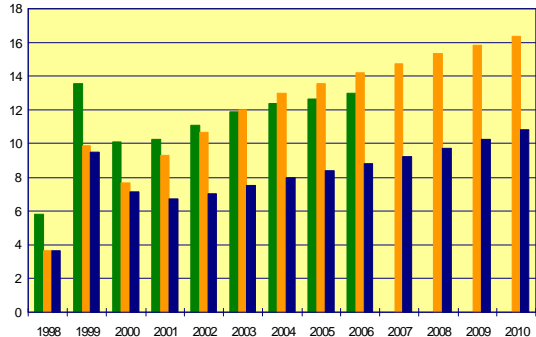
OECD: total oilseeds

Outlook for soybean net imports – European Union (mio t)



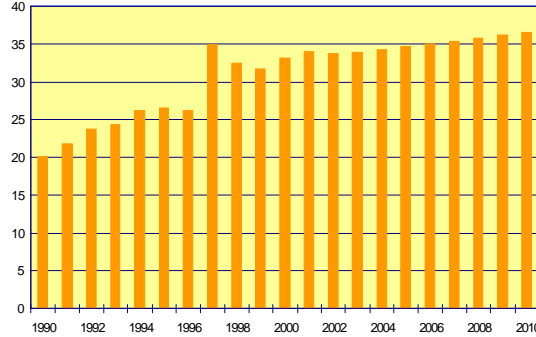
OECD: total oilseeds

Outlook for soybean net imports – China (mio t)



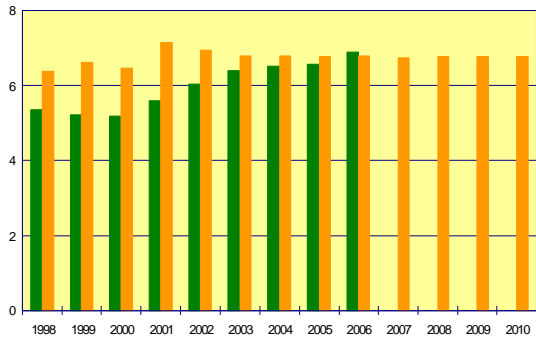
OECD: total oilseeds

Outlook for world soybean meal trade, 1990 – 2010 (mio t)



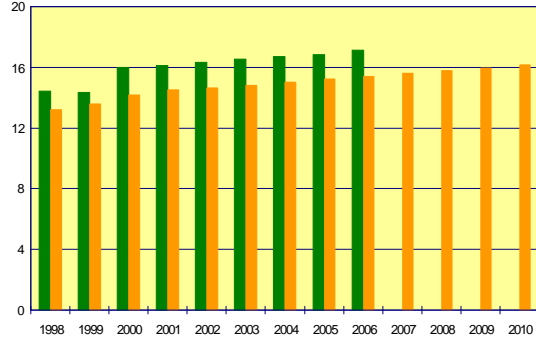
Net trade

Outlook for soybean meal net exports – US (mio t)



OECD: oilseed meals

Outlook for soybean meal net exports – Argentina (mio t)



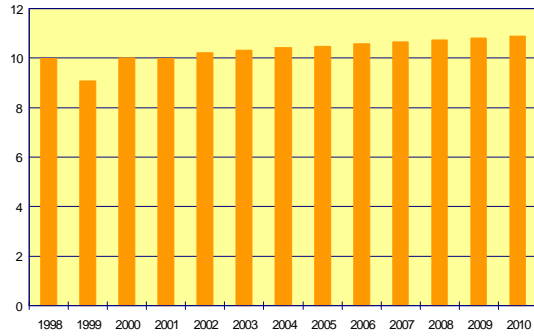
OECD: oilseed meals

OECD

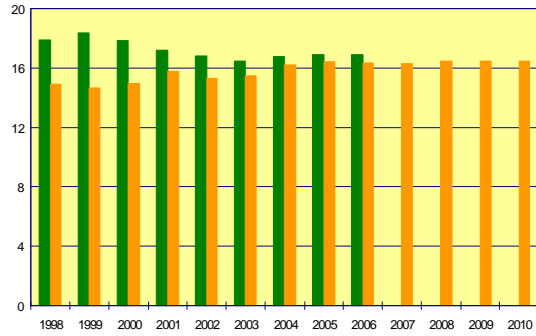
FAPRI

USDA

Outlook for soybean meal net exports – Brazil (mio t)

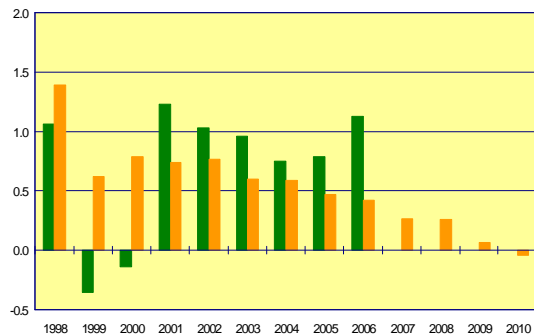


Outlook for soybean meal net imports – European Union (mio t)



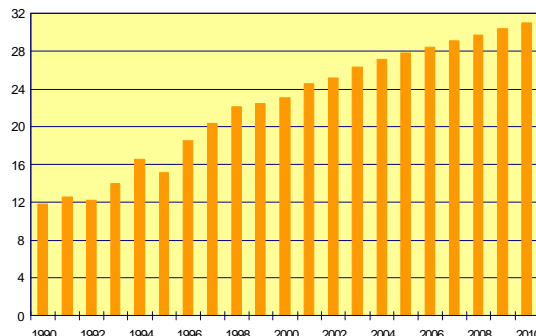
OECD: oilseed meals

Outlook for soybean meal net imports – China (mio t)



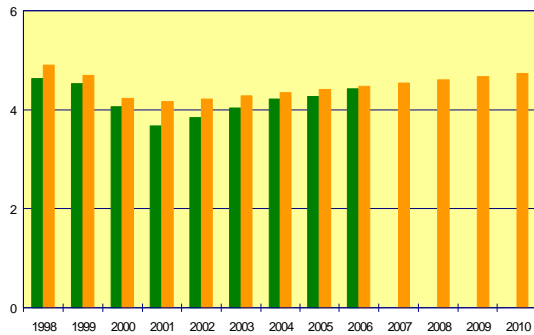
OECD: oilseed meals

Outlook for world oilseed oil trade, 1990 – 2010 (mio t)

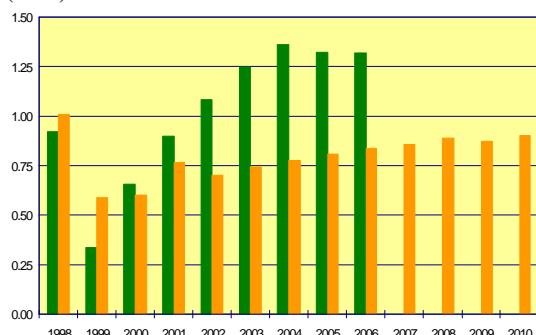


Net trade

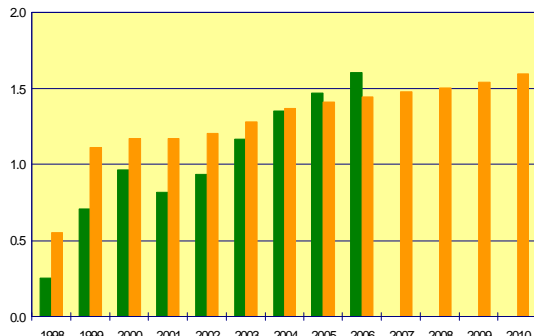
Outlook for oilseed oil net exports – Argentina (mio t)



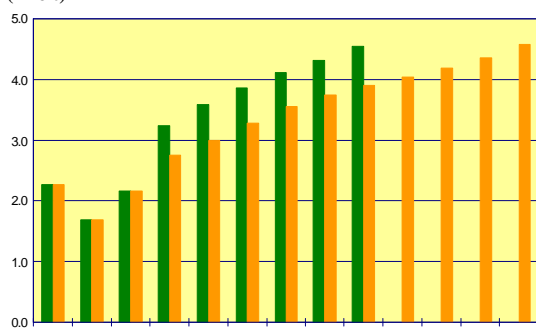
Outlook for oilseed oil net exports – US (mio t)



Outlook for oilseed oil net exports – European Union (mio t)



Outlook for oilseed oil net imports – China (mio t)

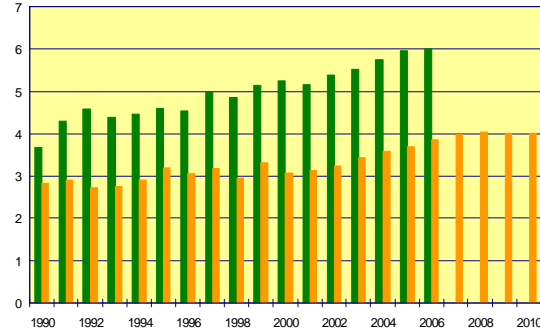


OECD

FAPRI

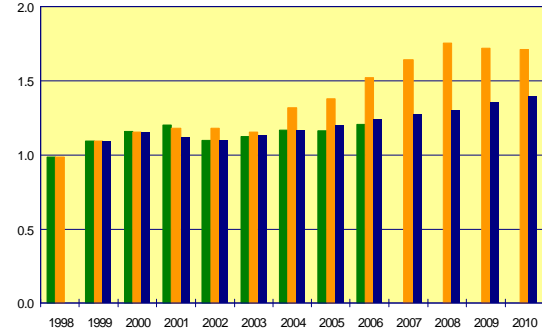
USDA

Outlook for world beef trade, 1990 – 2010
(mio t)

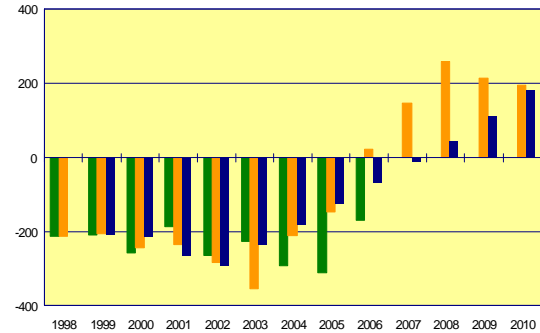


OECD: exports from OECD zone; FAPRI: net exports

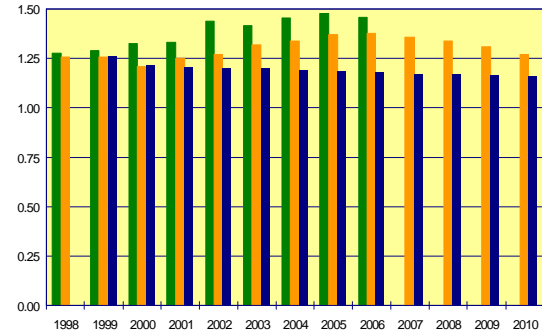
Outlook for beef exports – US
(mio t)



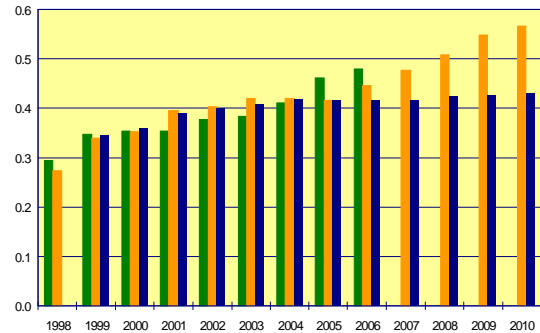
Outlook for beef net trade – US
(‘000 t)



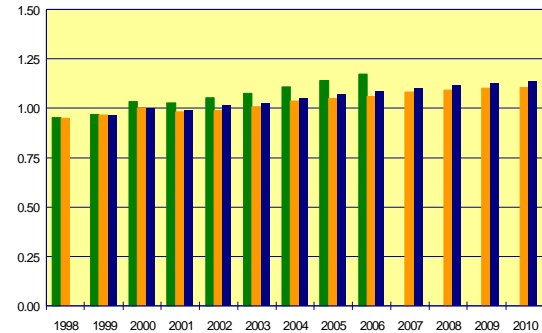
Outlook for beef exports – Australia
(mio t)



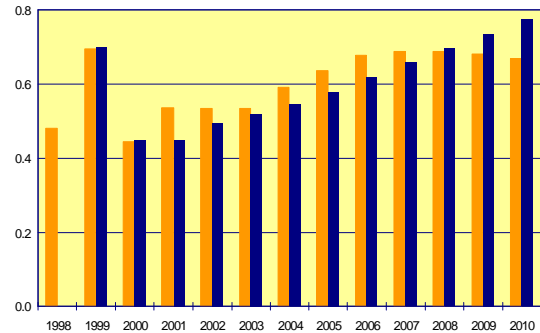
Outlook for beef exports – Argentina
(mio t)



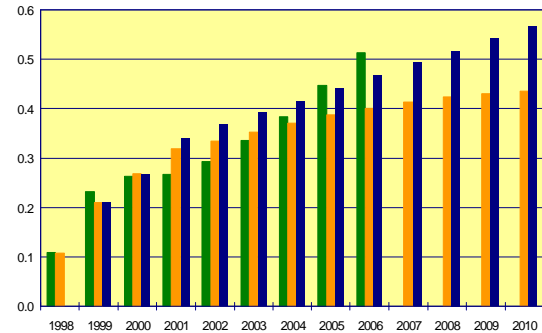
Outlook for beef imports – Japan
(mio t)



Outlook for beef imports – Russia
(mio t)



Outlook for beef imports – South Korea
(mio t)

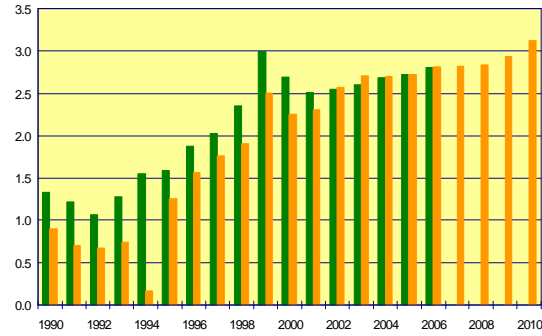


OECD

FAPRI

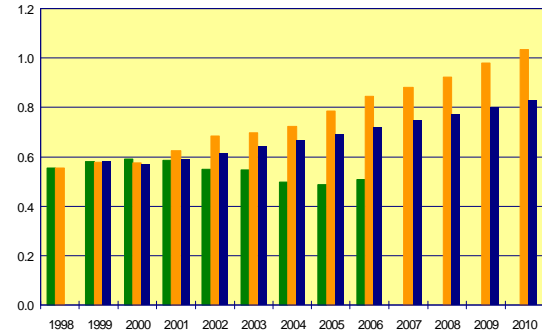
USDA

Outlook for world pork trade, 1990 – 2010 (mio t)

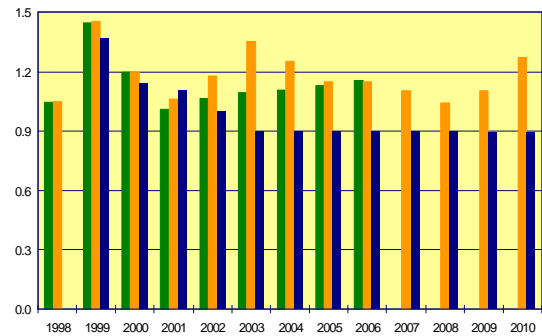


OECD: exports from OECD zone; FAPRI: net exports

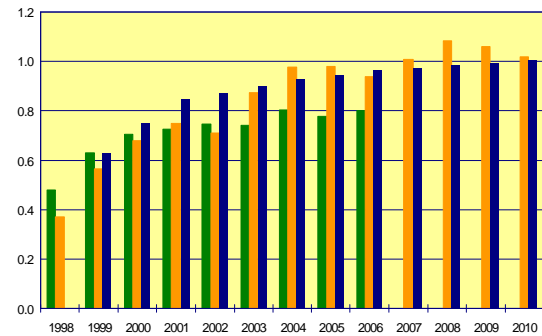
Outlook for pork exports – US (mio t)



Outlook for pork exports – European Union (mio t)

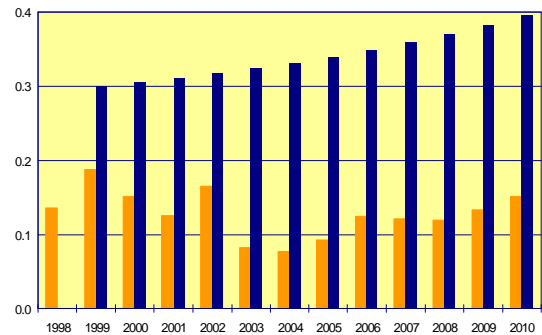


Outlook for pork exports – Canada (mio t)



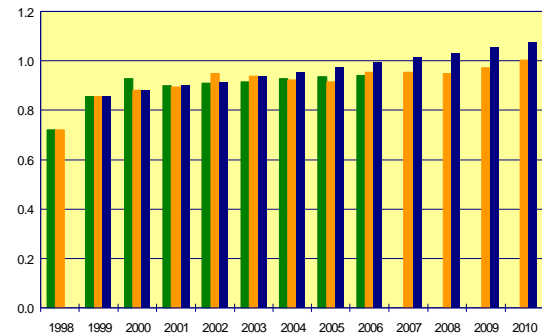
FAPRI: net exports

Outlook for pork exports – Eastern Europe (mio t)

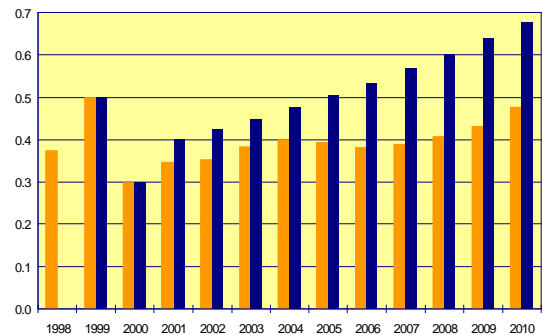


FAPRI: net exports

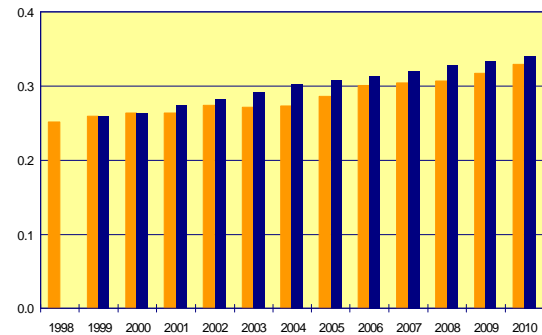
Outlook for pork imports – Japan (mio t)



Outlook for pork imports – Russia (mio t)



Outlook for pork imports – Hong Kong (mio t)

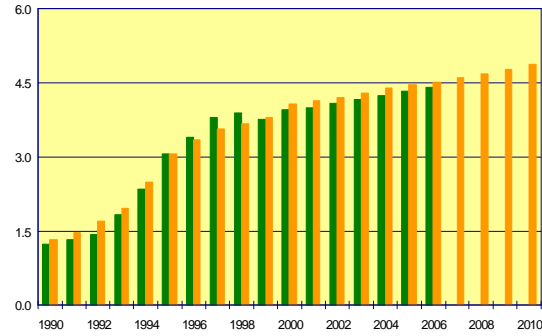


OECD

FAPRI

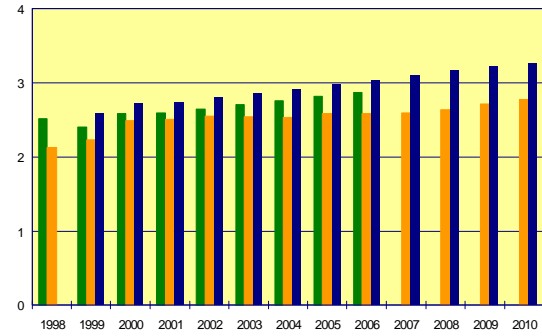
USDA

Outlook for world poultry trade, 1990 – 2010 (mio t)



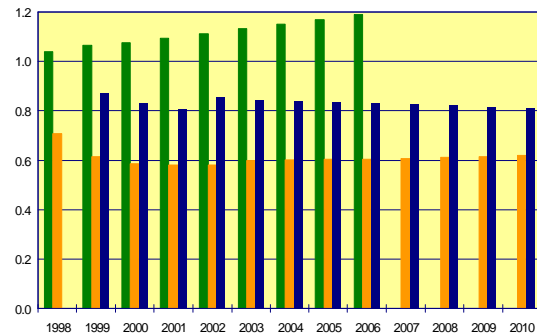
OECD: exports from OECD zone; FAPRI: broiler, net exports

Outlook for poultry exports – US (mio t)



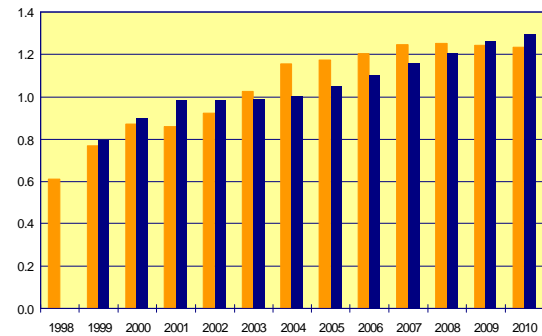
FAPRI: broiler

Outlook for poultry exports – European Union (mio t)



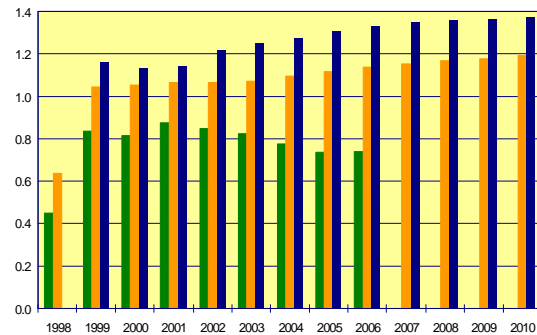
FAPRI: broiler

Outlook for poultry exports – Brazil (mio t)



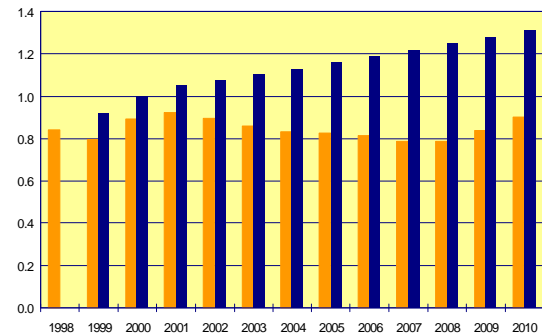
FAPRI: broiler

Outlook for poultry net imports – China & Hong Kong (mio t)



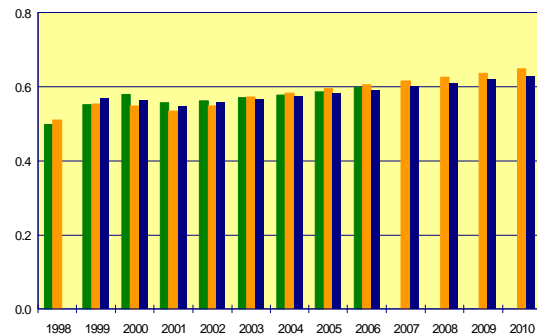
FAPRI: broiler

Outlook for poultry imports – Russia (mio t)



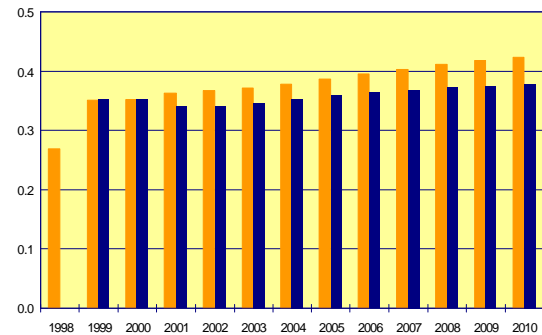
FAPRI: broiler

Outlook for poultry imports – Japan (mio t)



FAPRI: broiler

Outlook for poultry net imports – Saudi Arabia (mio t)



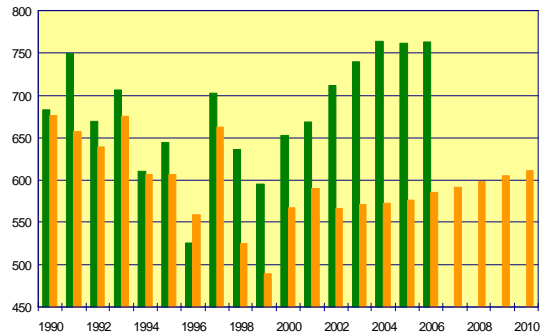
FAPRI: broiler

OECD

FAPRI

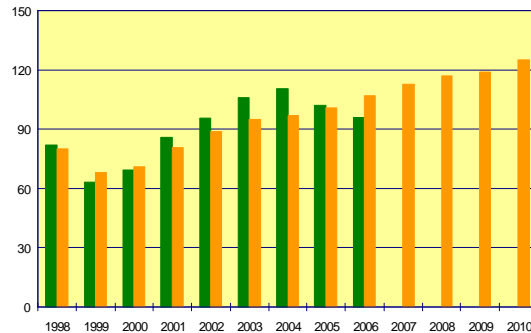
USDA

Outlook for world butter trade, 1990 – 2010
(‘000 t)

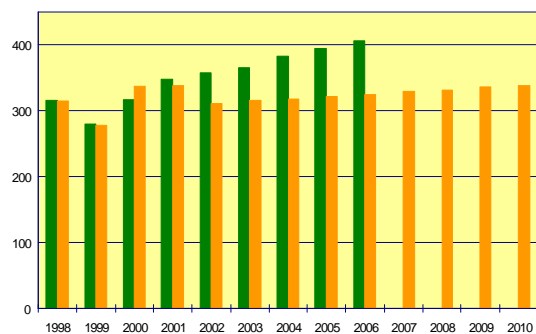


OECD: exports from OECD zone; FAPRI: net trade

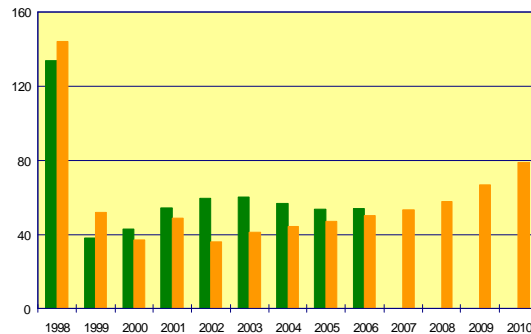
Outlook for butter net exports – European Union
(‘000 t)



Outlook for butter net exports – New Zealand
(‘000 t)

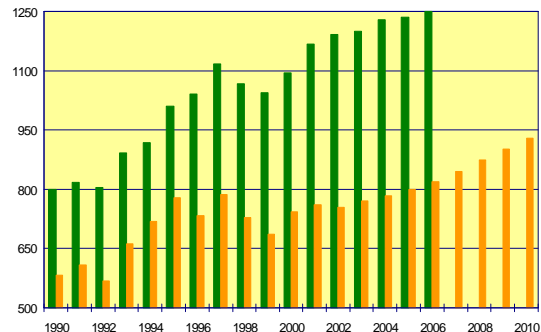


Outlook for butter net imports – Russia
(‘000 t)



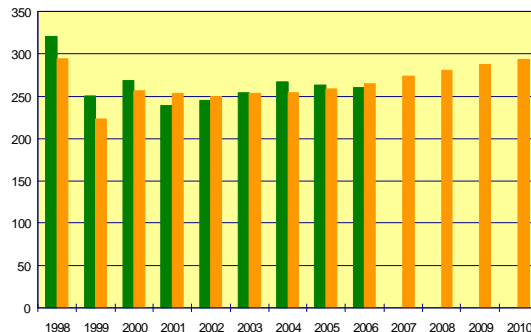
OECD: FSU

Outlook for world cheese trade, 1990 – 2010
(‘000 t)

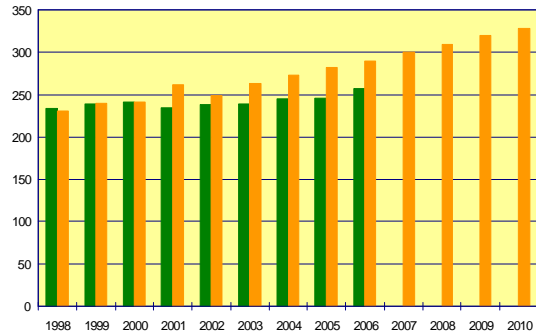


OECD: exports from OECD zone; FAPRI: net trade

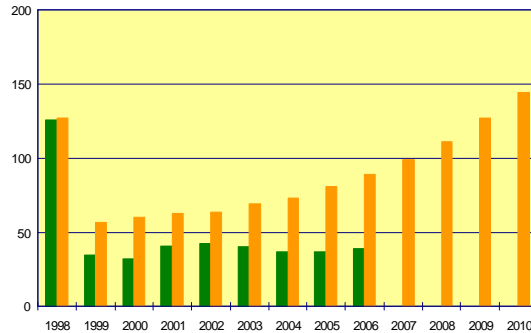
Outlook for cheese net exports – European Union
(‘000 t)



Outlook for cheese net exports – New Zealand
(‘000 t)



Outlook for cheese net imports – Russia
(‘000 t)

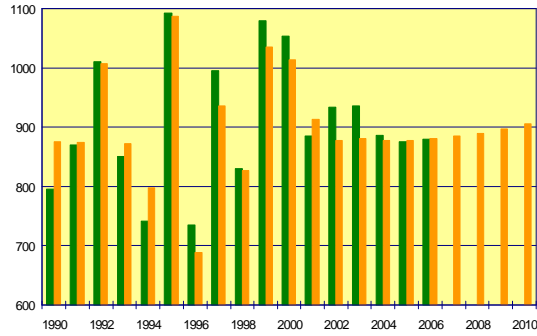


OECD: FSU

OECD

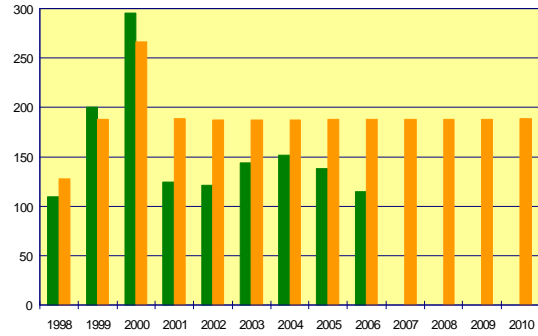
FAPRI

Outlook for world SMP trade, 1990 – 2010
(‘000 t)

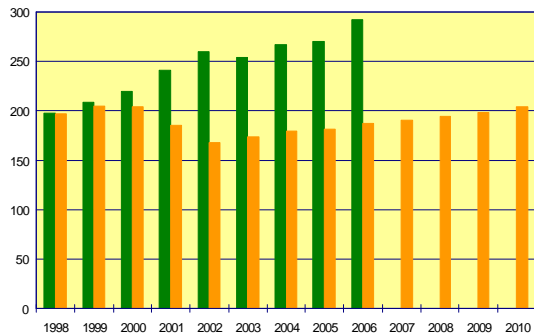


OECD: exports from OECD zone; FAPRI: total net trade

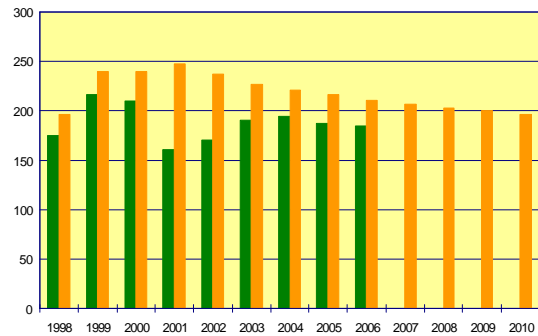
Outlook for SMP net exports – European Union
(‘000 t)



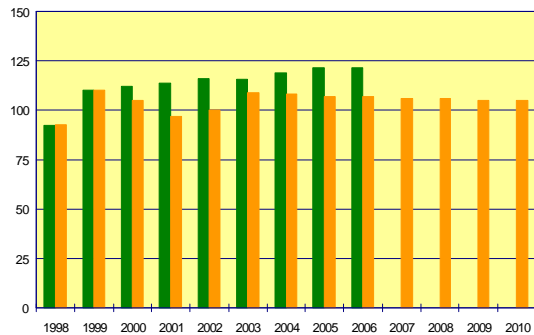
Outlook for SMP net exports – New Zealand
(‘000 t)



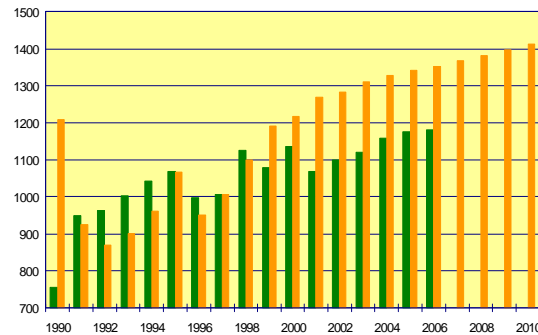
Outlook for SMP net exports – Australia
(‘000 t)



Outlook for SMP net imports – Mexico
(‘000 t)

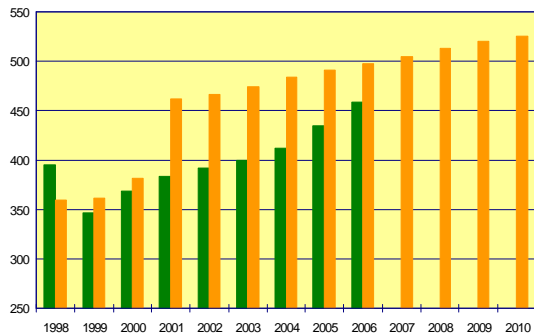


Outlook for world WMP trade, 1990 – 2010
(‘000 t)

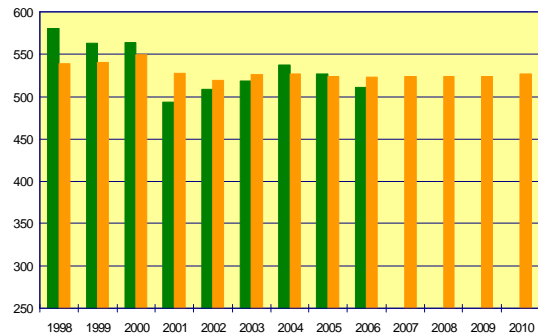


OECD: exports from OECD zone; FAPRI: total net trade

Outlook for WMP net exports – New Zealand
(‘000 t)



Outlook for WMP net exports – European Union
(‘000 t)



OECD

FAPRI