

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.

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 2000 on the basis of information available at the end of 1999. Therefore, they do not take into account the recent developments in the general economic situation and on agricultural markets. In this perspective, some issues related to key underlying assumptions and forecast results will be briefly addressed in the light of the latest information available and our own assessment.

2. Overview of main trends

There is a broad consensus among analysts that the medium-term outlook for agricultural products would be characterised by a steady growth in demand that would generate a sustained expansion in trade. Prospects for an increased consumption of food products, mainly in the developing countries, combined with the limited possibilities to proportionally increase domestic production are expected to gradually boost world trade and strengthen world prices over the medium-term. If short-term developments are foreseen to remain dominated by the slow adjustment of agricultural supply to very low price levels, the faster-than-expected recovery in the global economic situation towards a strong and stable economic growth would generate over the medium-term an expansion in global agricultural and food demand, notably in the non-OECD regions which would constitute the main driving force behind these favourable prospects.

Whereas the situation of agricultural markets is expected to improve over the medium-term, the initial years of the projection period would still reflect the difficult situation of many agricultural markets. Owing to a combination of market, economic and policy factors, the general fall in prices observed in many agricultural markets has been deeper and longer than originally expected. The slow adjustment of supply and the strong rebound in the global economy are expected to stimulate world demand and draw down stocks. World prices and global trade of most agricultural commodities would in turn strengthen. However, prices would remain at low levels in the short-term, while recovery would only take place over the medium term and at a more moderate level and pace than previously foreseen.

If the main trends in market fundamentals are expected to be positive, it is important to stress that these projections remain subject to some uncertainties. The most important include in particular the future course of agricultural policy reforms, the new round of multilateral trade negotiations, the future macro-economic perspectives (in terms notably of future economic growth and currency fluctuations) and the scope for further productivity growth in some regions. In view of these uncertainties, a cautious assessment of these relatively favourable prospects for most agricultural markets is deemed necessary.

2.1 Overview per sector

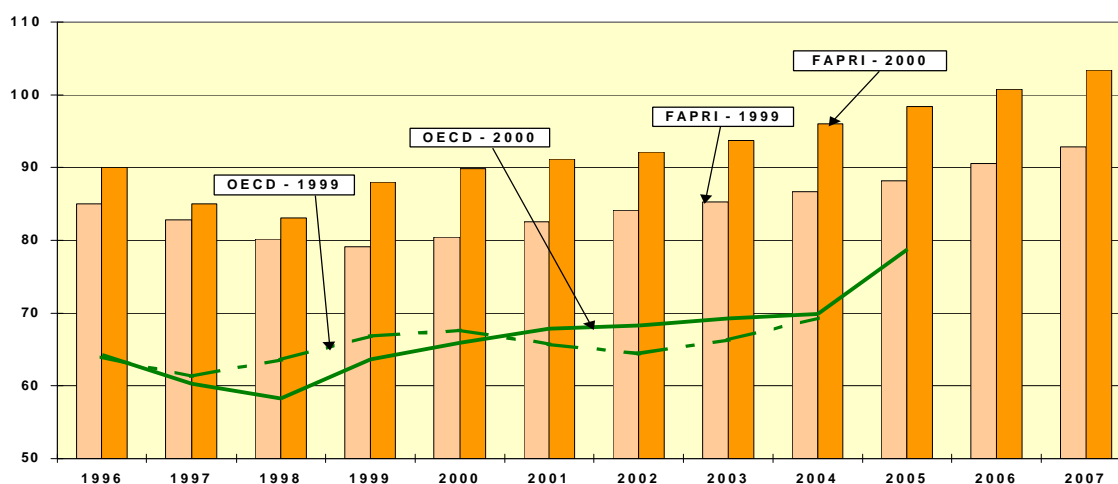
The main features of the medium-term prospects per main agricultural commodity can be summarised as follows:

Cereals

Depressed market prices generated by large global supplies and weaker import demand are expected to restrain global cereal supply in the short term. Over the medium term, prospects for a strong increase in cereal demand combined with supply adjustment in the cereal sector are foreseen to provide the basis for a tightening of stock-to-use ratios and a moderate recovery in prices. Productivity growth is foreseen to account for most of the supply increase (estimated between 12 and 16 % over the next seven years). Higher cereal consumption, fuelled by economic and population growth as well as dietary changes, combined with limited production potential is forecast to stimulate cereal imports in a large number of non-OECD countries, including China, North Africa and Latin America.

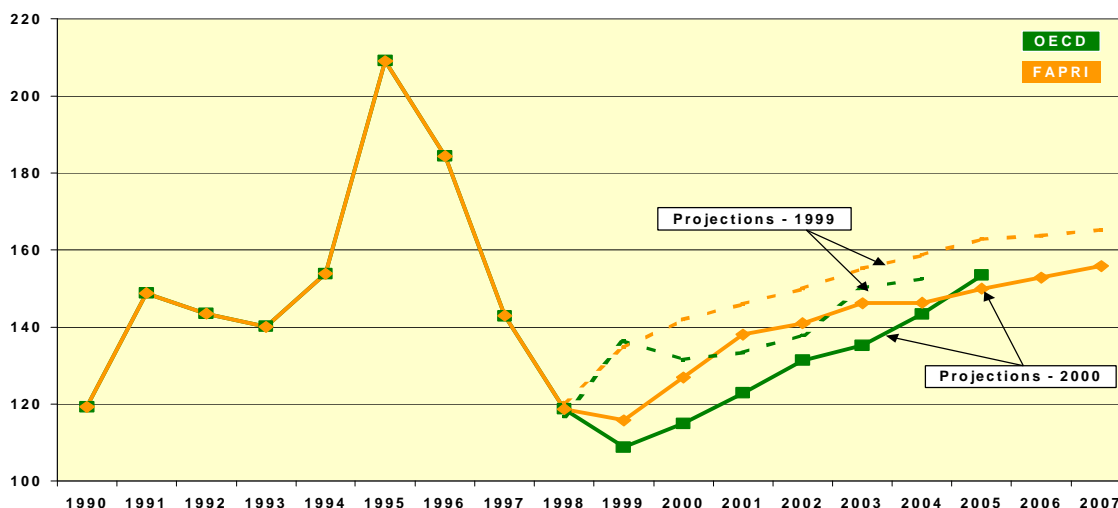
After 15 years of relative stagnation, total cereal trade is expected to increase between 18 % and 20 % by the year 2007/08, with coarse grains exhibiting a stronger pattern driven by increasing meat consumption in many developing countries and the ensuing expansion of their livestock sector.

Graph 3.1 Outlook for wheat net trade – comparison with the 1999 outlook, 1996 – 2007 (mio t)



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

Global trade in coarse grains would strengthen with annual growth averaging about 2.3 %-2.6 %, whereas wheat trade is projected to grow by an annual average of around 2.0 % over the 1999/00-2007/08 period.

Graph 3.2 Outlook for wheat world prices – comparison with the 1999 outlook, 1990 – 2007 (\$/t)

Ref.: US FOB Gulf, HRW.

After bottoming out by the turn of the century, world prices would exhibit a slow recovery over the medium term as supply adjusts and global demand strengthens. HRW wheat prices are expected to range between 156 \$/t and 173 \$/t by 2007/08 respectively in the FAPRI and USDA projections⁵⁰, whereas maize and barley prices would develop between 111 \$/t and 130 \$/t respectively at the end of the projection period. A similar price outlook is projected by the OECD, with wheat and maize prices strengthening over the medium term to 153 \$/t and 117 \$/t respectively in 2005/06. 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 2007/08.

Oilseeds

The oilseed sector is expected to exhibit a gradual, yet modest recovery from a current situation characterised by very low prices, generated by plentiful supplies, weak demand and a combination of policy and macro-economic factors. In the short-term, global oilseed supply is expected to adjust slowly owing mainly to policy factors (notably the support system in the US). In the longer run, most organisations foresee that the expansion of demand for oilseed and oilseed products would gradually restore market balance as supply exhibits only moderate increases. The growing demand for vegetable oils for human consumption as well as for oilseed meals, which should benefit from the expansion of the feed-livestock sector, would support a recovery in market prices over the outlook horizon. The consolidation of the recovery in the global economy would stimulate further expansion of trade (though at a lower pace 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. By 2007/08, soybean prices would range between 245 \$/t and 282 \$/t in the FAPRI and USDA projections respectively (the OECD anticipates a similar pattern with soybean prices at 240 \$/t by 2005/06). Soybean meal prices would also trend upwards over the medium term, reaching between 178 \$/t and 214 \$/t in 2007/08.

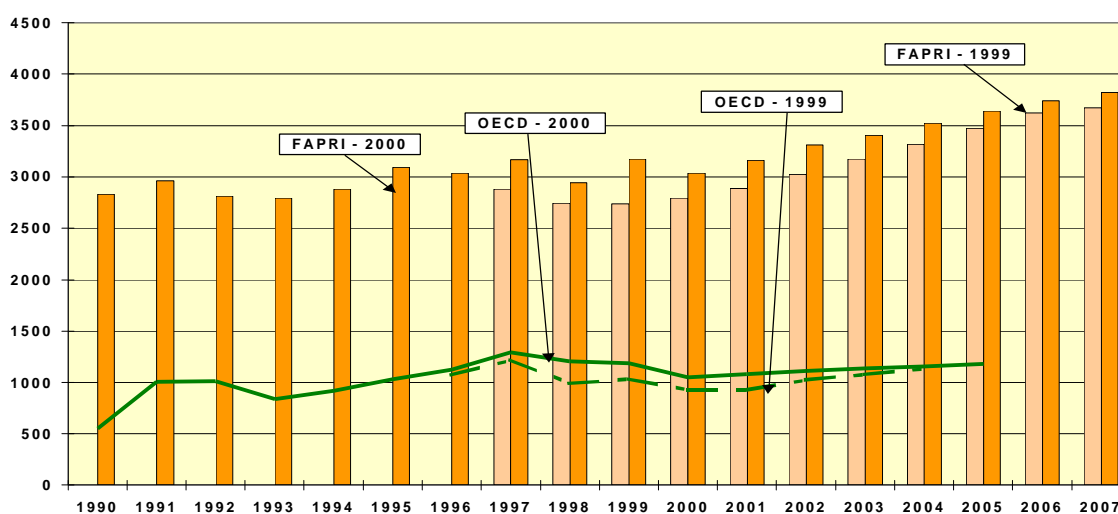
⁵⁰ The SRW wheat, which broadly corresponds to EU wheat quality, generally quotes around 10 % below the HRW wheat reference.

Palm oil and soybean oil are projected to capture the greatest share of an expanding demand and trade for vegetable oil. Growth in oilseed oil trade would be stronger than that of oilseeds and oilseed meals, though lower than in the early 1990s. The strong dependence of trade in vegetable oil from developing countries makes the outlook very sensitive to the economic prospects in these countries.

Meat

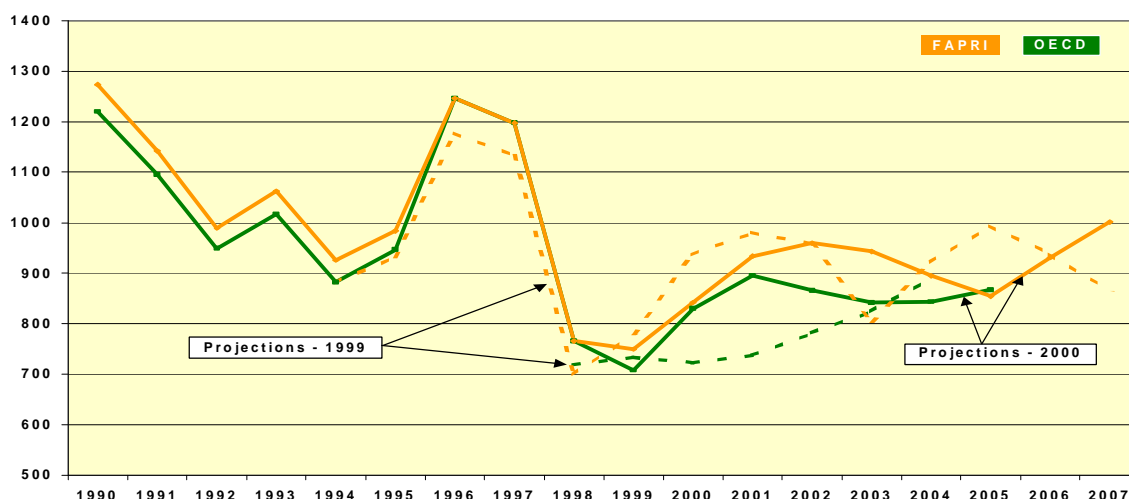
The prospects for an increase in the consumption of meat in response to income growth, in particular in the rapidly industrialising economies of Asia and Latin America, are expected to stimulate world trade and strengthen world prices for meat over the medium and long term, with poultry meat exhibiting the strongest gains. Beef trade would increase by more than 0.6 mio t over the 1999-2007 period (i.e. 17 %), with most of the growth from Asian and Mexican imports. Pig meat trade is projected to rise by around 0.4-0.5 mio t over the same period (i.e. 20 %). Global trade in poultry meat is also projected to trend upwards, with increases in the range of 1.1 to 1.7 mio t (i.e. up to 30 %) according to different analysts. However, the medium-term perspectives in the FSU and China, notably in terms of structural adjustment of the animal production sector and strength of meat demand growth, clearly remain a potential source of major uncertainty for world trade.

Graph 3.3 Outlook for beef net trade – comparison with the 1999 outlook, 1997 - 2007 ('000 t cwe)



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

Beef and poultry 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. After a drastic adjustment over the last few years, pig meat prices are generally expected to rise over the projection horizon. The magnitude of this recovery, driven by higher feeding costs and strong demand, is foreseen to remain largely tempered by the continued efficiency gains in feeding practices and increased competition from other meats.

Graph 3.4 Outlook for pig meat prices – comparison with the 1999 outlook, 1990 – 2007 (\$/t)

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

Milk and dairy products

As for the other agricultural products, the medium-term outlook for the milk and dairy markets appears to be rather favourable. Stimulated by increasing consumption and higher producer prices, milk production is set to expand in a number of countries, mainly outside the OECD area and in those OECD countries that do not use production quotas. According to the OECD, world cow milk production is likely to increase by more than 60 mio t from 1999 to 2005. The greatest increase in milk output is foreseen in India, some other Asian countries (China, Pakistan) and several countries of Latin America (mainly Brazil, Argentina and Mexico).

The growing demand for dairy products would mainly originate from developing countries where growing population, improved economic conditions, increasing urbanisation and a shift towards “western” diet would boost demand for dairy products (except skimmed milk powder). 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) would continue over the medium term. After a short-term decline, world market prices of dairy products are predicted to gradually recover, supported by the return of economic growth and a strengthening demand, and to remain above the levels experienced in the early 1990s. Price prospects for cheese would exhibit the most favourable development. The positive cumulative impact of stronger import demand and lower subsidised exports on the future development in dairy prices may be expected over the medium-term to be somewhat tempered by rising world milk production and the uncertainty surrounding the real impact of the recent economic crisis on some major importers (such as Russia, Brazil, Indonesia) and the speed and sustainability of their economic recovery.

2.2 Underlying factors

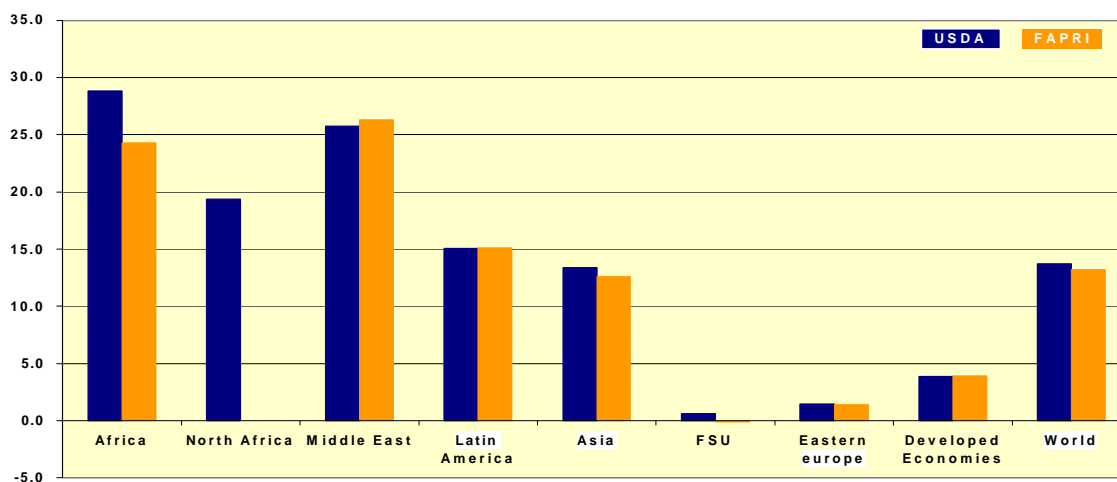
Five main factors can be identified to explain these developments:

(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 1999. It is estimated to fall further over the next

seven years to reach 1.2 % in 2007. However, the next decade is expected to witness the highest absolute annual increments in world population history. It is estimated that the world population will increase every year by between 75 to 80 mio persons over the next decade.

Graph 3.5 Cumulated population growth, 1997 – 2007 (in %)



The pattern of population growth will differ widely between regions, with Africa and the Middle East demonstrating strongest increase (around 2.0 % and 2.3 % per year respectively by 2007 according to FAPRI). The next fastest growing regions are Latin America and Asia, averaging 1.3 % and 1.1 % per annum respectively by 2007⁵¹. More than 90 % of the increase in world population will take place in developing countries, with more than half in Asia.

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

The main contributing factor to the improvement in the medium-term outlook of agricultural markets lies in the prospects for a strong rebound in the global economy after the slowdown observed in 1997 and 1998, and the return to a stable medium-term economic outlook characterised by strong and sustainable economic growth in many emerging economies.

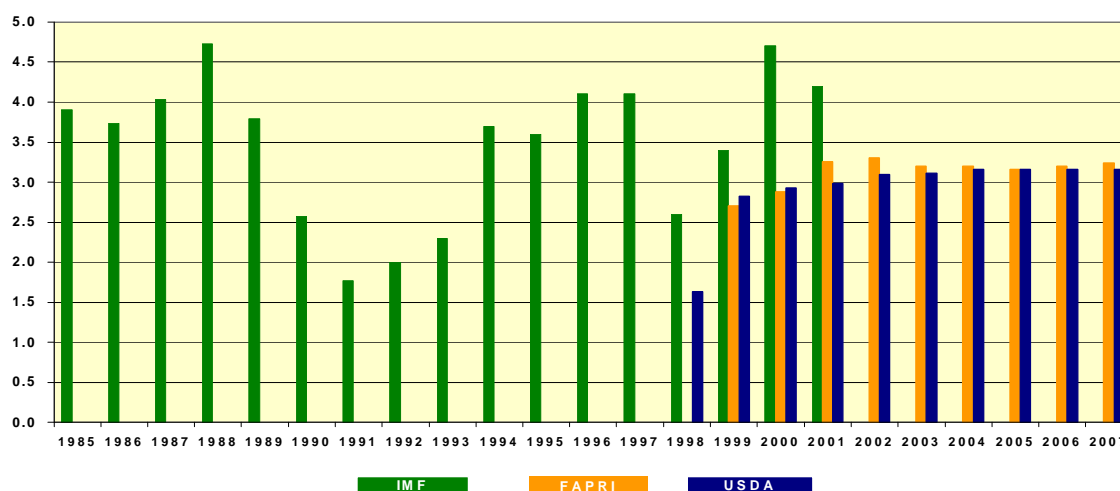
Before the economic turmoil, the nineties had been characterised by a robust growth in the world economy, of around 2.5 % a year on average. Countries in East and South East Asia had enjoyed an economic boom, with a growth in real GDP averaging around 8.5 % a year. China topped the list of Asian countries with an annual growth of nearly 12 %. Growth was much less significant in Latin America, averaging slightly less than 4 %. Economic growth in the OECD countries was around 2 % a year over the same period.

Short-term developments are expected to be dominated by the consolidation of the recovery from the Asian crisis, which began in summer 1997, and its spread to other regions of the world (notably Russia and Latin America). The improvement in the global economic and financial conditions has been surprisingly rapid over the past year. If the effect of the recent financial crises may still be felt for some time, many emerging

⁵¹ These figures show that GDP growth, when expressed per capita, in Asia and Latin America would outperform those of Africa and the Middle East by a larger margin than given by their GDP growth rate differentials (cf. section (2)).

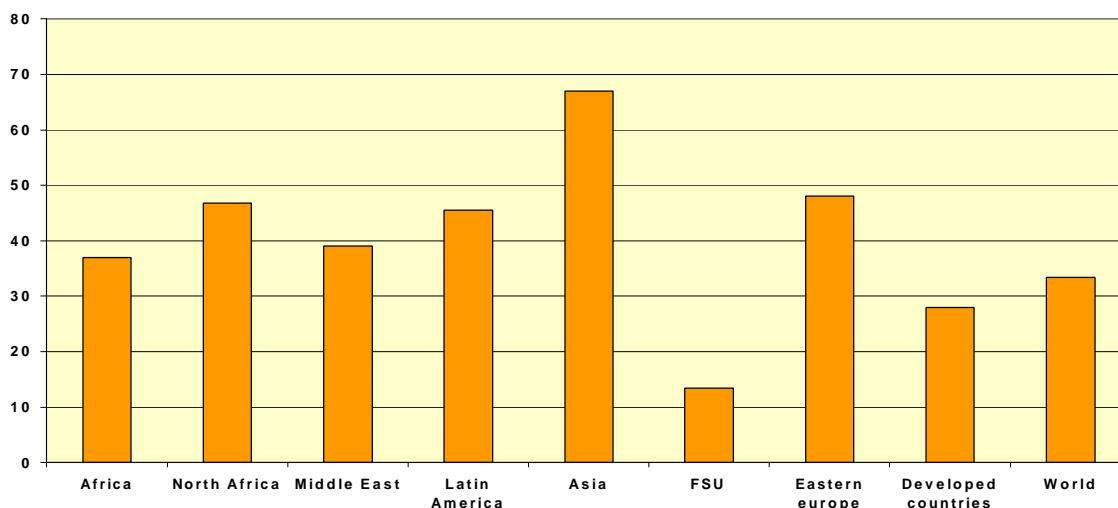
economies of Asia have staged a strong V-shaped recovery, and transition countries as well as Latin America have also begun to recover from the recent turbulence. In retrospect, the global downturn in the wake of the economic and financial crises now appears to have been relatively brief and mild. Over the medium-term, structural reforms in the crisis-affected countries are assumed to lead to a strong and stable economic growth, though at lower levels than previously expected.

Graph 3.6 Outlook for world real GDP annual growth, 1985 – 2007 (in %)



After a rapid improvement in the early years of the new millennium led by the continued strength of the US economy, the robust expansion in Europe and the nascent recovery in Japan, global GDP growth is assumed to average more than 3 % per year over the medium term. Much of this growth is expected to be fuelled by emerging economies. In these countries, structural reforms –especially in the financial and corporate sectors and the institutional framework- are expected to contribute to solve macro-economic problems confronting Asian emerging economies, notably in terms of capital flows and currency instability, and allow economic recovery to take place over the medium term. Asian developing countries would exhibit a GDP growth averaging more than 6 % (led by an annual growth rate of more than 7 % in China), i.e. substantially lower than in the early 1990s. The downturn in Latin American economies in 1999 in the wake of the Asian crisis turned out to be milder than expected thanks to prudent macroeconomic and structural policies. The economic situation in these countries is expected to rebound vigorously over the medium term (reaching over 4 % a year on average) owing to tighter monetary and fiscal policies, further structural and institutional reforms and strong growth in developed countries.

In spite of the relatively moderate oil prices assumed in the projections of most international organisations, average economic growth for Middle East countries would reach around 4 % per year, i.e. above the performance of the 1980s. Africa, especially North Africa, is forecast to display a healthy economic pattern, with GDP growth estimated at about 3.5 % over the medium term. The recent increase in oil prices should contribute to substantial improvements in the financial situation of many countries of the region.

Graph 3.7 Outlook for real GDP growth per region, 1997 - 2007 (cumulative growth in %)

Source: USDA.

If Russia's economic performance in 1999 was substantially better than had been anticipated, the prospects for a sustainable recovery over the medium-term remain highly uncertain. Wide-ranging reforms leading to the strengthening of institutions and further progress towards the establishment of a market-based economy appear necessary to improve the investment climate and to secure medium-term growth perspectives. The USDA and FAPRI anticipate that the countries of the Former Soviet Union (FSU) would exhibit slow and modest economic growth over the next decade (around 2 % per annum for the USDA and less than 4 % for FAPRI). Medium-term economic and financial prospects in that region constitute a major uncertainty for the future prospects of agricultural markets. Central and Eastern European countries are expected to display strong growth over the medium term, notably for countries where economic reforms towards greater market liberalisation and openness to trade and competition have been implemented. Average growth in these countries is forecast to reach between 4 % and 5 % per annum (with Poland displaying highest growth).

The economic situation in developed countries is foreseen to remain favourable over the outlook period, with GDP growth estimated higher than in the early 1990s as structural adjustments undertaken over the past decade created a foundation for growth. Low inflation and interest rates are both expected to characterise the outlook for developed economies. The strength of the US economy, notable for its duration, low inflation and strong gains in labour productivity, continues to outperform expectations. Prudent macroeconomic policies are assumed over the medium-term to ensure a slow down to sustainable rates with little disruption for the world economy. US GDP growth rates are projected at slightly less than 3 % on average over the next seven years. If Japan is still expected to face significant structural problems in the short-term, modest growth is assumed to resume over the medium term (at around 2 % per year). Economic growth in the EU is expected to gain momentum in the short-run and reach 2.5 % on average over the medium-term. While stronger economic growth in the developed world should only have a minor influence on the global demand for agricultural products, it is expected to have a much stronger effect on food consumption in the non-OECD zone owing to high 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. If large exchange rate fluctuations triggered significant changes in agricultural trade flows and prices over the recent past, currency prospects over the next seven years are expected to exhibit a more stable pattern. The euro, the Canadian \$ and the Japanese yen are generally projected by the three international organisations to appreciate slightly in real terms versus the US \$ over the next seven years, whereas currencies from many CEECs, China and most of South East Asia would depreciate. Finally, diverging perspectives are anticipated for Mexico, Russia and Indonesia and (to a lower extent) Brazil, with the FAPRI outlook based on a medium-term depreciation in real terms of their currencies, whereas the USDA assumes a real appreciation.

(3) *Change in dietary pattern*

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

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

The prospects for trade over the medium term depend heavily on the differentiated pattern in domestic production and consumption at 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 (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 and the FSU, 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 projections⁵² of some prominent forecasting organisations (OECD, FAPRI, USDA) and the Commission's internal assessment of possible development in world agricultural markets over the medium term. Its main objective is not to compare these different estimates or to give the most realistic levels of global supply, demand and trade of the different commodities at a given time, but only to assess the possible development of world markets over the next seven years. As a consequence, the absolute levels of the different variables considered must be interpreted with caution, and should be seen as providing an order of magnitude instead of a precise estimate of the level of these variables⁵³.

3.1 Cereals

Most projections tend to depict an outlook for world cereal markets that appears rather favourable over the medium term. If the short-term prospects are foreseen to remain characterised by a gradual adjustment of supply to prices at historical lows, improved economic perspectives over the medium term would provide the basis for a strengthening of world demand and a tightening of stock-to-use ratios. Limited production potential in some countries (notably in the non-OECD area) and supply adjustments would also boost import demand. These factors would generate a significant price recovery over the medium term, though at a more moderate pace than previously foreseen by most analysts.

Short-term developments

The short-term estimates from the International Grains Council (IGC⁵⁴) for the 2000/01 marketing year indicate a wheat crop forecast at 581 mio t. The level of the 2000 harvest would thus be slightly lower than that of last year and substantially below the 1997 record (610 mio t). Lower supply is anticipated in China, North Africa and (to a lesser extent) in North America, Poland and Australia. In contrast, wheat supply is forecast to have increased in the EU, the FSU (mainly Russia), India and Pakistan. Coarse grain production would reach 875 mio t, a 4 mio t decrease as compared to the 1999 harvest⁵⁵.

⁵² It is important to mention that these forecasts are not always directly comparable. In fact, they sometimes differ as regards their geographical coverage, the precise nature of the commodity concerned, the price variables used and the historical reference period. Despite these divergences, it is possible to point out some main trends that are presented hereafter.

⁵³ 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.

⁵⁴ 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 2000 by the OECD, FAPRI and USDA.

⁵⁵ The fall in coarse grain production would mainly result from a sharp drop in maize production that would more than offset a marked increase in barley output. Whereas barley supply would grow by 5 mio t to 133.3 mio t in 2000, maize and "other coarse grains" (millet, triticale, sorghum) production would fall by 7 mio t and 2 mio t respectively.

Larger crops in the EU, North America and the FSU would be outweighed by smaller harvests in China, the rest of Europe and North Africa.

World demand for wheat and coarse grains is anticipated to resume increasing after two years of fairly stable demand. Wheat consumption would reach 595 mio t in 2000/01, i.e. an increase of around 3 mio t as compared to 1999/00, whereas coarse grain usage would rise by 4 mio t to 881 mio t. As consumption is forecast to exceed production for the third year running, wheat stocks would fall further to 108 mio t in 2000/01 (i.e. a stock-to-use ratio of 18.2 %). However, wheat stocks in the five major exporting countries would still remain large (one of the highest since 1992/93). Coarse grain stocks would also decline to reach 151 mio t by the end of 2000/01 as demand strengthens (i.e. a stock-to-use ratio of 17.1 %). After the strong increase recorded in 1999/00 (driven by higher imports from Iran and Russia), total wheat trade is set to rise further in 2000/01 to 107 mio t. The IGC expects the bulk of this increase to take place in Europe, North Africa and China. Total coarse grain trade is also estimated to continue growing to 106 mio t in 2000/01. A renewed increase in barley trade (driven by North Africa and the Middle East) and a broadly unchanged maize import demand would more than offset lower trade in rye and sorghum.

Supply

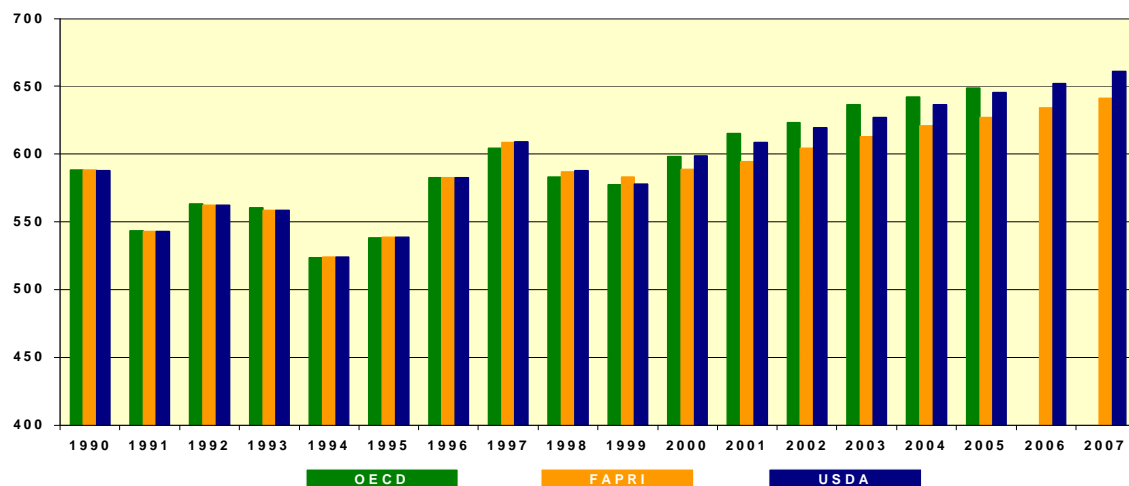
Over the medium term, world wheat production is forecast to increase substantially faster than in the early 1990s but significantly lower than during the two decades before. Wheat availability would grow at a sustained pace that ranges from 1.2 % on annual average in the FAPRI forecasts (i.e. 58 mio t over the 1999-2007 period) to 1.7-2.0 % in the USDA and OECD projections respectively (i.e. around 83 mio t in the USDA outlook). Developing countries and transition economies are foreseen by all major organisations to account for most of the increase in production. Total wheat production would reach between 640 and 660 mio t in 2007 as compared to 609 mio t in 1997 (a record high).

Most of the growth in production will be generated from higher yields that are estimated to rise by an anticipated 1.0-1.2 % on annual average by the USDA and the FAPRI and 0.7 % by the OECD. These wheat productivity growth rates represent a marked slow down as compared to the previous decades but an improvement over the early 1990s⁵⁶.

World wheat area, which has been declining since its record level in 1996, is foreseen to bounce back in 2000 and to expand by 11 and 17 mio ha in the USDA and OECD outlook respectively over the rest of the forecasting period. However, land and water constraints in many countries (linked to urbanisation and climatic conditions), and the changing market and policy environment in some countries are expected to increase competition from other crops and to limit wheat area development over the medium term⁵⁷. In that context, the FAPRI only foresees a modest recovery in wheat area after 2000.

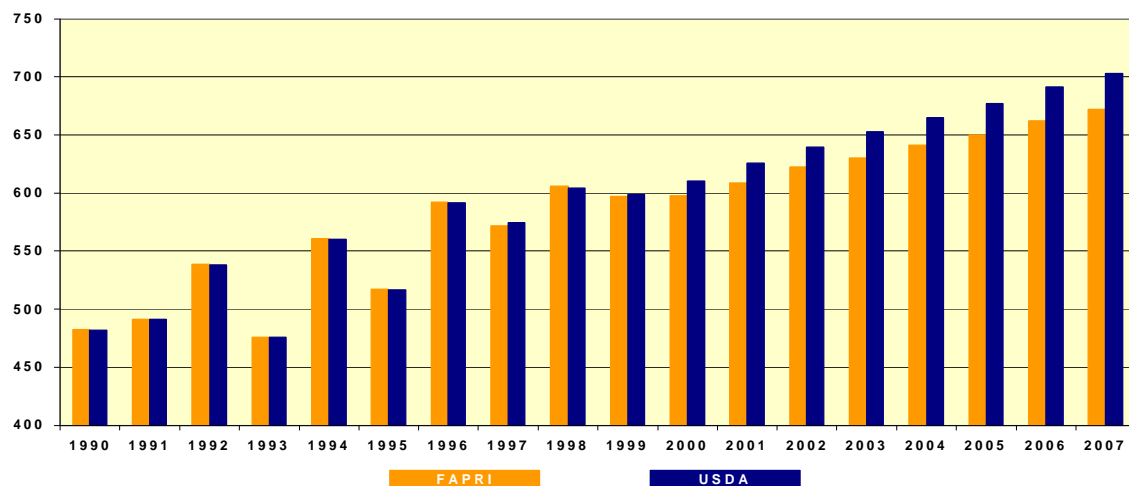
⁵⁶ According to the USDA, the lower quality of soils being brought in production and reduced budgets for research and development would be partly responsible for this reduction in yield growth.

⁵⁷ 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.

Graph 3.8 Outlook for world wheat production, 1990 – 2007 (mio t)

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 and consumption stronger than over the most recent decades. As for wheat, the USDA and OECD foresee that production growth would be supported by both some increase in total area (notably for maize) and yield growth. Conversely, FAPRI expects that the rise in coarse grain production would be mainly generated by increased productivity, as total coarse grain area would only grow by slightly more than 2 mio ha, the decline in sorghum area partially offsetting the projected increase in maize and barley area.

In OECD projections, coarse grain production would rise by 123 mio t from 1999 to 2005 (i.e. 2.2 % per year). Growth in coarse grain production would be mainly driven by the expansion of maize production that would range over the 1999-2007 period between 75 mio t (FAPRI) and 105 mio t (USDA) (i.e. 1.5 % to 2.0 % per annum respectively). In spite of lower profitability and productivity prospects relative to maize, barley production is still expected to rise by between 16 mio t (FAPRI) and 26 mio t (USDA) from 1999 to 2007 (i.e. around 1.5 % and 2.3 % per year respectively), supported by a strong demand for malting barley. These growth rates would constitute a significant increase when compared to the 1980s and 1990s, though lower than during the 1970s.

Graph 3.9 Outlook for world maize production, 1990 – 2007 (mio t)

Demand

After a marked slow down in the early part of the decade, growth in demand for wheat is forecast to gather pace over the 1999/00-2007/08 period and reach on average an annual rate ranging from 1.1 % (FAPRI) to 1.8 % (OECD), i.e. by between 54 and more than 80 mio t over the whole period. The USDA expects world per capita wheat consumption to increase slowly from 98 kg to 100 kg over the medium term driven by higher feed wheat demand in the transition economies, China and the EU. Nevertheless, projected growth rates would fall short of the levels recorded in the 1970s and 1980s.

Total coarse grain consumption would follow a stronger pattern with a robust growth estimated on annual average at 1.4 % (FAPRI) and 2.2 % (OECD and USDA), i.e. an increase of between 90 and 155 mio t respectively over the forecast period. Demand for coarse grains would thus grow faster than during the 1980s and 1990s, but much slower than during the 1970s. According to the FAPRI and USDA outlook, maize would constitute the main driving force behind this rise in demand, due to the expansion of the poultry and pig meat sectors⁵⁸, with an annual increase forecast between 1.5 % and 2.3 % respectively (corresponding to 76 and 115 mio t from 1999/00 to 2007/08), whereas barley consumption would rise by 0.9 % and 1.9 % respectively on annual average (i.e. 10-26 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). Despite a relative slow down in demand in the early years of the projection period caused by the recent deterioration of the economic situation in some countries, developing countries –notably China, Latin America and North Africa & Middle East- should display significant growth in total cereal demand (for feed, food and industrial purposes) over the medium term as the consequences of the crisis fade and their economies follow 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). Both FAPRI and USDA foresee a steady expansion in cereal trade from 1999/00 to 2007/08 ranging between 17 % for wheat (i.e. 15-17 mio t) and 20-23 % for coarse grains (i.e. 18-19 mio t). The OECD outlook expects net exports from the OECD area to rise by 28 % for wheat and 36% for coarse grains by 2005, compared to the 1994-98 average.

⁵⁸ About two thirds of global coarse grain production are used as animal feed.

Table 3.1 Outlook for total trade in cereals, 1999 – 2007 (mio t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Wheat	102.1	88.0	119.0	103.4	16.9	15.4
Coarse grains	96.4	79.2	115.8	97.5	19.4	18.3
Maize	69.1	66.7	84.3	78.0	15.2	11.4
Barley	16.9	17.3	20.5	19.7	3.6	2.4
Total cereals	198.5	167.2	234.8	200.8	36.3	33.7

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

When looking at the regional breakdown of cereal net imports, most analysts expect that developments in cereal imports would mainly be 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 FSU, one of the world's largest importers during the 1980s, is expected to remain a small net cereal exporter, 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.

Net cereal imports from China are forecast to increase over the next seven years: Chinese wheat net imports would grow between around 1.1-1.5 mio t (OECD and USDA) and 3.3 mio t (FAPRI) from 1999/00 to 2007/08. These gains represent a sharp downwards revision as compared to last years' forecasts owing to expectations of higher production potential and a relatively flat per capita consumption. China would also turn from being a net exporter of coarse grains in 1999/00 for around 2 mio t to become a net importer over the medium term. The FAPRI expects net coarse grain imports to reach more than 9 mio t by 2007/08. 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 as China's new grain policy is expected to favour oilseeds over cereals.

Conversely, the USDA foresees a much lower level of Chinese net coarse grain imports at 1 mio t by 2007/08. If the new government regulations, involving strict new quality standards on government grain purchases and the gradual elimination of purchases of low-quality grains, are expected by the USDA to affect grain output in the short-term, the existence of abundant grain stocks⁵⁹ combined with higher yield growth prospects and lower-than-expected income growth forecasts would limit import growth over the medium term⁶⁰. 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 0.6 mio t by 2005/06.

⁵⁹ Grain stocks soared by the end of the 1990s as the consecutive implementation of the "Governor's grain bag" system in the mid-1990s and the "Grain Reform" policy in 1998 boosted production whereas grain demand slowed down.

⁶⁰ On the assumption that the central government would allow stocks to be sold at less than the original purchase price and that yield growth would not be significantly impacted as new high-yield and high-quality varieties are introduced and as yields respond to larger price premium for quality.

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

Table 3.2 Outlook for wheat net imports for major importing countries, 1999 – 2007 (mio t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	-	26.7	-	33.6	-	6.9
China	0.5	0.2	2.0	3.5	1.5	3.3
Indonesia	2.5	-	4.3	-	1.8	-
Japan	5.5	5.5	5.6	5.5	0.1	0.0
FSU	0.9	1.4	-1.1	1.6	-2.0	0.2
Africa & M. East*	38.9	37.4	46.7	40.4	7.8	3.0
North Africa**	-	14.9	-	16.5	-	1.6

* Middle East: only Iran in USDA; ** excluding Lybia in FAPRI

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 2 to 8 mio t from 1999/00 to 2007/08, whereas wheat imports would grow between 3 and 8 mio t.

Coarse grain imports in Mexico and other Latin American countries are expected to increase further throughout the whole period as rising income boosts meat demand. Finally, growth in world barley trade is foreseen to take place mainly in China (malting barley) and Saudi Arabia (feed barley). However, malting barley markets are anticipated to exhibit higher growth, as feed barley would face strong competition from other feed grains.

Table 3.3 Outlook for coarse grains net imports for major importers, 1999 – 2007 (mio t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Total Asia	35.2	35.2	44.6	49.0	9.4	13.8
China	-2.0	-2.2	1.1	9.4	3.1	11.6
Indonesia	-	0.4	-	1.4	-	1.0
Japan	20.3	20.0	20.3	18.0	0.0	-2.0
Mexico	8.2	8.5	11.0	10.1	2.8	1.6
Other Lat. America*	9.3	9.8	12.7	10.5	3.4	0.7
FSU	-0.7	-1.1	0.0	-3.5	0.7	-2.4
Africa & M.East	24.1	22.7	29.3	24.8	7.6	2.1
North Afr.** & M.East	22.7	19.0	27.1	21.2	4.4	2.2

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

The prospects for higher world wheat trade would mainly benefit the traditional exporters such as the US, Canada, the EU, Australia and Argentina. Whereas exports from Canada and Australia would broadly stagnate, Argentina would exhibit stronger gains. The US is foreseen by all organisations to be the main winner with additional exports ranging between 4 and 9 mio t. The competitiveness of EU exports and its ability to export beyond its WTO limits on subsidised exports would be largely determined by the €/€ exchange rate and world price levels. After losing market share in the first part of the outlook as WTO constraints would remain binding in the assumption of a strong €, the

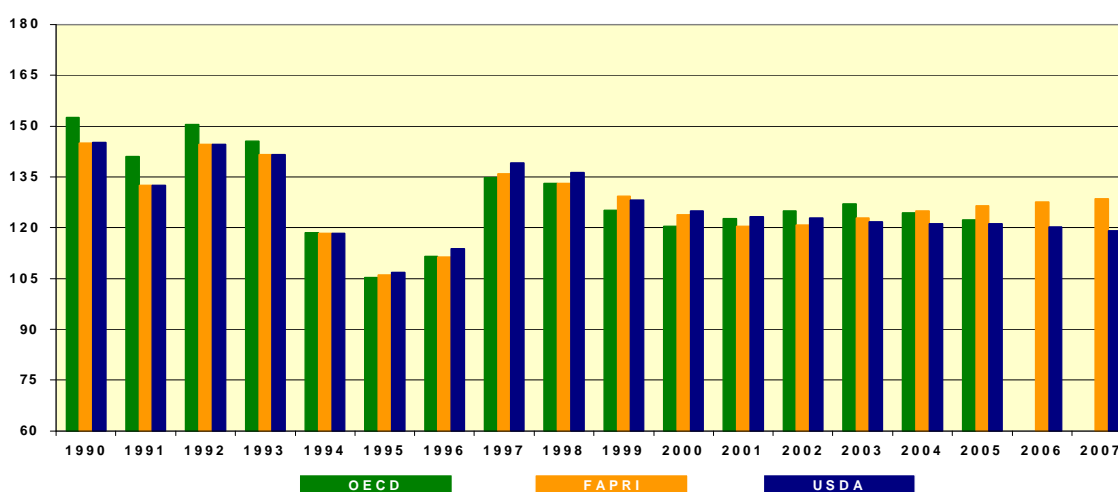
EU would benefit from the recovery in world prices to sharply expand its wheat exports from around 2004 onwards.

Additional maize grain import demand is expected to be met by the US and Argentina as China would reduce its exports over the projection period. Finally, Canada and Australia are anticipated to benefit most of the growth in barley trade as the EU export supply would be limited by the WTO limits in the assumption of a strong €⁶¹.

Stocks and prices

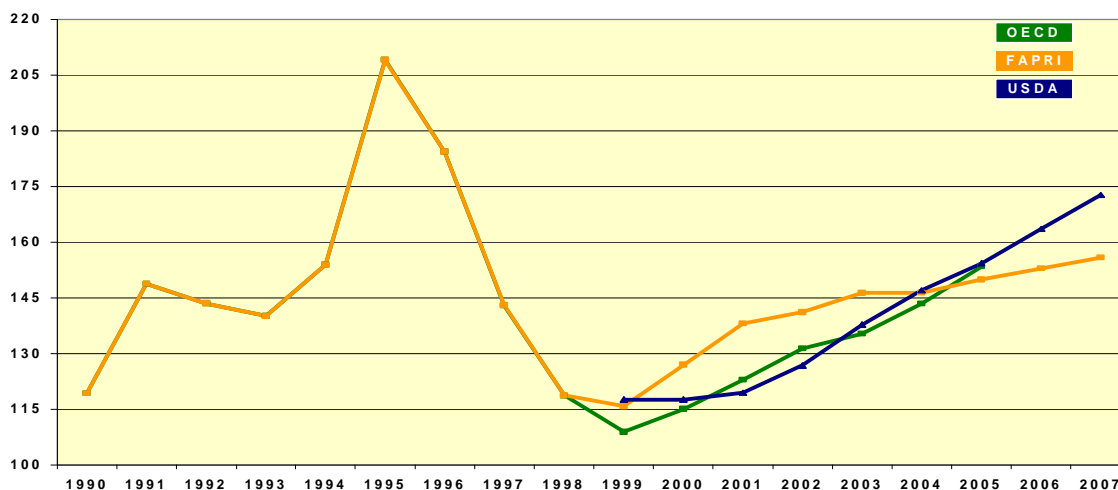
After some strong rebuilding in 1997, most organisations foresee a gradual decline in stock levels for wheat and barley. As a result, the stock-to-use ratio is expected to tighten and generate an increase in world wheat and barley prices over the medium term.

Graph 3.10 Outlook for world wheat stocks, 1990 – 2007 (mio t)



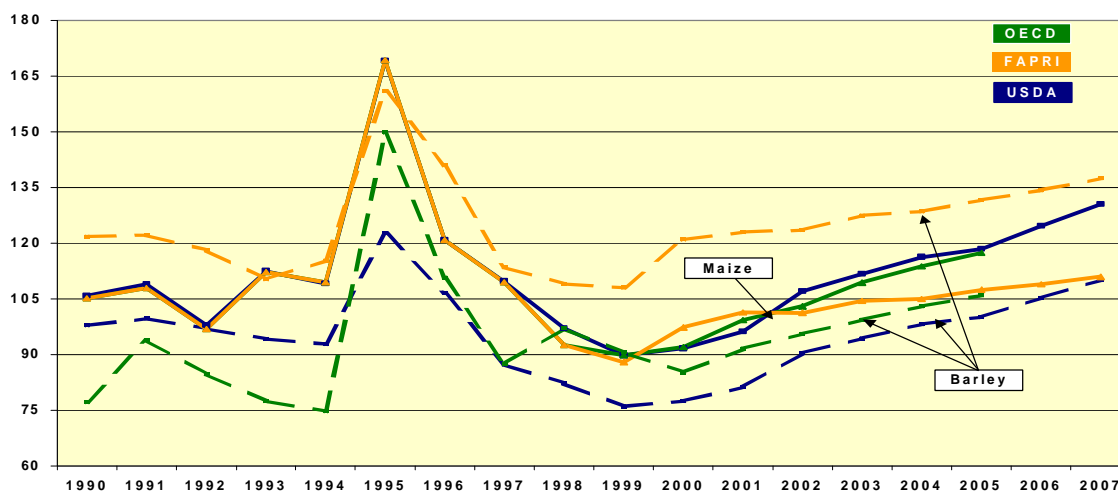
After bottoming out by the turn of the century, cereal prices are foreseen to recover slowly over the medium term from the current low levels as supply adjusts and global demand strengthens. Prices of common wheat (HRW, fob US Gulf) are projected to range between 156 \$/t (FAPRI) and 173 \$/t (USDA) by 2007/08 (SRW wheat, that broadly corresponds to EU common wheat quality, would quote around 10 % below these HRW wheat price projections). Prices of coarse grains should follow a similar trend, with maize (fob US Gulf) prices projected between 111 \$/t and 130 \$/t at the end of the period. The OECD foresees similar developments with wheat and coarse grain prices strengthening over the medium term and reaching 153 \$/t and 117 \$/t respectively by 2005/06. Durum wheat prices would also trend upwards, rising from around 150 \$/t in 2000/01 (for EU durum wheat quality) to 180 \$/t by 2007/08.

⁶¹ In their analysis, the OECD and the USDA assume that the € would strengthen in real terms versus the US \$ in a range between 0.9 and 1.0. In the FAPRI outlook, the €/\$ exchange rate is assumed at slightly less than 0.9.

Graph 3.11 Outlook for world wheat prices, 1990 – 2007 (\$/t)

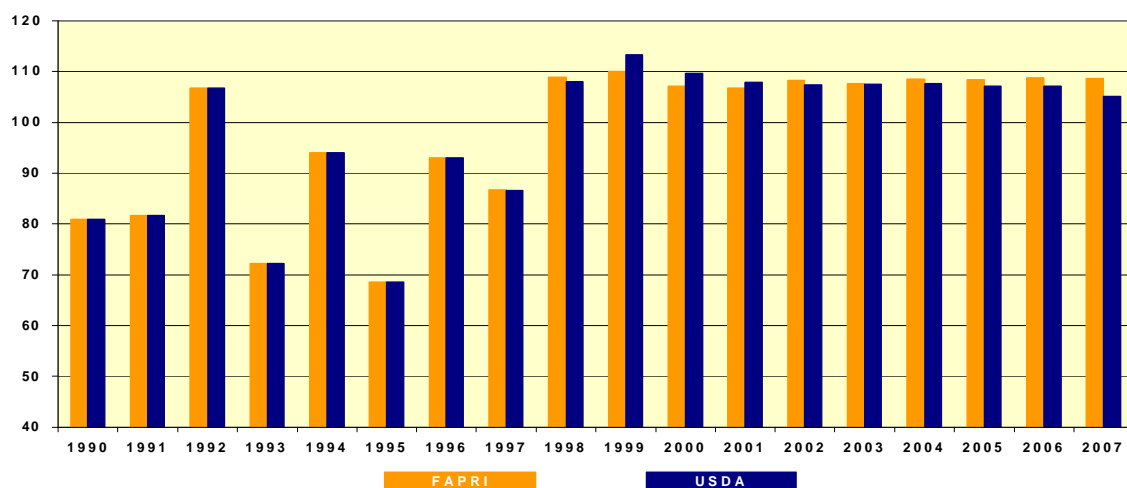
Ref.: US FOB Gulf, HRW.

After falling up to 1999-2000, barley prices are projected to recover gradually over the rest of the period: from 108 \$/t in 1999/00 (Portland reference) to 137 \$/t in 2007/08 in FAPRI projections and from 76 \$/t to 110 \$/t (Duluth reference) in the USDA outlook.

Graph 3.12 Outlook for world coarse grains prices, 1990 – 2007 (\$/t)

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

The pace and magnitude of recovery in maize prices over the 1999/00-2007/08 period are significantly stronger in the USDA and OECD projections than in the FAPRI outlook. After falling to 90 \$/t in 1999/00, maize prices are forecast to increase by a range of 21-40 \$/t over the next seven years. The main differences between the projections relate to the development in the level of maize stocks and stock-to-use ratio that are foreseen to decline to a much greater extent in the USDA projections (as global demand expands more strongly).

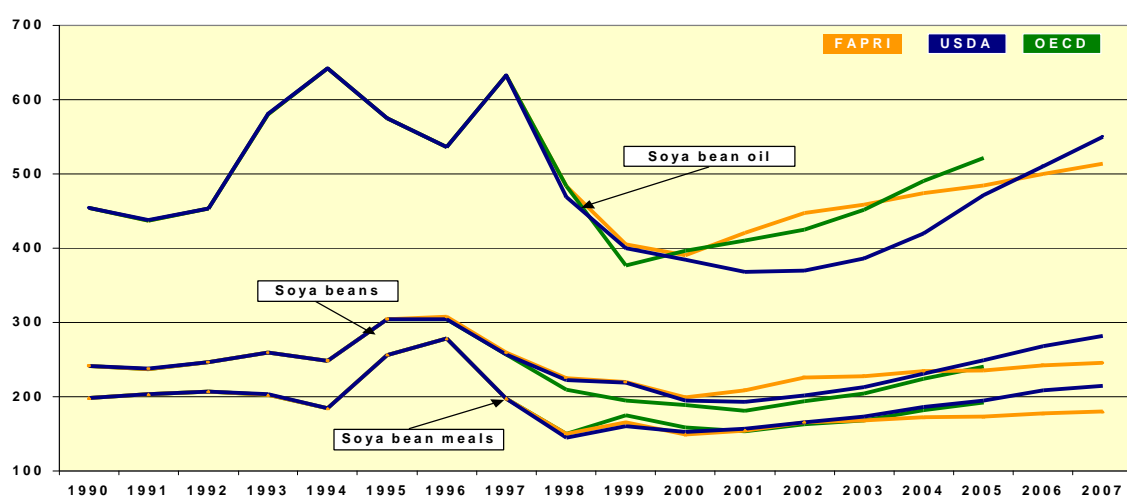
Graph 3.13 Outlook for world maize stocks, 1990 – 2007 (mio t)

3.2 Oilseeds and oilseed products

Medium-term prospects for the oilseed sector as a whole are expected to exhibit a relatively modest recovery after a short-term situation marked by excess supplies and very low prices. The growing demand for vegetable oils for human consumption and for oilseed meals from the expanding livestock sector is forecast to generate 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 FAPRI and the OECD, total oilseed production is forecast to increase between 1999/00 and 2005/06 at an annual rate ranging between 1.8 % and 2.0 % respectively (i.e. more than 25 mio t). Similar growth rates are projected by the USDA and FAPRI for soya beans up to 2007/08. 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 yields increases are expected to outweigh the decline in area).

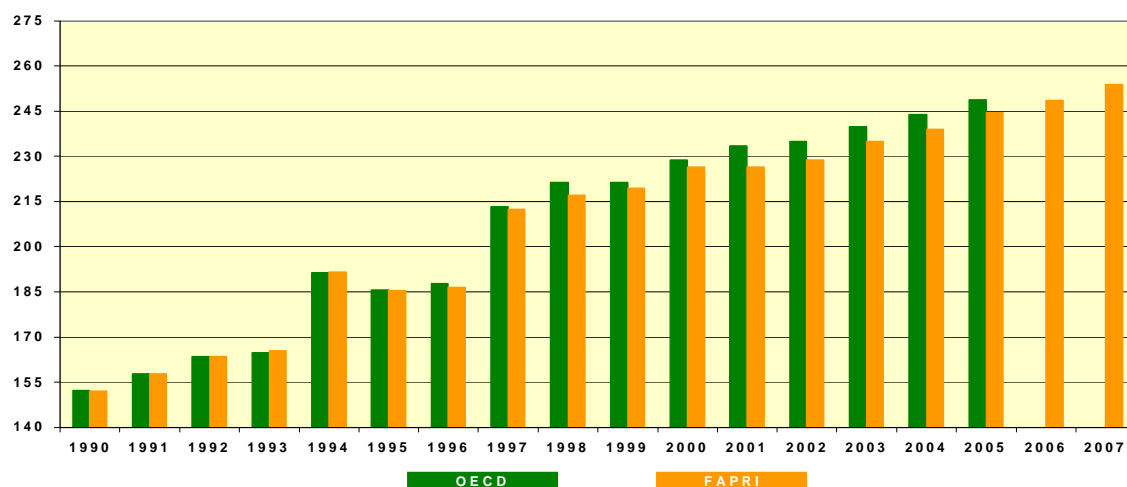
Graph 3.14 Outlook for world prices in the soya bean complex, 1990 – 2007 (\$/t)

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

Oilseed area would expand strongly by around 6.5 mio ha to reach 126.7 mio ha by 2007/08 according to FAPRI (split between around 40 % in soybean and 60 % in rape/sunflower seed), while yields would increase by 10 % over the 1999/00-2007/08 period. If the OECD foresees a similar trend in yields, it anticipates a more moderate pattern in area expansion. Yet, all projections indicate a decline in the oilseed area in the US (and more generally in the OECD zone). Additional area would come either from new land brought into production (notably in Brazil) or from land previously allocated to cereals (China and India).

Current low oilseed prices result from a relative excess supply, slower demand growth and a combination of policy and macro-economic⁶² factors. In the short-term, supply is only anticipated to adjust slowly to this low price level owing to policy factors, notably in the US 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 2003-2004 when average prices start rising above the loan rate. 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 (modest) recovery in market prices and support production developments thanks to productivity gains and availability of land resources.

Graph 3.15 Outlook for world oilseed production, 1990 – 2007 (mio t)

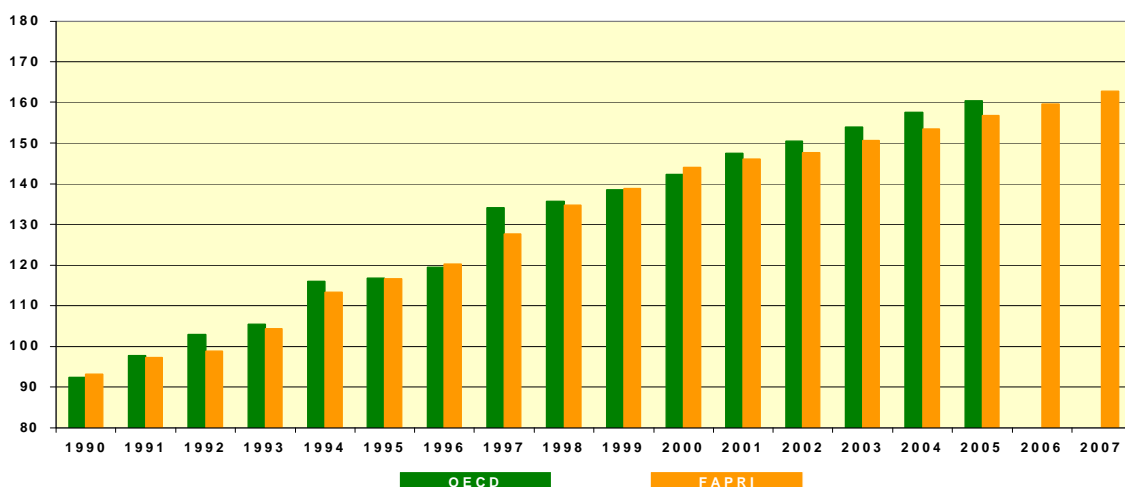


The consolidation of the economic recovery over the medium-term is anticipated to stimulate import demand for oilseeds and oilseed meals, notably in developing countries where income growth is likely to generate higher demand for livestock products, notably for poultry and pig meat. The shift in consumer preferences in these countries towards 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. Additional oilseed meal consumption is estimated between 18 and 22 mio t by 2005/06. Although the pace of growth is now slower in developed countries than in emerging economies, the former still make up for around 60 % of world oilseed meal use.

⁶² Notably the recent currency depreciation that was observed in some major oilseed producers (in particular Brazil).

Moreover, OECD countries would still account for the largest share of oilseed and oilseed meals import demand, especially the EU and Japan.

Graph 3.16 Outlook for world oilseed meal consumption, 1990 – 2007 (mio t)



Total trade in oilseeds is anticipated to increase faster over the projection period than in the 1980s, but more slowly than in the early 1990s. After a marked short-run slow down in the wake of the Asian crisis, global trade is forecast to strengthen as economies recover. Trade growth in oilseed meals is foreseen to be relatively steady but still slower than over the last fifteen years. According to the USDA and FAPRI, soya bean trade will rise at annual rates ranging between 0.8 % and 2.0 % respectively over the next seven years, whereas soybean meal imports will grow by 1.9 % per year. The combined exports of soybeans and meals, on a soybean-equivalent basis, would thus grow according to the USDA from 70.3 mio t in 1999/00 to an estimated 82.2 mio t in 2009/10.

The FAPRI and USDA projections diverge mainly over the future prospects for EU import demand. Whereas the USDA foresees a strong decline in EU soybeans and soybean meals imports due to the implementation of Agenda 2000 that would increase feed grain consumption to the detriment of oilseed products, FAPRI expects EU imports to continue to grow over the next seven years⁶³.

Table 3.4 Outlook for total trade in soya bean and soya bean products, 1999 - 2007 (mio t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Soya bean	40.9	36.6	43.5	42.9	2.6	6.4
Soya bean meal	38.1	31.8	44.2	37.0	6.1	5.2
Soya bean oil	7.0	5.8	8.2	6.9	1.2	1.1

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

Over the medium term, global import demand for oilseeds is projected to remain dominated by the EU, Japan, China, Mexico and South East Asia. China and many countries of South East Asia would display a renewed increase in their oilseed imports in order to supply their domestic crushing industry and, ultimately, their pig and poultry

⁶³ The OECD provides a “middle-ground” projection with slightly rising oilseeds imports and a small decline in oilseed meals imports as lower domestic production of oilseed products in the EU would offset an only slightly lower demand for oilseed products.

meat industry. Depending on each country's domestic policy and crushing capacity, import demand would concern oilseeds or oilseed products. It appears that China's recent policy shift towards maximising its large domestic crushing industry would translate into greater imports of oilseeds (rather than oilseed meals and oil).

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 is 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 other major exporting countries to increase supply and restore their competitiveness.

Table 3.5 Outlook for soya bean net imports for major importing countries, 1999-2007 (mio t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union	14.6	14.6	11.6	16.5	-3.0	1.9
Japan	4.6	4.6	4.3	4.6	-0.3	0.0
China	4.2	4.2	6.5	7.0	2.3	2.8
Mexico	3.7	3.7	4.7	4.2	1.0	0.5
Taiwan	2.3	2.3	2.9	2.5	0.6	0.2

In the long run, if global import demand in soya 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. As mentioned above, growth in Chinese imports of soybean meals would be rather modest. Argentina and Brazil would benefit most from a rising world trade with exports from these two countries growing by around 15 % from 1999/00 to 2007/08. India is also forecast to play an increasing role in world soya meal trade with export growth estimated between 20 and 30 % over the next seven years.

Table 3.6 Outlook for soybean meal net imports for major importing countries, 1999-2007 (mio t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
European Union	14.9	14.9	13.3	16.6	-1.6	1.7
Eastern Europe	2.2	2.2	2.8	2.3	0.6	0.1
China	1.1	1.2	1.7	1.3	0.6	0.1
South Korea	-	1.3	-	1.5	-	0.2

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, with soybean prices ranging by 2007/08 between 245 \$/t and 282 \$/t according to FAPRI and USDA projections respectively. Soybean meal prices would also trend upwards over the medium term, reaching between 178 \$/t and 214 \$/t in 2007/08. The OECD outlook displays a similar pattern with soybean and soybean meal prices at 240 \$/t and 192 \$/t respectively in 2005/06.

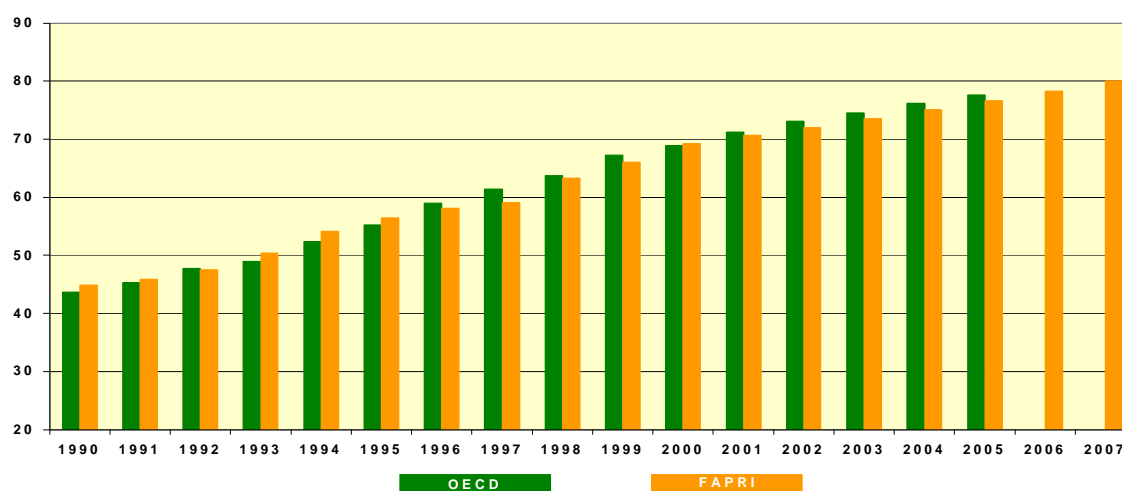
According to the FAPRI and OECD projections, rape seed and sunflower seed prices are foreseen to further decline at the turn of the century (down to 177-203 \$/t and

237-211 \$/t respectively) before recovering rather modestly over the medium-term⁶⁴. Prices of rape seed and sunflower seed meals would exhibit a more sustained 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 term⁶⁵. Most of this additional consumption (of more than 10 mio t) is expected to be found in Asia and in Latin America, whereas less growth is anticipated in Western Europe, the US and Japan.

Graph 3.17 Outlook for world oilseed oil and palm oil consumption, 1990 – 2007 (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 1999/00 to 2007/08. Palm oil and soybean oil should absorb the largest share of additional consumption and trade. Palm oil trade is forecast to expand by 2.7 mio t (i.e. 2.9 % per year over the 1999/00-2007/08 period as compared to a growth of about 9 % a year in the early 1990s). China, the EU and India would be the main 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 3 mio t over the next seven years (or 18 %), in spite of the slow down in new tree plantings in the wake of the financial crisis.

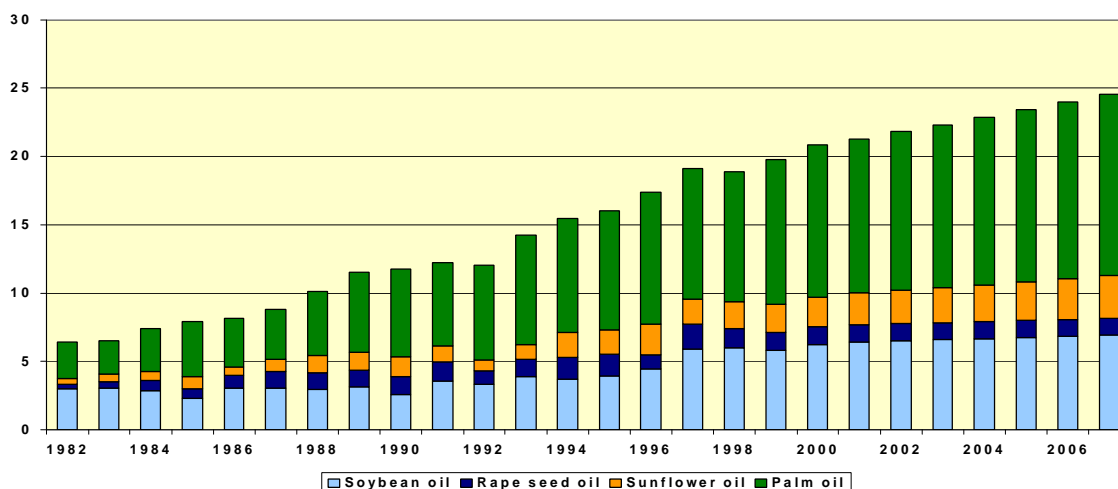
World soya bean oil trade is projected by the USDA and FAPRI to grow by around 2.0-2.2 % per annum on average over the next seven years, i.e. at a much lower rate than those achieved in the 1980s and the early 1990s, as additional demand stimulates domestic

⁶⁴ By 2005/06, rape seed prices would reach between 208 \$/t (FAPRI) and 260 \$/t (OECD), whereas sunflower seed prices would reach 265 \$/t and 249 \$/t in the respective projections.

⁶⁵ The USDA outlook only provides soybean oil consumption, for which it expects an annual increase of 2.1 % on average.

production in importing countries. Chinese imports, totalling more than 1 mio t by 2007/08, would constitute the main driving force behind the growth in soybean oil trade.

Graph 3.18 Outlook for world oilseed oil and palm oil trade, 1982 – 2007 (mio t)



Source: FAPRI.

The strong growth in oilseed oil trade relative to meals and beans is expected to create incentives for increased production in high-oil content oilseeds (such as rape and sunflower seeds in the EU as compared to soya beans)⁶⁶.

The medium-term prospects for vegetable oil prices appear more favourable than for other oilseed products thanks to a strongly growing demand⁶⁷. In spite of large supplies of vegetable oils and palm oil, this sustained demand would support a steady recovery in oil prices. Soybean oil prices would rise at an average annual rate ranging between 3 % and 5.5 % and reach between 514 \$/t and 550 \$/t by 2007/08 (cif Rotterdam). Palm oil prices would display a similar pattern with prices falling to a low at the turn of the century (at around 370 \$/t cif Rotterdam) before recovering slowly to 500 \$/t by the end of the projection period⁶⁸. OECD, FAPRI and USDA oil price projections only differ about the pace of the price recovery, with the USDA foreseeing a slower adjustment in the oil market.

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

⁶⁶ In the FAPRI projections, demand for rape seed and sunflower oil is forecast to grow over the medium term in line with higher expected income, notably in China, India and other developing countries. If rape seed oil trade is foreseen to display a moderate growth as most consumption increase would be met by higher domestic production, global import demand for sunflower oil would rise 30 % from 1999/00 to 2007/08 (i.e. 1.1 mio t).

⁶⁷ Furthermore, prices of oilseeds and oilseed meals would face a strong competition from abundant cereal supplies in the short-term.

⁶⁸ 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.

3.3 Meat

This meat market outlook focuses 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 expect a rather favourable situation for the meat markets over the next seven years.

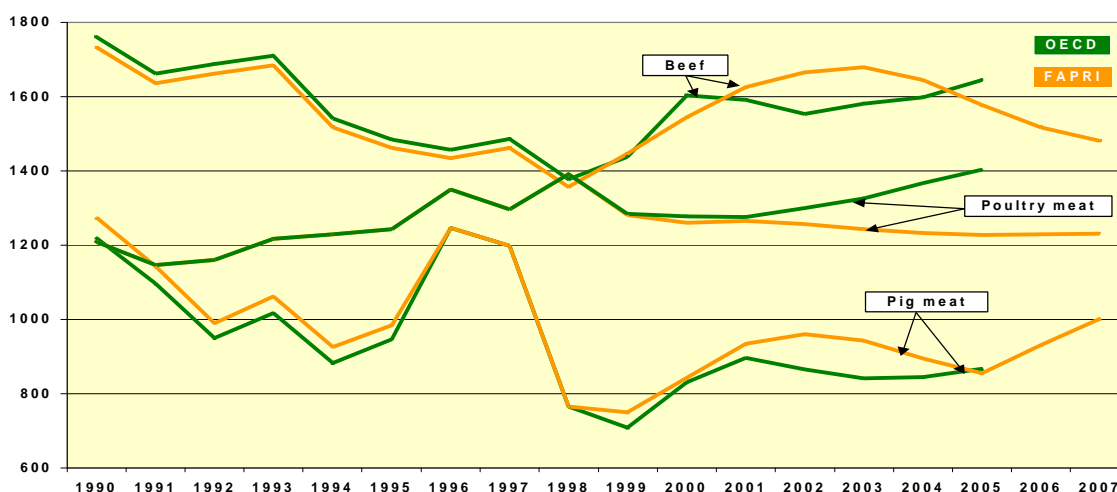
Table 3.7 Outlook for world meat trade, 1999 – 2007 ('000 t cwe)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Beef	4383	3177	5020	3823	637	646
Pork	2380	2277	2787	2807	407	530
Poultry	4825	3682	6481	4784	1656	1102

FAPRI net trade.

Prospects for growing consumption of meat (as primary source of animal protein) in response to income growth, particularly in the rapidly industrialising economies of Asia and Latin America, combined with limited possibilities to proportionally and competitively increase domestic supply (in quantity and quality), are expected to stimulate world trade and to strengthen world prices for meat over the medium and long term.

Graph 3.19 Outlook for world meat prices, 1990 – 2007 (\$/t lw)



These projections are based on the assumption that the recovery from the 1997-1998 crisis that has been observed in the Asian emerging economies, in the transition countries and Latin America, will turn into sustained economic growth over the medium-term.

3.3.1 Beef and veal

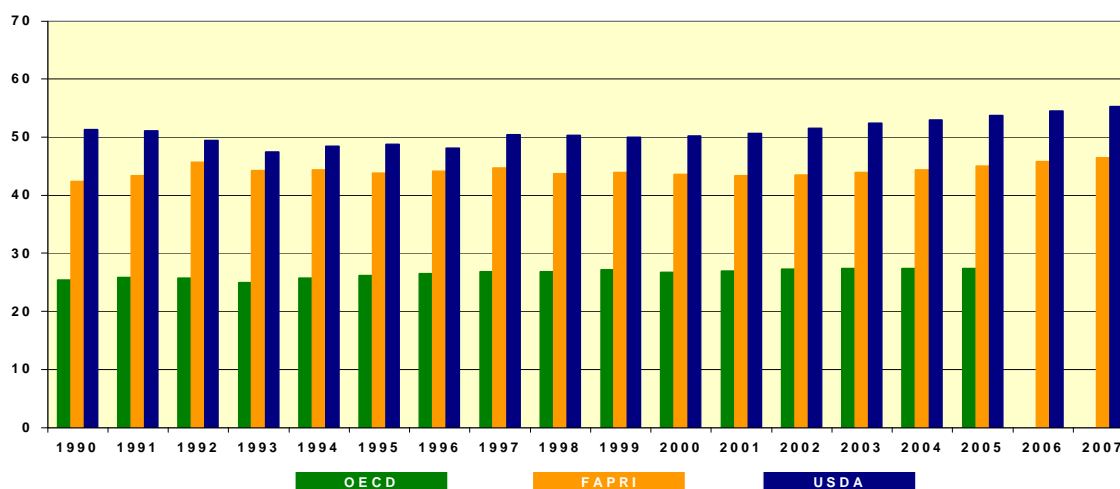
The beef market is traditionally split into two distinct segments, either free of foot-and-mouth disease (FMD) or not. The Pacific market is only available for exports that are free of FMD, with prices that are normally higher as compared to the Atlantic Market. However, the price gap between both regions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

World beef production is foreseen to increase over the medium term after a cyclical decline up to the turn of the century in many major-producing countries. Over the 1999-2007 period, annual growth in world beef production would reach between 0.7 % and 1.3 % on average according to the FAPRI and the USDA respectively, with most of the increase concentrated in the non-OECD area.

Both projections differ mainly as regards their outlook for the FSU, China and the US. Over the medium-term, the USDA foresees a marked increase in beef production in China, a modest recovery in the countries of the FSU where production would have fallen to its lowest in 1999, and a modest expansion in the next US cattle cycle (after a marked decline through 2001, an emphasis on fed beef production and a smaller cattle inventory). In contrast, FAPRI anticipates a stronger development for US beef output, a much less robust increase in China and a marked decline in the FSU beef production. Brazil, Argentina, Canada and Mexico are the only other major beef producing countries, which are foreseen to experience significant production growth over the medium term.

Global beef consumption is expected to rise gradually in relation to income growth, in particular in lower income countries. In many developed countries, per capita consumption of beef is expected to fall or to stagnate, since consumers continue to substitute pig meat and poultry meat for beef. This development is particularly marked in the US where beef consumption per capita is foreseen to fall significantly: from slightly less than 45 kg in 1999 to 41.2 kg (FAPRI) or 37.7 kg (USDA) in 2007.

Graph 3.20 Outlook for world beef production, 1990 – 2007 (mio t cwe)



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

In contrast, increasing beef demand is likely to occur in Asian countries (mainly China and Japan) and Latin America (led by Brazil 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 economic development and higher disposable income that should lead to changes in food habits toward more western style⁶⁹.

Whereas growth in beef demand is likely to be satisfied by domestic supply in China (because of import restrictions), limitations on feed production capacity (in terms of land

⁶⁹ Even if some markets such as Japan may not exhibit the rapid growth recorded in the late 1980s and early 1990s.

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 1999 – 2007 ('000 t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
FSU	408	527	331	612	-77	85
Japan	972	972	1173	1141	201	169
South Korea	180	180	313	286	133	106
Mexico	228	223	310	393	82	170

The USDA and FAPRI predict that total trade in beef should increase by more than 600 000 t (a 15 % and 20 % increase respectively over the 1999-2007 period). Much of the growth in imports is expected to come from Asia and Mexico. In Japan and South Korea, beef is the preferred substitute for increasingly scarce seafood. After their recent fall in the wake of the economic downturn, beef imports in these two countries are expected to resume growing in the early years of the next decade. Owing to the fall in domestic production levels (gradual in Japan and in line with the rebuilding of the cattle herd in South Korea), imports would account for more than 50 % and 65 % of domestic consumption respectively.

Beef imports are forecast to grow in Mexico by more than 4 % per year from 1999 to 2007. Whereas imports would be mainly driven by a sharp increase in domestic demand in the USDA projections, they would result from the slow recovery in domestic production (affected by drought conditions in 1999) that would be outpaced by the expansion in domestic consumption according to the FAPRI baseline.

The prospects for the FSU remain a major source of uncertainty over the medium term. The USDA predicts that beef consumption should rise above current low levels in the short-term. However, future development in beef domestic demand would remain limited (and import demand constrained) by weak income growth, the slow recovery in domestic beef supply and strong competition from pig meat and poultry meat. After a sharp drop in total imports associated with the elimination of food aid in 2000, beef net imports would rise steadily over the medium-term in the FAPRI baseline, though reverting to their early 1990s level. Beef consumption would decline up to 2004 but a slower pace than domestic production that would continue to fall due to low productivity and quality feed shortage in the short-term and institutional and distribution constraints in the medium-term. Beef imports would level off at the end of the period at around 610 000 t.

The increasing import demand is expected to mainly benefit the US according to the USDA and FAPRI projections⁷⁰. Other countries such as Australia, Canada, Brazil and Argentina would exhibit modest gains, whereas the EU net exports would remain largely constrained by the URAA limits on subsidised exports. In contrast, the OECD outlook displays a different picture. Canada, Argentina, New Zealand and Brazil are projected to become the main beneficiaries of the expansion in the world beef market (conditionally

⁷⁰ With a 5 % rise in US exports, FAPRI expects the US to become the world's largest exporter by 2002 and net exporter by 2004. The USDA foresees more modest gains for US exports, though the US would also become net exporter by 2007.

on the ability of MERCOSUR beef exporting countries to gain access to the Pacific beef market, in relation with their FMD-free status, and to raise beef supply).

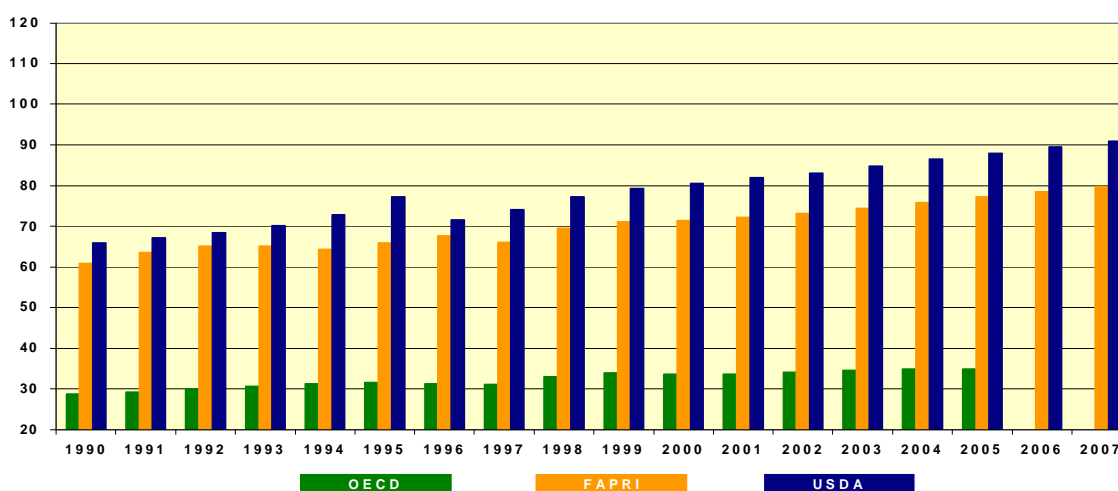
Strong import prospects combined with limited growth in beef production should result in rising beef prices over the medium and long term. However, the changing structure of the world beef market, the emergence of new major exporters and the increasing competition from other meats should restrain upward price tendencies. Finally, it should be acknowledged that, since income growth is seen as the main driving force behind beef demand, a prudent and cautious assessment of these medium-term prospects for global beef trade and prices is deemed necessary. Much should depend on the strength of the economic recovery in some major importing regions (South East Asia, Japan and the FSU).

3.3.2 Pig meat

After the drastic adjustments observed in the pig meat sector over the last few years, the OECD, FAPRI and the USDA foresee a more favourable medium and long-term outlook for pig meat, characterised by a renewed increase in world production, consumption and trade. Pig meat prices are however only expected to display a rather modest recovery over the medium term, reflecting increased competition from poultry meat, sustained productivity growth and large supplies.

World pig meat production is projected to continue to increase over the medium term by between 12 and 15 %, i.e. a slower rate than in previous decades (1.5-1.8 % per annum on average between 1999 and 2007). Pig meat expansion is expected to be limited in many regions by lower prices generated by more moderate income growth prospects relatively to the previous decade and greater competition from competitively priced poultry meat, as well as by environmental constraints. According to FAPRI and USDA projections, most of world production growth (i.e. between 9 and 12 mio t over the next seven years) is likely to occur in China (for around 70 %) whereas production in the US, EU, Canada and Brazil is forecast to show only modest growth. In spite of a short-term recovery, pig meat production in Japan is projected to decline due to lower competitiveness vis-à-vis pig meat imports.

Graph 3.21 Outlook for world pig meat consumption, 1990 – 2007 (mio t cwe)



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

The consumption of pig meat in most developed countries (including the EU, US, Canada and Japan) is expected to record modest growth due to stronger competition from

poultry meat and relatively moderate economic prospects. Slow consumption growth in these countries would be partially compensated by a stronger increase in Asia and Latin America (in particular in Mexico, Brazil and China where total pig meat consumption is set to rise by around 22 % between 1999 and 2007), bolstered by expectations of low prices and the improvement in the general economic conditions.

Like in other agricultural sectors, prospects in the FSU are difficult to assess both on the supply side (pace of production recovery linked to economic reforms) and on the demand side (with consumption growth associated with an uncertain economic outlook). Following the economic turmoil of the late 1990s pig meat imports in the FSU dropped sharply. The FAPRI expects them to recover due to the continuing contraction of the pork industry and the slight increase in domestic demand. From 2004 onwards, the gradual recovery in supply levels would level off imports at around 575 000 t annually. More moderate import growth is foreseen by the USDA and the OECD as pig meat production in the FSU would grow in line with domestic consumption (an additional 270 000 t from 1999 to 2007).

After a short-term disruption in 1997 following the outbreak of FMD in Taiwan, global trade in pig meat is forecast to increase further over the medium term with growth rates ranging from 17 % in the USDA outlook to 23 % in FAPRI projections (i.e. around 400 000 t and 500 000 t of additional imports from 1999 to 2007 respectively). Over the forecast horizon, growth in pig meat trade would be mainly driven by strong demand in major importing countries of Asia (notably Japan and China) and Mexico.

Table 3.9 Outlook for pig meat net imports for major importing countries, 1999–2007 ('000 t cwe)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
Japan	814	814	993	971	179	157
FSU	356	341	370	540	14	199
South Korea	9	9	1	50	-8	41
Mexico	85	85	154	90	69	5
China - Hong Kong	158	158	293	210	135	52

The outbreak of FMD in Taiwan in 1997 forced Taiwan to withdraw from the lucrative Japanese market. In USDA and FAPRI projections, Taiwan exports to Japan are only expected to resume their growth in 2004 and 2005 although they would still remain at very low levels by historical standards. Japanese pig meat imports that fell in 1997 due to the interruption in supply from Taiwan, are projected to recover over the rest of the period in response to growing per capita income and declining production levels in Japan which should both boost import demand (more than 150 000 t by 2007).

The OECD, the USDA and FAPRI foresee that the increasingly export-oriented pig meat industry of North America should benefit the most from the strong rise in world pig meat trade. Significant restructuring, through concentration and vertical integration (with production and marketing contracts), in the production, marketing and processing sectors of the pork industry is expected to boost North American competitiveness⁷¹. However,

⁷¹ The availability of large feed grain supplies and less environmental constraints (than in Europe and Asia) should also improve their ability to secure quality products at competitive prices.

improved competitiveness thanks to policy reform and high product quality would allow the EU, the world's largest pig meat exporter, to increase its exports over the medium-term (with an additional 80-180 000 t by 2005-2007 in the OECD and FAPRI outlook respectively). Finally, Polish pig meat exports are expected to recover from the impact of the Russian crisis from the late 1990s and to grow steadily over the projection period.

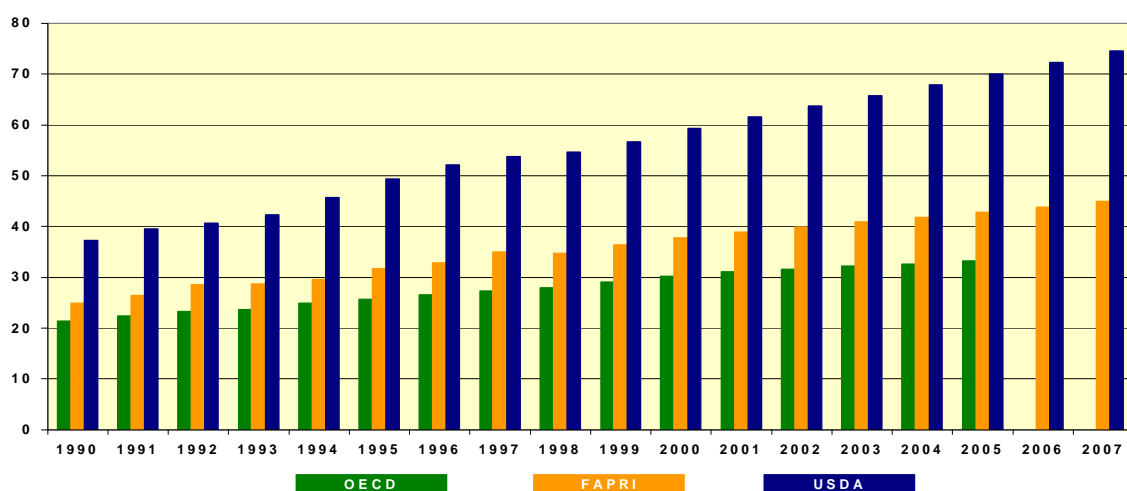
Pig meat prices are generally expected to rise over the medium term. The magnitude of this recovery, driven by higher feeding costs and strong demand, is foreseen to remain largely tempered by the continued efficiency gains in feeding practices and increased competition from other meats.

3.3.3 Poultry

The outlook for poultry meat is foreseen to be the most favourable among the different types of meat, with all market fundamentals expected to demonstrate strong growth. World production, consumption and trade are all foreseen by most international organisations 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 (relatively to beef and pig meat) and strong consumer preferences in many parts of the world (in line with changing diets towards western lifestyle and health considerations).

Poultry meat production and consumption are predicted to increase sharply over the next seven years (between 20 % and 30 %). The OECD, USDA and FAPRI foresee an annual growth averaging between 2.4 % and 3.3 %. Production in the large producer countries (China, US, Brazil, EU and Mexico) should continue to expand as domestic and global demand increases. Yet, most of the growth in production and consumption is to be found in non-OECD countries.

Graph 3.22 Outlook for world poultry meat consumption, 1990 – 2007 (mio t cwe)



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

The lower price of poultry relative to other meats, combined with rising incomes and changing food demand pattern in most of these countries, is expected to strengthen demand. Therefore, in many countries with a relatively low per capita consumption (China, Mexico and Eastern Europe), the expected improvement of the economic situation should first favour the poultry sector. In addition, consumption should also

increase, though more moderately, in countries with a relatively high per capita consumption due to a continuing shift in consumer preferences⁷².

Since production in most of the countries with expected rapid growth in consumption (China, Mexico, etc.) is only projected to expand at slower rates, increased demand is expected to generate a strong rise in trade (estimated at around 30 % by FAPRI and the USDA over the 1999-2007 period). Most of the growth in trade is likely to take place in lower-value poultry cuts.

Table 3.10 Outlook for poultry meat net imports for major importing countries, 1999–2007 ('000 t)

	1999		2007		Change in trade	
	USDA	FAPRI	USDA	FAPRI	USDA	FAPRI
FSU	639	641	783	699	144	58
China mainland	450	499	951	707	501	208
China - Hong Kong	327	288	365	367	38	79
Mexico	238	128	277	206	39	78
Japan	540	527	783	739	243	212
Saudi Arabia	265	245	323	230	58	-15
South Korea	49	38	60	80	11	42

Imports of poultry meat from the FSU are expected to depend on the pace of modernisation of the domestic production sector. The latter is forecast to expand slowly and gradually in the longer term as it would suffer from high production costs, low productivity and financial weakness. Imports should thus grow in line with the increase in domestic consumption as economic conditions improve. The growth in import demand differs between the USDA, OECD and FAPRI projections as FAPRI foresees much lower trends in production and consumption growth and in import levels. The economic 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 the FSU but also global trade.

Growth in China mainland consumption would outstrip production, generating a sharp increase in import volumes. These imports are foreseen at around 500 000 t in the USDA and OECD outlook, whereas the FAPRI foresees a more cautious development for China over the medium term. Chinese imports would benefit from differing consumer preferences for the various poultry products (notably for dark meat, feet and wings, which are low-value products in many countries). Imports from Mexico are projected to expand, as growth in domestic production would not be able to keep pace with an increasing internal consumption in the context of the liberalisation of the sector under NAFTA.

All organisations foresee that the US would benefit most from this projected rise in poultry meat trade thanks to a competitive structure of the sector (through vertical integration, high technology levels and access to low-cost feed products). Large and cheap feed grain supplies and high productivity (boosted by foreign investment) are also expected to enable Brazil to play an increasing role in global poultry trade. Growing competition from these two countries is anticipated to constrain other major exporters, notably China (Hong Kong), Thailand and the EU.

⁷² 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).

Poultry prices are forecast to follow the evolution of feed grain prices and to remain firm over the medium term, supported by a strong demand from Asia and the recovery in the FSU. However, the structural changes of the poultry meat sector and continuing technological improvement are foreseen to 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 sector⁷³.

According to the projections currently available, the outlook for the dairy sector seems rather favourable over the medium term, like for most other agricultural products. A gradually strengthening demand for dairy products stimulated by the economic recovery, notably in the non-OECD area (Asia and Latin America), is foreseen to lead to higher prices over the medium term. Little change is anticipated in the demand for dairy products (with the exception of cheese) in many developed countries where they constitute a fundamental component of the diet and exhibit consumption levels close to saturation. Conversely, the consumption of dairy products is forecast to grow in some developing countries, in particular in Asia and Latin America, in line with rising disposable income, urbanisation and changing dietary pattern.

Increased demand from developing countries would be primarily supplied by domestic production. Although some countries, notably in South America, are expected to become more active in the export market, developing countries as a whole should remain net importers of dairy products with most exports originating from developed countries. In the short-run, the OECD and FAPRI expect some shift in the export market shares in favour of Oceania (New Zealand and Australia) at the expense of the EU. The former countries are foreseen to benefit from lower production costs and geographical proximity to growing import markets. In addition, the EU is foreseen to remain constrained in the short-term by the URAA limits on export subsidies (in the assumption of a strong €). Over the medium-term, the implementation of the Agenda 2000 measures (notably the cut in EU support prices from 2005 onwards) would improve EU export competitiveness.

However, since demand for dairy products is strongly influenced by income levels, these medium-term projections remain highly dependent on the future economic and financial situation in the non-OECD area. In that perspective and in view of its share in world butter and cheese trade, any economic, financial or policy developments altering the pace of recovery in Russia would have major implications for future developments in world trade volume and prices.

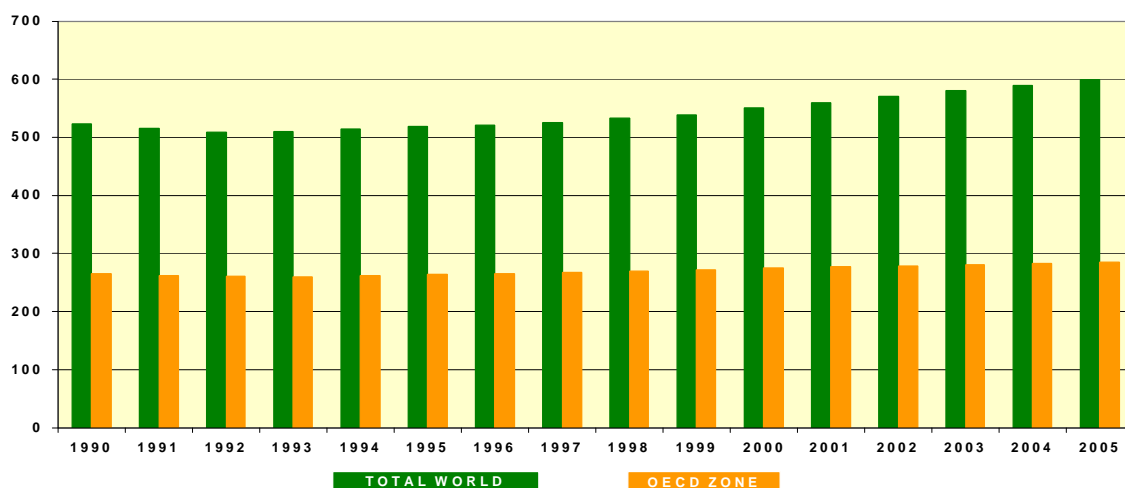
3.4.1 Milk production

Stimulated by increasing consumption and higher producer prices, milk production is set to expand in a number of countries, mainly outside the OECD area and in those OECD

⁷³ The USDA for example focuses only on the US dairy market in its most recent publication on long-term projections.

countries not subject to production quotas. According to the OECD, world milk production is likely to increase by more than 60 mio t (+11.3 %) from 1999 to 2005. The greatest increase in milk output is forecast in India, in some other Asian countries (notably China and Pakistan) and in several countries of Latin America (mainly Brazil, Argentina and Mexico). As a consequence, the share of developing countries in world milk production is expected to rise significantly⁷⁴.

Graph 3.23 Outlook for world milk production, 1990 – 2005 (mio t)



Source: OECD.

The dairy sector in Australia and New Zealand is anticipated to benefit from increased demand in Asia, although the OECD expects the growth in dairy production in these two countries to slow down as compared to the high growth rates recorded during the early 1990s. An important increase in milk production is also forecast for the US, driven by strong domestic demand (particularly for cheese) and firm prices. In the countries of Central and Eastern Europe, milk production is likely to increase over the medium term (in particular Poland), although growth rates should differ across countries.

3.4.2 Dairy products

Since fluid milk consumption is only foreseen to display a modest growth over the medium term, most of the milk production increase would be processed into dairy products. For the period up to 2005, the OECD does not expect any major change in global dairy consumption in the OECD area. However, changes in the type and form of dairy products consumed are foreseen with, in particular, a continuous increase in cheese consumption (+10.3 % from 1999 to 2005, i.e. +6.2 % per capita) and a decline in butter (-1.1 % over the 1999-2005 period, i.e. -4.7 % per capita) and skimmed milk powder consumption (-5.8 % over the same period, i.e. -9.3 % per capita).

In contrast, a significant increase in the overall consumption of dairy products is predicted for developing countries, in particular in Asia and Latin America. Solid growth in dairy products consumption should concern all products, except skimmed milk powder. Demand for SMP is forecast to fall (-11 % per capita) over the next five years and to be increasingly replaced by whole milk powder and whey powder. The latter

⁷⁴ 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).

would, according to the OECD, increasingly replace SMP in the reconstitution of milk, the manufacturing of foodstuffs, animal feed products and in protein concentrates for the agro-food industry. Growing population, improved economic conditions, increasing urbanisation and a shift towards “western” diet would constitute in Asia and Latin America the main factors underpinning the rise in dairy products consumption.

The OECD anticipates that the change observed over the last few years in the structure of world trade will continue over the medium term. Since the mid 1980s, there has been a 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). This restructuring in world trade –although trade in butter and SMP still remains substantial– has been driven by technological advances and changes in import demand, agricultural policy and the implementation of the URAA.

Table 3.11 Outlook for trade for major dairy products, 1999 – 2007 ('000 t)

	1999		2007		Change in trade	
	OECD	FAPRI	OECD	FAPRI	OECD	FAPRI
Butter	360	516	501	652	141	136
SMP	751	910	666	979	-85	69
WMP	895	1141	1179	1298	284	157
Cheese	478	739	618	957	140	218

OECD: Net imports from the non-OECD zone for 2005; FAPRI: net trade from major countries.

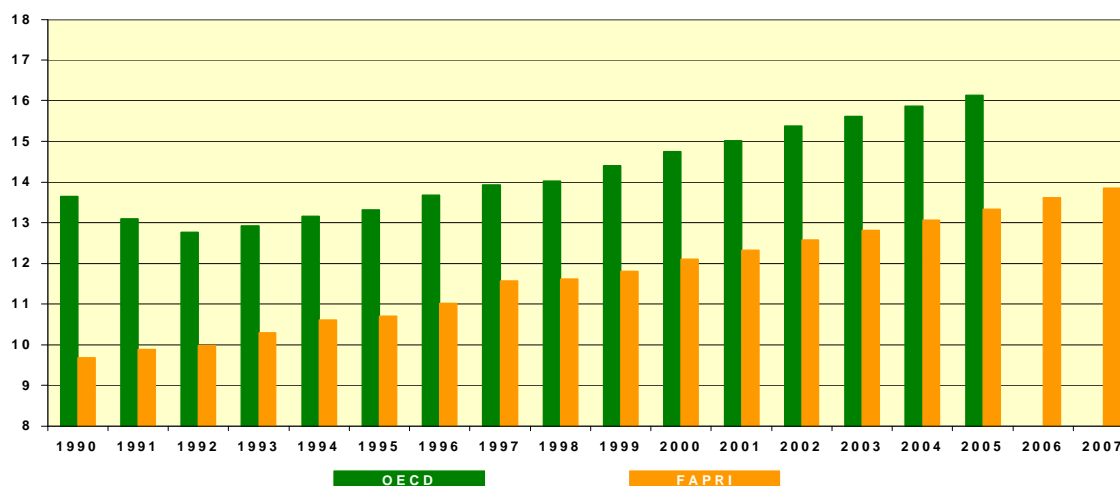
The strongest increase in global world consumption of dairy products is predicted for cheese with a cumulative 12 % growth over the 1999-2005 period (i.e. around 2 % per year on average). Most of the increase in consumption should take place in OECD countries, which accounted for around 84 % of total world consumption in 1999, and be met by increased domestic supply. Total imports from and exports of the OECD countries are expected to rise by 14 % and 21 % respectively over the 1999-2005 period. Net imports of cheese from the non-OECD area would grow 29 % or more than 3 % annually until 2005. 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 (thanks to lower production costs and limits on EU subsidised exports). In Latin America, part of the increasing demand is likely to be supplied by expanding production in Argentina. After their sharp drop in 1998 and 1999 in the wake of the economic turmoil, Russian imports would remain at fairly low levels over the medium term.

Butter production and consumption are forecast to increase by between 1.4 % (OECD) and 2.1 % (FAPRI) on annual average over the next five years. Yet, most changes are predicted to occur in the non-OECD area, since butter production and consumption should remain relatively stable in the OECD countries. In the non-OECD area, total butter consumption is likely to increase by 17 % from 1999 to 2005 (i.e. 2.6 % per year). In most countries, total increase in butter consumption will be driven by population growth since per capita consumption is foreseen to remain rather flat at slightly below 0.8 kg per person (despite a short-term increase from a particularly low 1999 level). Health concerns and competition from vegetable-based oils and solid fats are mentioned as explanatory elements.

However, as production is not totally able to keep pace with the overall demand in some of these countries, some scope for additional exports from the main OECD producer

countries can be expected. This is particularly the case in Russia where production is foreseen to increase only slowly (mainly due to an increase in yields) and imports are projected to rebound somewhat from low 1999 levels. The bulk of the growth in butter trade is projected to be captured by New Zealand and Australia (EU exports remaining relatively stagnant until 2005 when its competitiveness improves).

Graph 3.24 Outlook for world cheese consumption, 1990 – 2007 (mio t)



Ref.: FAPRI: data for selected countries.

The OECD and FAPRI differ in their outlook for milk powder. Whereas the OECD foresees a decline in SMP consumption of around -0.7% per year and a strong pattern for WMP ($+2.5\%$ on annual average), FAPRI anticipates a consumption growth for both products of 0.7% and 1.5% per year respectively over the medium term. Both organisations diverge also in their outlook for milk powder trade with most additional trade over the medium term being allocated to WMP in the OECD outlook whereas it would be spread across both products in FAPRI projections.

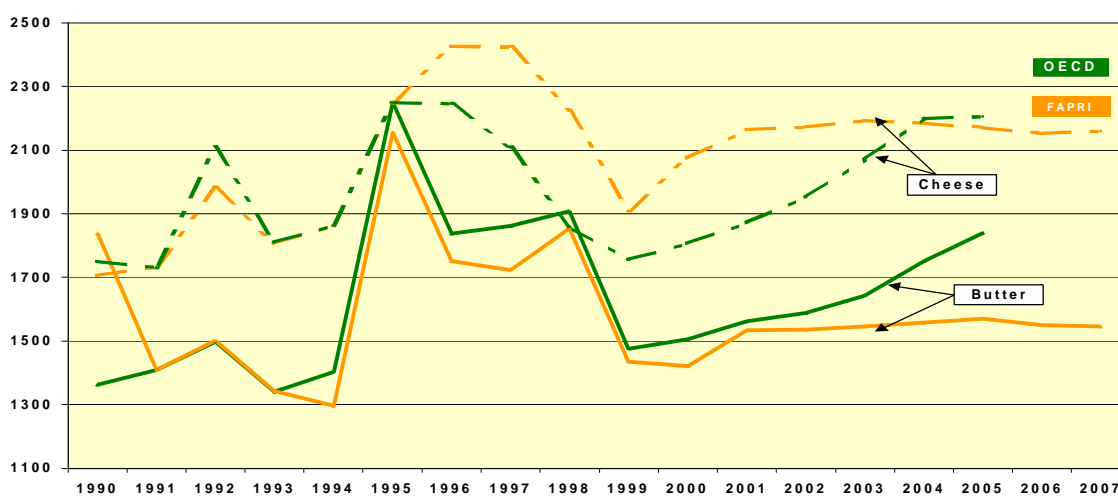
FAPRI expects that, after a short-term increase in 1999, SMP imports from Russia would decline after 2002 as production is foreseen to recover. This fall would be outweighed in global SMP trade by higher demand from Japan and Mexico (that would increase by more than 37%). US SMP exports would drop rather sharply following the elimination of domestic support programmes. Additional trade would mainly draw on additional exports from the EU, New Zealand, Australia and Poland. FAPRI foresees growth in WMP trade to reach 14% over the next seven years (as compared to 8% for SMP). New Zealand, Australia and Argentina are forecast to capture the greatest share of these additional imports of milk powder to the detriment of the EU.

Conversely, the OECD anticipates a decline in SMP trade of around 11% as global demand for this product would fall over the 1999-2005 period. Australia, some CEECs countries and Argentina would increase their share of the international market of SMP as the EU and New Zealand would shift output towards higher value-added products such as caseinates. The medium-term prospects for WMP are in turn expected to be more favourable. Increasing consumption to the expense of SMP -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 ($+32\%$ from 1999 to 2005).

3.4.3 Dairy prices

The OECD and FAPRI expect world market prices of dairy products to recover over the medium term and to remain above the level experienced in the early 1990s. After a sharp decline in 1999 generated by the economic crisis which has affected countries of Asia, Latin America as well as Russia, prices are forecast to increase gradually over the medium term in line with the return of economic growth and a strengthening demand. In accordance with future prospects in global supply and demand, cheese prices are foreseen to recover quickly supported by the steady rise in global consumption⁷⁵. In contrast, the pace of price increase after the year 2000 is forecast to be slightly more modest for milk powder that would be supported by the economic recovery in Asia (that accounts for around half of total world imports).

Table 3.25 Outlook for world market prices for butter and cheese, 1990 – 2007 (\$/t)



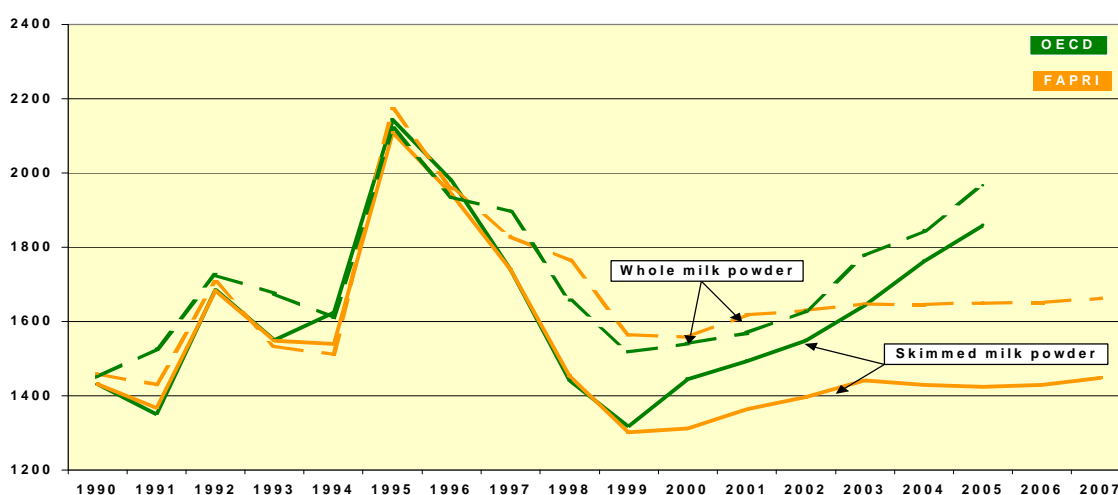
Ref.: Cheese: FOB export price cheddar cheese 40lb blocks, Northern Europe; butter: FOB export price Northern Europe.

Butter prices would also recover gradually, though remaining strongly linked to developments in the Russian market (the major import market) where commercial imports have always been fairly uneven since the early 1990s. They should also benefit from the expected rise in vegetable oil prices.

The positive cumulative impact of stronger import demand and lower subsidised exports on the future development in dairy prices may be expected over the medium term to be somewhat tempered by rising world milk production and the uncertainty surrounding the real impact of the recent economic crisis on some major importers (such as Russia, Brazil, Indonesia) and the speed and sustainability of their economic recovery. Finally, changes in national dairy policies that have recently been, or are scheduled to be, changed in Japan (a major importer of dairy products), Australia and the US could have a significant impact on the international market for dairy products over the medium term.

⁷⁵ 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.

Table 3.26 Outlook for world market prices for whole milk powder and skimmed milk powder, 1990 – 2007 (\$/t)



Ref.: FOB export price Northern Europe.

4. Key issues

If the outlook for agricultural markets over the next seven years appears rather positive when compared to the situation in the 1980s and early 1990s, it remains subject to some uncertainties. In this regard, three main areas of uncertainties can be identified:

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

4.1 Economic prospects

The projections presented in this chapter anticipate that the robust and sustainable economic growth that is expected over the medium term in developing regions (in particular China, East Asia, Latin America, North Africa, and the Middle East) should constitute the most important source of import demand growth and the main driving force behind the recovery in most agricultural markets. They all expect that the global economy will continue to strengthen aided by the consolidation of the recovery in Asia, rebounds in Latin America and the Middle East, and improved activity in Africa.

However, concerns remain about the persistence of a number of economic and financial imbalances in the global economy, the medium-term prospects for many emerging and transition economies, and the rise in oil prices. Global imbalances include 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). In view of the potentially disruptive effect these imbalances could have on global expansion, a smooth adjustment through an orderly realignment of growth and demand, would appear necessary to ensure a sustainable pattern of growth over the medium-term.

Table 3.12 USDA assumptions in real GDP annual growth 1998 – 2009 (%)

	1998	1999	2000	2001	2002	2003	Average		
							1992-1997	1998-2003	2004-2009
World	1.6	2.8	2.9	3.0	3.1	3.1	2.5	2.8	3.2
Developed economies	1.8	2.9	2.6	2.5	2.5	2.5	2.1	2.5	2.5
Transition economies	-0.2	0.7	1.4	2.6	2.9	2.9	-5.7	1.7	2.7
Eastern Europe	3.1	2.7	3.9	4.5	4.6	4.5	2.2	3.9	4.2
FSU	-1.5	-0.1	0.3	1.7	2.1	2.1	-7.8	0.8	2.0
Developing countries	1.4	2.7	4.1	4.8	5.0	5.1	5.5	3.8	5.1
East and Southeast Asia	0.4	4.1	5.0	5.9	6.3	6.4	8.5	4.7	6.4
China	7.7	6.5	6.5	7.0	7.5	7.6	11.5	7.1	7.6
Korea	-5.7	4.5	5.0	6.0	6.0	6.0	6.8	3.6	6.0
Indonesia	-13.5	-4.0	1.5	3.0	5.0	5.0	7.2	-0.5	5.0
Thailand	-8.0	1.5	3.0	5.0	5.0	5.0	6.6	1.9	5.0
Latin America	2.6	0.6	3.3	4.3	4.6	4.6	3.6	3.3	4.6
Mexico	4.6	2.7	3.8	4.0	4.5	4.5	2.7	4.0	4.5
Brazil	0.2	-1.6	3.0	4.5	5.0	5.0	3.4	2.7	5.0
Middle East	-0.1	2.3	3.4	4.0	4.0	4.0	4.4	2.9	4.0
North Africa	3.7	2.1	4.2	4.1	4.1	4.2	2.8	3.7	4.2

Source: USDA.

If the situation in many emerging countries of Asia and Latin America have 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 the maintenance of a steady and sustainable growth over the coming years.

Supply constraints in many oil producing countries⁷⁶ and the continued strength of global demand have generated a sharp increase in oil prices (rising from a little more than 10 \$ in February 1999 to more than 30 \$ a barrel in September 2000), with upside risks to prices still existing. Sustained high oil prices could lead to the deterioration of trade balances, an increase in the general level of inflation and a slowdown in global activity and output. Many developing countries could be severely affected, notably in Asia, which is relatively dependent on imported oil.

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

Most of production growth is forecast to be generated by productivity improvement as the potential for additional land is expected to be limited in most regions due to the expansion

⁷⁶ The uncertainty surrounding future prospects for the oil market combined with the low prices recorded at the end of the 1990s had severely limited investments in the oil industry. It seems that most OPEC and non-OPEC countries are now producing close to full capacity, with stocks at relatively low levels.

of urban areas, climatic limitations and pressure on agricultural resources and environment. If total cereal productivity growth is expected to be higher over the next seven years than in the early 1990s, it would remain significantly lower than in the past decades. 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.

Furthermore, increased reliance on food imports in some regions and prospects for higher price levels could stimulate the research for further gains in productivity (in terms, for example, of wider adoption of improved varieties and farming methods, increased investment in agricultural structure, storage, transport and marketing systems). Finally, 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 have far reaching implications for the future level of world agricultural supply.

4.3 Policy and trade environment

Future course of agricultural policy reforms as well as the new round of multilateral trade negotiations may have important implications for the medium-term outlook of agricultural products. It includes the EU's 'mid-term review' of Agenda 2000 planned for 2002 and 2003 (notably for the arable crops sector and the dairy sector) and the new farm legislation in the US after 2002 when the 1996 Federal Agriculture Improvement and Reform (FAIR) Act expires.

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 be expected to shape the pace towards trade liberalisation and future developments in agricultural policy 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.

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Statistical annex**1. Medium-term outlook for cereals****1.1 *Wheat*****Table A.1 Outlook for world wheat production, 1999 – 2007 (mio t)**

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	577.5	598.2	615.4	623.2	636.7	642.0	648.8		
FAPRI	583.1	588.7	594.4	604.4	612.7	621.0	627.3	634.3	641.3
USDA	577.7	598.5	608.7	619.6	627.4	636.4	645.4	652.4	661.2

Table A.2 Outlook for world wheat consumption, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	585.4	603.1	613.1	620.8	634.6	644.7	651.0		
FAPRI	586.9	594.2	597.8	604.0	610.7	618.9	625.8	633.0	640.4
USDA	584.7	600.5	609.2	618.8	627.3	635.9	644.1	652.1	661.0

Table A.3 Outlook for world wheat stocks, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	125.2	120.4	122.6	125.0	127.1	124.5	122.2		
FAPRI	129.2	123.7	120.4	120.8	122.9	124.9	126.4	127.6	128.5
USDA	128.1	125.0	123.3	122.9	121.8	121.1	121.1	120.2	119.1

Table A.4 Outlook for world wheat market prices, 1999 – 2007 (\$/t US FOB Gulf, HRW)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	108.9	115.0	122.8	131.3	135.3	143.4	153.4		
USDA	117.6	117.6	119.4	126.8	137.8	147.0	154.3	163.5	172.7
FAPRI	115.8	126.9	138.0	141.1	146.2	146.3	149.9	152.9	155.8

1.2 *Maize***Table A.5 Outlook for world maize production, 1999 – 2007 (mio t)**

	1999	2000	2001	2002	2003	2004	2005	2006	2007
FAPRI	597.0	597.9	608.7	622.6	629.9	641.3	650.1	662.0	671.9
USDA	598.4	610.3	625.8	639.6	652.5	665.3	677.4	691.2	703.0

Table A.6 Outlook for world maize consumption, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
FAPRI	595.9	600.8	609.0	621.2	630.4	640.5	650.2	661.7	672.1
USDA	588.7	611.9	626.6	639.1	651.4	664.1	676.9	690.3	703.9

Table A.7 Outlook for world maize stocks, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
FAPRI	110.0	107.0	106.7	108.2	107.6	108.5	108.4	108.7	108.6
USDA	113.2	109.6	107.8	107.3	107.5	107.7	107.1	107.1	105.2

Table A.8 Outlook for world maize market prices, (US yellow corn, fob Gulf), 1999 – 2007 (\$/t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	89.8	92.0	99.2	103.0	109.4	113.7	117.4		
USDA	89.7	91.6	96.1	107.0	111.6	116.2	118.5	124.6	130.5
FAPRI	88.0	97.3	101.4	101.2	104.5	105.0	107.4	108.9	110.9

2. Medium-term outlook for oilseeds

2.1 *Oilseed beans*

Table A.9 Outlook for world oilseed production, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	221.3	228.8	233.6	234.9	239.7	243.8	248.7		
FAPRI	219.6	226.6	226.6	228.7	235.0	239.0	244.5	248.6	253.9

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.10 Outlook for world oilseed consumption, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	219.1	224.3	232.2	236.1	241.8	247.1	251.2		
FAPRI	218.5	225.9	228.5	231.1	235.8	240.3	245.3	250.0	255.2

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.11 Outlook for world oilseed stocks, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	18.8	23.3	24.7	23.5	21.4	18.2	15.7		
FAPRI	15.7	17.5	16.7	14.7	14.6	14.1	14.1	13.7	13.7

Oilseeds = rape seed, soya bean and sunflower seed.

Table A.12 Outlook for world soya bean market prices, 1999 – 2007 (\$/t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	194.9	188.4	181.1	193.5	203.8	223.6	240.5		
USDA	219.0	195.0	193.0	201.0	213.0	231.0	249.0	268.0	282.0
FAPRI	219.2	199.2	208.5	225.3	227.6	234.1	235.2	241.8	245.1

US soyabeans, cif Rotterdam

2.2 Oilseed meals

Table A.13 Outlook for world oilseed meal production, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	138.5	142.3	147.6	150.5	154.0	157.7	160.4		
FAPRI	136.7	142.0	143.7	145.3	148.4	151.2	154.4	157.3	160.6

Oilseeds = soya bean; sunflower and rapeseed

Table A.14 Outlook for world oilseed meal consumption, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	138.5	142.3	147.6	150.5	154.0	157.7	160.4		
FAPRI	138.9	144.0	146.1	147.6	150.7	153.5	156.8	159.6	162.9

Oilseeds = soya bean; sunflower and rapeseed

Table A.15 Outlook for world soya bean meal market prices, 1999 – 2007 (\$/t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	175.2	158.7	153.2	162.3	168.1	181.5	191.7		
USDA	160.0	152.0	157.0	165.0	173.0	186.0	195.0	208.0	214.0
FAPRI	165.4	148.7	154.4	165.7	167.7	172.0	173.1	177.2	179.7

CIF Rotterdam

2.3 Oilseed oil

Table A.16 Outlook for world oilseed oil production, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	67.3	69.1	71.3	72.9	74.4	76.2	77.7		
FAPRI	66.9	68.2	69.2	70.4	71.9	73.5	75.1	76.7	78.4

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

Table A.17 Outlook for world oilseed oil consumption, 1999 – 2007 (mio t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	67.2	68.9	71.2	73.1	74.5	76.1	77.5		
FAPRI	66.0	69.3	70.7	72.0	73.5	75.1	76.6	78.3	80.0

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

Table A.18 Outlook for world soya bean oil market prices, 1999 – 2007 (\$/t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	376.8	396.3	410.0	425.1	451.3	490.2	521.3		
USDA	400.0	384.0	368.0	369.0	386.0	420.0	471.0	510.0	550.0
FAPRI	405.4	390.6	420.5	447.7	458.6	473.7	484.2	499.6	513.7

Fob Rotterdam

3. Medium-term outlook for meat

3.1 *Beef*

Table A.19 Outlook for world beef production, 1999 – 2007 (mio t, cwe)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD (OECD zone)	27.2	26.7	26.9	27.4	27.4	27.4	27.4		
USDA	50.0	50.2	50.7	51.5	52.4	53.1	53.8	54.5	55.3
FAPRI (selected countries)	44.0	43.6	43.4	43.5	43.9	44.4	45.1	45.8	46.5

Table A.20 Outlook for world beef consumption, 1999 – 2007 (mio t, cwe)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD (OECD zone)	26.7	26.1	26.0	26.3	26.6	26.8	26.7		
USDA	49.1	49.1	49.6	50.5	51.3	52.0	52.8	53.6	54.3
FAPRI (selected countries)	43.2	42.5	42.4	42.5	42.8	43.3	43.9	44.6	45.2

Table A.21 Outlook for world beef prices, 1999 – 2007 (\$/t lw)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	1438.2	1603.4	1591.6	1553.3	1580.9	1598.0	1644.7		
USDA	1532.0	1533.0	1527.0	1557.0	1599.0	1646.0	1691.0	1738.0	1782.0
FAPRI	1445.1	1543.9	1625.5	1666.0	1679.0	1644.0	1576.5	1517.9	1480.6

Nebraska Direct Fed Steer price.

3.2 *Pig meat*

Table A.22 Outlook for world pig meat production, 1999 – 2007 (mio t, cwe)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD (OECD zone)	35.1	34.6	34.7	35.2	35.7	35.9	36.0		
USDA	79.6	80.9	82.3	83.5	85.2	87.0	88.6	90.0	91.5
FAPRI (selected countries)	71.6	72.1	72.8	73.8	75.0	76.5	77.9	79.2	80.5

Table A.23 Outlook for world pig meat consumption, 1999 – 2007 (mio t, cwe)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD (OECD zone)	34.0	33.7	33.7	34.2	34.7	34.9	35.0		
USDA	79.3	80.5	81.9	83.1	84.8	86.6	88.1	89.5	91.0
FAPRI (selected countries)	71.1	71.5	72.2	73.2	74.4	75.9	77.3	78.6	79.8

Table A.24 Outlook for world pig meat prices, 1999 – 2007 (\$/t lw)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	707.5	830.0	895.2	865.8	841.7	843.5	867.0		
FAPRI	749.6	842.4	933.9	959.7	943.1	894.6	854.7	930.8	1001.3
USDA	788.0	857.0	849.0	836.0	850.0	863.0	872.0	875.0	876.0

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

3.3 Poultry meat

Table A.25 Outlook for world poultry meat production, 1999 – 2007 (mio t, cwe)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD (OECD zone)	31.5	32.9	33.8	34.5	35.2	35.8	36.4		
USDA	58.0	60.6	62.4	64.4	66.4	68.5	70.6	72.9	75.2
FAPRI (selected countries)	38.7	39.9	41.1	42.2	43.2	44.2	45.2	46.3	47.4

Table A.26 Outlook for world poultry meat consumption, 1999 – 2007 (mio t, cwe)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD (OECD zone)	29.0	30.2	31.1	31.6	32.2	32.7	33.3		
USDA	56.6	59.3	61.6	63.7	65.7	67.8	70.0	72.2	74.5
FAPRI (selected countries)	36.4	37.8	38.9	39.9	40.8	41.8	42.8	43.8	44.9

Table A.27 Outlook for world poultry meat prices, 1999 – 2007 (\$/t)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
OECD	1284.4	1276.9	1276.1	1298.6	1325.5	1365.8	1402.6		
USDA	1235.0	1228.0	1263.0	1299.0	1338.0	1373.0	1398.0	1413.0	1415.0
FAPRI	1280.9	1260.2	1265.2	1256.0	1243.4	1232.8	1227.3	1228.6	1230.8

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, 1999 – 2007 (mio t)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Milk	OECD	538.6	550.3	559.5	570.4	580.4	589.8	599.3		
	FAPRI	379.6	383.0	386.1	389.9	394.7	400.1	405.7	411.1	416.3
Butter	OECD	6.7	6.9	7.0	7.0	7.1	7.2	7.2		
	FAPRI	5.5	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4
SMP	OECD	3.3	3.3	3.3	3.2	3.2	3.2	3.2		
	FAPRI	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3
WMP	OECD	2.5	2.7	2.7	2.7	2.8	2.9	3.0		
	FAPRI	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.4	2.4
Cheese	OECD	14.4	14.8	15.0	15.4	15.6	15.9	16.1		
	FAPRI	12.2	12.5	12.7	13.0	13.2	13.5	13.8	14.1	14.3

FAPRI: data for selected countries

Table A.29 Outlook for world consumption of dairy products, 1999 – 2007 (mio t)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Butter	OECD	6.6	6.8	6.9	7.0	7.1	7.1	7.2		
	FAPRI	5.0	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9
SMP	OECD	3.3	3.3	3.3	3.2	3.2	3.2	3.2		
	FAPRI	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7
WMP	OECD	2.5	2.7	2.7	2.7	2.8	2.9	3.0		
	FAPRI	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Cheese	OECD	14.5	14.8	15.0	15.4	15.6	15.9	16.1		
	FAPRI	11.8	12.1	12.3	12.6	12.8	13.1	13.3	13.6	13.9

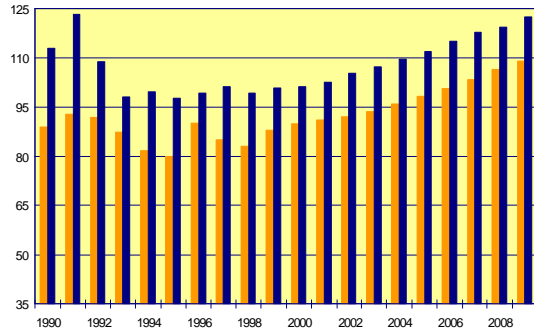
FAPRI: data for major countries

Table A.30 Outlook for world dairy products prices, 1999 – 2007 (\$/t)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Butter	OECD	1476.1	1505.7	1561.3	1587.7	1643.3	1750.3	1839.6		
	FAPRI	1435.4	1421.1	1533.8	1534.9	1544.8	1557.7	1570.2	1550.3	1545.3
Cheese	OECD	1754.9	1806.7	1872.3	1951.6	2070.4	2200.0	2204.4		
	FAPRI	1909.4	2075.2	2163.8	2172.2	2192.9	2184.6	2171.7	2151.5	2159.9
SMP	OECD	1317.6	1445.2	1492.4	1547.6	1642.8	1762.5	1859.0		
	FAPRI	1301.5	1311.3	1362.4	1396.1	1441.5	1429.4	1423.3	1428.7	1447.2
WMP	OECD	1517.5	1540.0	1568.4	1628.3	1776.3	1844.4	1966.3		
	FAPRI	1564.4	1557.7	1617.6	1628.7	1646.2	1646.1	1649.6	1650.3	1662.2

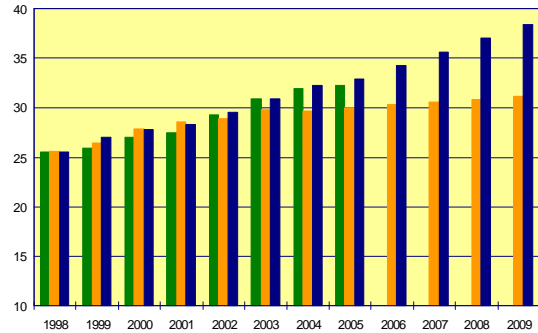
Ref: Cheese: FOB export price cheddar cheese 40lb blocks, Northern Europe; others: FOB export price Northern Europe

Outlook for world wheat trade, 1990 – 2009 (mio t)

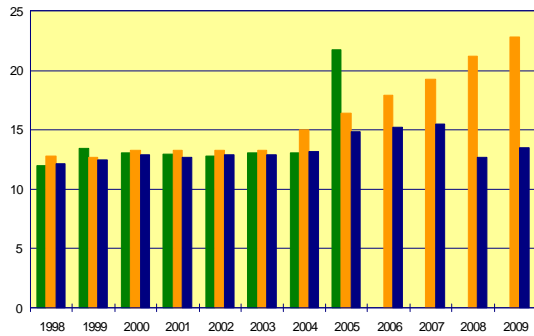


FAPRI: net trade

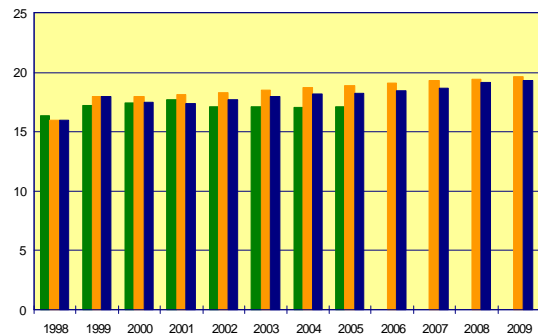
Outlook for wheat net exports – USA (mio t)



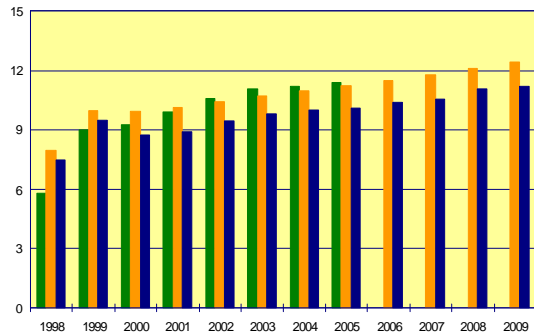
Outlook for wheat net exports – European Union (mio t)



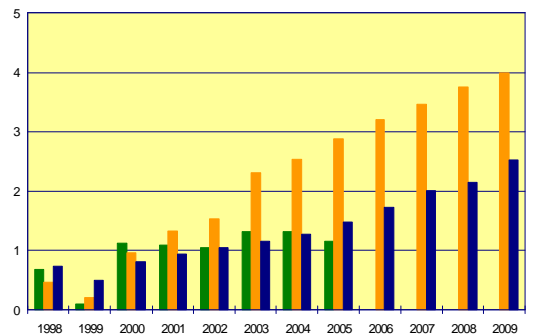
Outlook for wheat net exports – Australia (mio t)



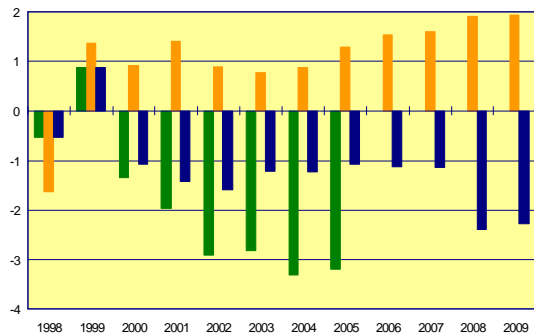
Outlook for wheat net exports – Argentina (mio t)



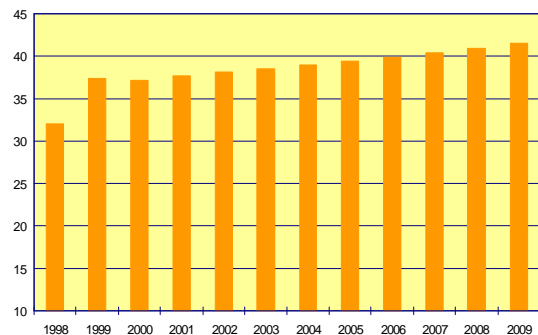
Outlook for wheat net imports – China (mio t)



Outlook for wheat net imports – FSU (mio t)



Outlook for wheat net imports – Africa and Middle East (mio t)

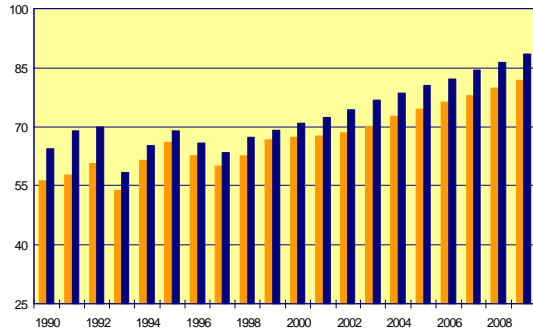


OECD

FAPRI

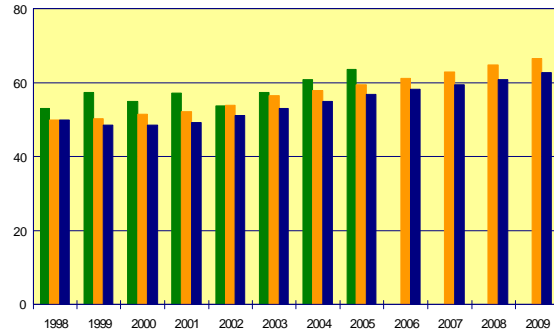
USDA

Outlook for world maize trade, 1990 – 2009 (mio t)



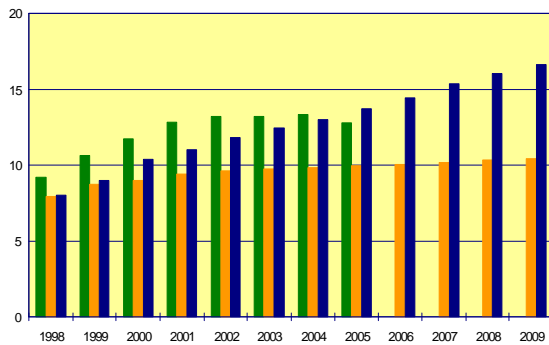
FAPRI: net trade

Outlook for maize net exports – USA (mio t)



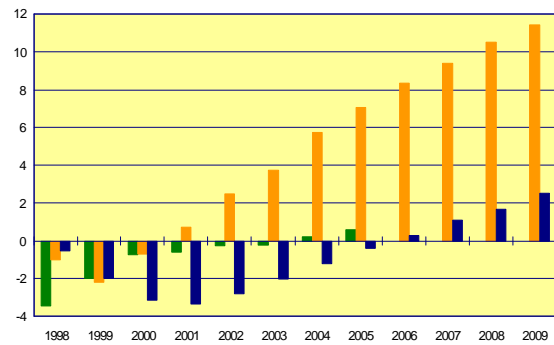
OECD: coarse grains

Outlook for maize net exports – Argentina (mio t)

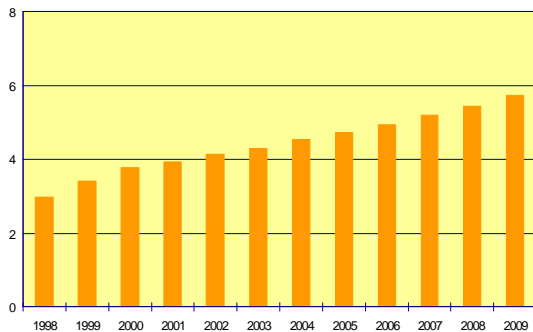


OECD: coarse grains

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

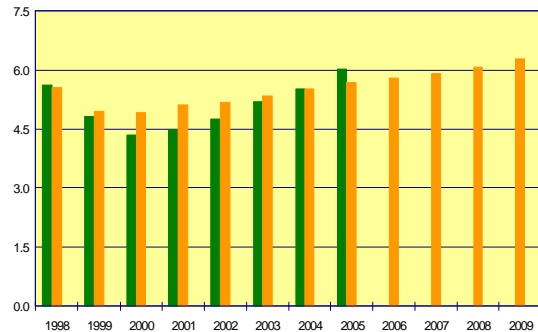


Outlook for maize net imports – South East Asia (mio t)



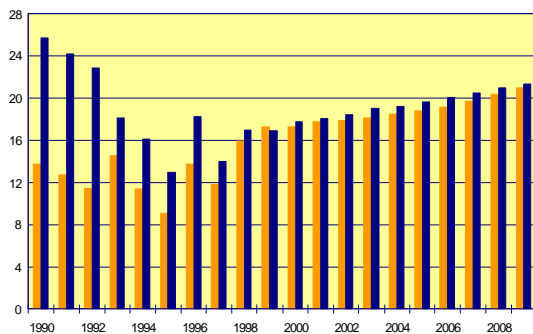
South East Asia: Malaysia, Indonesia, Thailand & Philippines

Outlook for maize net imports – Mexico (mio t)



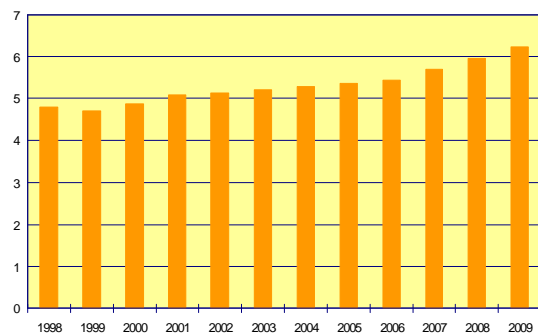
OECD: coarse grains

Outlook for world barley trade, 1990 – 2009 (mio t)



FAPRI: net trade

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

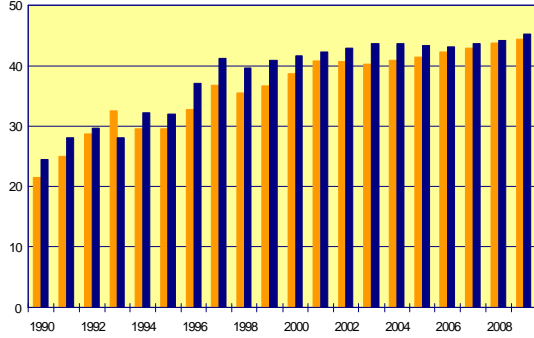


OECD

FAPRI

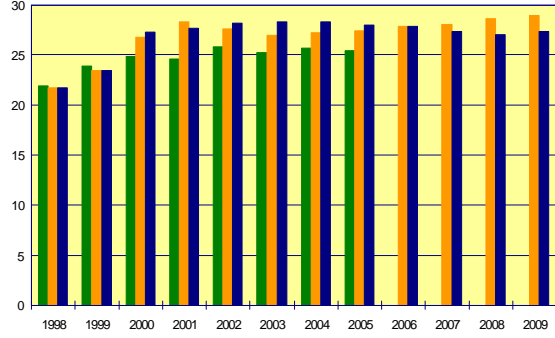
USDA

Outlook for world soybean trade, 1990 – 2009 (mio t)



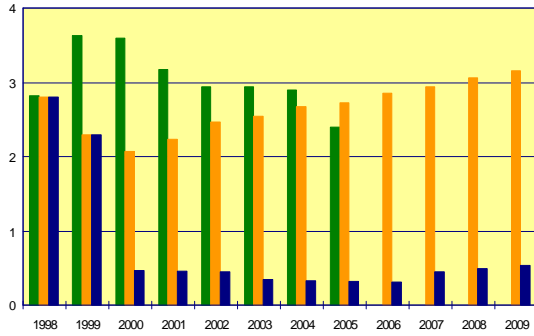
FAPRI: net trade

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



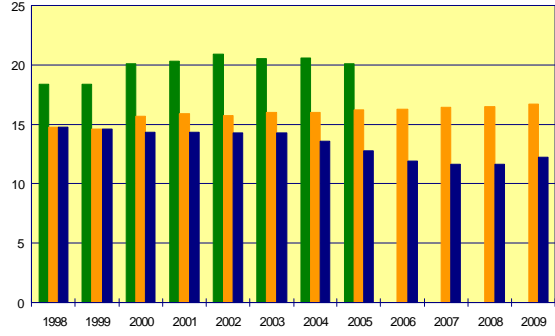
OECD: total oilseeds

Outlook for soybean net exports – Argentina (mio t)



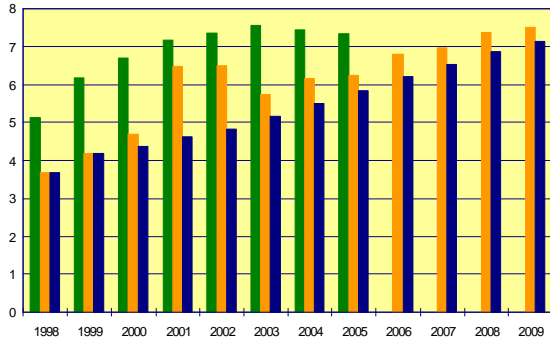
OECD: total oilseeds

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



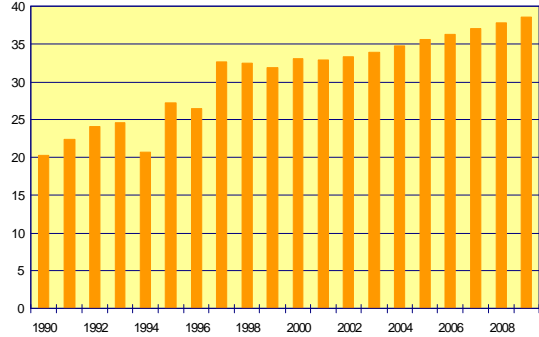
OECD: total oilseeds

Outlook for soybean net imports – China (mio t)



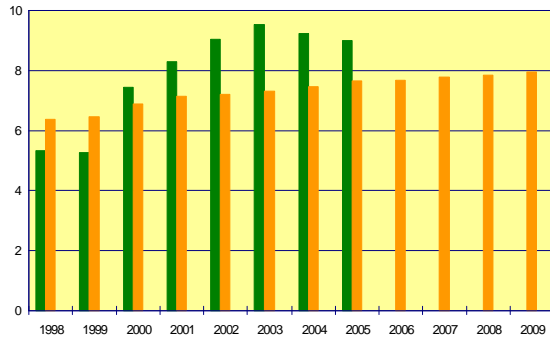
OECD: total oilseeds

Outlook for world soybean meal trade, 1990 – 2009 (mio t)



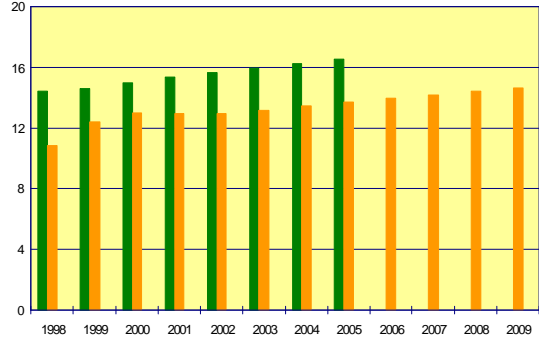
Net trade

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



OECD: oilseed meals

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



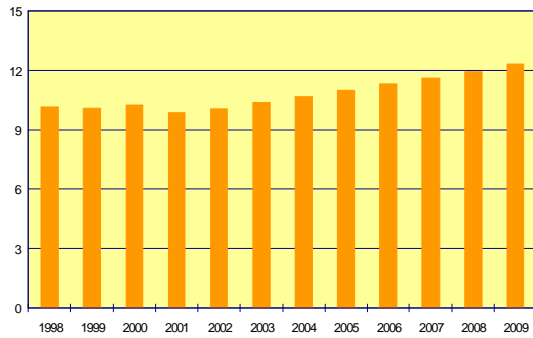
OECD: oilseed meals

OECD

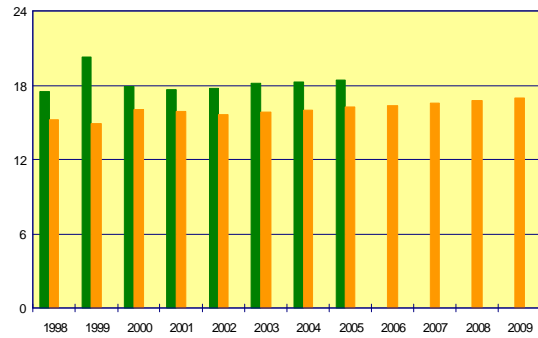
FAPRI

USDA

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

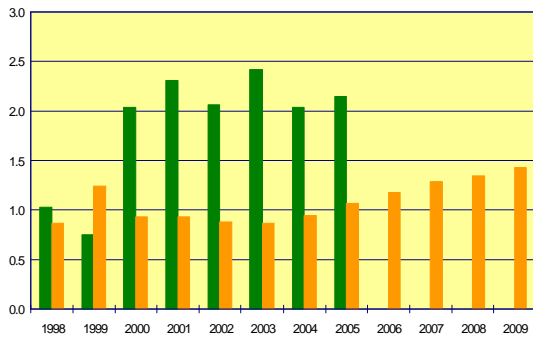


Outlook for soybean meal net imports – European Union (mio t)



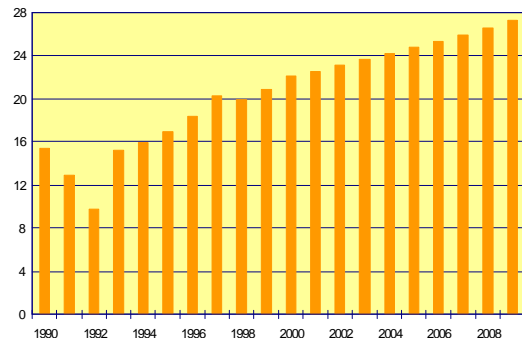
OECD: oilseed meals

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



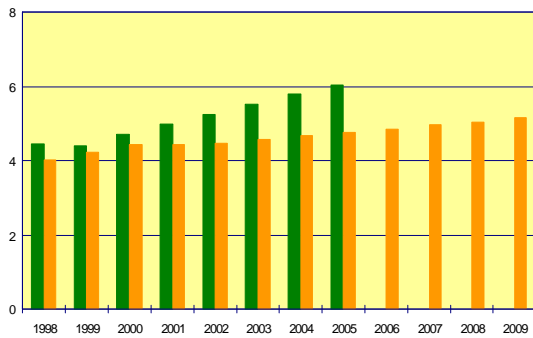
OECD: oilseed meals

Outlook for world oilseed oil trade, 1990 – 2009 (mio t)

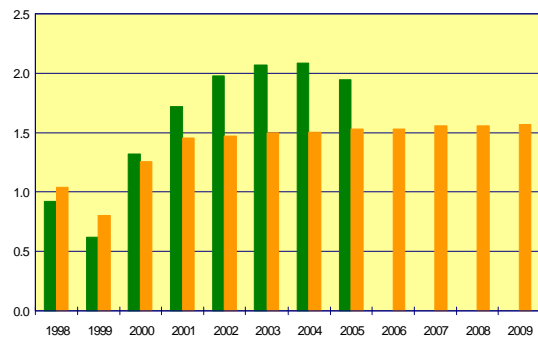


Net trade

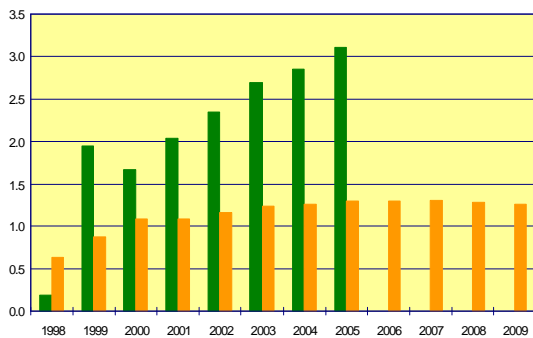
Outlook for oilseed oil net exports – Argentina (mio t)



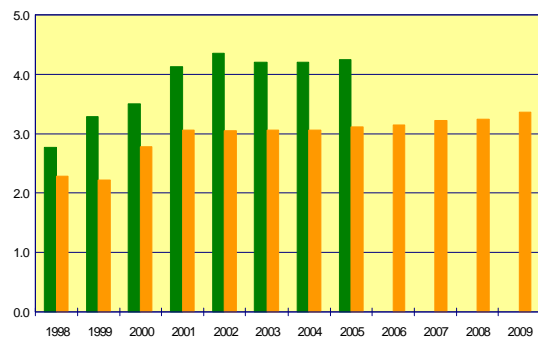
Outlook for oilseed oil net exports – USA (mio t)



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



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

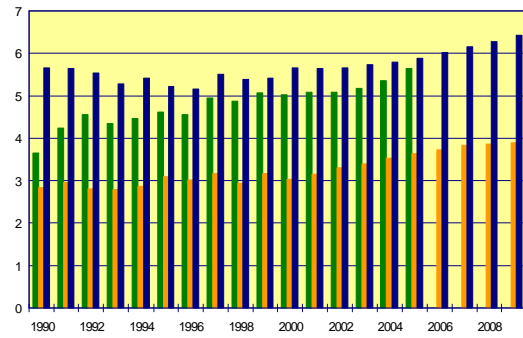


OECD

FAPRI

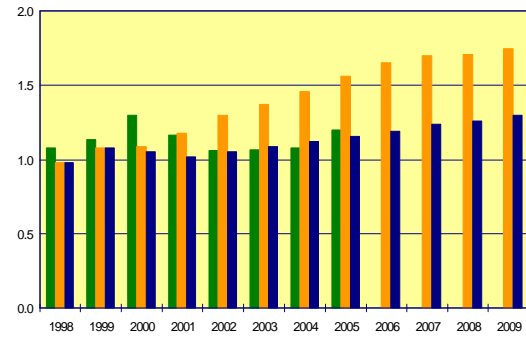
USDA

Outlook for world beef trade, 1990 – 2009
(mio t)

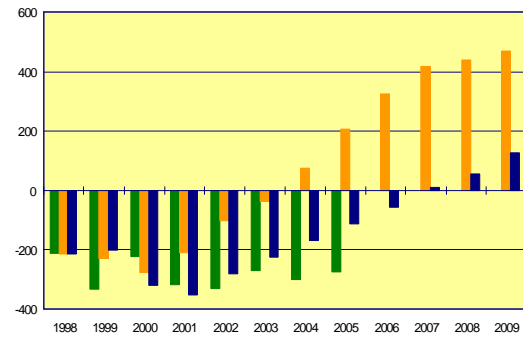


OECD: exports from OECD zone; FAPRI: net exports

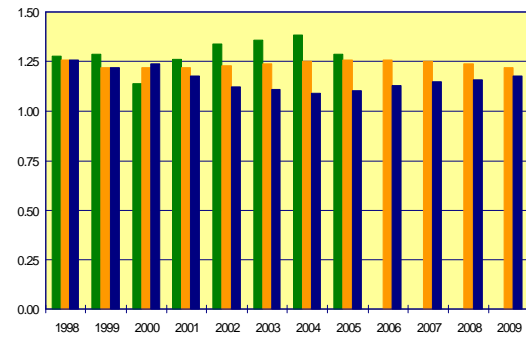
Outlook for beef exports – USA
(mio t)



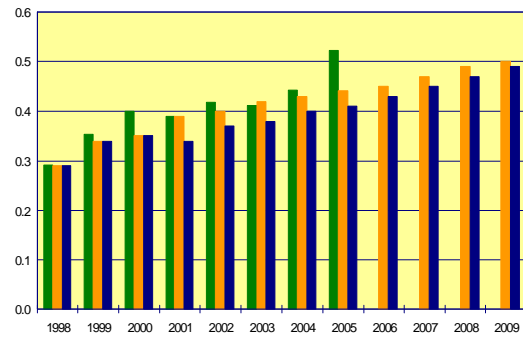
Outlook for beef net trade – USA
(*000 t)



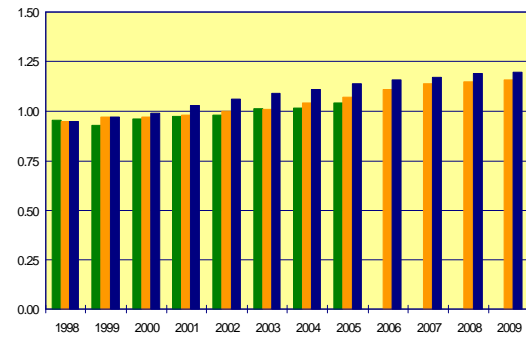
Outlook for beef exports – Australia
(mio t)



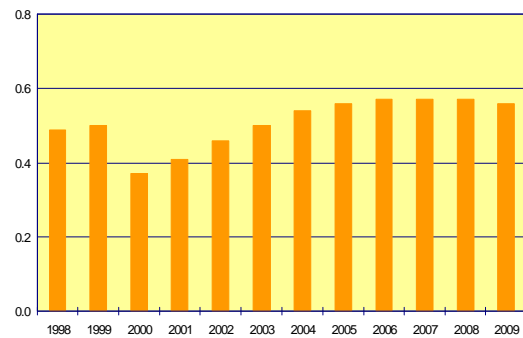
Outlook for beef exports – Argentina
(mio t)



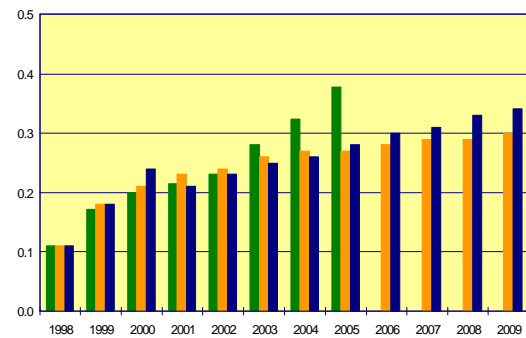
Outlook for beef imports – Japan
(mio t)



Outlook for beef imports – Russia
(mio t)



Outlook for beef imports – South Korea
(mio t)

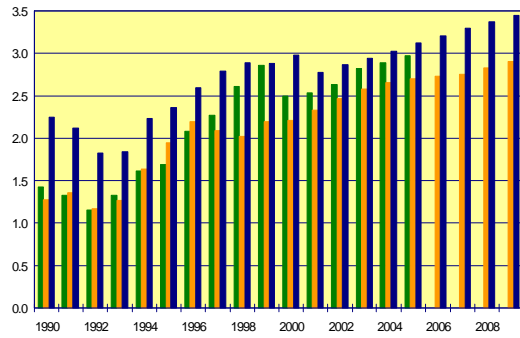


OECD

FAPRI

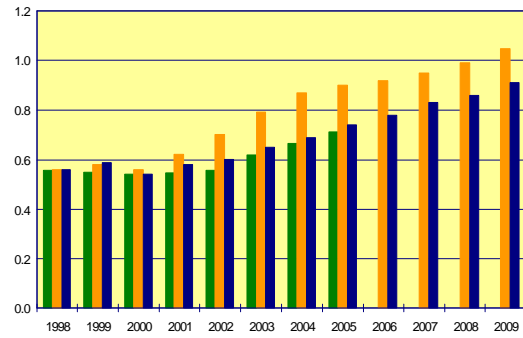
USDA

Outlook for world pork trade, 1990 – 2009
(mio t)

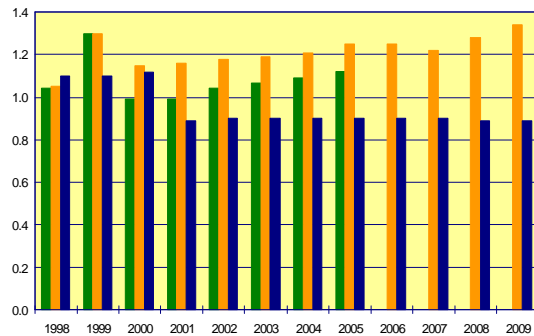


OECD: exports from OECD zone; FAPRI: net exports

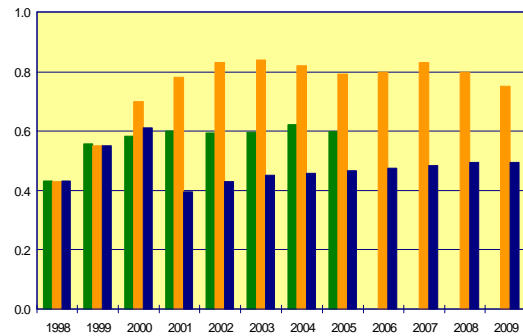
Outlook for pork exports – USA
(mio t)



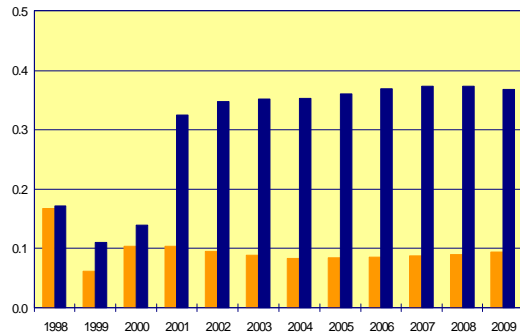
Outlook for pork exports – European Union
(mio t)



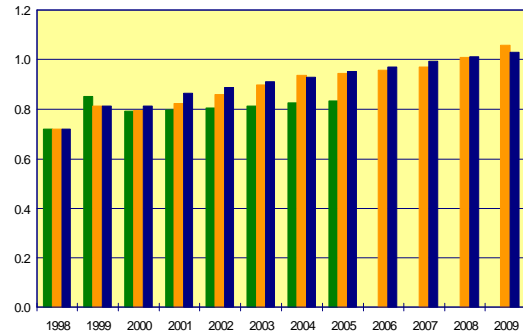
Outlook for pork exports – Canada
(mio t)



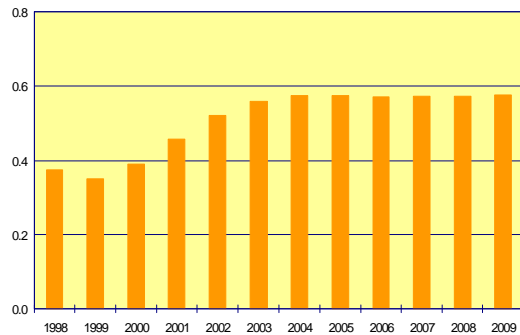
Outlook for pork net exports – Eastern Europe
(mio t)



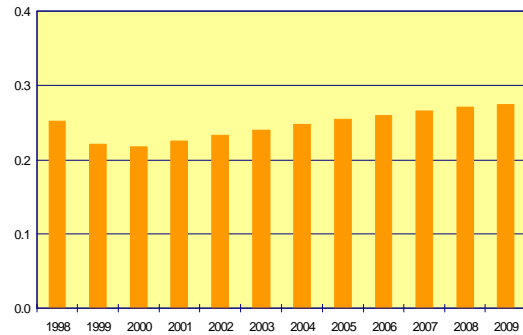
Outlook for pork imports – Japan
(mio t)



Outlook for pork imports – Russia
(mio t)



Outlook for pork imports – Hong Kong
(mio t)

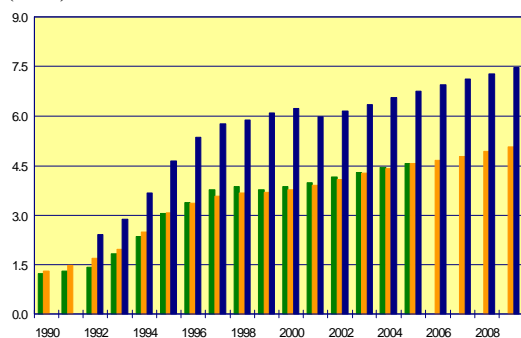


OECD

FAPRI

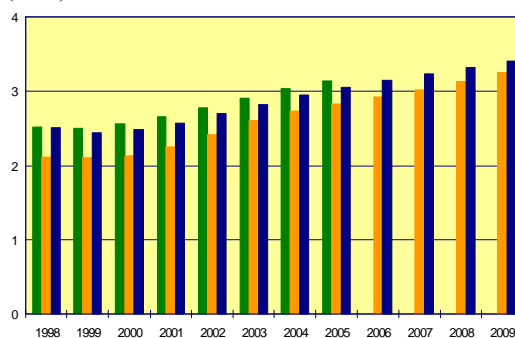
USDA

Outlook for world poultry trade, 1990 – 2009
(mio t)



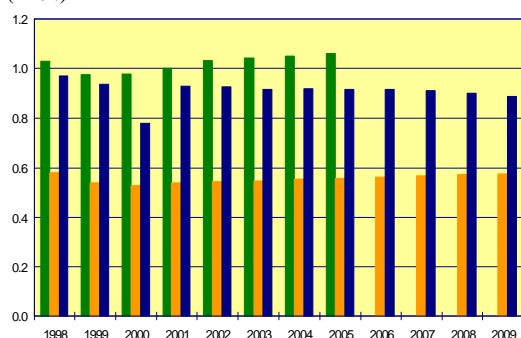
OECD: exports from OECD zone; FAPRI: broiler, net exports

Outlook for poultry exports – USA
(mio t)



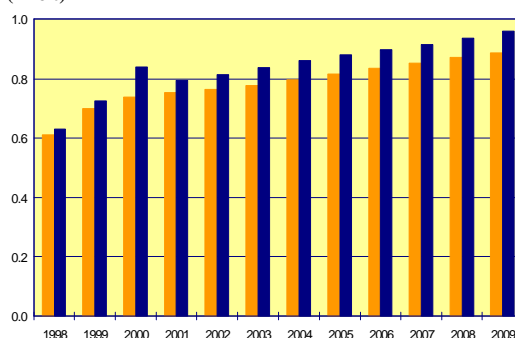
FAPRI: broiler

Outlook for poultry exports – European Union
(mio t)



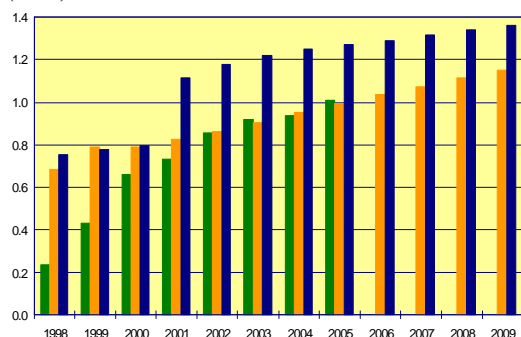
FAPRI: broiler

Outlook for poultry exports – Brazil
(mio t)



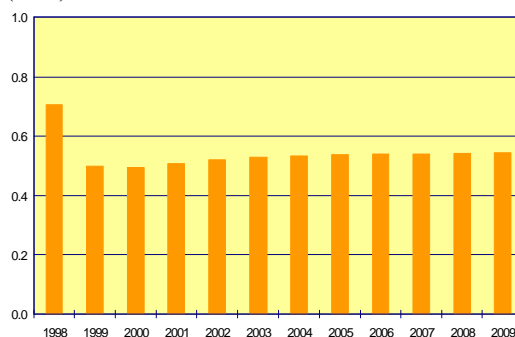
FAPRI: broiler

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



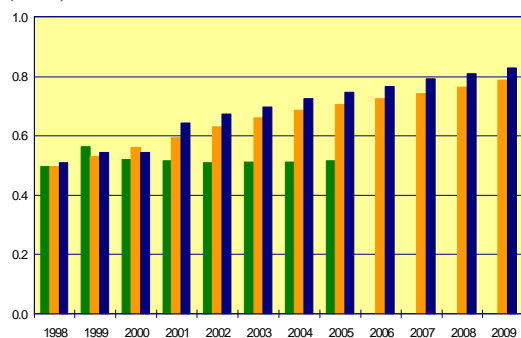
FAPRI: broiler

Outlook for poultry imports – Russia
(mio t)



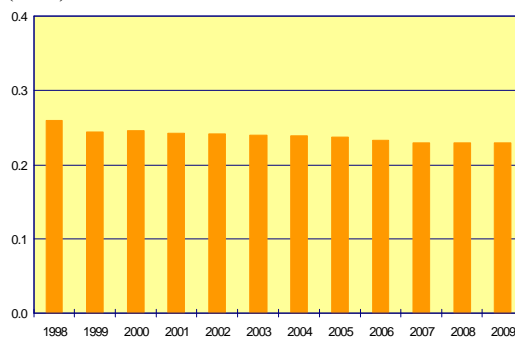
Broiler

Outlook for poultry imports – Japan
(mio t)



FAPRI: broiler

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



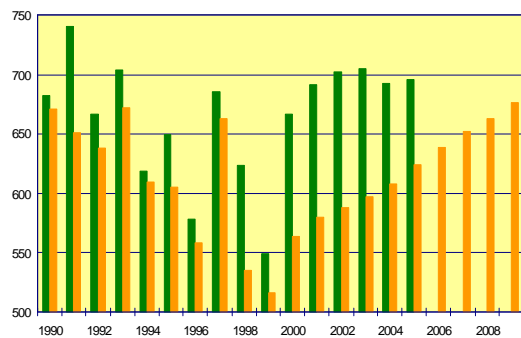
Broiler

OECD

FAPRI

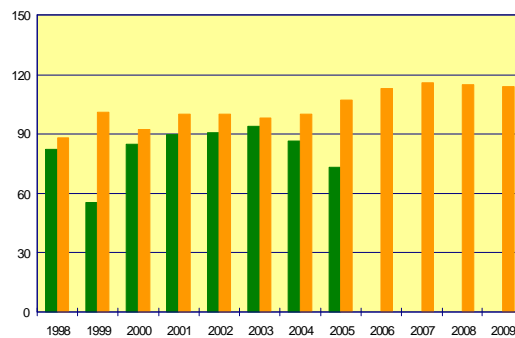
USDA

Outlook for world butter trade, 1990 – 2009
('000 t)

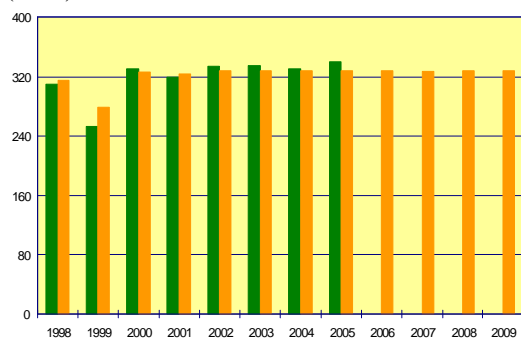


OECD: exports from OECD zone; FAPRI: net trade

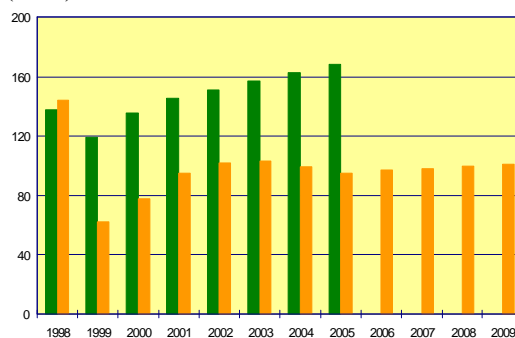
Outlook for butter net exports – European Union
('000 t)



Outlook for butter net exports – New Zealand
('000 t)

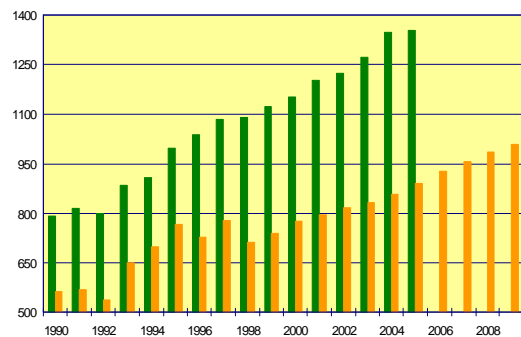


Outlook for butter net imports – Russia
('000 t)



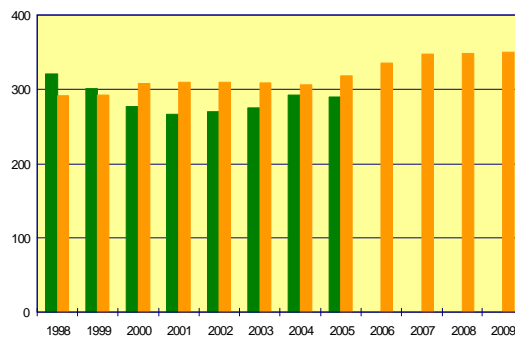
OECD: FSU

Outlook for world cheese trade, 1990 – 2009
('000 t)

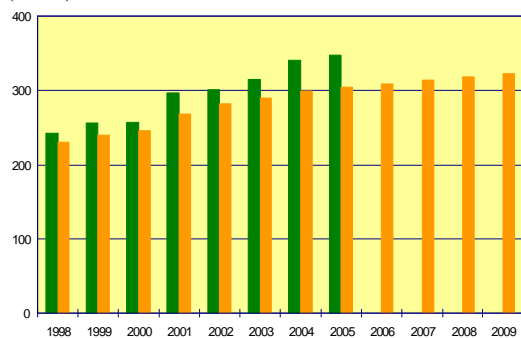


OECD: exports from OECD zone; FAPRI: net trade

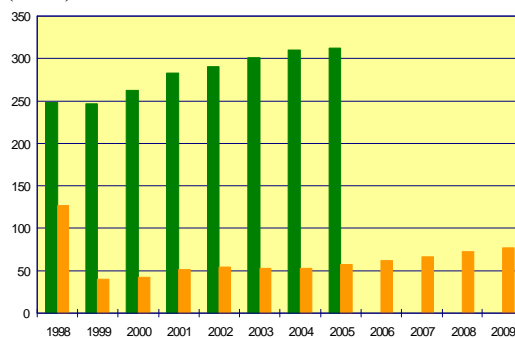
Outlook for cheese net exports – European Union
('000 t)



Outlook for cheese net exports – New Zealand
('000 t)



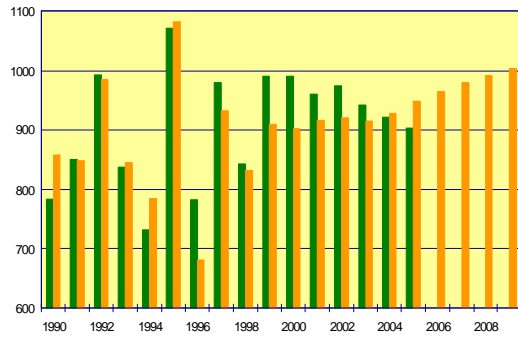
Outlook for cheese net imports – Russia
('000 t)



OECD: FSU

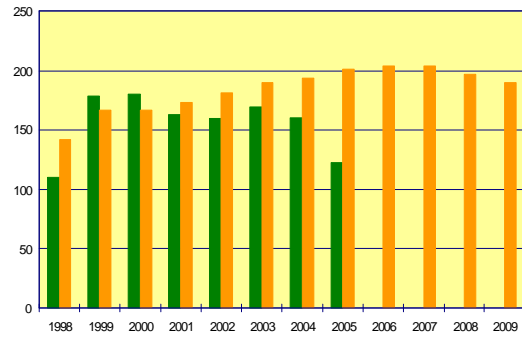


Outlook for world SMP trade, 1990 – 2009
(*000 t)

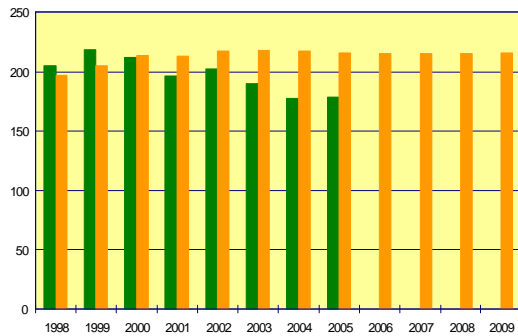


OECD: exports from OECD zone; FAPRI: total net trade

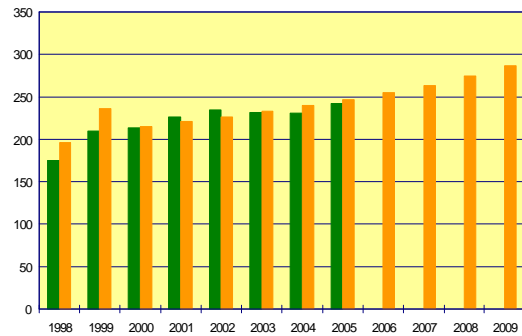
Outlook for SMP net exports – European Union
(*000 t)



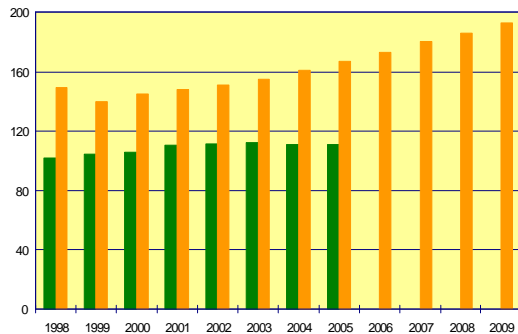
Outlook for SMP net exports – New Zealand
(*000 t)



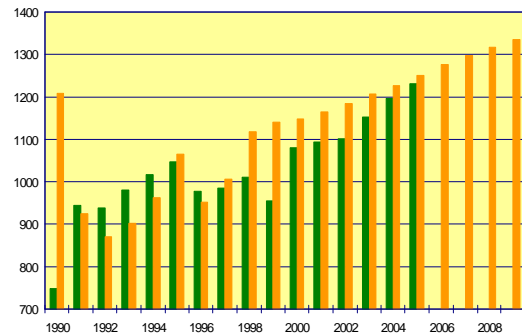
Outlook for SMP net exports – Australia
(*000 t)



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

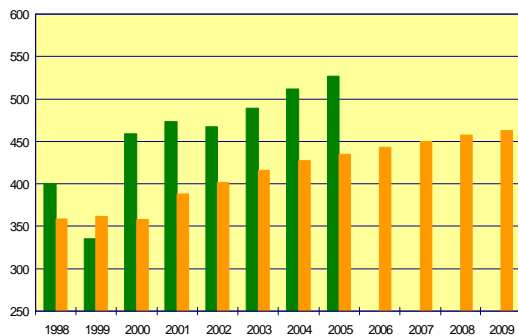


Outlook for world WMP trade, 1990 – 2009
(*000 t)

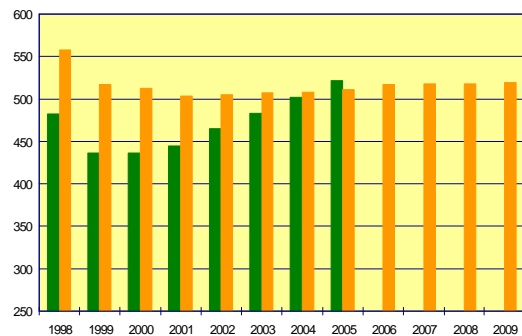


FAPRI: total net trade; OECD: exports from OECD zone

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



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



OECD

FAPRI