

**OECD - FAO  
AGRICULTURAL  
OUTLOOK: 2005 - 2014**

**HIGHLIGHTS, 2005**

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## FOREWORD

The present report on the Agricultural Outlook has been prepared jointly by the OECD and the Food and Agriculture Organisation (FAO) of the United Nations. The report draws on the commodity, policy and country expertise of both Organisations in providing a medium term assessment of future prospects in the major world agricultural commodity markets. The report is published annually, as part of a continuing effort to promote informed discussion of emerging market and policy issues. This edition of the Agricultural Outlook offers an assessment of agricultural markets covering cereals, oilseeds, sugar, meats and dairy products over the period 2005 to 2014. The assessment is based on projections, conditional on a set of specific economic and policy assumptions, which present a plausible scenario for these markets for the next decade. As such, they provide a yardstick for the analysis of agricultural market outcomes that would result from alternative assumptions.

This year's projections are set against the background of an expected recovery to steady, broad-based, world economic growth over the medium term, slowing population growth and low inflation. Consumption of agricultural products is expected to increase much faster in the non-OECD area than in the OECD area. Imports by non-OECD countries as a group are also growing, and the Outlook foresees an intensification of competition for these growing markets between traditional OECD exporting countries and emerging exporters from the developing and transitional economies. These outcomes are highly conditional on the geopolitical and global economic situation, as well as on the continuation of domestic policies and policy settings, in the various countries. For instance, further trade policy reform following from a successful conclusion to the Doha round of multilateral trade negotiations, revisions to US agricultural policies in the context of the next Farm Bill, or changes in the EU sugar regime, would all have impacts on the prospects for agricultural markets as contained in this assessment.

The projections and assessments provided in this report are the result of close co-operation between the OECD and FAO Secretariats and national experts, and thus reflect the combined knowledge and expertise of this group of participants. As a result of FAO participation in the Outlook, the country coverage of the projections has been considerably extended to a large number of developing countries and developing country regions. A jointly developed modeling system, based on the OECD's Aglink model, facilitated consistency in the projections. A major challenge in the generation of the joint outlook projections was the combination of different sources for market data which did not in all cases match perfectly. This led to some residual global commodity balances which were either kept constant or changed minimally over the outlook period to reduce their impact on the baseline projections. The fully documented outlook database, including historical data and projections, is available through the OECD and FAO internet sites. Within the OECD, this publication is prepared by the Directorate for Food, Agriculture and Fisheries, while within FAO, preparation for this document was undertaken by staff of the Commodities and Trade Division.

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## THE OUTLOOK IN BRIEF

Over the outlook period, world agricultural production is increasing at a slower pace than in the previous decade. But continued expansion is expected in global consumption, in particular due to the economic performance and population growth in developing countries. This is reflected in changing net trade positions for various countries and commodities over the next ten years.

However, growth in agricultural commodity trade will continue to under-perform relative to non-agricultural trade due in large part to the persistence of high trade barriers. At the same time, an increasing share of this trade will reflect growth in south-south trade, with larger exports both from traditional and new emerging exporters in the developing world.

While developing country agricultural imports are set to grow, this will partly be met by rising exports from low cost producing countries in the developing world. As a result, competition in global commodity markets will intensify in the medium term. Coupled with marked productivity gains at the world level, this will result in a further drop in real prices for most agricultural commodities.

Under conditions of downward pressure on real prices, farmers will have to make continued efforts to improve efficiency and productivity and would benefit from the reform of policies that stand in the way of such efforts. Lower real prices, however, will potentially benefit those countries that depend on imports to secure their food needs.

As the rate of expansion in agricultural production in the developing countries as a whole outpaces that of other - mostly OECD - countries, the share of these latter countries in global production falls for most products. Continued productivity gains support higher production in almost all countries, but area expansion is an additional factor in the developing world.

Demand changes are a key driver behind the growing importance of developing countries in shaping world agricultural markets. Population and income growth, coupled with urbanisation, and dietary diversification, are expected to generate additional demand and to lead to changes in the composition of food consumption, with a fast growing share of animal products.

In the mature markets of OECD countries, food demand is expected to grow only moderately. In determining demand, the role of product and process attributes regarding safety, quality, environment, animal welfare, *etc.*, is taking on prominence relative to price and income changes.

The ongoing structural changes in the food industry, characterised by increasing concentration and globalisation and changes in food chain governance, such as the growing role of product standards and vertical coordination, are likely to continue over the outlook period. In addition to domestic and trade policies and policy reform, these changes are becoming of growing importance for the longer term outlook for agricultural markets and trade.

The Outlook is not without uncertainty. The economic and policy context will likely differ from what is assumed in this report. In particular, a favorable outcome of the Doha round of trade negotiations would improve trade prospects. Also, projected record low cereal inventories could render cereal prices more unstable and affect global food security. With the growing importance of China and India in global markets, small shocks to either demand or supply in these large countries could lead to substantial external adjustments. Animal disease outbreaks also provide for an important source of uncertainty.

## OVERVIEW

### Introduction

For the first time, this year's *Agricultural Outlook* has been prepared jointly by the OECD and the *Food and Agriculture Organisation (FAO) of the United Nations* in Rome. As such, the report draws on the commodity, policy and country expertise of both Organisations. In addition, the country coverage of the projections, that envelop the 10-year period to 2014, has been much extended to include a large number of new developing countries and regions. The model that has been used in generating the projections includes, in particular, new country modules for India and South Africa that specify their commodity policies in detail.

As in previous years, the assessments offered in this report are based on medium term projections for production, consumption, trade and prices for the commodities covered in the Outlook. The projections are presented in the statistical annex to this report and reflect specific assumptions concerning key macro economic variables as well as agricultural and trade policies. These are discussed below. The projections also assume the absence of weather shocks and related impacts on crop yields and livestock production. The possibility that reality may differ from the assumptions underlying the projections constitutes one of the important uncertainties in the Outlook.

### The main underlying assumptions

#### *Rapid global expansion in 2004 slowed by high oil prices*

The Outlook assessment this year occurs against a macro-economic background where strong world-wide economic growth and expansion has been slowed during the course of 2004, partly because of a sharp increase in oil prices. Despite the slowdown, however, the world economy still achieved growth that was faster than that achieved during the 1980s and 1990s. The above trend performance resulted from strong growth in the OECD area, particularly the United States and Japan, and rapid expansion in developing countries, notably China and India. This was accompanied by a strong upturn in global merchandise trade which is estimated to have grown at more than double the increase in world income in 2004. Global economic growth is expected to ease in 2005 and then begin to recover during the following year.

#### *Sustained, broad-based growth expected in the medium to longer term*

For the period 2006-2014, this Outlook assumes strong and sustained economic growth in almost all regions of the world. Growth in the OECD area is projected to be around 2.6% per year, with less expansion in the euro-area and Japan than in the United States. Economic growth in many developing and transition economies is projected to be stronger than in the OECD area, underpinning the global growth rate for the period ahead. These projections assume no major disruptions to either the world economy or to that of any particular country.

In shifting the focus to particular developing and transitional countries or regions, economic growth in Brazil, the largest economy in Latin America, is projected to average around 4% per year. Economic performance in the Commonwealth of Independent States (CIS) is expected to slow markedly from the rapid rate of recent years, with growth in Russia averaging just over 2% per year from 2007 onwards. Rapid economic growth is expected to continue in the dynamic economies of Asia over the period to 2014. Within this group, China's growth is assumed to average above 7% per year; still fast, but

slightly slower than during the last decade. Overall, sustained world economic growth is expected to result in robust global demand, and to lead to increased trade in agricultural products to 2014.

### ***Despite rekindled fears, inflation expected to remain low***

After falling to low levels in 2003, inflation across the world has turned upwards in 2004. Earlier concerns about deflation have been replaced by fears that inflation is making a comeback. Headline inflation has increased with higher oil prices, but in a number of countries core inflation has also picked up and has resulted in some monetary tightening. Inflationary risks vary across countries within the OECD area and across other regions but, in general, are expected to be well contained over the period to 2014. Interest rates are expected to rise as recovery proceeds, with the pace and timing varying across countries, and, as a consequence, inflation rates are projected to remain low through to 2014, with an expected average of less than 2% per annum in the OECD area. Outside the OECD, higher inflation has been a feature of the CIS countries during their transition to market based economies, and in a number of developing countries as well. While inflation rates in these regions are also expected to decline, those in Latin America and Africa are assumed to remain well above those in OECD countries.

### ***Exchange rate adjustments to influence competitiveness***

Foreign exchange markets were characterised in 2003 by a strong depreciation of the US dollar, the currency in which most agricultural commodity trade is denominated, against other major currencies. More recently, a moderate further depreciation of the US dollar, together with the yen, was accompanied by small appreciation of the euro and British pound. Outside central Europe, most emerging market currencies have depreciated, notably in Asia and Latin America, partly reflecting the deterioration in external financing conditions. The currency exchange rates vis-à-vis the US dollar that prevailed in 2004 are assumed to be maintained over the outlook period for most countries. The euro/US dollar exchange rate is assumed to remain constant, at the level prevailing in early 2005. This will make US agricultural exports more competitive, other things being equal, compared to those of other OECD exporters whose national currencies have appreciated against the US dollar, such as the euro zone countries, Canada, Australia and New Zealand. However, the opposite situation will apply for a number of developing country exporters such as Argentina and Brazil, whose national currencies are projected to depreciate further against the US dollar in the period to 2014. Likewise, China's yuan is assumed to depreciate slightly against the US dollar over the projection period. As a major agricultural trading country, this will have some influence on the evolution of China's trade, acting as a break on imports, while making its exports more competitive.

The above outlined assumptions on exchange rates are critical to the trade projections in the baseline and, in particular, to the relative competitiveness of countries in world markets. For instance, a reversal in recent trends of a weakening US dollar would lead to greater opportunities for competing exporters, as well as improve the EU's potential to export without the use of export subsidies. It is noteworthy in this respect that, despite the decline that has occurred in the US dollar over the last two years from the strong level it had achieved, there remains the possibility that it could depreciate even further because of high projected US trade and budget deficits. If this were to occur, economic growth in the United States could be adversely affected. A weakening of economic growth in the United States would, in turn, pose a threat to world economic prospects. Consequently, a further sharp depreciation of the US dollar is another downside risk to the global economic projections for the medium term period.

### ***Population growth rates to decline***

In past years, rapid population growth has accounted for the bulk of the increase in food demand for agricultural products, with a smaller effect from income changes and other factors. World population growth is expected to slow to just over 1% per year over the outlook period, compared to 1.3% over the last decade (Table 1). Population growth in the developing countries, whilst slowing, will remain above that of the OECD area due mainly to higher fertility rates. As a consequence, the share of world population accounted for by the developing countries, which now stands at over 75%, will continue to increase over the outlook period. Given robust growth in per capita incomes and declining growth in population, the relative importance of population growth in determining demand for food and agricultural products will decline over the next ten years.

### ***Agricultural support and trade policies influence markets***

In addition to the macro-economic environment, domestic agricultural policies and levels of support, as well as border measures such as tariff levels, tariff rate quotas and the use of export competition measures, also significantly influence market outcomes. The baseline scenario is conditioned by an assumption of a continuation of policies that are in place or policy changes that have been announced within existing programmes. Thus, the baseline projections assume trade policies as agreed in the *Uruguay Round Agreement on Agriculture (URAA)* and exclude any possible modifications that may result from the current multilateral negotiations underway in the WTO under the *Doha Development Agenda*. This means that the potential WTO accession of new members, such as Russia, is also not considered. However, the provisions of existing regional and bilateral trade agreements such as, for example, the *North American Free Trade Agreement (NAFTA)* and the *Everything but Arms* Initiative of the European Union, as well as other preferential trade arrangements that exist for particular commodities, are taken into account.

Agricultural and trade policies play an important role in domestic and international agricultural markets because they provide support to agricultural producers and thus affect the level and location of production, consumption and prices, leading to market and trade distortions. Agricultural support and protection policies tend to play a larger role in the agricultural sectors of OECD countries than for the developing countries, although some of the latter countries also continue to protect their agricultural industries with trade barriers and other measures to limit imports. Within the OECD area, support to agricultural sectors as measured by the Producer Support Estimate (PSE) indicated that support continues to represent over 30% of gross farm receipts in 2004.<sup>1</sup> Although some changes have occurred in the composition of support towards less production and trade distorting forms, market price support continues to be the dominant form of support in many OECD countries. Moreover, as market price support is provided through measures that restrain market access, competition from world markets is either limited or non-existent for some products in certain countries. With continued use of export competition measures to dispose of domestic surpluses, this means that market price support policies will continue to distort production, trade and world prices for a number of agricultural products over the period to 2014.

In the international arena, the policy environment is still in flux as multilateral negotiations under the *Doha Development Agenda* continue in the WTO. On 31 July 2004, a consensus was reached in the WTO on a set of framework agreements for pursuing negotiations under the Doha Round. The framework agreements present a broad outline of how trade liberalisation is to occur, leaving the details of how much and how far for later discussions. The decision to adopt the package of agreements puts the discussions back on track in that formal negotiations can resume on the specific commitments that would lead to a successful conclusion; although a new target date for concluding the negotiations has not been chosen. The

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<sup>1</sup> See OECD (2005), *Agricultural Policies in OECD Countries: Monitoring and Evaluation 2005*.



framework agreement for establishing modalities in agriculture calls for, amongst other things, the elimination of export subsidies and other export competition measures, the reduction of trade distorting domestic support by 20% in the first year and substantial tariff reductions. Developing countries will continue to benefit from special and differential treatment. However, at the time of writing this report, (April 2005), precise modalities to liberalise trade in agricultural products were still to be decided.

In relation to domestic agricultural policies, the Outlook includes the various provisions and programmes of the US *Farm Security and Rural Investment (FSRI) Act* of 2002, which is assumed to continue throughout the projection period even though its mandate ends after 2007. The current re-examination of the US agriculture budget by the US Administration is not considered either. For the European Union, the main elements of the 2003 reform of the Common Agricultural Policy (CAP) are included, as well as their phased implementation and application by the ten new member states that joined the Union in 2004. Agricultural and trade policies of Argentina, Brazil, China, India, Russia and South Africa are also taken into account in the baseline projections, as well as those in other developing countries which play an important role in international markets for some specific commodities such as sugar and rice. Detailed specifications of the policies that are taken into account in this Outlook are presented in tables 3, 5, 7, 9 and 31 of the Statistical Annex.

**Table 1. Where population and income is projected to grow**

	<i>Average annual percentage increase over 10 year period</i>			
	1995-2004		2005-2014	
	<b>Population</b>		<b>Income</b>	
	%	%	%	%
<b>World</b>	1.27	1.01	2.62	3.10
<b>Africa</b>	2.28	1.83	3.37	3.80
<b>America</b>	1.36	1.04	3.02	3.24
<b>Asia</b>	1.29	1.02	2.61	3.56
<b>Europe</b>	0.01	-0.07	2.13	2.40
<b>Oceania</b>	1.15	0.73	3.51	3.53

*Note:* Income is at 1995 USD market prices.

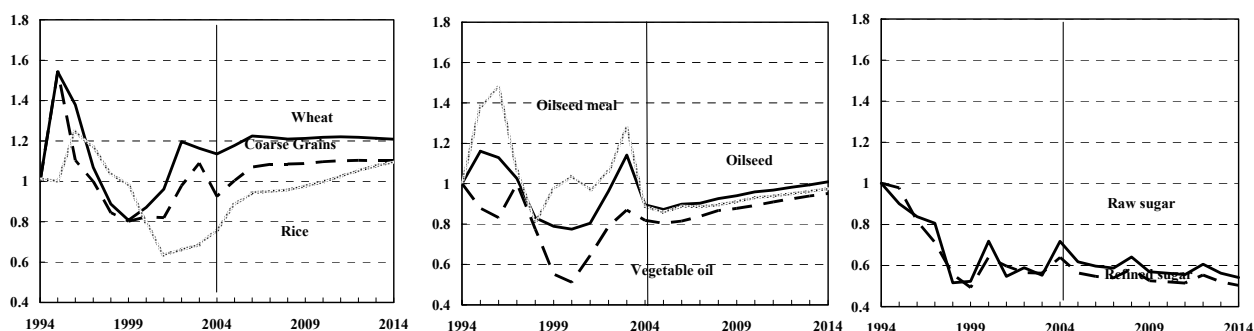
*Source:* World Bank, December 2004.

## **A summary of the main market trends and developments**

### ***Agricultural commodity prices continue their long term decline in real terms***

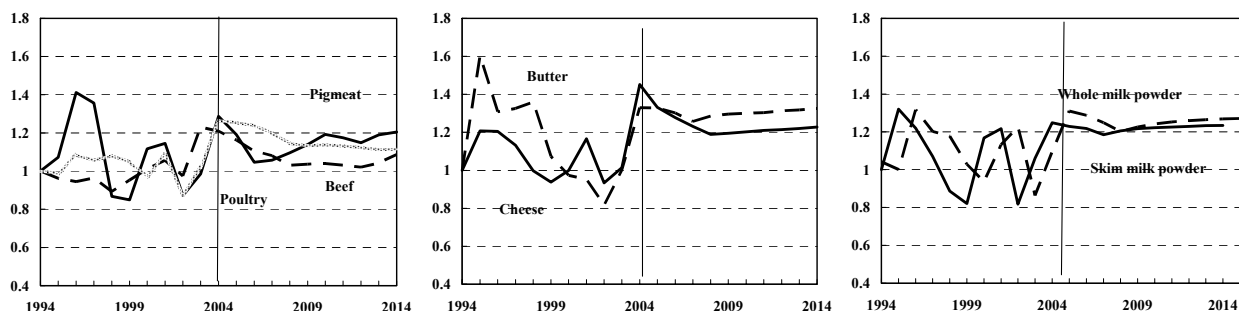
World market prices for almost all agricultural products covered in the Outlook are expected to strengthen over the projection period. The evolution of these – nominal – prices of selected commodities is shown in Figure 1. While agricultural commodity prices are on average increasing, they are expected to continue to decline in real terms, *i.e.* relative to movements in prices overall. This reflects the fact that underlying forces that strengthen agricultural product supply (largely productivity gains) tend to outweigh the forces that drive stronger demand for these products, such as income and population growth. This development in real prices is characteristic for all products in the Outlook, with perhaps the exception of rice. The nominal and real price developments are graphically shown in the various commodity chapters.

**Figure 1. Outlook for world prices to 2014 (Index of nominal prices, 1994=1)**



Source: OECD and FAO Secretariats.

**Figure 1. Outlook for world prices to 2014 (Index of nominal prices, 1994=1) (con'td)**



Source: OECD and FAO Secretariats.

***The resumption of imports by Indonesia underpins rice markets***

While world prices for wheat and coarse grains are projected to remain fairly close to the relatively high levels recently seen, rice quotations are set to increase between 2004 and 2014 in nominal terms. In real terms, rice prices should remain relatively flat, while world wheat and maize prices are expected to continue their longer-term declining trend. Increasing wheat imports by China in particular could drive wheat prices up by some 8% during the first few marketing years of the projection period, but prices are expected to fall again thereafter, ending at around USD 162/t by 2014, 6% above their 2004 levels. Starting from relatively low levels in 2004, world rice prices are projected to increase by 26%, reaching some USD 322/t in 2014 for the Thai 100% B indicator price. World rice prices increases are particularly strong in the first two years when Indonesia returns to its normal net imports of around three million tonnes.

Market developments for oilseeds over the projection period are driven by growing productivity, increasing area planted and rising demand as incomes and populations grow in most countries. On balance, these factors lead to a projection to 2014 of rising nominal prices of oilseeds and oilseed meals from their low levels of 2004, but with real prices flat or declining. With sustained strong demand, vegetable oil prices have been strengthening since the late 1990s, and this is expected to continue over the outlook period, albeit at a slower rate.

### ***Sugar supplies continue to outpace demand***

Fundamentals in the sugar market remain bearish, despite a small tightening of the supply-demand balance over the projection period as continuing consumption growth limits the pace of stock accumulation, and leads to a small decline in the global stocks-to-use ratio. However, this will not be enough to materially affect prices. Overall, the world market is expected to be well supplied with sugar with no price increases above 2004 levels justified by market fundamentals. Nominal world market prices for raw sugar are expected to remain within a band of USD 7-10 cents/lb (USD 165-195/t) over the period to 2014, with the long run pattern of falling prices in real terms set to continue.

### ***Prices for livestock and dairy products stay mostly below recent levels***

Despite animal disease-related market disruptions which have helped increase Pacific beef prices, the US beef price will likely continue to be determined by the traditional beef cycle. Prices have peaked at USD 296 per 100 kg carcass weight equivalent (cwe) in 2004, but with a gradual recovery in US beef output they are expected to be on a downward trend for most of the outlook period. Pig meat prices in 2004 were supported by strong demand from the Pacific market that should lead to an increase in pork production in 2005-06, followed by a cyclical decline in pork prices. However, when compared to the 1999-2003 average, larger imports stemming from income-fuelled demand by Mexico, and to a lesser extent the Asian markets, are nevertheless expected to support Pacific pork prices at a level of about USD 20 per 100 kg cwe higher. But continued investment in integrated poultry systems, particularly in developing countries, will lead to lower poultry prices.

World dairy prices rose to near record levels in 2004, only two years after having collapsed to rock bottom lows comparable to those of the previous decade. Although world dairy prices are expected to remain firm in 2005, supply response to higher prices will eventually cause them to weaken again. This process may start in the second half of 2005, and as the growth of world export supplies is projected to slightly outpace that in import demand over the medium term, prices are anticipated to continue to fall further for some years. But by 2008, nominal dairy product prices should resume a modest upward trend, although by the end of the outlook period they are not anticipated to reach the heights of 2004. By 2014, cheese prices are projected to be about 15% below current levels, while butter prices should be only marginally short of those in 2004. Milk powder prices could see a small reduction, with those for whole milk powder (WMP) falling by 3% and those for skim milk powder (SMP) by 1% compared to the 2004 levels. Nevertheless, world prices are expected to remain at higher levels over the entire projection period as compared to the averages prevailing in the last decade. The relative strength in international prices is expected to stem partly from anticipated reductions of SMP and butter exports from the European Union and lower SMP exports from the United States, and partly from sustained demand for dairy products resulting from population growth, changes towards more protein based diets and rising consumer incomes in major importing developing countries.

### ***Government policies also influence prices***

These world price developments will help shape agricultural production responses over the outlook period for countries whose producers face world price signals. However, in many instances, domestic agricultural and trade policies also need to be considered in the market assessment. These policies shield producers from variations in world market prices through border measures, limit their response through supply management controls such as production quotas or otherwise influence the degree of transmission of world price signals to domestic producers and consumers. Government support policies impact on domestic prices, and through trade policies, this spills over in world markets, affecting world

prices and producers' production responses globally. This has been true for OECD countries, but increasingly, policies in certain developing countries have an important impact on world markets, too. The projections assume a continuation of existing support and protection policies to 2014. However, a successful conclusion to the Doha Round negotiations or national programme changes, could lead to policy settings that would result in market projections that could be quite different from those presented in this Outlook.

### ***Agricultural production continues to expand, but more slowly***

On the assumption of normal weather conditions and continued productivity trends, production of agricultural products will continue to expand to 2014. However the projected global production growth of different commodities will vary depending on the situation in individual countries at the start of the projection period, such as larger or lower production than normal, and the contribution made by these countries and regions to world output. While production is projected to increase, some slowdown in the rate of growth is expected, matching the slowdown in population growth. The following section highlights the main developments for the different commodities.

### ***Production growth in developing countries outpaces that in OECD countries...***

Global wheat production is projected to grow by 11% to reach 688 million tonnes in 2014. After a reduction from the very high levels in 2004, global coarse grain production is projected to increase at a somewhat faster rate to reach some 1 109 million tonnes in 2014. World rice production is projected to grow to 466 million tonnes, up 14% from 408 million tonnes in 2004. These output increases imply some slowdown in wheat and coarse grains annual production growth to just over 1% per year, respectively, while rice production grows faster at 1.3% per year. Cereal production growth rates in the OECD area are expected to be about half those in the developing countries, and to come mainly from yield growth.

Global oilseed production is expected to post growth rates averaging 1.9% annually over the projection period, which is slower than historically. Much higher growth in oilseed production is expected in the developing world at over 3% per year compared to only 0.7% per year in OECD countries. Like the case of cereals, production growth is a result of both higher yields, but also increases in area, especially outside the OECD region. Area devoted to oilseeds is expected to expand by 1.2% per year in the non-OECD countries compared to little change elsewhere. Based on the assumption that oilseeds used directly for feed and food, as well as biofuel use of vegetable oil, are not likely to dominate the sector, most of the available oilseeds are crushed into oilseed meal for feeding animals and vegetable oil human consumption. Output of oilseed meal and vegetable oils is growing roughly in line with that of oilseeds, again with a relatively stronger expansion in the developing countries. But palm oil, drawn largely from Malaysia and Indonesia, plays an increasing part.

In comparing production growth prospects for the 14 agricultural products included in the Outlook (Table 2), it is apparent that the rate of expansion in production in the developing countries as a whole outpaces that of the OECD area, and by a large margin for sugar, rice, beef, butter and milk powders, though to a lesser extent for cereals and meats other than beef. As a result, the OECD area's production share in global output for these products declines considerably (Table 3).

### ***...particularly so for meat and dairy products***

World milk production is projected to increase by just under 2% annually between 2004 and 2014, reaching 747 million tonnes in 2014. Global milk cow and buffalo inventories are expected to

increase modestly, but higher average yields will contribute most to increases in output. The European Union, India, United States, Russia, Pakistan, Brazil and China account for over two-thirds of total milk output. Producers in developing countries are expected to increase their world milk production shares, as a group, from 55% to 58% in 2014. The growth is expected to be especially strong in India and China. Milk production in the OECD area, on the other hand, would remain relatively stable given that the majority of it is restricted by production quotas. But rather substantial growth in milk production is projected in Oceania and the United States, where such controls do not apply.

World production of WMP, cheese and butter is expected to grow by about 20%, while world SMP production is projected to fall by 5% over the Outlook period. Output is expected to increase for all dairy products outside the OECD area, where investment in processing capacities will accommodate the large increases in milk production. In the OECD area, only production of cheese and WMP is anticipated to increase, while that of butter and particularly SMP is expected to fall throughout the period to 2014.

Similar to historical trends, meat production gains, while moderating, are expected to occur mainly in developing countries and to outpace those of many other commodities. Growth in global meat production will continue to be driven by rising pig meat and poultry output in developing countries. With these countries accounting for 77% of global output gains over the projection period, their share of global production is set to expand to 62% in 2014, up from 59% in 2004. The gradual reduction in the OECD share of meat production, from 41% in 1995 to a projected 38% in 2014, is in sharp contrast to projected growth in Brazil and China, which are expected to account for 33% and 10%, respectively, of the increase in global meat production to 2014. In the OECD region, North America, which accounts for nearly 60% of total OECD meat production gains, is expected to contribute most to the projected medium term growth in global meat output.

**Table 2. Production and consumption average annual growth rates, 2004-2014**

	PRODUCTION			CONSUMPTION		
	Total	OECD %	NON-OECD	Total	OECD %	NON-OECD
Wheat	1.0	0.7	1.4	1.1	0.7	1.3
Rice	1.3	-0.1	1.6	1.0	0.4	1.0
Coarse grains	1.0	0.3	2.0	1.3	0.7	1.8
Coarse grains used for feed	1.3	0.5	2.5	1.3	0.4	2.2
Oilseeds	1.9	0.7	3.1	2.4	1.6	2.9
Oilseed meal	2.6	1.9	3.6	2.7	1.7	3.9
Beef	1.6	0.7	2.6	1.6	0.6	2.3
Pig meat	1.8	0.8	2.6	1.8	0.8	2.3
Poultry meat	2.2	1.8	3.0	2.2	1.8	2.5
Milk	1.9	0.9	3.0	..	..	..
Butter	1.7	-0.3	3.4	1.8	-0.3	2.9
Cheese	1.8	1.8	2.8	1.9	1.6	2.7
Skim milk powder	-0.5	-1.3	2.5	-0.9	-2.5	1.3
Whole milk powder	2.0	1.2	3.4	2.0	-0.3	2.6
Vegetable oils	2.7	2.0	3.4	2.8	1.9	3.1
Sugar	1.9	-0.1	2.8	1.8	0.4	2.3

Source: OECD and FAO Secretariats.

**Table 3. Production and consumption in OECD countries as a share of world total**

	PRODUCTION			CONSUMPTION		
	2004	2009 %	2014	2004	2009 %	2014
Wheat	42.5	41.6	41.0	33.0	32.4	31.7
Rice	5.8	5.2	5.0	5.3	5.2	5.0
Coarse grains	54.1	51.4	50.4	49.6	48.4	46.8
Coarse grains used for feed	55.0	52.7	50.5	55.0	52.7	50.5
Oilseeds	42.2	38.9	37.3	40.8	39.5	37.9
Oilseed meal	41.9	40.3	38.3	57.7	54.9	52.3
Beef	42.4	41.0	38.4	42.9	41.4	38.9
Pig meat	36.9	35.1	33.4	35.9	34.2	32.7
Poultry meat	48.8	47.0	46.2	46.4	45.0	44.5
Milk	46.9	44.7	42.4	..	..	..
Butter	42.5	38.4	34.8	36.8	33.2	29.7
Cheese	79.3	79.1	77.8	77.2	76.4	75.3
Skim milk powder	82.9	80.3	77.5	62.3	56.2	53.0
Whole milk powder	54.6	53.1	49.9	22.8	20.4	18.1
Vegetable oils	27.3	25.9	24.8	32.2	30.8	29.7
Sugar	28.0	25.0	23.1	28.2	26.2	24.5

Source: OECD and FAO Secretariats.

### ***Developing countries account for all of the global production growth for sugar***

World production of sugar is projected to increase to 178 million tonnes (raw sugar equivalent) in 2014. With OECD sugar production relatively stable at about 40 million tonnes, all of the increase of 30 million tonnes, or 20% to 2014, will be accounted for by developing countries. Production in these countries is projected to increase by 2.8% per year, reflecting a combination of higher yields and increased area harvested for sugar cane, the dominant sugar crop. Yield growth will account for all the increase in global sugar beet production as, with lower EU output, the area harvested declines slightly over the outlook period. Brazil, the world's largest sugarcane and sugar producer, accounts for over 30% of the global increase in sugar output to 2014. Larger production is also expected in India.

### ***Higher incomes and larger populations lead to world-wide consumption gains***

Increases in population - even though more moderate than in the past - and economic growth that leads to an increase in per capita incomes, are the major factors underlying a projection of increased agricultural demand and trade to 2014. Within these global trends, the changes occurring in these basic demand drivers in different parts of the world will also be important for the location of agricultural demand growth. Population growth rates in developing countries, while declining, are expected to remain above those in the OECD area and in some transition economies such as the CIS countries. However, there are significant differences in projected population and income growth rates between the different regions of the world, as shown in Table 1. A comparison of developments over the period to 2014 with those of the previous ten years (1995-2004), indicates that the population growth rate will fall in all regions, but will remain highest in Africa. With respect to incomes, GDP growth is expected to be above average in some Asian and Latin American countries.

The projections suggest consumption increases for all products and regions covered in this report. As shown in Table 2, of the products destined for human consumption, the vegetable oils group has the highest total annual growth rate of 2.8% between 2004 and 2014. Poultry meat and whole milk powder consumption are also expected to increase at rates of 2% or more per annum. Consumption of all products,

except skim milk powder, is expected to grow at rates greater than, or at least to match, the growth in world population, providing the potential to reduce malnutrition and hunger. The diversification of diets is also illustrated in the growth rate of oilseeds, oilseed meals and coarse grains, products used in the production of livestock for meat and milk consumption. Oil meal consumption is expected to grow at an annual rate of 2.7% while coarse grains used for livestock feeding rather than food is expected to grow at 1.3% per annum.

### ***Consumption to grow faster in developing countries***

In the more mature food markets of OECD countries, where incomes are generally high and basic dietary needs have long been more than satisfied, consumers continue to look for more variety in their diets, are becoming increasingly health and diet conscious and take more of their meals outside of the home. For these countries, consumption of butter and milk powders is projected to decline over the period to 2014. On the other hand, that of beef, pig meat and sugar post moderate growth rates as preferences shift towards products such as poultry meat, vegetable oils and cheese. And this shift in orientation is also reflected in oilseed and oilseed meals used in livestock feeding. Likewise, only moderate consumption growth is projected for cereals.

Food and feed consumption in the developing countries is expected to continue to post the largest gains and to grow at rates much faster than in the OECD area. These are the countries where most of the world's people live, where most of the population gains of around an additional 700 million people will occur, and where income growth is expected to remain strong. Continuing diversification of diets in these countries leads to consumption of meat, sugar, vegetable oils and dairy products to grow faster than that in the OECD area. These changing consumption patterns tend to accelerate as populations become concentrated in large urban centres, many of which are in the vicinity of ports connecting them to the world market. In addition, high consumption growth of final meat and dairy products leads to fast projected growth in indirect demand for products used in livestock feeding, such as coarse grains and especially oilseed meals.

The higher consumption growth rates in developing countries during the projection period imply that an increasing share of agricultural produce is consumed outside the OECD area. For example, due to the drop in sugar consumption in the OECD area, the OECD's share of global sugar consumption falls from 28% in 2004 to 25% at the end of the projection period. Similarly, slow consumption growth rates for meat, dairy products and vegetable oils result in falling shares of consumption of these products in the OECD region. Consequently, the consumption share accounted for by the developing countries increases for all the 14 agricultural products that are covered by this outlook assessment, including those used for animal feedstuffs (Table 3).

### ***Further growth in trade of food and feed...***

Little increase in world wheat and coarse grains trade occurred in the 1990s due mainly to lower imports by the CIS and countries of Central and East Europe that offset import growth elsewhere. However, with continuing growth in import demand, largely from developing countries, global grain trade is set to expand to 2014. The OECD area maintains its dominant share of exports of bulk commodities such as cereals and oilseeds and these are set to increase as population growth drives larger food grain imports by developing countries in Sub-Saharan Africa, North Africa and the Middle East. Other food grain importers include China, Egypt and Brazil for wheat and Indonesia and Bangladesh for rice. Changing diets and consumption patterns will also contribute to higher food grain imports in some developing countries. Rising incomes and increased meat consumption in developing countries is expected to lead to

further growth in their domestic livestock production. This, in turn, drives increased imports of coarse grains and oilseeds by those countries and regions that are unable to meet their feedstuff needs, or vegetable oil consumption requirements, from domestic sources. Within the overall growth in food imports by LDCs, financial constraints could remain a limiting factor for some of the poorer ones.

China is expected to become a larger importer of coarse grains along with other developing countries of East and South East Asia, and to remain the largest importer of oilseeds. Traditional cereal and oilseed exporters such as the United States, Australia, Canada, the European Union, Argentina and Brazil, are expected to account for the bulk of cereal and oilseed trade over the projection period, albeit with some adjustments in individual country market shares with the continuing ascendance of Latin American producers. In addition, traditional exporters will likely face increased competition from some emerging countries such as Ukraine and Kazakhstan. In contrast to the situation for cereals and oilseeds, developing countries, and particularly Brazil, dominate the world sugar market and are expected to maintain their position as the largest sugar producers, consumers and traders over the projection period.

### ***...but growth in meat trade slowed by disease outbreaks***

Following the boost to livestock product trade during the last decade given by market opening measures under trade agreements, rising per capita income is the major driving force behind higher global meat demand over the coming ten year period. However, the residual effects of trade actions taken in response to recent animal disease outbreaks such as BSE and Avian influenza, as well as food safety and exchange rate issues, will have a continuing influence on global meat trade, benefiting South American and Oceania trade in the short and medium term. The outlook for the US and Canadian beef trade with Japan and Korea, in particular, will be determined by the timing of the abolition of BSE related trade measures.

In the meantime, interrupted beef trade flows and the concomitant impacts on Pacific beef market prices may result in some substitution of pork for beef in consumption and imports by these countries. This favours increased pork exports, in particular by the United States and the European Union. EU enlargement and the effects of the 2003 CAP reform measures are expected to continue to lead to adjustments of EU meat trade and export availabilities. Beef exports from Australia and New Zealand are projected to rise, particularly in the short term, to meet increased foreign demand in Asia and elsewhere. Russia is expected to remain the world's largest importer of poultry, but those by China and Mexico are growing as well. OECD poultry exporters, such as the United States and the European Union, are expected to face increased competition from some developing countries such as Brazil, but less from others, such as Thailand due to the ongoing effect of Avian influenza. However, OECD countries are expected to continue to dominate international dairy product trade. Most of that trade is between these countries themselves, although import demand from developing countries continues to increase, with Russia an important export destination for butter.

### **Some important uncertainties in the outlook**

#### ***China's cereal policy changes will affect world markets***

When considering cereal market developments over the coming decade, cereal policy developments in China remain the most important question. In the past, China has followed a policy of maintaining self-sufficiency for cereals at high levels in order to limit imports and dependency on international supplies. The projections assume a substantial opening of the Chinese market for wheat and coarse grains, particularly maize for feeding, resulting in significant imports in the course of the next few



years. Given the sheer size of the Chinese market, a different path of policy development could have important implications on both Chinese and international markets.

The large role that China plays in global rice production means that, along with India, it has considerable power to influence world rice trade and prices in the “thin” international rice market. China has been a net rice exporter in the 1990s, but the projection results indicate that Chinese rice markets turn to be largely balanced over the next decade. Since the country has agreed to let in up to 5.3 million tonnes of rice at a low preferential tariff, the scope for larger increases in imports does exist. But this would require a strong relaxation in the import regime, which would be a radical change in the prevailing government rice policy.

### ***Asian soyabean rust could change the outlook for oilseed markets***

Asian soyabean rust has been detected in nine States of the United States in November 2004. The presence of this fungal disease is a source of concern for the US soyabean industry and can imply changes for soyabean plantings and yields in the early years of the projection period with significant market implications. Obviously, if some part of production of soyabeans in the US is lost, and to the extent that this reduction is not offset by increased output in Brazil or Argentina, then the reduction in supplies will lead to higher oilseed prices. This, in turn, would reduce crush industry demand for soyabeans and production of soyabean meal, with the result that oilseed meal market prices would increase as well. Such near-term consequences would impact on consumption with subsequent consequences for planting decisions. In the long-term, if rust prevention procedures are adopted that raise costs for soyabean production in the US, or in other countries, this will have a negative impact on soybean area and may cause a sustained longer term increase in oilseed and oilseed meal prices. The resulting higher feed costs would also affect livestock production, in particular that of non-ruminants.

### ***Lifting of BSE related import bans affects beef trade***

The projections assume a gradual rebuilding of US and Canadian beef exports beginning in 2006 as agreements are reached with Japan, Korea and other Asian destinations that will permit resumption of trade, which was suspended following the detection of BSE in North America. Japanese imports of US beef are projected to grow over the coming ten years as the US industry applies the procedures under the October 2004 framework agreement concerning beef trade between the US and Japan. However, there are still uncertainties as to how long precisely the bans on trade in cattle and beef will remain in place. Any prolongation will have implications for investments in cattle production, meat trade volumes and Pacific beef prices over the projection period, with impacts on other meat markets and meat categories as well.

## **New issues and challenges in agricultural commodity markets**

### ***Introduction***

The following concluding section in this year’s Overview addresses some of the new challenges that are emerging from the rapid evolution in global food markets. In the recent past, changes in agricultural commodity markets have been almost exclusively viewed as resulting from policy changes and internationally agreed upon trading rules, particularly those under the *URAA*. While policies and policy reform are still key drivers for the medium term outlook, the role of market determined and regulatory incentives are growing in the context of an increasingly globalised and integrated food economy. This

section discusses the growing competition in world markets, the impacts of changing diets on world trade patterns, and, finally, the challenges presented by the global food system.

## **Increasing competition in world markets**

### ***Growing importance of non-OECD exporting countries***

Trade in agricultural commodities will play a greater role in meeting the food needs of both developed and developing countries during the next decade, and particularly for least developed countries (LDCs). Competition among traditional exporters, mostly OECD countries, in meeting this demand is set to intensify, but a key development is both the emergence of new non-OECD exporters and the sustained performance of existing developing country exporters, particularly for temperate-zone commodities. Many of these commodities, which include wheat, coarse grains, rice, oilseeds, sugar and livestock products are often subject to a high degree of protection in OECD countries, with the level and variability of world prices influenced by trade restrictions and, in some instances, by various measures of export support.

Diversity of food sources is important for food security in food importing developing countries in that the risk for sufficient availability is spread across a broader array of potential suppliers. However, the growing role of trade in agricultural commodities in providing for food needs may at the same time increase the exposure of these countries to fluctuations in world commodity prices and to fluctuations in financial conditions. An extreme case is a net food importing developing country that depends on a single exported good for much of its economic growth and the majority of its access to foreign currency.

Many developing countries have a comparative advantage in producing some primary or intermediate commodities: the costs of production are relatively low compared to other activities in those countries, either because production is relatively labour intensive or because climatic conditions in such countries suit their cultivation. With difficulties in pursuing *north-south* trade, prospects for developing countries increasingly centre on growth in *south-south* trade, *i.e.* trade among these countries themselves.

The increasingly competitive environment that the Outlook foresees is by and large the outcome of actions taken by those developing countries that have made the necessary investments to their productive sectors and marketing and transport infrastructure; especially harnessing new technology and embracing the global market place.

A comprehensive exposition of trade patterns is provided in the commodity chapters, but as a precursor, Figure 3 illustrates changing net trade positions of countries/regions that deserve attention.

### ***Trade patterns change particularly for temperate-zone commodities***

Net grain imports of temperate-zone products by developing countries are expected to rise over the next ten years in contrast to somewhat subdued levels in the preceding decade. Reflecting this development, total wheat exports from the OECD area are expected to grow 15% over the period to 2014, compared to 25% for coarse grains. Countries situated in Asia, particularly China, account for much of this growth, but when compared to the previous decade, wheat imports are also expected to grow for other developing countries, such as Algeria, Brazil, Egypt and Indonesia. While OECD grain exports are increasing, with the US projected to remain the largest supplier of wheat to world markets, they are expected to face stiffer competition in maintaining market share from potentially large export availabilities in several transitional countries.

Steadfast demand for oilseeds in traditional importing countries or regions such as the European Union, Japan and Korea, and more recently in China, which is expected to consolidate its position as the world's largest oilseed importer, would lead to a marked expansion in the global oilseed market. OECD countries are projected to make little inroads as suppliers, and exports from Brazil and Argentina virtually dominate the expanding marketplace. Part of the reason for rapid expansion of oilseed exports in the latter countries is a development in their crush industries that lags growth in domestic production. As a result, Brazil may even bypass the US as the world's leading oilseed exporter over the projection period.

Projected developments in OECD beef trade point to some growth in exports by Australia with the European Union sustaining a net import position. With the gradual lifting of BSE related import bans imposed on US and Canadian beef exports, their former market shares could be slow to rebuild. Expectations of a slow recovery of the US share in Asian markets will result in increased sales of beef from other countries in the Asian region, such as Australia and New Zealand. However, as for crop products, competition in global beef markets will increase too. The share of Mercosur countries in global beef exports is set to increase, with Brazil expected to become the world's largest beef exporter over the projection period. Likewise, while OECD countries are anticipated to remain significant pig meat exporters, additional supplies needed for a growing global pork market are expected to be met by Brazil, which, as for many other commodities, is expanding investment in the sector. Similarly, this country is positioned to maintain its role as the largest exporter of poultry meat. The outlook for poultry also foresees Thailand to remain an important net exporting country, provided that problems with avian influenza are kept in check.

While international dairy markets remain thin, with only about 7% of global milk production traded, some import growth is nevertheless expected over the period to 2014, both in OECD and a number of very dispersed, non-OECD countries or regions. There is growing trade in particular in milk powders, notably WMP, to satisfy food security needs in many African countries and food processing requirements in Asia. On the export side, the situation for dairy products is somewhat different than for crops and meat products. The European Union and New Zealand continue to dominate these markets, even though export shares for the European Union are projected either to fall or to remain flat. New Zealand, on the other hand, will maintain its strong presence in particular in the butter, cheese and powdered milk markets. Nevertheless, the appearance of Argentina as a major whole milk powder (WMP) supplier might eventually challenge New Zealand's dominance. Argentina and some eastern European countries are also emerging as increasing exporters of SMP.

### ***South-south trade flows dominate rice, vegetable oil and sugar markets***

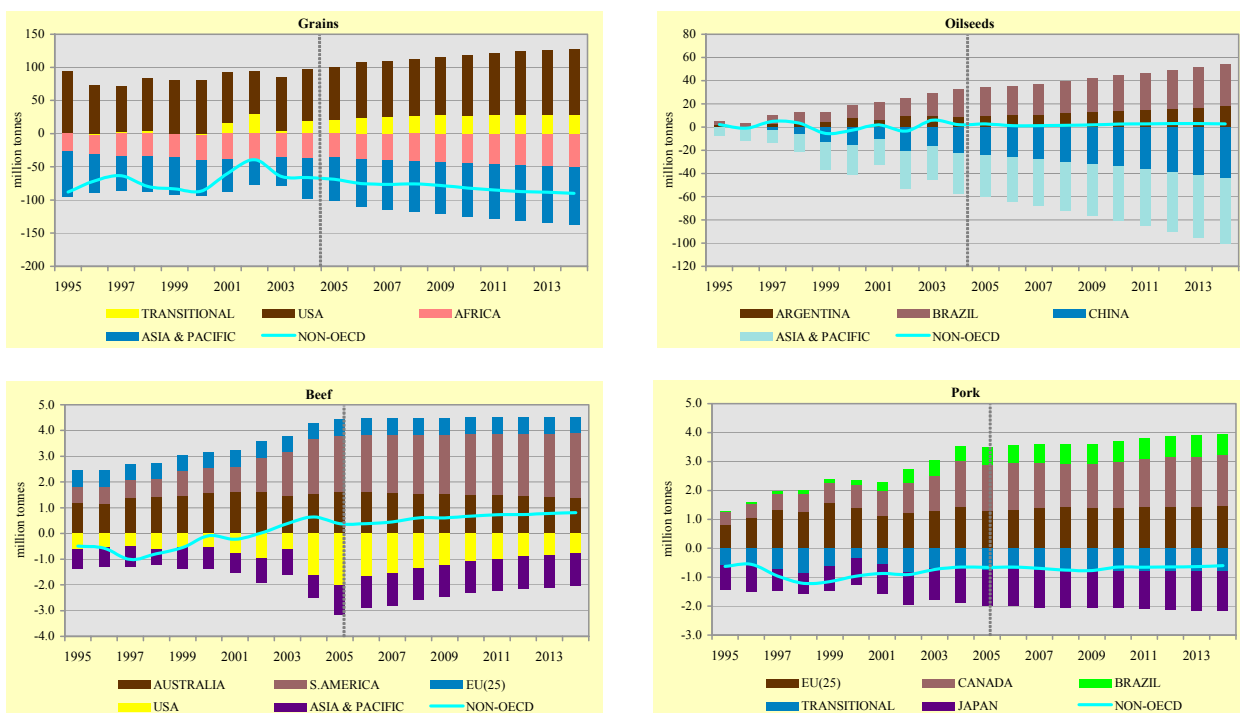
Global trade flows for rice, sugar and vegetable oils are dominated by developing countries. For rice, a considerable expansion in the international market is expected. By the end of the projection period, prospects for Sub-Saharan Africa point to it being the largest rice net importing region, with imports in Central America and the Caribbean and countries such as Indonesia, the Philippines and Bangladesh also increasing. Asia, and in particular Thailand and Vietnam, is sustaining its role as the largest rice net-exporting region. OECD countries, as a group, are set to retain their net export status for rice, but this disguises some marked trends within this group. For example, rice exports by the United States are projected to rise sharply, but the European Union is anticipated to become an increasingly significant net importer of the commodity, following recent rice policy changes.

Likewise, the international market for vegetable oils is projected to expand, with South America, Asia and Africa again weighing heavily on trade flows. Utilisation of vegetable oil is varied. In Africa, it constitutes an important source of food calories, while in Asia, industrial usage is relatively more important. Buoyant demand in China would lead the country to become the world's largest importer of

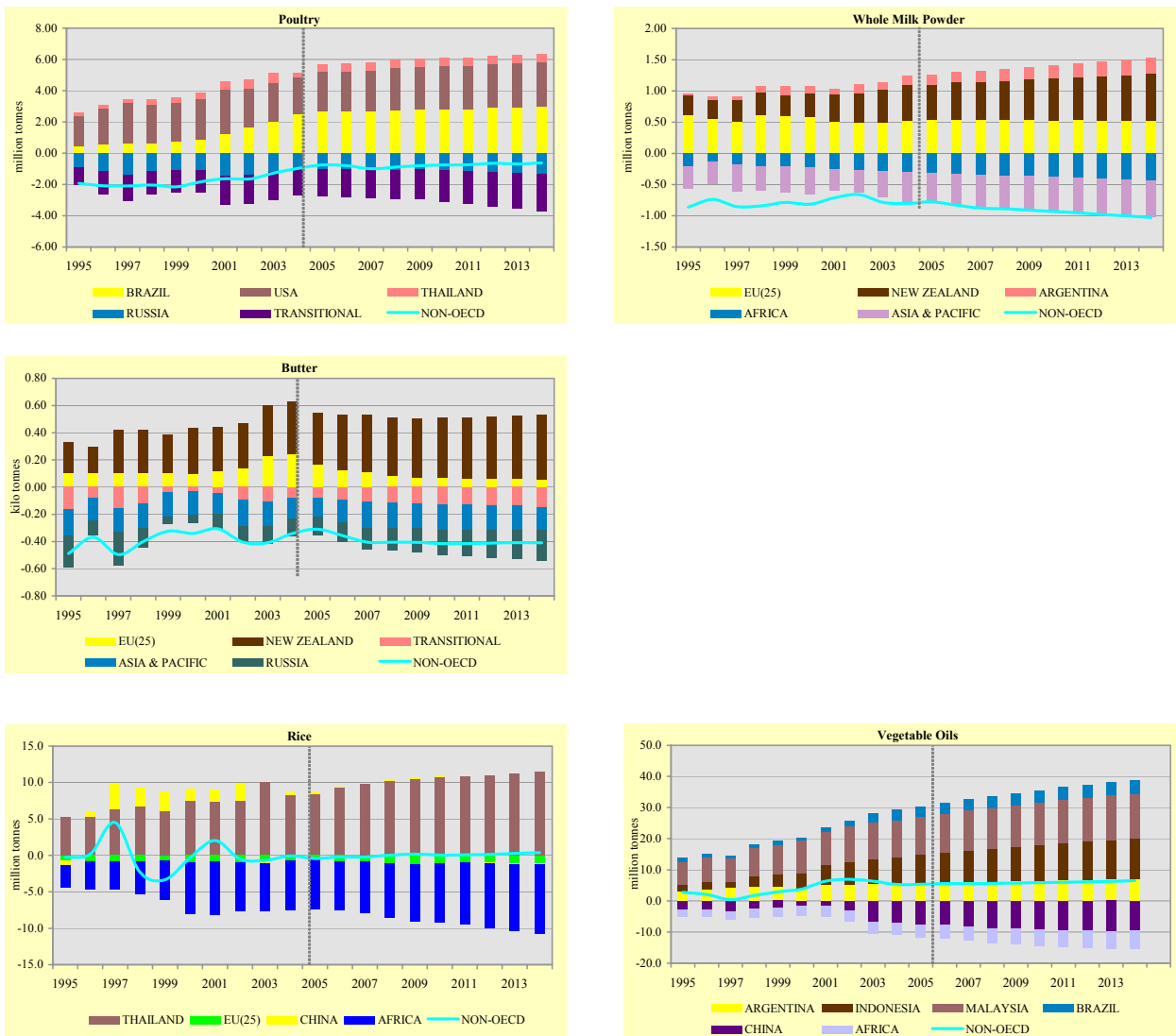
vegetable oils, followed by India which is projected to maintain imports roughly at current levels. South America, driven by Argentina and Brazil, features as a major exporting region of vegetable oils, but in terms of trade shares, the region is dwarfed by exports from the palm oil producers of Indonesia and Malaysia.

Brazil remains the largest world sugar exporter, with combined sales of both raw and white sugar projected to increase by nearly 44% over the ten years of the projection period. Despite expectations of continuing low world prices, moderately larger sugar exports are projected for Thailand, Cuba, South Africa and Australia as these countries seek to improve their efficiency and productivity. Lower exports are projected over the projection period for African, Caribbean and Pacific developing countries, despite the fact that they benefit from market access to the high priced EU and US markets. This development does not consider yet the potential impact of lower EU prices due to the reform of its sugar regime; proposals for which were still under discussion at the time of writing this report. Russia is expected to remain the world's largest sugar importer, but imports by the EU under the Everything But Arms (EBA) initiative are expected to expand also, by about 2 million tonnes by 2014.

**Figure 3. Selected net trade positions**



**Figure 3. Selected net trade positions (cont'd)**



Source: OECD and FAO Secretariats.

***Greater competition and continued productivity gains in agriculture mean lower prices***

On the whole, competition in global commodity markets is expected to intensify over the coming ten years, with growing supplies to world markets from lower cost, and sometimes non-traditional, exporting countries. At the same time, global productivity growth for many commodities is expected to maintain a similar momentum over the period as during the previous decade. Current yield differentials between OECD and non-OECD countries are large. While they are expected to remain high, projections nevertheless suggest that yield growth in the latter group of countries will be considerably faster, particularly for rice, wheat and oilseeds, as illustrated in Table 4. Such advances in productivity reduce marginal costs, enabling exporting countries, at given prices, to increase production at a rate that outpaces both population growth and expanding demand fuelled by rising incomes. It is this decline in marginal costs, coupled with an increase in the share of low cost producers in world trade, which explains the continued fall in real world market prices that is foreseen for most commodities over the medium term.

**Table 4. Yield projections (t/ha)**

	Average	2014	<i>annual growth (%)</i>	
	2002-04		1995-04	2005-14
<b>World</b>				
Wheat	2.7	3.049	1.16	1.04
Coarse Grains	3.1	3.4	2.00	0.90
Rice	2.7	3.0	0.60	0.93
Oilseeds	2.0	2.3	1.80	1.26
<b>OECD</b>				
Wheat	3.2	3.5	0.92	0.96
Coarse Grains	5.3	6.2	1.60	1.34
Rice	4.9	5.3	0.69	0.56
Oilseeds	2.4	2.7	0.84	1.02
<b>Non-OECD</b>				
Wheat	2.4	2.8	1.28	1.08
Coarse Grains	2.1	2.4	1.80	0.98
Rice	2.6	2.9	0.75	0.96
Oilseeds	1.8	2.1	2.47	1.49

Source: OECD and FAO Secretariats.

### ***But policies continue to matter***

Despite the above presented structural changes in world commodity markets, the influence of agricultural and trade policies should not be underplayed. These policies, and their reforms, continue to play an important role both in the case of particular country outcomes and in influencing world price and trade prospects. For instance, greater competition in the global wheat market, coupled with lower world prices expressed in euros, could see some recourse to the use of export subsidies again in the European Union. The EU sugar regime is under review and depending on what reforms are eventually adopted could make it less attractive for EBA and ACP sugar exporters. Likewise, the marketing loan program and payment provisions under the present US Farm Bill continue to impact on crop markets. The incidence of a bumper cereal crop and a recovery of sugar production in India could see the country once again dispose of its surpluses on the international market through the use of export subsidies. Domestic policy reform in the grain sectors of transition economies, especially Ukraine and Russia, could result in further inroads to OECD export shares. In addition, the slow growth in trade of processed food products since the mid-1990s has often been attributed to existing multilateral trade rules that favour trade in raw or bulk commodities at the expense of processed products. However, as discussed below, the relative importance of bulk commodities in global trade may well decline over the outlook period.

### **Trade is affected by changing diets**

More competitive markets, changes in the pattern of production, advances in technology and changes in domestic and trade policies play an important role in determining the structure of international trade. However, changes in the commodity markets that are covered in the Outlook are arguably, for an increasing part, demand driven.

Despite substantial differences in the trade and dietary profiles of OECD and non-OECD countries, there are nevertheless also certain similarities for particular food commodities. For instance,

among the four broad food commodity groups covered by the Outlook - cereals, edible oils, animal products and sugar - cereals once dominated international trade. Now, however, the share of cereals in total agricultural imports has fallen below 50% in non-OECD countries and below one-third in OECD countries. While the share of cereal imports has declined, both developed and developing countries are importing greater quantities of higher-value and processed agricultural goods, such as dairy and livestock products.

This development in the composition of trade is a reflection of income growth, relative price changes, urbanisation and shifts in consumer preferences, which have altered dietary patterns in both OECD and non-OECD countries. With rising incomes, consumers add more variety and more expensive and higher-value foods to their diets. These changes are reflected in both the projected volume and the composition of world trade in agricultural commodities.

Expenditures on foodstuffs and responses to income changes differ between developed and developing countries. In OECD countries, most consumers can readily afford the foods they prefer. When incomes rise, changes in diets and food purchases in these mature markets are therefore relatively small. In developing countries, on the other hand, rising incomes have an immediate and pronounced impact on diets, which evolve to include more protein and higher value food items. And these changes are then reflected both in bulk commodity trade as in trade in processed agricultural products. Declining real food prices, at existing income levels, will have similar effects.

**Table 5. Per capita consumption for selected commodities**

	Average	2014	<i>annual growth (%)</i> <sup>(1)</sup>	
	2002-04		1995-04	2005-14
<b>World</b>				
Wheat	81.6	82.4	-0.36	0.27
Coarse Grains	56.4	59.9	1.07	0.33
Rice	69.9	69.4	0.08	0.02
Meat	31.2	34.5	3.38	0.88
Vegetable Oils	13.1	16.4	3.62	1.73
<b>OECD</b>				
Wheat	107.3	112.4	0.52	0.58
Coarse Grains	114.5	131.6	3.30	0.70
Rice	19.6	19.0	0.42	-0.17
Meat	64.5	69.9	7.03	0.73
Vegetable Oils	21.6	26.1	1.62	1.56
<b>Non-OECD</b>				
Wheat	75.5	75.7	-0.37	0.22
Coarse Grains	42.4	43.8	-0.40	0.32
Rice	82.0	80.7	0.10	-0.06
Meat	23.2	26.5	1.64	1.18
Vegetable Oils	11.0	14.3	4.64	1.91

*Note:* (1) The least squares growth rate,  $r$  is estimated by fitting a linear regression trend line as follows:  
 $\ln(x_t) = a + r \cdot t$

Econometrics and models and Econometrics forecasts, Robert S. Pindyck.

*Source:* OECD and FAO Secretariats.

As a result of these changes, per capita meat consumption in non-OECD countries, for example, has more than doubled since the mid 1970s. The projections show that over the next decade consumers in developing countries will continue to increase the quantity of meat and vegetable oils in their diets, while that of rice will decline (Table 5). Per capita consumption of cereals in these countries is not expected to change, although total cereal utilisation will continue to rise owing to population growth and the greater use of coarse grains as feed.

In addition to rising incomes, rapid urbanisation has also contributed to changes in lifestyles and food preferences and thereby impacted on the structure of commodity trade. In recent years, these developments have been particularly noticeable in developing countries. As their numbers and purchasing power have grown, city dwellers have increased demand not only for more dietary diversity, but also for convenience products that require less time to prepare. Imports of high-value and processed food products have risen to meet this demand. According to United Nations estimates, the world's urban population is expected to increase by almost 25% by 2015 - a phenomenon affecting most developing countries in Africa and Asia. By that time, well over half of the world's population is expected to live in cities. Coupled with higher incomes, the distinct lifestyles of urban habitants is likely to contribute to the acceleration of the trend towards a growing share of high-value and processed foodstuffs in global trade.

### **The challenges presented by the global food system**

In addition to the demand factors mentioned above, the increasing concentration and globalisation of the food industry are also among the key drivers of shifting trade patterns of agricultural commodities. Globalisation, or the dynamic process of rapid economic integration, through reductions in trade and investment barriers and lower transport and transactions costs, is manifest in the emergence of multinational corporations. The food industry is no exception to this and a rapid rise is occurring in globally operating and more and more concentrated supermarket chains. But the increasingly integrated global trade environment also leads to convergence in dietary preferences and patterns across countries, and this, in turn, is stimulating the ongoing structural changes in food processing and retailing. Thus, to a large degree, multinational food companies are the cause *and* the consequence of the evolving global food system.

By their nature, these multinational food companies transcend national borders and give rise to greater interdependence of economies and larger trade flows. To manage and harmonise product flows along the food chain, they also are at the basis of vertically co-ordinated marketing systems. The purpose of these systems is to ensure that product and process requirements for food products are met at all stages of the supply chain, thereby reducing transactions costs. Thus, evolving globalised systems of food production and retailing are becoming an element of increasing importance with respect to the integration of developing countries into global food markets. Not without controversy, globalisation has brought about gains for those who have participated in the process, by increasing the returns on investment for producers and providing consumers with greater product variety at lower prices.

### ***Industry requirements must be met to participate in the global value chain***

To the extent that developments in the global food economy are determined by multinational companies, it is these firms that determine product sourcing and trade flows. For producers of farm produce, therefore, to become part of the global food value chain, it is imperative that they meet the requirements of these companies, which in turn reflect consumer preferences, civil society concerns as well as industry efforts to improve the efficiency of moving produce along the food chain. And this counts for producers in developed and developing countries alike. However, in particular for developing countries,



there is growing concern that even if further progress is made in reducing restrictive border measures in OECD countries (such as for instance under the EBA initiative of the European Union), market access to these countries is also hindered by the fact that producers in developing countries may not always be able to meet food company requirements.

Participation in the global food system, or the ability to access the global value chain, will require that farmers' production methods are not only efficient and competitive, but also such that produce meets required specifications. These specifications can relate to *product* attributes that reflect greater demands by modern consumers for food safety, product quality or year-round availability, for instance. But they can also translate in equally strict *process* attributes, e.g. with respect to the use or not of chemicals, genetically modified organisms (GMOs) or pesticides in the production of vegetal foodstuffs, whether animal welfare has been respected in the production of meat and dairy products or whether environmental requirements have been met.

Within this overall development, there is a role for markets where certain requirements are less strict and prices proportionally lower. Where food is available at standards that exceed the minimum legal requirements, consumers that have full information should be able to make the decision whether they wish to pay a lower price for items that meet these minimum requirements, or to pay a premium for food offered by producers and processors who choose to supply at a higher standard. Farmers who are unable or unwilling to meet the highest standards could compete efficiently in these markets where standards are less exacting.

In the context of the ongoing structural and organisational changes in the food economy, globally operating food processors and retailers increasingly take recourse to their own private product and process standards to ensure that produce has the attributes required by final consumers. Agents wishing to participate in the global value chain will thus be increasingly required to demonstrate that these standards are met. This can necessitate large-scale investments and adjustment, in particular for farmers in developing countries.

### ***Policies play a role in this***

The question of access to protected markets, not just in OECD countries but also in a number of developing countries, is one of the key issues in ongoing multilateral trade negotiations. While market access is not uniquely a developing country interest, for many of these countries there is more at stake, as freer trade in agricultural products is an element in their economic development, given the much larger share that agriculture represents in these countries' total GDP. Economic growth in developing countries stands to gain from greater access to markets in OECD countries, as well as from improved possibilities to export to other developing countries in the event that they, too, reduce border protection. But, as argued above, the removal of barriers to capital flows and the removal of trade and competition restrictions may not be sufficient to obtain that objective. In a developed economy, the market should be counted upon to provide the required incentives to those sectors that need to change. In a developing country context, concerted action may be useful to enable farmers to adjust to the requirements of modern food processors and retailers, so that small-scale agriculture in these countries can co-exist with globally operating multinational food companies and reap the benefits accruing to globalisation.

That numerous developed and developing countries have already successfully put in place a framework to reap these benefits is visible in the Outlook. For those other developing countries that can take advantage of the opportunities provided by the changing and increasingly globalising food trade system, this system has the potential to be an engine of development.

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Annex Table 1. - ECONOMIC ASSUMPTIONS

**I ECONOMIC ASSUMPTIONS**

Calendar year (a)		Average											
		1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>REAL GDP (b)</b>													
Australia	%	3.4	3.6	3.8	3.6	3.3	3.1	3.0	3.0	3.0	3.0	3.0	3.0
Canada	%	3.6	3.0	3.3	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
EU 15	%	1.9	1.8	1.9	2.5	2.6	2.3	2.1	2.0	2.2	2.2	2.2	2.2
Japan	%	1.1	4.0	2.1	2.3	1.3	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Korea	%	6.4	5.0	4.5	5.0	4.6	4.4	4.4	4.3	4.3	4.3	4.3	4.3
Mexico	%	2.4	4.2	3.9	4.2	3.8	3.8	3.9	4.0	3.9	3.9	3.9	3.9
New Zealand	%	3.8	4.8	2.1	2.6	3.3	3.1	3.2	3.0	3.1	3.1	3.1	3.1
Norway	%	1.9	3.2	3.2	2.9	2.4	2.5	2.4	2.5	2.5	2.5	2.5	2.5
Switzerland	%	1.2	1.9	1.9	2.0	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Turkey	%	1.8	8.0	5.0	5.0	4.9	4.7	4.5	4.4	4.3	4.3	4.3	4.3
United States	%	2.8	4.4	3.3	3.6	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2
OECD (c) (e)	%	2.3	3.3	2.8	3.1	2.9	2.7	2.6	2.5	2.6	2.6	2.6	2.6
Argentina	%	-1.8	8.2	3.3	3.4	3.3	3.4	3.3	3.3	3.2	3.2	3.2	3.2
Brazil	%	2.0	1.8	2.9	4.9	4.5	4.4	3.8	3.6	3.9	3.9	3.9	3.9
China	%	8.0	11.3	9.0	8.6	8.3	8.2	7.2	7.0	7.4	7.4	7.4	7.4
India	%	5.8	6.0	6.5	6.0	6.0	5.8	5.7	5.6	5.5	5.5	5.4	5.4
Russia	%	8.1	6.6	9.4	4.9	2.5	2.6	2.3	1.7	2.2	2.2	2.2	2.2
South Africa	%	2.7	2.7	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4
<b>CPI (b)</b>													
Australia	%	3.2	2.3	2.4	2.6	2.6	2.5	2.2	2.2	2.3	2.3	2.3	2.3
Canada	%	3.6	1.9	2.0	1.8	2.1	2.0	1.7	1.8	1.8	1.8	1.8	1.8
EU 15	%	2.0	2.1	2.0	1.7	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6
Japan	%	-0.6	-0.1	0.1	0.6	0.9	1.3	1.3	1.5	1.4	1.4	1.4	1.4
Korea	%	2.7	3.7	3.5	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Mexico	%	8.4	4.6	4.5	3.4	3.2	3.2	3.6	3.5	3.4	3.4	3.4	3.4
New Zealand	%	1.9	2.3	3.0	2.8	2.2	2.3	2.1	2.1	2.2	2.2	2.2	2.2
Norway	%	2.4	0.5	1.9	2.1	2.7	2.5	2.4	2.4	2.4	2.4	2.4	2.4
Switzerland	%	0.9	0.8	1.2	0.9	0.7	0.8	0.6	0.6	0.7	0.7	0.7	0.7
Turkey	%	58.8	25.3	11.1	10.3	7.1	6.8	5.0	5.8	3.8	4.9	4.9	4.9
United States	%	2.4	2.6	2.4	2.1	2.2	2.2	1.5	1.5	1.7	1.7	1.7	1.7
OECD (c,e)	%	3.0	2.4	2.2	1.9	1.9	2.0	1.7	1.7	1.8	1.8	1.8	1.8
Argentina	%	6.8	4.8	7.1	7.9	6.3	5.2	4.2	3.9	4.4	4.4	4.4	4.4
Brazil	%	9.7	7.8	6.7	5.3	5.5	4.9	4.7	4.6	4.8	4.8	4.8	4.8
China	%	-0.1	4.2	3.1	2.6	2.4	2.5	2.9	3.1	2.8	2.8	2.8	2.8
India	%	5.0	4.0	5.0	5.9	4.1	2.9	2.3	3.2	2.0	2.5	2.5	2.5
Russia	%	8.1	10.8	9.6	7.1	3.8	3.1	3.5	2.3	3.0	3.0	3.0	3.0
South Africa	%	2.7	5.7	5.6	4.7	4.7	5.0	5.1	5.0	5.3	5.1	5.1	5.1

For notes, see end of the table.

Source: OECD and FAO Secretariats.

Annex Table 1. - ECONOMIC ASSUMPTIONS (cont'd)

**I ECONOMIC ASSUMPTIONS (cont.d)**

Calendar year (a)		Average											
		1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>POPULATION</b>													
Australia	million	19.4	20.1	20.3	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.5	21.7
Canada	million	31.0	31.9	32.1	32.3	32.5	32.7	32.9	33.0	33.1	33.2	33.3	33.4
EU 25	million	453.3	455.8	456.6	457.3	457.9	458.5	459.1	459.6	460.0	460.4	460.7	460.9
Japan	million	127.2	127.6	127.6	127.6	127.6	127.4	127.2	127.0	126.6	126.3	125.9	125.5
Korea	million	47.3	48.2	48.5	48.7	48.9	49.1	49.3	49.5	49.6	49.8	49.9	50.0
Mexico	million	99.1	103.2	104.7	106.2	107.7	109.2	110.7	112.2	113.7	115.2	116.8	118.3
New Zealand	million	3.9	4.0	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.3	4.3	4.3
Norway	million	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.7
Switzerland	million	7.2	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Turkey	million	68.5	71.7	72.6	73.6	74.5	75.4	76.3	77.2	78.0	78.8	79.7	80.5
United States	million	285.5	294.1	296.6	299.1	301.5	303.8	306.2	308.5	310.8	313.1	315.3	317.6
OECD (c)	million	1147.0	1 168.7	1 175.1	1 181.4	1 187.5	1 193.3	1 198.9	1 204.4	1 209.6	1 214.7	1 219.7	1 224.5
Argentina	million	37.5	38.8	39.2	39.5	39.9	40.2	40.6	40.9	41.3	41.7	42.0	42.4
Brazil	million	172.3	178.4	180.4	182.5	184.5	186.5	188.5	190.5	192.4	194.4	196.3	198.2
China	million	1269.5	1 297.0	1 305.6	1 313.8	1 322.0	1 330.4	1 338.7	1 347.1	1 355.4	1 363.8	1 372.1	1 380.3
India	million	1031.9	1 079.5	1 094.6	1 109.4	1 124.1	1 138.5	1 152.6	1 166.5	1 180.2	1 193.5	1 206.4	1 219.2
Russia	million	145.7	144.3	143.8	143.2	142.6	142.1	141.5	140.8	140.2	139.6	138.9	138.3
South Africa	million	44.2	45.0	45.2	45.3	45.5	45.6	45.8	46.0	46.2	46.4	46.6	46.8
Other Africa	million	690.7	735.8	750.6	765.1	780.0	795.1	810.5	826.1	841.7	857.6	873.8	890.1
Other Asia	million	1054.9	1 106.6	1 124.1	1 141.7	1 159.1	1 176.3	1 193.4	1 210.3	1 227.1	1 243.8	1 260.5	1 277.2
Other Europe	million	87.7	86.4	85.9	85.5	85.1	84.7	84.3	83.9	83.4	83.0	82.6	82.2
Other Latin America	million	198.1	208.2	211.4	214.6	217.6	220.7	223.8	226.8	229.9	233.0	236.0	239.0
<b>EXCHANGE RATE</b>													
Australia	AUD/USD	1.72	1.36	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Canada	CAD/USD	1.50	1.30	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
European Union	EUR/USD	1.02	0.81	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Japan	JPY/USD	116.7	108.4	105.7	105.7	105.7	105.7	105.7	105.7	105.7	105.7	105.7	105.7
Korea	'000 KRW/USD	1.21	1.15	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Mexico	MXN/USD	9.75	11.30	11.43	11.43	11.43	11.43	11.43	11.43	11.43	11.43	11.43	11.43
New Zealand	NZD/USD	2.07	1.51	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Argentina	ARS/USD	1.83	2.94	3.13	3.24	3.31	3.36	3.39	3.39	3.40	3.40	3.41	3.41
Brazil	BRL/USD	2.40	2.99	3.13	3.27	3.38	3.49	3.59	3.72	3.84	3.97	4.09	4.23
China	CNY/USD	8.28	8.28	7.93	7.72	7.75	7.72	7.93	8.05	8.16	8.26	8.37	8.48
India	INR/USD	46.21	45.83	47.32	48.27	49.13	49.87	51.63	52.46	53.61	54.80	56.00	57.24
Russia	RUR/USD	28.8	29.1	28.4	28.0	28.7	29.4	30.5	31.1	31.9	32.8	33.7	34.6
South Africa	ZAR/USD	7.95	6.79	7.65	8.11	8.15	8.24	8.33	8.52	8.65	8.78	8.92	9.05

a) For OECD member countries, historical data for real GDP, population and exchange rate were obtained from the OECD Economic Outlook No. 76, December 2004, and for CPI from the OECD Main Economic Indicators, December 2004. For non-member economies, historical macroeconomic data were obtained from the World Bank, September 2004. Assumptions for the projection period draw on the recent medium term macroeconomic projections of the OECD Economics Department, projections of the World Bank and responses to a questionnaire sent to member country agricultural experts. Data for the European Union are for the euro area aggregates. b) Annual per cent change. For non-member economies the price index used is the private consumption expenditure deflator. c) Excludes Iceland. e) Annual weighted average real GDP and CPI growth rates in OECD countries are based on weights using 1995 GDP and purchasing power parities (PPPs).

est.: estimate.

Source: OECD and FAO Secretariats.

Annex Table 2. - **WORLD PRICES (a)**

**2 WORLD PRICES (a)**

		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>WHEAT</b>													
Price (b)	USD/t	133.7	151.9	157.4	163.7	162.9	161.8	162.2	162.8	163.3	162.9	162.3	161.6
<b>COARSE GRAINS</b>													
Price (c)	USD/t	98.8	101.3	109.9	117.2	118.6	118.8	119.1	120.1	120.6	120.9	120.6	120.6
<b>RICE</b>													
Price (d)	USD/t	205.4	256.4	273.7	275.4	277.8	283.3	289.3	297.2	305.5	312.2	317.9	321.8
<b>OILSEEDS</b>													
Price (e)	USD/t	234.3	234.6	228.5	235.5	236.6	242.5	246.3	251.3	253.7	257.3	260.4	264.3
<b>OILSEED MEALS</b>													
Price (f)	USD/t	180.7	151.1	145.8	151.0	150.4	152.2	154.8	158.3	159.5	161.5	163.4	166.0
<b>VEGETABLE OILS</b>													
Price (g)	USD/t	437.2	532.2	523.0	529.8	544.3	563.3	570.6	580.1	590.8	601.4	610.4	618.5
<b>SUGAR</b>													
Price, raw sugar (h)	USD/t	179.0	219.1	188.6	182.3	179.3	195.7	174.2	172.0	169.8	185.2	172.0	165.3
Price, refined sugar (i)	USD/t	225.4	251.9	222.2	215.6	212.5	229.3	207.2	205.0	202.8	218.3	205.0	198.4
<b>BEEF AND VEAL</b>													
Price, EU (j)	EUR/100 kg dw	243.4	241.6	240.1	241.6	246.0	247.8	249.7	253.3	255.5	255.0	256.4	257.3
Price, USA (k)	USD/100 kg dw	255.8	295.9	284.6	270.4	264.4	252.1	253.7	254.4	252.4	249.8	255.3	265.8
Price, Argentina (l)	ARS/100 kg dw	240.9	318.1	345.0	386.1	423.2	439.5	448.8	476.8	491.0	508.3	523.9	536.7
<b>PIG MEAT</b>													
Price, EU (m)	EUR/100 kg dw	128.6	123.1	125.9	133.0	135.7	132.0	128.9	129.7	132.3	131.7	133.9	135.0
Price, USA (n)	USD/100 kg dw	121.8	157.7	146.0	128.2	129.6	134.2	139.6	146.1	144.0	140.7	145.8	147.6
Price, Brazil (o)	BRL/100 kg dw	142.1	205.5	191.5	190.4	202.7	210.6	220.3	220.5	234.1	241.1	255.1	258.7
<b>POULTRY MEAT</b>													
Price, EU (p)	EUR/100 kg rtc	99.8	90.8	90.0	90.6	90.4	90.5	90.9	91.1	91.1	91.3	91.5	91.8
Price, USA (q)	USD/100 kg rtc	128.3	164.1	163.2	170.1	158.2	151.2	149.4	149.3	147.6	145.5	143.4	142.6
<b>SHEEP MEAT</b>													
Price, New Zealand (r)	NZD/100 kg dw	350.2	374.1	372.3	374.9	391.6	395.7	397.8	401.4	403.3	404.5	405.0	405.5
<b>BUTTER</b>													
Price (s)	USD/100 kg	135.2	186.7	186.4	182.8	176.4	180.4	181.9	182.5	183.0	184.3	185.0	186.2
<b>CHEESE</b>													
Price (t)	USD/100 kg	188.2	270.6	247.9	237.9	229.4	221.6	222.6	224.1	225.4	226.3	227.4	228.7
<b>SKIM MILK POWDER</b>													
Price (u)	USD/100 kg	165.0	202.6	199.5	197.6	192.4	195.5	197.5	198.3	198.8	199.5	200.0	200.2
<b>WHOLE MILK POWDER</b>													
Price (v)	USD/100 kg	169.1	211.0	207.2	200.9	193.5	197.3	199.9	201.6	202.7	203.4	204.2	204.5
<b>WHEY POWDER</b>													
Wholesale price, USA (w)	USD/100 kg	44.0	40.3	39.4	39.8	40.5	41.9	42.7	42.8	42.2	41.7	42.3	42.3
<b>CASEIN</b>													
Price (x)	USD/100 kg	424.1	495.4	443.0	437.7	466.8	473.2	480.5	485.0	487.5	489.3	491.3	491.2

a) This table is a compilation of price information presented in the detailed commodity tables further in this annex. Prices for crops are on marketing year basis and those for meat and dairy products on calendar year basis (e.g. 04/05 is calendar year 2004). b) No.2 hard red winter wheat, ordinary protein, USA f.o.b. Gulf Ports (June/May). c) No.2 yellow corn, US f.o.b. Gulf Ports (September/August). d) Milled, 100%, grade b, Nominal Price Quote, NPQ, f.o.b. Bangkok (August/July). e) Weighted average oilseed price, European port. f) Weighted average meal price, European port. g) Weighted average price of oilseed oils and palm oil, European port. h) Raw sugar world price, New York No 11, f.o.b. stowed Caribbean port (including Brazil), bulk spot price. i) Refined sugar price, London No 5, f.o.b. Europe, spot. j) Producer price. k) Choice steers, 1100-1300 lb lw, Nebraska - lw to dw conversion factor 0.63. l) Buenos Aires wholesale price linier, young bulls. m) Pig producer price. n) Barrows and gilts, No. 1-3, 230-250 lb lw, Iowa/South Minnesota - lw to dw conversion factor 0.74. o) Producer price. p) Weighted average farm gate live chickens, first choice, lw to rtc conversion of 0.75, EU15 starting in 1995. q) Wholesale weighted average broiler price 12 cities. r) Lamb schedule price, all grade average. s) f.o.b. export price, butter, 82% butterfat, northern Europe. t) f.o.b. export price, cheddar cheese, 40 lb blocks, Northern Europe. u) f.o.b. export price, non-fat dry milk, extra grade, Northern Europe. v) F.o.b. export price, WMP 26% butterfat, Northern Europe. w) Edible dry whey, Wisconsin, plant. x) Export price, New Zealand.

est.: estimate.

Source: OECD and FAO Secretariats.

Annex Table 3. - MAIN POLICY ASSUMPTIONS FOR CEREAL MARKETS

**3 MAIN POLICY ASSUMPTIONS FOR CEREAL MARKETS**

Crop year (a)		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>ARGENTINA</b>													
Crops export tax	%	8	20	20	20	20	20	20	20	20	20	20	20
Rice export tax	%	4	10	10	10	10	10	10	10	10	10	10	10
<b>CANADA</b>													
Tariff-quotas (b)													
wheat	kt	346	350	350	350	350	350	350	350	350	350	350	350
in-quota tariff	%	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
out-of-quota tariff	%	63	62	62	62	62	62	62	62	62	62	62	62
barley	kt	393	399	399	399	399	399	399	399	399	399	399	399
in-quota tariff	%	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
out-of-quota tariff	%	58	58	58	58	58	58	58	58	58	58	58	58
<b>EUROPEAN UNION (c, d)</b>													
Cereal support price (e)	EUR/t	107	101	101	101	101	101	101	101	101	101	101	101
Cereal compensation (f, g)	EUR/ha	284	290	0	0	0	0	0	0	0	0	0	0
Rice support price (h)	EUR/t	298	150	150	150	150	150	150	150	150	150	150	150
Compulsory set-aside rate	%	10	5	10	10	10	10	10	10	10	10	10	10
Set-aside payment (g)	EUR/ha	291	290	0	0	0	0	0	0	0	0	0	0
Direct payment for rice	EUR/ha	329	1 120	475	475	475	475	475	475	475	475	475	475
Wheat tariff-quota (b)													
EU15	kt	946	3 332	3 332	3 332	3 332	3 332	3 332	3 332	3 332	3 332	3 332	3 332
EU10	kt	..	448	448	448	448	448	448	448	448	448	448	448
Coarse grain tariff-quota (b)													
EU15	kt	2 782	3 122	3 122	3 122	3 122	3 122	3 122	3 122	3 122	3 122	3 122	3 122
EU10	kt	..	347	347	347	347	347	347	347	347	347	347	347
Subsidised export limits (b)													
wheat	mt	15.8	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
EU15	mt	14.7	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
EU10	mt	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
coarse grains (i)	mt	10.9	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
EU15	mt	10.6	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
EU10	mt	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
<b>JAPAN</b>													
Rice land diversion program	'000ha	985	1 020	1 020	1 020	1 020	1 020	1 020	1 020	1 020	1 020	1 020	1 020
Wheat support price (j)	'000 JPY/t	146	138	138	138	138	138	138	138	138	138	138	138
Barley support price (k)	'000 JPY/t	125	119	119	119	119	119	119	119	119	119	119	119
Wheat tariff-quota	kt	5 733	5 740	5 740	5 740	5 740	5 740	5 740	5 740	5 740	5 740	5 740	5 740
in-quota tariff	%	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
out-of-quota tariff	%	502	488	488	488	488	488	488	488	488	488	488	488
Barley tariff-quota	kt	1 367	1 369	1 369	1 369	1 369	1 369	1 369	1 369	1 369	1 369	1 369	1 369
in-quota tariff	%	0	0	0	0	0	0	0	0	0	0	0	0
out-of-quota tariff	%	350	352	352	352	352	352	352	352	352	352	352	352
Rice tariff-quota (l)	kt	675	682	682	682	682	682	682	682	682	682	682	682
in-quota tariff	%	5	5	5	5	5	5	5	5	5	5	5	5
out-of-quota tariff	%	1 623	1 689	1 689	1 689	1 689	1 689	1 689	1 689	1 689	1 689	1 689	1 689
<b>KOREA</b>													
Wheat tariff	%	8.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Maize tariff-quota	kt	6 102	6 102	6 102	6 102	6 102	6 102	6 102	6 102	6 102	6 102	6 102	6 102
in-quota tariff	%	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
out-of-quota tariff	%	417	404	404	404	404	404	404	404	404	404	404	404
Barley tariff-quota	kt	50	54	54	54	54	54	54	54	54	54	54	54
in-quota tariff	%	23	23	23	23	23	23	23	23	23	23	23	23
out-of-quota tariff	%	372	359	359	359	359	359	359	359	359	359	359	359
Rice quota (l)	kt	154	205	205	205	205	205	205	205	205	205	205	205
in-quota tariff	%	5	5	5	5	5	5	5	5	5	5	5	5

For notes, see end of the table.

Source: OECD and FAO Secretariats.

Annex Table 3. - MAIN POLICY ASSUMPTIONS FOR CEREAL MARKETS (cont'd)

**3 MAIN POLICY ASSUMPTIONS FOR CEREAL MARKETS (cont.d)**

Crop year (a)		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>MERCOSUR</b>													
Wheat tariff	%	12	12	10	10	10	10	10	10	10	10	10	10
Coarse grain tariff	%	8	8	8	8	8	8	8	8	8	8	8	8
Rice tariff	%	12	12	10	10	10	10	10	10	10	10	10	10
<b>MEXICO</b>													
Cereal income payment (m)	MXN/ha	819	946	989	1 023	1 056	1 090	1 129	1 168	1 208	1 249	1 292	1 336
Wheat NAFTA tariff	%	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fidelist social program	MXN mn	1 080	0	0	0	0	0	0	0	0	0	0	0
Tortilla consumption subsidy	MXN mn	84	0	0	0	0	0	0	0	0	0	0	0
Maize tariff-quota	kt	2 501	2 501	2 501	2 501	2 501	2 501	2 501	2 501	2 501	2 501	2 501	2 501
in-quota tariff	%	50	50	50	50	50	50	50	50	50	50	50	50
out-of-quota tariff	%	200	194	194	194	194	194	194	194	194	194	194	194
Barley tariff-quota	kt	5	5	5	5	5	5	5	5	5	5	5	5
in-quota tariff	%	50	50	50	50	50	50	50	50	50	50	50	50
out-of-quota tariff	%	119	115	115	115	115	115	115	115	115	115	115	115
<b>UNITED STATES</b>													
Wheat loan rate	USD/t	98.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0
Maize loan rate	USD/t	75.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
Prod. flex. contract payment													
wheat	USD/t	19.3	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
maize	USD/t	11.7	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
CRP areas (n)	mha	5.8	6.9	6.7	7.1	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
wheat	mha	2.7	3.6	3.4	3.6	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
coarse grains	mha	3.0	3.3	3.3	3.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Subsidised export limits (b)													
wheat	mt	14.7	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
coarse grains	mt	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Wheat EEP payment (o)	USD/t	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>CHINA</b>													
Wheat support price	CNY/t	397	0	0	0	0	0	0	0	0	0	0	0
Coarse grains support price	CNY/t	341	0	0	0	0	0	0	0	0	0	0	0
Rice support price	CNY/t	1 301	0	0	0	0	0	0	0	0	0	0	0
Wheat tariff-quota	kt	..	9 636	9 636	9 636	9 636	9 636	9 636	9 636	9 636	9 636	9 636	9 636
in-quota tariff	%	0.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
out-of-quota tariff	%	62.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Coarse grains tariff	%	8	2	2	2	2	2	2	2	2	2	2	2
Maize tariff-quota	kt	3 510	7 200	7 200	7 200	7 200	7 200	7 200	7 200	7 200	7 200	7 200	7 200
in-quota tariff	%	1.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
out-of-quota tariff	%	46.1	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
Rice tariff-quota	%	2 394	5 320	5 320	5 320	5 320	5 320	5 320	5 320	5 320	5 320	5 320	5 320
in-quota tariff	%	0.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
out-of-quota tariff	%	53.1	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
<b>INDIA</b>													
Input subsidy rate coarse grains (p)	INR/t	1 598	1 427	1 427	1 427	1 427	1 427	1 427	1 427	1 427	1 427	1 427	1 427
Input subsidy rate rice (p)	INR/t	741	732	732	732	732	732	732	732	732	732	732	732
Input subsidy rate wheat (p)	INR/t	1 842	2 017	2 017	2 017	2 017	2 017	2 017	2 017	2 017	2 017	2 017	2 017
Minimum support price													
maize	INR/t	4 630	4 850	4 850	4 850	4 850	4 850	4 850	4 850	4 850	4 850	4 850	4 850
rice	INR/t	4 630	5 500	5 500	5 500	5 500	5 500	5 500	5 500	5 500	5 500	5 500	5 500
wheat	INR/t	5 960	6 200	6 200	6 200	6 200	6 200	6 200	6 200	6 200	6 200	6 200	6 200
Rice Export subsidy	INR/t	1 969	3 132	3 132	3 132	3 132	3 132	3 132	3 132	3 132	3 132	3 132	3 132
Wheat Export subsidy	INR/t	1 199	1 940	1 940	1 940	1 940	1 940	1 940	1 940	1 940	1 940	1 940	1 940
Wheat tariff	%	88	88	88	88	88	88	88	88	88	88	88	88
Maize tariff	%	50	50	50	50	50	50	50	50	50	50	50	50
Rice tariff	%	30	30	30	30	30	30	30	30	30	30	30	30
Barley tariff	%	100	100	100	100	100	100	100	100	100	100	100	100

a) Beginning crop marketing year - see Glossary of Terms for definitions. b) Year beginning 1 July. c) Prices and payments in market Euro - see Glossary of Terms. d) EU farmers also benefit from the Single Farm Payment (SFP) Scheme, which provides flat-rate payments independent from current production decisions and market developments. The total amount spent under the SFP scheme, before modulation, is assumed to increase from 26.9 billion Euro in 2005 to 28.4 billion Euro in 2008 for the total of the 15 former member States. The final number is equivalent to 233 Euro per hectare of eligible farm land on average. For the accession countries, payments are phased in with the assumption of maximum top-ups from national budgets. Due to modulation, between 2.7% and 4.6% of the total SFP will go to rural development spending rather than directly to the farmers. e) Common intervention price for soft wheat, barley, maize and sorghum.

f) Compensatory area payments. g) Actual payments made per hectare based on program yields. h) Subject to a purchase limit of 75 000 tonnes per year. i) The export volume excludes 0.4mt of exported potato starch. The original limit on subsidised exports is 10.8 mt. j) Government purchase price, domestic wheat. k) Government purchase price, barley, 2nd grade, 1st class. l) Husked rice basis. m) Applies to producers of wheat, maize and sorghum. n) Includes wheat, barley, maize, oats and sorghum. o) Average per tonne of total exports. p) Indian input subsidies consist of those for electricity, fertiliser and irrigation.

Note : The source for tariffs and Tariff Rate Quotas is AMAD (Agricultural market access database). The tariff and TRQ data are based on Most Favoured Nation rates scheduled with the WTO and exclude those under preferential or regional agreements, which may be substantially different. Tariffs are simple averages of several product lines. Specific rates are converted to ad valorem rates using world prices in the Outlook. Import quotas are based on global commitments scheduled in the WTO rather than those allocated to preferential partners under regional or other agreements. For Mexico, the NAFTA in-quota tariff on maize and barley is zero, while the tariff-rate quota becomes unlimited in 2003 for barley and 2008 for maize.

est.: estimate.

Source: OECD and FAO Secretariats.

Annex Table 4. - WORLD CEREAL PROJECTIONS

**4 WORLD CEREAL PROJECTIONS**

Crop year (a)		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>WHEAT</b>													
<b>OECD (b)</b>													
Production	mt	241.9	263.9	257.9	262.3	265.8	269.0	270.2	273.5	275.6	278.2	280.1	281.8
Consumption	mt	194.0	199.5	199.1	200.8	202.6	204.9	206.6	208.3	209.7	211.3	212.9	214.5
feed use	mt	67.8	70.9	69.9	70.5	70.9	72.2	72.7	73.2	73.6	74.3	75.1	75.9
Closing stocks	mt	56.1	53.4	53.8	55.4	57.4	58.9	58.9	59.2	59.6	60.2	60.9	61.6
<b>Non-OECD</b>													
Production	mt	336.2	357.2	356.8	358.9	367.7	374.1	379.2	384.2	389.6	395.1	400.7	406.3
Consumption	mt	401.1	405.7	408.2	408.7	415.0	423.5	430.3	436.9	443.2	449.3	455.3	461.3
feed use	mt	40.1	36.7	35.9	36.1	36.8	37.8	38.8	40.0	41.0	42.1	43.2	44.4
Net trade (d)	mt	-50.8	-47.7	-47.8	-49.3	-50.6	-52.0	-53.0	-54.3	-55.0	-55.7	-55.9	-56.0
Closing stocks	mt	167.6	116.9	113.3	112.8	116.0	118.6	120.5	122.2	123.6	125.1	126.4	127.4
<b>WORLD (e)</b>													
Production	mt	578.1	621.1	614.7	621.2	633.4	643.1	649.3	657.7	665.2	673.4	680.8	688.1
Consumption	mt	595.2	605.2	607.3	609.5	617.6	628.4	636.9	645.2	652.9	660.6	668.2	675.8
feed use	mt	107.9	107.6	105.7	106.6	107.6	110.0	111.5	113.1	114.7	116.4	118.4	120.3
Closing stocks	mt	223.7	170.3	167.1	168.2	173.5	177.5	179.4	181.4	183.1	185.3	187.3	189.1
Price (e)	USD/t	133.7	151.9	157.4	163.7	162.9	161.8	162.2	162.8	163.3	162.9	162.3	161.6
<b>COARSE GRAINS</b>													
<b>OECD (b)</b>													
Production	mt	471.6	542.7	508.1	516.2	522.8	527.7	532.3	538.8	544.7	550.0	554.8	559.2
Consumption	mt	453.6	485.9	488.2	489.3	494.1	499.7	503.9	507.6	510.9	514.1	517.4	520.7
feed use	mt	332.0	345.9	341.0	340.6	342.9	346.1	349.0	351.5	353.8	355.9	358.1	360.5
Closing stocks	mt	91.4	110.9	106.2	103.5	102.5	102.2	100.7	99.3	98.0	96.7	95.6	94.0
<b>Non-OECD</b>													
Production	mt	422.3	460.3	458.7	468.2	481.2	493.3	503.4	512.3	520.7	530.3	539.9	549.4
Consumption	mt	461.0	494.6	498.7	505.8	515.6	525.6	537.1	548.7	560.0	571.0	582.0	593.1
feed use	mt	262.4	283.5	286.6	292.6	299.2	305.5	313.6	321.9	330.0	337.6	345.2	352.9
Net trade (d)	mt	-22.8	-26.4	-28.9	-34.0	-34.1	-32.6	-34.3	-36.8	-39.5	-41.4	-42.8	-44.5
Closing stocks	mt	122.9	75.8	64.6	61.0	60.7	61.0	61.6	62.0	62.1	62.8	63.6	64.4
<b>WORLD (e)</b>													
Production	mt	893.9	1002.9	966.8	984.5	1004.0	1021.0	1035.7	1051.0	1065.4	1080.3	1094.7	1108.6
Consumption	mt	914.6	980.4	987.0	995.1	1009.7	1025.3	1041.0	1056.3	1070.9	1085.1	1099.4	1113.8
feed use	mt	594.4	629.3	627.6	633.2	642.0	651.6	662.6	673.4	683.7	693.5	703.3	713.3
Closing stocks	mt	214.3	186.6	170.8	164.5	163.2	163.2	162.3	161.3	160.1	159.6	159.2	158.4
Price (f)	USD/t	98.8	101.3	109.9	117.2	118.6	118.8	119.1	120.1	120.6	120.9	120.6	120.6
<b>RICE</b>													
<b>OECD (b)</b>													
Production	mt	23.2	23.7	23.0	23.1	23.1	23.1	23.1	23.2	23.3	23.3	23.4	23.4
Consumption	mt	23.2	22.5	22.7	22.8	22.9	23.0	23.1	23.1	23.2	23.2	23.3	23.4
Closing stocks	mt	7.6	7.3	7.2	7.1	7.0	7.1	7.2	7.2	7.2	7.3	7.5	7.6
<b>Non-OECD</b>													
Production	mt	376.7	384.4	398.4	409.5	413.0	416.4	421.0	425.9	430.0	434.2	438.6	442.7
Consumption	mt	388.7	399.5	401.3	407.5	413.1	417.4	421.2	425.9	430.2	434.4	438.7	442.6
Net trade (d)	mt	-1.4	-0.9	-1.3	-1.1	-1.1	-0.9	-0.7	-0.9	-0.9	-0.8	-0.7	-0.6
Closing stocks	mt	126.0	70.2	68.5	71.6	72.6	72.5	73.0	73.9	74.5	75.1	75.7	76.3
<b>WORLD (e)</b>													
Production	mt	399.9	408.1	421.4	432.5	436.1	439.5	444.1	449.2	453.3	457.6	461.9	466.1
Consumption	mt	411.9	422.1	424.0	430.3	436.0	440.4	444.3	449.0	453.4	457.7	462.0	466.0
Closing stocks	mt	133.7	77.5	75.7	78.8	79.7	79.6	80.2	81.1	81.7	82.4	83.2	84.0
Price (g)	USD/t	205.4	256.4	273.7	275.4	277.8	283.3	289.3	297.2	305.5	312.2	317.9	321.8

a) Beginning crop marketing year - see Glossary of Terms for definitions. b) Excludes Iceland but includes Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia. c) Source of historic data is USDA. d) Non OECD net exports (imports) equal OECD net imports (exports). e) No.2 hard red winter wheat, ordinary protein, USA f.o.b. Gulf Ports (June/May). f) No.2 yellow corn, US f.o.b. Gulf Ports (September/August). g) Milled, 100%, grade b, Nominal Price Quote, NPQ, f.o.b. Bangkok (August/July)

est.: estimate.

Source: OECD and FAO Secretariats.



## Annex Table 5. - MAIN POLICY ASSUMPTIONS FOR OILSEED MARKETS

### 5 MAIN POLICY ASSUMPTIONS FOR OILSEED MARKETS

Crop year (a)		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>ARGENTINA</b>													
Oilseed export tax	%	12.2	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Oilseed meal export tax	%	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Oilseed oil export tax	%	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
<b>AUSTRALIA</b>													
Tariffs													
soybean oil	%	9.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
rapeseed oil	%	9.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
<b>CANADA</b>													
Tariffs													
rapeseed oil	%	8.0	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
<b>EUROPEAN UNION (c, d)</b>													
Oilseed compensation (e, f)	EUR/ha	338	290	0	0	0	0	0	0	0	0	0	0
Compulsory set-aside rate	%	12.0	5	10	10	10	10	10	10	10	10	10	10
Set-aside payment (f)	EUR/ha	354.9	290	0	0	0	0	0	0	0	0	0	0
Tariffs													
soybean oil	%	7.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
rapeseed oil	%	7.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
<b>JAPAN</b>													
Deficiency payments													
soybeans	bn. JPY	..	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2
Tariffs													
soybean oil	%	13.7	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
rapeseed oil	%	33.3	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
<b>KOREA</b>													
Soybean tariff-quota	kt	1 238	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032
in-quota tariff	%	6	5	5	5	5	5	5	5	5	5	5	5
out-of-quota tariff	%	607	487	487	487	487	487	487	487	487	487	487	487
Soybean (for food) mark up	'000 KRW/t	199	137	131	131	126	124	120	117	113	110	107	104
<b>MEXICO</b>													
Soybeans income payment (g)	MXN/ha	944	946	989	1 023	1 056	1 090	1 129	1 168	1 208	1 249	1 292	1 336
Tariffs													
soybeans	%	41.1	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
soybean meal	%	34.3	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
soybean oil	%	56.1	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
<b>UNITED STATES</b>													
Soybeans loan rate	USD/t	228.1	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7
CRP area													
soybeans	mha	2.3	2.1	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Tariffs													
rapeseed	%	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
soybean meal	%	2.8	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
rapeseed meal	%	1.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
soybean oil	%	15.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
rapeseed oil	%	3.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Subsidised export limits (b)													
oilseed oils	kt	223.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0
<b>CHINA</b>													
Soybeans support price	CNY/t	749.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tariffs (b)													
soybeans	%	59.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
soybean meal	%	14.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
soybean oil in-quota tariff	%	..	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Vegetable oil tariff-quota	kt	3 438.1	6 944.6	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1
<b>INDIA</b>													
Input subsidy rate, oilseeds (h)	INR/t	4 026	3 841	3 841	3 841	3 841	3 841	3 841	3 841	3 841	3 841	3 841	3 841
Soybean tariff	%	120	100	100	100	100	100	100	100	100	100	100	100
Rapeseed tariff	%	120	100	100	100	100	100	100	100	100	100	100	100
Sunflower tariff	%	120	100	100	100	100	100	100	100	100	100	100	100
Oilseed tariff	%	120	100	100	100	100	100	100	100	100	100	100	100
Soybean meal tariff	%	150	125	125	125	125	125	125	125	125	125	125	125
Rapeseed meal tariff	%	120	100	100	100	100	100	100	100	100	100	100	100
Sunflower meal tariff	%	120	100	100	100	100	100	100	100	100	100	100	100
Soybean oil tariff	%	54	45	45	45	45	45	45	45	45	45	45	45
Rapeseed oil tariff	%	54	45	45	45	45	45	45	45	45	45	45	45
Sunflower oil tariff	%	360	300	300	300	300	300	300	300	300	300	300	300
Palm oil tariff	%	360	300	300	300	300	300	300	300	300	300	300	300
Vegetables oil tariff	%	238	198	198	198	198	198	198	198	198	198	198	198

a) Beginning crop marketing year - see Glossary of Terms for definitions. b) Calendar year, except for China and subsidised export limit in USA, beginning 1 July. c) Prices and payments in market Euro - see Glossary of Terms. d) EU farmers also benefit from the Single Farm Payment (SFP) Scheme, which provides flat-rate payments independent from current production decisions and market developments. The total amount spent under the SFP scheme, before modulation, is assumed to increase from 26.9 billion Euro in 2005 to 28.4 billion Euro in 2008 for the total of the 15 former member States. The final number is equivalent to 233 Euro per hectare of eligible farm land on average. For the accession countries, payments are phased in with the assumption of maximum top-ups from national budgets. Due to modulation, between 2.7% and 4.6% of the total SFP will go to rural development spending rather than directly to the farmers. e) Compensatory area payments, before penalties.

f) Payments made per hectare based on regional yields. g) Weighted average of autumn/winter and spring/summer. h) Indian input subsidies consist of those for electricity, fertiliser and irrigation.

Note: The source for tariffs and Tariff Rate Quotas is AMAD (Agricultural market access database). The tariff and TRQ data are based on Most Favoured Nation rates scheduled with the WTO and exclude those under preferential or regional agreements, which may be substantially different. Tariffs are simple averages of several product lines. Specific rates are converted to ad valorem rates using world prices in the Outlook. Import quotas are based on global commitments scheduled in the WTO rather than those allocated to preferential partners under regional or other agreements. For Mexico, the NAFTA tariffs on soybeans, oil meals and soybean oil are zero after 2003.

est.: estimate.

Annex Table 6. - WORLD OILSEED PROJECTIONS

**6** WORLD OILSEED PROJECTIONS

Marketing year (a)		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>OILSEEDS</b>													
<b>OECD (b)</b>													
Production	mt	104.9	119.5	111.4	111.5	115.0	116.6	119.0	120.4	122.3	123.7	125.7	127.6
Consumption	mt	107.9	110.3	113.3	115.2	117.7	119.1	120.9	122.6	124.5	126.3	128.0	129.6
crush	mt	96.9	99.0	101.5	103.5	105.8	107.1	108.9	110.5	112.3	114.0	115.6	117.1
Closing stocks	mt	14.9	22.1	22.5	19.6	17.8	16.6	16.3	16.1	16.3	16.5	16.8	17.0
<b>Non-OECD</b>													
Production	mt	132.7	163.7	169.1	170.8	176.3	181.4	186.8	192.6	198.4	204.0	209.6	214.9
Consumption	mt	133.3	159.9	166.3	170.4	175.2	180.0	185.0	190.2	195.6	201.0	206.7	212.3
crush	mt	112.1	136.4	142.2	146.0	150.4	155.0	159.7	164.6	169.7	174.8	180.1	185.5
Net trade (c)	mt	-1.1	1.6	2.3	0.8	0.8	1.2	1.6	2.1	2.4	2.7	2.7	2.3
Closing stocks	mt	8.1	10.8	11.2	10.8	11.1	11.3	11.5	11.7	12.1	12.3	12.5	12.7
<b>WORLD (d)</b>													
Production	mt	237.7	283.2	280.5	282.3	291.3	298.1	305.8	313.0	320.7	327.7	335.2	342.4
Consumption	mt	241.2	270.2	279.6	285.7	292.8	299.1	305.9	312.8	320.1	327.3	334.7	342.0
crush	mt	209.1	235.3	243.7	249.4	256.1	262.1	268.6	275.1	282.0	288.8	295.7	302.6
Closing stocks	mt	23.0	32.8	33.7	30.4	28.9	27.8	27.7	27.9	28.4	28.8	29.3	29.7
Price (e)	USD/t	234.3	234.6	228.5	235.5	236.6	242.5	246.3	251.3	253.7	257.3	260.4	264.3
<b>OILSEED MEALS</b>													
<b>OECD (b)</b>													
Production	mt	70.8	71.2	73.2	74.6	76.3	77.3	78.6	79.7	81.0	82.2	83.3	84.4
Consumption	mt	90.9	97.5	100.7	101.9	103.6	105.3	107.0	108.6	110.2	111.8	113.6	115.2
Closing stocks	mt	2.8	2.9	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	2.9	2.9
<b>Non-OECD</b>													
Production	mt	80.5	98.7	103.2	106.2	109.6	113.0	116.6	120.3	124.2	128.0	132.0	136.1
Consumption	mt	60.3	71.6	75.9	79.0	82.1	84.9	88.1	91.4	94.8	98.3	101.7	105.2
Net trade (c)	mt	20.1	26.4	27.2	27.2	27.3	28.1	28.5	28.9	29.3	29.7	30.3	30.8
Closing stocks	mt	3.0	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.5	4.5
<b>WORLD (d)</b>													
Production	mt	151.3	169.9	176.4	180.8	185.9	190.3	195.2	200.0	205.1	210.2	215.4	220.5
Consumption	mt	151.2	169.1	176.6	180.9	185.7	190.3	195.1	199.9	205.0	210.1	215.3	220.4
Closing stocks	mt	5.8	6.9	6.8	6.7	6.8	6.9	7.0	7.0	7.1	7.2	7.3	7.4
Price (f)	USD/t	180.7	151.1	145.8	151.0	150.4	152.2	154.8	158.3	159.5	161.5	163.4	166.0
<b>VEGETABLE OILS</b>													
<b>OECD (b)</b>													
Production	mt	23.1	23.4	23.9	24.4	25.0	25.3	25.7	26.1	26.6	27.0	27.5	27.9
Consumption	mt	25.6	27.4	28.1	28.7	29.2	29.6	30.2	30.7	31.3	31.8	32.4	33.0
Closing stocks	mt	2.2	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1
<b>Non-OECD</b>													
Production	mt	52.2	62.5	65.0	66.9	69.0	71.2	73.4	75.6	77.9	80.1	82.4	84.6
Consumption	mt	47.2	57.5	60.0	61.7	63.7	65.8	67.8	70.0	72.1	74.2	76.3	78.4
Net trade (c)	mt	5.0	5.0	5.0	5.2	5.2	5.3	5.4	5.5	5.6	5.8	5.9	6.1
Closing stocks	mt	4.7	4.5	4.5	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3
<b>WORLD (d)</b>													
Production	mt	75.3	85.9	88.9	91.3	94.0	96.5	99.1	101.8	104.5	107.1	109.8	112.5
of which palm oil	mt	25.8	30.8	32.0	33.2	34.4	35.6	36.7	37.8	38.9	40.0	41.0	42.1
Consumption	mt	72.8	84.8	88.0	90.4	92.9	95.5	98.0	100.7	103.4	106.0	108.7	111.4
Closing stocks	mt	6.8	6.4	6.3	6.3	6.4	6.6	6.8	6.9	7.0	7.1	7.3	7.4
Oil price (g)	USD/t	437.2	532.2	523.0	529.8	544.3	563.3	570.6	580.1	590.8	601.4	610.4	618.5

a) Beginning crop marketing year - see Glossary of Terms for definitions. b) Excludes Iceland but includes Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia. c) Non-OECD net exports (imports) equal OECD net imports (exports). d) Source of historic data is USDA. e) Weighted average oilseed price, European port. f) Weighted average meal price, European port. g) Weighted average price of oilseed oils and palm oil, European port.  
est.: estimate.

Source: OECD and FAO Secretariats.

Annex Table 7. – MAIN POLICY ASSUMPTIONS FOR MEAT MARKETS

7 MAIN POLICY ASSUMPTIONS FOR MEAT MARKETS

		Average											
		1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>ARGENTINA</b>													
Beef export tax	%	2	5	5	5	5	5	5	5	5	5	5	5
<b>CANADA</b>													
Beef tariff-quota	kt pw	76	76	76	76	76	76	76	76	76	76	76	76
in-quota tariff	%	0	0	0	0	0	0	0	0	0	0	0	0
out-of-quota tariff	%	27	27	27	27	27	27	27	27	27	27	27	27
Poultry meat tariff-quota	kt pw	45	45	45	45	45	45	45	45	45	45	45	45
in-quota tariff	%	3	2	2	2	2	2	2	2	2	2	2	2
out-of-quota tariff	%	199	197	197	197	197	197	197	197	197	197	197	197
<b>EUROPEAN UNION (a, b)</b>													
Beef basic price (c, d, e)	EUR/kg dw	2.84	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
Beef buy-in price (c, f)	EUR/kg dw	..	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Pig meat basic price (d)	EUR/kg dw	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51
Sheep meat basic price	EUR/kg dw	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
Sheep basic rate (g)	EUR/head	..	21.00	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Male bovine premium (h)	EUR/head	198	229	0	0	0	0	0	0	0	0	0	0
Adult bovine slaughter premium (i)	EUR/head	65	102	0	0	0	0	0	0	0	0	0	0
Calf slaughter premium	EUR/head	30	50	0	0	0	0	0	0	0	0	0	0
Suckler cow premium	EUR/head	178	200	0	0	0	0	0	0	0	0	0	0
Beef tariff-quota													
EU15	kt pw	164	164	164	164	164	164	164	164	164	164	164	164
EU10	kt pw	..	52	52	52	52	52	52	52	52	52	52	52
Pig meat tariff-quota													
EU15	kt pw	62	67	67	67	67	67	67	67	67	67	67	67
EU10	kt pw	..	101	101	101	101	101	101	101	101	101	101	101
Poultry meat tariff-quota													
EU15	kt pw	29	30	30	30	30	30	30	30	30	30	30	30
EU10	kt pw	..	66	66	66	66	66	66	66	66	66	66	66
Sheep meat tariff-quota													
EU15	kt cwe	285	285	285	285	285	285	285	285	285	285	285	285
EU10	kt cwe	..	1	1	1	1	1	1	1	1	1	1	1
Subsidised export limits (d)													
beef (j)													
EU15	kt cwe	834	822	822	822	822	822	822	822	822	822	822	822
EU10	kt pw	..	106	106	106	106	106	106	106	106	106	106	106
pig meat (j)													
EU15	kt cwe	448	444	444	444	444	444	444	444	444	444	444	444
EU10	kt pw	..	142	142	142	142	142	142	142	142	142	142	142
poultry meat													
EU15	kt cwe	292	286	286	286	286	286	286	286	286	286	286	286
EU10	kt pw	..	158	158	158	158	158	158	158	158	158	158	158
<b>JAPAN (k)</b>													
Beef stabilisation prices													
upper price	JPY/kg dw	1 017	1 010	1 010	1 010	1 010	1 010	1 010	1 010	1 010	1 010	1 010	1 010
lower price	JPY/kg dw	784	780	780	780	780	780	780	780	780	780	780	780
Beef tariff	%	..	41	39	39	39	39	39	39	39	39	39	39
Pig meat stabilisation prices													
upper price	JPY/kg dw	484	480	480	480	480	480	480	480	480	480	480	480
lower price	JPY/kg dw	366	365	365	365	365	365	365	365	365	365	365	365
Pig meat import system (l)													
tariff	%	4	4	4	4	4	4	4	4	4	4	4	4
standard import price	JPY/kg dw	412	410	410	410	410	410	410	410	410	410	410	410
Poultry meat tariff	%	8	7	7	7	7	7	7	7	7	7	7	7

For notes, see end of the table.

Source : OECD and FAO Secretariats

Annex Table 7. - MAIN POLICY ASSUMPTIONS FOR MEAT MARKETS (cont'd)

7 MAIN POLICY ASSUMPTIONS FOR MEAT MARKETS (cont.d)

		Average											
		1999-02	2004 <sup>est</sup>	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>KOREA</b>													
Beef tariff	%	41	40	40	40	40	40	40	40	40	40	40	40
Beef mark-up	%	2	0	0	0	0	0	0	0	0	0	0	0
Pig meat tariff	%	24	22	22	22	22	22	22	22	22	22	22	22
Poultry meat tariff	%	22	21	21	21	21	21	21	21	21	21	21	21
<b>MEXICO</b>													
Pig meat tariff	%	47	45	45	45	45	45	45	45	45	45	45	45
Pig meat NAFTA tariff	%	4	0	0	0	0	0	0	0	0	0	0	0
Poultry meat tariff-quota	kt pw	41	41	41	41	41	41	41	41	41	41	41	41
in-quota tariff	%	50	50	50	50	50	50	50	50	50	50	50	50
out-of-quota tariff	%	235	228	228	228	228	228	228	228	228	228	228	228
<b>RUSSIA</b>													
Beef tariff-quota	kt pw	..	420	420	420	420	420	420	420	420	420	420	420
in-quota tariff	%	15	15	15	15	15	15	15	15	15	15	15	15
out-of-quota tariff	%	..	60	60	60	60	60	60	60	60	60	60	60
Pigmeat tariff-quota	kt pw	..	450	450	450	450	450	450	450	450	450	450	450
in-quota tariff	%	15	15	15	15	15	15	15	15	15	15	15	15
out-of-quota tariff	%	..	80	80	80	80	80	80	80	80	80	80	80
Poultry meat tariff-quota	kt pw	..	1 050	1 050	1 050	1 050	1 050	1 050	1 050	1 050	1 050	1 050	1 050
in-quota tariff	%	27	25	25	25	25	25	25	25	25	25	25	25
<b>UNITED STATES</b>													
Beef tariff-quota	kt pw	665	697	697	697	697	697	697	697	697	697	697	697
in-quota tariff	%	5	5	5	5	5	5	5	5	5	5	5	5
out-of-quota tariff	%	27	26	26	26	26	26	26	26	26	26	26	26
<b>CHINA</b>													
Beef tariff	%	35	16	16	16	16	16	16	16	16	16	16	16
Pig meat tariff	%	19	16	16	16	16	16	16	16	16	16	16	16
Sheep meat tariff	%	20	15	15	15	15	15	15	15	15	15	15	15
Poultry meat tariff	%	20	19	19	19	19	19	19	19	19	19	19	19
<b>INDIA</b>													
Beef tariff	%	112	100	100	100	100	100	100	100	100	100	100	100
Pig meat tariff	%	112	100	100	100	100	100	100	100	100	100	100	100
Sheep meat tariff	%	102	92	92	92	92	92	92	92	92	92	92	92
Poultry meat tariff	%	103	87	87	87	87	87	87	87	87	87	87	87
Eggs tariff	%	150	150	150	150	150	150	150	150	150	150	150	150
<b>SOUTH AFRICA</b>													
Sheepmeat tariff-quota	kt pw	6	6	6	6	6	6	6	6	6	6	6	6
in-quota tariff	%	20	20	20	20	20	20	20	20	20	20	20	20
out-of-quota tariff	%	132	96	96	96	96	96	96	96	96	96	96	96

a) Prices and payments in market Euro's - see Glossary of Terms. b) EU farmers also benefit from the Single Farm Payment (SFP) Scheme, which provides flat-rate payments independent from current production decisions and market developments. The total amount spent under the SFP scheme, before modulation, is assumed to increase from 26.9 billion Euro in 2005 to 28.4 billion Euro in 2008 for the total of the 15 former member States. The final number is equivalent to 233 Euro per hectare of eligible farm land on average. For the accession countries, payments are phased in with the assumption of maximum top-ups from national budgets. Due to modulation, between 2.7% and 4.6% of the total SFP will go to rural development spending rather than directly to the farmers. c) Price for R3 grade male cattle.

d) Year beginning 1 July, except for E10 which is calendar year. Poland has a commitment on export subsidies on unspecified meat. e) Ending 1 July 2002, replaced by basic price for storage. f) Starting 1 July 2002. g) A supplementary payment of 7 euro per head is provided for Less Favoured Areas. h) Weighted average of all bull and steers payments. i) Includes national envelopes for beef. j) Includes live trade. k) Year beginning 1 April. l) Pig carcass imports. Emergency import procedures triggered from November 1995 to March 1996, from July 1996 to June 1997, from August 2001 to March 2002, from August 2002 to March 2003 and from August 2003 to March 2004.

Note : The source for tariffs and Tariff Rate Quotas (excluding Russia) is AMAD (Agricultural market access database). The tariff and TRQ data are based on Most Favoured Nation rates scheduled with the WTO and exclude those under preferential or regional agreements, which may be substantially different. Tariffs are simple averages of several product lines. Specific rates are converted to ad valorem rates using world prices in the Outlook. Import quotas are based on global commitments scheduled in the WTO rather than those allocated to preferential partners under regional or other agreements. For Mexico, the NAFTA in-quota tariff on poultry meat is zero and the tariff-rate quota is unlimited from 2003.

est.: estimate

Source : OECD and FAO Secretariats

Annex Table 8. - WORLD MEAT PROJECTIONS (a)

## 8 WORLD MEAT PROJECTIONS

Calendar year	Average												
	1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
<b>OECD (a)</b>													
<b>BEEF AND VEAL (b)</b>													
Production	kt cwe	26 770	26 197	26 816	27 006	27 165	27 386	27 327	27 438	27 463	27 539	27 600	27 603
Consumption	kt cwe	26 368	26 614	27 300	27 451	27 590	27 778	27 784	27 951	28 035	28 137	28 250	28 292
Ending stocks	kt cwe	1 021	894	846	823	800	778	759	759	759	759	759	759
Per capita consumption	kg rwt	16.1	15.9	16.3	16.3	16.3	16.3	16.2	16.2	16.2	16.2	16.2	16.2
Price, Australia (c)	AUD/100 kg dw	258	280	261	230	225	216	217	217	216	214	218	226
Price, EU (d)	EUR/100 kg dw	243	242	240	242	246	248	250	253	255	255	256	257
Price, USA (e)	USD/100 kg dw	256	296	285	270	264	252	254	254	252	250	255	266
Price, Argentina (f)	ARS/100 kg dw	241	318	345	386	423	439	449	477	491	508	524	537
<b>PIG MEAT (g)</b>													
Production	kt cwe	35 595	36 522	36 917	37 151	37 411	37 786	38 190	38 412	38 692	38 941	39 107	39 376
Consumption	kt cwe	34 531	35 244	35 724	36 029	36 351	36 663	37 042	37 315	37 599	37 850	38 033	38 312
Ending stocks	kt cwe	692	587	610	605	558	542	550	542	552	551	545	554
Per capita consumption	kg rwt	23.5	23.5	23.7	23.8	23.9	24.0	24.1	24.2	24.2	24.3	24.3	24.4
Price, EU (h)	EUR/100 kg dw	129	123	126	133	136	132	129	130	132	132	134	135
Price, USA (i)	USD/100 kg dw	122	158	146	128	130	134	140	146	144	141	146	148
<b>POULTRY MEAT</b>													
Production	kt rtc	33 648	35 457	36 116	36 058	36 703	37 262	37 939	38 677	39 291	39 952	40 896	41 678
Consumption	kt rtc	31 569	33 474	34 161	34 101	34 772	35 366	36 094	36 849	37 475	38 134	39 085	39 870
Stock changes	kt rtc	2	4	-44	1	1	1	1	1	1	1	1	2
Per capita consumption	kg rwt	24.2	25.2	25.6	25.4	25.8	26.1	26.5	26.9	27.3	27.6	28.2	28.7
Price, EU (j)	EUR/100 kg rtc	100	91	90	91	90	90	91	91	91	91	91	92
Price, USA (k)	USD/100 kg rtc	128	164	163	170	158	151	149	149	148	145	143	143
<b>SHEEP MEAT</b>													
Production	kt cwe	2 801	2 592	2 622	2 634	2 620	2 618	2 612	2 620	2 629	2 646	2 666	2 690
Consumption	kt cwe	2 454	2 391	2 397	2 401	2 410	2 422	2 436	2 453	2 464	2 475	2 490	2 508
Stock changes	kt cwe	16	-16	17	16	16	16	16	16	16	14	13	13
Per capita consumption	kg rwt	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Price, Australia (l)	AUD/100 kg dw	271	365	340	329	319	309	299	290	281	272	263	254
Price, Australia (m)	AUD/100 kg dw	130	211	196	190	184	178	173	167	162	157	152	147
Price, New Zealand (n)	NZD/100 kg dw	350	374	372	375	392	396	398	401	403	404	405	406
<b>TOTAL MEAT</b>													
Per capita consumption	kg rwt	65.7	66.5	67.4	67.2	67.7	68.1	68.6	69.1	69.5	69.9	70.5	71.0
<b>Non-OECD</b>													
<b>BEEF AND VEAL</b>													
Production (o)	kt cwe	32 733	35 936	36 370	37 141	37 918	38 926	39 899	41 006	42 002	43 055	44 092	45 187
Net trade	kt cwe	173	985	620	640	716	881	889	963	1 024	1 057	1 120	1 181
Consumption	kt cwe	32 900	35 379	36 080	36 858	37 571	38 420	39 398	40 437	41 383	42 429	43 429	44 496
Per capita consumption	kg rwt	4.9	5.0	5.1	5.1	5.2	5.2	5.3	5.4	5.4	5.5	5.6	5.6
Stock changes	kt cwe	17	-5	-3	0	1	0	0	0	0	0	0	0
<b>PIG MEAT</b>													
Production (o)	kt cwe	56 579	62 339	64 015	66 107	68 281	69 112	70 599	72 299	73 780	75 209	76 649	78 422
Net trade	kt cwe	-148	346	323	364	435	399	395	474	498	497	510	537
Consumption	kt cwe	57 533	62 982	64 680	66 754	68 976	69 863	71 359	72 939	74 426	75 838	77 270	79 004
Per capita consumption	kg rwt	9.5	10.0	10.1	10.3	10.5	10.6	10.7	10.8	10.9	11.0	11.0	11.2
Stock changes	kt cwe	-2	-4	0	0	0	0	0	0	0	0	0	0
<b>POULTRY MEAT</b>													
Production	kt rtc	33 848	37 205	38 590	39 822	40 496	41 570	42 807	44 003	45 109	46 219	47 356	48 559
Net trade	kt rtc	-2 077	-1 979	-1 999	-1 957	-1 930	-1 895	-1 844	-1 827	-1 815	-1 817	-1 810	-1 807
Consumption	kt rtc	35 881	38 658	39 803	41 090	41 971	42 945	44 097	45 250	46 347	47 376	48 555	49 695
Per capita consumption	kg rwt	6.7	6.9	7.0	7.2	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9
Stock changes	kt rtc	2	-140	0	0	0	0	0	0	0	0	0	0
<b>SHEEP MEAT</b>													
Production (p)	kt cwe	8 014	8 675	8 915	9 101	9 321	9 574	9 845	10 089	10 341	10 600	10 866	11 135
Net trade	kt cwe	-330	-217	-207	-216	-194	-180	-159	-152	-149	-157	-163	-170
Consumption (p)	kt cwe	8 312	8 941	9 085	9 262	9 515	9 801	10 076	10 343	10 602	10 870	11 145	11 422
Per capita consumption (p)	kg rwt	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8
Stock changes	kt cwe	3	-1	0	0	0	0	0	0	0	0	0	0
<b>TOTAL MEAT</b>													
Per capita consumption	kg rwt	22.6	23.5	23.8	24.2	24.6	24.8	25.1	25.4	25.7	26.0	26.3	26.6

a) Excludes Iceland but includes Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia. Carcass weight to retail weight conversion factors of 0.7 for beef and veal, 0.78 for pig meat and 0.88 for sheep meat. Rtc to retail weight conversion factor 0.88 for poultry meat. b) Do not balance due to statistical differences in New Zealand. c) Weighted average price of cows 201-260 kg, steers 301-400 kg, yearling < 200 kg dw. d) Producer price. e) Choice steers, 1100-1300 lb lw, Nebraska - lw to dw conversion factor 0.63. f) Buenos Aires wholesale price liner, young bulls. g) Do not balance due to consumption in Canada which excludes non-food parts. h) Pig producer price. i) Barrows and gilts, No. 1-3, 230-250 lb lw, Iowa/South Minnesota - lw to dw conversion factor 0.74. j) Weighted average farmgate live fowls, top quality. (lw to rtc conversion of 0.75), EU15 starting in 1995. k) Wholesale weighted average broiler price 12 cities. l) Saleyard price, lamb, 16-20 kg dw. m) Saleyard price, wethers, < 22kg dw.

n) Lamb schedule price, all grade average. o) Includes trade of live animals. p) Excludes Argentina, Brazil and Russia.

est.: estimate.

Source : OECD and FAO Secretariats

Annex Table 9. - MAIN POLICY ASSUMPTIONS FOR DAIRY MARKETS

9 MAIN POLICY ASSUMPTIONS FOR DAIRY MARKETS

		Average											
		1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>ARGENTINA</b>													
Dairy export tax	%	2	5	5	5	5	5	5	5	5	5	5	5
<b>CANADA</b>													
Milk target price (b)	CADc/litre	58	63	68	70	72	74	76	78	80	81	83	85
Butter support price	CAD/t	5 745	6 371	6 689	6 924	7 159	7 393	7 628	7 862	8 097	8 331	8 566	8 800
SMP support price	CAD/t	4 827	5 239	5 737	5 913	6 037	6 175	6 311	6 443	6 562	6 689	6 810	6 941
Dairy subsidy	CADc/hl	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cheese tariff-quota	kt pw	20	20	20	20	20	20	20	20	20	20	20	20
in-quota tariff	%	1	1	1	1	1	1	1	1	1	1	1	1
out-of-quota tariff	%	247	246	246	246	246	246	246	246	246	246	246	246
Subsidised export limits (c)													
cheese	kt pw	9	9	9	9	9	9	9	9	9	9	9	9
SMP	kt pw	45	45	45	45	45	45	45	45	45	45	45	45
<b>EUROPEAN UNION (d, e, f)</b>													
Milk quota (g)	mt pw	137 813	139	139	140	140	141	141	141	141	141	141	141
Butter intervention price	EUR/t	3 282	3 167	2 938	2 708	2 528	2 462	2 462	2 462	2 464	2 464	2 464	2 464
SMP intervention price	EUR/t	2 055	2 004	1 901	1 798	1 747	1 747	1 747	1 747	1 747	1 747	1 747	1 747
Butter tariff-quotas													
EU15	kt pw	87	87	87	87	87	87	87	87	87	87	87	87
EU10	kt pw	..	3	3	3	3	3	3	3	3	3	3	3
Cheese tariff-quota (h)													
EU15	kt pw	97	102	102	102	102	102	102	102	102	102	102	102
EU10	kt pw	..	1	1	1	1	1	1	1	1	1	1	1
SMP tariff-quota													
EU15	kt pw	66	68	68	68	68	68	68	68	68	68	68	68
EU10	kt pw	..	3	3	3	3	3	3	3	3	3	3	3
Subsidised export limits (a)													
butter													
EU25	kt pw	403	399	399	399	399	399	399	399	399	399	399	399
cheese													
EU15	kt pw	325	321	321	321	321	321	321	321	321	321	321	321
EU10	kt pw	3	2	2	2	2	2	2	2	2	2	2	2
SMP													
EU15	kt pw	275	273	273	273	273	273	273	273	273	273	273	273
EU10	kt pw	96	95	95	95	95	95	95	95	95	95	95	95
<b>JAPAN (d)</b>													
Direct payments (i)	JPY/kg	..	11	11	11	11	11	11	11	11	11	11	11
Cheese tariff (j)	%	32	31	31	31	31	31	31	31	31	31	31	31
Tariff-quotas													
Butter	kt pw	2	2	2	2	2	2	2	2	2	2	2	2
in-quota tariff	%	35	35	35	35	35	35	35	35	35	35	35	35
out-of-quota tariff	%	717	733	733	733	733	733	733	733	733	733	733	733
SMP	kt pw	116	116	116	116	116	116	116	116	116	116	116	116
in-quota tariff	%	16	16	16	16	16	16	16	16	16	16	16	16
out-of-quota tariff	%	225	210	210	210	210	210	210	210	210	210	210	210
WMP	t pw	0	0	0	0	0	0	0	0	0	0	0	0
in-quota tariff	%	24	24	24	24	24	24	24	24	24	24	24	24
out-of-quota tariff	%	327	316	316	316	316	316	316	316	316	316	316	316

For notes, see end of the table.

Source : OECD and FAO Secretariats

Annex Table 9. - MAIN POLICY ASSUMPTIONS FOR DAIRY MARKETS (cont'd)

9 MAIN POLICY ASSUMPTIONS FOR DAIRY MARKETS (cont.d)

		Average	2004e	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
		1999-03											
<b>KOREA</b>													
Tariff-quotas													
Butter	kt pw	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
in-quota tariff	%	40	40	40	40	40	40	40	40	40	40	40	40
out-of-quota tariff	%	89	89	89	89	89	89	89	89	89	89	89	89
SMP	kt pw	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
in-quota tariff	%	20	20	20	20	20	20	20	20	20	20	20	20
out-of-quota tariff	%	176	176	176	176	176	176	176	176	176	176	176	176
WMP	kt pw	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
in-quota tariff	%	40	40	40	40	40	40	40	40	40	40	40	40
out-of-quota tariff	%	176	176	176	176	176	176	176	176	176	176	176	176
<b>MEXICO</b>													
Butter tariff	%	4	0	0	0	0	0	0	0	0	0	0	0
Tariff-quotas													
cheese	kt pw	9	9	9	9	9	9	9	9	9	9	9	9
in-quota tariff	%	50	50	50	50	50	50	50	50	50	50	50	50
out-of-quota tariff	%	129	125	125	125	125	125	125	125	125	125	125	125
SMP	kt pw	90	90	90	90	90	90	90	90	90	90	90	90
in-quota tariff	%	0	0	0	0	0	0	0	0	0	0	0	0
out-of-quota tariff	%	129	125	125	125	125	125	125	125	125	125	125	125
Licons social program	MXN mn	1 426	400	400	400	400	400	400	400	400	400	400	400
<b>RUSSIA</b>													
Butter tariff	%	20	20	20	20	20	20	20	20	20	20	20	20
Cheese tariff	%	15	15	15	15	15	15	15	15	15	15	15	15
<b>UNITED STATES (k)</b>													
Milk support price (b)	USDe/litre	22	22	22	22	22	22	22	22	22	22	22	22
Target price (l)	USDe/litre	..	38.5	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Butter support price	USD/t	1 772	2 315	2 315	2 315	2 315	2 315	2 315	2 315	2 315	2 315	2 315	2 316
SMP support price	USD/t	2 049	1 764	1 764	1 764	1 764	1 764	1 764	1 764	1 764	1 764	1 764	1 764
Butter tariff-quota	kt pw	13	13	13	13	13	13	13	13	13	13	13	13
in-quota tariff	%	10	10	10	10	10	10	10	10	10	10	10	10
out-of-quota tariff	%	111	112	112	112	112	112	112	112	112	112	112	112
Cheese tariff-quota	kt pw	135	135	135	135	135	135	135	135	135	135	135	135
in-quota tariff	%	12	12	12	12	12	12	12	12	12	12	12	12
out-of-quota tariff	%	89	87	87	87	87	87	87	87	87	87	87	87
Subsidised export limits (a)													
butter	kt pw	22	21	21	21	21	21	21	21	21	21	21	21
SMP	kt pw	70	68	68	68	68	68	68	68	68	68	68	68
<b>INDIA</b>													
Milk tariff	%	80	80	80	80	80	80	80	80	80	80	80	80
Butter tariff	%	58	40	40	40	40	40	40	40	40	40	40	40
Cheese tariff	%	44	40	40	40	40	40	40	40	40	40	40	40
Whole milk powder tariff	%	20	20	20	20	20	20	20	20	20	20	20	20
<b>SOUTH AFRICA</b>													
Milk powder tariff-quota	kt pw	4	4	4	4	4	4	4	4	4	4	4	4
in-quota tariff	%	20	20	20	20	20	20	20	20	20	20	20	20
out-of-quota tariff	%	102	81	81	81	81	81	81	81	81	81	81	81

a) Year ending 30 June. b) For manufacturing milk. c) The effective volume of cheese and SMP subsidized exports will be lower reflecting the binding nature of subsidized export limits in value terms. d) Year beginning 1 April. e) Prices and payments in market Euro's -see Glossary of Terms. f) EU farmers also benefit from the Single Farm Payment (SFP) Scheme, which provides flat-rate payments independent from current production decisions and market developments. The total amount spent under the SFP scheme, before modulation, is assumed to increase from 26.9 billion Euro in 2005 to 28.4 billion Euro in 2008 for the total of the 15 former member States. The final number is equivalent to 233 Euro per hectare of eligible farm land on average. For the accession countries, payments are phased in with the assumption of maximum top-ups from national budgets. Due to modulation, between 2.7% and 4.6% of the total SFP will go to rural development spending rather than directly to the farmers.

g) Total quota, EU25 starting in 1999. h) Calendar year minimum access for Australia, New Zealand and Canada before 1995. i) In addition to direct payments, a further payment is provided - equal to 80% difference between the market price and the base price (the average price of the past three years). j) Excludes processed cheese. k) Year beginning 1 January. l) The counter-cyclical payment is determined as a 45% difference between the target price and the Boston class 1 price.

Note : The source for tariffs and Tariff Rate Quotas (except Russia) is AMAD (Agricultural market access database). The tariff and TRQ data are based on Most Favoured Nation rates scheduled with the WTO and exclude those under preferential or regional agreements, which may be substantially different. Tariffs are simple averages of several product lines. Specific rates are converted to ad valorem rates using world prices in the Outlook. Import quotas are based on global commitments scheduled in the WTO rather than those allocated to preferential partners under regional or other agreements.

est.: estimate.

Source : OECD and FAO Secretariats

Annex Table 10. - WORLD DAIRY PROJECTIONS (BUTTER AND CHEESE)

**10** WORLD DAIRY PROJECTIONS (BUTTER AND CHEESE)

Calendar year (a)	Average												
	1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
<b>BUTTER</b>													
<b>OECD (b,c)</b>													
Production	kt pw	3 608	3 492	3 410	3 417	3 400	3 392	3 380	3 384	3 386	3 388	3 385	3 388
Consumption	kt pw	3 053	2 968	2 991	2 964	2 942	2 924	2 921	2 917	2 910	2 898	2 881	2 869
Stock changes	kt pw	39	-53	-63	-48	-39	-8	-9	-2	-1	3	7	10
<b>Non-OECD</b>													
Production	kt pw	3 994	4 717	4 921	4 998	5 045	5 220	5 426	5 588	5 775	5 965	6 159	6 351
Consumption	kt pw	4 384	5 088	5 259	5 385	5 485	5 661	5 869	6 041	6 230	6 417	6 610	6 804
Net trade (d)	kt pw	-382	-370	-339	-388	-438	-439	-441	-451	-452	-450	-448	-451
<b>WORLD (c)</b>													
Production	kt pw	7 602	8 209	8 331	8 415	8 445	8 612	8 806	8 972	9 162	9 353	9 544	9 739
Consumption	kt pw	7 437	8 057	8 251	8 350	8 427	8 585	8 790	8 958	9 139	9 315	9 491	9 673
Stock changes	kt pw	31	-51	-58	-44	-37	-6	-7	0	1	5	9	12
Price (e)	USD/100 kg	135	187	186	183	176	180	182	183	183	184	185	186
<b>CHEESE</b>													
<b>OECD (b)</b>													
Production	kt pw	13 268	13 873	14 201	14 508	14 778	15 017	15 289	15 530	15 730	15 941	16 128	16 314
Consumption	kt pw	12 853	13 488	13 802	14 074	14 332	14 562	14 824	15 062	15 260	15 465	15 645	15 826
Stock changes	kt pw	9	-12	-1	0	0	-1	1	0	1	0	2	-1
<b>Non-OECD</b>													
Production	kt pw	3 459	3 625	3 709	3 762	3 853	3 922	4 039	4 163	4 294	4 415	4 544	4 667
Consumption	kt pw	3 803	3 975	4 079	4 187	4 311	4 452	4 578	4 709	4 829	4 943	5 061	5 178
Net trade (d)	kt pw	-339	-333	-363	-418	-451	-523	-532	-539	-527	-521	-510	-504
<b>WORLD</b>													
Production	kt pw	16 728	17 498	17 910	18 270	18 631	18 939	19 328	19 694	20 025	20 356	20 672	20 981
Consumption	kt pw	16 655	17 462	17 881	18 261	18 643	19 013	19 401	19 772	20 089	20 409	20 706	21 004
Stock changes	kt pw	4	-14	6	7	7	6	8	7	8	7	9	6
Price (f)	USD/100 kg	188	271	248	238	229	222	223	224	225	226	227	229

a) Year ending 30 June for Australia and 31 May for New Zealand in OECD aggregate. b) Excludes Iceland but includes Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia. c) Do not balance due to statistical differences in New Zealand. d) Non-OECD net exports (imports) equals OECD net imports (exports). e) f.o.b. export price, butter, 82% butterfat, northern Europe. f) f.o.b. export price, cheddar cheese, 40 lb blocks, Northern Europe.  
est.: estimate.

Source : OECD and FAO Secretariats



Annex Table 11. - WORLD DAIRY PROJECTIONS (POWDERS AND CASEIN)

**11 WORLD DAIRY PROJECTIONS (POWDERS AND CASEIN)**

Calendar year (a)		Average											
		1999-03	2004est	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>SKIM MILK POWDER</b>													
<b>OECD (b,c)</b>													
Production	kt pw	2 921	2 817	2 782	2 756	2 701	2 633	2 570	2 544	2 539	2 531	2 513	2 510
Consumption	kt pw	2 020	2 328	2 186	2 098	2 030	1 964	1 902	1 872	1 856	1 849	1 836	1 814
Stock changes	kt pw	120	-374	-127	-49	-11	-6	-6	-6	-1	-1	-1	-1
<b>Non-OECD</b>													
Production	kt pw	573	582	582	590	600	615	629	648	666	685	709	730
Consumption	kt pw	1 337	1 409	1 421	1 427	1 445	1 465	1 483	1 507	1 530	1 554	1 581	1 608
Net trade (d)	kt pw	-758	-832	-844	-841	-850	-855	-858	-865	-869	-873	-876	-884
<b>WORLD (c)</b>													
Production	kt pw	3 494	3 399	3 364	3 347	3 301	3 248	3 199	3 192	3 205	3 216	3 222	3 240
Consumption	kt pw	3 356	3 737	3 608	3 525	3 475	3 429	3 385	3 379	3 387	3 403	3 417	3 423
Stock changes	kt pw	115	-379	-133	-54	-15	-11	-11	-10	-6	-6	-6	-6
Price (e)	USD/100 kg	165	203	200	198	192	195	197	198	199	199	200	200
<b>WHOLE MILK POWDER</b>													
<b>OECD (b)</b>													
Production	kt pw	1 838	1 970	1 982	2 024	2 036	2 057	2 086	2 107	2 129	2 153	2 176	2 202
Consumption	kt pw	786	822	807	807	805	801	801	797	795	796	797	797
<b>Non-OECD</b>													
Production	kt pw	1 423	1 641	1 726	1 720	1 743	1 793	1 845	1 903	1 972	2 045	2 132	2 213
Consumption	kt pw	2 270	2 784	2 896	2 933	2 968	3 043	3 125	3 208	3 300	3 397	3 507	3 613
Net trade (d)	kt pw	-809	-873	-859	-916	-967	-983	-1 009	-1 039	-1 064	-1 098	-1 126	-1 158
<b>WORLD</b>													
Production	kt pw	3 261	3 611	3 708	3 744	3 779	3 850	3 930	4 010	4 100	4 198	4 309	4 415
Consumption	kt pw	3 056	3 606	3 703	3 739	3 774	3 844	3 925	4 005	4 095	4 193	4 304	4 411
Price (f)	USD/100 kg	169	211	207	201	193	197	200	202	203	203	204	205
<b>WHEY POWDER</b>													
<b>Non-OECD</b>													
Net trade	kt pw	-224	-329	-315	-306	-301	-296	-292	-286	-279	-273	-265	-257
Wholesale price, USA (i)	USD/100 kg	44	40	39	40	41	42	43	43	42	42	42	42
<b>CASEIN</b>													
Price (h)	USD/100 kg	424	495	443	438	467	473	481	485	488	489	491	491

a) Year ending 30 June for Australia and 31 May for New Zealand in OECD aggregate. b) Excludes Iceland but includes Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia.

c) Do not balance due to statistical differences in New Zealand. d) Non-OECD net exports (imports) equal OECD net imports (exports). e) f.o.b. export price, non-fat dry milk, extra grade, Northern Europe. f) f.o.b. export price, WMP 26% butterfat, Northern Europe. g) Edible dry whey, Wisconsin, plant. h) Export price, New Zealand.

est.: estimate.

Source : OECD and FAO Secretariats

Annex Table 12. - WORLD TRADE PROJECTIONS (a)

**12** OECD TRADE PROJECTIONS (a)

		<i>Average</i>											
		<i>1999-03</i>	<i>2004est</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
<b>EXPORTS</b>													
Wheat (b)	<i>kt</i>	75 255	78 946	80 232	81 379	82 990	84 723	86 079	87 769	88 712	89 731	90 163	90 648
Coarse grains (b)	<i>kt</i>	76 599	73 896	75 355	80 441	80 471	80 256	82 001	84 505	87 185	88 953	90 237	92 109
Rice (b)	<i>kt</i>	4 141	4 170	4 361	4 622	4 751	4 819	4 856	4 891	4 950	5 017	5 063	5 112
Beef (c)	<i>kt</i>	4 952	3 613	4 281	4 653	4 923	5 079	5 119	5 068	5 061	5 116	5 160	5 194
Pig meat (c)	<i>kt</i>	3 188	4 263	4 125	4 155	4 179	4 229	4 270	4 395	4 526	4 620	4 669	4 778
Poultry meat (e)	<i>kt</i>	2 077	1 979	1 999	1 957	1 930	1 895	1 844	1 827	1 815	1 817	1 810	1 807
Sheep meat (c,e)	<i>kt</i>	442	319	310	322	302	289	271	265	265	274	282	292
Butter	<i>kt</i>	678	817	722	732	734	717	714	714	719	722	726	732
Cheese	<i>kt</i>	1 141	1 193	1 211	1 263	1 293	1 327	1 354	1 374	1 392	1 415	1 435	1 459
Skim milk powder	<i>kt</i>	1 012	1 049	936	920	897	892	896	903	911	913	911	934
Whole milk powder	<i>kt</i>	1 151	1 243	1 269	1 308	1 319	1 341	1 368	1 390	1 411	1 432	1 452	1 475
Whey powder (e)	<i>kt</i>	224	329	315	306	301	296	292	286	279	273	265	257
<b>IMPORTS</b>													
Wheat (b)	<i>kt</i>	23 882	21 466	21 824	21 480	21 804	22 165	22 534	22 859	23 138	23 410	23 700	24 079
Coarse grains (b)	<i>kt</i>	53 028	49 993	48 967	48 935	49 493	50 840	51 105	50 952	50 858	50 473	50 039	50 063
Rice (b)	<i>kt</i>	3 857	3 369	3 213	3 613	3 731	4 005	4 186	4 084	4 151	4 239	4 426	4 573
Oilseeds (d)	<i>kt</i>	1 623	1 646	2 343	807	831	1 214	1 584	2 116	2 413	2 724	2 664	2 313
Oilseed meals (d)	<i>kt</i>	20 091	26 421	27 219	27 218	27 338	28 056	28 501	28 884	29 254	29 707	30 278	30 845
Vegetable oils (d)	<i>kt</i>	2 459	4 033	4 101	4 297	4 236	4 370	4 497	4 604	4 693	4 813	4 978	5 198
Beef (c)	<i>kt</i>	4 173	3 680	4 332	4 669	4 902	5 011	5 099	5 113	5 155	5 231	5 324	5 407
Pig meat (c)	<i>kt</i>	2 258	3 082	3 138	3 213	3 264	3 282	3 321	3 478	3 636	3 733	3 801	3 938
Butter	<i>kt</i>	179	197	193	196	200	204	210	216	219	222	224	227
Cheese	<i>kt</i>	734	796	811	828	848	870	889	905	923	939	954	970
Skim milk powder	<i>kt</i>	230	233	239	243	245	247	250	253	256	259	262	265
Whole milk powder	<i>kt</i>	98	95	93	91	88	85	83	80	78	75	73	71

a) Excludes Iceland but includes Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia. For meats, year are calendar year; for grains, meals and oils products, year are crop or marketing year; for dairy products, year are calendar year but year ends 30 June for Australia and 31 May for New Zealand in the OECD aggregate. b) Includes Turkish net exports for wheat, and Turkish net imports for coarse grains and rice. c) Includes trade of live animals. d) Net imports. e) Net exports. est.: estimate.

Source : OECD and FAO Secretariats

## Annex Table 13. - MAIN POLICY ASSUMPTIONS FOR SUGAR MARKETS

### 13 MAIN POLICY ASSUMPTIONS FOR SUGAR MARKETS

Crop year (a)		Average											
		1999-03	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>MAIN ASSUMPTIONS FOR SUGAR MARKETS</b>													
<b>ARGENTINA</b>													
Tariff, sugar	ARS/t	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
<b>BRAZIL</b>													
Tariff, raw sugar	%	41.7	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Tariff, white sugar	%	51.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
<b>CANADA</b>													
Tariff, raw sugar	CAD/t	24.3	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
Tariff, white sugar	CAD/t	35.6	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
<b>CHINA</b>													
TRQ sugar	kt	1 731	1 954	1 954	1 954	1 954	1 954	1 954	1 954	1 954	1 954	1 954	1 954
Tariff, in-quota, raw sugar	%	20.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Tariff, in-quota, white sugar	%	30.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Tariff, over-quota	%	75.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
<b>EU</b>													
Intervention price, white sugar	EUR/t	632	632	632	632	632	632	632	632	632	632	632	632
Total quota, white sugar (c)	kt rse	..	18 957	18 957	18 957	18 957	18 957	18 957	18 957	18 957	18 957	18 957	18 957
from A quota	kt rse	..	16 003	16 003	16 003	16 003	16 003	16 003	16 003	16 003	16 003	16 003	16 003
from B quota	kt rse	..	2 954	2 954	2 954	2 954	2 954	2 954	2 954	2 954	2 954	2 954	2 954
Effective quota (d)	kt rse	18462	18753	18079	18206	18206	18254	17376	17191	16987	16789	16518	16203
Subsidised export limits													
EU15	kt rse	1 285	1 274	1 274	1 274	1 274	1 274	1 274	1 274	1 274	1 274	1 274	1 274
EU15	000 EUR	508 460	499 100	499 100	499 100	499 100	499 100	499 100	499 100	499 100	499 100	499 100	499 100
EU10	kt rse	164	157	157	157	157	157	157	157	157	157	157	157
EU10	000 EUR	34 220	32 560	32 560	32 560	32 560	32 560	32 560	32 560	32 560	32 560	32 560	32 560
Tariff, raw sugar	EUR/t	342	339	339	339	339	339	339	339	339	339	339	339
Tariff, white sugar (b)	EUR/t	423	419	419	419	419	419	419	419	419	419	419	419
<b>INDIA</b>													
Intervention price, sugar cane	INR/t	634	750	750	750	750	750	750	750	750	750	750	750
Applied tariff, raw sugar	%	60	60	60	60	60	60	60	60	60	60	60	60
<b>INDONESIA</b>													
Tariff, white sugar	%	20	25	25	25	25	25	25	25	25	25	25	25
<b>JAPAN</b>													
Minimum stabilisation price, raw sugar	JPY/kg	152	152	152	152	152	152	152	152	152	152	152	152
Tariff, raw sugar	JPY/kg	72.2	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
Tariff, white sugar	JPY/kg	103.7	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1
<b>KOREA</b>													
Tariff	%	19.7	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
<b>MEXICO</b>													
Mexico common external tariff, raw sugar	MXN/t	3 659	4 465	4 514	4 514	4 514	4 514	4 514	4 514	4 514	4 514	4 514	4 514
Mexico common external tariff, white sugar	MXN/t	3 730	4 465	4 514	4 514	4 514	4 514	4 514	4 514	4 514	4 514	4 514	4 514
<b>RUSSIA</b>													
Tariff, white sugar	%	49.6	89.6	112.4	118.2	121.0	106.5	126.1	128.2	130.4	115.8	128.2	135.0
TRQ, raw sugar	kt rse	3 725	0	0	0	0	0	0	0	0	0	0	0
<b>UNITED STATES (b)</b>													
Loan rate, cane sugar	USD/t	397	397	397	397	397	397	397	397	397	397	397	397
Loan rate, white sugar	USD/t	504.9	504.9	504.9	504.9	504.9	504.9	504.9	504.9	504.9	504.9	504.9	504.9
TRQ, raw sugar	kt rse	1 116	1 117	1 117	1 117	1 117	1 117	1 117	1 117	1 117	1 117	1 117	1 117
TRQ, refined sugar	kt rse	22	22	22	22	22	22	22	22	22	22	22	22
Raw sugar high tier tariff , over quota	USD/t	341	339	339	339	339	339	339	339	339	339	339	339
White sugar high tier tariff , over quota	USD/t	359	357	357	357	357	357	357	357	357	357	357	357
<b>SOUTH AFRICA</b>													
Tariff, raw sugar	%	105	105	105	105	105	105	105	105	105	105	105	105

a) Beginning crop marketing year - see the Glossary of Terms for definitions. b) Price based special safeguard actions apply. c) Includes the 10 new member countries from May 2004. d) Production that receives official support. e) Assumes a wholesale price target of USD 470 per tonne as the basis for setting the floating tariff duty.

The source for tariffs (except United States and Russia) is AMAD. The source for Russia and United States tariffs is ERS, USDA.

rse : raw sugar equivalent

est: estimate.

Source: OECD and FAO Secretariats.

Annex Table 14. - WORLD SUGAR PROJECTIONS (in raw sugar equivalent)

**14** WORLD SUGAR PROJECTIONS (in raw sugar equivalent)

Crop year (a)		Average											
		99/00-03/04	04/05est	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
<b>OECD</b>													
Production	kt rse	42 232	41 499	43 092	42 829	42 606	42 688	41 118	41 187	41 228	41 293	41 304	41 069
Consumption	kt rse	40 071	41 796	41 538	41 734	41 982	42 272	42 496	42 738	42 989	43 212	43 435	43 579
Closing stocks	kt rse	12 715	11 691	11 789	11 659	11 293	11 042	11 001	10 852	10 771	10 686	10 629	10 592
<b>NON-OECD</b>													
Production	kt rse	97 317	106 532	107 825	112 062	113 546	116 276	123 065	125 645	127 648	129 274	135 394	137 000
Consumption	kt rse	97 351	106 635	109 344	111 599	114 571	117 583	119 790	122 189	124 990	127 308	131 345	134 316
Net trade (b)	kt rse	-2 291	-302	-1 457	-1 224	-990	-667	1 337	1 402	1 680	1 834	2 074	2 472
Closing stocks	kt rse	52 435	56 142	56 081	57 769	57 734	57 095	59 033	61 086	62 064	62 196	64 171	64 382
<b>WORLD</b>													
Production	kt rse	139 549	148 032	150 918	154 891	156 152	158 964	164 183	166 832	168 876	170 567	176 698	178 069
Consumption	kt rse	137 422	148 431	150 882	153 332	156 553	159 855	162 286	164 928	167 979	170 521	174 780	177 895
Closing stocks	kt rse	65 149	67 834	67 869	69 428	69 027	68 137	70 034	71 938	72 835	72 882	74 800	74 974
Price, raw sugar (c)	USD/t	179.0	219.1	188.6	182.3	179.3	195.7	174.2	172.0	169.8	185.2	172.0	165.3
Price, white sugar (d)	USD/t	225.4	251.9	222.2	215.6	212.5	229.3	207.2	205.0	202.8	218.3	205.0	198.4

a) Beginning crop marketing year - see the Glossary of Terms for definitions. b) Non OECD net exports (imports) equal OECD net imports (exports). c) Raw sugar world price, New York No 11, f.o.b. stowed Caribbean port (including Brazil), bulk spot price, Sep/Aug. d) Refined sugar price, London No 5, f.o.b. Europe, spot, Sept/Aug.

est: estimate.

Source: OECD and FAO Secretariats.

## ACRONYMS AND ABBREVIATIONS

### *Acronyms and abbreviations*

ABARE	Australian Bureau of Agricultural and Resource Economics
ACP	African, Caribbean and Pacific countries
AMAD	Agricultural Market Access Database
AMF	Anhydrous milkfat
AI	Avian Influenza
AWB	AWB Ltd. formerly Australian Wheat Board
BSE	Bovine Spongiform Encephalopathy
BST	Bovine Somatotropin
CAP	Common Agricultural Policy (EU)
CIS	Commonwealth of Independent States
CPI	Consumer Price Index
CMO	Common Market Organisation for sugar (EU)
Cts/lb	Cents per pound
Cwe	Carcass weight equivalent
CWB	Canadian Wheat Board
DDA	Doha Development Agenda
DR-CAFTA	Dominican Republic-Central America Free Trade
Dw	Dressed weight
EBA	Everything-But-Arms Initiative (EU)
ERS	Economic Research Service of the US Department for Agriculture
Est	Estimate
EU	European Union
EU-15	Fifteen member states of the European Union
EU-10	Ten new member states of the European Union from May 2004
EU-25	Twenty five member states of the European Union from May 2004
EUROSTAT	Statistical Office of the European Communities
FAO	Food and Agriculture Organisation of the United Nations
FDI	Foreign Direct Investment
FMD	Foot and Mouth Disease
FOB	Free on board (export price)
FSRI ACT	Farm Security and Rural Investment Act (US) of 2002
FTAA	Free Trade Area of the Americas
GDP	Gross Domestic Product
GM	Genetically modified
GMO	Genetically engineered or modified plant, animal, micro-organism or virus
HFCS	High Fructose Corn Syrup
HS	Harmonised Commodity Description and Coding System
IMF	International Monetary Fund
JFY	Japanese fiscal year beginning 1 april
Kt	Thousand tonnes
LDC's	Least developed countries
LICONSA	Leche Industrializada
Lw	Live weight
MAF	Ministry of Agriculture and Forestry (New Zealand)
MAFF	Ministry of Agriculture, Forestry and Fisheries (Japan)
MERCOSUR	Common Market of the South
Mha	Million hectares
MFN	Most Favoured Nation
Mn	Million
Mt	Million tonnes
NAFTA	North American Free Trade Agreement
NZDB	New Zealand Dairy Board
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
OIS	Other Independent States of the former Soviet Union
OMB	Office of Management and Budget (United States)
PSE	Producer Support Estimate
PSD	Production supply and distribution
Pw	Product weight
Rse	Raw sugar equivalent
Rtc	Ready to cook
Rwt	Retail weight
SMP	Skim milk powder
SP	Sugar Protocol
SPS	Special Preference Sugar
STE	State Trading Enterprises
T	Tonnes

T/ha	Tonnes/hectare
TRQ	Tariff rate quota
UK	United Kingdom
URAA	Uruguay Round Agreement on Agriculture
US	United States
USDA	United States Department of Agriculture
VAT	Value added tax
WMP	Whole milk powder
WTO	World Trade Organisation
ZAR	South African rand

### *Symbols*

AUD	Dollars (Australia)
ARS	Pesos (Argentina)
Bn	Billion
BRL	Real (Brazil)
CAD	Dollars (Canada)
CNY	Yuan (China)
EUR	Euro (Europe)
Ha	Hectare
hl	Hectolitre
INR	Indian rupees
JPY	Japanese yen
kg	Kilogram
KRW	Korean won
L	Litre
lb	Pound
MXN	Peso (Mexico)
NZD	Dollars (New Zealand)
RUR	Ruble (Russia)
THB	Thai baht
USD	Dollars (United States)