

**EUROPEAN COMMISSION**  
**DIRECTORATE-GENERAL FOR AGRICULTURE AND RURAL DEVELOPMENT**  
**Directorate G. Economic analyses and evaluation**  
**G.5 Agricultural trade policy analysis**

# **AGRICULTURAL COMMODITY MARKETS**

## **OUTLOOK 2007-2016**

**A comparative analysis  
of projections published<sup>1</sup> by**

**Organisation for Economic Cooperation and Development (OECD) &  
Food and Agriculture Organisation (FAO)**

**Food and Agricultural Policy Research Institute (FAPRI)**

**US Department for Agriculture (USDA)**

**European Commission (EC AGRI G.2)**

31 July 2007

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European Commission

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<sup>1</sup> Sources:

FAPRI's Agricultural Outlook 2007, published in March 2007

(<http://www.fapri.iastate.edu/brfbk07/>),

OECD-FAO's Agricultural Outlook 2007-2016, published in July 2007,

([http://www.oecd.org/document/38/0,3343,en\\_2649\\_33781\\_38891878\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/38/0,3343,en_2649_33781_38891878_1_1_1_1,00.html))

USDA's "2007 International Long-Term Projections to 2016", published in February 2007

(<http://www.ers.usda.gov/data/internationalbaseline/>),

EC's "Prospects for agricultural markets and income 2006-2014", published in July 2007

([http://ec.europa.eu/agriculture/publi/caprep/prospects2007a/index\\_en.htm](http://ec.europa.eu/agriculture/publi/caprep/prospects2007a/index_en.htm)).

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### **About the EU**

On the first of January 2007, two new Member States - Bulgaria and Romania- joined the European Union. OECD-FAO and EC refer to the EU-27 in their publications. In the projections of FAPRI and USDA, which were published earlier in 2007, the figures are still for the EU-25, while Bulgaria and Romania are considered separately. USDA however made some adjustments to take account of their accession to the EU. These differences can explain, at least partially, some of the divergences observed as regards the EU.

# 1 Cereals (excluding rice)

Cereal production and consumption is forecast to continue to grow at a very moderate rate for the next decade with the coarse grains market remaining slightly more dynamic than wheat. Australia, Argentina, the Black Sea region, the USA and the EU will most likely benefit from a growing world market for wheat, whereas India is expected to become a consistent net-importer of wheat. Regionally, import demand for wheat will grow in Asia and the Pacific, North and Sub-Saharan Africa. In the coarse grains sub-sector, the EU is forecast to maintain its current level of exports and thus is expected to slowly lose part of its market share. The USA (FAPRI only), Argentina, and the Black Sea region will benefit from growing import demand. Cereal prices are expected to average significantly higher in the coming decade than over the last ten years.

## 1.1 *Wheat*

Despite the current high wheat prices, world wheat consumption is expected to continue its modest growth. This will pull up **production** by a similar amount: OECD-FAO (2007) expects a plus of roughly 70 mio t by 2016/17 from just under 600 mio t in 2006/07 or an annual increase of about 0.8%. This new OECD-FAO estimate is almost identical to the figures FAPRI published earlier this year, both in terms of absolute change and in annual growth rates. For both institutions, the improvements in yields would be sufficient to meet growing demand, thus wheat is unlikely to attract any additional area on average over the next ten years. After an increase in area harvested from the current marketing year 2006/07 to the coming harvest in 2007/08, OECD-FAO expects wheat acreage to stabilize at about 216-217 mio ha (FAPRI: 218-219 mio ha) for the rest of the projection period.

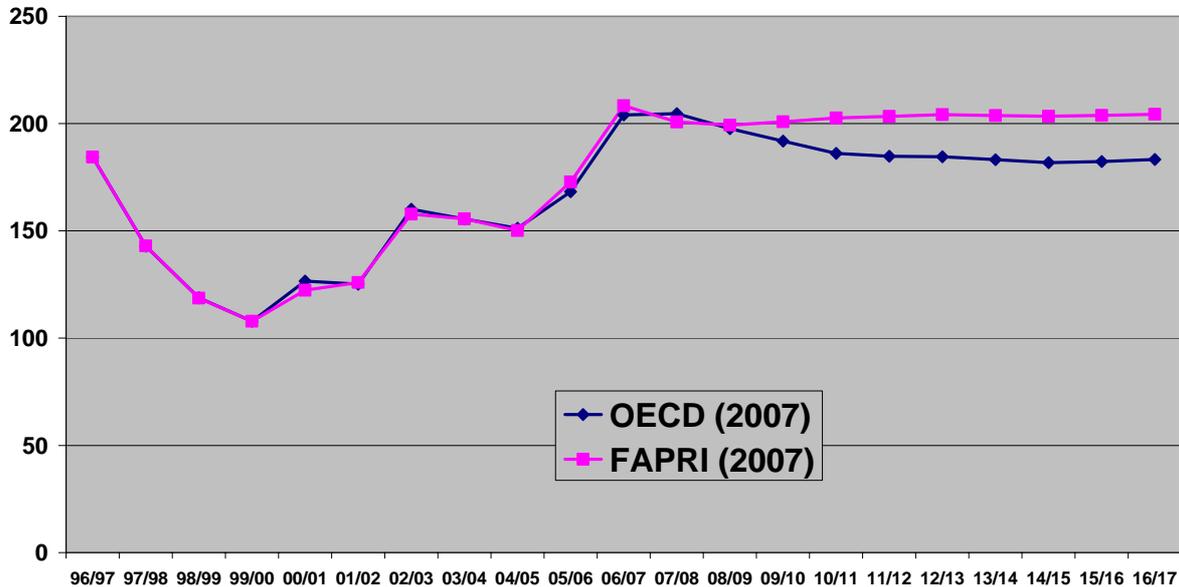
About four fifths of total wheat **use** is for human consumption. Both estimates see the annual growth rate of the world wheat sector below that of world population; wheat continues to face decreasing per-capita consumption. Feed use of wheat is expected to grow slightly slower than total demand, resulting in a marginally decreasing share of wheat being fed to animals during the coming ten years.

**Trade** in wheat is expected to expand faster than both, production and consumption, according to both institutions. OECD-FAO anticipates world exports of wheat to grow by 1.6% p.a. or by 17 mio t over the next ten years, whereas FAPRI's projects a more dynamic development of international wheat net-trade (+ 2.1% per year or a total plus of more than 20 mio t) until 2016/17. Current and future absolute levels of wheat trade are not comparable between the two projections, as they use different regional aggregations, with OECD - due to a broader coverage of countries - being closer to reality with a current wheat trade volume of about 107 mio t. In addition, OECD-FAO's figures reflect simultaneous exports and imports, whereas FAPRI works with net-trade estimates. As it is the case with many other agricultural commodities, the stronger growth of trade when compared to that of production and consumption implies that the share of wheat consumed elsewhere than in the production country is increasing.

The world wheat market **price** in US \$ per ton is expected by OECD-FAO to weaken slightly by 2016/17, whereas FAPRI is projecting that wheat prices will almost stay at their current exceptional high level of more than 200 \$/t throughout the projection period until 2016/17.

Thus wheat prices are expected to average higher by one third during the projection period until 2016/17 when compared to the past decade (OECD-FAO: + 29%, FAPRI: +39%)

## World Wheat Price, US\$/t



### Outlook by country

The EU is by far the largest wheat producer and consumer in the world. FAPRI expects both production and consumption to grow at a slower pace, leading to a lower exportable surplus (10 mio t in 2016/17 for the EU-25). USDA anticipates even lower net exports for the EU-25, as the latter would drop from 9.2 mio t in the year 2006/07 to 7.4 mio t in 2016/17. By contrast, according to OECD, a moderate growth in production of 1.4 % per year to a total of about 151 mio t in 2016/17 together with a weaker growth of consumption (0.6% p.a.) to 137 mio t could increase EU-27 net-export potential to about 14 mio t by the end of the projection period. Based on the EC's current estimates, the EU-27 could increase its net-exports to 17 mio t already in 2013-14. This more optimistic view on EU's export potential can at least partially be attributed to the fact that the EC is assuming the Euro to weaken against the US Dollar from the 1.26 US \$ per Euro in 2006 to 1.15 US \$ per Euro in 2014. FAPRI assumes considerably higher values for the Euro throughout the forecast period. Moreover, FAPRI and USDA's figures are for the EU-25, while Bulgaria and Romania are net exporters of wheat (however, a significant part of their trade occurs with the EU-25).

Wheat as a staple food will not benefit from growing purchasing power in the most populous country in the world. Per capita consumption of wheat is thus likely to decline. Wheat consumption and production of **China** – the world number 2 in terms of size of the domestic market totalling roughly 100 mio t - is seen stagnating to slightly receding over the next ten years by OECD and FAPRI. Contrary to previous projections, China's net-imports are now projected not to reach soon again the historical high attained in 2004/05 (5.6 mio t). Given the two consecutive years with a positive wheat trade balance since then, FAPRI now classifies China again as a country which will be essentially self-sufficient in wheat during the coming decade. OECD projects China to turn slowly into a small net-importer position again, anticipating just above 1.0 mio t of net-imports in 2016/17 (USDA: 2.0 mio t).

Contrary to China's, **India's** wheat sector both in terms of production and consumption is projected by OECD to show a moderate growth during the next decade, reaching about 75-80 mio t of volume by 2016/17. India, which has continuously net-exported wheat over the last five years, is expected to lose this export potential. Given the historically large import needs expected in the current marketing year 2006/07, India is likely to appear on the net-importers list over the next ten years, according to both FAPRI and OECD-FAO, with a wheat deficit in the range of 3-4 mio t on average (FAPRI) or of even more than 5 mio t (OECD-FAO). For USDA, India remains a small net-exporting country (0.3 mio t) throughout the projection period.

Wheat production and consumption in the **USA** are anticipated to grow moderately. Net-exports projections of FAPRI (2007), USDA (2007) and OECD (2007) match reasonably, anticipating a slight to moderate increase in the export potential to about 23-27 mio t (20.7 mio t in 2006/07). The USA is, therefore, expected to remain the world biggest wheat exporter. If one compares FAPRI's 2006 and 2007 outlooks, the expected changes in the US wheat sector, induced by the completely different price prospects, are surprisingly small. Despite the outlook for substantially higher feed grain prices over the next ten years, wheat acreage is not likely to shrink and wheat feeding will grow marginally, reducing somewhat the export potential. Due to the higher wheat prices, acreage and production are now forecast to be even slightly higher than in last year's baseline.

**Russia's** future net-export potential of wheat is likely to increase, according to both FAPRI and OECD-FAO. It could attain 11 to 12 mio t in 2016/17 (USDA: 13.5 mio t), compared to about 8 mio t in the current 2006/07 marketing year.

**Ukraine** should be able to net-export roughly 6 mio t of wheat at the end of the projection period (USDA: gross exports growing to almost 10 mio t). FAPRI sees the country to attain this export potential rather soon due to a fast recovery in production, whereas for OECD there will be a steady increase in both production and exports. Consumption is anticipated to stagnate.

Currently all the three forecasting institutions agree on **Canada's** future export potential, which is expected at about 17-18 mio t in 2016/17. This is below the exceptionally high exports of about 20 mio t in 2006/07.

Due to expanding production, **Australia** should see its exportable wheat surplus grow considerably to 20 (OECD and FAPRI) or even 22 mio t (USDA) in 2016/17. The drought in 2006, which reduced exports in 2006/07 almost by one third, will also have a negative impact on the 2007/08 export possibilities.

Export prospects are also positive for **Argentina**, where the annual exports could increase by about 2 mio t (OECD and FAPRI) over the next decade to about 11-12 mio t or even to more than 13 mio t (USDA).

Import needs will increase mainly in **Asia** and the **Pacific** region (+ 2% annually), and in **Africa**. The OECD expects sub-Saharan Africa's imports to increase by a robust 2.5 % p.a. This sub-region will therefore gain weight in the international wheat markets compared to North Africa where the rate of expansion of imports is 1.2% per year.

## 1.2 Coarse Grains

Within the world cereals sector (excluding rice), coarse grains – maize/corn being the major component in this aggregate - play a far more important role than wheat in terms of quantities consumed and produced. This predominance is likely to increase during the coming decade as a result of the booming demand for maize as animal feed, and as feedstock for ethanol production.

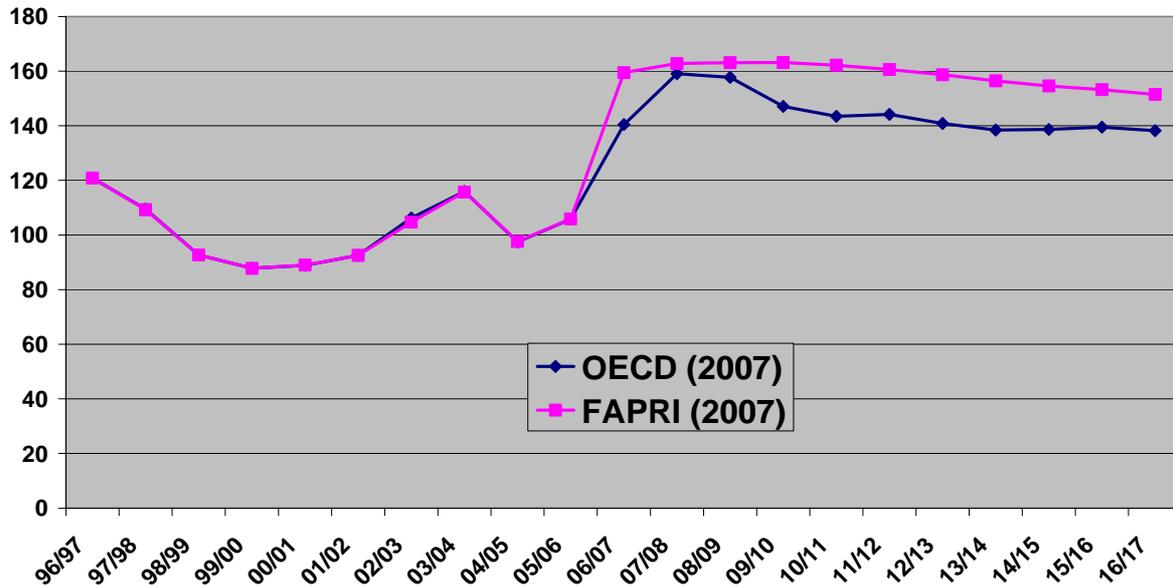
In order to be able to compare the two projections, the maize, barley and sorghum projections of FAPRI (2007) were aggregated. This aggregate is being contrasted with OECD's (2007) forecasts for coarse grains. One has to bear in mind that the latter aggregate comprises also other than the three main coarse grains, which explains why the OECD figures for world coarse grain consumption and production are higher than those of FAPRI. The difference amounts to roughly 100 mio t or about one tenth of the total in absolute quantities.

OECD (2007) anticipates a growth in **consumption** and **production** of coarse grains of about 1.4 % annually over the next ten years, driven by feed demand from the livestock sector and increasing industrial use. The expansion is, thus, expected to be stronger than that of the wheat sector. In absolute terms, this would be a plus of almost 140 mio over the projection period, according to OECD. FAPRI (2007) expects the rate of expansion in the global coarse grain sector to be slightly less dynamic, at about 1.2% per year. This would be a plus of roughly 110 mio t from 2007/08 to 2016/17. After two consecutive years during which production lagged behind consumption, causing a draw-down of global coarse grain stocks, production is expected to increase considerably in the 2007/08 marketing year in reaction to the current high price level. This short-term increase in production is due to the combined effect of an increase in acreage (+10 mio ha expected from the 243 mio ha in 2006/07) and a return to normal yield potential. According to FAPRI, growth of production will solely come from gains in productivity during the remainder of the projection period, no further increase in global coarse grains' acreage is anticipated.

Although comparable with wheat **trade** in terms of quantities, the share of coarse grains traded in total consumption or production is considerably lower than the corresponding share for wheat. Therefore, the coarse grain sector can be characterised as a business which has a more regional focus. Again, this is likely to change gradually over the next ten years, as the expansion of trade will outpace that of production and consumption. FAPRI expects this process to be considerably faster (2.5 % expansion of global trade p.a.) than OECD (1.5 % p.a.). If the projections materialize, world coarse grain trade could gain some 16 mio t (OECD) to 24 mio t (FAPRI) during the coming decade.

Like the wheat **price** projections, the expected future developments of the coarse grains' world market price now only differ marginally between the two institutions. According to OECD (2007), the price could amount to about 138 US\$ per t by 2016/17. FAPRI (2007) is projecting that the world coarse grain prices (US maize) will almost stay at their current exceptional high level of roughly 150-160 \$/t throughout the projection period until 2016/17.

## World Coarse Grain Price, US\$/t



If the projected average price during the coming decade is compared with the price prevailing during the past decade OECD is expecting a 40% increase and FAPRI even a 50% increase.

### *Outlook by country*

The **USA** are by far the most important producer and consumer of coarse grains. Both production and consumption are projected to increase moderately, leading to an almost unchanged net-export in 2016/17 of 55 mio t (2006/07: 58 mio t), according to OECD's latest projection. Total consumption of coarse grains is forecast to increase mainly due to other use (ethanol), which will create most of the additional quantity used (a plus of 60 mio t from now to 2016/17). At the end of the coming decade, coarse grains use for other use (148 mio t) will almost equal the quantity of coarse grains used as feed (158 mio t). At present, this ratio stands at roughly 1:2.

FAPRI anticipates the exportable surplus to be substantially higher at 73 mio t at the end of the projection period, but sees a pronounced dip in exports for the next few years, due to the ethanol sector which will absorb much additional maize. FAPRI took into account the Renewable Fuels Act of 2006, but the most recent announcements to step up biofuel use and production even further (35 billion gallons in 2017) are not yet incorporated in the 2007 projection. Booming food and industrial use of maize, accounting for one third of total domestic use in 2005/06, is estimated to equal feed use by 2009/10, but is expected to stagnate or even to slightly recede in the outer part of the projection period. Due to the high maize prices and the availability of DDG, feed use of maize is expected to drop from the record 156 mio t in 2004/05-2005/06 to 143 mio t in 2008/09-2009/10. Subsequently, feed use could surge again, without reaching the 2004/05-2005/06 quantities, however. USDA's 2007 projections see US coarse grain exports to drop to 51 mio t in 2008-2010, and then to grow again to about the current level of just above 60 mio t in 2016/17. USDA's projection is, thus, mid-point between those of OECD and FAPRI.

**China** is the second most important coarse grain consumer in the world. OECD, USDA and FAPRI project its consumption growth to outpace that of production, turning China from a current small coarse grain net-exporter into a net-importer. Net-imports should total 4 to 6 mio t at the end of the coming decade, whereas China exported a record 13.5 mio t in 2002/03.

The **EU** produces about the same amount of coarse grains as China, but consumption is lower, leaving the EU with a net-exporting status. EU net exports could increase as consumption is expected to grow at a slower rate than production. They should stabilize at around 5-8 mio t by 2016/17, according to OECD and between 6 and 6.5 mio t based on the EC's own projections (EU-27). In absolute terms, the FAPRI estimate is consistently too low (by about 5 mio t). For FAPRI, the EU-25 is net-importing coarse grains since 2003/04, as net exports of barley are smaller than net imports of maize. USDA sees the EU-25 turning into a small coarse grains net-importing position from 2010/11. Part of the differences can be attributed to the changes in trade due to the latest enlargement of the EU. Bulgaria and Romania, considered together, are net exporters for both maize and barley (however, part of this trade takes place with the EU-25).

**Ukraine** is anticipated to have a coarse grain net-export surplus of about 6-9 mio t in 2016/17, according to OECD and FAPRI. This quantity is above the record 6.7 mio t exported in 2004/05. **Russia** is also likely to exhibit a 1-2 mio t coarse grains net-export surplus, compared to about 0.6 mio t in 2005/06. These two countries combined will therefore have a higher net-export capacity than the EU, although they only have just above one third of its production. USDA sees the "Former Soviet Union" net-exporting more than 9 mio t in 2016/17, a gain of roughly 1 mio t from the 2006/07 estimate.

On **Australia's** future export potential of coarse grains, the projections agree to some extent. OECD anticipates an improvement of Australia's export capacity (7.2 mio t in 2016/17 from 6.4 mio t in 2005/06), whereas FAPRI projects it to recover only slowly after the drought-induced reduction in 2006/07. USDA is expecting Australia to increase its exports slowly to 5.8 mio t in 2016/17.

All three institutions are rather optimistic on **Argentina's** future export potential. According to OECD, it could reach 15 mio t by the end of the coming decade (11.7 mio t in 2006/07). FAPRI anticipates that Argentina will reach its new export potential rather soon (18 mio t in 2008/09), but exports may stagnate thereafter. USDA is the most optimistic with almost 22 mio t in 2016/17. On **Brazil**, the FAPRI's and OECD's views again match: The net export surplus should rather fall into the 2-4 mio range towards the end of the coming decade, this is below the record 5-6 mio t exported in 2000/01. In its summary tables, USDA is listing Brazil as importer only.

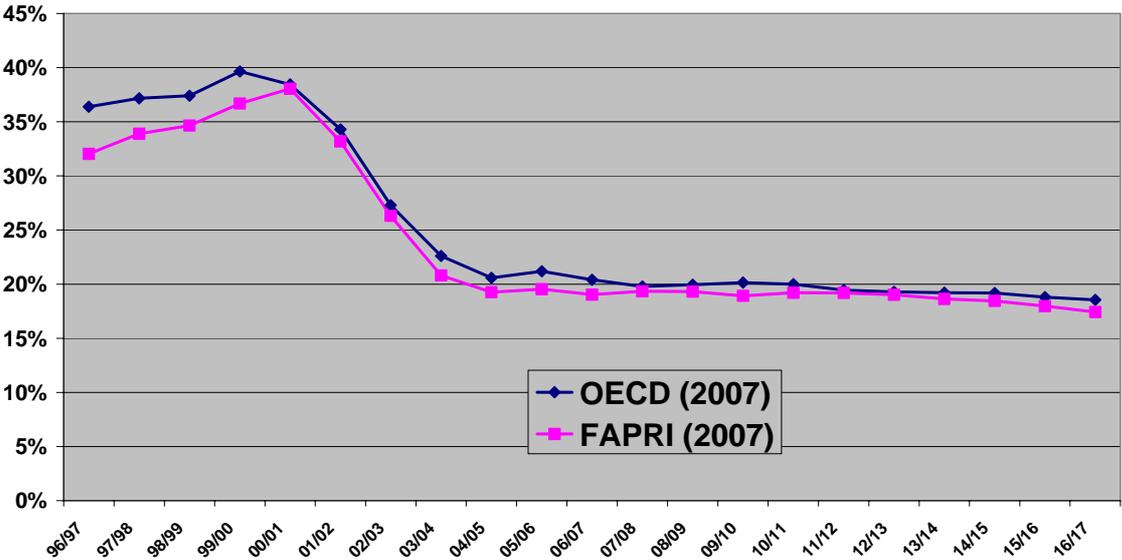
## 2 Rice

World rice production has been declining since 2000, reflecting adjustments in China, the leading world producer and consumer. Meanwhile, consumption has kept increasing, driven by demographic growth. As a result, the stock to use rate has halved, falling to 20%. It is expected to remain slightly below that level in the medium term. Trade in rice has increased in recent years and is anticipated to further develop. Still, it is not likely to represent more than 8% of production and remains dependant on the balance-sheet in countries that are both leading consumers and producers.

At global level, rice as staple food will not benefit from increasing income in the world. On the contrary, average per capita **consumption** is expected to fall slightly over the next ten years. Nevertheless overall consumption of rice will still be slightly rising as the world’s population grows. The projected rates of growth per year until 2016/17 vary from 0.7% (FAPRI) to 0.9% (OECD). USDA does not publish world figures. As stocks are already low when compared to the current level of consumption – at about 20% - no further substantial reduction in stocks-to-use ratios is expected (FAPRI 17% in 2016/17, OECD 19%). Rice **production** therefore will have to follow the modest growth path of consumption. In quantitative terms, rice consumption and production will grow from the current 425 mio t to almost 470 mio t (OECD) or from 415 mio t to about 445-447 mio t (FAPRI). Thus FAPRI has both a lower base figure and lower growth rates during the projection period. As improvement in yields will be sufficient to meet the modest increase in demand, rice area is unlikely to change from the current 152 (FAPRI) to 155 mio ha (OECD).

A major difference between the two projections is in **trade**. Rice trade (exports) could grow by a relatively robust rate of 2.2 % per year during the coming decade according to OECD. This would add 7 mio t over the projection period to the current 30 mio t. FAPRI is much more conservative, forecasting only half of this increment.

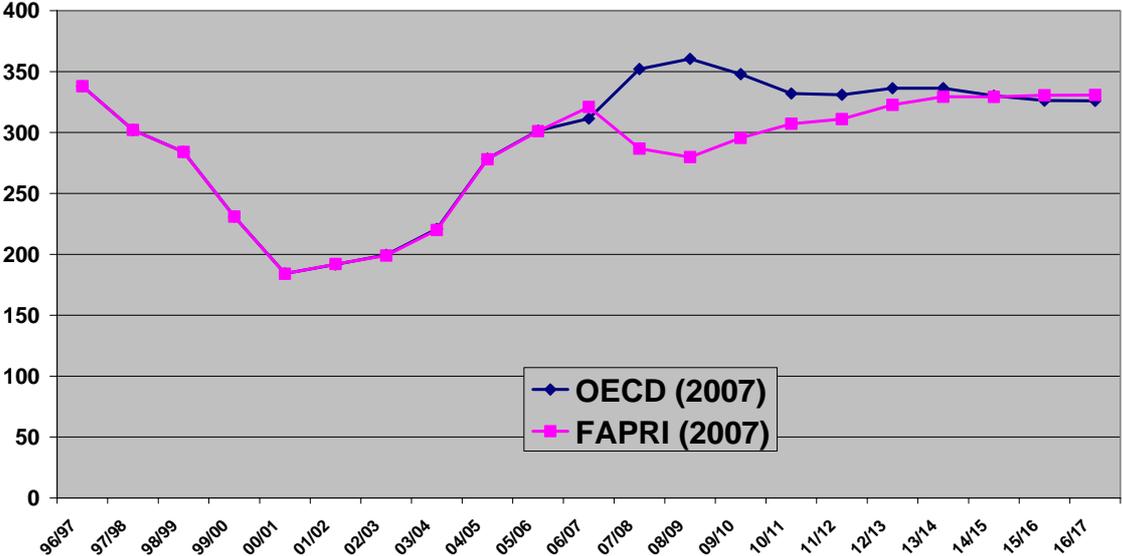
**Rice: Stocks-to-Use Ratio**



A major structural adjustment in the world rice sector occurred over the years 2000 to 2003 with three consecutive years of falling or at least unchanged production against further growing consumption. At the same time the rice **stocks-to-use** ratio fell by roughly 20 percentage points which was equivalent to a halving of rice stocks. Now, the two forecasting institutions expect the stocks-to-use ratio not to change substantially. In other words, the rice sector is perceived as having adjusted to this new situation.

This is also reflected in the **price** forecasts. Both institutions expect the rice price in ten years to come back to its level of 2006/07. However, on average over the next ten years, the nominal price is expected to be 24 % (FAPRI) to 35 % (OECD) higher than during the past decade. Rice is therefore likely to follow the general trend of moderately higher agricultural prices over the medium term. Interestingly, the projected trajectories are different: OECD expects the rice price to strengthen further in the next two years and to weaken afterwards, whereas FAPRI anticipates exactly the opposite movement.

**World Rice Price, US\$/t  
(Thai 100% Grade B)**



**Outlook by country**

On the *exporter* side, world rice trade is concentrated on two countries (Thailand and Vietnam) which account for roughly half of world exports. Adding the next three exporters (India, Pakistan and USA), the top-5 makes up for nine tenths of the exports.

**Thailand**, by far the biggest rice exporter, currently accounts for about one third of global net-exports and will continue to hold this position during the next decade (FAPRI). Net exports could grow from 8.6 mio in 2006/07 to 10.7 mio t in 2016/17. Production is anticipated to expand from 18.3 to 20.1 mio t, whereas domestic demand will hardly change from the current 9.6 mio t. Thailand’s rice growers will therefore depend more than ever on sales abroad as more than half of production will be exported. Expansion of production will come from enhanced yields, rice area is unlikely to change. For USDA, Thailand’s net exports will grow from 8.3 to almost 12 mio t. OECD’s projection for Thailand is close to that of USDA with 12.2 mio t in 2016/17.

Contrary to Thailand, **Vietnam**, currently the second net exporter, will not be able to benefit from growing rice import demand, according to FAPRI. Net-exports are expected to drop from the exceptional high quantity in 2006/07 (4.9 mio t) over the next two years and then to recover slowly to 4.9 mio t again at the end of the projection period. Most of the increase in production will be absorbed by domestic consumption, that is still growing. USDA sees Vietnam's export potential increasing from 4.4 to 5.4 mio t over the next ten years. OECD is by far the most optimistic, expecting Vietnam's exports to expand strongly to 6.9 mio t in 2016/17.

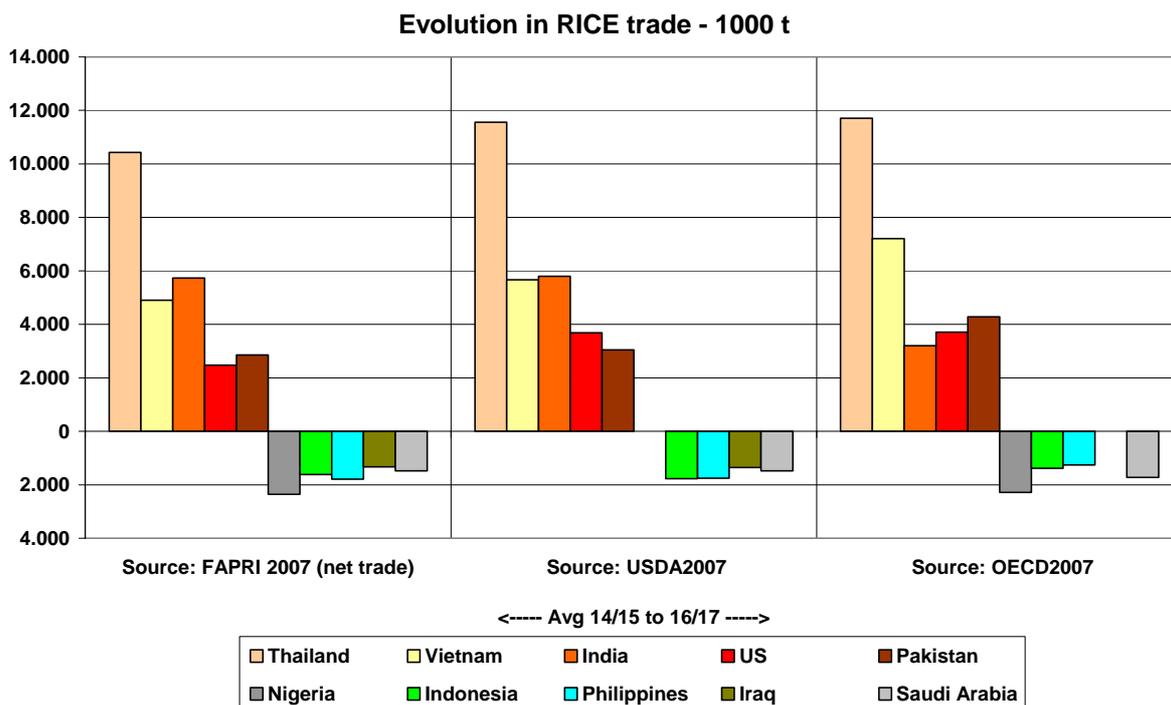
**India**, at present the third largest net-exporter and the second largest rice producer after China, could overtake Vietnam as its export potential is seen by FAPRI way above the 3.8 mio t exported in 2006/07. A pronounced cyclical pattern in exports is anticipated with a substantial increase in the first two years of the projection period peaking at 6.7 mio t in 2008/09 and a subsequent drop to 4.7 mio during 2012-2014. Eventually, net-exports could amount to 5.7 mio t at the end of the coming decade. (USDA, similarly bullish, sees India's net export even at 6.0 mio t). The sharp short term increase in exports reflects the combined effect of an expansion in area and a return to trend-type yields. Continuously growing domestic demand however – from 88 mio t in 2006/07 to 96 mio t in 2016/17 – will prevent India from expanding exports for the remainder of the projection period. This is what OECD expects for India for the whole projection period: net exports could grow from 3.2 mio t in 2006/07 to only about 3.9 mio t in 2016/17, as OECD is much more conservative on prospects for production, due to both, smaller area and lower yields.

FAPRI's projection is bearish on the export prospects for the two medium-sized exporters Pakistan and USA. **Pakistan's** net-exports are projected to virtually stagnate at the 2.9 mio t exported in 2006/07. As is the case with Vietnam, better productivity will lead to increasing production, but the growth in domestic demand will absorb the additional quantity harvested. OECD sets Pakistan's exports at about 3.5 mio t in 2016/17. **USA's** net exports could fall in a 2.3 to 2.5 mio t range during the next ten years which is less than the 2.7 mio t exported in 2006/07 (FAPRI). Production and consumption are projected to increase by similar absolute amounts. Area is likely to stabilize at just below 1.2 mio ha, compared to the ten years' high of 1.36 mio ha in 2005/06. OECD is more optimistic, seeing US exports increasing to 2.9 mio t, as growth of production will be marginally faster than that of consumption (but both lower than those of FAPRI). USDA sees US net exports in 2016/17 at 3.0 mio t, up from 2.5 mio t in 2006/07.

**Egypt** could see its net-exports slowly decreasing from the 0.9 mio t in 2006/07 to 0.8 mio t in 2016/17 according to FAPRI, whereas OECD projects stable exports at about 1.0 mio t. Consumption will grow in line with production. Share of exports in production will fall to less than one fifth from almost one quarter at present.

**Uruguay** could increase its exports to about 0.9 mio t (0.6 mio t in 2006/07), as production could expand following an increase in area from 150 000 ha in 2006/07 to 200 000 ha in 2016/17, projects FAPRI. OECD agrees (1.0 mio t in 2016/17) on that prospect.

Other minor exporters face either stagnant net exports (**Argentina**: 0.5 mio t) or modest increases (**Myanmar** 0.3, **Australia** 0.4 mio t in 2016/17) from the current amounts sold abroad, according to FAPRI. OECD sees Argentina's rice net exports increasing to almost 1.0 mio t as area and therefore production could increase, but agrees on Australia's export prospects.



Rice *imports* are more evenly distributed over a greater number of countries than exports. The top five importers (Nigeria, Indonesia, Philippines, Saudi Arabia and Iraq) account for roughly one quarter of world net-imports.

**Nigeria** is expected to increase rice imports from 1.6 mio t in 2006/07 to 2.4 mio t in 2016/17 (FAPRI; OECD 2.1 mio t). **Indonesia**, the number one importer in 2006/07 - with unusually high imports of 1.8 mio t due to a shortfall in production- is forecast to import only less than 1.0 mio t during the marketing year 2007/08, with imports subsequently increasing to 1.7 mio t in 2016/17 (FAPRI). OECD estimates that imports will not increase that strongly and forecasts about 1.0 mio t in 2016/17.

The **Philippines**, on the other hand, had a good rice harvest in 2006/07 leading to relatively low imports of 1.3 mio t in 2006/07. For the projection period, annual imports are anticipated to stay in a range between 1.6 to 1.8 mio t (FAPRI). OECD is more optimistic on the potential to increase production and therefore anticipates lower imports (1.3 mio t in 2016/17). **Saudi Arabia's** rice consumption is still growing and this will drive imports up from the current 1.2 mio t to 1.5 mio t in 2016/17 as the country has no domestic production (FAPRI and OECD). **Iraq's** imports could increase from 1.2 mio t (2006/07) to 1.4 mio t in 2016/17 (FAPRI, no OECD estimate available) on expanding domestic demand (almost no own production).

According to FAPRI and OECD, **Brazil** is the only country with a potential to substantially increase rice area: from 3.0 mio ha to 3.4 - 3.5 mio ha over the next ten years. This would bring production from 7.7 mio t in 2006/07 to 9.2 mio t (FAPRI) or from 7.9 to 9.6 mio t (OECD) at the end of the projection period. At the same time, consumption will expand by a lower amount from 9.1 mio t to 9.7 mio t (FAPRI) or from 9.3 to 10.3 mio t (OECD). In 2006/07 net imports are estimated at 1.0 mio t by FAPRI, which could be reduced to 0.5 mio t in 2016/17. OECD's estimate for 2006/07 is only 0.4 mio t, which could increase to 0.6 to 0.7 mio t of annual imports during the coming decade.

Some of the other major importing countries will either more or less hold their trade position, or import less. FAPRI projects **Bangladesh** to be in the second group with rice imports decreasing from 0.7 mio t in 2006/07 to 0.5 mio t in 2016/17, as growth in production will slightly outpace that of consumption. OECD sees Bangladesh's imports still at 0.9 mio t in 2016/17. For FAPRI, **Hong-Kong** (imports at 0.3 mio t) and **Japan** (0.5 mio t) will be part of the first group. For the latter, OECD agrees.

Most of the importers, however, are expected by FAPRI to increase their imports during the next ten years. In absolute terms, China, the EU, Mexico and Ivory Coast will exhibit the more important changes. **China**, by far the world's leading rice producer and consumer, could turn from a small net exporter (0.3 mio t) into a small net importer (0.2 mio t), according to FAPRI. For OECD, which does not separate China and Hong Kong, this change is somewhat more pronounced with net imports growing to 1.0 mio t. **EU**'s rice production is likely not to change significantly (1.7 mio t) as the area could drop slightly, but consumption is still growing. As a combined effect of reform and progressive liberalisation of imports from least developed countries, EU imports could increase from 0.7 to 1.0 mio t (FAPRI EU-25) or from 0.9 to 1.2 mio t (OECD EU-25). **Mexico**'s imports could increase from 0.6 to 0.9 mio t, and those of the **Ivory Coast** from 0.8 to 1.2 mio t. For OECD, Mexico will not increase its net trade from the 0.7 mio t currently imported.

## 3 Oilseeds and -products

### 3.1 Oilseeds

World oilseed production and consumption has grown at robust rates in the last quarter of a century and, although this growth rate could drop somewhat in the next 10 years, it is nevertheless expected to remain double that of cereals. Nominal oilseed prices are expected to remain rather strong, driven by enhanced uses. Brazil will overtake the USA as the most important oilseed exporter. China is expected to absorb roughly half of the oilseeds traded in 2016/17. The EU will remain the second major importer.

In order to be able to compare OECD-FAO's 2007 and FAPRI's 2007 oilseed sector forecasts, the FAPRI time series for soybeans, rapeseed/canola and sunflowerseed were aggregated in line with OECD-FAO's definition of oilseeds. At country level, the respective trade projections are complemented with USDA's 2007 baseline figures for soybean trade.

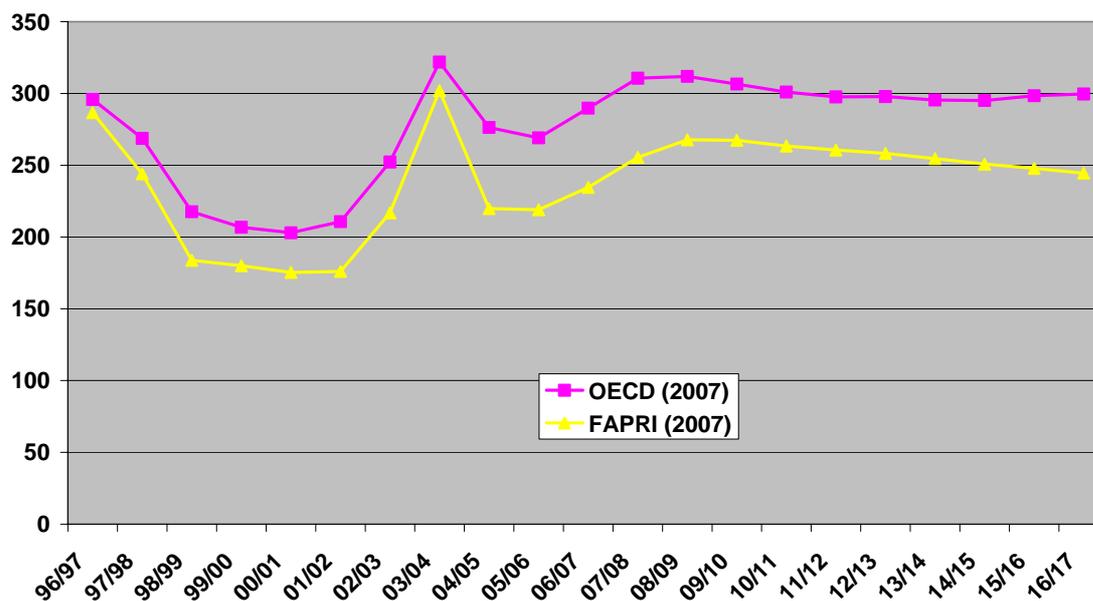
OECD's and FAPRI's forecasts are almost identical: they see oilseed **production** and **consumption** at around 370-375 mio t in 2016/17, up from roughly 300 mio t in 2006/07. Driven by demand, growth rates for the world oilseeds sector are expected at about 2.2 % p.a. during the next ten years. Investments in the oilseed processing sector should, therefore, continue at a robust pace.

As the increase in yields will not be sufficient to meet growing demand, oilseed acreage is projected to increase by slightly more than 1% per year until 2016. According to FAPRI some additional 15 mio ha will have to be found for the cultivation of oilseeds (oil palm area not included) over the next ten years. OECD-FAO is expecting a slightly slower expansion of area (0.8% p.a. or about 11 mio ha in total).

Only FAPRI expects global oilseeds **net-trade** to grow faster than consumption and production during the projection period, a plus of 20 mio t in total over the next ten years. The share of oilseeds traded – which is already among the highest of all agricultural commodities - is set to increase even further. This underlines the growing need for a transparent and predictable legal framework (GMO, SPS). OECD-FAO is anticipating world oilseed exports to grow slower than production and consumption (+ 12 mio t).

OECD foresees a further increase in nominal **prices** from about 290 \$/t, the level seen in 2006/07, to 300 \$/t in 2016/17, compared to FAPRI with 245 \$/t in 2016/17. One has to bear in mind, however, that OECD's oilseed price refers to an aggregate of three main oilseeds, resulting in a higher price on average than FAPRI's price which represents soybeans only. In this perspective, FAPRI's and OECD's price projections are almost identical: OECD and FAPRI anticipate nominal prices during the projection period to be 20% higher on average than in the past decade. The projected adjustments in oilseeds prices are also similar: After a substantial increase in the near future, prices are expected to weaken towards the outer part of the projection period.

## Oilseeds Price, US\$/t



### *Outlook by country*

FAPRI is expecting that **US** net-exports (almost 30 mio t in 2006/07) will decline until the end of the forecasting period to about 24-25 mio t. This is close to OECD's estimate of about 26 mio t for 2016/17, but OECD anticipates substantially higher exports in the meantime. USDA sees a pronounced drop of US soybean exports from the current very high level of more than 30 mio t to only about 23 mio t in 2008/09 already. Subsequently, exports could stagnate at this level throughout the rest of the projection period.

After the problems the soybean sector had to face due to the strong Real, **Brazil's** soybean exports are anticipated to resume their strong growth in reaction to better prices. USDA expects exports to reach almost 30 mio t in the coming marketing year 2007/08, up from 26 this year. Exports may subsequently more than double in ten year's time to 62 mio t in 2016/17. OECD predicts a drastically lower increase to 37 mio t only. FAPRI is far more optimistic than OECD: exports could almost double from the current level to reach 50 mio t by 2016/17. All three forecasts agree that Brazil will overtake the USA as the most important oilseed exporter. The question is when this will occur. For FAPRI and USDA this will take place very soon (assuming normal conditions); for OECD it is likely to happen only in the second half of the forecast period.

**Argentina's** oilseed exports (mainly soybeans, but also some sunflowerseed) are expected to rise either to 10 mio t (OECD), or almost stagnate at 7-8 mio t (FAPRI) until 2016/17. USDA expects Argentine soybean exports to slightly decrease to just above 6 mio t by 2016/17 from about 7 mio t in the current marketing year. All three institutions agree on the prospect for Argentina's crushing capacity to keep pace with the robust growing oilseed production, thus leaving oilseed exports roughly unchanged to only slightly higher.

If the projections for the "big three" oilseed exporters are combined, the three forecasting institutions agree on the overall increase in exports, but disagree on the share that Brazil will

have in world exports: close to 50% according to FAPRI, but just above one third according to the OECD. Brazil's future share in world trade is projected even above 50% if only soybeans are taken into account (USDA).

FAPRI and OECD agree that the minor exporters (Canada, CIS/Eastern Europe, Australia) will not see any major changes in their oilseed trade.

On the import side, both OECD and FAPRI expect **China** – the largest net-importer of oilseeds – to increase its imports to about 45-50 mio t and, therefore, to absorb half of the oilseeds traded in 2016/17 (imports in 2006/07: 33 mio t, according to OECD). USDA currently even projects Chinese soybean imports at 57 mio t in 2016/17, which would correspond to a market share of more than 50%.

The **EU** will continue to be the second major importer. OECD and FAPRI see EU's net-imports at around 15 mio t over the next ten years. OECD thinks that the increase in oilseed demand in the EU (a plus of about 10 mio t over the next ten years from 41 mio t in 2006/07) will be covered by a corresponding increase in production, leaving net-imports virtually unchanged. According to USDA, EU-25 soybean imports could even slightly decrease to about 13 mio t in 2015/16. All these projections are in strong contrast to the EC's own projection, where EU-27 net-imports are expected to come close to 35 mio t in 2013-2014. This is based on the assumption that the EU will increase crush capacity, importing seeds rather than vegetable oils.

**Japan** is currently ranked third, and its imports are forecast to remain virtually unchanged at about 6-7 mio t, thereof about 4 mio t soybeans (USDA). **Mexico**'s imports will increase slightly to more than 5 mio t (according to OECD; no FAPRI estimate available).

Assuming no changes take place in current trade policy, **India** is unlikely to participate in the international oilseed trade.

To summarise recent evolution and expected changes in world oilseed trade, it can be concluded that the main USA-EU trade axis which prevailed only ten years ago will be substituted by the South America-China axis in ten years time.

### **3.2 Oilmeals**

Production and consumption of **oilmeals** will basically follow the growth pattern of oilseeds although the share of oilmeals traded is unlikely to increase further as crushing capacity improves where the meals are consumed, with the noticeable exception of Argentina. Relative to both oilseeds and vegetable oils, oilmeal prices are expected to weaken during the projection period, as supply of by-products from production of biofuels is expected to increase considerably. Argentina and Brazil together are expected to account for at least three quarters of world oilmeal exports in 2016. The EU, already by far the most important importer, is likely to increase its imports further.

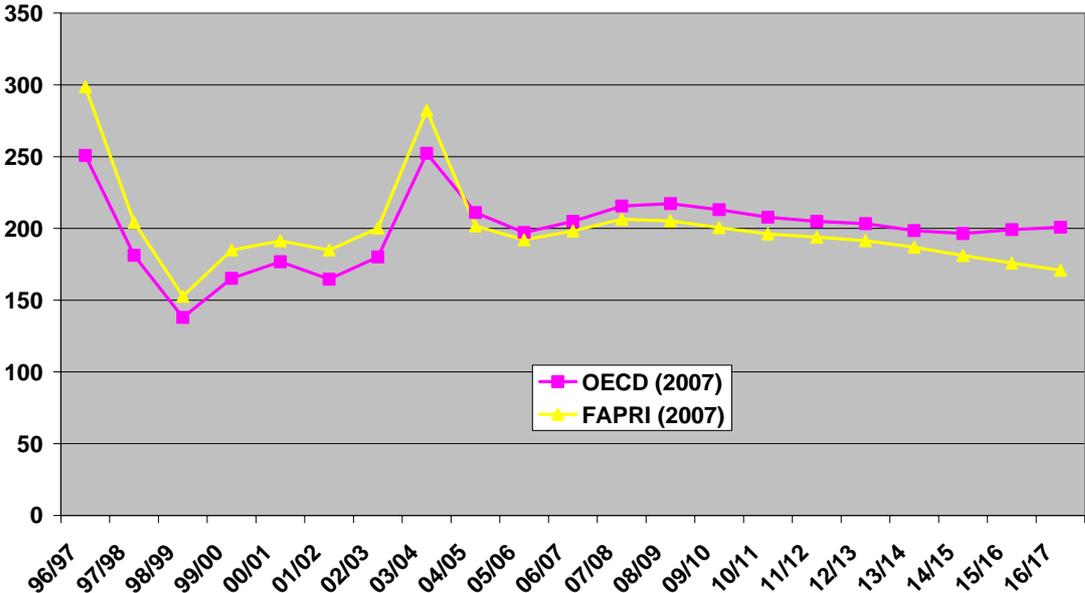
FAPRI forecasts cover several specific oilmeals, while OECD has calculated an aggregate comprised of soybean meal, rapeseed/canola meal and sunflowerseed meal. FAPRI's forecasts have therefore been combined to make the two projections comparable. USDA only publishes soymeal trade projections for some selected countries.

World oilmeal **consumption and production** is expected to continue growing: OECD forecasts an annual increase of 2.1 % for both consumption and production over the forecast period 2006-2015, FAPRI expects a slightly more dynamic growth of 2.3 % p.a. This is equivalent to a 50 mio t increase from the current marketing year which would bring the total level up to about 240 mio t in 2016/17.

Prospects for world oilmeal **trade** differ substantially depending on the source: FAPRI foresees a growth potential (16 mio t or 2.8 % p.a.) which is double that of OECD (7 mio t or 1.4 %). OECD’s figures for the average increase in trade and the projected growth in production and consumption seem to suggest that the share of oilmeals traded will actually decrease. This would be the consequence of the global trend that the crushing industry goes where the products (oilmeals and vegetable oils) will be consumed, with Argentina being the major exception.

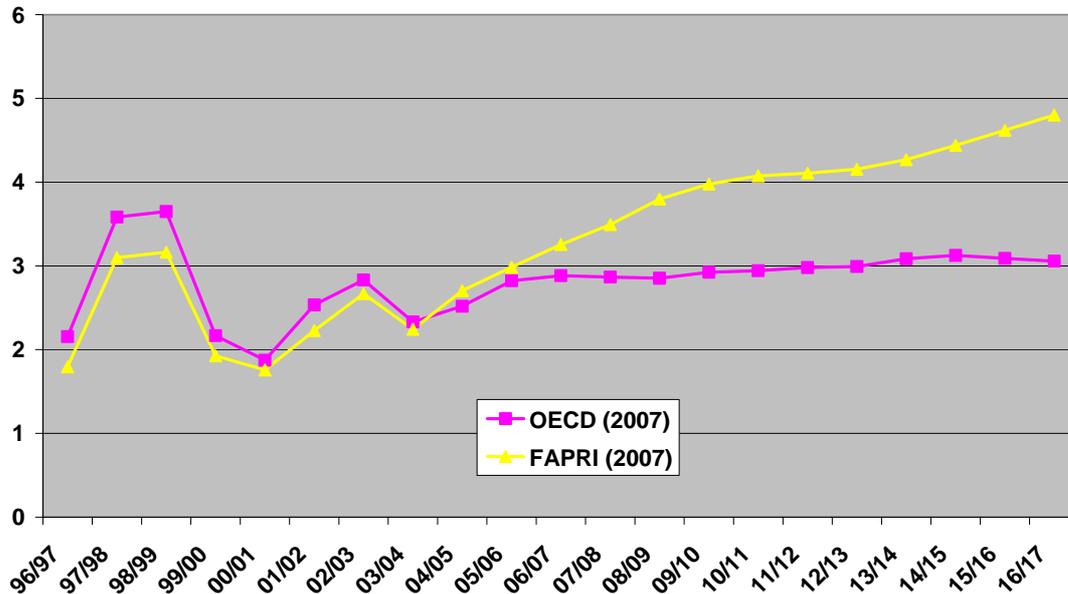
OECD’s weighted average of oilmeal **prices** is projected to stay at slightly above 200 US\$/t throughout the projection period. Oilmeal prices would, thus, average 10% higher in the coming decade than during the past ten years. For FAPRI, oilmeal prices are forecast to average 4% below their level of the last ten years.

**Oilmeals Price, US\$/t**



FAPRI and OECD see a similar price movement as for oilseeds: After a further price rise in the near future, prices are anticipated to weaken again. For both institutions, oilmeal prices will be the weakest within the oilseed complex (oilseeds, oilmeals, vegetable oils) hinting at the ongoing structural change in the world oilseed sector, which consists of the oil part being higher valued than the meal part. Whereas this change is anticipated by FAPRI to be rather dramatic in a historic perspective, resulting in vegetable oils having a value five times that of oilmeals in 2016/17, is OECD forecasting a moderate improvement in value of vegetable oils against oilmeals. Over the last decade this price ratio fluctuated in the range from 2 to 3.

## Vegetable Oil/Oilmeal Price Ratio



### *Outlook by country*

In 2016/17, **Argentina**, the largest oilmeal exporter, is expected to net-export between 34 mio t (OECD, FAPRI) and 35 mio t (USDA: soymeal only) of oilmeals, up from the current level of 27 mio t. By the end of the projection period, Argentina would thus account for half of global soybean meal exports.

**Brazil** is forecast to be the second largest exporter with 18-19 mio t (FAPRI, USDA) in 2016/17. OECD-FAO is expecting that Brazil will not be able to increase further its soybean meal exports which are seen stagnating at the current 13 mio t until 2016/17. The reason is that Brazil's growing livestock industry will absorb all the additional soybean meal produced. Both, soymeal consumption and production could grow by about 10 mio t over the next ten years. In export markets, Brazilian soybean meal will not be competitive against the Argentinean meal, which benefits from a differential export tax system.

**US** soybean meal exports could increase by 2 mio t until 2016/17, from the 7.7 mio t in the current marketing year, according to USDA. FAPRI is more conservative and sees net soybean meal exports at only 8 mio t in 2016/17. As the USA net-import rapeseed meal, total oilmeal net exports are lower in quantity. Net exports could increase from 6.3 mio t in 2006/07 to 8.6 mio t in 2016/17, expects OECD. whereas FAPRI anticipated net exports first to fall almost by 1 mio t over the next two years, and to rise again subsequently to about 6.5 mio t in 2016/17.

**India**, a medium sized exporter (3.8 mio t in 2006/07), could see its exports slightly decreasing to 3 mio t (OECD and USDA), or maintain its sales abroad in the 3.5-4 mio t range (FAPRI).

The **EU**, by far the most important importer, is likely to reduce its imports to 24 mio t in 2016/17 (from about 25.7 mio t in 2006/07), according to OECD. At the same time, EU

oilmeal production is likely to increase from 23 mio t to 29 mio t. USDA sees a moderate increase in soybean meal net imports from 22 mio t in the current marketing year to 25 mio t in 2016/17 and FAPRI, is projecting net-imports of 26 mio t in 2016/17, up from 24 mio t in 2006/07.

### 3.3 Vegetable Oils

Global consumption and production of vegetable oils has increased at the fastest pace of all sectors in the oilseeds/meals/vegetable oils complex and is expected to continue doing so. Two thirds of all vegetable oil exports in 2016/17 will come from Malaysia and Indonesia. The EU as a net-importer will continue to rank behind China, but probably before India. Due to strong food and fuel demand, vegetable oil prices are likely to remain strong or even to strengthen further over the next ten years. As oilmeal prices are expected to weaken relative to vegetable oil prices, this shift in the price ratio will favour oil crops with a higher oil yield per ha, oilpalms in the first place. Rapeseed and sunflowerseed will gain competitiveness against soybeans which have the lowest oil content.

FAPRI provides forecasts for several specific vegetable oils, whereas OECD has calculated an aggregate which comprises palm oil, soybean oil, rapeseed/canola oil and sunflowerseed oil. In order to make the two comparable, the FAPRI forecasts were combined to obtain an aggregate identical to OECD's definition.

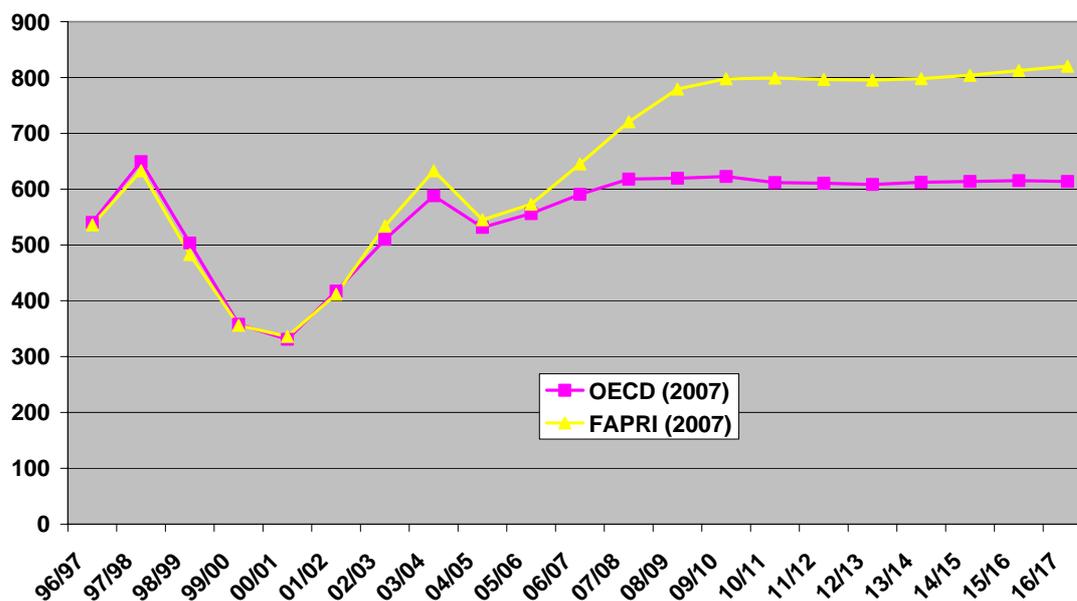
FAPRI and OECD see **consumption** and **production** of vegetable oils at the end of the projection period at around 135-137 mio t. This corresponds to annual growth rates of about 2.6 to 2.8 % over the next decade. Demand will continue to be boosted by rising population and income growth and will pull production up.

Both forecasts agree that world **trade** in vegetable oils trade will continue to increase, but the magnitudes differ to some extent. OECD anticipates a less pronounced increase in trade than FAPRI. Whereas FAPRI expects world vegetable oils net-trade to grow by a strong 4.1 % p.a. until 2016/17, when it would reach 56 mio t (a plus of 17 mio t over the forecast period), OECD predicts a more moderate increase of exports of only 14 mio t or 2.8% p.a. to reach 60 mio t in 2016/17.

As demand is growing at a strong pace, both OECD and FAPRI forecast that the **price** of vegetable oils will rise in nominal terms in order to stimulate production. FAPRI expects a steep increase from 645 \$/t in 2006/07 to 820 \$/t in 2016/17. OECD on the other hand, predicted last year a much smaller increase: from 550 \$/t in 2005/06 to slightly more than 600 \$/t during the second half of the projection period. In other words, FAPRI expects vegetable oil prices during the forecast period to average more than 50% higher than the 1996-2005 price average. OECD anticipates an average price increase of only about 22%.

As already pointed out in the previous section on oilmeals (see above), it will be the demand for vegetable oils rather than that for oilmeals which push the prices for oilseeds up. Vegetable oils are the products which gain most in terms of value and will thus determine to a greater extent than in the past the price of oilseeds. (This is especially true for the current FAPRI forecast, whereas OECD is projecting a rather gradual change in the oilseed complex).

## Vegetable Oil Price, US\$/t



### Outlook by country

**India:** OECD expects imports to increase over the next ten years, from about 5.0 mio t in the current marketing year to 6 mio t in 2016/17. FAPRI, on the other hand sees India's exports increasing more sharply, reaching 8.4 mio t in 2016/17.

**China's** imports (currently 7 mio t) could reach almost 10 mio t (OECD), or even 13.4 mio t (FAPRI).

**Brazil's** exports could increase to 3.5 mio t (OECD) or 3.3 mio t (FAPRI) from the present 2.3 mio t. For **Argentina**, exports are foreseen to grow from 7.4 mio t in the current marketing year to slightly more than 9 mio t in 2016/17 (OECD and FAPRI).

The **USA** is expected to continue to play a minor role in future world vegetable trade. OECD expects it to continue to be a small net importing country (1.4 mio t in 2016/17 against 0.5 mio t in the current marketing year) whilst FAPRI anticipates it will be a net-exporter of 0.7 mio t in 2016/17. Part of the difference is probably due to the fact that FAPRI does not take US palm oil imports into account.

The **EU** is likely to see its trade deficit in vegetable oils increase, mainly due to palm oil imports. FAPRI is predicting 8.2 mio t of net imports in 2016/17 (6.8 mio t in 2006/07), compared to OECD's 9.2 mio t (6.0 mio t in 2006/07).

For **Canada**, OECD sees a decrease of net-exports to about 0.3 mio t (from the current 0.7 mio t). FAPRI sees it maintaining the status quo (1.0-1.1 mio t) over the whole forecast period.

**Malaysia and Indonesia's** combined palm oil exports could increase from 25 mio t in 2006/07 to almost 39 mio t (FAPRI) or to 40 mio t (OECD) in 2016/17.

## 4 Sugar

World prices for sugar are getting more and more dependent on the situation in Brazil, hence on the arbitration between sugar and ethanol uses of sugar cane. Also, given the linkage between biofuels and oil prices, sugar prices and markets are more influenced by oil prices. After the 2005/06 surge, prices came back to an average 250 \$/t. OECD expects them to stay around that level, while FAPRI sees them coming close to 300 \$/t by 2016. As to the situation in Brazil, FAO-OECD are more bullish on the expansion of the cane industry. They consider that the growing demand for ethanol will not halt further growth in the sugar sector. While Brazil comforts its position as the undisputed leading producer and exporter, the EU switches from a net exporter to a net importer, following the reform of its sugar regime and the full implementation of the "Everything But Arms" agreement. It even overtakes Russia as the leading world importer. Conversely, India is projected to turn back to its past position of net exporter.

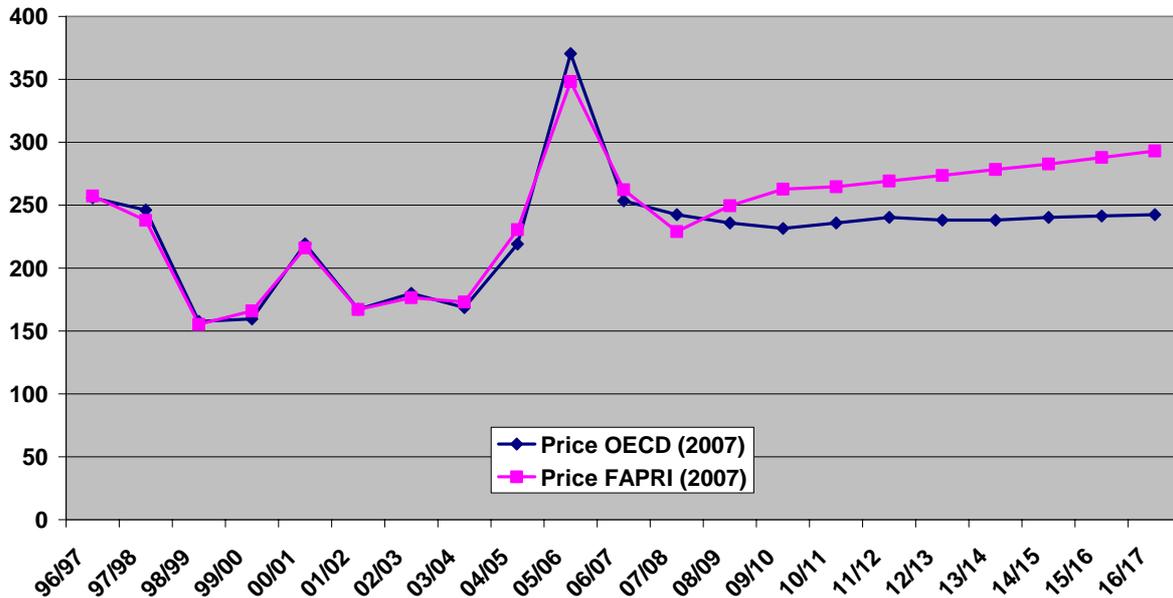
Due to moderate growth in sugar **demand**, world sugar **production** is expected to grow by 1.4% per year during the forecast period 2007-2016/17, according to FAPRI. OECD-FAO is more optimistic regarding the dynamics of global sugar consumption and predicts production to increase by 1.8% p.a. In absolute quantities, this corresponds to a gain of 21 mio t (FAPRI) to more than 30 mio t (OECD) from the current level, with 152-155 mio t raw sugar equivalent produced in 2006/07. The difference in the expected growth rates is mainly due to the different views on Brazil's potential to expand its sugar cane industry, where FAPRI is much more cautious.

Whereas world sugar beet area is likely to stagnate at about 6 mio ha, sugar cane area could gain roughly 2 mio ha to 23.5 mio ha in 2016/17, expects FAPRI.

**Trade** in sugar is anticipated to grow in line with both production and consumption, resulting in a stable share of production and consumption being traded. The quantity traded is likely to grow by about 1.5% per year during the coming decade or by 5 mio t raw sugar equivalent in total until 2016/17 from a current 35 mio t (FAPRI; OECD does not publish figures on total world sugar trade).

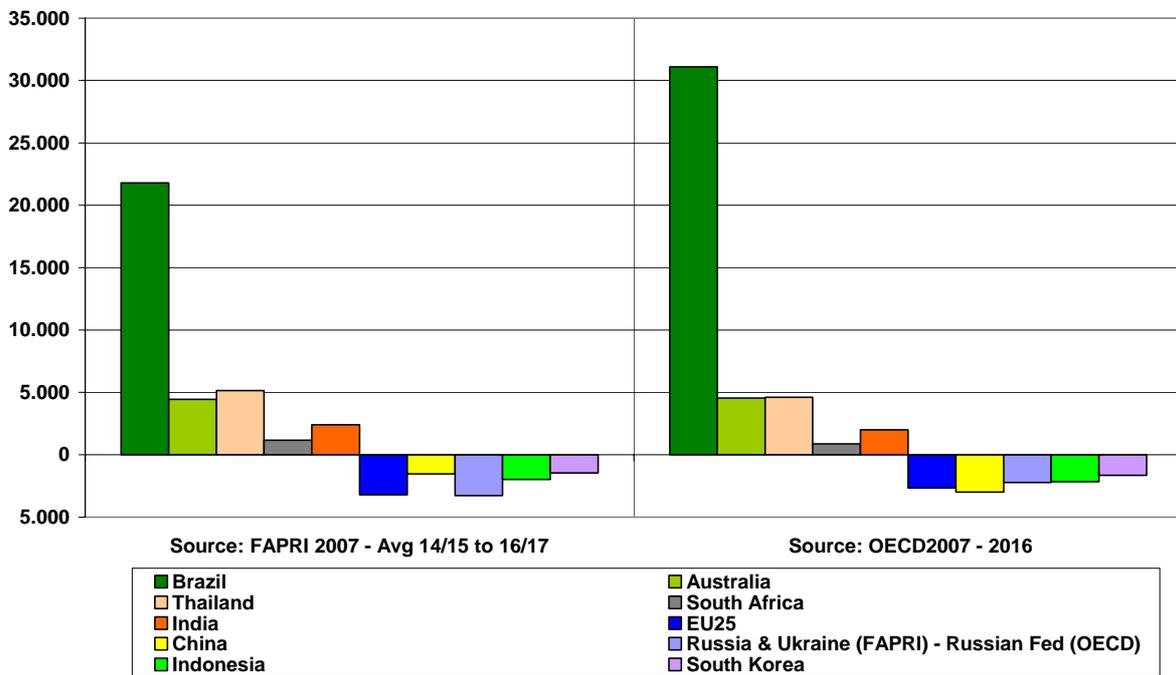
The projections of the world market **price** for sugar (raw sugar, fob Caribbean ports) differ to some extent as FAPRI is expecting a higher price level during the projection period 2007-2016. Both projections however agree on the fact that sugar prices on average should reach a higher level during the coming ten years compared to the past decade. The latter included both record low and high prices, illustrating the volatility of sugar prices. The projected average price in 2007/08 - 2016/17 is in the 250-300 US\$/t range, 26% (FAPRI) or 11% (OECD-FAO) higher than in the past ten years.

### Raw Sugar, US\$/t (fob Caribbean ports)



### Outlook by country

#### Evolution in SUGAR net trade - 1000 t



**Brazil**, by far the biggest sugar producer and exporter in the world, is likely to increase its share in world production and trade even further. Production could increase by 3.1 % annually from 31 mio t in 2004-06 to 45 mio t in 2016 (OECD). As sugar per capita consumption is already amongst the highest in the world (about 60kg), domestic consumption will increase more slowly than production from about 11 to 14 mio t in 2016 (OECD), absorbing only 3 mio t of the additional sugar produced. This will boost exports from 19 mio tons in 2004-06

to 31 mio t in 2016, according to OECD. FAPRI is much more conservative regarding Brazil's potential of expanding production and projects "only" 35 mio t in 2016/17, which would limit the exportable surplus to 22 mio t. This difference in Brazil's sugar export potential can not be explained by different views on Brazil's ethanol production (sugar and ethanol are substitute products from sugar cane): FAPRI is also much more conservative on Brazil's ethanol production potential than OECD.

Brazil will reap the benefits from EU's drastic change in its sugar trade status, induced by the reform of the support policy to sugar. Production in the EU-27 is anticipated to drop by roughly 4 mio t from 20 mio t in 2004-06 to 16 mio t in 2016 (OECD) or 15.5 mio t in 2016/17 (FAPRI EU-25+2). Both seem to confirm the EC's own estimate of 15.6 mio t in 2014. With consumption assumed to be almost stagnant, sugar exports are likely to drop sharply from 5.1 mio t in 2004-06 to only 1.4 mio t in 2016, according to OECD. Imports are expected to increase from 2.8 mio t in 2004-06 to more than 4 mio t in 2016, following the full implementation of the "Everything But Arms" agreement. FAPRI expects in its most recent projection EU-25 net-imports to increase steadily to slightly above 3 mio t in 2016/17, which is a downward revision from last year's outlook (3.6 mio t). This matches the EC's own projections of 3 to 4 mio t of net-imports per year throughout 2008-2014. In any case, the EU will become a major net-importer of sugar, alongside Russia and China, already during the current marketing year 2006/07, whereas it still held the second place on the top exporters' list with gross exports of 5.1 mio t in 2004-06 (OECD).

**Australia's** production is anticipated by OECD to expand slightly from 5.3 to 5.7 mio t, with consumption increasing from 1.2 to 1.3 mio t. As a consequence, Australia's exports are expected to grow substantially from 4.1 in 2004-06 to 4.5 mio t in 2016. FAPRI broadly agrees, projecting production to be slightly higher than OECD, which results in a higher forecast of exports: 4.9 mio t instead of OECD's 4.5 mio t.

As do Brazil and Australia, **Thailand**, another major sugar exporter, is likely to benefit from the growing world market and from EU's departure from the list of exporting countries, expects OECD. This is a major change from OECD's projections in 2006, where only a sideward movement was anticipated for Thailand's exports. Only part of the increase in production will be absorbed by growth in domestic demand, make exports expand from 2.8 mio t in 2004-06 to 4.6 mio t in 2016. For FAPRI, Thailand will be able to expand its exports even more, to about 5.2 mio t as this forecasting institution is anticipating a much slower growth of consumption and faster growth of production.

Expansion of both, consumption and production, could be almost equal in absolute terms in **South Africa**, leaving exports almost unchanged at 1.1-1.2 mio t, according to OECD. This matches FAPRI's estimate of exports of 1.2 mio t in 2016/17.

There are diverging moves within the group formed by African Caribbean & Pacific (**ACP**) and Least Developed Countries (**LDC**), following the cut in EU support prices and the implementation of the "Everything But Arms" agreement. Production is set to decline in high-cost ACP countries, but it is likely to increase in low cost LDCs. As a result, the overall reduction would be limited (from 4.1 mio t to 4.0 mio t). But, combined with strongly growing sugar consumption, net-exports of that group (ACP including LDCs) would drop from 1.7 mio t in 2004-06 to 0.9 mio t in 2016. Although net-exports diminish, total trade of this country group will increase, resulting in enhanced intra-regional trade (OECD; no FAPRI outlook available).

**India** could go the opposite direction to the EU, turning from a net-importer of sugar to a net-exporter during the coming decade. A very robust growth in production – second only to Brazil's - together with a less dynamic but still above-average growth in consumption could induce this change in its trade status. According to OECD and FAPRI, India's production is anticipated to increase from 20 mio t in 2004-06 to 29 mio t in 2016 with internal demand growing from almost 21 mio t to 27 mio t at the same time. Due to this surplus situation, the transitory net-import status will soon be reversed and the country is projected to export 2 mio t (OECD) or even 2.4 mio t (FAPRI) by the end of the projection period.

Before 2016, EU and China will overtake **Russia**, the current leading sugar importer, thinks OECD. It projects sugar imports to decline from 3.6 to 2.5 mio t over the forecasting period, as internal demand could be stagnating to slightly declining and as production will increase from 2.9 to 4.0 mio t. FAPRI projects the sugar sectors of **Russia and Ukraine** combined. As the increase in production – from 4.6 in 2006/07 to 5.4 mio in 2016/17 - is seen to outpace that of consumption, the net import needs could decrease from 3.6 in 2006/07 to 3.2 mio t in 2016/17.

**China's** strong growth of sugar consumption (2.7% p.a.) is likely to outpace that of production (1.5%) during the projection period, calculates OECD. The result is that the country will have to procure about a quarter of its projected domestic demand of 17 mio t on world markets, importing 3.2 mio t in 2016, compared to 1.2 mio t in 2004-06. Sugar production is expected to increase from 10.5 to 13.9 mio t during the same period. FAPRI has a slightly more optimistic projection for sugar production, but far lower growth rates for consumption, expecting it at only 14.4 mio t in 2016/17, resulting in only slightly increasing net-imports: from 1.1 mio t in 2005/06 to 1.7 mio in 2016/17. FAPRI is, thus, substantially more conservative than OECD as far as China's future import needs are concerned.

According to OECD, **Indonesia and South Korea** will increase their purchases abroad by 0.6 and 0.4 mio t, respectively. Whereas South Korea does not produce sugar and Japan (constant imports of 1.4 mio t) is seen to have a rather fixed production potential of almost 1.0 mio t, Indonesia's domestic production is projected to be able to cover at least half of its growing internal demand. FAPRI's view on these Asian countries is that Indonesia will increase its net-imports by 0.2 mio t and South Korea by 0.1 mio t, whereas Japan will reduce its sugar buying abroad by 0.2 mio t due to receding demand and slightly increasing production.

**US** sugar consumption is anticipated by OECD to expand in line with population growth from 9.4 mio t in 2004-06 to 9.9 mio t in 2016, but production is likely to outpace this increase: from 7.2 to 8.0 mio t. Consequently imports are expected to drop from 2.3 mio t to 2.0 mio t. FAPRI's projection expects slightly lower imports (1.9 mio t in 2016/17).

**Mexico** is projected by OECD and FAPRI to expand net-exports slightly to almost 0.4 mio t and **Canada's** imports are anticipated to increase from 1.3 to 1.5 mio t.

## 5 Cotton

Cotton prices are projected to increase by 25% by 2016, driven by expanding uses in Asia, especially in China. Its booming textile industry is expected to absorb close to 50% of world imports, while domestic cotton production would only cover 50% of its uses. By contrast, in line with the downsizing of the textile industry in the EU, imports are set to vanish. Hence, the EU could even become a net exporter, but with very modest flows. The US remain by far the leading exporter. But Brazil, a net importer over the 1990's, has turned into a net exporter since 2000. FAPRI expects that Brazilian exports would reach levels close to those of traditional exporters (Africa and Uzbekistan), a view that is not shared by USDA.

This outlook is based on FAPRI's "2007 US and World Agricultural Outlook" and on USDA's "2007 International Long-Term Projections to 2016", as OECD-FAO does not include projections for cotton. USDA does not publish cotton data for the world; the aggregate of USDA's selected countries is used as a proxy instead.

Driven by growing **demand** from cotton mills, world cotton supply is expected to increase moderately until 2016/17. According to FAPRI's and USDA's outlooks cotton world **production** is forecast to grow by 1.8 to 1.9 % annually over the next decade. In terms of quantity, cotton use and production could gain roughly 5 mio t from 25-26 mio t in 2006/07 to about 30-31 mio t in 2016/17. The increase in production would come mainly from improving yields and to a lesser extent from a marginal increase in cotton area. Area planted with cotton could increase by 2.5 mio ha from almost 35 mio ha in 2006/07 to slightly more than 37 mio ha in 2016/17 (FAPRI). Only three countries are expected to account for three quarters of the global increase in production over the next decade: China, Brazil and India.

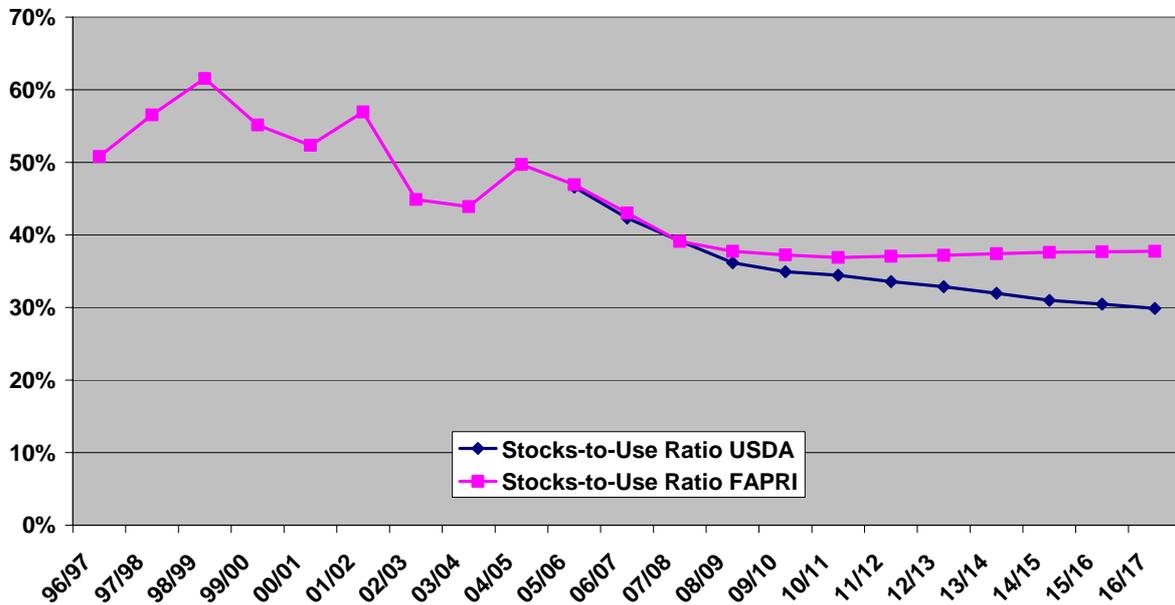
According to FAPRI, world cotton **net trade** is anticipated to expand faster than cotton use and production. Annual gains in net trade until 2016/17 are projected at 2.8 %, an increase of about 3 mio t in absolute terms from the current quantity. USDA, whose trade estimates are not directly comparable of those of FAPRI due to different regional aggregation, is predicting a significantly lower growth rate in cotton trade for the countries/regions covered. USDA's baseline differs substantially in two main points from these FAPRI projections: USDA is considerably more conservative regarding, first, the growth of cotton imports into China, and, second, Brazil's potential of expanding production and exports.

According to FAPRI, on the cotton **importers'** side, China's, other Asia's and Pakistan's import demand is by far the most important driving force behind growing world trade. Their combined expected additional demand over the next decade surpass even the projected increase in total cotton imports, as most of the other regions/countries will either exhibit stagnating (Russia) or even reduced import needs (South Korea, Taiwan, Mexico, Turkey).

On the major **exporters'** side, several countries will be able to increase their share in the global cotton markets: Brazil is forecast to post a very strong growth, followed by the USA and then, way behind, by Australia, Africa, Middle East, Uzbekistan and other CIS countries. India is anticipated not to further increase its net-exports.

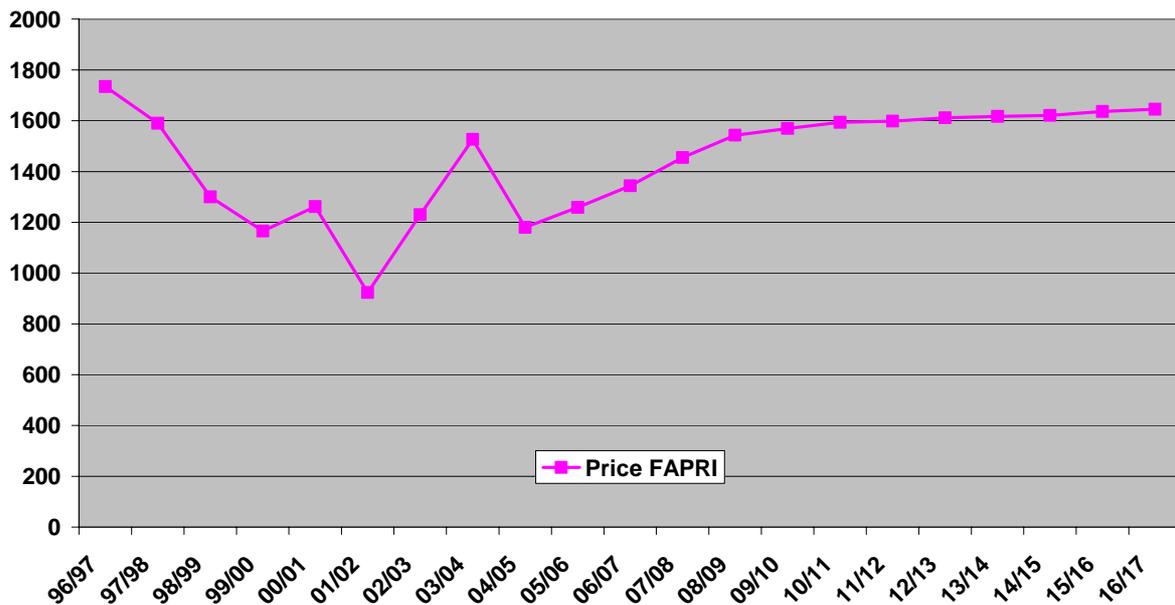
The cotton **stocks-to-use** ratio, already low by historical standards, is expected to continue to decline during the next two marketing years, but could stabilize subsequently at 37 to 38 % (FAPRI) or even fall further to 30% (USDA).

### Cotton Stocks-to-Use Ratio

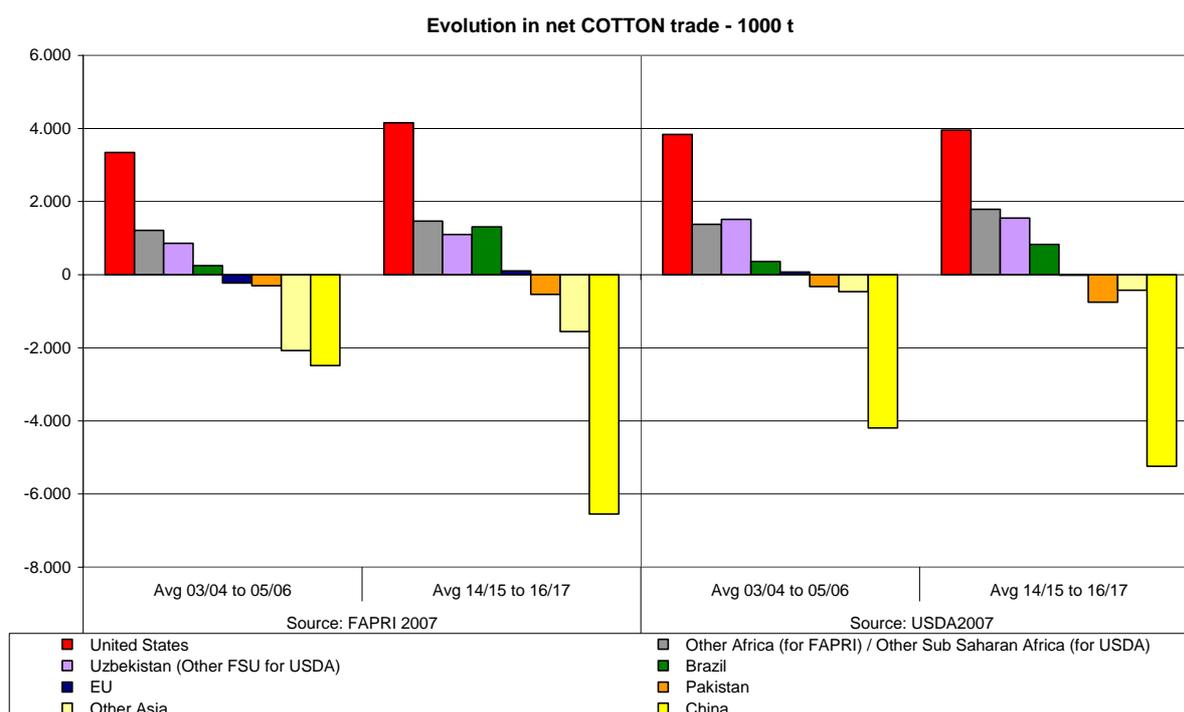


Due to this tight supply and in order to stimulate production sufficiently to keep pace with increasing demand, the world market **price** for cotton is expected by FAPRI to rise over the next decade, but is unlikely to reach the high levels seen ten years ago (USDA does not publish a price projection for cotton). During 2007-2016, cotton prices are projected to average 24% higher when compared with the past decade.

### Cotton Price, US\$/t (Cotlook Index A, CIF Northern Europe)



## Outlook by country



According to FAPRI, **China's** booming textile industry, benefiting from the dismantling of the Multi-Fibre Agreement, will boost cotton use by mills from 10.9 in 2006/07 to 14.3 mio t in 2016/17, an annual increase of 2.5%. China's share in world cotton use will therefore increase from 41% in 2006/07 to 46% at the end of the forecast period. Domestic production, although expected to grow by about 1.6% p.a., will lag more and more behind cotton use, leading to a strong increase in imports by about 3.3 mio t to 6.7 mio t in 2016/17. Whereas domestic production currently still caters for about 62% of mills' demand, this percentage is likely to decrease to 50% over the coming decade. USDA sees slower growth in uses and higher expansion potential for cotton production, which together results in slower growth of imports, estimated at only 1.3 mio tons in total over the next ten years.

Growing cotton use will bring **Pakistan's** net-imports from 465 000 t to 590 000 t, according to FAPRI, although a much higher percentage of domestic use than in China is, and will continue to be, covered by national production. USDA is expecting net-imports of more than 800 000 t in 2016/17, as a combined effect of higher increase in demand and lower expansion of production compared to FAPRI.

Cotton mill use in the **EU** is currently roughly half the use five years ago. As cotton use is likely to continue to drop strongly and even more than production, cotton imports are projected to disappear, according to FAPRI. The EU could even start being a small net-exporter of cotton. Contrary to FAPRI, USDA sees no significant change in both cotton use and production, and thus no major change in trade.

**Turkey's** production could increase slightly while cotton use is stagnating and even marginally declining, which could reduce net-imports from 575 000 t in 2006/07 to 372 000 t in 2016/17 (FAPRI). For USDA, Turkey's cotton sector is growing – both in terms of production and consumption – leaving net-imports almost unchanged.

For the second largest cotton producer and by far the largest cotton exporter in the world, the **US**, cotton production is forecast by FAPRI to increase slightly from 4.7 to 5.0 mio t in the forecast period, due to improving yields on a virtually unchanged area. Cotton use by mills, however, is anticipated to fall fast by 3.6% annually over the coming decade, leaving the US with further increased export opportunities (4.2 mio t in 2016/17, compared to 3.4 mio t in 2006/07). USDA sees production to grow from about 4.5 to 5.0 mio t and consumption to fall slightly from 1.1 to 1.0 mio t, which would also result in exports growing from 3.5 mio t in 2006/07 to 4.0 mio t in 2015/16.

In FAPRI's regional aggregate "**Other Africa**" (ie other than South Africa), slightly shrinking demand from cotton mills meets expanding production, adding to the already large export potential. Three quarters of cotton produced will continue to be exported. In quantity terms, exports could grow by 200,000 t from 1.3 to 1.5 mio t. USDA ("Other Sub-Saharan Africa") projects a much stronger export growth, to 1.9 mio t in 2016/17.

Another major cotton exporter, **Uzbekistan** is projected to be able to take only partially advantage of the expanding world cotton market, according to FAPRI. Production is likely to expand marginally, adding 100 000 t to its current export potential of 1.0 mio t. A similar increase in absolute terms could materialize in the "other CIS" aggregate. USDA only publishes estimates for "Other FSU" which comprises all countries except Russia, and is therefore equivalent to Uzbekistan plus "Other CIS" in FAPRI terms. USDA thinks for the whole region that combined exports should at best be expected to stagnate at 1.5 mio t over the forecast period.

**Brazil** is projected by FAPRI to benefit most from the overall growing cotton market. There seem to be no limits to the expansion of cotton area: FAPRI estimates a plus of 4.4 % per year until from 1.0 mio ha in 2006/07 to 1.8 mio ha in 2016/17. Production could be boosted accordingly from 1.3 mio t to 2.2 mio t. As domestic use is anticipated to be rather stagnant, Brazil's cotton exports could grow many folds over the next ten years from 0.2 to 1.3 mio t at the end of the projection period. Brazil is, thus, expected to overtake Uzbekistan as a principal cotton exporter. USDA, on the other hand, is more conservative about the expansion potential of Brazil's cotton sector. A more moderate increase in cotton area and production is forecast. Consequently, Brazil's exports in 2016/17 are projected at 1.0 mio t by USDA.

As **Australia** has no significant cotton milling sector, the cotton produced is almost entirely exported. Production and exports are forecast to grow from the low 0.3 mio t in 2006/07 (caused by drought) to 0.8 mio t (FAPRI and USDA) over the next decade.

**India** should remain a medium-sized cotton exporter of 0.7 to 0.8 mio t, says FAPRI, as both production and use are expected to grow substantially by virtually the same amount until 2016/17. USDA sees higher exports in the near future, but then India could see exports shrink again in the outer part of the projection period.

## 6 Meats

In the coming decade, **beef and veal** consumption and production is projected to grow at a relatively robust pace: by 1.4 to 1.5 % per annum. Exports are also projected to expand and will represent around 15% of world production. Although world **pigmeat** consumption and production ranked second to poultry in terms of recent growth, it remains the more important sector in terms of quantity. The growth of the world pork sector is projected to slow down over the next decade to 1.5 to 1.7 % annually, thus slightly higher than that of the beef sector. The **poultry** sector has been the most dynamic meat sector in the past. Poultry consumption and production is projected to increase at slightly less than 2 % annually, less than half the rate observed over the past two decades. Trade in poultry meat is likely to increase faster than production and consumption.

### 6.1 Beef

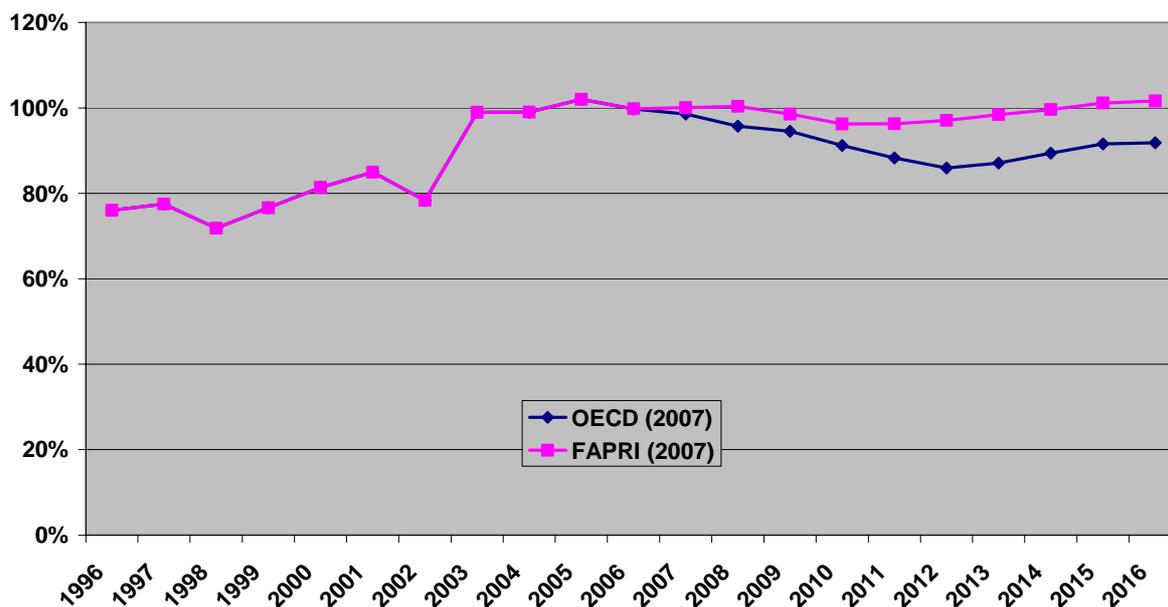
Beef and veal **consumption** and **production** is expected to continue its steady growth and could increase to about 77 mio t (OECD) in 2016, up by about 10 mio t from the current value, largely because of growing demand in Asia. This corresponds to an annual growth rate of 1.5 % for the forecast period 2008-2016. OECD therefore expects world beef consumption and production to grow in line with expansion over the past decade (1.5 %). It is worth noting that the 2007 baseline projects growth in the beef sector to be lower by almost half a percentage point compared to the previous baseline. FAPRI does not publish forecasts for world consumption and production, but if its consumption and production figures for all 25 countries are summed up in order to obtain a proxy for the global beef sector, it seems that FAPRI's projection is comparable to OECD's for the world beef sector. FAPRI implicitly predicts consumption and production to increase at around 1.4% between 2008 and 2016.

Total **exports** could increase strongly by almost 3 mio t from the current volume to 11.3 mio t in 2016, according to OECD, which means that the share of beef traded would increase to 15%. FAPRI and USDA have about half the increase in absolute terms, and have lower figures throughout the forecast period, as they work either with regional net-trade (FAPRI) or do not cover the whole world (USDA).

FAPRI and OECD agree broadly on the prospects regarding consumption, production and trade. USDA, however, expects a substantially higher growth of consumption and production (1.9%) but is more sceptical about trade prospects. USDA is also more bullish on the beef price for the next ten years.

By 2016, nominal beef **prices** are likely to stay at their current relatively high level, according to FAPRI and OECD (2007). They expect prices in the projection period to average 10% (OECD) to 14% (FAPRI) higher than during the past ten years (USDA: 24%).

### Beef Price, USA (2003-2005 = 100%)



#### Outlook by country

**Brazil** is the world's largest beef exporter and could increase its exports by about 1 mio t from an estimated 2.4 mio t in 2007 to 3.4 mio t (OECD 2007) in 2016. In its 2007 outlook, FAPRI projects only slightly more than 2.8 mio t for 2016. A major issue was the outbreak of FMD in Brazil in October 2005. OECD and FAPRI are now substantially more optimistic than last year that the country will resume its expansion of exports to its main destinations Russia and the EU observed in the recent past. Brazil's consumption is likely to grow at a relatively robust rate, but, boosted by continued strong investments, production will increase even faster. USDA, on the other hand, is more cautious in its 2007 baseline than both OECD and FAPRI, and expects exports to grow marginally to only 2.4 mio t in 2016 from a much lower base in 2007 (2.0 mio t).

According to OECD (2006), **Australia's** production is likely to decrease and this will lead to shrinking exports: OECD forecasts 1.4 mio t in 2016, down from the 1.6 mio t in 2007. FAPRI (2007), on the other hand, expects Australia to increase its exports to about 1.7 mio t in 2016 due to a strong expansion in beef production. USDA's current projection is similar to OECD's: exports of about 1.4 mio t are expected over the next ten years.

OECD predicts **Argentina** to step up its exports from 0.6 mio t in 2007 to 0.9 mio t in 2016 due to higher production and stagnant consumption. Both, FAPRI and USDA expect Argentina not to be able to maintain its exceptional high level of exports in 2005. USDA anticipates exports to drop to 0.5 mio t in 2016, FAPRI sees a transitional reduction to about 0.6 mio t and a resumption of growth in the outer part of the projection period back to 0.7 mio t. Projections are based on the assumption that Argentina will maintain its export taxes. Any ad hoc measures like the (partial) export ban in 2006/07 aimed at keeping price inflation under control could of course change the picture.

**India** will see average growth rates in both, consumption and production. Nevertheless, buffalo meat exports are forecast to rise from 0.5 mio t to 0.6 mio t (OECD 2007) or 0.8 mio t (FAPRI 2007). (There is a data problem as the consumption and production figures of the two institutions differ by roughly 1 mio t.) USDA estimates "Other Asia" (incl. India) to increase exports from 0.7 mio t in 2005 to 1.1 mio t in 2016.

India could therefore overtake **New Zealand** whose exports, as expected by OECD, are likely to stagnate at 0.5 mio t through the projection period. This view is shared by USDA in its most recent baseline. FAPRI sees still growth potential for both, production and exports, and projects exports at 0.7 mio t in ten years' time.

All organisations agree that the **EU**, a former important net-exporter which became a net-importer a few years ago (0.36 mio t in 2006), will further increase imports to arrive at net-imports of 0.3 (USDA) to 0.4 mio t (FAPRI) for the EU-25 or 0.7 mio t for the EU-27 (OECD, EC) at the end of the projection period. FAPRI, OECD and EC agree almost totally on continued decreasing beef production in the EU. The main reason for this is the structural downward adjustment of dairy cattle numbers and the decoupling of payments which reduces incentives for suckler cow herds. Most of the imports will flow into the EU paying the full tariff as the import quantity will be consistently over the 0.2 mio t tariff quota throughout the forecast period. It is interesting to note that USDA expects the fall in (gross) EU exports to bottom out in 2007, and to resume steady growth until 2016.

The **USA** which currently face export problems due to BSE (as does Canada), are forecast to resume beef exports to Asian markets, as their trading partners are gradually lifting their import bans. As production in the USA, a big net-importer of beef, is expected to grow faster than consumption, exports could expand from 0.5 mio t in 2006 to 1.5 mio t (OECD) or 1.0 - 1.1 mio t (USDA and FAPRI, respectively) in 2016, reducing net imports from 0.9 mio t to 1.5 mio t in 2006 (import data seem to be incongruent) to 0.6-0.8 mio t in 2016.

Growing beef production in **Canada** is likely to boost net-exports from 0.7 in 2006 to 1.0 mio t in 2016 (OECD). FAPRI and USDA expect slower growth of production and higher increases in consumption, leaving Canada's net exports almost unchanged.

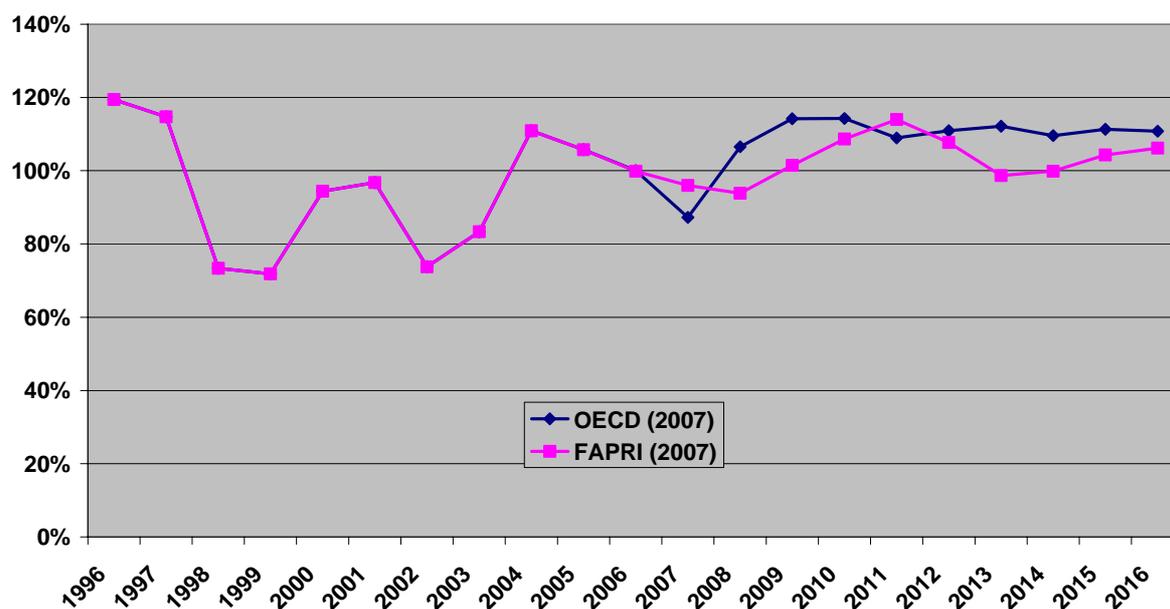
By the end of the projection period, **China** is expected to come close to the USA or Brazil in terms of beef production. Both, beef consumption and production are projected to grow by 4% annually over the next ten years. OECD predicts China will not take part in world beef trade. FAPRI, on the contrary, is forecasting that China (plus Hong Kong) will be one of the major importing countries with imports totalling 0.35 mio t in 2016. All the main current beef importers are expected to increase their import demand: Japan, South Korea, Mexico, Russia. For **Russia**, the two sources have very different figures on beef production and consumption, but the net-import forecasts are convergent (OECD: 0.7 mio t, FAPRI 0.9 mio t in 2016). For **Mexico**, there is a data problem as FAPRI has significantly higher net-import figures (increasing from 0.3 to 0.6 mio t) than OECD (0.1 mio t throughout the projection period).

## 6.2 Pigmeat

Both, OECD and FAPRI, forecast that growth of the world pigmeat sector will slow down to about 1.5-1.7 % p.a. during the next ten years. The main reasons are the slow-down of growth of **demand** in developing countries (China accounts for three quarters in this group) and the developed world's almost stagnating demand. On global pigmeat **trade**, OECD is expecting a considerably more dynamic development than FAPRI and USDA, which only partially cover world trade. Trade in pigmeat accounts for only about 5% of world consumption and production, which is low compared to the share traded in the global beef sector.

The **price** prospects for pigmeat are rather unspectacular, according to both FAPRI and OECD-FAO. The US pigmeat price is forecast by FAPRI to drop slightly further from the high level observed in 2004, and the next cyclical upswing could come in 2009 (2008 already for OECD). The price peak in 2004 was caused by consumers switching to pigmeat following the Avian Influenza scare and the discovery of BSE in North America. On average over the coming decade pigmeat prices could be slightly up on the historical average of the last ten years (OECD: + 17%, FAPRI: + 12%). The moderate nominal price rise is mainly due to the prospects for higher feed grain prices which will eventually feed through this sector and be reflected in higher pigmeat prices.

**Pigmeat Price, USA**  
(2003-2005 = 100%)



### *Outlook by country*

The **USA** saw a very dynamic growth in pigmeat net-exports in recent years. OECD foresees a 60% increase in US exports over the coming decade, with net exports coming close to 1.3 mio t by 2016. Hence the US would overtake the EU as the leading world pigmeat exporter. Earlier this year, both FAPRI and USDA projected US net-exports of more than 1 mio t by the end of the projection period, i.e. 2016 (FAPRI: 1.4 mio t, USDA 1.1 mio t). Growth in both pigmeat consumption and production, the latter being slightly higher than the former, will result in net exports increasing from current levels.

**Brazil's** net exports are expected to reach 1.1 mio t in 2016, up from the current level of 0.5 to 0.6 mio t, according to FAPRI. Both production and consumption are expected to continue their robust growth. OECD is also predicting higher increases in domestic production and consequently stronger exports, reaching about 1.2 mio t in 2016. Brazil will, therefore, get close to the US as the biggest pigmeat net-exporter. USDA is more cautious, expecting only 0.8 mio t of exports by then.

FAPRI forecasts a stabilisation of pigmeat exports of the **EU-25** at about 1.5 mio t throughout 2007-2016 while USDA anticipates exports to grow slowly to 1.6 mio until 2016. Bulgaria and Romania are net importers, but a significant share of their trade occurs with the EU-25. As a result, exports to third countries are lower for the EU-27 than for the EU-25. OECD and the EC expect a slight decline in EU-27 net exports from 1.3 mio mt in 2004-06 to 1.1 mio t in 2014-16. Production and consumption will show very moderate increases.

Robust growth of production and moderate growth of consumption could boost **Canada's** pigmeat net-exports to 1.2 mio t from current levels of 0.9 - 1.0 mio t, according to FAPRI. OECD-FAO however believes that net-exports would not be higher than 1 mio t in 2016. (data problem for currently traded quantities?). Similarly, USDA sees no potential for further growth in production and, due to modestly increasing demand, net-exports could slightly decline.

Both FAPRI and OECD expect expansion of production and consumption in **China** to slow down. This seems plausible, given that China has attained already a relatively high per capita consumption by developing country standards. Views on China's future pigmeat trade diverge to a large extent. According to FAPRI, China's trade status could become a marginal net-import position of about 0.1 mio t by 2016. China currently net-exports almost 0.5 mio t. OECD-FAO and USDA expect China to carry on with its net-export position. Hong Kong will continue to absorb about 0.3 to 0.4 mio t over the next ten years.

**Japan's** stagnant consumption is predicted to cause stagnant production which together will result in almost unchanged imports. FAPRI forecasts imports at 1.3 mio t, USDA at 1.4 mio t. For OECD-FAO consumption is still growing and production could be decreasing, bringing net-imports to 1.5 mio t in 2016. Consumption and production are likely to grow at a robust pace in **Mexico**, and import demand will increase to 0.6 mio t (USDA) or 0.5 mio t (FAPRI and OECD) by 2016. After the decline in **Russia's** pigmeat production and consumption came to a halt at the end of the nineties, the sector has been growing ever since. For OECD and FAPRI, Russian production will roughly keep pace with growing consumption, and Russia will therefore more or less maintain its current net-import position of around 0.6 mio t. USDA, on the other hand, projects Russian imports to climb to 1.1 mio t by 2016.

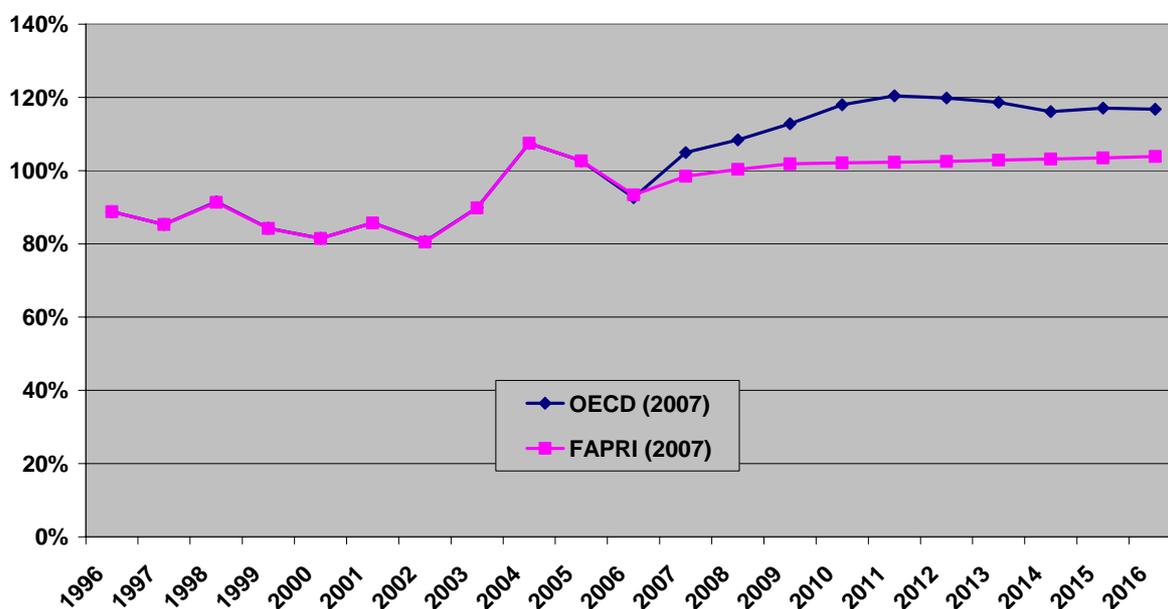
## 6.3 Poultry

Although both forecasting institutions predict the world poultry sector to continue to experience the highest growth rates within the global meat industry, they agree that these will undergo a relatively pronounced drop. OECD-FAO expects poultry **consumption and production** to increase at 1.9 % annually in 2007-2016, which corresponds to less than half the rates observed over the past two decades. FAPRI does not publish estimates for global consumption and production, but the aggregate increase for the countries covered shows a similar growth of the global poultry sector. Given the potential for further increase in per-capita consumption in Asia and Latin America, these projections may appear rather conservative.

**Trade** in poultry meat is likely to increase at a faster pace than production and consumption according to OECD-FAO and FAPRI, resulting in a higher share of consumption and production traded.

OECD is expecting that poultry meat **prices** are likely to average substantially higher (+28%) during the forecast period when compared to the past decade. FAPRI's 2007 forecast sees a moderate recovery from the relatively small price dip in 2006 and nominal prices in the coming decade should be higher by 13 %. The price rise is mainly due to the prospects for higher feed grain prices which will eventually feed through this sector and be reflected in higher poultry meat prices.

**Poultry Price, USA**  
(2003-2005 = 100%)



### Outlook by country

OECD expects the **USA** to increase poultry exports to 2.9 mio t in 2016, up from 2.7 mio t in 2006, as production is projected to grow faster than consumption. In its most recent projection, FAPRI sees US broiler net-exports higher at 3.2 mio t in 2016, compared to 2.4 mio t in 2006. USDA (2007) estimates broiler and turkey (gross) exports at 3.1 mio t in 2016 (2.8 mio t in 2006).

OECD projects **Brazil's** dynamic growth of consumption and production to slow down drastically. Whereas annual growth rates in the last two decades were around 7%, the rates expected until 2016 are from 2 to 3%. Exports could exhibit a very strong growth from 2.7 mio t in 2006 to 3.8 mio t in 2016. FAPRI (2007) forecasts Brazil's net-exports in 2016 to stand at only 3.0 mio t, compared to 2.5 mio t in 2006. Brazil's growing internal demand will prevent it from increasing exports at the pace seen in the recent past. USDA's projection is between the other two: 3.5 mio t in 2016.

**Thailand** will be able to strengthen its export status to 0.5 (FAPRI) to 0.8 mio t (OECD) in 2016 due to a strong recovery of production after the Avian Influenza. This view is not shared by USDA which sees Thai exports almost stagnating at about 0.3 mio t.

**India's** poultry sector is expected to be one of the fastest growing in the world. OECD projects India to become a small net-exporter of poultry (0.2 mio t in 2016). FAPRI does not see India to participate in the world poultry meat trade in the medium-term.

The **EU-27** has currently a net-exporting status of poultry meat. According to OECD-FAO and the EC's own current estimate, the EU is likely to become a net-importer of poultry (OECD: 0.3 mio t in 2016). This is the combined effect of declining exports and rising imports, as a result of the strong competition with low-cost producers and unfavourable exchange rates with the Dollar and the Real. FAPRI sees only a slight reduction in net-exports of the EU-25 from 0.23 mio t in 2005 to 0.16 mio t at the end of the projection period. However, Romania is a net importer, for which FAPRI expects increased imports.

Forecasters agree that the strong growth of **China's** poultry sector, which currently accounts for about half of the Asian industry, will slow-down considerably. China's production is expected to lag slightly behind its consumption, which could drive net-imports to 0.2 to 0.3 mio t in 2016 (USDA and OECD-FAO) or even to 0.5 mio t (FAPRI).

Many main importers (Mexico, Saudi Arabia, South Africa, South Korea) are forecast to import more in the future; except for **Russia**, where the projections agree that imports should be stagnating to slightly receding in the medium-term. However, Russia is unlikely to lose its number one importer status in the medium term, with imports still expected at 1.1 to 1.3 mio t in ten year's time. It is questionable whether **Japan** could really substitute its imports (0.4 mio t in 2006) with domestic production, thus attaining self-sufficiency in 2016, as expected by OECD-FAO.

## 7 Dairy Products

Across the four key dairy products **butter, cheese, SMP and WMP**, some expected common trends can be identified in the two baselines. First, average prices for dairy products in nominal terms should be substantially higher during the coming decade than in the past decade. FAPRI and OECD see a plus of roughly 40%. Second, FAPRI is more optimistic about the future growth potential for cheese and SMP than OECD, but the two projections match well for butter and WMP. Both institutions see the world dairy sector growing moderately over the next ten years. The two projections agree that cheese trade will grow faster than consumption and production, whereas butter trade will have a lower pace of expansion than the respective consumption and production. Projections diverge most for SMP consumption and production and for SMP and WMP trade.

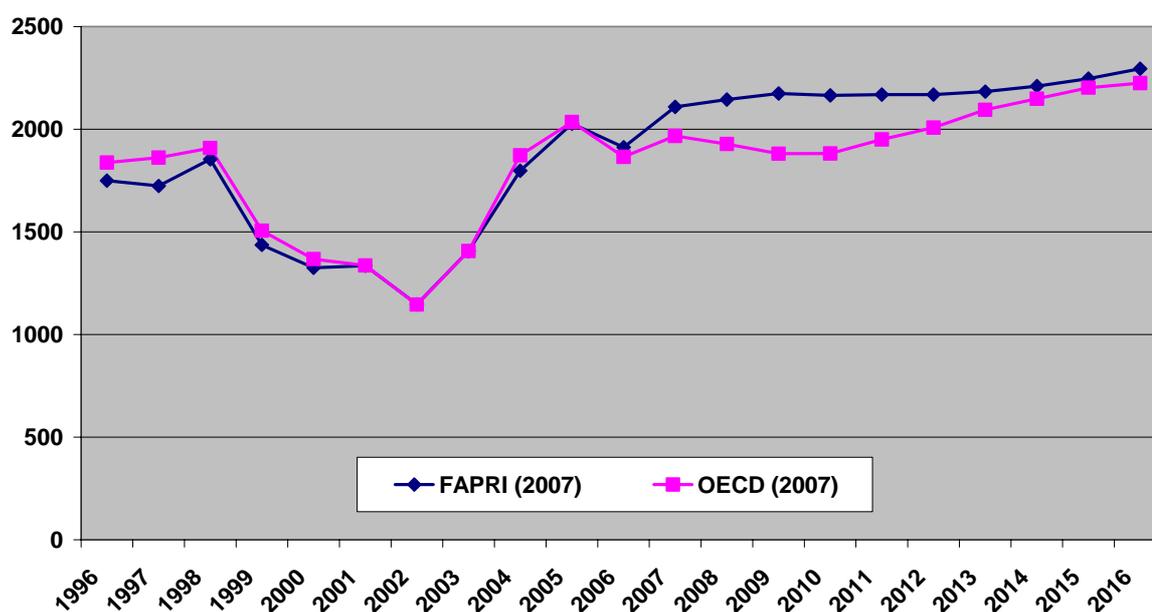
### 7.1 Butter

World butter **consumption and production** is expected to continue its moderate growth and could increase to about 11 mio t (OECD) in 2016, up from the 8.6-8.7 mio t in 2006. This corresponds to an annual growth rate of 2.2-2.3 % for the forecast period 2007-2016. FAPRI does not publish forecasts for world consumption and production, but if the consumption and production figures of all country forecasts are combined, it seems that FAPRI's projection is almost identical to OECD's for the world butter sector; annual changes are expected to be about 2.1-2.2 % p.a. for both consumption and production during 2007-2016. Both institutions base their optimism essentially on growing demand in Asia, where about half of world consumption is located. Developed countries' demand will be stagnant, at best (OECD).

OECD's projection for world butter **trade** seems to be contradictory, as imports are projected to grow in line with consumption and production from 0.7 mio t in 2006 to 0.9 mio t in 2016, but export volume is forecast to stagnate at 0.8 mio t through the next ten years. In any case, this means that the share of butter traded would remain low or even shrinking. FAPRI sees a potential for growth in world butter trade, with net exports reaching 0.75 mio t in 2016, compared to 0.63 in 2006. (Due to a lower degree of country specification, FAPRI's trade figures do not reflect part of the intraregional trade, and are, therefore, lower than those of OECD).

FAPRI expects nominal butter **prices** to continue growing after a small dip in 2006, and to average at about 2200 US\$/t during the 2007-2016 projection period, this would be 37% higher than the average price in the past decade. The OECD projects butter prices to weaken slightly until 2009-2010 and then to strengthen even further. On average, the butter price could be 24% higher in the next ten years.

## World Butter Price, fob US\$/t



### Outlook by country

**Oceania** is expected to remain the world's largest butter exporting region and maintain its share of world market share at about 50% (OECD). **New Zealand** is projected by FAPRI to increase its exports massively over the projection period to 420 000 t, whereas OECD anticipates an almost stagnant export potential (374 000 t in 2016). FAPRI projects **Australian** exports will increase and gain market share while the OECD sees constant Australian butter exports. **Ukraine**, a small butter net-exporter, is projected by both institutions to increase gradually its export potential. **India**, by far the biggest butter consuming and producing country in the world, will see very high growth rates in both demand and supply. However, the sub-continent is expected to maintain its self-sufficiency.

The two institutions agree that the **EU** will further reduce its share in the world butter market: From around 30% in total exports (250 000 t) in 2006 to 18% (150 000 t) in 2016 (according to OECD). FAPRI projects a reduction in EU-25 net butter trade from 150 000 t to 130 000 t over the same time span. The EC anticipates a sharp drop in exports, to the extent that net exports would come close to zero, while imports would remain constant. The reduction is linked to the decrease in production provoked by the cut in butter support price (-25 %) following CAP reform. The anticipated decrease in production is estimated to be slightly stronger than the declining trend in consumption.

**Russia** is projected to remain the biggest butter importer. According to the OECD, Russia is expected to increase its imports substantially from 110 000 t in 2006 to 180 000 t in 2016. FAPRI sees less potential for growth, the projection for 2016 now stands at 123 000 t (105 000 t in 2006). Only FAPRI projects a growing import demand from **Mexico**, which is expected to increase its butter imports substantially over the projection period, becoming the world's second most important importer (OECD: no imports). Curiously, FAPRI's "Rest of World" aggregate is not projected to contribute to the expansion of world butter trade during the coming decade.

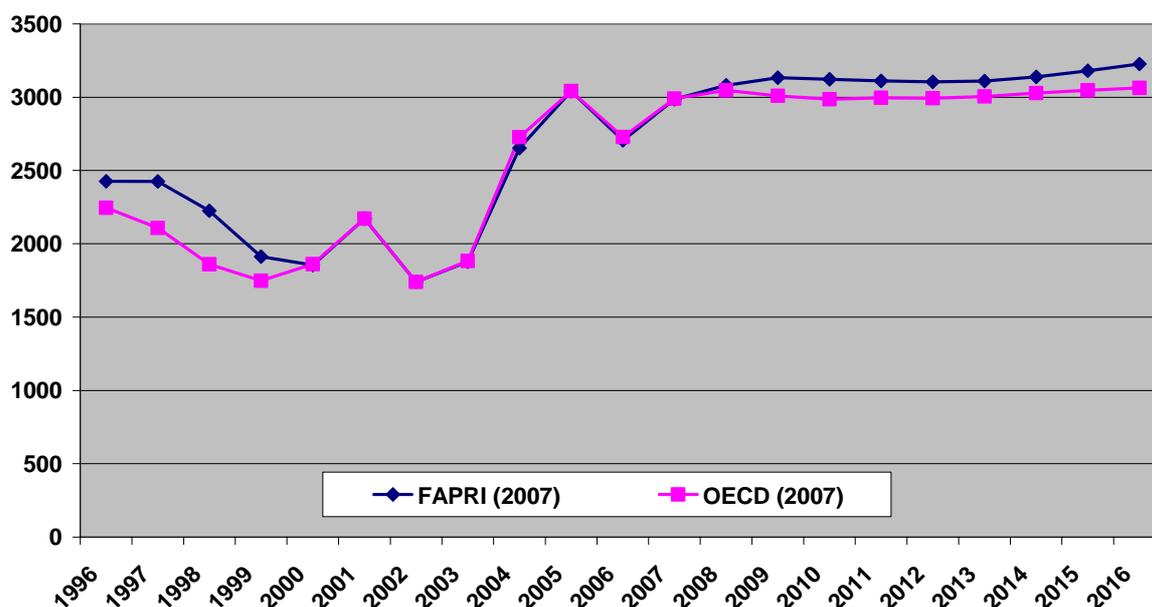
## 7.2 Cheese

Cheese **consumption** and **production** is expected to continue its growth and could reach around 21 mio t (OECD) in 2016, up 2.5 mio t from the 2006 level. This corresponds to an annual growth rate of 1.3 % for the forecast period 2007-2016. FAPRI does not publish forecasts for world consumption and production, but if the demand and supply figures of all country forecasts are summed up, the conclusion is that FAPRI is more optimistic than OECD for the world cheese sector. Annual changes are at about 1.8% for both consumption and production for 2007-2016. For both institutions, this anticipated growth is largely due to growing demand worldwide.

Total **exports** could increase from 1.5 mio t (2006) to 1.9 mio t in 2016, according to OECD. FAPRI sees a potential for growth in world cheese trade, with net exports reaching 1.2 mio t in 2016, compared to 1.0 mio t in 2006. Despite the difference in terms of quantity, the projected rates of expansion in trade are similar: FAPRI 2.6% p.a, OECD 2.5%.

Both institutions expect nominal cheese **prices** to continue to stay at very high level after the transitory slump in 2006, at or even above the 3 000 US\$/t mark. For both projections this is equivalent to a 38% increase in cheese prices on average during the next ten years.

**World Cheese Price, fob US\$/t**



### *Outlook by country*

In spite of the relatively low production, **Oceania** is expected to remain the world's largest cheese exporting region and could slightly increase its share in the world market. **New Zealand** is projected to increase its exports over the projection period from 257 000 t in 2006 to 325 000 t (FAPRI) or even to 374 000 t (OECD) in 2016. **Australian** exports are projected to increase and gain market share. OECD expects its cheese net-exports to grow from 150 000 to 180 000 t; FAPRI expects even 210,000 t in 2016. **Argentina** is projected to increase its share of the world market, with its cheese exports expected to double (FAPRI) or even triple

(OECD) until 2016. For OECD, Argentina will come close to Australia in terms of global cheese market share. As is the case with butter, **Ukraine** as a relatively new exporter is likely to increase its market share.

The **EU** will reduce its share in the growing world cheese market with almost stagnant exports during the coming decade. For both organisations, as well as for the EC, cheese net-trade could be in the 0.4 (FAPRI) to 0.5 mio t (OECD) range until 2016. Demand in the EU is expected to expand further, although at a moderate pace, which will push production by a similar amount, switching more milk to cheese and away from other dairy products.

**Japan** and **Russia** are projected to remain the biggest cheese importers, followed by the **USA**. Both agencies project a growing import demand from **Mexico**, which is expected to increase its cheese imports substantially over the projection period.

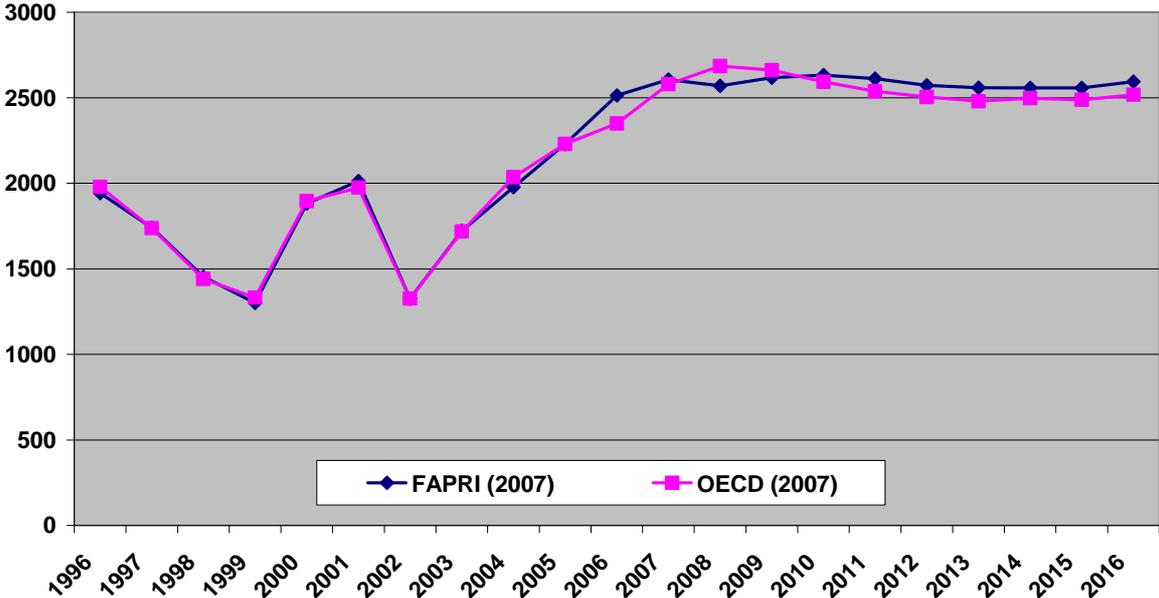
No additional import demand is projected to come from the unspecified “rest of the world” aggregate, which includes a multitude of developing countries (FAPRI).

### 7.3 Skimmed Milk Powder (SMP)

OECD and FAPRI do not totally agree on the prospects for the world SMP sector. While FAPRI foresees a gradual increase of SMP **consumption** in developing countries and of SMP **production** in Oceania (1.7 to 1.8 % per year at global level over the projection period), OECD expects growth in consumption and production to be much weaker (0.7 to 0.9 % per year). Last year, OECD had even projected a shrinking global SMP sector.

Divergence also exists for trade projections as FAPRI projects a substantial growth in world net **trade** (3% p.a. over the projection period) while the OECD expects world SMP trade to grow very slowly (0.5%).

World SMP Price, fob US\$/t



FAPRI and OECD expect nominal SMP **prices** to stay at the current very high level of about 2 600 \$/t until 2016. Driven by technical factors, current SMP prices are far beyond this level, but most analysts do not expect this situation to last long. On average during the next ten years, the SMP price is expected to be slightly more than 40% higher than during the past ten years (OECD and FAPRI).

### *Outlook by country*

**Oceania** is expected to remain the world's largest SMP exporting region and could increase its share of world market share to nearly 50%. **New Zealand** is projected to increase its exports over the projection period to 269 000 t (FAPRI) or to 351 000 t (OECD) in 2016. FAPRI projects **Australian** exports to increase and gain market share while the OECD sees a pronounced dip in 2007-2009 with exports rising subsequently back to about the current level.

FAPRI sees SMP exports of the **US** – the world number one exporter since 2005 - expanding rapidly to 400 000 t, reaching almost one third of world market share in 2016. OECD, on the other hand, expects a decrease in US SMP exports until 2013, but then exports will climb again to about the current level.

Again, the two institutions agree that the **EU** will reduce its share of the world SMP market, but they disagree on the time span and on the extent of the drop. FAPRI expects SMP net exports to continue to fall just below 100 000 t in 2008-2009, and subsequently to increase again to 130 000 in 2016/17, the end of the projection period. OECD's projection is of only 30 000 t, compared to net-exports of 71 000 t in 2006. The decrease in exports is due to an increase in consumption during the next two marketing years. According to the EC, the drop in exports will even be sharper. After the severe fall in 2006, export would go on declining being just slightly higher than imports. As a result of decreasing production and constant domestic use, the EU would lose its net-exporting status.

**South-East Asian** countries, notably Indonesia and the Philippines (which are expected to import 130 000 t and 180 000 t respectively by 2016 according to FAPRI), but also **Thailand** and **China**, remain the main destinations for SMP. **Mexico** is another main SMP importer, accounting for roughly a tenth of world imports.

## **7.4 Whole Milk Powder (WMP)**

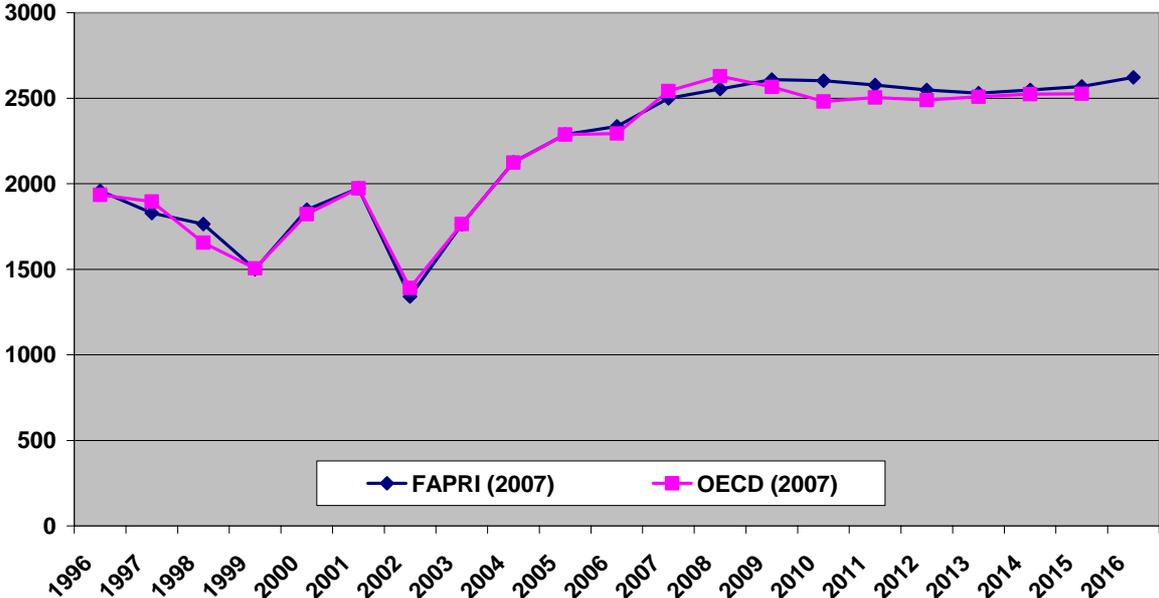
World WMP **production** and **consumption** are projected to continue growing according to the OECD (2007) and FAPRI (2007) forecasts. Both expect world WMP consumption and production to increase by more than 2% annually during the next 10 years. At regional level, demand is expected to grow strongly in Africa, which currently accounts for about one tenth of total demand, in Asia and the Pacific (more than one third of total demand), and in Latin America (roughly a quarter). According to OECD, consumption in developed countries will be stagnant.

Contrary to butter and cheese, and similar to SMP, world **trade** in WMP accounts for a relatively large share of global production. FAPRI projects only a modest growth in world net trade (1.7 % p.a., or 0.25 mio t in total until 2016), which would lead to a slightly shrinking

share of WMP being traded. OECD expects world WMP trade to increase at a faster pace; in terms of volume a total gain of 0.6 mio t until 2016, from the 1.8 mio exported in 2006.

OECD and FAPRI expect nominal WMP **prices** to continue growing and reach record levels in terms of annual average of more than 2 500 \$/t already this year, and subsequently to remain above this mark until 2016. During the coming decade, prices are anticipated to average 35% (OECD) to 37% (FAPRI) higher in comparison to the past ten years. As for SMP, short-term drivers brought current WMP prices far beyond this level, but observers anticipate a downward correction in the near future.

**World WMP Price, fob US\$/t**



**Outlook by country**

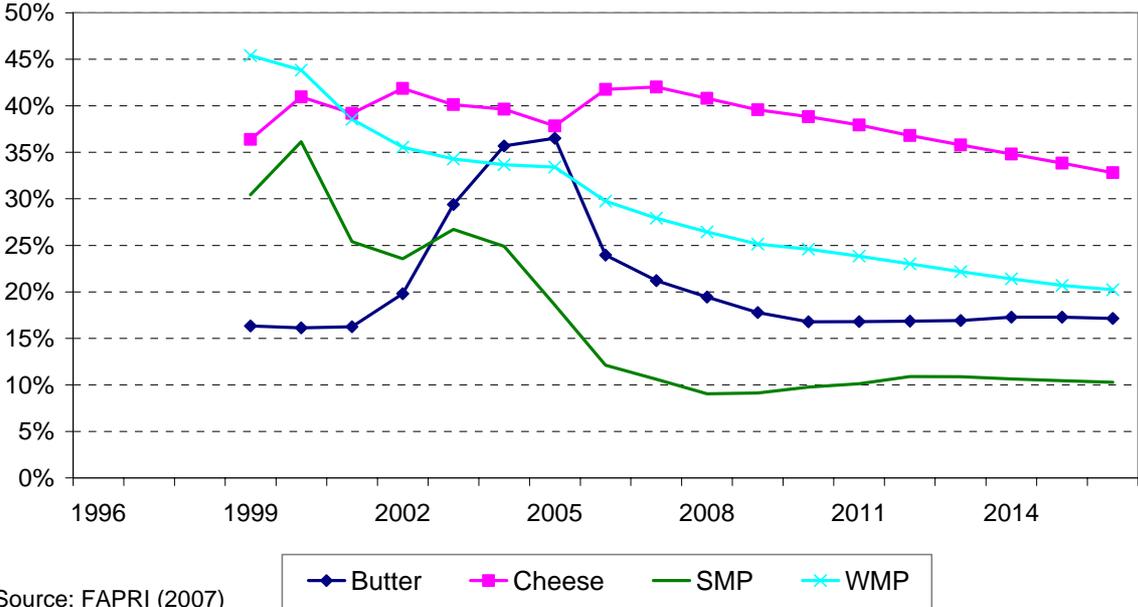
**Oceania** is expected to remain the world’s largest WMP exporting region and could increase its share of world market share to 57%. **New Zealand** is projected to increase its exports by 23% over the projection period to 790 000 t (FAPRI) or 1 mio t (OECD) in 2016, from 660 000 t in 2006. FAPRI projects **Australian** exports to increase and gain market share while the OECD sees only a limited increase in absolute terms and a slowing down in its world market share, as more milk is being channelled into other dairy products, notably cheese.

Due to the expansion of the dairy sector, FAPRI sees **Argentina's** exports increasing over the medium term, reaching 16% of world market share or 290 000 t in 2016. OECD is even much more optimistic and expects Argentina's export capacity at 0.5 mio t in 2016 (one fifth of the world market).

Again, the two organisation agree on the decline in **EU's** share of world WMP market with exports dropping from about 460 000 t in 2006 to 354 000 t (FAPRI) or 432 000 t (OECD) in 2016, due to decreasing production.

**South-East Asian** countries, notably Malaysia, Vietnam and Indonesia, are indicated by FAPRI and OECD to become important importers of WMP. The rest of import demand is projected to come from the unspecified “rest of the world” aggregate, which includes a multitude of developing countries and which represents about half of world WMP imports. OECD projects growth of import demand to be strongest in **Africa**, followed by **Asia** and **Latin America**.

**Share of EU-25 in world dairy trade**



Source: FAPRI (2007)