FOCUS

As this report goes to print, concerns over macroeconomic prospects and global financial markets are once more gaining the headlines. Changes in the economic environment, including continuing fluctuations in exchange rates and high unpredictability have a strong influence on agricultural commodity markets. From the supply side, however, the 2008-2009 price boom spurred plantings and production of many food crops, resulting in a recovery in inventories and boosting stocks-to-use ratios, a tendency likely to prevail also in 2010/11. In fact, from sugar to wheat, most indicators point to increasing world supplies, a leading factor behind the sharp declines in international prices of major food staples this year.

The FAO food price index, which tracks agricultural commodities, fell to a three month low in March and as of May has changed little. Sugar prices have tumbled by half from their peak at the beginning of the year under prospects of significant production increases. The decline in cereal prices has been more modest, at around 10 percent. The drop in cereal prices is a concern to producers and is exerting more pressure on governments to intervene. In the oilseeds complex, prices have so far resisted a major downturn, as demand remains strong and supply somewhat less ample than in the case of cereals. However, early indications suggest that prices in the sector may weaken in the coming months as supply responses to high prices ease the current tightness.

By contrast, dairy markets remain firm, amid sluggish growth in milk production and robust demand. Prices in the meat sector have also been on the rise because of declining production just as world demand rebounds. The fish sector is also benefiting from a revival, with prices of some species strengthening. The market for Atlantic salmon remains particularly tight because of unfavourable supply developments in Chile prompted by disease outbreaks, an issue more extensively covered in the special feature of this report.

As markets enter the second half of 2010, the focus is shifting gradually to prospects over the next year. Traditionally, the outlook for cereals attracts particular attention at this time as information on plantings for the new season is firmer than for other crops. Based on FAO's first forecasts of global supply and demand in 2010/11, presented in this report, cereal markets are heading towards another comfortable season, with world production in 2010 likely, at least, to match the record achieved in 2008, and global inventories increasing for the third consecutive season. Importantly, the growth in production may not be confined to exporters only, as many importing countries are also expected to harvest bumper crops. Nonetheless, the total value of food imports in 2010 is forecast to increase by 11 percent with greater sugar and dairy import bills offsetting lower expenditures on cereal imports. The import bill of the Least Developed Countries (LDCs), as a group, in 2010 is forecast to rise by nearly 10 percent, with non-cereal commodities accounting for all of the anticipated increase.

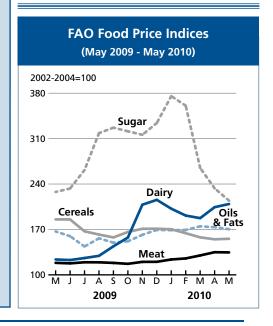
TABLE OF CONTENTS

| Market summaries | 3-11 |
|--|---|
| Market assessments Cereals Wheat Coarse grains Rice Oilseeds, Oils and meals Sugar Meat and meat products Milk and milk products Fish and fishery products | 12-51 12 13 17 21 27 34 38 41 45 |
| Special features Futures markets, portfolio diversification and food price | 52-59 es 52 |
| The salmon disease crisis in Chile | 58 |
| Statistical appendix tables New: Tables with extended coverage | 60-95 |
| Market indicators Ocean freight rates | 96-103 96 |

Implied volatilities

Food import bills

The FAO price indices



97

99

101

ACKNOWLEDGEMENTS

The Food Outlook report is a product of the FAO Trade and Markets Division. It is written by a team of economists, whose names and contacts appear under their respective market summary contributions. The report benefited from research support by many staff, namely, Laura Cattaneo, Claudio Cerquiglini, Julie Claro, Dina Forzinetti, John Heine, David Mancini, Patrizia Mascianá, Marco Milo, Turan Rahimzadeh, Barbara Senfter and Stefania Vannuccini.

Special thanks go to Rita Ashton for compiling the report and overall administrative support, as well as to Claudio Cerquiglini, for preparing the charts and statistical tables. Additionally, the team is grateful to Adrianna Gabrielli and Nancy Hart for their editorial assistance.

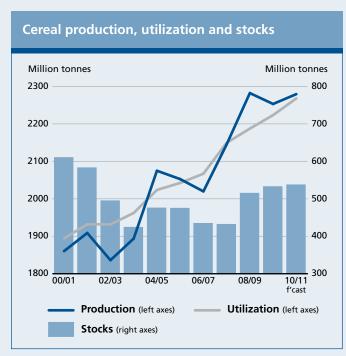
Cereal market summary

Early indications for cereals in the 2010/11 season point to near record world production, further build-up of cereal inventories, a modest increase in world trade and overall, a fairly comfortable cereal supply and demand outlook. International prices of all cereals, already under downward pressure during the second half of the 2009/10 season, have declined further in recent weeks on good prospects for the new season and developments in other markets, including the strengthening of the United States Dollar and weakening crude oil prices. At this early stage, however, only the outlook for this year's wheat crops may be regarded as almost definite, because wheat plantings are complete and major harvests will soon begin. For rice and coarse grains, plantings are not over and in some cases, have not even begun. In addition, there remain many uncertainties with respect to demand. A faster recovery in the world economy than currently envisaged may foster stronger growth in feed and industrial demand, a development which would support world prices as the season progresses.

| World cereal market at a glance ¹ | | | | |
|---|---------|-----------------------|-----------------------|--|
| | 2008/09 | 2009/10 estim. | 2010/11 f'cast | Change 2010/11 over 2009/10 |
| | ı | million tonne | ?S | % |
| WORLD BALANCE | | | | |
| Production | 2 282.2 | 2 253.1 | 2 279.5 | 1.2 |
| Trade ² | 282.3 | 261.8 | 264.5 | 1.0 |
| Total utilization | 2 187.3 | 2 223.4 | 2 268.1 | 2.0 |
| Food | 1 027.2 | 1 040.0 | 1 056.5 | 1.6 |
| Feed | 761.6 | 768.0 | 775.1 | 0.9 |
| Other uses | 398.5 | 415.4 | 436.5 | 5.1 |
| Ending stocks | 510.4 | 528.1 | 532.8 | 0.9 |
| SUPPLY AND DEMAND INDIC | CATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 152.0 | 152.1 | 152.7 | 0.4 |
| LIFDC (Kg/year) ³ | 155.6 | 155.6 | 156.3 | 0.5 |
| World stock-to-use ratio (%) | 23.0 | 23.3 | 23.3 | |
| Major exporters' stock-to- disappearance ratio (%) | 17.7 | 17.4 | 17.4 | |
| FAO cereal price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 238 | 174 | 161 | -11 |

¹ Rice in milled equivalent

³ Low-Income Food-Deficit Countries



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² Trade data refer to <u>exports</u> based on a July/June marketing season for wheat and coarse grains and on a January/December marketing season for rice

Wheat market summary

Although falling for the third consecutive year, world wheat production in 2010 is again expected to be above average and a slightly below the record set in 2008. The small decline in production is expected to be almost entirely offset by larger opening stocks. As a result, total wheat supply in the new season (2010/11) will again be adequate to meet anticipated demand, with only a minor reduction in ending stocks by the close of seasons in 2011. Against the backdrop of an economic slowdown in many countries, this generally favourable wheat supply outlook is likely to maintain pressure on downward international prices. With trade expanding only slightly in 2010/11, stiffer competition for market share among the major exporters is likely, as all of them are forecast to hold larger exportable supplies than in 2009/10. The recent strengthening of the United States Dollar may be supportive to exporters from Europe. However, large surpluses in the Black Sea region are dampening prospects for very strong increases in exports from the European Union (EU), and in general, could contribute to a further drop in international prices.

| World wheat market at a glance | | | | |
|--------------------------------------|---------|-----------------------|-------------------|--|
| | 2008/09 | 2009/10 estim. | 2010/11 f'cast | Change 2010/11 over 2009/10 |
| | m | illion tonn | es | % |
| WORLD BALANCE | | | | |
| Production | 683.8 | 682.4 | 676.5 | -0.9 |
| Trade ¹ | 139.2 | 120.5 | 122.0 | 1.2 |
| Total utilization | 648.6 | 662.8 | 675.0 | 1.8 |
| Food | 453.2 | 461.8 | 466.7 | 1.1 |
| Feed | 121.7 | 122.2 | 128.2 | 4.9 |
| Other uses | 73.7 | 78.9 | 80.1 | 1.6 |
| Ending stocks | 178.1 | 196.1 | 194.1 | -1.0 |
| SUPPLY AND DEMAND INDIC | ATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 67.1 | 67.5 | 67.5 | -0.1 |
| LIFDC (Kg/year) | 57.4 | 58.3 | 58.1 | -0.2 |
| World stock-to-use ratio (%) | 26.9 | 29.0 | 29.0 | |
| Major exporters' stock-to- | 17.2 | 21.2 | 20.7 | |
| disappearance ratio (%) ² | | | | |
| Wheat price index * (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 235 | 154 | 141 | -13 |

^{*} Derived from International Grains Council (IGC) Wheat Index

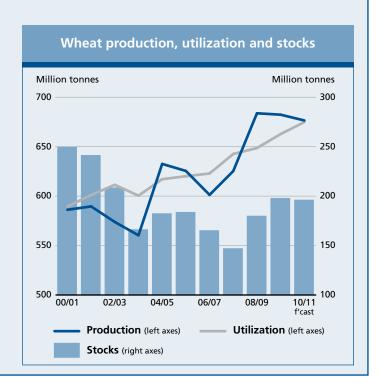
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¹ Trade data refer to <u>exports</u> based on a common July/June marketing season

² Major exporters include Argentina, Australia, Canada, EU and the United States

Coarse grain market summary

Plantings of the 2010 coarse grain crops are not yet complete in the major northernhemisphere producing countries. meaning supply-and-demand outlook 2010/11 must be regarded as very tentative. Nonetheless, most indicators point to generally good supply prospects for the new season while demand remains frail amid a difficult global economic environment, with many countries in recession and some making only slow progress towards recovery. World production of coarse grains is forecast to increase by just over 1 percent but there is a strong likelihood of yet another record maize crop in the United States, the world's largest producer and exporter of maize. Global ending stocks in the new season are tentatively forecast to fall slightly below their large opening levels. However, the size of stocks will depend on the final outcome of this year's production and demand, which are still subject to much uncertainty. International prices have already weakened in the 2009/10 season. While unexpected large purchases of maize by China helped prices to recover slightly in recent weeks, they remain under downward pressure because of large supplies of alternative feed, including wheat, meals and distilled grains.

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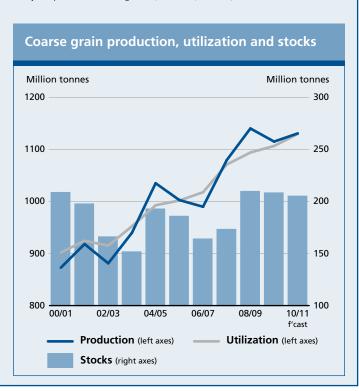
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| World coarse grain market at a glance | | | | | |
|--|---------|-----------------------|-----------------------|--|--|
| | 2008/09 | 2009/10 estim. | 2010/11 f'cast | Change 2010/11 over 2009/10 | |
| | n | nillion tonr | nes | % | |
| WORLD BALANCE | | | | | |
| Production | 1 140.3 | 1 115.2 | 1 130.9 | 1.4 | |
| Trade ¹ | 113.4 | 110.0 | 112.0 | 1.8 | |
| Total utilization | 1 094.1 | 1 106.7 | 1 129.7 | 2.1 | |
| Food | 192.4 | 190.0 | 193.7 | 1.9 | |
| Feed | 627.7 | 633.8 | 634.7 | 0.1 | |
| Other uses | 274.1 | 282.9 | 301.4 | 6.5 | |
| Ending stocks | 208.2 | 206.7 | 203.6 | -1.5 | |
| SUPPLY AND DEMAND INDI | CATORS | | | | |
| Per caput food consumption: | | | | | |
| World (kg/year) | 28.5 | 27.8 | 28.0 | 0.8 | |
| LIFDC (Kg/year) | 29.3 | 28.2 | 28.6 | 1.1 | |
| World stock-to-use ratio (%) | 18.8 | 18.3 | 17.6 | | |
| Major exporters' stock-to- | 14.4 | 14.2 | 13.5 | | |
| disappearance ratio (%) ² | | | | | |
| FAO coarse grains price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % | |
| | 211 | 157 | 153 | -5 | |

¹ Trade data refer to <u>exports</u> based on a common July/June marketing season

² Major exporters include Argentina, Australia, Canada, EU and the United States



Rice market summary

After a brief rebounding late last year, prices resumed a international rice downward trend in the first five months of 2010, reflecting sluggish import demand and ample supplies in exporting countries. The price situation is consistent with the latest assessment of global rice production in 2009, which shows only a marginal drop from the exceptional 2008 outcome. Despite some setbacks that impaired crops in several southern hemisphere countries where the new season is more advanced. the first, very tentative, forecast of global rice production in 2010 points to vigorous growth, as prices remain relatively attractive and governments continue to provide much support to the sector. World rice trade is anticipated to expand in calendar 2010, sustained by renewed import demand and a further easing of prices as competition for markets intensifies among exporters. Global rice consumption is likely to increase in 2010, with average per capita food intake rising slightly, underpinned by an extension of government preferential distribution systems and an expected fall in retail prices. Although global rice carryover stocks are forecast to increase slightly in 2010, those held by the major exporters may decline.

| World rice market at a glance | | | | |
|---|---------|-----------------------|------------------------------|--|
| | 2007/08 | 2008/09 estim. | 2009/10 <i>f'cast</i> | Change 2009/10 over 2008/09 |
| | m | illion tonn | es | % |
| WORLD BALANCE (milled bas | sis) | | | |
| Production | 440.2 | 458.0 | 455.5 | -0.5 |
| Trade ¹ | 30.1 | 29.7 | 31.3 | 5.4 |
| Total utilization | 435.7 | 444.5 | 453.9 | 2.1 |
| Food | 376.3 | 381.7 | 388.2 | 1.7 |
| Ending stocks | 110.6 | 124.2 | 125.3 | 0.9 |
| SUPPLY AND DEMAND INDIC | ATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 56.4 | 56.5 | 56.8 | 0.5 |
| LIFDC (Kg/year) | 68.5 | 68.7 | 68.8 | 0.1 |
| World stock-to-use ratio (%) | 24.9 | 27.4 | 27.0 | -1.5 |
| Major exporters' stock-to- | 17.5 | 21.3 | 16.9 | -20.7 |
| disappearance ratio (%) ² | | | | |
| FAO rice price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 295 | 253 | 223 | -16.2 |

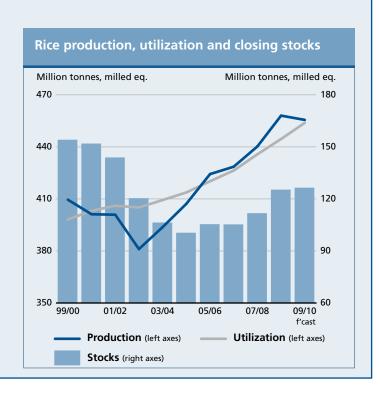
¹ Calendar year exports (second year shown)

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² Major exporters include India, Pakistan, Thailand, the United States and Viet Nam More detailed information on the rice market is available in the FAO Rice Market Monitor which can be accessed at: http://www.fao.org/economic/est/publications/rice-publications/rice-market-monitor-rmm/en/

Oilseeds market summary

With the confirmation of bumper harvests in South America, 2009/10 global oilseed output is expected to reach a new record, primarily due to above-average area and yield levels in soybean. The forecasts for total production point towards a more balanced supply and demand situation for oilseeds and meals but less so for oils/fats. As a result, in the coming months, meal values are expected to weaken significantly, while oil/fat prices should remain firm. Notwithstanding the easing of the oilcrop supply and demand situation, prices in the oilseed complex continue to be high in historical terms. Consequently, farmers are not expected to reduce significantly oilcrop plantings and, assuming a return to average yield levels, oilseed output in 2010/11 is tentatively forecast to remain unchanged or decrease slightly. However, in spite of the absence of production gains, global supplies could expand further in 2010/11 given an anticipated strong rise in carry-in stocks. Oilseed product output, especially meals, could again exceed demand, which would open the way for further recoveries in inventories and stock-to-use ratios, increasing the likelihood of an easing in prices.

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World oilseeds and products markets at a glance

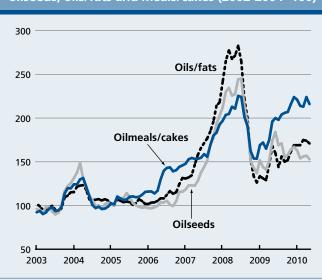
| | 2007/08 | 2008/09 estim. | 2009/10 f'cast | Change 2009/10 over 2008/09 |
|--|---------|-----------------------|--------------------------|--|
| | | million tonr | nes | % |
| TOTAL OILSEEDS | | | | |
| Production | 403.7 | 408.7 | 448.7 | 9.8 |
| OILS AND FATS | | | | |
| Production | 155.9 | 161.3 | 169.5 | 5.1 |
| Supply | 180.3 | 184.6 | 191.5 | 3.7 |
| Utilization | 157.0 | 163.8 | 169.0 | 3.2 |
| Trade | 80.8 | 86.0 | 86.7 | 0.8 |
| Stock-to-utilization ratio (%) | 14.8 | 13.4 | 13.5 | |
| MEALS AND CAKES | | | | |
| Production | 101.5 | 99.9 | 114.7 | 14.8 |
| Supply | 123.1 | 117.8 | 129.2 | 9.7 |
| Utilization | 105.0 | 104.6 | 108.3 | 3.5 |
| Trade | 63.1 | 62.2 | 64.4 | 3.5 |
| Stock-to-utilization ratio (%) | 17.0 | 13.9 | 18.4 | |
| FAO price indices (Jan-Dec) (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-Nov 2009 % |
| Oilseeds | 205 | 161 | 157 | +3.3 |
| Oilmeals/cakes | 195 | 194 | 217 | +24.0 |

225 Note: Refer to Table 10 for further explanations regarding definitions and coverage

150

Oils/fats

FAO monthly international price indices for oilseeds, oils/fats and meals/cakes (2002-2004=100)



Sugar market summary

World sugar production is now expected to recover by 3.5 percent to 156.3 million tonnes in 2009/10, largely due to relatively favourable growing conditions and high returns. Nevertheless, global output is still to remain short of consumption for the second consecutive year, with the deficit foreseen in the order of 6.3 million tonnes. As a result, global reserves are set to decline to about 54.4 million tonnes, which is 9.8 million tonnes below the ten-year average. World trade is also expected to grow by 12 percent, sustained by strong import demand in India, where consumption would outstrip production by 7 million tonnes. Preliminary projections for 2010/11 indicate a small production surplus for the first time since 2007/08, providing some downward pressure on prices. In May, prices averaged US 15.10 cents per pound, down 42.93 percent from their highs of US 26.46 cents per pound in January 2010.

| World sugar market at a glance | | | | |
|--|---------|-----------------------|-----------------------|--|
| | 2007/08 | 2008/09 estim. | 2009/10 f'cast | Change: 2009/10 over 2008/09 |
| | m | illion tonn | es | % |
| WORLD BALANCE | | | | |
| Production | 167.6 | 151.1 | 156.3 | 3.5 |
| Trade | 47.3 | 47.5 | 53.3 | 12.2 |
| Utilization | 158.7 | 160.8 | 162.6 | 1.1 |
| Ending stocks | 74.8 | 60.9 | 54.4 | -10.6 |
| SUPPLY AND DEMAND INDICA | ATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 22.9 | 23.0 | 22.9 | -0.1 |
| LIFDC (Kg/year) | 13.4 | 13.5 | 13.6 | 0.7 |
| World stock-to-use ratio (%) | 47.1 | 37.9 | 33.5 | |
| ISA Daily Price Average (US cents/lb) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 12.80 | 18.14 | 20.44 | 48.2 |

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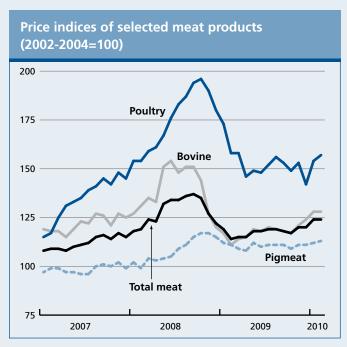


Meat and meat products market summary

A brisk expansion in poultry and pigmeat is expected to boost growth in overall meat production in 2010. Herd rebuilding, however, will constrain bovine and ovine meat outputs. World trade in meat is anticipated to stagnate in 2010, although pig meat exports may recover slightly. Low supplies are likely to limit trade growth in bovine and sheep meat while prospects for trade in poultry products are uncertain because of a tightening of import restrictions. According to the FAO Meat Price Index, world meat prices were, on average, 12 percent higher in the first three months of 2010 than in the corresponding period of 2009.

| World meat markets at a glance | | | | |
|---|----------|-----------------------|--------------------|--|
| | 2008 | 2009 estim. | 2010 f'cast | Change: 2010 over 2009 |
| | th | ousand to | nnes | % |
| WORLD BALANCE | | | | |
| Production | 279 290 | 281 482 | 286 444 | 1.8 |
| Bovine meat | 65 419 | 64 675 | 64 874 | 0.3 |
| Poultry meat | 91 819 | 92 325 | 94 819 | 2.7 |
| Pigmeat | 103 634 | 105 995 | 108 135 | 2.0 |
| Ovine meat | 12 972 | 12 985 | 13 054 | 0.5 |
| Trade | 25 936 | 25 268 | 25 374 | 0.4 |
| Bovine meat | 7 366 | 7 259 | 7 281 | 0.3 |
| Poultry | 11 130 | 11 149 | 11 041 | -1.0 |
| Pigmeat | 6 306 | 5 755 | 5 947 | 3.3 |
| Ovine meat | 867 | 832 | 830 | -0.2 |
| SUPPLY AND DEMAND INC | DICATORS | | | |
| Per caput food consumption | on: | | | |
| World (kg/year) | 41.7 | 41.6 | 41.9 | 0.6 |
| Developed (Kg/year) | 81.7 | 80.1 | 80.7 | 0.8 |
| Developing (kg/year) | 30.9 | 31.3 | 31.6 | 0.9 |
| FAO meat price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May* | Change: Jan-May 2010 over Jan-May 2009 % |
| | 128 | 118 | 129 | 12 |
| | | | | |

^{*} April and May estimates



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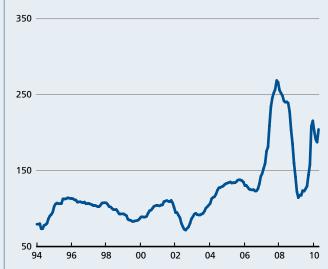
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Dairy market summary

Poor prospects for milk production in important dairy exporting countries, against a backdrop of high strong import demand, are underpinning international dairy prices in the early months of 2010. Dairy market prices experienced a strong recovery towards the end of 2009 and have remained firm in early 2010. FAO's latest forecast for global dairy production now stands at 712 million tonnes, which is some 2 percent higher than 2009, driven by increases in developing countries. Consumption per capita is expected to grow this year, after shrinking marginally in 2009. Trade has performed strongly in the early months of 2010, with a substantial expansion of exports from New Zealand and the United States. On the import side, demand growth is expected to remain brisk in Southeast Asia and oil exporting countries. A critical factor in markets is high stocks for dairy products in the EU, that were largely purchased under intervention in late 2008 and early 2009, when prices fell. How and when the EU disposes of these stocks may have significant implications for how markets evolve in 2010.

| World dairy market at a glance | | | | | |
|--|--------|--------------------|-----------------------|--|--|
| | 2008 | 2009 estim. | 2010 f'cast | Change: 2010 over 2009 | |
| | millio | n tonnes mi | lk equiv. | % | |
| WORLD BALANCE | | | | | |
| Total milk production | 694.3 | 699.5 | 711.9 | 1.8 | |
| Total trade | 40.8 | 41.9 | 42.7 | 2.0 | |
| SUPPLY AND DEMAND INDICA | TORS | | | | |
| Per caput food consumption: | | | | | |
| World (kg/year) | 104.0 | 103.6 | 104.3 | 0.6 | |
| Developed countries (Kg/year) | 246.1 | 245.0 | 244.5 | -0.2 | |
| Developing countries (Kglyear) | 66.0 | 66.2 | 67.6 | 2.1 | |
| Trade - share of prod. (%) | 5.9 | 6.0 | 6.0 | | |
| FAO dairy price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % | |
| | 220 | 142 | 199 | 65 | |

dairy products (2002-2004=100)



Monthly index of international prices of selected

The index is derived from a trade-weighted average of a selection of representative internationally traded dairy products.

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Fish and fishery products market summary

Constrained by a series of supply problems, world production of fish products is estimated to have increased marginally in 2009, with all of the expansion stemming from the dynamic aguaculture sector. The economic downturns had a marginal negative effect on the volume of fish traded internationally in 2009, but caused a severe contraction in the value of trade as prices fell and trade shifted towards less expensive fish products. The FAO Fish price index for February 2010 was only slightly above the lowest levels of 2009. However, some increases in prices have taken place in recent months, for instance for shrimp, tuna and salmon. On the whole, the outlooks for fish production, trade and consumption in 2010 are positive. Prices of some fish products are expected to strengthen in 2010, mostly reflecting a temporary downsizing of operations, following an adjustment of the sector to weak demand in 2009 and existing limitations on production, such as fishing quota or diseases.

| 2008 | 2009 estim. | 2010 f'cast | |
|------|--------------------|--------------------|---|
| | | | |
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MARKET ASSESSMENTS

CEREALS

Near-record production and large inventories to be expected in 2010/11

World cereal **production** in 2010 is forecast to reach 2 279 million tonnes (including rice on a milled basis), 1 percent up from last year's already good level and close to the 2008 record. A reduction in wheat is forecast due to reduced plantings in several major producing and exporting countries in response to reduced price prospects, while outputs of coarse grains and rice are expected to rise. The increase expected for coarse grains largely reflect the recovery of maize crops in South America that were affected by drought in 2009 and expectations for a record maize crop in the United States. In the case of rice, the increase in production is likely to stem from a recovery in Asia.

FAO's first forecast for world cereal **trade** in 2010/11 points to a 3 million tonne increase over the estimated 2009/10 level, to reach 264.5 million tonnes. At this level, world trade would be 6 percent, or around 18 million tonnes below the record set in 2008/09. The anticipated 2010/11 expansion will be driven mostly by higher wheat and maize trade while, for other cereals, it is more likely to remain unchanged or even decline slightly. Large availabilities in cereal exporting countries are expected to enable them to accommodate the increased demand.

FAO's first forecast for total cereal **utilization** is pointing to an increase of 2 percent to 2 268 million tonnes in

Figure 1. Cereal stocks and ratios Million tonnes Percent 1000 25 800 20 600 15 400 10 200 5 2007/08 2008/09 2009/10 2006/07 2010/11 **Major Exporters** Rest of the World World Stock-to-use ratio --- Stock-to-disappearance ratio of Major Exporters

Table 1. World cereal market at a glance 1 2008/09 2009/10 2010/11 Change estim. f'cast 2010/11 over 2009/10 % million tonnes WORLD BALANCE **Production** 2 282.2 2 253.1 2 279.5 1.2 282.3 261.8 264.5 Trade ² 1.0 2 187.3 2 223.4 2 268.1 2 0 **Total utilization** 1 027.2 1 040.0 1 056.5 1.6 Food 768.0 775.1 Feed 761.6 0.9 Other uses 398.5 415.4 436.5 5.1 510.4 528.1 532.8 0.9 **Ending stocks SUPPLY AND DEMAND INDICATORS** Per caput food consumption: 152.7 0.4 152.0 152.1 World (kg/year) 155.6 155.6 156.3 0.5 LIFDC (Kg/year) 3 World stock-to-use ratio (%) 23.0 23.3 23.3 Major exporters' stock-to-17.7 17.4 17.4 disappearance ratio (%) FAO cereal price index 2008 2009 2010 Change: Jan-May 2010 lan-May (2002-2004=100)over Jan-May 2009

238

174

161

-11

2010/11. Most of the expected growth is likely to be in food consumption, which could reach 1 056 million tonnes, almost 1.6 percent higher than the estimated 2009/10 level. Increase in the industrial usage of cereals is also expected to be relatively strong. Cereal-based biofuels are the main drivers behind the growth in the industrial use of maize (mostly in the United States) and of wheat (mainly in the EU). By contrast, the growth in world feed utilization is expected to remain frail for the third consecutive season, expanding by less than 1 percent in 2010/11, to 775 million tonnes. The slow growth mainly reflects the situation in the developed countries where total feed use is likely to contract again in 2010/11 because of the economic slow down. In the developing countries, on the other hand, the growth in feed use could accelerate beyond 2 percent for the first time in three years, offsetting most of the contraction expected in developed countries.

World cereal **stocks** for crop seasons ending in 2011 are forecast to increase to 533 million tonnes, up 1 percent from their opening levels and the highest since 2002. Most of the increase is expected to be driven by larger rice inventories,

¹ Rice in milled equivalent

² Trade data refer to <u>exports</u> based on a July/June marketing season for wheat and coarse grains and on a January/December marketing season for rice

³ Low-Income Food Defecit Countries

however this would depend on whether the current forecast for larger crops in 2010 materializes. Based on current expectations, the world cereal stocks-to-use ratio in 2010/11 would remain stable at around 23 percent, up nearly 4 percent from its low in 2007/08.

The **FAO Cereal Price Index** averaged 156 points in May 2010, down nearly 9 percent, or 15 points, from December 2009 and as much as 43 percent below its April 2008 peak of 274 points. International prices for all major cereals have fallen considerably since the beginning of 2010 in view of ample export supplies and prospects for large crops in 2010. Wheat and rice prices have declined while maize prices increased in recent weeks, mostly in reaction to unexpected large purchases by China.

WHEAT

PRICES

High inventories and good prospects for crops in 2010 put downward pressure on prices

International wheat prices have mostly remained under downward pressure since the December 2009 Food Outlook report. Wheat markets have been negatively influenced by both supply and demand factors. Favourable growing conditions have led to prospects for yet another good season which, coupled with large stocks, continue to weigh on international prices, especially in recent weeks. Developments on the demand side have not been supportive to prices either, as ongoing turmoil in the EU potentially undermines the prospects for further global economic

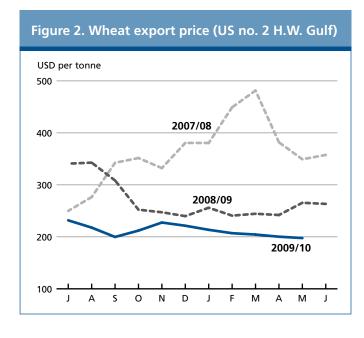
recovery. The benchmark United States wheat, **No.2 Hard Red Winter**, **f.o.b. Gulf**, averaged USD 196 per tonne in May, some 8 percent below its level at the start of the year and as much as 60 percent below its March 2008 peak. Export prices from the Black Sea and the EU also fell, despite support from stronger buying interests and steady gains in the United States Dollar in recent weeks.

Wheat **futures** have weakened sharply in recent weeks, amid good crop prospects, a firm United States Dollar, and concerns over an economic slowdown cutting demand for feed and industrial utilization. The positive impact on prices of prolonged wet conditions in Europe and dry weather in Australia were largely offset by reports of increases in planting in Argentina. As of mid-May, wheat futures in Chicago for September delivery were quoted at around USD 180 per tonne, down 22 percent from the corresponding period a year ago and 15 percent from the start of the year. Wheat futures have fallen by as much as 60 percent from their March 2008 peaks. More detailed analyses of trading volumes and positions in Chicago's future market are provided in the Special Feature of this report.

PRODUCTION

Slightly smaller wheat harvest expected in 2010

FAO's latest forecast of global wheat production in 2010 stands at 676 million tonnes, about 1 percent down from last year's near record crop, but still well above the average of the past five years. The bulk of the reduction is expected to arise with some of the major producing and exporting countries, partly reflecting smaller plantings due to lower price prospects for wheat but also due to assumptions of



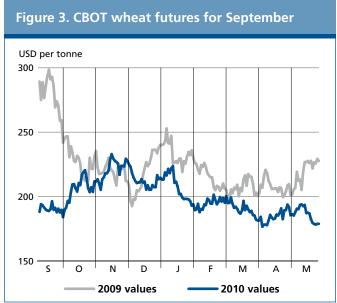


Table 2. World wheat market at a glance

| | 2008/09 | 2009/10 estim. | 2010/11 f'cast | Change 2010/11 over 2009/10 |
|--------------------------------------|---------|-----------------------|-----------------------|--|
| | r | million tonne | es | % |
| WORLD BALANCE | | | | |
| Production | 683.8 | 682.4 | 676.5 | -0.9 |
| Trade ¹ | 139.2 | 120.5 | 122.0 | 1.2 |
| Total utilization | 648.6 | 662.8 | 675.0 | 1.8 |
| Food | 453.2 | 461.8 | 466.7 | 1.1 |
| Feed | 121.7 | 122.2 | 128.2 | 4.9 |
| Other uses | 73.7 | 78.9 | 80.1 | 1.6 |
| Ending stocks | 178.1 | 196.1 | 194.1 | -1.0 |
| SUPPLY AND DEMAND INDIC | ATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 67.1 | 67.5 | 67.5 | -0.1 |
| LIFDC (Kg/year) | 57.4 | 58.3 | 58.1 | -0.2 |
| World stock-to-use ratio (%) | 26.9 | 29.0 | 29.0 | |
| Major exporters' stock-to- | 17.2 | 21.2 | 20.7 | |
| disappearance ratio (%) ² | | | | |
| Wheat price index * (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 235 | 154 | 141 | -13 |

^{*} Derived from International Grains Council (IGC) Wheat Index

a return to normal yields after two years of above-average levels.

In **North America**, a decline of 13 percent in winter wheat in the United States and an expected 7 percent cut in Canadian area are behind expectations of a significant decrease in production. However, in **Europe**, output is expected to be similar to last year's good level with a decline in the European Commonwealth of Independent States (CIS) region (the Russian Federation and Ukraine) expected to be largely offset by an expansion in the EU. Indeed, plantings have risen in some major EU producing countries and weather conditions have been generally favourable so far.

In **Asia**, harvesting of the main wheat crops in the **Far East** subregion is already well underway or complete, with output expected to be slightly down from last year's record because of smaller crops in all of the major producing countries (China, India and Pakistan). In the **Near East**, prospects for the wheat harvest, underway as of May, are generally favourable and point to a 4 percent increase from

Table 3. Wheat production: leading producers (2009 and 2010)

| Country * | 2009 | 2010 | Change: 2010 |
|--------------------------|---------|--------|--------------|
| | estim. | f"cast | over 2009 |
| | millior | tonnes | % |
| European Union | 139.4 | 143.1 | 2.7 |
| China (Mainland) | 115.0 | 113.0 | -1.7 |
| India | 80.7 | 80.3 | -0.5 |
| Russian Federation | 61.7 | 60.0 | -2.8 |
| United States of America | 60.3 | 55.6 | -7.8 |
| Canada | 26.5 | 24.2 | -8.7 |
| Pakistan | 24.0 | 23.9 | -0.7 |
| Australia | 21.7 | 21.4 | -1.1 |
| Ukraine | 20.9 | 18.5 | -11.7 |
| Turkey | 20.6 | 21.0 | 1.9 |
| Kazakhstan | 17.0 | 17.0 | 0.0 |
| Iran Islamic Rep. of | 13.0 | 14.5 | 11.5 |
| Argentina | 7.5 | 10.7 | 43.0 |
| Egypt | 8.5 | 8.6 | 0.9 |
| Uzbekistan | 6.6 | 6.5 | -2.1 |
| Other countries | 59.0 | 58.3 | -1.1 |
| World | 682.4 | 676.5 | -0.9 |

Countries listed according to their position in global production (average 2008-2010)

2009. Prospects for the 2010 wheat crop in the **Asian CIS** countries remain uncertain, pending firmer information on the outcome of the spring planting in Kazakhstan, which accounts for the bulk of the production in the subregion. In **North Africa**, wheat crop prospects are mixed, with less favourable conditions in Morocco and Tunisia where crops have suffered from lack of moisture.

In the southern hemisphere, sowing has been underway since late April in **South America**, where early indications point to an increase in plantings after last year's reduced levels. By contrast, in **Oceania**, there are indications that Australian producers may limit the area sown to wheat because of low prices.

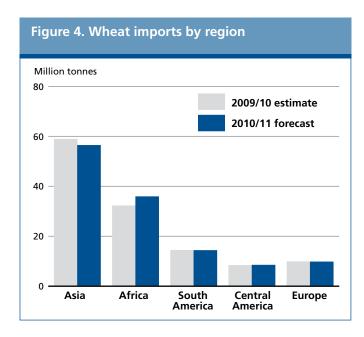
TRADE

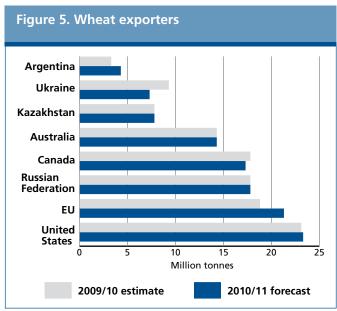
Wheat imports to increase slightly in 2010/11

FAO's first forecast for world wheat trade (exports) in 20010/11 (July/June) stands at 122 million tonnes, up 1 million tonnes from 2009/10 but 17 million tonnes, or 12 percent, below the all-time high of 139 million tonnes in 2008/09. The small anticipated increase in 2010/11 mostly reflects a surge of imports in Africa, which more than offset a sharp fall in Asia.

¹ Trade data refer to exports based on a common July/June marketing season

² Major exporters include Argentina, Australia, Canada, EU and the United States





Total wheat imports by Africa are currently forecast to approach 35 million tonnes, up 3.6 million tonnes from 2009/10. The increase will be mostly on account of a few countries, most notably **Morocco**, where erratic rains since planting are likely to hamper production and give rise to at least a 2 million tonne, or 130 percent, jump in imports. However, the bulk of imports by Morocco are expected to take place in 2011, due to the recent decision by the Government to protect domestic producers from lower international prices by increasing tariffs on soft wheat from 90 percent to 135 percent, starting in June and in effect until December 2010. Higher volumes are also forecast for Algeria, Egypt, Libya, Nigeria and Tunisia. In South **Africa**, imports will need to increase, as production is expected to decline for the second consecutive season with low wheat prices discouraging planting.

In Asia, total imports in 2010/11 are forecast at 55 million tonnes, down 2.4 million tonnes from the estimated volume in 2009/10. Wheat deliveries into Asia peaked in 2008/09 when they reached 66 million tonnes, but as production has recovered in major producing countries, they have declined considerably. Most of the anticipated reduction in the region's imports in 2010/11 is expected to be caused by the Islamic Republic of Iran, where favourable weather conditions are expected to boost wheat production this year and lower import requirements for the second consecutive season, to 2 million tonnes, down 1.4 million tonnes from 2009/10. In anticipation of large supplies, the Government has even announced plans to export wheat for the first time in three years. Purchases by the **Syrian Arab Republic** are forecast to decline by at least 500 000 tonnes in view of another expansion in

this year's production driven by government incentives and favourable weather conditions. In **Pakistan**, although production is expected to decline slightly this year, imports also could be lower than in 2009/10 because of large domestic stocks. Slightly smaller imports are also anticipated for **Afghanistan**, **Bangladesh**, the **Republic of Korea** and **Turkey**. However, in **Saudi Arabia**, they are forecast to increase for the third consecutive season following the Government's decision to phase out domestic support for wheat planting. In **Indonesia**, wheat imports are forecast to increase for the third consecutive season, mostly in response to a growing domestic demand for wheat-based food products.

In Latin America and the Caribbean, total wheat imports in 2010/11 are forecast stable around the same level as in 2009/10, or around 20 million tonnes. Imports by Brazil, the region's largest wheat importer, are forecast to decline slightly due to another anticipated above-average crop. However, in Mexico, the second Latin American wheat importer, imports in 2010/11 could increase due to strong domestic demand. For the first time in recent years, Mexico is reported to be sourcing wheat from the EU, which is a clear sign as to exactly how much the decline of the Euro against the United States Dollar is improving European wheat competitiveness. Elsewhere, imports are not likely to register any major variations compared with 2009/10.

As in the 2009/10 marketing season, world **export** supplies in 2010/11 are expected to prove adequate to meet demand, with exportable supplies in most major exporting countries, equal, if not higher, than in 2009/10. In addition, some of the traditional importing countries, for instance, the Islamic Republic of Iran, are also reporting surpluses,

which they wish to export. Among the five traditional major exporters, shipments from the **EU** are forecast to exceed the estimated levels in 2009/10, boosted by abundant supplies and a weaker Euro. The volume shipped from **Argentina** is also forecast to increase, although it may remain well below the normal historical volumes because of tight supplies. Exports from Australia and the United States are likely to remain close to 2009/10 but shipments from Canada could decline because of a likely decrease in this year's production. Among the CIS countries, early prospects point to lower wheat exports only from **Ukraine** where this year's production is expected to decline. Exports by the **Russian Federation** are forecast to remain unchanged at 17.5 million tonnes, only 1 million tonnes below the record in 2008/09. In recent years, the Russian Federation has emerged as the third, if not the second, largest world wheat exporter. Ample supplies in **Kazakhstan** could keep exports from that country close to their 2009/10 levels although low international prices continue to hamper sales because of high internal transportation costs.

UTILIZATION

Low prices to boost utilization

Early signs for world wheat utilization in the new season (2010/11) point to a relatively strong growth of just below 2 percent, to 675 million tonnes. World utilization of wheat for **direct human consumption** is expected to amount to 467 million tonnes, up around 1 percent from 2009/10 and accounting for 70 percent of total use. This would result in world wheat consumption, on a per capita basis, remaining steady at around 67.5 kg per annum. In the developing countries, per capita wheat consumption is expected to remain stable at around 60 kg, while in the developed countries it is expected to approach 97 kg.

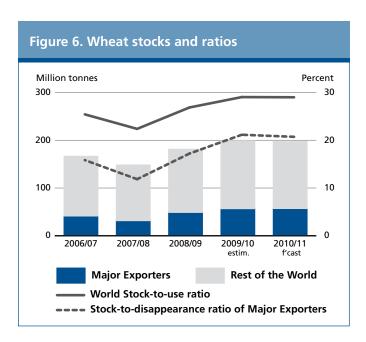
Total **feed utilization** of wheat is forecast to expand by nearly 5 percent, to 128 million tonnes. Large global supplies coupled with relatively low international prices are likely to boost feed wheat usage in 2010/11 after two consecutive seasons of sluggish growth. The leading user of wheat for animal feed purposes is the EU, where at least 40 percent of domestic wheat production is fed to animals. In 2010/11, feed use of wheat in the EU is forecast to exceed 58 million tonnes, up almost 3 percent from the 2009/10 estimate. Feed wheat use is also forecast to rise in China and the United States, as well as in major producing countries in the CIS, especially the Russian Federation. The **industrial use** of wheat is also likely to expand in 2010/11 with most of the anticipated increase, about 3 million tonnes, corresponding to the EU for the production of ethanol.

STOCKS

Wheat inventories decline slightly but remain large

After rising for two consecutives seasons, **world wheat stocks** are forecast to decline slightly, to 194 million tonnes by the close of the crop seasons in 2011. Based on this forecast, the world **wheat stocks-to-use ratio** for the new season is likely to remain at around 29 percent, the highest since 2005/06 and as much as 6.5 percent above the low ratio registered in the 2007/08 price boom season. Although world wheat production in 2010 is forecast to contract by around 1 percent, this decline will be more than compensated by much larger opening stocks, which are at least 10 percent above the levels at the start of the 2009/10 season.

In major exporting countries, total wheat stocks are forecast to remain unchanged at around 55 million tonnes with some increases in **Argentina**, **Australia** and the **United States** offsetting declines in **Canada** and the **EU**. As a result, the ratio of the major exporters' stocksto-disappearance (defined as their anticipated exports plus domestic consumption) is also forecast to remain steady in 2010/11, at nearly 21 percent. Aside from major exporters, wheat inventories are anticipated to increase most significantly in **Algeria** and the **Syrian Arab Republic** but to decline slightly in **China** and **India**. In most CIS countries, stocks are likely to remain unchanged, totalling 28 million tonnes, of which 16 million tonnes, or 57 percent, are forecast to be held in the **Russian Federation**.



COARSE GRAINS

PRICES

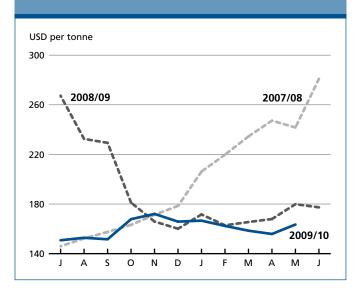
Relatively weak demand and ample supplies continue to put downward pressure on international prices of major coarse grains. The benchmark **United States maize prices** (yellow, No. 2, f.o.b.) averaged USD 163 per tonne in May, down 2 percent from December 2009. Maize prices made some gains in recent weeks when China purchased a larger amount of maize than markets had anticipated, but a firmer Unites States Dollar coupled with prospects for a record crop in the United States, amid a slower expansion in demand likely from the ethanol sector in 2010/11, accentuated the downturn. Prices have been falling even faster in futures markets, under pressure from a dip in energy markets as crude oil prices dropped to their lowest levels since September 2009. In May, maize futures on the Chicago **Board of Trade** for December delivery averaged USD 152 per tonne, down 13 percent from the corresponding period last year. Recent weeks witnessed further drops in maize

Table 4. World coarse grain market at a glance

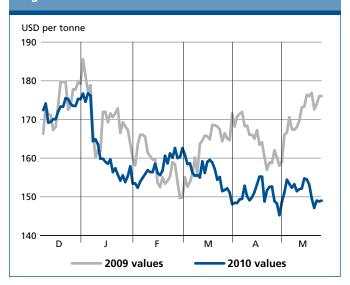
| | 2008/09 | 2009/10 estim. | 2010/11 <i>f'cast</i> | Change 2010/11 over |
|--|---------|-----------------------|------------------------------|--|
| | | | | 2009/10 |
| | r | million tonn | es | % |
| WORLD BALANCE | | | | |
| Production | 1 140.3 | 1 115.2 | 1 130.9 | 1.4 |
| Trade ¹ | 113.4 | 110.0 | 112.0 | 1.8 |
| Total utilization | 1 094.1 | 1 106.7 | 1 129.7 | 2.1 |
| Food | 192.4 | 190.0 | 193.7 | 1.9 |
| Feed | 627.7 | 633.8 | 634.7 | 0.1 |
| Other uses | 274.1 | 282.9 | 301.4 | 6.5 |
| Ending stocks | 208.2 | 206.7 | 203.6 | -1.5 |
| SUPPLY AND DEMAND INDI | CATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 28.5 | 27.8 | 28.0 | 0.8 |
| LIFDC (Kg/year) | 29.3 | 28.2 | 28.6 | 1.1 |
| World stock-to-use ratio (%) | 18.8 | 18.3 | 17.6 | |
| Major exporters' stock-to- | 14.4 | 14.2 | 13.5 | |
| disappearance ratio (%) ² | | | | |
| FAO coarse grains price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 211 | 157 | 153 | -5 |

¹ Trade data refer to <u>exports</u> based on a common July/June marketing season

Figure 7. Maize export price (US no. 2 yellow, Gulf)







futures also because of excellent growing conditions in the United States, which increased the chances of even higher maize production than the latest official forecast released in May.

PRODUCTION

Global output of coarse grains in 2010 could approach 2008's record level

With the first of the major 2010 coarse grain crops already gathered or currently being harvested in several countries around the world, FAO forecasts the 2010 world output of coarse grains at 1 131 million tonnes, 1.4 percent up from last year and close to the 2008 record level. The bulk

² Major exporters include Argentina, Australia, Canada, EU and the United States

Table 5. Coarse grain production: leading producers (2009 and 2010)

| Country * | 2009 estim. | 2010 f"cast | Change: 2010 over 2009 |
|--------------------------|----------------|-----------------------|---------------------------|
| | | tonnes | % |
| United States of America | 350.0 | 354.9 | 1.4 |
| China (Mainland) | 166.9 | 167.0 | 0.0 |
| EU | 154.6 | 150.9 | -2.4 |
| Brazil | 53.7 | 55.7 | 3.8 |
| India | 34.0 | 37.9 | 11.4 |
| Russian Federation | 33.4 | 32.1 | -3.9 |
| Mexico | 30.1 | 29.7 | -1.2 |
| Canada | 22.5 | 22.8 | 1.4 |
| Ukraine | 24.0 | 24.6 | 2.3 |
| Argentina | 16.9 | 23.4 | 38.3 |
| Nigeria | 21.0 | 21.8 | 3.8 |
| Indonesia | 17.6 | 18.1 | 3.0 |
| South Africa | 13.2 | 14.3 | 8.6 |
| Australia | 12.9 | 11.4 | -12.3 |
| Ethiopia | 11.2 | 11.7 | 4.7 |
| Other countries | 153.0 | 154.6 | 1.0 |
| World | 1 115.2 | 1 130.9 | 1.4 |

^{*} Countries listed according to their position in global production (average 2008-2010)

of the increase is expected in **South America**, where the harvesting of the coarse grain crops is already underway and output is expected to recover sharply from the drought-reduced levels of last year. Output in Argentina, the major producer, is forecast to reach over 23 million tonnes, a recovery of almost 40 percent, while Brazil's crop could reach 56 million tonnes, up nearly 4 percent from last year. In **Southern Africa**, a near-record coarse grain crop is being gathered in South Africa and, although down from last year in a few cases, above-average crops are anticipated in most other countries in the subregion.

In the northern hemisphere, planting of the main 2010 coarse grain crops is well advanced. In **North America**, as of mid-May, maize crop planting has been virtually completed in the United States, the world's largest producer of coarse grains, under favourable conditions and well ahead of normal. With the final area sown to maize expected to increase from last year, and given timely planting which augers well for yield prospects, the country's 2010 coarse grain output is forecast at 355 million tonnes, 1.4 percent up from last year and a new record. In **Europe**, prospects for the winter coarse grains are favourable, while the spring crops are still being planted. Aggregate output in Europe is

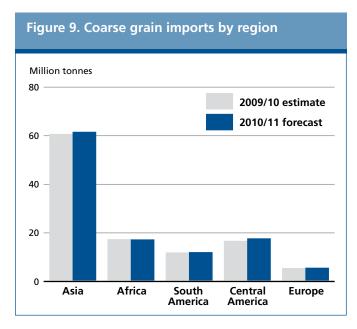
expected to change little from 2009 with the most notable development likely to be a larger maize crop in the EU at the expense of other grains (such as barley, oats and rye) the output of which is forecast to decline. In **Asia**, latest indications point to a slight increase in aggregate coarse grain production this year, reflecting a recovery in India's maize crop after last year's drought.

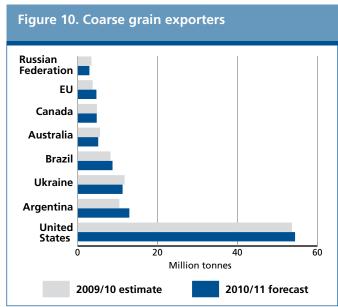
TRADE

World trade in coarse grains in 2010/11 to increase slightly

Forecasting trade in the new season remains extremely tentative at this early stage when harvests in the northern hemisphere are still many months away and the critical summer period is still ahead. Nevertheless, based on the overall supply outlook for next season and current demand expectations, world trade in coarse grains in 2010/11 (July/ June) can reach 112 million tonnes, up 2 million tonnes, or 1.8 percent, from the 2009/10 estimate. Among the major coarse grains, most of the anticipated expansion in world trade will be in maize. World **maize** trade is forecast to increase by nearly 4 percent to 86.5 million tonnes in 2010/11. By contrast, trade in **barley** and **sorghum** could decline slightly, to 17 million tonnes and 5.5 million tonnes respectively.

Overall, the prevailing economic slow down and uncertainties about recovery will have more implications for trade of coarse grains than for other cereals. This is especially true, seeing that demands for feed and biofuels, the two leading end uses of coarse grains, are often more sensitive to macroeconomic factors than is demand for food. In addition, imports of coarse grains in the new season will be very much influenced by each country's own domestic production situation in 2010 as well as the availability of alternative feed sources, such as feed wheat, which so far is viewed as ample in several countries. Half of the world exports of coarse grains is destined to go to **Asia**, where aggregate imports are forecast to increase slightly to 60 million tonnes. Higher imports of maize by the Republic of Korea and Israel are forecast to more than offset a decline in imports of barley by the Islamic Republic of Iran, which is expecting an increase in domestic production this year. A major uncertainty in the new season is **China mainland**. Its recent, unexpected purchases of maize and reports of further possible purchases in coming months may result in higher imports than currently anticipated. In Africa, total imports are forecast to remain unchanged at around 16 million tonnes. Reduced imports, mostly by several sub-Saharan countries, would mostly offset some increases in North Africa. A newly





harvested bumper maize crop in Kenya and good prospects for sorghum crops in the **Sudan** would lead to lower imports by those countries. However, decreased barley production in **Tunisia** combined with generally strong feed demand in that country, as well as in almost all of the other countries in North Africa, could result in larger world purchases of coarse grains. Total imports by countries in Latin America and the Caribbean are forecast to increase by 1 million tonnes, to over 26 million tonnes. The bulk of the anticipated increase is expected in **Mexico** where imports are forecast to reach 11.5 million tonnes, the highest in over a decade. This is driven by expectations of a decline in maize production, while feed demand is forecast to remain weak given the recently reported negative economic growth in 2009. In **Europe**, total imports are likely to remain at around the same levels as in 2009/10, given generally good crop prospects and large supplies of feed wheat.

Based on current import prospects for 2010/11, export supplies are likely to be more than sufficient. In the **United States**, the world's largest producer and exporter, this year's maize crop is heading towards yet another record. This will greatly increase the country's export supplies, although if the United States Dollar remains firm, some countries will look for cheaper sources, as well as alternatives, to maize from the United States. In the **EU**, the recent weakening of the Euro is expected to help boost exports of grains to countries outside of the EU. A weak Euro is a welcome development as far as EU exporters are concerned, as the intervention scheme for all grains except milling wheat will be eliminated from the new season, leaving exports as a principal outlet for any surpluses. This is particularly the case for barley, given its already large intervention carryovers from 2009. On the

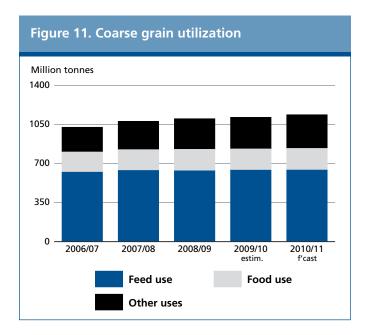
other hand, competition in world markets remains stiff with large supplies also available from the Black Sea, especially of barley from **Ukraine**. A recovery in maize supplies in **Argentina**, normally the second largest maize exporter after the United States, will increase market competition. Large maize supplies in **Brazil** and **South Africa** could also boost deliveries from both countries. India and Indonesia are expected to export the same as in 2009/10, if not more.

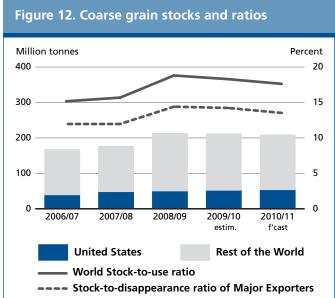
UTILIZATION

Feed use remains stagnant but some growth is forecast for food and industrial utilization

Based on the preliminary forecast for world production in 2010, total utilization of coarse grains in 2010/11 is forecast to reach almost 1 130 million tonnes, up 2 percent, or 23 million tonnes, from the estimate for 2009/10.

Contrary to the historical upward trend, **feed**, which is the main end use of coarse grains, is expected to remain stagnant for the second consecutive season, at around 635 million tonnes. The primary reason is the world economic slow down and the recession in many countries which hold up demand for animal products and, henceforth, feed. In fact, feed use in the developed countries, as a group, is forecast to contract by nearly 1.5 percent, to 342 million tonnes in 2010/11. Feed demand of coarse grains is likely to be negatively influenced by large supplies of alternative feed, including oilseeds, meals, distilled dried grains (DDGs), which are the by-products of maize-based ethanol production, and feed wheat. The decline is expected to be most notable in North America but also in the EU and the Russian Federation. In developing countries, feed use of





coarse grains is forecast to increase to 292 million tonnes, representing a growth of around 2 percent compared with 2009/10, sustained primarily by expansions in several countries in Asia and South America.

After a small contraction in 2009/10, **food** consumption of coarse grains is forecast to increase by almost 2 percent in 2010/11, to 194 million tonnes. Most of the increase is expected to take place in the developing countries, which account for over 80 percent of its total use for direct human consumption. The highest growth is forecast for Africa, led by Ethiopia and Nigeria, and for Asia, mostly led by India.

Total **industrial** use of coarse grains is forecast at 250 million tonnes in 2010/11, up by 4 percent, or around 10 million tonnes, from the estimated level in 2009/10. The driving factor in the industrial usage of coarse grains in 2010/11 will continue to be the rising demand from the ethanol sector in the United States, the largest maize-based ethanol producer, even though, according to the latest official report (USDA Feed Report, 13 May 2010), total maize use for ethanol production in the country in 2010/11 would increase by 4.5 percent only, to 116.8 million tonnes. This follows an estimated 19.7 percent rise in 2009/10. According to the report, the anticipated slower growth largely stems from squeezed returns facing the ethanol sector as excess production capacity will continue to weigh on producer margins.

STOCKS

Stocks to decline slightly

Based on the preliminary forecasts for production in 2010 and utilization in 2010/11, world coarse grain stocks by the

close of seasons in 2011 could decline from their opening levels by a slight 1.5 percent, to around 204 million tonnes. Stocks would drop more in the event of a faster global economic recovery. At the current forecast level, the **world stocks-to-use ratio** for coarse grains would also fall to 17.6 percent compared with 18.3 percent estimated for 2009/10.

Among the major exporters, only inventories in the **EU** are forecast to shrink in the new season, by roughly 5 million tonnes. Two factors are behind such an expectation: the anticipated decline in production in 2010, which follows the sharp fall in 2009, and the change in the intervention rules in the EU which, from the new season (2010/11), will no longer allow procurement of any types of coarse grains at guaranteed prices. The elimination of intervention purchases would mostly affect barley, as maize intervention has been slowly phased out since the 2007/08 marketing season. By contrast, the anticipated maize production in the **United States** in 2010 could boost its stocks for the fourth consecutive season, along with weaker domestic demand. Higher stocks also reflect weaker domestic demand prospects and a likely contraction in exports (on a marketing season basis). On aggregate terms, the sharp decline in ending stocks in the EU coupled with some decreases in Canada are likely to more than offset the expected increases in the United States, and to a lesser extent in Argentina and Australia. As a result, the major exporters' stocks-to-disappearance ratio (i.e. domestic consumption plus exports) in the new season could decline to 13.5 percent from 14.2 percent estimated for 2009/10.

Elsewhere, generally favourable crop prospects in major producing countries are likely to result in stock levels

remaining unchanged or increasing as should be the case in **India**, **South Africa** and **Ukraine**. In **Brazil** and **China**, however, the outlook for stronger growth in domestic demand could result in a smaller carryover inventories.

RICE

PRICES

Rice prices under downward pressure amid sluggish import demand

After falling for most of 2009, international rice prices bounced back in November and December, when the Philippines launched four large tenders to contract over 2 million tonnes of rice from exporters. This temporary strength came to an end in January 2010, when demand from the Philippines subsided. Since then, prices have resumed a downward trend, depressed by low purchasing interest from major importers and generally ample availabilities in exporting countries. These tendencies were reflected in the FAO All Rice Price Index, which dropped steadily from 251 to 201 points between January and May 2010. In the first five months of the year, it averaged 223 points, 43 points less than in January–May 2009. Although all market segments manifested weakness, Japonica and low-quality Indica rice were particularly affected, while highquality Indica and Aromatic rice showed far greater resilience.

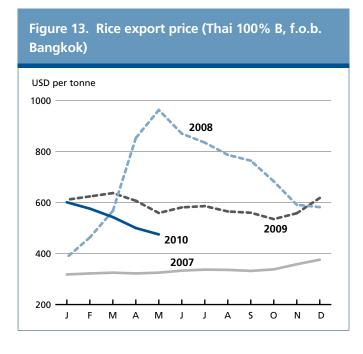
From an origin perspective, export prices in **Thailand** declined, in spite of the strength of the baht relative to the

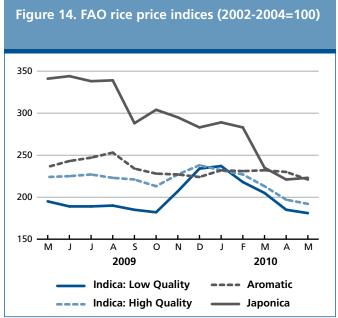
United States Dollar and of various government initiatives to shore up producer prices. The benchmark Thai 100 percent B rice, for example, traded at USD 475 per tonne in May 2010, 21 percent below its value in January and the lowest since February 2008. Quotations also followed a downward trend in the **United States** and, especially, in **Pakistan** and **Viet Nam**. Despite their recent slide, rice prices still remain expensive in international markets compared with the other cereals, wheat in particular. The rice-to-wheat price relationship (Thai 100 percent B Rice-to-US No.2 Hard Red Wheat) still hovers around 2.5, well above the usual 1.6 to 1.8 ratio.

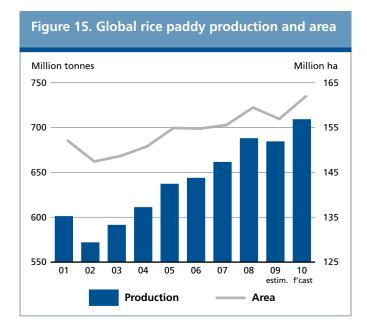
PRODUCTION

The 2009 paddy season ends with better production results than originally foreseen. Early prospects for 2010 are positive

The 2009 paddy season is now coming to a close with the harvesting of secondary crops in the northern hemisphere. Drawing on the latest information, FAO raised its estimate of world paddy production in 2009 to 682 million tonnes (456 million tonnes, milled basis), substantially above the 675 million tonnes that had been forecast in December. The 7 million tonne upward revision resulted from better crops than originally anticipated in Bangladesh, India, Indonesia and Pakistan, which more than compensated for a deterioration of prospects in the Islamic Republic of Iran, Japan, Myanmar, the Philippines, Sierra Leone, Thailand and Venezuela. At 682.5 million tonnes, 2009







world production would be barely half a percentage point, or 3.6 million tonnes, short of the exceptional 2008 harvest. The contraction would be concentrated in several countries in Asia, where crops were impaired by erratic monsoon rains and the resurgence of El Niño conditions, but also in Africa, where **Egypt** limited rice cultivation in an effort to save water. On the other hand, production in 2009 expanded in Latin America and the Caribbean, Europe, North America and Oceania.

FAO's first forecast of world paddy production in 2010 points to a 3.6 percent increase to a record 707 million tonnes. This outlook is highly tentative at this time of the year, as the 2010 paddy season is just starting in the northern hemisphere, where most of the leading producers are. The season is more advanced along and south of the equator, where the 2010 main crops have been harvested already. Early production prospects there have been dimmed by the prevalence of El Niño conditions since late last year. However, they still generally show increases for Indonesia, Malaysia and Sri Lanka, even though drought problems have dampened growth below the countries' original targets. On the other hand, late planting in South America, caused by a sequence of drought and floods, is likely to depress production in Bolivia, Brazil, Chile and Uruguay, while the outlook is positive for Argentina and Peru. In Southern and Eastern Africa, Madagascar and **Malawi** also are expected to incur some decline because of insufficient rainfall, but satisfactory growing conditions may lift rice output in the **United Republic of Tanzania**. In Oceania, Australia already released an official crop estimate of 175 000 tonnes for 2010, which compares with 63 000 tonnes last year. Regarding production prospects

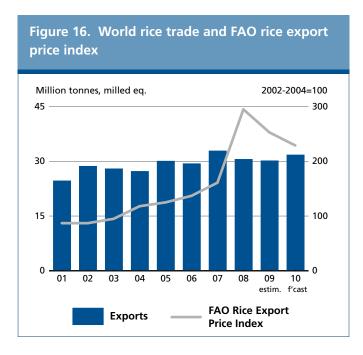
for countries in the northern hemisphere, expectations for growth in 2010 are based on an assumed return to "normal" weather conditions, including the dissipation of El Niño. They also take into account the prevailing high prices of rice relative to other crops and the continued support provided to the sector by governments.

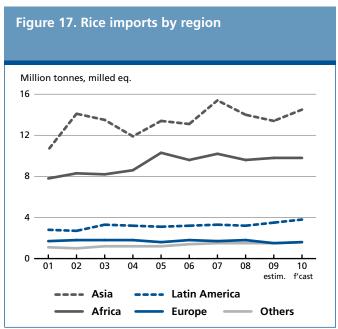
Overall, some 640 million tonnes are expected to be harvested in Asia in 2010, 23 million tonnes more than in 2009. **India**, in particular, may witness a 13 percent rebounding to an all time record of 151 million tonnes (101 million tonnes, milled basis), given the April prediction by the Indian Meteorological Department that the 2010 critical monsoon rains will reach 98 percent of the long period average. Likewise, more favourable climatic conditions could foster a recovery in Japan, Nepal and the Philippines, with strong increases also foreseen in Bangladesh, China mainland and Myanmar. On the other hand, late arrival of the May-to-June rains in Thailand already prompted the authorities to foresee a 5 percent cut in the main crop, reducing the chances of a strong production recovery from last season's poor outcome. The impacts of water scarcity and high temperatures could be even more pronounced in **Cambodia**, where they are expected to cause a 22 percent retrenchment in output in 2010. A decline is also anticipated in the Chinese Province of Taiwan and the Republic of Korea, while, in Viet Nam, production may remain stable. In Africa, countries are tentatively forecast to gather 24.8 million tonnes of paddy, 4 percent more than in 2009, sustained by progress in **Egypt**, **Mali**, **Nigeria** and **Sierra Leone**. Given the poor outlook for crops in South America and despite positive expectations in Central America, production in Latin America and the Caribbean is forecast to decrease by 3 percent to 26.9 million tonnes. In the other regions, further output gains are foreseen in the EU-27, the Russian Federation and, especially, the United States.

TRADE

A strengthening of import demand combined with ample supplies in exporting countries to boost world rice trade in 2010

The latest FAO forecast of world rice trade in calendar 2010 now stands at 31.3 million tonnes, 5 percent above the low 29.7 million tonnes estimated for 2009. Although sustained by renewed demand from countries facing supply shortages, an expected easing of international prices should facilitate recovery in global import demand. Indeed, on the export side, ample availabilities from production or stocks in many supplying countries are intensifying competition for markets



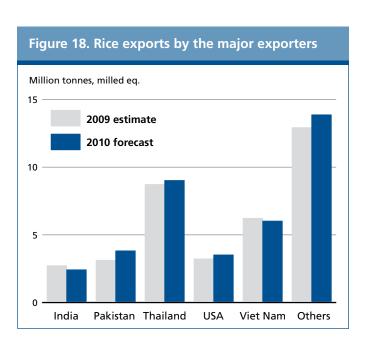


and pushing world prices down, despite government attempts in several exporting countries to keep them from falling. Aside from policies, changes in currency exchange rates are also altering relative exporter competitiveness, a trend that in the first quarter of the year favoured Pakistan and Viet Nam over Thailand.

A few Asian countries facing rice production shortfalls, in particular Iraq, Nepal and, especially, the Philippines, are largely behind the expected surge in world imports in 2010. In the Philippines, tenders to buy a record of 2.5 million tonnes were already launched and contracts signed early this year, much larger than the 1.8 million tonnes acquired in 2009. Within the region, Bangladesh, China mainland, Malaysia and the United Arab Emirates are anticipated to step up purchases to meet increasing domestic needs for consumption or storage. By contrast, improved domestic availabilities should enable Afghanistan, Indonesia, the Lao People's Democratic Republic and Turkey to cut imports. Less favourable trade policies also could contribute to depressing purchases by the Islamic Republic of Iran and Saudi Arabia.

Overall, rice imports in Africa are forecast to remain in the order of 9.8 million tonnes. However, smaller volumes may be delivered to countries in Western Africa, in particular **Guinea**, **Mali** and **Senegal**, following the reinstatement of the trade protection measures that had been suspended in the wake of the 2008 food crisis. Although **Nigeria** recently raised the benchmark price used for customs valuation by 8 percent to USD 640 per tonne, its imports are forecast to remain in the order of 1.8 million tonnes as much rice continues to enter its territory informally through

neighbouring states. By contrast, shipments to Southern African countries, in particular **Madagascar**, may increase. In Latin America and the Caribbean, more rice is expected to flow to **Brazil**, given the poor crop it just harvested, as well as to **Haiti, Mexico** and **Venezuela**, while ample domestic supplies may curb purchases by **Colombia** and **Peru**. In the rest of the world, the **EU** may buy 10 percent more than in 2009, while **the United States** has officially forecast an 8 percent increase in imports, to 735 000 tonnes. By contrast, shipments to the **Russian Federation** are likely to decline, partly because of the extension, as of 1 January 2010, of the EUR 120 per tonne seasonal import duty to the full calendar year.



| | | and the second second |
|----------|--------------|-----------------------|
| lable 6. | Rice exports | by major exporters |
| | | |

| | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 |
|----------------------|------|--------------|--------|------|-------------|--------|
| | | estim. | f'cast | | estim. | f'cast |
| • | mi | illion tonne | es | % : | share in to | otal |
| WORLD | 30.1 | 29.7 | 31.3 | 100 | 100 | 100 |
| India | 3.5 | 2.5 | 2.2 | 12 | 8 | 7 |
| Pakistan | 2.8 | 2.9 | 3.6 | 9 | 10 | 11 |
| Thailand | 10.0 | 8.5 | 8.8 | 33 | 29 | 28 |
| United States | 3.2 | 3.0 | 3.3 | 11 | 10 | 11 |
| Viet Nam | 4.7 | 6.0 | 5.8 | 16 | 20 | 19 |
| Others | 5.8 | 6.9 | 7.7 | 19 | 23 | 24 |

Much of the expected 1.6 million tonne increase in global exports this year is anticipated to stem from larger shipments from **China mainland, Egypt, Myanmar,** the **United States** and, especially, **Pakistan**. Sales from **Thailand** and **Viet Nam**, the two leading rice suppliers, may be constrained in 2010 by policies geared towards keeping domestic prices from falling. In the case of **Thailand**, shipments may increase somewhat to 8.8 million tonnes, remaining short of the 2010 export target of 9 million tonnes, while shipments from **Viet Nam** are foreseen to fall somewhat below last year's 6 million tonne level. On the other hand, reduced availabilities and the maintenance of export restrictions, are expected to depress shipments from **India** by 12 percent to 2.2 million tonnes. **Brazil** and **Uruguay** may also have to cut deliveries.

UTILIZATION

Rice consumption to increase by almost 2 percent in 2010, assisted by falling retail prices and a widening of preferential distribution schemes.

Global rice utilization in 2010 is forecast to increase by 1.7 percent to 454 million tonnes, milled basis. Of these, 388 million tonnes would correspond to food, 6 million tonnes more than in 2009. Supplies utilized for animal feed are predicted to remain in the order of 12 million tonnes, with other end uses (including post-harvest losses) projected to rise by 6 percent to 54 million tonnes. Based on current estimates, average per capita rice consumption is forecast to increase from 56.5 kgs in 2009 to 56.8 kgs in 2010.

Notwithstanding a tightening of supplies in those countries facing poor 2009 paddy seasons, the relative firmness of world rice consumption to some extent reflects the measures instituted in some major rice consuming countries to keep supplies at affordable levels and to contain

inflation. For instance, in an effort to protect vulnerable groups, several governments have widened their preferential rice distribution system to a larger number of beneficiaries. Such initiatives mostly concerned **Bangladesh**, **India**, **Indonesia**, **Sri Lanka** and **the Philippines**.

Although consumers react much less to changes in the price of rice than of non-staple foods, such as meat or milk products, the evolution of prices in domestic rice markets is an important indicator of food security. Retail/ wholesale prices in selected rice markets followed diverging patterns across the various regions in recent months. Based on available information, prices at the beginning of 2010 showed particularly strong declines of at least 10 percent, compared with their levels three months earlier, in **Nepal**, Sri Lanka and Thailand, in Asia; in Burkina Faso, Liberia and Mauritania, in Western Africa; in Djibouti, Rwanda and the United Republic of Tanzania, in eastern Africa; and in **Haiti**, in Central America. By contrast, consumer prices registered sizeable increases, of at least 10 percent, in Bangladesh and Bhutan in Asia; in Senegal, in Western Africa; in Costa Rica, in Central America; and in Colombia in South America. Although not strictly comparable in terms

| lable | /. | vvoria | rice | market | ат а | gian | ice |
|-------|----|--------|------|---------|------|-------|-----|
| | | | | 2007/08 | 200 | 08/09 | 200 |

| | 2007/08 | 2008/09 estim. | 2009/10 f'cast | Change 2009/10 over 2008/09 |
|---|---------|-----------------------|-------------------|--|
| | ı | million tonn | es | % |
| WORLD BALANCE (milled ba | sis) | | | |
| Production | 440.2 | 458.0 | 455.5 | -0.5 |
| Trade ¹ | 30.1 | 29.7 | 31.3 | 5.4 |
| Total utilization | 435.7 | 444.5 | 453.9 | 2.1 |
| Food | 376.3 | 381.7 | 388.2 | 1.7 |
| Ending stocks | 110.6 | 124.2 | 125.3 | 0.9 |
| SUPPLY AND DEMAND INDIC | ATORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 56.4 | 56.5 | 56.8 | 0.5 |
| LIFDC (Kg/year) | 68.5 | 68.7 | 68.8 | 0.1 |
| World stock-to-use ratio (%) | 24.9 | 27.4 | 27.0 | -1.5 |
| Major exporters' stock-to- | 17.5 | 21.3 | 16.9 | -20.7 |
| disappearance ratio (%) ² | | | | |
| FAO rice price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 295 | 253 | 223 | -16.2 |

¹ Calendar year exports (second year shown)

² Major exporters include India, Pakistan, Thailand, the United States and Viet Nam More detailed information on the rice market is available in the FAO Rice Market Monitor which can be accessed at:http://www.fao.org/economic/est/publications/rice-publications/rice-market-monitor-rmm/en/

Table 8. Monthly retail prices of rice in selected markets

| Lai | est availabl | e quotation | | Latest available quo | tation compared to: | /1 |
|--|--------------|-------------|------------------|----------------------|---------------------|-----------------|
| Asia | Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Bangladesh: Ntl. Avg. (coarse) | Mar-10 | 380 | 18% | 37% | 23% | -12% |
| Bhutan: Gelephu (white) | Feb-10 | 399 | 13% | 38% | 44% | - |
| Cambodia: Phnom Penh (mix)* | Apr-10 | 444 | 0% | 3% | 33% | -10% |
| China: Hubei (Indica first quality)* | Mar-10 | 405 | 2% | 2% | -1% | 8% |
| India: Delhi | May-10 | 494 | -3% | 0% | 12% | 24% |
| Myanmar: Ntl. Avg. | Feb-10 | 360 | 0% | 2% | 10% | 27% |
| Nepal: Kathmandu (coarse) | Mar-10 | 439 | -20% | -18% | -6% | 7% |
| Pakistan: Karachi (irri) | Apr-10 | 409 | 4% | 4% | 6% | 0% |
| Philippines: Ntl. Avg. (well-milled) | Mar-10 | 756 | 2% | 2% | 0% | 25% |
| Sri Lanka: Colombo (white) | May-10 | 465 | -15% | -16% | -12% | -19% |
| Thailand: Bangkok (5% broken)* | Mar-10 | 446 | -18% | -9% | -20% | -15% |
| Western Africa | Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Burkina Faso: Ouagadougou (imported)* | May-10 | 601 | -11% | -11% | -11% | 10% |
| Cape Verde: Santiago (imported) | Mar-10 | 1,139 | 2% | 5% | 7% | 58% |
| Chad: N'Djamena (imported) | Mar-10 | 953 | 0% | -3% | -8% | 17% |
| Liberia: Monrovia (imported) | Feb-10 | 834 | -16% | - | -18% | - |
| Mali: Bamako (imported)* | May-10 | 526 | -7% | -3% | -20% | -7% |
| Mauritania: Nouakchott (imported) | Apr-10 | 1,127 | -18% | 50% | 52% | 56% |
| Niger: Niamey (imported) | Mar-10 | 829 | 0% | -11% | -11% | 3% |
| Senegal: Dakar (imported) | Mar-10 | 835 | 13% | 9% | 0% | 43% |
| Central Africa | Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Cameroon: Yaundé | Mar-10 | 912 | -4% | -1% | -5% | 22% |
| Dem. Rep. Congo: Kinshasa (imported) | Apr-10 | 1,122 | 2% | 12% | 1% | 69% |
| Eastern Afirca | Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Burundi: Bujumbura | Mar-10 | 1,083 | 0% | 9% | 4% | 38% |
| Djibouti: Djibouti (imported)* | Feb-10 | 630 | -10% | -14% | -31% | -18% |
| Rwanda: Kigali* | May-10 | 943 | -13% | -13% | -11% | -13% |
| Somalia: Mogadishu (imported) | Apr-10 | 630 | -8% | -18% | -2% | -19% |
| Uganda: Kampala* | May-10 | 806 | -8% | -13% | 1% | -16% |
| United Rep. of Tanzania: Dar es Salaam* | May-10 | 799 | -16% | -15% | -11% | 31% |
| Southern Africa | Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Malawi: Lilongwe | Feb-10 | 1,281 | 4% | 1% | -29% | 88% |
| Mozambique: Maputo | May-10 | 710 | 0% | 17% | 14% | 38% |
| Central America and the Caribbe | an Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Costa Rica: Ntl. Avg. (first quality) | Mar-10 | 1,520 | 39% | 18% | 39% | 57% |
| Dominican Rep: Santo Domingo (first qualit | y) Mar-10 | 1,321 | 4% | 1% | 1% | 37% |
| El Salvador: San Salvador | Apr-10 | 1,065 | 4% | -13% | -25% | -13% |
| Guatemala: Ntl. Avg. (second quality) | Apr-10 | 1,067 | 0% | 0% | 0% | 13% |
| Haiti: Port-au-Prince (imported) | May-10 | 1,110 | -17% | 2% | 7% | -9% |
| Honduras: Tegucigalpa (second quality) | * May-10 | 777 | -4% | -4% | -11% | -23% |
| Mexico: Mexico City (sinaloa)* | May-10 | 694 | -3% | -2% | -16% | -20% |
| Nicaragua: Ntl. Avg. (second quality) | Apr-10 | 913 | 1% | 0% | -6% | 13% |
| Panama: Panama City (first quality) | May-10 | 1,076 | 4% | 0% | 0% | 25% |
| South America | Month | USD/Mt | 3 months earlier | 6 months earlier | 1 year earlier | 2 years earlier |
| Bolivia: La Paz (grano de oro)* | May-10 | 935 | -1% | 0% | 1% | -15% |
| Brazil: Ntl. Avg. | Mar-10 | 1,148 | 5% | -5% | -10% | 20% |
| Colombia: Bogotá (first quality)* | Mar-10 | 1,006 | 16% | 19% | -17% | 12% |
| Ecuador: Ntl. Avg. | Feb-10 | 840 | 1% | 0% | -5% | 6% |
| Peru: Lima (corriente) | Apr-10 | 706 057 | 1% • | -22% -2% | -25% -6% | -29% 14% |
| Uruguay: Ntl. Avg. | Apr-10 | 957 | U70 | <i>-</i> ∠70 ■ | -070 | 1470 |

Outlations in the month specified in the second column were compared to their levels in the preceding three, six, twelve and twenty-four months. Price comparisons were made in nominal local currency units.

Percentage price decrease

Percentage price increase

^{*} Wholesale prices.
Source: FAO/GIEWS National Food Price database. URL address: http://www.fao.org/giews/pricetool

of quality and time, in the first few months of the year, prices varied from a minimum USD 0.36 per kilo in **Myanmar** to a maximum of USD 1.5 per kilo in **Costa Rica**. More generally, despite weakening prices in recent months, rice remains particularly expensive in Latin America and the Caribbean, and in Eastern and Western Africa, where it is often sold at close to, or above, USD 1 per kilo. Rice, the mainstay of the diets in Asia, was generally much cheaper in this region.

CLOSING STOCKS

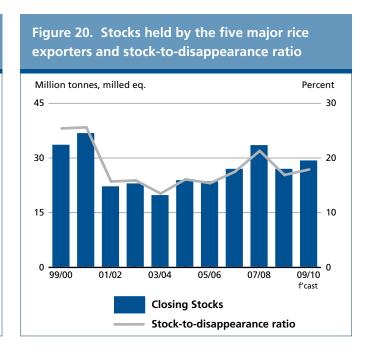
Global rice reserves forecast to increase marginally in 2010.

Based on the latest assessment of world production in 2009, the estimate of global rice inventories at the close of marketing seasons ending in 2010 has risen by 4 million tonnes, to 125 million tonnes since December. At this level, world stocks are marginally higher than in 2009, largely reflecting production surpluses in countries which harvested excellent crops, such as Bangladesh, China mainland, Indonesia and the Republic of Korea. At the regional level, Asian countries are forecast to add 1.2 million tonnes to their reserves, which would reach 119 million tonnes. Stocks are also expected to be refurbished in Latin America and the Caribbean and in Europe, but will change little in Oceania and North America. On the other hand, current estimates in Africa point to a 17 percent contraction of inventories in 2010 to 2.7 million tonnes, mostly because of **Egypt**. At the current forecast level, world rice stocks would be sufficient to cover 27.0 percent of world projected rice consumption in 2010, a slight decrease from 27.4 percent in the preceding year.

Seen from a trade status perspective, rice stocks held by the five leading exporting countries, Thailand, Viet Nam, India, Pakistan and the United States, are now forecast to contract by almost 20 percent to 26.5 million tonnes. Indeed, while end-of-season inventories may not change much in the United States and Viet Nam, drawdowns will be required in India, Pakistan and Thailand if they are to meet internal and external demands. As a result, the ratio of major exporters' stocks-to-disappearance (defined as domestic consumption plus exports) is set to deteriorate from 21.3 percent in 2009 to 16.9 percent in 2010, meaning supplies in the hand of the major exporters will be less ample relative to their needs than last year, a forewarning that the market could undergo some tightening in the course of 2010. Among other net exporting countries, Cambodia, Egypt and Myanmar are also anticipated to hold smaller rice carryovers in 2010, unlike China mainland or **Uruguay**, where they are likely to increase. For example, by the close of its 2009/10 marketing season, China mainland is expected to carry a stock of 71 million tonnes, up from 64 million tonnes a year earlier. As a result, on the whole, rice exporting countries are expected to keep 103 million tonnes of rice in their reserves in 2010, 1 percent less than in 2009.

Instead, closing inventories in traditional rice importing countries as a group are projected to rise for the third consecutive year to 22 million tonnes, almost 2 million tonnes above their opening level. This would reflect

Figure 19. Global rice closing stocks and stockto-use ratio Million tonnes Percent 170 40 140 30 110 20 80 10 50 09/10 **World Stocks** Stock-to-use ratio



a replenishment of reserves in **Bangladesh**, **Brazil**, the **EU**, **Indonesia**, the **Islamic Republic of Iran** and the **Republic of Korea**. End-of-season stocks are projected to diminish in **Nigeria** and the **Philippines**.

OILSEEDS, OILS AND MEALS¹

PRICES²

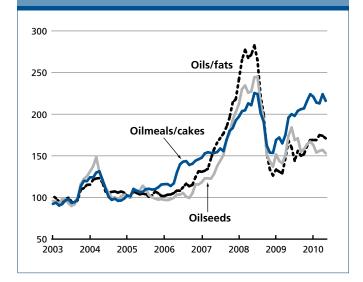
Prices of oils/fats strengthen further while prices for meals have reached a turning point and should ease in the coming months

Current estimates for 2009/10 (October-September marketing year) point toward a more relaxed global supply and demand situation for oilseeds and meals but less so for oils/fats. Renewed expansion in global meal supplies and a marked increase in the meal stock-to-use ratio should lead to a significant weakening in meal values. To the contrary, in the global oils/fats market, limited supply growth and a persistently low stock-to-use ratio suggest persistent market tightness and thus additional price strength.

To date, the development of world market prices, as depicted by the relevant FAO indices, are consistent with the above expectations only in part. During the first eight months of the current season, the indices for seeds, oils and meals averaged, respectively, 159, 168 and 217 points, exceeding the corresponding values of the previous season by, respectively, 7, 20 and 29 percent. On average, oilseed prices remained close to last season, while those for oils rose as did, surprisingly, those for meals.

The unexpected rise in the price index for meals has been due to a combination of factors. The index covers primarily soy, rape, sunflower and fish meal. Market quotations for soybean cake, by far the most widely traded protein meal, have actually decreased. But rape and sunflower meal values have firmed and those of fishmeal have risen sharply, causing appreciation in the overall index. Moreover, soymeal prices fell less than fundamentals would suggest. This is

Figure 21. FAO monthly international price indices for oilseeds, oils/fats and oilmeals/cakes (2002-2004=100)



because the improvement in global meal supplies will only be realized in the latter part of the current season. Until now, markets relied more than usual on soyameal and on one supplier, the United States. Indeed, given low supplies and exports from South America, most of China's unabated demand for soybeans was satisfied by the United States, whose shipments also benefited from the United States Dollar weakness. Record high shipments implied heavy cuts in United States' inventories, eventually sustaining international soymeal prices.

The arrival on the market of South America's record high soybean crop in the next few months is expected to end the above trend. With global soymeal supplies finally reaching their full magnitude, the market will move from temporary tight conditions to a robust surplus. Global stocks are set to recover and meal prices should come under downward pressure for the remainder of this season and possibly beyond, assuming that current prospects for another ample United States soybean crop this year materialize.

By contrast, in the market for oils/fats and high oil-yielding oilseeds, global 2009/10 supplies are expected to remain tight relative to demand, and a recovery in the stock-to-use ratio is not likely. Prices have responded to progressive tightness by rising steadily since the beginning of the season. Firm mineral oil prices contributed to this trend. In the coming months, world consumption is expected to continue outpacing production, and supplies should remain tight in a number of exporting countries. Therefore, oils/fats prices are expected to remain firm and should appreciate relative to meal prices.

¹ Almost the entire volume of oil crop s harvested worldwide is crushed in order to obtain oils and fats for human nutrition or industrial purposes and cakes and meals used as feed ingredients. Therefore, rather than referring to oilseeds, the analysis of the market situation is mainly undertaken in terms of oils/fats and cakes/meals. Hence, production data for oils (cakes) derived from oilseeds refer to the oil (cake) equivalent of the current production of the relevant oilseeds, i.e. do not reflect the outcome of actual oilseed crushing nor take into account changes in oilseed stocks. Furthermore, the data on trade in and stocks of oils (cakes) refer to the sum of trade in and stocks of oils and cakes plus the oil (cake) equivalent of oilseed trade and stocks.

² For details on prices and corresponding indices, see Appendix Table A24.

Figure 22. FAO monthly price index for oilseeds (2002-2004=100)

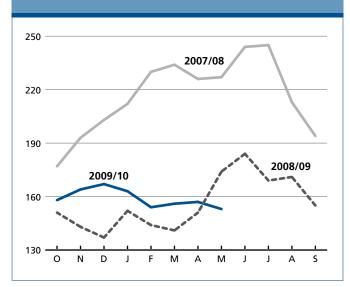


Figure 23. FAO monthly price index for oils/fats (2002-2004=100)

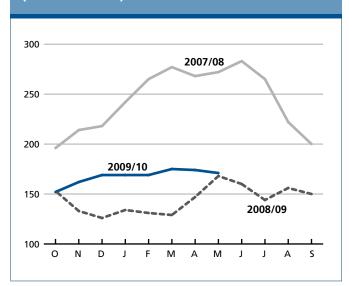


Figure 24. FAO monthly price index for meals/cakes (2002-2004=100)

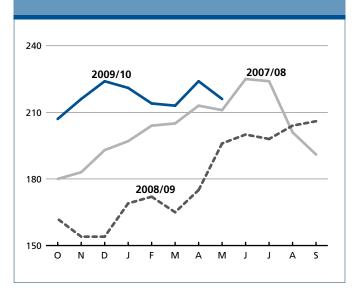
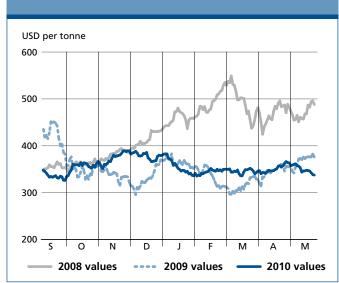


Figure 25. CBOT soybean futures for September



OILSEEDS

Strong rise in global 2009/10 oilseed output confirmed

With the harvest in the southern hemisphere nearing completion, growth resumption in global oilseed production can be confirmed for 2009/10. Rising almost 10 percent from last season, total output is expected to climb to a new record of 448 million tonnes. Expansion will be almost entirely due to rising soybean production, as production of other oilcrops is anticipated to either fall or grow at below average rates.

World production of <u>sunflowerseed</u>, <u>groundnut</u> and <u>cottonseed</u> is estimated to drop markedly from last season's level due to unfavourable weather conditions, while another rise is expected for <u>rapeseed</u> as most producers reported good yields. Global <u>soybean</u> output is set to exceed previous forecasts, rising by an extraordinary 22 percent. Plantings rose to a new record as farmers responded to attractive prices and because favourable weather conditions led to marked yield improvements. After the 13 percent output expansion achieved in the **United States**, a 38 percent rise is reported from **South America**, thanks to the combination of record plantings and unprecedented yield levels in both

Table 9. World production of major oilseeds

| | 2007/08 | 2008/09 <i>estim.</i> | 2009/10 f'cast | Change 2009/10 over 2008/09 |
|------------------------|---------|------------------------------|--------------------------|--------------------------------------|
| | | million tonnes | | % |
| Soybeans | 220.0 | 211.8 | 258.3 | +22.0 |
| Cottonseed | 44.1 | 41.3 | 38.9 | -5.8 |
| Rapeseed | 48.6 | 58.4 | 59.7 | +2.2 |
| Groundnuts (unshelled) | 35.4 | 35.4 | 32.7 | -7.6 |
| Sunflower seed | 29.1 | 34.2 | 31.1 | -9.1 |
| Palm kernels | 11.2 | 11.6 | 12.0 | +3.4 |
| Copra | 5.0 | 5.2 | 5.3 | +1.9 |
| Total | 393.4 | 397.9 | 438.0 | +10.1 |

Note: The split years bring together northern hemisphere annual crops harvested in the latter part of the first year shown, with southern hemisphere annual crops harvested in the early part of the second year shown. For tree crops, which are produced throughout the year, calendar year production for the second year shown is used.

Argentina and Brazil. In the case of Argentina (as well as Paraguay), production is estimated to rise as much as 70 percent.

In **China** and **India**, oilseed plantings have either fallen or remained unchanged, which, combined with unfavourable weather, has led to poor crop outruns in both countries. Producers in both countries also are facing increased competition from imported oilseeds and oilseed products.

OILS AND FATS³

Only moderate growth in global oil/fat supplies

FAO's 2009/10 crop estimates point to a 5 percent increase in global oil/fat production. The fact that oil production has grown considerably less than seed output is due to this season's dominant contribution of **soybeans**, a low oilyielding oilseed. Furthermore, global **palm** oil production is anticipated to grow by a below-average rate of 3 percent, reflecting poor yields for the second consecutive year. The anticipated rise in mature area in Indonesia is not sufficient to compensate the adverse effects of El Niño on productivity in Southeast Asia. In Malaysia, the sector is also suffering from a downturn in the biological yield cycle, sustained replanting activities and labour shortages. As to **rapeseed** oil, global output is estimated to rise further, whereas marked drops are expected in **sunflower**, **cotton** and

groundnut oil production. Overall, 2009/10 is characterized by an unusually strong dependence on soyoil and by the fact that an important part of production is only realized during the second half of the season, i.e. after the arrival of the South American crop.

Growth in global supplies of oils/fats (i.e. 2009/10 production plus 2008/09 ending stocks) is limited to less than 4 percent, mainly due to the depressed level of inventories in South America at the beginning of this season.

Expansion in global oils/fats consumption confirmed

Steady expansion of world consumption is expected to continue in 2009/10, confirming the sector's resilience to global economic recession. Growth is driven by both further raising demand for food purposes (notably in China, India

Table 10. World oilseeds and products markets at a glance

| | 2007/08 | 2008/09 <i>estim.</i> | 2009/10 f'cast | Change 2009/10 over 2008/09 |
|--------------------------------|---------|------------------------------|-------------------|-----------------------------------|
| | 1 | nillion tonne | es | % |
| TOTAL OILSEEDS | | | | |
| Production | 403.7 | 408.7 | 448.7 | 9.8 |
| OILS AND FATS ¹ | | | | |
| Production | 155.9 | 161.3 | 169.5 | 5.1 |
| Supply ² | 180.3 | 184.6 | 191.5 | 3.7 |
| Utilization ³ | 157.0 | 163.8 | 169.0 | 3.2 |
| Trade ⁴ | 80.8 | 86.0 | 86.7 | 0.8 |
| Stock-to-utilization ratio (%) | 14.8 | 13.4 | 13.5 | |
| MEALS AND CAKES ⁵ | | | | |
| Production | 101.5 | 99.9 | 114.7 | 14.8 |
| Supply ² | 123.1 | 117.8 | 129.2 | 9.7 |
| Utilization ³ | 105.0 | 104.6 | 108.3 | 3.5 |
| Trade ⁴ | 63.1 | 62.2 | 64.4 | 3.5 |
| Stock-to-utilization ratio (%) | 17.0 | 13.9 | 18.4 | |
| FAO price indices (Oct-Sep) | 2007/08 | 2008/09 | 2009/10 | Change: Oct-May 2009/10 |
| (2002-2004=100) | | | Oct-May | over Oct-May 2008/09 % |
| Oilseeds | 217 | 156 | 159 | +6.7 |
| Oilmeals/cakes | 202 | 180 | 217 | +29.2 |
| Oils/fats | 243 | 144 | 168 | +20.0 |

Note: Refer to footnote 1 in the text for further explanations regarding definitions and coverages

³ This section refers to oils from all origins, which – in addition to products derived from the oil crops discussed under the section on oilseeds – include palm oil, marine oils as well as animal fats.

¹ Includes oils and fats of vegetable, animal and marine origin

² Production plus opening stocks

³ Residual of the balance

 $^{^{\}rm 4}$ Trade data refer to exports based on a common October/September marketing season

⁵ All meal figures are expressed in protein equivalent; meals include all meals and cakes derived from oilcrops as well as meals of marine and animal origin

Figure 26. Global production and utilization of oils/fats

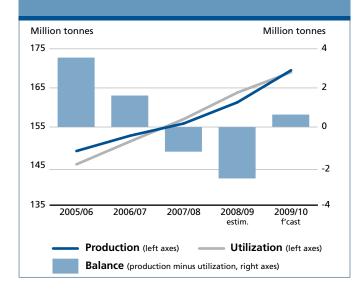
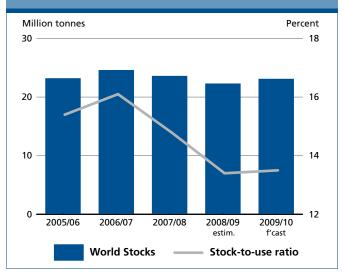


Figure 27. World closing stocks and stock-to-use ratio of oils/fats (including the oil contained in seeds stored)



and other emerging economies in Asia) and accelerating demand in the <u>biodiesel industry</u>. The latter is the result of improved margins in vegetable oil-based biofuel production, together with the introduction of higher mandatory blending rates in several countries (especially in the EU and Southern America) and renewed growth in biodiesel import demand. Overall, consumption growth is expected to concentrate in **China**, **South/Southeast Asia**, **North America**, the **EU**, **Argentina** and **Brazil**. With sustained income growth spurring consumption, China has become the leading oils and fats consumer ahead of the EU, while India is the third largest user. In the United States, consumption may not recover fully from last year's drop, primarily because of poor uptake from the biodiesel industry, which continues to wait for traditional tax breaks to be reinstalled.

Contrary to past years, the anticipated rise in global demand will be satisfied primarily by **soyoil** instead of **palm** oil. Given the respective production growth rates and palm oil's below-average price discount *vis-à-vis* soyoil to date, a partial shift in consumption from palm to soyoil appears likely. Rising demand from the biodiesel industry continues to benefit primarily rape and soyoil.

Small excess of production over demand to allow only partial recovery in world oils/fats inventories

Contrary to the past two seasons, 2009/10 production is anticipated to exceed demand, albeit by a very small margin of a few hundred thousand tonnes. As a result, a partial recovery in global <u>stocks</u> (measured as oil/fat inventories

plus the oil contained in stored oilseeds) is expected. While near record inventories are expected for **soyoil**, pronounced drops are anticipated for all other oils, in particular **palm** and **sunflower** oil. Palm oil's likely drop to a four-year low is creating considerable concern in the market. The anticipated rise in overall inventories remains small compared with the estimated 5.2 million tonne increase in global utilization, which causes the <u>stocks-to-use ratio</u> to remain virtually unchanged from last season's below average level. The continued tightness in global oil/fat supplies points to lasting firmness in world prices for oils and high oil-yielding oilcrops.

Only marginal growth expected in global oils/ fats trade

Global oils/fats trade in 2009/10 (including the oil contained in traded oilseeds) is expected to exceed last season's record by less than 1 percent, which compares to annual growth rates of at least 6 percent in previous years. The slowdown will be primarily on account of reduced growth in oil palm shipments. The world's most widely traded oil is facing weak production growth and a drop in price competitiveness. Furthermore, the world's key suppliers of **sunflower** and **rape** oil are reporting reduced export availabilities. Only **soyoil** shipments are estimated to grow and, thanks to its competitive price, its share in the market is expected to rise.

The increase in global palm oil <u>shipments</u> will again be lead by **Indonesia**, whose exports surpassed those of **Malaysia** for the first time last year. In both countries, the anticipated increase in exports should entail a drawdown in domestic stocks. The rise in global soyoil exports (inclusive of

Figure 28. Oil/fat imports by region or major country (including the oil contained in seed imports)

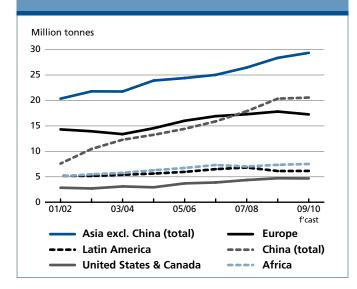
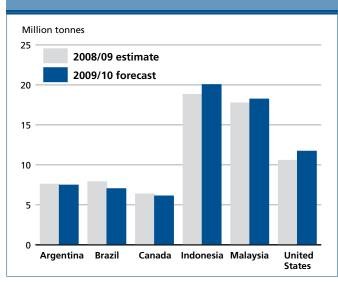


Figure 29. Oil/fat exports by major exporters (including the oil contained in seed exports)



States, where most of this season's supply increase is channelled into exports. To make up for supply shortfalls in South America and elsewhere, the country has significantly stepped up its exports for the fourth consecutive season. In Argentina, by contrast, the need to replenish stocks combined with rising domestic consumption requirements are likely to keep exports at last season's reduced level, notwithstanding this year's record crop. A similar situation applies to Brazil, except that annual shipments might even shrink, moving to a five-year low. In Argentina and Brazil, increased use of domestic output in biodiesel production contributes to the poor export performance.

On the <u>import</u> side, Asia continues to dominate the global market, with a market share approaching 60 percent. Asia's growth is again driven by **India** and **China**, based on steady consumption growth and poor harvests in both countries. The region as a whole continues to rely heavily on imports to satisfy demand. Purchases by the other main consumer and importer, the **EU**, are set to fall thanks to record crops.

MEALS AND CAKES⁴

Global meals/cakes supplies to reach new record

Based on the latest revisions in global oilseed production (which concern primarily high meal-yielding soybean), global meal/cake production is expected to expand strongly in 2009/10. The anticipated 15 percent year-on-year rise would more than offset past reductions and indeed set a new record. Output of the main component, soybean meal, is estimated to expand at a record 23 percent pace, while rape meal should gain 2–3 percent. Global production of sunflower, cotton, groundnut and fish meal is set to fall. Much of the overall growth is taking place in **South America**. The region's share in world production is expected to climb back to 39 percent, following last season's drop to 33 percent. Record production is also expected in the **EU** and the **United States**, whereas decreases are likely in **China** and **India**.

Global supplies of meals/cakes (2009/10 production plus 2008/09 closing stocks) also are expected to recover fully from earlier drops and should climb to a new record, notwithstanding last season's historically low global carry-out stocks. The projected growth in global supplies is expected to concentrate in **South America**, notably **Argentina**, and the **United States** (based on good harvests), as well as in **China** (thanks to ample carry-in stocks).

Growth in global meal consumption to resume as anticipated

Following last season's stagnation, global meal consumption is expected to resume growing in 2009/10, thanks to improved meat demand and better profitability in livestock production, particularly in Asia. Globally, a year-on-year increase of 4 percent is predicted, growth will be primarily on account of soybean meal. Cotton, sunflower and fish meal are expected to loose market share because reduced output has made them less competitive. Consumption expansion continues to be

⁴ This section refers to meals from all origins, which – in addition to products derived from the oil crops discussed under the section on oilseeds – include fish meal as well as meals of animal origin.



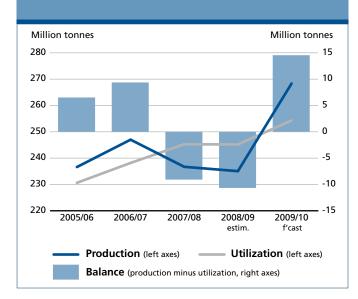
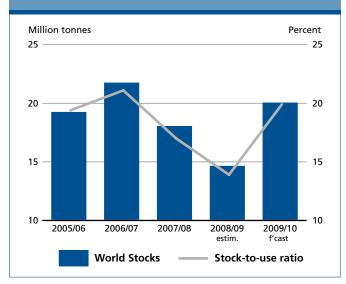


Figure 31. World closing stocks and stock-to-use ratio of meals/cakes (in protein equivalent and including the meal contained in seeds stored)



concentrated in developing countries, especially in emerging economies in Asia. The strongest rise is being observed in **China**, where steady income growth is accompanied by continued shifts in dietary habits. With its booming poultry, pork and aquaculture sectors, China is poised to become the world's largest consumer of meals, ahead of the EU. Among developed countries, protein meal consumption tends to remain unchanged from last season in spite of rising supplies. Limited profitability in livestock raising and sustained competition from attractively priced feed grains (as well as DDG in the case of the United States) explain demand stagnation.

Sizeable production surplus to allow strong rise in global meal stocks

After the last two seasons' shortfalls, in 2009/10, global meal production is anticipated to exceed consumption by a comfortable margin of 6 percent (calculated in protein equivalent). Thanks to this production surplus, global meal inventories (which in addition to meal inventories also include the meal contained in stored oilseeds) are forecast to rise by as much as 36 percent, offsetting three-quarters of the past two seasons' decline. The recovery concerns primarily soybeans, while aggregate stocks of other meals should fall slightly. The replenishment of inventories is expected to concentrate in Argentina and Brazil, where stocks went through drastic cuts last season. By contrast, only a small part of this season's supply increase will be used to reconstitute stocks in the **United States**. **China**'s inventories are expected to remain high as new government emphasis on public stockholding persists.

As the anticipated rise in inventories compares with a relatively moderate expansion in demand, the global <u>stocksto-use ratio</u> should more than recover from last season's historic low. With the ratio's return to a more comfortable level, tightness in the global meal market is expected to gradually dissipate, eventually leading to a decrease in international meal prices.

Growth in global meal trade to resume

After last season's unusual contraction, the 2009/10 trade in meals/cakes is expected to expand again, though at a below average pace of 3–4 percent. Global trade is forecast to climb to a record 64.4 million tonnes (expressed in protein equivalent and including the meal contained in traded oilseeds). As to individual meals, the anticipated growth will be entirely on account of **soy** meal, trade of which will compensate decreasing shipments of sunflower, **rape** and **fish** meal. For the three latter meals, reduced output and rising international prices should curtail shipments by key exporting countries.

Regarding soybean meal, **Argentina**, **Paraguay** and the **United States** are using their record crops to boost exports. In the United States, as much as 60 percent of domestic output has been earmarked for exportation. By contrast, despite this year's bumper harvest, **Brazil** is set for a reduction in exports, because the country needs an urgent replenishment of inventories after last year's depletion in favour of exports. In the United States, up until recently, exports were also stimulated by the country's relatively weak currency, whereas the opposite situation is found in Brazil.

Figure 32. Meal/cake imports by region or major country (including the meal contained in seed imports)

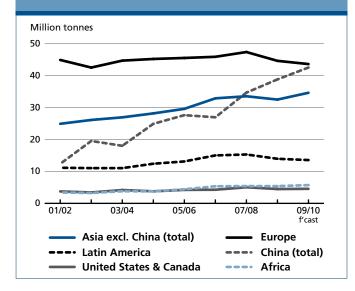
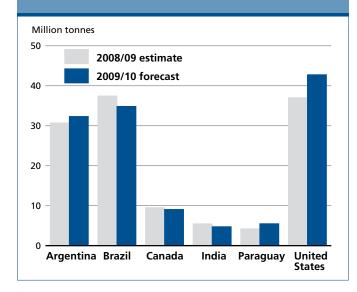


Figure 33. Meal/cake exports by major exporters (including the meal contained in seed exports)



Exports from **India** are expected to fall because reduced domestic crops made prices in local markets more attractive. Globally, it is important to note that soymeal export supplies will only really become ample during the latter part of the season, once the South American crop enters the market. Until that happens, the United States remains the only major supplier to the world market.

With regard to <u>imports</u>, growth in **Asia**'s total purchases, which account for over half of the global market, is expected to accelerate, reflecting further growth in the region's

livestock industries. Once again, record-breaking imports, primarily in the form of whole soybeans, are expected in **China**, implying a compound 60 percent expansion in only three years. Behind this surge are the country's fast expanding livestock sector, a huge crushing capacity, and domestic production policies that tend to make foreign purchases attractive for crushers. Imports by the **EU**, the other major importing region, are expected to fall for the second consecutive year, thanks to further growth in domestic rapeseed output and ample feed grain supplies.

EARLY PROSPECTS FOR 2010/11

Prices in the oilseed complex continue to be high in historical terms, in spite of the gradual relaxation of the supply and demand situation in 2009/10. As a result, farmers are not expected to reduce oilcrop plantings in 2010/11, at least in the northern hemisphere where oilcrops are currently being sown.

In the United States, the area devoted to the new <u>soybean</u> crop is estimated to exceed last year's record as farmers again expect good returns compared with competing crops. Yet production is still forecast to fall slightly due to lower yield projections. In China, soybean production prospects remain uncertain, but an increase appears unlikely given initial planting and weather reports. By contrast, India's production could improve, provided current forecasts of an average monsoon season materialize. The combined output of Argentina and Brazil, where crops will be planted only late this year, is tentatively projected to fall by 6 percent, assuming little change in area but a return to average (i.e. lower) yield levels. Combined, these projections should lead to a small decrease in global soybean which, however, will remain close to the record and well above trend.

As for <u>rapeseed</u>, ample plantings are reported across Europe, but weather developments to date point to a fall in yields compared with last year. Furthermore, output in China may decrease. However, thanks to good prospects in Australia and Canada, global output could remain close to the 2009/10 record. Global production of other oilcrops, in particular <u>sunflowerseed</u>, seems set for recovery. On aggregate, 2010/11 oilseed output is now projected to remain unchanged or decrease slightly from the 2009/10 level. In spite of the absence of production gains, global supplies of oilseeds could expand further in 2010/11, considering the anticipated strong rise in carry-in stocks. With regard to tropical oils, a return to average production growth appears likely.

Production of <u>oilseed products</u>, especially meals, is again anticipated to exceed demand in 2010/11, which would open

the way for further recoveries in global inventories and stock-to-use ratios. Given the prospect of ample supplies, the price relaxation that is expected to characterize oilseed and meal markets during the remainder of this season should extend into next season, in turn contributing to steady demand growth. However, the actual development of prices during 2010/11 will be influenced by several other variables, in particular, the weather patterns in the Americas, Europe and Asia; exchange rate movements; fund investment activities; crude oil prices; and the path out of global economic recession.

With regard to global trade, China's oilseed imports may need to expand further in order to satisfy domestic consumption and should again account for a good part of global trade expansion in 2010/11. In the EU, an increase in import requirements, comprising a rise in the share of oilseeds other than rapeseed, seems possible. On the export side, a return to traditional soybean trade patterns is expected. Thanks to the recovery in domestic supplies, Argentina and Brazil are expected to claim back the market share lost to the United States over the current and previous season.

SUGAR

PRICES

Sugar prices sharply down, as markets adjust to better than expected production in Brazil and India

After reaching a 30-year high average of US 26.46 cents per pound (USD 583 per tonne) in January 2010, international sugar prices retreated slightly in February to US 25.43 cents

US cent per lb.
28
2009
23
2007
8 J F M A M J J A S O N D

| Table 11. World sugar market at a glance | | | | | |
|--|---------|-----------------------|-----------------------|--|--|
| | 2007/08 | 2008/09 estim. | 2009/10 f'cast | Change: 2009/10 over 2008/09 | |
| | n | nillion tonn | es | % | |
| WORLD BALANCE | | | | | |
| Production | 167.6 | 151.1 | 156.3 | 3.5 | |
| Trade | 47.3 | 47.5 | 53.3 | 12.2 | |
| Utilization | 158.7 | 160.8 | 162.6 | 1.1 | |
| Ending stocks | 74.8 | 60.9 | 54.4 | -10.6 | |
| SUPPLY AND DEMAND INDIC | ATORS | | | | |
| Per caput food consumption: | | | | | |
| World (kg/year) | 22.9 | 23.0 | 22.9 | -0.1 | |
| LIFDC (Kg/year) | 13.4 | 13.5 | 13.6 | 0.7 | |
| World stock-to-use ratio (%) | 47.1 | <i>37</i> .9 | 33.5 | | |
| ISA Daily Price Average (US cents/lb) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % | |
| | 12.80 | 18.14 | 20.44 | 48.2 | |

per pound before commencing a steady downward trend. By May, prices averaged US 15.10 cents per pound, or 43 percent below the peak achieved in January. The reverse in the price pattern came as sharp and quickly as the price run-up witnessed in 2009. As mentioned in the December 2009 issue of the Food Outlook, while a gradual increase in prices in 2009 was to be expected, given the tightening of the global market, the speed and magnitude of the price run-up was far from justified by fundamentals and prices were likely to adjust downward. Indeed, much of the price increase came on the back of speculation regarding the size of India's import requirements and Brazil's production outlook. As positive prospects in India became firmer and with strong performance in Brazil relative to 2008/09, demand at those high prices collapsed and prices fell sharply. With confirmed positive production outlooks for 2010/11 and a possibility of some surpluses arising for the first time since 2007/08, prices will remain firm, but it is doubtful that they will revert back to their peaks of early 2010, barring extreme weather events in major producing regions.

PRODUCTION⁵

World sugar production to increase moderately in 2009/10

With the bulk of the 2009/10 sugar cane and sugar beet crops already harvested in the main producing areas, FAO's

⁵ Sugar production figures refer to centrifugal sugar derived from sugar cane or beet, expressed in raw equivalents. Data relate to the October/September season.

latest estimate for world sugar production in 2009/10 now stands at 156.3 million tonnes, which is 3.4 million tonnes below the previous assessment released in December, but 3.5 percent above 2008/09. The downward revision in output was largely due to lower than anticipated production in Brazil, Mexico and Thailand, which more than offset upward adjustments in Australia, India, and the Russian **Federation**. Developing countries will be responsible for the bulk of the growth in production in 2009/10, which is forecast to reach 117.2 million tonnes, a 3.1 percent increase compared with 2008/09, led by increases in Brazil and India. As a result of larger than projected output in the **EU**, total output in developed countries is forecast to reach 39 million tonnes, which is 1.8 million tonnes more than in the previous year. It is expected that much of the supply response to the latest run up in international sugar prices will come forth in the next 2010/11 season, as preliminary forecasts indicate world production slightly ahead of consumption for the first time since 2007/08.

In South America, production is now expected to expand by 2.9 percent in 2009/10. Output in **Brazil** is set to reach 37 million tonnes, up 3 percent from last season, but below early estimates, as heavy rainfall during the peak of the harvesting period damaged sugarcane yields and delayed harvesting operations. Sugar mills extended their operations into the inter-season in order to take advantage of attractive returns from high domestic sugar prices. Nonetheless, it is reported that a large amount of sugar cane was left in the field for the next season. It is estimated that by the end of the 2009/10 season, about 44 percent of total sugarcane harvest would be allocated for the production of sugar, up from 40 percent in 2008/09, driven by better margins than those realized when converting cane into

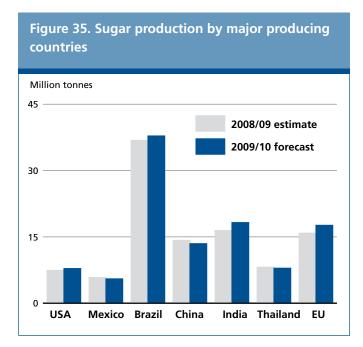
| Table | 12. W | orld | sugar | production |
|-------|-------|------|-------|------------|
| | | | | |

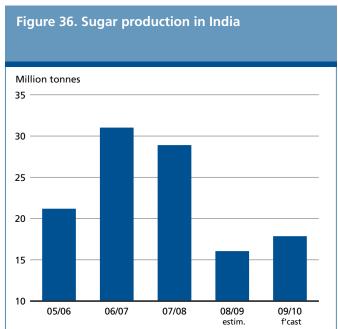
| | 2008/09 | 2009/10 |
|----------------------|----------------|---------|
| | million tonnes | |
| Asia | 50.7 | 52.5 |
| Africa | 10.4 | 10.8 |
| Central America | 11.6 | 11.6 |
| South America | 44.2 | 45.4 |
| North America | 6.9 | 7.3 |
| Europe | 22.3 | 23.8 |
| Oceania | 5.0 | 4.9 |
| World | 151.1 | 156.3 |
| Developing countries | 113.7 | 117.2 |
| Developed countries | 37.3 | 39.1 |

ethanol. In **Colombia**, the second largest producer in the region, expansion in sugar cane area should boost production to 2.5 million tonnes in 2009/10, with strong domestic prices favouring the transformation of cane into sugar over ethanol. Favourable growing conditions should contribute to increases in output in **Argentina**, despite the implementation of new ethanol mandates, which may limit further expansion over the coming years. Production is also expected to rise in **Peru** as investments in new plantations come on stream in 2009/10.

In Central America, important revisions to early estimates were introduced, as growing conditions deteriorated during the course of the season. For instance, output in **Mexico** is now set to decline almost 6 percent to 4.9 million tonnes, because of below average sugarcane yields and delays in processing. Imports will be required in 2009/10 not only to cover domestic consumption but also for re-export to the **United States**, under the North America Free Trade Agreement (NAFTA). Despite less than ideal weather conditions, mainly excessive rainfall, sugar output is to expand in **Guatemala**. Rising domestic prices, driven by buoyant internal demand and large exports to neighbouring Mexico, provided the incentive to boost planted area. Reflecting an anticipated expansion in sugarcane plantings and more widespread use of inputs, sugar output in Cuba is officially forecast to increase to 1.4 million tonnes in 2009/10, which, if realized, would be 3.7 percent more than in 2008/09.

In spite of drought conditions in several sugar producing countries, total sugar production in Africa is projected to reach 11 million tonnes in 2009/10, 400 000 tonnes or 4 percent above the previous year. The increase in output is linked to expansion of area and processing capacity. Strong domestic consumption growth and improved access to the EU market under the Everything-But-Arms initiative (EBA) and the Economic Partnership Agreements (EPAs) are driving large investment efforts in Africa. However, deficit in trade infrastructure still persists and needs to be addressed if the full potential of these agreements is to be realized. In **South Africa**, the largest sugar producer in the region, sugar production is set to decline by 1.3 percent to 2.3 million tonnes in 2009/10, because of dry weather in Zululand and heavy storms in Midlands that damaged sugarcane. Sugar production in **Egypt**, the second largest sugar producer in Africa, is expected to reach 1.8 million, 100 000 tonnes more than in 2008/09, in response to increases in beet area driven by remunerative beet returns. The Government encourages the production of beet sugar in the northern part of the country as it is less water intensive than sugarcane. Production in the **Sudan** is now expected





to reach 900 000 tonnes, which is about 3 percent more than in the previous season, on the back of expansion in processing capacity. There are plans to expand production to 10 million tonnes by 2015, with foreign direct investments from Gulf States and joint partnership initiatives with Egypt. Still, for this season, imports will be required to meet growing internal demand. Gains are also foreseen in Kenya, where output is set to grow by about 3.1 percent due to near normal rainfall in the western part of the country where most of the sugarcane farming takes place. Improved utilization of mill capacity also contributed to raising sugar production above last year's performance. In Mozambique, sugar output is expected to reach 400 000 tonnes, up 33 percent from last season, prompted by expansion in planted area, which has increased by 20 percent per year since 2000. Below-average rainfall and limited input utilization, due to high fertilizer costs, are set to constrain production growth in the United Republic of Tanzania to 300 000 tonnes, which is 3.6 percent less than 2008/09. The sugar sub-sector in that country is undergoing structural changes in response to improved market access to the EU.

The 2009/10 marketing season for sugar production in *Asia* has improved from last year, when sharp cuts in **India** and **Pakistan** reduced aggregate output in the region by 22 percent from the levels attained in 2007/08. The reduction was attributed to irregular rainfall and shifts of land allocation in favour of grains and oilseeds. Sugar production in **India** follows a typical cycle, wherein three to four years of high production are followed by two to three years of low production. After two seasons of declining production (2007/08 and 2008/09), sugar output is expected to reach

17.6 million tonnes in 2009/10, which corresponds to an 11.5 percent increase over last year's level, but below initial forecasts, as poor monsoon rains during the critical months of June and July affected yields. Prospects for 2010/11 point to a large rise in production, which could reach 25 million tonnes, supported by better sugarcane returns than those obtained from competing crops such as pulses, rice and wheat. Due to dry conditions in major cane growing areas, sugar production in **Thailand** is to decline by 3 percent in 2009/10, but early prospects for 2010/11 indicate the likelihood of a bumper crop, mostly on the back of area expansion as farm-gate cane prices surged to a record level, up 26 percent from the established support price. A cut in production is also expected in China for 2009/10 as a result of a deficit in sugarcane supply due to dry weather conditions in the main growing region of Guangxi. However, current high internal prices are likely to foster cane production in 2010/11. Output in Pakistan is also set to decline in 2009/10, while gains are anticipated in Indonesia and Turkey.

In *Europe*, the latest estimates of sugar production in the **EU** indicate a sharp increase of 11.6 percent over 2008/09, largely due to ideal growing conditions which boosted yields to record levels. As a consequence, sugar output for 2009/10 is set to exceed the EU established quota of 14.5 million tonnes, a situation which prompted the European Commission to authorize the export of an additional 500 000 tonnes of sugar beyond its WTO export ceiling.⁶ In addition, 500 000 tonnes will have

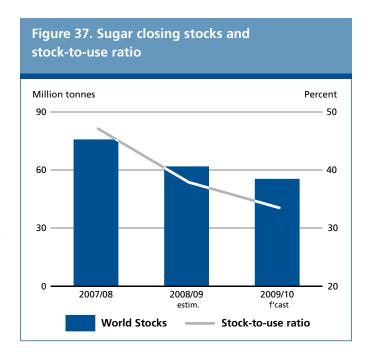
⁶ Although there are some complaints about infringement of WTO limits, the impact on prices according to FAO's analysis is very limited.

to be counted against next season's production quota, which is likely to require a 5 percent reduction in beet area in 2010/11. Sugar output is also expected to decline in **Ukraine** in 2009/10 as farmers continued to cut the area sown to beet in response to relatively lower profitability in comparison with grains and sunflower seeds. Projections for a 2010/11 production increase are based on preliminary industry surveys indicating that additional sugar mills are likely to operate, given expected high profit margins. Despite increases in area sown to beet, sugar output is to decline in the **Russian Federation** by 6.4 percent, as a result of bad weather which curtailed area harvested. In the rest of the world, sugar production in the **United States** is forecast above the 2008/09 level, on account of increased area and use of sugarbeet genetically modified organisms (GMO) seeds. In Australia, flooding in Queensland, the main producing region, impaired cane yields and sugar content, wiping out early prospects for a larger sugar output. Production in 2009/10 is now expected to total 4.7 million tonnes, which is 1.2 percent down from 2008/09. Early estimates for 2010/11 show that sugar output is likely to increase sharply on the back of higher sugarcane planting as farmers benefit from remunerative prices and falling fertilizer costs.

UTILIZATION

World sugar consumption to expand, but less than previous years

World sugar consumption in 2009/10 is to reach 162.6 million tonnes, about 1.1 percent more than in 2008/09, but 1.4 percentage points below the tenyear trend as relatively high sugar prices are expected to limit consumption growth. Sugar intake in the developing countries is set to expand only moderately to 115.4 million tonnes, accounting for 71 percent of global consumption. A number of developing countries implemented a range of policy measures to dampen the impact of high international sugar prices, such as temporary removal of tax or import duties, limits on stock holdings and retail price control. With the return of economic growth in 2010, together with an easing of international sugar prices, sugar consumption should recover in 2010/11. Demand will likely be sustained by the manufacturing and food preparations sectors, including the beverage industries. These sectors constitute the bulk of total sugar consumption and are relatively sensitive to changes in income. On average, per capita sugar availability in 2009/10 is estimated to remain around 23 kg per year, just about the same level as in 2008/09.



TRADE

World trade to expand as import demand strengthens

The latest FAO estimates of world sugar **imports** stand at 53 million tonnes in 2009/10 (October/September), a 12 percent rise over the previous season, driven largely by the need to offset production shortfalls and/or rebuild stock. **India** will be the main driver of growth in world trade, as shipments to the country will reach 6 million tonnes, 3.5 million tonnes more than in 2008/09. The Government of India introduced a range of measures to facilitate imports, such as duty free imports for both white and raw sugar and an extension of the period by which mills are allowed to export imported raw sugar in white sugar equivalent. With the easing of the supply situation anticipated for 2010/11, the Government may revert to more restrictive import rules. Shipments to the **EU** also are set to increase, driven by trade commitments under the EBA and EPAs. Official imports are estimated to reach 3.7 million tonnes, 1.2 percent more than last year. Elsewhere in Europe, imports by the **Russian Federation**, the third largest sugar importer in 2008/09, are expected to increase by 400 000 tonnes to 2.3 million tonnes, to compensate for lower production. The bulk of the raw imports are sourced from Brazil, while the Republic of Moldova, Poland and Brazil supply most of the white sugar import demand. In Asia, prompted by steady consumption growth, purchases by Indonesia are estimated to amount to 2.2 million tonnes, 300 000 tonnes above last year's total. The recent expansions in refining capacity should allow the country to strengthen its position as one of

the major regional import destination of raw sugar. Imports into **Malaysia** are also due to offset production shortfalls. The latest report indicates that **China** may purchase about 100 000 tonnes more than last season, as sugar output is reduced in 2009/10. Imports would have been larger had it not been for the relatively adequate stock levels. About 860 000 tonnes of sugar have already been auctioned by the Government from the state reserves. In the rest of the world, deliveries to the **United States** are forecast at 2.4 million tonnes, a 14 percent decline over the previous year. Additional imports may be needed in the course of the season to rebuild reserves, as the United States' current stock level is at a historical low. Announcements of increases in Tarrif Rate Quota (TRQ) imports can only be made in April of every season, as per the country's legislation. Similarly, imports by countries in Africa are foreseen to decline by around 1 percent to 9.5 million tonnes, much lower than previously envisaged, as larger domestic supplies substitute for imports.

Despite lower than expected production, Brazil may ship 25 million tonnes, up 5 percent from 2008/09, and a major part of the anticipated rise in global exports in 2009/10. Domestic stocks will be drawn down to keep up with the increase in import demand. In 2009/10, Brazil will account for nearly half of global export and should be among those to benefit most from the relatively higher international sugar prices. Remunerative export returns should provide the financial support needed for the sugar sub-sector, which has been struggling with rising costs and the fallout from the credit crunch crisis since 2008. It is reported that about 5 percent of the industry is under bankruptcy protection, while a majority of sugar mills agreed to restructure their commercial debt. Despite a reduction in production, sales from Thailand, the world's second largest sugar exporter, are expected to increase by 2 percent to 5.1 million tonnes, as stock reserve should be adequate to meet import demand. India and ASEAN countries are likely to be the main destinations for Thai sugar export. Deliveries from Cuba, Guatemala and South Africa are foreseen to increase as well, driven by high international prices, while exports from Australia, the world's third largest exporter, are likely to remain relatively unchanged in comparison with 2008/09. For 2010/11, the country is set to boost exportable surplus following a sharp increase in planted area as a result of high prices and incentives provided by some sugar processors.

MEAT AND MEAT PRODUCTS

BOVINE MEAT

PRODUCTION

Reduced cattle numbers constrain output growth

Despite the improved global economic situation, the outlook for beef production in 2010 remains subdued because of still relatively high feed prices. Output expansions in Brazil and India are expected to be offset by declines in most other large producing countries where cattle numbers are low. Preliminary estimates point to a stagnation of global production, which may reach to 64.9 million tonnes in 2010 compared with 64.7 million tonnes in 2009. According to USDA, beef output in the **United States** is anticipated to fall by 1 percent in 2010, to below 12 million tonnes, as farmers start building their breeding herds. After struggling in recent years to solve the financial difficultires arising from expensive feed and depressed meat product prices, they are now witholding young female cattle from feedlots, which will likely reduce slaughter in the coming year. In South America, aggregate beef output is expected to expand from last year, due to higher slaughterings in Brazil, Paraguay and Uruguay, while production in Argentina is expected to stagnate. In Australia and New Zealand, farmers are rebuilding their herds. In the Russian Federation, the national beef herd is down over 2 percent, and output is expected to decline by the same order. In Asia production

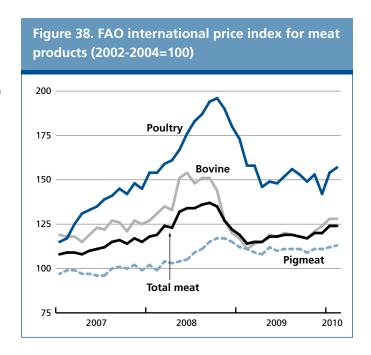


Figure 39. Evolution of the ratio of meat/feed price indices

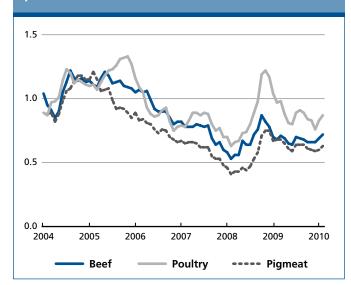


Table 13. World meat markets at a glance

| | 2008 | 2009 estim. | 2010 f'cast | Change: 2010 over 2009 |
|---|---------|-----------------------|-----------------------|---|
| | tho | ousand ton | nes | % |
| WORLD BALANCE | | | | |
| Production | 279 290 | 281 482 | 286 444 | 1.8 |
| Bovine meat | 65 419 | 64 675 | 64 874 | 0.3 |
| Poultry meat | 91 819 | 92 325 | 94 819 | 2.7 |
| Pigmeat | 103 634 | 105 995 | 108 135 | 2.0 |
| Ovine meat | 12 972 | 12 985 | 13 054 | 0.5 |
| Trade | 25 936 | 25 268 | 25 374 | 0.4 |
| Bovine meat | 7 366 | 7 259 | 7 281 | 0.3 |
| Poultry | 11 130 | 11 149 | 11 041 | -1.0 |
| Pigmeat | 6 306 | 5 755 | 5 947 | 3.3 |
| Ovine meat | 867 | 832 | 830 | -0.2 |
| SUPPLY AND DEMAND IND | ICATORS | | | |
| Per caput food consumption | n: | | | |
| World (kg/year) | 41.7 | 41.6 | 41.9 | 0.6 |
| Developed (Kglyear) | 81.7 | 80.1 | 80.7 | 0.8 |
| Developing (kg/year) | 30.9 | 31.3 | 31.6 | 0.9 |
| FAO meat price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May* | Change: Jan-May 2010 over Jan-May 2009 % |
| | 128 | 118 | 129 | 12 |

^{*} April and May estimates.

is forecast to contract by 5 percent in **China** because of low returns. Beef production in **the Republic of Korea** is uncertain, as recent outbreaks of foot-and-mouth disease (FMD) have disrupted the supply of cattle in local markets. Reports from **India** indicate that buffalo meat output could grow by 4 percent, as farmers are reducing their buffalo herds. In **Pakistan**, output is expected to rise by 2 percent due to an ongoing drought affecting most of the country.

In **Africa**, beef production is set to increase by less than 1 percent, reaching 4.8 million tonnes. In Western Africa, livestock continues to be affected by the persistent dry conditions in several countries, notably in **Chad** and the **Niger**, where increased animal deaths were reported last year. In Eastern Africa, drought has affected pasture conditions and water availability in **Ethiopia**, **Kenya**, and **Southern Sudan**.

TRADE⁷ AND PRICES

Import demand growth constrained by reduced export supply

Beef exports in 2010 are expected to remain stagnant at around 7.3 million tonnes, as an expansion from Brazil and the United States is offset by a contraction from Argentina, Australia and New Zealand. In Brazil, ample cattle numbers will allow a positive supply response to the improved market conditions. In the **United States**, traders are increasingly attracted by favourable world beef prices and are anticipated to expand their exports. In the first-quarter of 2010, **Uruguay** exports were already 8 and 10 percent up in value and volume terms relative to the same period last year and are expected to continue expanding. In **India**, buffalo meat exports are anticipated to expand by 5 percent due to a growing demand for this type of meat in Southeast Asia and the Middle East. Exports by Argentina, Australia and New **Zealand** are unlikely to expand, as supplies are constrained by low animal numbers.

Beef imports are anticipated to grow mainly in developed countries, while developing country's demand is anticipated to stagnate or decline due to high beef prices. China, the Republic of Korea, the Russian Federation, Taiwan Province of China and the Middle East underwent sustained import growth in early 2010. The United States and EU's beef imports are expected to expand between 1 and 2 percent, due to reduced domestic supply and recovering demand. Imports by Mexico should also increase by 2 percent over last year, a strong recovery considering

⁷ Trade refers only to meat and does <u>not</u> include the meat equivalent of traded live animals

that last year beef substituted pork as consumers feared a possible link between pork consumption and A-H1N1.

Bovine meat prices in the first-quarter of 2010 are firm, some 14 percent higher than the same period last year, as the trade supplies are falling short of the sustained demand brought about by the improving world economy. The recovery of beef prices in FMD-free markets is led by a higher demand from Japan and the the United States, while FMD markets have had increased purchases from Russia, Egypt and the Middle East.

SHEEP AND GOAT MEAT

PRODUCTION

Rebuilding of flocks likely to constrain output growth in 2010

Sheep and goat meat production may expand slightly due to restocking and reach 13 million tonnes in 2010. Dry weather in recent years reduced supply in key producing areas such as **Oceania, South America** and parts of **Africa**. However, with the exception of Africa, better weather conditions currently prevail in most regions which, coupled with strong lamb prices, is encouraging farmers to rebuild their flocks and herds. In **Africa**, dry weather conditions in western and eastern countries continue to affect the condition of animals. Output growth will be strong in **Eastern Europe** where supply has recovered from the summer drought that affected production last year.

TRADE AND PRICES

Sustained sheep meat prices in 2010

Sheep meat exports in 2010 are forecast to stagnate, as supplies from **Australia** and **New Zealand**, whose combined volumes of 700 000 tonnes in 2010 captures 84 percent of world sheep meat trade, are anticipated to fall 1 percent this year. Traders note steadfast demand from **Asia** and especially in the **Near East**, where lamb and mutton consumption is a tradition. Sheep meat prices are performing well, particularly those of high quality lamb meat.

PIG MEAT

PRODUCTION

Stable animal health situation boosts production growth

A stable animal health situation is expected to foster a 1.5 percent growth in world pig production to

108 million tonnes in 2010. In **China**, where half of the world's pig meat is produced, output is expected to grow by around 3 percent, much slower than the 7 to 8 percent increases witnessed in recent years. Elsewhere in Asia, production in the **Philippines** and **Viet Nam** is also expected to expand due to higher pig numbers. In the **EU**, the second largest producer, production is to recover by 2 percent from last year, while in the **United States**, analysts from USDA anticipate a decline of 3 percent in pigmeat production. Output in **Brazil** may grow by 4 percent, spurred by higher international demand. The **Russian Fedederation's** output is expected to grow underpinned not only by higher domestic pig numbers, but also by firm domestic prices resulting from 11 percent reduction of its import quota this year.

TRADE

Pig meat trade recovers from a severe contraction in 2009

Pig meat exports in 2010 are anticipated to reach almost 6 million tonnes, representing an increase of 3 percent, a significant recovery from the 8 percent fall incurred in 2009. According to the USDA, exports by the **United States**, the largest pig meat exporter in the world, could grow by 6 percent spurred by demand from Mexico. Exports by the **EU** are expected to partially recover from the sharp contraction last year, owing to increased deliveries to the Russian Federation. **Brazilian** exports, which already are showing an upward trend both in terms of value and volume in early 2010, are anticipated to expand by 12 percent, with larger sales to the Russian Federation and Ukraine.

The expansion of pig meat imports is expected to be driven by larger purchases from **Hong Kong SAR** (10 percent) and **Mexico** (4 percent), while imports from **Japan** should increase only marginally. In the **Russian Federation**, imports should fall slightly because of the rouble's depreciation against major currencies, sanitary import restrictions for non-heat treated pig meat, and an 11 percent reduction in the import quota to 500 000 tonnes.

Pig meat price levels in the first quarter of 2010 were some 3 percent higher than the same period last year, when falling import demand caused by the world recession and the erosion of consumer confidence following outbreaks of A-H1N1 contributed to a drop in pig meat prices. However, the price fall was contained because of a significant contraction of exports by both the United States and the EU.

POULTRY MEAT

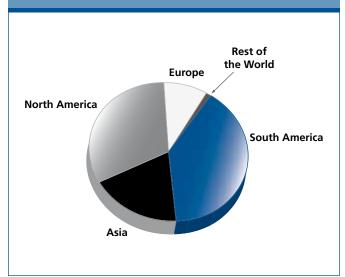
PRODUCTION

Sustained demand fosters production growth

Following a year when world poultry production almost stagnated for the first time in decades, 2010 output is expected to rebound by 3 percent to reach almost 95 million tonnes. Relatively high feed prices have slowed production growth. However, feed prices are anticipated to fall later this year because of a global bumper maize crop. As poultry meat is produced in a short cycle compared with other meats and can respond relatively quickly to changing environments, this forecast may need to be reviewed later in the year in light of the evolution of feed costs.

In the **United States**, the world's largest poultry producer, official estimates point to an output growth of 2 percent. Poultry production in the **EU** is expected to grow slightly, by 0.5 percent. In Asia, output in **China** is anticipated to expand by 4 percent, sustained by dynamic domestic demand. **India** and **Thailand** also are expected to expand their outputs, provided the animal health situation remains stable. In South America, **Brazilian** poultry may grow by 4 percent, favoured by higher demand from global markets. In the **Russian Federation**, the sector is expected to maintain a strong momentum, with production rising by 11 percent to 2.6 million tonnes, underpinned by investments in new large poultry processing plants and attractive prices following an increase in demand and reduced import quota.

Figure 40. Share of poultry exports by region (2010 volume terms)



TRADE AND PRICES

Changes in trade policy regimes bring uncertainty to poultry markets

Poultry meat trade, which was expanding at double digit levels in the previous decade, came to a virtual halt in 2009. Exports should stay at around 11 million tonnes, as larger shipments from major suppliers cannot compensate for the significant fall of United States exports. According to USDA, sales of chicken meat from the **United States** are expected to fall by 13 percent, mainly because of lower exports to Russia which has lowered its import quota and banned poultry imports treated with chlorine. Elsewhere, China is anticipated to expand its shipments by 20 percent, notably cooked chicken meat to Europe and Asian markets. Brazil, which had already intensified exports late in 2009 with larger shipments to the Near East and Japan, is also expected to expand deliveries substantially, perhaps by 7 percent to reach 4 million tonnes. Poultry exports by **Thailand**, mostly cooked, are anticipated to increase this year by 8 percent in response to higher demand from Asia.

Reviews and changes to import regimes of large buyers are creating uncertainties in the world poultry market. The **Russian Federation** has decreased its import quota for 2010 and its ban, since 1 January of chlorine-treated poultry, mostly affects the United States. It is estimated that the Russian Federation will import some 850 000 tonnes of poultry meat this year, which is 7 percent less than in 2009. An **EU** review of its import regime for frozen and processed poultry could have consequences for country allocations of import quotas. In **Japan**, the third largest importer, reports indicate that high stocks will limit import growth. Apart from these, purchases from **Hong Kong SAR**, **Saudi Arabia** and the **United Arab Emirates** are on the increase.

World poultry prices, measured in nominal US Dollar terms, fell from September 2008 until April 2009, but since, have remained at a relatively steady level.

MILK AND MILK PRODUCTS

PRICES

Prices are firm

The FAO Index of International Dairy Product Prices rose dramatically in 2009. After falling to a cyclical low of 114 in February 2009, the index jumped to a high of 216 points in December. However, while prices remain firm, the index

has fallen modestly to a value of 211 in May 2010. The market situation in the first half of 2010, characterized by a contraction of supplies from Oceania and sustained purchases from Asia and some oil exporting countries, contributed to keeping prices at firm levels. Butter prices in Oceania in May 2010 were USD 4 075 per tonne, or levels similar to those observed during the 2007/8 episode of soaring agricultural commodity prices. All other dairy product prices were at levels slightly below those observed at their peaks, with skim milk powder (SMP) at USD 3 500 per tonne, whole milk powder (WMP) at USD 3 963 per tonne, and cheese at USD 4 025 per tonne.

Dairy prices, which have long exhibited high variability, have been especially subjected to significant swings since late 2006, after which, on an annual basis they have doubled, then halved then doubled again (see Figure 41). Such high price volatility has created considerable concern to dairy market participants. It provides evidence of the changing structure of the international dairy product market, in which more pasture-based variable production has increased its market shares in recent years.

While producers have welcomed the trend rise in world dairy product prices since mid-2009, they also have become increasingly concerned about the recent escalation in price volatility. Policy-makers are trying to devise ways to lessen price swings, and are looking at policy measures other than traditional market tool regulations, such as price-fixing mechanisms or production quotas, which have proved unsustainable in the past. This year dairy-based futures trading will be established in Europe (Eurex), New Zealand (NZX) and the United States (Blobex). These represent

a critical step forward to managing some of the risks associated with dairy product price volatility.

PRODUCTION

Dry weather conditions and financial difficulties constrain output growth

World milk production in 2010 should reach 712 million tonnes, or an increase of almost 2 percent over last year. Production should grow by over 3 percent in developing countries, notably in Asia, but virtually stagnate in the developed countries. Milk production by five key exporters, Argentina, Australia, the EU and New Zealand, is anticipated to grow vitually unchanged.

Milk production in **Asia** is set to grow by 4 percent in 2010 to 262 million tonnes. In spite of El Niño, the weather has turned to be more favourable than initially predicted. **India's** output has been thus revised upwards from the previous estimate provided in November 2009, and is now forecast to expand substantially, by some 6 percent. In retrospect, this rate is slightly higher than the 5 percent average increase experienced in the previous five years. In **China**, the balance between supply and demand is being restored as consumer confidence continues to recover from the *melamine crisis* of 2008, with milk output set to grow by 6 percent. Even this growth is low (based on recent history) as the persistence of low farm gate prices, combined with tighter feed and water availability has slowed down investment in the sector.

In **Africa**, a stagnation of milk production is envisaged for 2010. In Western Africa, livestock continues to be

Figure 41. FAO price index of dairy products in international trade (2002-2004=100)

350

250

50

94

96

98

00

02

04

06

08

10

The index is derived from a trade-weighted average of a selection of representative internationally traded dairy products.

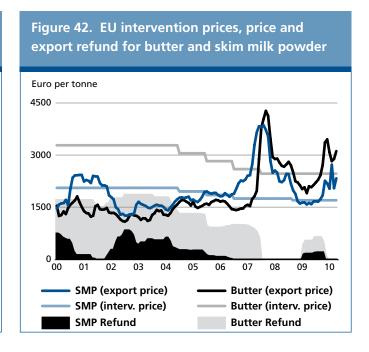
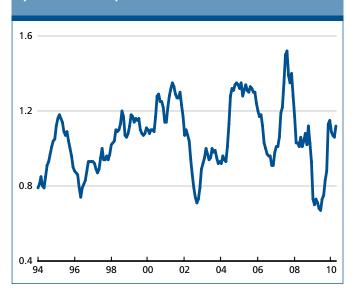


Figure 43. Evolution of the ratio of milk products/feed price indices



affected by the persistent dry conditions in Chad and the Niger. In Eastern Africa drought is also affecting pastures and water supplies in Ethiopia, Kenya and Southern Sudan, constraining milk output.

In North America, based on the latest information from the USDA, milk production in that country will increase slightly this year to 86 million tonnes, on account of improvements in the price ratio of milk to feed concentrate and a slowing of cow slaughter rates. Production in **Europe** is anticipated to stagnate in 2010, as EU producers and traders adapt to the new trade environment created by recent market reforms, such as decoupled farm payments and increasing production quotas. In the Russian Federation and Ukraine, cold weather conditions constrained pasture growth and therefore milk production. In **South America**, where pasture-based production systems prevail, output for 2010 is anticipated to expand by 1.3 percent, reaching some 60 million tonnes. In Argentina and Uruguay, although weather conditions favour milk production, growth is expected to be sluggish because of the difficult financial situation farmers are facing after low product prices, high feed costs and drought last year. Brazilian output is expected to stagnate as the weather situation is not favourable for pasture growth. In Oceania, because of dry El Niño weather conditions, dairy production in marketing year 2009/10 will be slightly less than the 26 million tonnes produced last year. A mere 1 percent increase is expected in New Zealand, while output in Australia is set to fall by 6 percent.

Global per caput consumption of main dairy products, which stagnated last year, is set to increase this year by a mere 0.6 percent. A small increase in the per caput

Table 14. World dairy markets at a glance

| | 2008 | 2009 estim. | 2010 f'cast | Change: 2010 over 2009 |
|--|---------|--------------------|--------------------|--|
| | million | n tonnes mil | k equiv. | % |
| WORLD BALANCE | | | | |
| Total milk production | 694.3 | 699.5 | 711.9 | 1.8 |
| Total trade | 40.8 | 41.9 | 42.7 | 2.0 |
| SUPPLY AND DEMAND INDICA | TORS | | | |
| Per caput food consumption: | | | | |
| World (kg/year) | 104.0 | 103.6 | 104.3 | 0.6 |
| Developed countries (Kg/year) | 246.1 | 245.0 | 244.5 | -0.2 |
| Developing countries (Kg/year) | 66.0 | 66.2 | 67.6 | 2.1 |
| Trade - share of prod. (%) | 5.9 | 6.0 | 6.0 | |
| FAO dairy price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change: Jan-May 2010 over Jan-May 2009 % |
| | 220 | 142 | 199 | 65 |

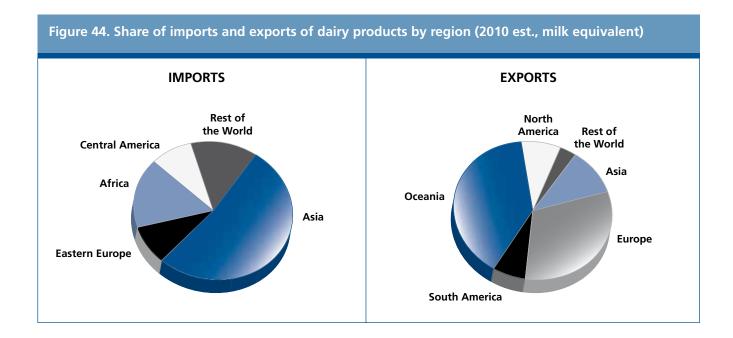
consumption in the developing countries is mostly driven by production exceeding population growth. The 6 percent share of global production that is traded in international markets, which consists mostly of exports to the developing countries from developed countries, is expected to remain unchanged from 2009.

TRADE

Tight supplies dampen trade growth prospects in 2010

World trade stagnated at the beginning of 2010, as tight supplies constrained export availability and resulted in firm world dairy product prices. A rapid expansion of exports is envisaged in the second half of 2010, which should more than compensate for the current deficit. World trade in 2010 is forecast to grow by 2 percent, sustained by larger shipments by the EU, New Zealand and the United States.

Exports from Oceania in 2010 could expand by 4 percent, to almost 17 million tonnes in fresh milk equivalents. **New Zealand** export growth may accelerate up to 6 percent in the next season (2010/2011), as firm prices favour production growth, the bulk of which is exported. **Australian** dairy product export shipments, however, are unlikely to expand because of short supplies. Exports by the **EU**, currently the second largest after New Zealand, accelerated towards the end of 2009 and are anticipated to expand some 4 percent this year. However, a critical issue in this outlook is how and when the EU will dispose of its



large intervention stocks. In May 2010, EU public stocks of Skimmed Milk Powder (SMP) amounted to 256 000 tonnes, and public and private butter stocks to 114 000 tonnes. It is expected that the EU will reduce these stocks gradually as their rapid release could significantly affect trade and international market prices.

In the **United States**, a weak United States Dollar and the recovery of world prices at the end of 2009 brought about a renewed interest in export markets. Despite the recent strengthening of the United States Dollar, the latest USDA report in May 2009, expected a 13 percent growth in dairy trade for 2010, which signifies a strong recovery from the 40 percent contraction last year. In South America, exports are forecast to fall in 2010 by some 8 percent. Brazil's marginal production increase forecast for this year will most likely be absorbed in its growing domestic market, while exports from Argentina are expected to remain well below the estimated shipments in 2009. Sales from Argentina expanded by 30 percent in 2009, but collapsed in the first half of 2010 owing to the combined effect of a shortage of milk supply and strong domestic demand for dairy products.

The bulk of milk powder imports, are bought by developing countries. Preliminary data for the first half of 2010 points to strong growth in import demand from Asia, and a sluggish demand from Africa.

Whole milk powder (WMP)

For WMP, a tight supply situation evolved in the early months of 2010, i.e. at the closing of the Southern Hemisphere season. Strong demand growth is observed in Asia, notably from China, and in Algeria. According to data

from Global Trade Information Services (GTIS), by March 2010, China had imported high volumes, some 60 percent more than in the same period last year. On the supply side, New Zealand, the largest WMP exporter, sold some of its accumulated stocks to the world market last year, and export growth accelerated in early 2010 despite stagnation of milk production this season. Exports from Argentina, a significant player in the world's WMP market, are falling sharply in early 2010 due to a shortage of domestic product, contributing to a tightening of world supply. WMP prices were twice as high in April 2010 compared with those in February 2009. Following these developments world trade of WMP in 2010 is forecast to slightly decrease this year.

Cheese

The world cheese market has strengthened both in terms of price and volume since the end of 2009. World trade of cheese depends heavily on the state of the economies of developed countries. Cheese exports are estimated to expand by 2 percent in 2010, mainly from larger supplies from Europe, New Zealand and the United States. On the import side, Japan, the Russian Federation and the United States, which together account for almost 40 percent of the world market, accelerated their imports in recent months. The Republic of Korea and Mexico, which are significant players in the world market, are also expected to expand their imports despite a sluggish start in early 2010.

Butter

A tight supply situation was also observed for butter in early 2010. On the import side, demand from Asia and the Near East has been strong, and exports to these regions expanded

Table 15. Major exporters of dairy products

| | 2006-08 | 2009 | 2010 |
|-------------------|---------|-----------------|--------|
| | | prelim. | f'cast |
| | | thousand tonnes | |
| WHOLE MILK POWDER | | | |
| World | 2 071 | 1 994 | 1 961 |
| New Zealand | 644 | 818 | 884 |
| EU* | 428 | 423 | 428 |
| Australia | 142 | 133 | 129 |
| Argentina | 140 | 146 | 125 |
| Brazil | 47 | 13 | 13 |
| SKIM MILK POWDER | | | |
| World | 1 177 | 1 332 | 1 401 |
| New Zealand | 279 | 408 | 426 |
| United States | 314 | 249 | 290 |
| EU* | 152 | 225 | 240 |
| Australia | 148 | 167 | 175 |
| BUTTER | | | |
| World | 678 | 678 | 748 |
| New Zealand | 239 | 277 | 276 |
| EU* | 203 | 150 | 200 |
| Belarus | 55 | 86 | 90 |
| Australia | 39 | 53 | 55 |
| CHEESE | | <u> </u> | |
| World | 1 823 | 1 937 | 1 978 |
| EU* | 579 | 577 | 586 |
| New Zealand | 285 | 290 | 308 |
| Australia | 195 | 162 | 145 |
| Belarus | 92 | 121 | 133 |
| | | | |

^{*} Excluding trade between the EU member states

by 10 percent. Against this background of growing demand, shipments from New Zealand in the first three months of 2010 were down 14 percent relative to the same period last year because of smaller supplies. In addition, butter stocks in the United States were 5 percent lower, and reports indicate that two-thirds of the public stocks of butter held by the EU are earmarked for social welfare programmes. In April, 2010, butter prices in Oceania were at levels similar to those observed at their peak in early 2008. Trade is expected to expand rapidly in the second half of 2010, mainly from the EU, and world exports should grow by 10 percent this year.

Skimmed milk powder

The world market for SMP expanded rapidly in 2009 and firm prices prevailed in early 2010, but remain lower than other dairy product prices. Demand is strong in China, Indonesia Malaysia and the Philippines, whose combined imports account for almost one-third of world trade in SMP.

Last year, these countries responded to the low prices with a 28 percent expansion of imports to levels that may not be sustained this year amid high prices. The current firm prices are due to a tight supply situation, created partly by low stocks in New Zealand. Similarly, a critical factor is the retention of stocks by the EU, which, unofficial sources inform, stood at 256 000 tonnes in May 2010. Press reports inform that 64 000 tonnes of the EU SMP stocks are to be allocated to social welfare programmes, but the remaining public stock position remains very high, and these overhang international markets. With current prices in the EU markets, intervention purchases are unlikely. However, should the EU export from public stocks in the second half of the year, SMP prices may decline.

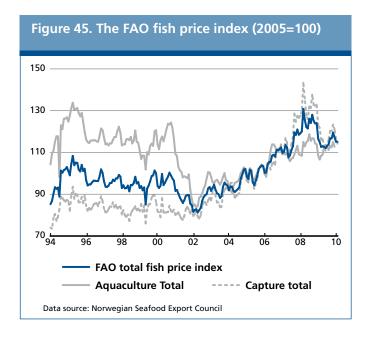
FISH AND FISHERY PRODUCTS

GLOBAL FISH ECONOMY

Confronted with sluggish consumer demand and a series of supply constraints, world production of fish products is estimated to have increased marginally (by less than 1 percent) to 143.7 million tonnes in 2009. The dynamic aquaculture sector is expected to be responsible for all of the limited gain, despite severe setbacks incurred by the industry, including salmon diseases, which halved 2009 Atlantic salmon output in Chile. Supply from world capture fisheries, on the other hand, has stagnated, constrained by the application of fishing quotas and falling profitability. Accordingly, aquaculture is estimated to have increased its share of world fish production from 36.9 percent in 2008 to 37.5 percent in 2009. Further production inroads are expected from the sub-sector in 2010.

As consumer confidence and discretionary spending improve, world demand for most fish products is slowly returning to normal. As in 2009, aggregate food consumption of fish in 2010 is expected to grow barely in line with population, keeping average per capita fish intake virtually unchanged.

The economic downturns are estimated to have had a marginal negative effect on the volume of fish traded internationally in 2009, now assessed at around 52.5 million tonnes (live weight). However, the contraction was far more pronounced in value terms, in the order of 8 percent, to an estimated USD 94.5 billion, as prices declined and import demand shifted towards less expensive



species. With the exception of Viet Nam, most exporters suffered a contraction in fish export earnings in 2009, in particular, Canada, Chile, Ecuador, India, the Russian Federation and the United States. The value of fish imports, on the other hand, was down in 2009 in the EU, Japan, Mexico, the Russian Federation and the United States. Under current prospects for a slow recovery of world demand, fish trade is expected to grow somewhat to 52.8 million tonnes in 2010, while, in value terms, it may bounce back by 7 percent and again surpass the USD 100 billion mark, albeit remaining short of the record achieved in 2008.

Based on the FAO Fish Price Index, prices weakened in late 2008 and early 2009, reaching their lows in March 2009. However, some increases in prices have taken place in recent months, for instance for shrimp, tuna and salmon. The fisheries sector remains heterogeneous with quite diverse price patterns for different species and origins, despite the high degree of substitution in processed products. A strengthening of prices of some aquaculture products, such as shrimp in early 2010 mostly reflected shrinking supplies, as producers adjusted to weak demand in 2008 and 2009 by cutting production. In the case of Atlantic salmon, disease problems have constrained supply, also leading to price rises.

SHRIMP

For the first time, global shrimp production fell in 2009

Worldwide production of farmed shrimp declined in 2009 for the first time in recent history, reaching 2.8 million tonnes, or 70 000 tonnes less than in 2008. Much of the

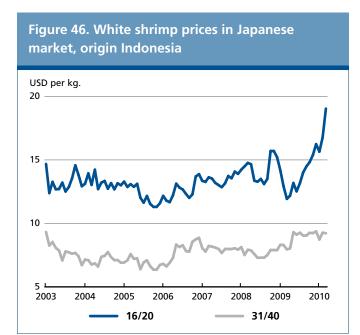
Table 16. World fish markets at a glance

| | 2008 | 2009 | 2010 | Change |
|---|-------|--------|-----------------|---|
| | | estim. | f'cast | 2010 over 2009 |
| | r | % | | |
| WORLD BALANCE | | | | |
| Production | 142.3 | 143.7 | 145.3 | 1.1 |
| Capture fisheries | 89.7 | 89.7 | 89.6 | -0.1 |
| Aquaculture | 52.5 | 54.0 | 55.7 | 3.1 |
| Trade value (exports USD billion) | 102.2 | 94.5 | 101.0 | 6.9 |
| Trade volume (live weight) | 52.9 | 52.5 | 52.8 | 0.6 |
| Total utilization | | | | |
| Food | 115.2 | 116.7 | 118.3 | 1.4 |
| Feed | 20.2 | 20.0 | 19.9 | -0.5 |
| Other uses | 6.9 | 7.0 | 7.1 | 1.4 |
| SUPPLY AND DEMAND INDICA | TORS | | | |
| Per caput food consumption: | | | | |
| Food fish (kg/year) | 17.1 | 17.1 | 17.1 | 0.2 |
| From capture fisheries (kg/year) | 9.3 | 9.2 | 9.1 | -1.3 |
| From aquaculture (kg/year) | 7.8 | 7.9 | 8.1 | 1.9 |
| FAO Fish price index (2002-2004=100) | 2008 | 2009 | 2010 Jan-May | Change Jan-May 2010 over Jan-May 2009 % |
| | 124 | 115 | 115 | -0.5 |

contraction was on account of **Indonesia** and **Viet Nam**, while **China** and **Thailand** reported output increases. In the **United States**, a recovery of consumer spending together with low inventories, is sustaining domestic shrimp prices. Although these may foster an increase in production, there is much concern over the impacts of the oil spill in the Gulf of Mexico on the sector, which may constrain shrimp output in 2010.

Unlike for other fish products, the volume of shrimp trade was stable in 2009, reflecting surprisingly strong import demand in the European market and in Japan. Imports to the EU experienced a strong performance in 2009. In the region, Spain, which continues to be the largest EU shrimp market, is estimated to have maintained imports in 2009 around 160 000 tonnes, despite the economic recession. Japan's shrimp imports were also up in 2009, a positive trend reflecting a brisk expansion of domestic demand. Thailand was the leading supplier to that market, followed by Viet Nam and Indonesia.

In 2009 Viet Nam managed to increase its shrimp exports by 7.4 percent. The country's sales of vannamei shrimp rose to 50 000 tonnes in 2009, an impressive amount, taking into account that Viet Nam began vannamei culture only a few years ago. Black tiger shrimp represented 75 percent of 2009



total value. In January 2010, Bangladesh notified the EU that shrimp exports would resume, after a six-month self-imposed suspension in 2009, which was a precautionary measure to avoid EU sanctions after detection of antibiotic residue.

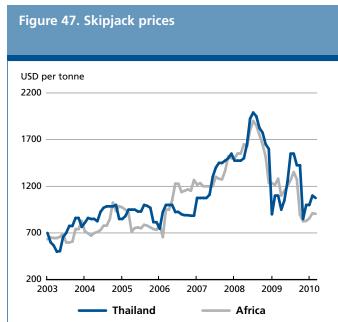
TUNA

Canned tuna sales remain strong whereas the sashimi and sushi markets are weak

An important development for the sector was the decision by member countries of the Convention on International Trade in Endangered Species (CITES) not to list Atlantic bluefin tuna on any of its trade restricting appendices was a relief to the tuna trade sector, at least in the short term. Good catches in early 2010 in the Indian Ocean and in the Western and Central Pacific pushed the price of skipjack down to USD 900 per tonne in Bangkok. This trend is influencing the European market, even though demand from canneries in Europe may strengthen in coming months.

Japanese tuna catches declined by 9 percent in 2009, down to 345 000 tonnes, as Yellowfin was the only species that reported higher landings. However, Japan's smaller farmed bluefin tuna production is estimated to have reached 7 000 tonnes in 2009, up from to 5 000 tonnes in 2008. Japanese frozen tuna imports increased by 9 percent in 2009, with bigeye as the main import product. Skipjack imports increased by 20 000 tonnes, substituting for minor domestic production. Demand for sashimi tuna was strong in Japan during the first-quarter of 2010.

Thai canned tuna exports totaled 485 400 tonnes in 2009, down 4.1 percent from 2008. Italy and Spain are increasing imports of tuna loins for canning and of canned

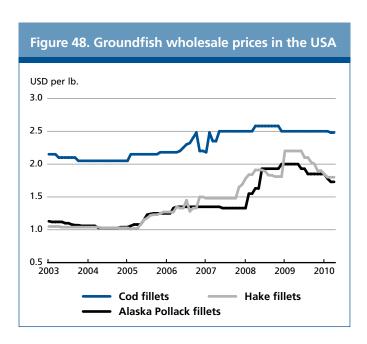


tuna. The tariff on Thai canned tuna in the EU remains high, at 20.5 percent.

GROUNDFISH

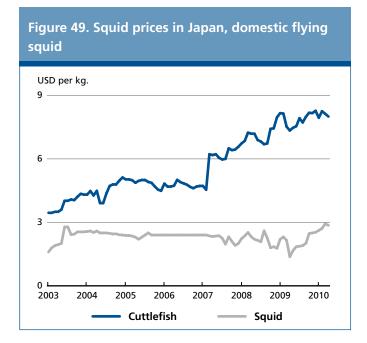
Sluggish import demand puts groundfish prices under downward pressure

The United States Alaska pollock fishing quota has been slashed by 45 percent over the last five years, which is constraining United States catches. As a result, the United States groundfish imports increased by almost 6 percent in 2009, to 135 900 tonnes, 60 percent of which corresponded to pollock, imported mainly in the form of frozen fillets (89 200 tonnes), and blocks (46 700 tonnes). On the other



hand, Japanese imports of surimi fell to 200 000 tonnes in 2009, a decrease of 60 000 tonnes from 2008. Cod import prices in the United States market have stabilized around relatively low levels, quoted at USD 2.45/lb in April 2010, although there are now indications that ex-vessel prices in Alaska are rising. Hake fillet prices dropped further to USD 1.80/lb in April 2010, due in part to increased supply from Chile and Argentina. Despite the lower fishing quota in United States waters, abundant stocks in the Russian Federation along with depressed import demand are exerting downward pressure on prices.

In early 2010, the new EU regulations on catch certification caused disruption to groundfish exports from the Russian Federation. The situation began returning to normal since February when the Russian Federation designated its competent authority for the issuance of catch certifications. German imports of Alaska pollock fillets dropped by 16 percent in 2009 to 148 200 tonnes, with China supplying 60 percent of the total. Also in 2009, France decreased its imports of Alaska pollock fillets by 9 percent, to 37 700 tonnes with China in fact increasing slightly its supplies to 22 200 tonnes. German frozen cod fillets imports dropped by 42 percent in 2009 to 11 400 tonnes, with a sharp 62 percent decline in Chinese supplies, reaching only 4 600 tonnes. The United Kingdom frozen cod imports fell 12 percent to 69 300 tonnes as cod is disappearing from traditional fish-and-chips shops, substituted by Alaska pollock and pangasius. German 2009 imports of frozen hake fillet grew 15 percent to 23 700 tonnes. Italian frozen hake imports were 32 200 tonnes in 2009, a rise of 5 percent, with Argentina increasing its shipments by 17 percent to 11 900 tonnes.



CEPHALOPODS

Depressed squid catches in 2009

The 2010 **squid** season in Argentina will be worse than the already poor 2009 season. Prices are disappointing for producers and with increasing fuel costs, some squid jiggers are already keeping their vessels in port. In 2009, Peruvian catches of giant squids fell by 24 percent to 405 700 tonnes. Despite limited supply and calls for higher prices by South American producers, international prices remained depressed in 2009 and early 2010, constrained by difficult economic situations in major importing countries, especially Spain. Japanese squid imports declined by 13 percent to 59 100 tonnes in 2009, following good domestic production. China continues to be the main supplier, in part re-exporting processed products sourced from Peru and the United States. Direct exports from Peru to the Japanese market were 10 400 tonnes, down 24 percent. Spain imports of squid declined sharply in 2009 to 113 700 tonnes compared with 150 400 tonnes in 2008. China, however, more than doubled its squid exports to Spain in 2009. Italy was the only squid market in the EU that held up well in 2009, importing 86 300 tonnes. Argentinean exports to Italy declined by 50 percent.

The West Africa **octopus** season is underway. Catches are disappointing, indicating that higher prices are likely towards the middle of the year. Mauritanian authorities allowed high octopus catches in 2009, causing prices to decline sharply. Mauritania doubled its exports to Japan (26 500 tonnes) and to Spain (9 200 tonnes), and quadrupled its exports to Italy (6 000 tonnes). In 2009, Japan was the world's largest importer of octopus with 56 200 tonnes, a 25 percent increase over 2008, of which 40 percent came from Mauritania. Morocco is the second largest exporter of octopus to the Japanese market with 13 800 tonnes exported. Italy was the world's second largest importer of octopus in 2009, with 54 800 tonnes, an 8 percent increase over 2008. Morocco is its main supplier with 16 200 tonnes. Spanish octopus imports increased slightly to 43 300 tonnes, despite the difficult economic situation in the country which continues to impact consumer confidence. Morocco, traditionally the main octopus supplier to Spain, diverted quantities to Japan and Italy.

TILAPIA

Growing tilapia production exerting pressure on prices

Production of tilapia is expanding in both Asia and Latin America, while it is lagging in Africa, despite the fact that tilapia is indigenous to the continent. After recording price hikes in 2008, the market strength subsided in 2009, as world production expanded.

China continues to be the main producing country, with output increasing slightly, to 1.15 million tonnes in 2009. Chinese tilapia exports grew 15 percent in 2009 to 259 000 tonnes, but the unit value declined by a marked 16 percent to USD 2.75 per kg. As a result, total export earnings for Chinese tilapia went down slightly in 2009 to just above USD 710 million. The United States took half of China's tilapia exports (134 000 tonnes), followed by Mexico (36 000 tonnes) and the Russian Federation (22 000 tonnes).

The United States, the world's main importer of tilapia, imported a record of 183 400 tonnes in 2009, of which more than 70 percent comes from China. The value of 2009 imports totaled USD 696 million, down 5.2 percent from USD 735 million in 2008. In general, frozen fillets, originating mainly in China, are replacing whole frozen fish and fresh fillets. In parallel, imports of fresh tilapia fillets by the United States declined 6.5 percent to 24 400 tonnes in 2009, with Ecuador as the main supplier, ahead of Honduras and Costa Rica

PANGASIUS

Viet Nam expanding Pangasius production for export

Viet Nam dominates global pangasius production and new investment will boost its capacity further. The country's exports fell 5 percent in 2009 to 608 000 tonnes, with the largest destinations being the EU (224 000 tonnes), the United States (42 000 tonnes) and the Russian Federation (40 000 tonnes). Viet Nam's pangasius production is expected to grow further in 2010, which may result in some decline in its own prices, but also on other whitefish prices. In an attempt to make further inroads in world markets, Viet Nam is introducing the Global Good Aquaculture Practices (GAP) standard, as a way to ensure customers of quality. Moreover, World Wildlife Fund (WWF) is preparing a new pangasius standard that will be implemented by the Aguaculture Stewardship Council and will certify production in cooperation with third parties. EU's pangasius imports have increased dramatically, from a mere 20 000 tonnes in 2004 to 215 800 tonnes in 2009. Spain is by far the largest EU importer, importing 52 200 tonnes in 2009, a 17 percent increase. Germany increased imports by 42 percent in 2009 to 35 300 tonnes. Further increases in EU pangasius imports are likely during the years to come. Other markets such as Egypt, Mexico, the Russian Federation, Ukraine and the United States, remain important destinations for Viet

Nam which has made significant efforts in developing new markets.

Chinese **catfish** production reached about 250 000 tonnes in 2009, up from 224 000. Catfish culture in China is less significant than tilapia, but its production is growing fast. Only 17 000 tonnes were exported by China in 2009, 90 percent of which to the United States.

SEABASS AND SEABREAM

Bream prices at record levels

In recent months, prices of **bream** have surged. The strength is mainly driven by a downscaling of operations by producers responding to weak demand and falling prices. Supplies are likely to remain short until the new generation of fish comes to market between June and September. **Bass** is less affected, with current prices somewhat lower than for bream.

Being the major producer, Greece strongly affects the markets for bass and bream. The rising price of bream is bringing relief to its domestic sector which was in crisis during most of 2009, although access to finance remains difficult. Turkey has been helped by strong domestic demand for bream, leading many producers to direct supply originally intended for export to the internal market in 2009 and 2010. In Spain, where production targets its domestic market, falling margins have led the sector to cut back production and to try to find new outlets in export markets, especially in France Despite falling consumer purchasing power in 2009, Italy's import volumes bounced back from a weak 2008, hitting record levels of above 40 000 tonnes. Imports by France increased in 2009 to almost 14 000 tonnes. The United Kingdom has proven a welcome market for farmed bass and bream from the Mediterranean with its imports reaching 7 200 tonnes in 2009.

SALMON

Diseases in Chile disrupt the salmon market

The market for farmed Atlantic salmon is tight with prices reaching record levels. Supply from Chile will reach an historic low in 2010 because its salmon industry has reduced drastically its operations until the newly developed vaccines have proven to be effective against the Infectious Salmon Anaemia (ISA) virus. In addition, Norway's 2010 production has been negatively impacted by a harsh winter. The resulting high prices are creating problems especially to processors, but retailers also are now looking for alternatives, such as Coho salmon and trout. The situation is not expected to ease at least until the new Norwegian supplies reach

Table 17. World farmed salmon production

| | 2006 | 2007 | 2008 | 2009* | 2010* | |
|-----------------|-------|-------|-------------|-------|-------|--|
| | | (| 1 000 tonne | es) | | |
| ATLANTIC SALMON | | | | | | |
| Norway | 600 | 725 | 790 | 880 | 860 | |
| Chile | 370 | 355 | 360 | 180 | 90 | |
| United Kingdom | 125 | 140 | 145 | 150 | 155 | |
| Canada | 115 | 110 | 110 | 120 | 125 | |
| Faroe Islands | 13 | 20 | 25 | 30 | 35 | |
| Australia | 16 | 20 | 20 | 20 | 22 | |
| Ireland | 15 | 15 | 15 | 15 | 18 | |
| United States | 10 | 12 | 12 | 15 | 18 | |
| Others | 3 | 3 | 3 | 5 | 5 | |
| Total | 1 267 | 1 400 | 1 480 | 1 415 | 1 328 | |
| PACIFIC SALMON | | | | | | |
| Japan | 10 | 10 | 10 | 10 | 10 | |
| Chile | 115 | 120 | 113 | 120 | 125 | |
| Canada | 10 | 8 | 7 | 7 | 8 | |
| New Zealand | 10 | 10 | 10 | 10 | 11 | |
| Total | 145 | 148 | 140 | 147 | 154 | |
| Grand Total | 1 412 | 1 548 | 1 620 | 1 559 | 1 482 | |

Source: GLOBEFISH AN 12201

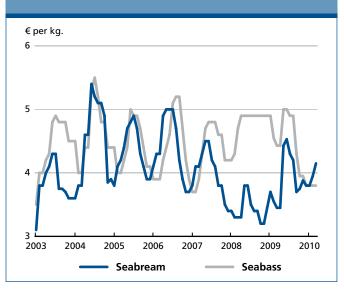
the market in the coming months. However, for the supply situation to normalize, buyers will have to wait until Chile has fully overcome its virus problems, which is unlikely to be the case before 2011 or even 2012.

Norway's 2009 production and exports set new records. Export volumes and values were up 15 and 33 percent, respectively, much of which were accounted by the EU, with Denmark, France, Poland and the United Kingdom as the largest destinations. In addition, Norway boosted its sales to the Japan, the Russian Federation and the United States.

Chile's salmon production could fall from 220 000 tonnes in 2009 to a low of only 80 000 tonnes. Producers hesitate to renew their stock, as the available vaccines are still under trial and credit conditions remain tight. On the positive side, the recent passage of the revised fisheries and aquaculture law in Chile will facilitate long-term financing of the sector, by extending the length of operation leases (a more detailed analysis is available in the special feature of this report).

The British salmon industry is increasingly targeting foreign markets with exports reaching 72 000 tonnes in 2009, up 23 percent from 2008. Total imports by the United States in 2009 remained flat. Over the 2008-2009 period, the United States fillet imports fell a significant 18.5 percent.

Figure 50. Prices of seabass and seabream in Italy



However, prospects for United States' salmon demand remain positive. Japan's 2009 fresh imports were up slightly, whereas frozen imports declined to 128 200 tonnes.

French salmon imports in 2009 increased by a massive 18 percent to 150 000 tonnes. Strong growth was registered for fresh whole and fresh fillets as well as for smoked salmon. In Germany, 2009 imports rose to a record 125 000 tonnes. Import demand for smoked salmon was particularly strong, with an annual growth in the volume of close to 50 percent.

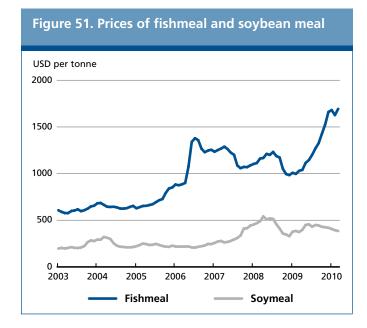
FISHMEAL

Lower fishing quota in Peru and the earthquake in Chile to constrain fishmeal supplies

Fishmeal production was down in all main producing countries in 2009 and is expected to drop further in 2010. Peru's 2010 fishing quota is likely to be substantially lower than in 2009, whereas the Chilean earthquake in February 2010 caused considerable disruption and an estimated reduction in production of 200 000 tonnes. Likewise, scandinavian countries are anticipated to reduce output in 2010. In contrast, demand is strong, especially in China, which is likely to lead to higher prices.

Peruvian 2009 catches destined for fish meal production were 5.8 million tonnes, which can be converted into 1.34 million tonnes of fishmeal, 5 percent less than 2008. Exports were stable at 1.54 million tonnes. Peru's fishmeal production in 2010 is forecast to reach 1.4 million tonnes, which is likely to result in falling exports to 1.3 million tonnes. El Niño's impact on the anchovy resource is the cause of the reduction in exports for this species. China remains Peru's principal market but imports

^{*} Estimate



of Peruvian fishmeal by Germany increased by 50 percent in 2009, probably in anticipation of even higher prices in 2010. Fishmeal prices in China surged in the opening months of 2010, reaching a record USD 2 050 per tonne in early April 2010, and are expected to increase further.

FISH OIL

In 2009, total fish oil production by the five major exporters (Peru, Chile, Iceland, Norway and Denmark) fell to 530 000 tonnes, 100 000 tonnes less than in 2008. Peru and Chile reported a 10 percent reduction, while for Nordic countries the contraction was in the order of 30 percent. In Chile, fishing activity and oil production have been disrupted by the February 2010 earthquake. In Peru, catches were higher in early 2010 but oil yield was low. This boosted fish oil prices, but not as much as fishmeal, because of the abundant availability of alternative vegetable oils.

Special features

FUTURES MARKETS, PORTFOLIO DIVERSIFICATION AND FOOD PRICES

This special feature is courtesy of Frank S. Rose, College of Business, Lewis University, United States. Mr Rose can be reached at RoseFr@lewisu.edu

The views expressed herein do not necessarily reflect the official opinion of the Food and Agriculture Organization of the United Nations.

INTRODUCTION

An important structural change has taken place in the agricultural futures markets in the past decade, one that has attracted a good deal of attention and controversy. These markets are no longer viewed as primarily hedging markets, to be used mainly by those seeking to transfer price risk from their operations in the agricultural cash markets. Futures markets are now also heavily used by those seeking to diversify their investments by holding a commodity, as well as a stock, bond, real estate or cash, component in their portfolios.

As agricultural futures continue to be as important as ever for hedging and price referencing, there has been concern about the impact of the increased investment use of the markets on hedging effectiveness, pricing of agricultural products and, hence, food prices.

In this article, updates are provided on the nature of this structural change in the maize, wheat and soybean futures markets at the Chicago Board of Trade, on the analysis of possible price effects and on the regulatory response to popular concerns.

PORTFOLIO DIVERSIFICATION USING AGRICULTURAL FUTURES

As investors have become more sophisticated and modern portfolio theory has become more ingrained into their thinking, they have moved into non-traditional investments. Diversification has become an important goal, and investors have sought to construct portfolios which perform well even in times of poor stock or bond market returns, or high inflation. Holding commodities is one way to do that.

As it is difficult for most investors to hold physical commodities, establishing their desired positions through the

futures markets has been a cheap and attractive means of accomplishing the goal. Investors have traded directly in the markets or have purchased products available in the overthe-counter markets to obtain the desired exposure. Two indexes based on baskets of futures contracts, the Standard and Poor's-Goldman Sachs Commodity Index and the Dow Jones-UBS Commodity Index, have provided the basis for many such products.

There are three popular types of financial products that provide exposure to these indexes. Commodity index swaps, sold by swap dealers, provide an investor a return based on the movement of the index. Exchange traded funds are tradable products whose prices reflect the index value. Exchange traded notes are debt products whose price tracks the index. All three have become actively traded and this activity has transferred to the futures trading volume as the firms selling these instruments hedge the risks they incur by offering them and construct the baskets of underlying futures contracts.

UPDATED DATA ON INVESTMENT IN MAIZE, WHEAT AND SOYBEAN FUTURES AND OPTIONS IN CHICAGO

Trading volume in Chicago's agricultural futures markets fell in 2009 but has rebounded so far this year. Through March 2010, corn, wheat and soybean futures volumes are up 17, 22 and 9 percent respectively, from 2009. How has investment activity in the markets changed over the past year?

The United States Commodity Futures Trading Commission (CFTC) releases weekly Commitments of Traders reports that provide data on the investment use of the futures and options markets by certain categories of large traders. Tables 1 and 2 show some of this data for the first week of April in the years 2000 and 2006–2010. The data shows open interest, or positions that traders have established but not yet closed. It does not show trading volume or turnover. Every open position includes a "long" (buying) and "short" (selling) trader. Tables 1 and 2 present long open interest. As much of the investment money flowing into the futures markets is used to establish long positions, there is concern that this is forcing futures prices higher than values dictated by fundamental supply and demand in the maize, wheat or soybean cash markets.

Data at the top of Table 1 describes the sharp growth of total open interest in the three markets (futures and options combined) between 2000 and 2010. Subsequently, the table presents data on positions of commercial traders (those hedging an underlying cash position) and non-commercial

Table 1: Open Interest of Commercial and Non-Commercial Traders; Chicago Board of Trade Maize, Wheat and Soybean Futures and Options on Futures Markets; With Cash Prices; 2000 and 2006-2010 (April each year); Open Interest Data Listed in Thousands of Contracts (5000 bushels/contract), with percent Shares of Total Open Interest Listed in Parentheses

| | CBOT Maize | CBOT Wheat | CBOT Soybeans |
|-------------------------------------|----------------|-----------------|----------------|
| Total Open Interest | | | |
| 2000 | 682.4 | 163.0 | 259.6 |
| 2006 | 1 375.5 | 444.1 | 459.2 |
| 2007 | 2 073.8 | 495.5 | 648.4 |
| 2008 | 2 144.4 | 534.6 | 770.4 |
| 2009 | 1 252.0 | 417.5 | 476.9 |
| 2010 | 1 522.8 | 552.9 | 578.1 |
| Commercial – Long Positions | | | |
| 2000 | 308.7 (45.2%) | 67.3 (41.3%) | 71.8 (27.7%) |
| 2006 | 610.9 (44.4%) | 236.8 (53.3%) | 234.3 (51.0%) |
| 2007 | 877.7 (42.3%) | 251.2 (50.7%) | 271.3 (41.8%) |
| 2008 | 945.9 (44.1%) | 234.8 (43.9%) | 301.4 (39.1%) |
| 2009 | 554.6 (44.3%) | 185.5 (44.4%) | 174.8 (36.7%) |
| 2010 | 731.8 (48.1%) | 293.4 (53.1%) | 288.2 (49.8%) |
| 2010 | 731.0 (40.170) | 233.4 (33.1 70) | 200.2 (43.070) |
| NonCommercial – Long Positions | | | |
| 2000 | 219.0 (32.1%) | 50.8 (31.2%) | 110.1 (42.4%) |
| 2006 | 564.6 (41.1%) | 165.4 (37.2%) | 154.2 (33.6%) |
| 2007 | 952.1 (45.9%) | 209.6 (42.3%) | 292.0 (45.0%) |
| 2008 | 985.5 (46.0%) | 263.9 (49.4%) | 404.8 (52.6%) |
| 2009 | 562.0 (44.9%) | 200.6 (48.1%) | 252.7 (53.0%) |
| 2010 | 642.6 (42.2%) | 220.8 (39.9%) | 241.0 (41.7%) |
| Non-Commercial – Net Long Positions | | | |
| 2000 | 47.9 | -9.4 | 38.4 |
| 2006 | 139.3 | -4.1 | -51.9 |
| 2007 | 191.0 | -12.1 | 88.1 |
| 2008 | 211.5 | 33.1 | 86.0 |
| 2009 | 85.7 | -1.1 | 75.3 |
| 2010 | 8.7 | -49.3 | 10.5 |
| Cash Prices (USD) | | | |
| 2000 | 2.25/bu | 2.31/bu | 5.09/bu |
| 2006 | 2.38 | 3.47 | 5.68 |
| 2007 | 3.67 | 4.67 | 6.96 |
| 2008 | 5.97 | 6.30 | 12.66 |
| 2009 | 4.05 | 4.62 | 10.47 |
| 2010 | 3.45 | 3.97 | 9.20 |

Sources of Data: Open Interest Data – Commodity Futures Trading Commission, Commitments of Traders Reports; Price Data – www.barchart.com.

traders (those holding positions for other reasons such as investment), along with cash price snapshots for the same time periods. Notably, the net long positions of the non-commercial traders have dropped substantially in 2010, extending the declines from 2008 to 2009. In wheat futures, the non-commercials were net short. Part of the explanation for this is that money managers, those traders engaged in managing and conducting futures trading on behalf of clients, were net short in wheat and corn futures in 2010.

It has been estimated that the total commodity index investment in the United States is currently about USD 174 billion (Stoll, 2009). Table 2 focuses on positions of index

traders, defined as managed funds, pension funds and other passive investors classified as non-commercials in Table 1, and swap dealers and other non-traditional hedgers classified as commercials in Table 1. These are the market participants actively engaged in trading futures and options, mostly on the long side, in conjunction with commodity index products used for investment. After a decline in 2009, the net long positions held by index traders increased in 2010, back to near 2008 levels. As 2008 was a year of high prices, some market observers have pointed to the high net long positions of the index traders that year as a possible causal factor.

Table 2: Open Interest of Commercial, Non-Commercial and Index Traders; Chicago Board of Trade Maize, Wheat and Soybean Futures and Options Markets; 2007 – 2010 (April each year); Open Interest Data Listed in Thousands of Contracts (5 000 bushels/contract), with percent Shares of Total Open Interest Listed in Parentheses

| | CBOT Maize | CBOT Wheat | CBOT Soybeans |
|------------------------------------|---------------|---------------|---------------|
| | | | |
| Commercial – Long Positions | | | |
| 2007 | 554.7 (26.8%) | 80.3 (16.2%) | 147.2 (22.7%) |
| 2008 | 533.6 (24.9%) | 57.3 (10.7%) | 144.0 (18.7%) |
| 2009 | 325.0 (26.0%) | 55.6 (13.3%) | 75.5 (15.8%) |
| 2010 | 312.4 (20.5%) | 67.7 (12.2%) | 126.5 (21.9%) |
| NonCommercial – Long Positions | | | |
| 2007 | 913.0 (44.0%) | 183.2 (37.0%) | 278.1 (42.9%) |
| 2008 | 916.0 (42.7%) | 232.1 (43.4%) | 380.7 (49.4%) |
| 2009 | 497.6 (39.7%) | 166.9 (40.0%) | 223.6 (46.9%) |
| 2010 | 567.9 (37.3%) | 190.1 (34.4%) | 211.9 (36.6%) |
| Index Traders – Long Positions | | | |
| 2007 | 362.1 (17.5%) | 197.4 (39.8%) | 138.1 (21.3%) |
| 2008 | 481.8 (22.5%) | 209.4 (39.2%) | 181.5 (23.6%) |
| 2009 | 294.0 (23.5%) | 163.6 (39.2%) | 128.5 (26.9%) |
| 2010 | 494.1 (32.4%) | 256.5 (46.4%) | 190.8 (26.9%) |
| Index Traders – Net Long Positions | | | |
| 2007 | 346.6 | 192.7 | 136.8 |
| 2008 | 439.0 | 178.2 | 171.2 |
| 2009 | 251.3 | 136.3 | 111.2 |
| 2010 | 452.1 | 220.1 | 169.9 |

Explanatory Note, Tables 1 and 2: In the Commitments of Traders Report (Table 1), "Commercial Traders" are defined as those who are hedging a cash market position; "Non-Commercial Traders" are defined as those holding positions for other reasons, usually investing. In the Commitments of Traders Supplemental Report (Table 2), managed funds, pension funds and other passive investors from the "Non-commercial Traders" category, and swap dealers and other non-traditional hedgers from the "Commercial Traders" category, are placed in the "Index Traders" category.

Source of Data: Commodity Futures Trading Commission, Commitments of Traders Supplemental Reports.

Disaggregated Commitments of Traders data shows the dominance of swap dealers in the index trader category in 2010. Their shares of long open interest in the corn, wheat and soybean markets (futures and options combined) were 30 percent, 42 percent and 29 percent, respectively. They accounted for between 79 percent and 86 percent of the net long positions of index traders in each of the three markets.

Finally, Table 3 draws from the CFTC's Bank Participation Reports to illustrate bank use of the three markets. Again, long open interest data is presented. Interestingly, foreign bank participation is substantially higher than that of United States banks.

THE IMPACT OF INVESTMENT-RELATED TRADING ON FUTURES PRICES AND PRICE "BUBBLES"

A review of the recent literature on the issue of index trading shows that there continues to be sharp differences of opinion on the price impacts. No one disagrees that the structural change has occurred; significantly more investment-related money is flowing into the futures markets now. The difference is on how it affects prices.

Among recent studies finding an adverse price impact, one stated:

"The excess price surges caused by speculation and possible hoarding could have severe effects on confidence in global grain markets, thereby hampering the market's performance in responding to fundamental changes in supply, demand and costs of production. More important, they could result in unreasonable or unwanted price fluctuations that can harm the poor and result in long-term irreversible nutritional damage, especially among children." (Robles, 2009)

Another market commentator, in March 2010 testimony to the CFTC, concluded that:

Table 3: Open Interest of Banks; Chicago Board of Trade Maize, Wheat and Soybean Futures Markets; 2008 – 2010 (April each year); Open Interest Data Listed in Thousands of Contracts (5000 bushels/ contract)

| | | United States I | Banks | Non-United States Banks | | | | |
|---------------|-----------------|-------------------------------------|-----------------------------|-------------------------|-------------------------------------|-----------------------------|--|--|
| | Number of banks | Percent of long open interest | Net long positions (000) | Number of banks | Percent of long open interest | Net long positions (000) | | |
| | | | | | | | | |
| CBOT Maize | 2 | 1.3% | 6.7 | 13 | 8.8% | 105.2 | | |
| 2008 | 1 | 0.7 | 5.5 | 13 | 7.8 | 56.9 | | |
| 2009 | ** | 1.7 | 13.8 | ** | 2.0 | 17.0 | | |
| 2010 | | | | | | | | |
| CBOT Wheat | | | | | | | | |
| 2008 | 2 | 1.9 | 7.2 | 13 | 13.4 | 40.4 | | |
| 2009 | 2 | 1.0 | 1.9 | 15 | 15.1 | 36.0 | | |
| 2010 | ** | 4.4 | 20.1 | ** | 4.5 | 13.4 | | |
| | | | | | | | | |
| CBOT Soybeans | | | | | | | | |
| 2008 | 2 | 1.0 | 1.5 | 13 | 7.4 | 35.0 | | |
| 2009 | 1 | 0.9 | 2.7 | 15 | 8.0 | 22.9 | | |
| 2010 | ** | 1.9 | 8.2 | ** | 1.7 | 5.3 | | |

^{**} Numbers of United States and non-United States banks are not reported separately. The total number of participating banks was 11 for Maize, 14 for Wheat, and 11 for Sovheans

Source of Data: Commodity Futures Trading Commission, Bank Participation Reports.

"Passive speculators are an invasive species that will continue to damage the markets until they are eradicated. The CFTC must address the issue of passive speculation; it will not go away on its own. When passive speculators are eliminated from the markets, then most consumable commodities derivatives markets will no longer be excessively speculative, and their intended functions will be restored." (Masters, 2010)

Two of the numerous recent papers presenting the opposite view might be cited. One argued that:

"The vast majority of empirical evidence presented by academic researchers fails to find any relationship between positions held by large traders and subsequent price behavior. Those that do find some evidence often use nonstandard techniques or data. Therefore, even though the arguments made by bubble proponents are intuitively appealing to the non-economist, they do not stand on empirical footing." (Sanders, 2010)

Another paper examining the role of commodity index investment, particularly in wheat futures, studied, *inter alia*, the price impacts of investors "rolling" (transferring) their positions from one contract expiration month to another in the futures markets. The authors found:

"Commodity index rolls have little futures price impact, and inflows and outflows from commodity index investment do not cause futures prices to change." (Stoll, 2009)

CURRENT DIALOGUE ON THE NEED FOR REGULATORY CHANGE IN THE UNITED STATES FUTURES MARKETS

In July and August 2009, the CFTC held three days of hearings on the use of position limits for non-hedgers to control excessive speculation in the futures markets. Much of the focus was on energy futures but testimony on the agricultural markets was also heard. In August, the CFTC removed exemptions from federal position limits that had been granted previously to two firms participating in the maize, wheat and soybean futures markets. In reviewing their trading strategies, the CFTC determined that the firms were not hedging cash market positions and, therefore, were not eligible for the exemptions.

In January 2010, the CFTC released, for public comment, a proposal to modify position limits in certain energy futures contracts and create a limited risk management exemption for swap dealers participating in those markets. The proposal is modeled after the position limit system that currently applies to the agricultural futures markets. The CFTC has characterized the proposal as targeting "excessive concentration" in the energy markets, rather than "excessive speculation". The comment period ends in mid-April after which the CFTC will make a final ruling. Participants in the agricultural futures markets are following this process closely as the CFTC has said that it is considering extending the new approach on swap dealer exemptions to the agricultural futures markets.

CONCLUSION

It is safe to say that investors will continue to find agricultural futures markets an attractive vehicle for diversifying their portfolios and that criticism of this activity will continue on some fronts. Those following food prices would do well to monitor the changing patterns of investment in the futures markets, the debate on their impacts, and discussions of alternative regulatory responses. Agricultural futures markets provide price discovery and hedging services which are fundamental to food price formation, and anything that adversely affects the performance of these markets can impact food prices.

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THE SALMON DISEASE CRISIS IN CHILE

This special feature is courtesy of Professor Frank Asche, Associate Professor Håvard Hansen and Professor Ragnar Tveteras, University of Stavanger, and Associate Professor Sigbjørn Tveterås, Pontifica Universidad Católica dél Peru. The full article was published in Marine Resource Economics 24(4):405-411.

The views expressed herein do not necessarily reflect the official opinion of the Food and Agriculture Organization of the United Nations.

Currently, the Chilean salmon aquaculture industry is experiencing the worst disease outbreak ever observed in salmon aquaculture and, in terms of revenue losses, possibly in all aquaculture to date. The crisis started in 2007, when the world's largest salmon-producing company, Marine Harvest, reported that they had discovered infectious salmon anemia (ISA) at a farm producing Atlantic salmon in Chile. Since then, reports of new outbreaks increased rapidly. As a result, production of Atlantic salmon in Chile is expected to decrease from 360 000 tonnes in 2008 to less than 100 000 tonnes in 2010. This means that compared with the level in 2007, production will be reduced cumulatively by at least 700 000 tonnes during the period 2009-11, and its value will be cut by more than USD 2 billion.

Disease in world salmon aquaculture started to be detected in the early 1980s, and as such, has accompanied the industry through its development. At times, disease has threatened the industry's existence because of the economic losses. Among the most significant outbreaks are vibrosis in 1986 and furunculosis in the 1990s in Norway, ISA in the Bay of Fundy in Canada just after the turn of the century and in the Faroe Island in 2003. There are several ways to contain a disease including vaccines. But for disease where effective vaccines are lacking, other measures, such as zoning of farms, regulations of distances between farms, and destruction of fish when a disease is detected remain important tools in disease management. Regulatory tools are necessary for implementation and experiences of the regulatory bodies and individual firms in combating diseases lead to more efficient disease management schemes.

Use of antibiotics not only negatively impacts the environment, but also influences the productivity of salmon farms. Together with regulatory measures to combat disease, the negative feedback effects on productivity also provide the industry with incentives to reduce the use of antibiotics. In Norway, a major breakthrough came in 1991 with the first vaccine which rapidly reduced the use of antibiotics. In 2007 in Norway, only 649 kg of antibiotics were used for the

production of 822 000 tonnes of salmon, compared with 48 570 kg used in 1987 for a production of only 46 000 tonnes of salmon.

While the industry has certainly learned a lot about combating salmon diseases in the Northern Hemisphere, disease remain part of the productive environment and can still bankrupt individual companies. However, their effects are limited for the industry at large. In Eastern Canada and the Faroe Islands, on the other hand, ISA caused significant damage after the turn of the century. Hence, diseases seem to spread faster than the experience on how to combat them.

Chile is the last of the major salmon-producing nations where aquaculture commenced. In 1991, production of Atlantic salmon exceeded 10 000 tonnes for the first time and until 2005, Chile was the fastest-growing salmon producer in the world with production peaking in 2006. Although there were more reports of disease outbreaks in 2008, they were still regarded as single occurrences and were not considered to be a problem for the industry at large. Only in late 2008 did a majority of the companies start to regard ISA as a challenge that required consorted action by the industry. The Government became seriously involved, but the industry discovered that the government lacked tools to coordinate the effort.

What any observer of this crisis will ask is why the Chilean industry was not better prepared. After all, the companies operating in Chile knew that the ISA virus was present and that it had caused serious problems in all other major salmon-producing countries. The lack of an adequate response is even more surprising, given that several of the multinational companies have considerable experience with the disease from other production areas outside Chile. But the lack of transparency about the extent of the problems allowed the disease to spread for at least one year after the first outbreak was reported without the introduction of countermeasures.

One likely reason why diseases were not combated earlier is the economic cost of the operation. Salmon is an exotic species in Chile, as are the diseases. Hence, when salmon farming commenced in Chile in the late 1980s, there were no diseases in the local fauna.

Moreover, with liberal regulations, the producers could focus on scale economies in production. Initially, disregarding the production risk posed by disease outbreaks may even have added to the competitiveness of the Chilean industry, as most risk-reducing measures are costly. For example, use of freshwater lakes, rather than land-based smolt plants, reduced investments in smolt production, unvaccinated fish grow faster than vaccinated fish and imports of fish roe allowed the industry to proceed without enacting its own breeding programmes.

One may wonder why companies that have experience with ISA and other diseases from other countries did not

take preventive actions in Chile, and why Chilean authorities had not learnt from the disease outbreaks in other countries, and only recently introduced measures, such as increased inspections of farming facilities, new zoning regulations, etc. However, the ISA outbreaks in Canada and the Faroe Islands certainly indicated that the Chilean case was not unique.

Disease is a part of animal production and as such, it is not surprising that it is also a part of aquaculture. As intensive aquaculture is a relatively new industry, one can learn about diseases only as they occur. When that happens, it takes time to learn how to most effectively combat each disease. The experience in Norway and Scotland indicates that developing disease management schemes is possible and that experience from combating some diseases also helps in preventing or reducing the impact of new diseases. As in agriculture, government has an important role to play in aquaculture in providing regulations and in implementing emergency measures that help to coordinate the industry in its preventive efforts.

In this light, the consequences of the ISA outbreaks in Canada, the Faroe Islands, and now in Chile, are discouraging. Even in an industry like salmon farming where production is limited to a few countries and with several multinational companies that have the ability to transfer knowledge between these countries, there actually seems to be very little transfer of experiences in disease management. Hence, ISA wreaked havoc first in the Bay of Fundy, then the Faroe Islands and finally, in Chile, despite the experiences of Norway and Scotland. Moreover, regardless of their importance, the different government bodies, seem to have a very limited capacity to learn from other countries that have faced similar challenges.

When it is so hard to learn from others' experiences in salmon aquaculture (a relatively transparent industry present only in relatively developed countries), diseases will create an even larger challenge to aquaculture development in less developed countries. To some extent, the experience from shrimp and other species has already demonstrated these problems. However, even if diseases are present, the experience from Norway and Scotland indicates that large-scale aquaculture can be conducted in a sustainable manner and proactiveness is essential in reaching this objective.

Statistical appendix tables

| Table A1 (a) & (b) | Cereal Statistics | 62-63 |
|--------------------|---|-------|
| Table A2 (a) & (b) | Wheat Statistics | 64-65 |
| Table A3 (a) & (b) | Coarse Grains Statistics | 66-67 |
| Table A4 (a) & (b) | Maize Statistics | 68-69 |
| Table A5 (a) & (b) | Barley Statistics | 70-71 |
| Table A6 (a) & (b) | Sorghum Statistics | 72-73 |
| Table A7 (a) & (b) | Other Coarse Grains Statistics | 72-73 |
| Table A8 (a) & (b) | Rice Statistics | 74-75 |
| Table A9 | Cereal Supply and Utilization in Main Exporting Countries | 76 |
| Table A10 | Total Oilcrops Statistics | 77 |
| Table A11 | Total Oils and Fats Statistics | 78 |
| Table A12 | Total Meals and Cakes Statistics | 79 |
| Table A13 | Sugar Statistics | 80 |
| Table A14 | Total Meat Statistics | 81 |
| Table A15 | Bovine Meat Statistics | 82 |
| Table A16 | Ovine Meat Statistics | 83 |
| Table A17 | Pigmeat Statistics | 84 |
| Table A18 | Poultry Meat Statistics | 85 |
| Table A19 | Milk and Milk Products Statistics | 86 |
| Table A20 | Fish and fishery products statistics | 87 |
| Table A21 | Selected International Prices of Wheat and Coarse Grains | 88 |
| Table A22 | Wheat and Maize Futures Prices | 89 |
| Table A23 | Selected International Prices for Rice and Price Indices | 90 |
| Table A24 | Selected International Prices for Oilcrop Products and Price Indices | 91 |
| Table A25 | Selected International Prices for Milk Products and Dairy Price Indices | 92 |
| Table A26 | Selected International Meat Prices | 93 |
| Table A27 | Selected International Meat Prices and FAO Meat Price Index | 94 |
| Table A28 | Selected International Commodity Prices | 95 |

NOTES

General

- FAO estimates and forecasts are based on official and unofficial sources.
- Unless otherwise stated, all charts and tables refer to FAO data as source.
- Estimates of world imports and exports may not always match, mainly because shipments and deliveries do not necessarily occur in the same marketing year.
- Tonnes refer to metric tonnes.
- All totals are computed from unrounded data.
- Regional totals may include estimates for countries not listed. The countries shown in the tables were chosen based on their importance of either production or trade in each region. The totals shown for Central America include countries in the Caribbean.
- Estimates for China also include those for the Taiwan Province, Hong Kong SAR and Macao SAR, unless otherwise stated.
- Up to 2006 or 2006/07, the European
 Union includes 25 member states. From
 2007 or 2007/08 onwards, the European
 Union includes 27 member states.
- '-' means nil or negligible.

Production

- Cereals: Data refer to the calendar year in which the whole harvest or bulk of harvest takes place.
- Sugar: Figures refer to centrifugal sugar derived from sugar cane or beet, expressed in raw equivalents. Data relate to the October/September season.

Utilization

- Cereals: Data are on individual country's marketing year basis.
- **Sugar**: Figures refer to centrifugal sugar derived from sugar cane or beet, expressed in raw equivalents. Data relate to the October/September season.

Trade

- Trade between European Union member states is excluded, unless otherwise stated.
- Wheat: Trade data include wheat flour in wheat grain equivalent. The time reference period is July/June, unless otherwise stated.
- Coarse grains: The time reference period is July/June, unless otherwise stated.
- Rice, dairy and meat products:
 The time reference period is January/
 December.
- Oilseeds, oils and fats and meals and sugar: The time reference period is October/September, unless otherwise stated.

Stocks

• **Cereals**: Data refer to carry-overs at the close of national crop seasons ending in the year shown.

COUNTRY CLASSIFICATION

In the presentation of statistical material, countries are subdivided according to geographical location as well as into the following two main economic groupings: "developed countries" (including the developed market economies and the transition markets) and "developing countries" (including the developing market economies and the Asia centrally planned countries). The designation "Developed" and "Developing" economies is intended for statistical convenience and does not necessarily express a judgement about the stage reached by a particular country or area in the development process.

References are also made to special country groupings: Low-Income Food-Deficit Countries (LIFDCs), Least Developed Countries (LDCs). The LIFDCs include 77 countries that are net importers of

basic foodstuffs with per caput income below the level used by the World Bank to determine eligibility for International Development Aid (IDA) assistance (i.e. USD 1 735 in 2006). The LDCs group currently includes 50 countries with low income as well as weak human resources and low level of economic diversification. The list is reviewed every three years by the Economic and Social Council of the United Nations.

DISCLAIMER

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Table A1 (a). Cereal statistics

| | | Production | 1 | | Imports | | | Exports | |
|---------------------------|--------------------------|------------|---------|----------------------------|---------------|---------|----------------------------|---------|---------|
| | 2006-2008 average | 2009 | 2010 | 06/07-08/09 average | 2009/10 | 2010/11 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| | (| | | m | illion tonnes | s | | |) |
| ASIA | 951.7 | 980.6 | 1 002.1 | 127.7 | 131.4 | 129.7 | 45.7 | 45.3 | 44.0 |
| Bangladesh | 30.9 | 34.8 | 35.1 | 3.2 | 3.3 | 2.4 | - | - | - |
| China | 406.3 | 417.1 | 417.3 | 8.7 | 8.8 | 8.8 | 4.3 | 1.8 | 1.6 |
| India | 209.1 | 204.0 | 218.9 | 2.9 | 0.8 | 0.7 | 5.8 | 3.4 | 4.0 |
| Indonesia | 48.7 | 58.1 | 59.0 | 6.7 | 5.9 | 6.2 | 0.3 | 1.6 | 1.9 |
| Iran, Islamic Republic of | 18.9 | 17.9 | 20.3 | 7.9 | 8.6 | 6.8 | 0.5 | 1.0 | 1.5 |
| Iraq | 3.4 | 2.1 | 3.5 | 4.4 | 5.1 | 5.2 | 0.1 | - | - |
| Japan | 9.0 | 8.6 | 8.8 | 25.5 | 25.7 | 25.6 | 0.5 | 0.5 | 0.5 |
| Kazakhstan | 18.3 | 20.5 | 20.2 | 0.1 | 0.1 | - 42.6 | 8.1 | 8.2 | 8.0 |
| Korea, Republic of | 5.0 | 5.3 | 5.2 | 12.2 | 12.2 | 12.6 | 0.1 | 0.1 | 0.1 |
| Myanmar | 20.9 | 21.0 | 21.6 | 0.1 | 0.1 | 0.1 | 0.8 | 1.6 | 1.6 |
| Pakistan | 31.8 | 34.4 | 34.7 | 1.6 | 1.2 | 1.1 | 4.1 | 4.1 | 3.9 |
| Philippines | 17.3 | 17.6 | 18.4 | 5.2 | 5.4 | 5.0 | - | 0.4 | 0.2 |
| Saudi Arabia | 2.6 | 1.4 | 1.1 | 9.9 | 11.8 | 12.5 | - | - | - |
| Thailand | 24.8 | 24.3 | 24.1 | 1.7 | 2.1 | 2.1 | 10.0 | 9.6 | 9.1 |
| Turkey | 30.8 | 33.2 | 33.5 | 3.6 | 3.7 | 3.5 | 2.0 | 3.5 | 3.2 |
| Viet Nam | 28.8 | 30.3 | 30.6 | 2.2 | 2.3 | 2.5 | 5.1 | 5.8 | 5.8 |
| AFRICA | 136.6 | 150.4 | 152.1 | 59.2 | 56.7 | 60.1 | 5.6 | 6.5 | 6.1 |
| Algeria | 3.3 | 6.0 | 5.9 | 7.8 | 7.0 | 7.5 | - | - | - |
| Egypt | 20.8 | 20.4 | 21.0 | 13.0 | 13.0 | 13.7 | 0.7 | 0.6 | 0.5 |
| Ethiopia | 14.7 | 14.3 | 14.9 | 1.3 | 1.4 | 1.3 | 0.2 | - | - |
| Morocco | 5.7 | 10.2 | 8.0 | 5.3 | 3.2 | 5.3 | 0.2 | 0.2 | 0.2 |
| Nigeria | 23.0 | 23.7 | 24.6 | 5.3 | 5.3 | 5.7 | 0.5 | 0.6 | 0.5 |
| South Africa | 11.7 | 15.1 | 16.1 | 2.7 | 2.3 | 2.6 | 1.4 | 2.6 | 2.8 |
| Sudan | 5.8 | 3.6 | 4.7 | 1.7 | 2.4 | 1.9 | 0.3 | 0.1 | 0.1 |
| CENTRAL AMERICA | 39.5 | 40.4 | 40.3 | 25.1 | 24.7 | 25.8 | 1.3 | 1.3 | 1.3 |
| Mexico | 33.8 | 34.4 | 34.0 | 14.8 | 14.5 | 15.7 | 1.0 | 1.1 | 1.1 |
| SOUTH AMERICA | 125.9 | 116.4 | 127.7 | 24.1 | 25.1 | 24.8 | 36.9 | 25.1 | 28.9 |
| Argentina | 37.9 | 25.3 | 35.0 | - | - | - | 25.0 | 13.2 | 16.7 |
| Brazil | 65.5 | 67.1 | 69.0 | 9.0 | 9.0 | 8.5 | 8.7 | 8.3 | 8.9 |
| Chile | 3.1 | 3.0 | 2.8 | 2.9 | 3.3 | 3.3 | 0.1 | - | - |
| Colombia | 3.5 | 3.8 | 3.9 | 4.8 | 5.0 | 5.0 | 0.1 | 0.1 | 0.1 |
| Peru | 3.5 | 4.1 | 4.0 | 3.1 | 3.1 | 3.3 | - | - | - |
| Venezuela | 3.7 | 3.2 | 3.4 | 2.6 | 2.9 | 3.1 | 0.1 | 0.1 | 0.1 |
| NORTH AMERICA | 434.0 | 466.3 | 465.2 | 9.2 | 8.3 | 8.5 | 114.3 | 100.6 | 101.1 |
| Canada | 50.9 | 49.0 | 47.0 | 2.7 | 2.7 | 2.7 | 22.3 | 21.6 | 21.0 |
| United States of America | 383.1 | 417.3 | 418.1 | 6.5 | 5.6 | 5.8 | 91.9 | 79.0 | 80.0 |
| EUROPE | 434.4 | 463.5 | 458.3 | 23.8 | 14.3 | 14.4 | 52.6 | 64.2 | 64.7 |
| European Union | 274.5 | 296.2 | 296.2 | 18.7 | 10.3 | 10.5 | 21.4 | 21.8 | 25.2 |
| Russian Federation | 92.3 | 95.8 | 92.8 | 1.1 | 0.7 | 0.6 | 16.4 | 20.3 | 19.8 |
| Serbia | 8.1 | 9.0 | 8.8 | 0.1 | - | - | 1.3 | 1.8 | 1.8 |
| Ukraine | 36.4 | 45.0 | 43.2 | 0.3 | 0.2 | 0.2 | 12.3 | 20.0 | 17.5 |
| OCEANIA | 26.9 | 35.5 | 33.8 | 1.2 | 1.3 | 1.3 | 14.7 | 19.0 | 18.5 |
| Australia | 26.0 | 34.6 | 32.9 | 0.2 | 0.2 | 0.1 | 14.7 | 19.0 | 18.5 |
| WORLD | 2 149.0 | 2 253.1 | 2 279.5 | 270.3 | 261.8 | 264.5 | 271.0 | 261.8 | 264.5 |
| Developing countries | 1 201.2 | 1 229.0 | 1 262.5 | 200.0 | 201.7 | 203.3 | 79.1 | 66.8 | 68.9 |
| Developed countries | 947.8 | 1 024.1 | 1 017.0 | 70.3 | 60.2 | 61.2 | 191.9 | 195.1 | 195.5 |
| LIFDCs | 912.8 | 945.3 | 965.6 | 86.6 | 85.7 | 85.9 | 21.2 | 17.4 | 16.2 |
| LDCs | 133.2 | 141.4 | 142.7 | 22.7 | 23.5 | 21.9 | 4.7 | 5.8 | 4.5 |
| · | | | | | | | | | |

Table A1 (b). Cereal statistics

| | Total Utilization | | Stocks ending in | | | Per caput | | | |
|---------------------------|----------------------------|--------------|------------------|--------------------------|------------|------------|----------------------------|----------------|----------------|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| | (| | millic | on tonnes | |) | (| Kg/year . |) |
| ASIA | 1 015.6 | 1 058.4 | 1 079.6 | 282.0 | 314.6 | 322.3 | 160.3 | 161.2 | 162.1 |
| Bangladesh | 33.8 | 36.7 | 37.8 | 5.6 | 7.5 | 7.2 | 174.4 | 179.2 | 182.6 |
| China | 397.6 | 413.0 | 418.7 | 173.0 | 199.5 | 205.2 | 151.0 | 150.9 | 150.6 |
| India | 200.7 | 207.7 | 213.2 | 35.3 | 35.5 | 37.7 | 153.9 | 153.9 | 155.9 |
| Indonesia | 54.6 | 60.5 | 62.7 | 5.8 | 8.6 | 8.9 | 203.2 | 209.3 | 211.5 |
| Iran, Islamic Republic of | 25.8 | 26.7 | 27.0 | 3.7 | 3.7 | 2.3 | 200.5 | 201.0 | 200.7 |
| Iraq | 8.0 | 7.6 | 8.5 | 2.8 | 2.0 | 2.2 | 185.9 | 187.4 | 188.9 |
| Japan Kazakhstan | 34.3 10.2 | 33.9 11.3 | 34.2 12.2 | 3.9 3.6 | 3.8 6.0 | 3.7 6.1 | 131.7 161.2 | 130.3 162.1 | 131.6 161.5 |
| Korea, Republic of | 17.1 | 17.1 | 17.2 | 2.7 | 2.6 | 3.1 | 129.7 | 128.9 | 128.6 |
| Myanmar | 19.7 | 20.2 | 20.4 | 5.7 | 4.6 | 4.3 | 251.2 | 252.7 | 252.6 |
| Pakistan | 29.2 | 30.8 | 31.6 | 3.0 | 4.0 | 4.4 | 139.2 | 140.6 | 141.7 |
| Philippines | 21.9 | 23.1 | 23.5 | 3.6 | 4.1 | 3.9 | 160.5 | 163.2 | 164.5 |
| Saudi Arabia | 12.8 | 13.3 | 13.6 | 3.6 | 3.3 | 3.3 | 140.1 | 137.5 | 137.4 |
| Thailand | 16.7 | 16.9 | 17.1 | 5.0 | 5.5 | 5.5 | 141.9 | 145.5 | 146.2 |
| Turkey | 33.1 | 32.8 | 33.6 | 5.3 | 4.4 | 4.6 | 222.1 | 223.0 | 222.3 |
| Viet Nam | 25.9 | 26.9 | 27.2 | 5.9 | 5.6 | 5.7 | 211.8 | 214.7 | 215.0 |
| AFRICA | 190.3 | 200.5 | 206.2 | 28.3 | 29.4 | 29.3 | 148.2 | 149.5 | 149.2 |
| Algeria | 11.6 | 12.7 | 13.1 | 3.6 | 3.7 | 4.2 | 229.7 | 231.7 | 232.5 |
| Egypt | 32.4 | 33.7 | 34.3 | 4.6 | 5.2 | 5.1 | 267.4 | 269.8 | 270.4 |
| Ethiopia | 15.4 | 16.2 | 16.4 | 1.0 | 1.0 | 0.7 | 167.6 | 168.8 | 168.7 |
| Morocco | 11.0 | 12.1 | 13.0 | 2.6 | 2.9 | 2.9 | 239.7 | 244.6 | 246.3 |
| Nigeria | 27.8 | 28.7 | 29.5 | 1.5 | 1.1 | 1.0 | 141.2 | 140.2 | 140.9 |
| South Africa | 13.7 | 13.8 | 14.7 | 2.3 | 3.5 | 4.4 | 171.3 | 172.6 | 172.8 |
| Sudan | 7.1 | 6.7 | 6.8 | 2.3 | 1.4 | 1.2 | 155.1 | 154.6 | 154.7 |
| CENTRAL AMERICA | 63.2 | 65.2 | 65.4 | 5.2 | 4.8 | 4.3 | 167.2 | 167.9 | 167.6 |
| Mexico | 47.5 | 49.1 | 49.3 | 3.3 | 2.9 | 2.3 | 201.9 | 202.9 | 202.7 |
| SOUTH AMERICA | 112.1 | 118.4 | 120.6 | 14.1 | 15.4 | 16.3 | 120.8 | 121.9 | 121.9 |
| Argentina | 13.7 | 12.9 | 14.3 | 4.0 | 2.2 | 4.4 | 132.8 | 134.5 | 133.6 |
| Brazil | 63.9 | 69.3 | 69.8 | 5.1 | 8.3 | 6.8 | 117.7 | 117.9 | 117.8 |
| Chile | 6.1 | 6.3 | 6.2 | 0.5 | 0.4 | 0.4 | 151.9 | 153.4 | 151.9 |
| Colombia | 8.1 | 8.6 | 8.7 | 1.0 | 0.9 | 0.9 | 101.4 | 103.6 | 104.2 |
| Peru | 6.7 | 7.1 | 7.2 | 1.0 | 1.1 | 1.1 | 133.2 | 140.3 | 139.2 |
| Venezuela | 6.1 | 6.3 | 6.4 | 0.9 | 0.6 | 0.6 | 126.0 | 126.4 | 128.2 |
| NORTH AMERICA | 330.7 | 353.1 | 367.1 | 67.4 | 87.7 | 89.6 | 111.9 | 109.4 | 109.5 |
| Canada | 30.7 | 30.0 | 28.8 | 10.7 | 11.9 | 10.2 | 103.0 | 97.0 | 94.6 |
| United States of America | 300.0 | 323.1 | 338.3 | 56.7 | 75.8 | 79.4 | 112.8 | 110.7 | 111.1 |
| EUROPE | 405.7 | 411.7 | 413.5 | 53.1 | 70.0 | 64.1 | 140.0 | 139.6 | 140.4 |
| European Union | 274.0 | 285.8 | 287.3 | 32.5 | 40.3 | 34.0 | 132.8 | 133.6 | 134.7 |
| Russian Federation | 74.4 | 73.3 | 73.8 | 10.6 | 19.9 | 19.6 | 150.3 | 150.0 | 150.2 |
| Serbia | 7.0 | 7.1 | 7.0 | 1.0 | 1.3 | 1.3 | 164.6 | 164.3 | 164.0 |
| Ukraine | 24.2 | 24.8 | 25.0 | 4.7 | 5.7 | 6.5 | 169.3 | 169.7 | 170.1 |
| OCEANIA | 17.0 | 16.1 | 15.7 | 5.9 | 6.3 | 7.0 | 91.7 | 90.4 | 90.6 |
| Australia | 15.0 | 14.1 | 13.6 | 5.6 | 5.9 | 6.6 | 103.3 | 101.9 | 102.5 |
| WORLD | 2 134.6 | 2 223.4 | 2 268.1 | 456.0 | 528.1 | 532.8 | 151.4 | 152.1 | 152.7 |
| Developing countries | 1 302.0 | 1 360.6 | 1 387.4 | 315.8 | 347.2 | 354.5 | 156.0 | 156.9 | 157.5 |
| Developed countries | 832.6 | 862.8 | 880.7 | 140.2 | 180.9 | 178.3 | 133.6 | 132.7 | 133.3 |
| LIFDCs | 958.3 | 1 006.3 | 1 027.9 | 260.5 | 293.1 | 300.2 | 154.6 | 155.6 | 156.3 |
| LDCs | 149.2 | 159.7 | 162.7 | 26.0 | 26.7 | 24.3 | 147.5 | 149.8 | 150.0 |

Table A2 (a). Wheat statistics

| | Production | | | | Imports | | | Exports | | | |
|--------------------------------|--------------------------|--------------------|--------------------|----------------------------|--------------------|--------------------|----------------------------|---------|---------|--|--|
| | 2006-2008 average | 2009 | 2010 | 06/07-08/09 average | 2009/10 | 2010/11 | 06/07-08/09 average | 2009/10 | 2010/11 | | |
| | average | estim. | f'cast | average | estim. | f'cast | average | estim. | f'cast | | |
| | (| | | m | illion tonne | 5 | | |) | | |
| ASIA | 279.5 | 297.8 | 297.8 | 54.3 | 57.6 | 55.2 | 15.2 | 14.3 | 14.7 | | |
| Bangladesh | 8.0 | 1.0 | 1.0 | 2.0 | 2.8 | 2.0 | - | - | - | | |
| China | 110.1 | 115.0 | 113.0 | 1.9 | 1.7 | 1.7 | 1.1 | 0.3 | 0.3 | | |
| of which Taiwan Prov. India | - 74.6 | - 80.7 | 80.3 | 1.1 2.9 | 1.2 0.7 | 1.2 0.5 | 0.1 | 0.2 | 0.5 | | |
| Indonesia | 74.0 | | - 00.5 | 5.3 | 5.6 | 5.9 | 0.1 | 0.2 | 0.5 | | |
| Iran, Islamic Republic of | 13.1 | 13.0 | 14.5 | 3.2 | 3.4 | 2.0 | 0.5 | 1.0 | 1.5 | | |
| Iraq | 2.0 | 1.4 | 2.1 | 3.4 | 3.8 | 3.9 | - | - | - | | |
| Japan | 0.9 | 0.7 | 0.8 | 5.3 | 5.4 | 5.4 | 0.3 | 0.3 | 0.3 | | |
| Kazakhstan | 15.3 | 17.0 | 17.0 | - | 0.1 | - | 7.6 | 7.5 | 7.5 | | |
| Korea, Republic of | - | - | - | 3.2 | 3.8 | 3.6 | 0.1 | 0.1 | 0.1 | | |
| Pakistan | 21.8 | 24.0 | 23.9 | 1.6 | 1.2 | 1.0 | 1.4 | 0.5 | 0.5 | | |
| Philippines | - | - | - | 2.7 | 2.8 | 2.9 | - | - | - | | |
| Saudi Arabia | 2.2 | 1.0 | 0.7 | 0.5 | 1.8 | 2.3 | - 0.1 | - | - | | |
| Thailand Turkey | 18.3 | 20.6 | 21.0 | 1.1 2.4 | 1.2 3.1 | 1.1 2.8 | 0.1 1.9 | 3.0 | 3.0 | | |
| AFRICA | | | | | | | | | | | |
| | 21.6 2.3 | 26.3 3.6 | 24.8 4.0 | 33.1 5.3 | 31.0 4.7 | 34.6 5.0 | 1.0 | 1.0 | 8.0 | | |
| Algeria Egypt | 2.3 7.9 | 3.6 8.5 | 4.0 8.6 | 8.2 | 4.7 8.0 | 3.0 8.5 | _ | - | - | | |
| Ethiopia | 2.6 | 3.0 | 3.0 | 1.1 | 1.1 | 1.1 | _ | _ | - | | |
| Morocco | 3.9 | 6.3 | 4.5 | 3.2 | 1.5 | 3.5 | 0.2 | 0.2 | 0.2 | | |
| Nigeria | 0.1 | 0.1 | 0.1 | 3.3 | 3.4 | 3.8 | 0.3 | 0.2 | 0.1 | | |
| South Africa | 2.1 | 1.9 | 1.8 | 1.1 | 1.2 | 1.5 | 0.2 | 0.2 | 0.3 | | |
| Tunisia | 1.2 | 1.7 | 1.2 | 1.8 | 1.4 | 1.8 | 0.2 | 0.2 | 0.1 | | |
| CENTRAL AMERICA | 3.7 | 4.1 | 4.1 | 7.0 | 7.1 | 7.2 | 1.0 | 1.1 | 1.1 | | |
| Cuba | - | - | - | 0.7 | 8.0 | 8.0 | - | - | - | | |
| Mexico | 3.7 | 4.1 | 4.1 | 3.4 | 3.4 | 3.5 | 0.9 | 1.0 | 1.0 | | |
| SOUTH AMERICA | 20.2 | 16.5 | 20.1 | 13.3 | 13.1 | 13.1 | 10.6 | 4.4 | 5.3 | | |
| Argentina | 13.1 | 7.5 | 10.7 | - | - | - | 9.6 | 3.0 | 4.0 | | |
| Brazil | 4.2 | 5.0 | 5.6 | 7.0 | 6.7 | 6.5 | 0.4 | 0.3 | 0.3 | | |
| Chile | 1.2 | 1.2 | 1.2 | 1.0 | 1.1 | 1.1 | - | - | - | | |
| Colombia Peru | 0.2 | 0.2 | 0.2 | 1.4 1.4 | 1.3 1.6 | 1.3 1.6 | - | - | - | | |
| Venezuela | - | - | - | 1.6 | 1.5 | 1.7 | - | - | - | | |
| NORTH AMERICA | 82.3 | 86.8 | 79.8 | 2.8 | 2.5 | 2.8 | 46.3 | 40.3 | 40.0 | | |
| Canada | 24.6 | 26.5 | 24.2 | - | 0.1 | 0.1 | 17.8 | 17.5 | 17.0 | | |
| United States of America | 57.7 | 60.3 | 55.6 | 2.8 | 2.4 | 2.7 | 28.5 | 22.8 | 23.0 | | |
| EUROPE | 214.1 | 228.9 | 228.3 | 9.6 | 8.6 | 8.5 | 36.7 | 45.6 | 46.1 | | |
| European Union | 129.6 | 139.4 | 143.1 | 6.8 | 6.5 | 6.5 | 16.1 | 18.5 | 21.0 | | |
| Russian Federation | 57.5 | 61.7 | 60.0 | 0.4 | 0.1 | - | 13.8 | 17.5 | 17.5 | | |
| Ukraine | 17.4 | 20.9 | 18.5 | 0.1 | 0.1 | 0.1 | 5.7 | 9.0 | 7.0 | | |
| OCEANIA | 15.4 | 22.0 | 21.7 | 0.6 | 0.6 | 0.7 | 10.8 | 14.0 | 14.0 | | |
| Australia | 15.1 | 21.7 | 21.4 | - | - | - | 10.8 | 14.0 | 14.0 | | |
| WORLD | 636.8 | 682.4 | 676.5 | 120.8 | 120.5 | 122.0 | 121.7 | 120.5 | 122.0 | | |
| Developing countries | 295.8 | 313.1 | 315.1 | 95.5 | 95.7 | 96.4 | 19.3 | 12.6 | 13.8 | | |
| Developed countries | 341.0 | 369.3 | 361.4 | 25.3 | 24.8 | 25.6 | 102.3 | 107.9 | 108.2 | | |
| LIFDCs | 245.9 | 264.8 | 261.7 | 53.1 | 51.6 | 52.9 | 4.3 | 1.9 | 1.9 | | |
| LDCs | 9.6 | 11.6 | 11.5 | 13.0 | 14.0 | 12.9 | 0.1 | 0.4 | 0.1 | | |

Table A2 (b). Wheat statistics

| | Tot | al Utilizatio | on | Stoo | ks ending: | in | | Per caput | |
|---------------------------|----------------------------|---------------|---------|--------------------------|------------|--------|----------------------------|-----------|---------|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| | (| | millic | on tonnes | |) | (| . Kglyear |) |
| ASIA | 316.3 | 334.4 | 339.9 | 95.5 | 104.7 | 102.4 | 63.4 | 64.4 | 64.4 |
| Bangladesh | 3.1 | 3.4 | 3.3 | 0.9 | 1.5 | 1.2 | 18.6 | 19.8 | 19.0 |
| China | 109.3 | 113.7 | 115.1 | 53.0 | 55.8 | 55.2 | 64.6 | 64.3 | 64.2 |
| of which Taiwan Prov. | 1.2 | 1.2 | 1.2 | 0.3 | 0.3 | 0.4 | 46.1 | 46.9 | 47.3 |
| India | 75.4 | 80.4 | 81.1 | 16.3 | 18.6 | 17.8 | 58.4 | 60.6 | 60.3 |
| Indonesia | 5.0 | 5.3 | 5.4 | 2.3 | 2.6 | 2.6 | 18.9 | 19.9 | 19.8 |
| Iran, Islamic Republic of | 15.5 | 16.1 | 16.3 | 2.7 | 2.9 | 1.6 | 165.6 | 165.8 | 165.2 |
| Iraq | 5.6 | 5.6 | 5.9 | 2.7 | 1.9 | 2.0 | 138.6 | 140.0 | 140.6 |
| Japan | 5.9 | 5.7 | 5.9 | 0.7 | 0.7 | 0.8 | 41.7 | 41.1 | 42.5 |
| Kazakhstan | 7.5 | 8.7 | 9.4 | 3.1 | 5.4 | 5.5 | 147.4 | 148.2 | 147.9 |
| Korea, Republic of | 3.3 | 3.6 | 3.4 | 0.3 | 0.2 | 0.3 | 48.3 | 48.6 | 48.5 |
| Pakistan | 22.5 | 23.7 | 24.4 | 1.3 | 2.1 | 2.1 | 115.4 | 116.6 | 117.7 |
| Philippines | 2.7 | 2.8 | 2.9 | 0.4 | 0.6 | 0.6 | 25.6 | 25.5 | 25.6 |
| Saudi Arabia | 2.7 | 2.9 | 2.9 | 1.4 | 1.4 | 1.5 | 97.4 | 98.4 | 98.3 |
| Thailand | 1.0 | 1.1 | 1.1 | 0.2 | 0.2 | 0.2 | 11.4 | 12.4 | 12.3 |
| Turkey | 19.0 | 20.0 | 20.6 | 2.1 | 2.4 | 2.6 | 197.7 | 198.5 | 198.1 |
| AFRICA | 53.7 | 57.4 | 58.8 | 13.2 | 13.3 | 13.0 | 50.0 | 51.1 | 50.7 |
| Algeria | 8.0 | 8.5 | 8.8 | 2.8 | 2.7 | 3.1 | 207.5 | 209.5 | 210.3 |
| Egypt | 15.8 | 16.6 | 16.9 | 2.7 | 3.5 | 3.7 | 182.0 | 184.0 | 184.7 |
| Ethiopia | 3.5 | 4.2 | 4.2 | 0.2 | 0.3 | 0.1 | 40.6 | 44.9 | 43.9 |
| Morocco | 7.0 | 7.4 | 7.8 | 1.8 | 1.6 | 1.6 | 186.8 | 190.7 | 191.5 |
| Nigeria | 3.1 | 3.5 | 3.6 | 0.4 | 0.3 | 0.2 | 18.6 | 20.5 | 20.6 |
| South Africa | 2.9 | 3.0 | 3.0 | 0.5 | 0.7 | 0.7 | 57.7 | 57.3 | 57.3 |
| Tunisia | 2.8 | 3.0 | 3.0 | 1.2 | 1.1 | 1.1 | 213.5 | 217.1 | 216.9 |
| CENTRAL AMERICA | 9.9 | 10.2 | 10.1 | 0.9 | 0.9 | 0.8 | 46.0 | 46.4 | 46.0 |
| Cuba | 0.8 | 0.8 | 0.8 | - | - | - | 57.8 | 57.3 | 57.3 |
| Mexico | 6.3 | 6.5 | 6.5 | 0.5 | 0.5 | 0.4 | 50.2 | 51.1 | 50.6 |
| SOUTH AMERICA | 24.5 | 25.4 | 25.7 | 4.1 | 2.8 | 4.9 | 59.4 | 59.7 | 59.2 |
| Argentina | 5.1 | 5.0 | 5.0 | 2.2 | 0.5 | 2.2 | 116.8 | 116.7 | 115.8 |
| Brazil | 10.6 | 11.3 | 11.5 | 0.9 | 1.2 | 1.4 | 51.8 | 52.6 | 52.2 |
| Chile | 2.2 | 2.3 | 2.3 | 0.2 | 0.1 | 0.1 | 122.1 | 122.3 | 121.0 |
| Colombia | 1.3 | 1.3 | 1.3 | 0.1 | 0.1 | 0.1 | 27.2 | 27.1 | 26.5 |
| Peru | 1.7 | 1.8 | 1.8 | 0.1 | 0.2 | 0.2 | 57.4 | 57.3 | 56.6 |
| Venezuela | 1.6 | 1.6 | 1.7 | 0.4 | 0.1 | 0.1 | 56.5 | 56.0 | 56.8 |
| NORTH AMERICA | 38.8 | 40.1 | 40.9 | 18.8 | 32.9 | 32.8 | 83.0 | 79.7 | 80.3 |
| Canada | 7.7 | 8.2 | 8.1 | 5.9 | 7.1 | 5.7 | 86.6 | 80.4 | 78.2 |
| United States of America | 31.1 | 31.9 | 32.8 | 12.9 | 25.8 | 27.1 | 82.7 | 79.6 | 80.5 |
| EUROPE | 186.8 | 187.6 | 191.8 | 25.8 | 38.3 | 36.7 | 112.4 | 112.0 | 112.4 |
| European Union | 121.3 | 127.4 | 129.6 | 13.7 | 18.0 | 16.5 | 109.7 | 110.0 | 110.6 |
| Russian Federation | 42.7 | 39.8 | 42.5 | 7.5 | 16.0 | 16.0 | 115.0 | 115.4 | 115.3 |
| Ukraine | 11.6 | 12.1 | 11.4 | 2.6 | 2.9 | 3.0 | 122.5 | 123.0 | 123.3 |
| OCEANIA | 7.9 | 7.7 | 7.8 | 3.9 | 3.1 | 3.4 | 69.4 | 68.9 | 69.0 |
| Australia | 6.9 | 6.7 | 6.9 | 3.6 | 2.9 | 3.2 | 82.7 | 82.4 | 82.7 |
| WORLD | 638.0 | 662.8 | 675.0 | 162.2 | 196.1 | 194.1 | 67.1 | 67.5 | 67.5 |
| Developing countries | 371.6 | 391.6 | 397.5 | 106.0 | 111.7 | 111.0 | 59.4 | 60.2 | 60.1 |
| Developed countries | 266.5 | 271.2 | 277.5 | 56.3 | 84.4 | 83.2 | 97.7 | 96.8 | 97.3 |
| LIFDCs | 292.0 | 309.9 | 314.6 | 92.4 | 99.2 | 96.6 | 57.3 | 58.3 | 58.1 |
| LDCs | 22.4 | 25.4 | 25.8 | 5.3 | 6.2 | 4.7 | 25.6 | 27.0 | 26.8 |
| | | | | | | | | | |

Table A3 (a). Coarse grain statistics

| | 1 | Production | n | | Imports | | | Exports | |
|--|---|---|---|--|--|---|---|---|--|
| | 2006-2008 average | 2009 | 2010 | 06/07-08/09 average | 2009/10 | 2010/11 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | | estim. | f'cast | | estim. | f'cast | are age | estim. | f'cast |
| | (| | | m | illion tonne | s | | |) |
| ASIA | 270.6 | 271.4 | 277.2 | 59.1 | 59.3 | 60.1 | 5.9 | 6.3 | 5.4 |
| China | 167.4 | 167.0 | 167.0 | 5.9 | 6.2 | 6.2 | 2.1 | 0.5 | 0.3 |
| of which Taiwan Prov. | 0.1 | 0.1 | 0.1 | 4.4 | 4.5 | 4.6 | - | - | - |
| India | 38.1 | 34.0 | 37.9 | - | - | 0.1 | 1.7 | 1.0 | 1.0 |
| Indonesia | 12.6 | 17.6 | 18.1 | 0.6 | 0.1 | 0.2 | 0.3 | 1.5 | 1.8 |
| Iran, Islamic Republic of | 4.2 | 3.2 | 4.0 | 3.5 | 4.0 | 3.6 | _ | _ | _ |
| Japan | 0.2 | 0.2 | 0.2 | 19.6 | 19.6 | 19.5 | _ | - | _ |
| Korea, D.P.R. | 1.8 | 1.8 | 1.8 | 0.3 | 0.4 | 0.5 | _ | _ | _ |
| Korea, Republic of | 0.4 | 0.4 | 0.4 | 8.7 | 8.0 | 8.6 | _ | _ | _ |
| Malaysia | 0.1 | 0.1 | 0.1 | 2.6 | 2.6 | 2.6 | _ | _ | _ |
| Pakistan | 4.0 | 3.7 | 4.1 | - | - | - | _ | _ | _ |
| Philippines | 6.6 | 7.1 | 7.0 | 0.5 | 0.1 | 0.2 | _ | 0.4 | 0.2 |
| Saudi Arabia | 0.4 | 0.4 | 0.4 | 8.4 | 9.1 | 9.2 | _ | - | 0.2 |
| Thailand | 4.2 | 4.5 | 4.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.8 | 0.5 |
| Turkey | 12.0 | 12.2 | 12.1 | 1.0 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 |
| Viet Nam | 4.2 | 4.4 | 4.8 | 0.7 | 0.4 | 0.3 | 0.1 | - | - 0.2 |
| AFRICA | 100.3 | 108.5 | 111.1 | 16.2 | 15.9 | 15.8 | 3.8 | 4.9 | 4.8 |
| Algeria | 1.0 | 2.5 | 1.9 | 2.4 | 2.3 | 2.5 | 3.6 | -4 .5 - | 4.0 |
| 9 | 8.1 | 8.0 | 8.2 | 4.8 | 2.3 5.0 | 2.5 5.2 | _ | - | - |
| Egypt | | | | | | | | - | - |
| Ethiopia | 12.1 | 11.2 | 11.7 | 0.2 | 0.3 | 0.2 | 0.2 | - | - |
| Kenya | 2.8 | 2.5 | 3.2 | 0.7 | 1.4 | 0.9 | - | - | - |
| Morocco | 1.7 | 3.9 | 3.4 | 2.1 | 1.7 | 1.8 | - | - | - |
| Nigeria | 20.7 | 21.0 | 21.8 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.4 |
| South Africa | 9.6 | 13.2 | 14.3 | 0.7 | 0.2 | 0.2 | 1.2 | 2.4 | 2.5 |
| Sudan | 5.1 | 3.1 | 4.1 | 0.3 | 0.8 | 0.5 | 0.3 | 0.1 | 0.1 |
| Tanzania, United Rep. of | 4.4 | 4.3 | 4.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| CENTRAL AMERICA | 34.2 | 34.5 | 34.3 | 15.8 | 15.3 | 16.3 | 0.2 | 0.1 | 0.1 |
| Mexico | 30.0 | 30.1 | 29.7 | 10.8 | 10.4 | 11.5 | 0.1 | 0.1 | 0.1 |
| SOUTH AMERICA | 90.3 | 83.0 | 91.5 | 9.8 | 10.5 | 10.6 | 24.3 | 18.5 | 21.3 |
| Argentina | 24.0 | 16.9 | 23.4 | - | - | - | 15.0 | 9.7 | 12.2 |
| Brazil | 53.5 | 53.7 | 55.7 | 1.4 | 1.3 | 1.3 | 7.9 | 7.5 | 8.0 |
| Chile | 1.8 | 1.8 | 1.6 | 1.8 | 2.1 | 2.1 | 0.1 | - | - |
| Colombia | 1.8 | 1.8 | 1.8 | 3.4 | 3.6 | 3.6 | 0.1 | - | _ |
| Peru | 1.6 | 1.8 | 1.7 | 1.6 | 1.5 | 1.7 | _ | - | _ |
| Venezuela | 3.0 | 2.5 | 2.6 | 0.9 | 1.2 | 1.3 | - | - | - |
| NORTH AMERICA | 345.4 | 372.5 | 377.8 | 5.4 | 4.8 | 4.7 | 64.9 | 57.0 | 57.7 |
| Canada | 26.2 | 22.5 | 22.8 | 2.3 | 2.3 | 2.3 | 4.6 | 4.1 | 4.0 |
| | | | | | | 2.4 | 60.3 | 52.9 | 53.7 |
| United States of America | 319.2 | 350.0 | 354.9 | 3.1 | 2.4 | 2.4 | | | |
| United States of America EUROPE | 319.2 | | | | | | | | 18.3 |
| EUROPE | 319.2 217.9 | 231.7 | 227.1 | 12.5 | 4.1 | 4.2 | 15.7 | 18.3 | |
| EUROPE European Union | 319.2 217.9 143.1 | 231.7 154.6 | 227.1 150.9 | 12.5 10.7 | 4.1 2.7 | 4.2 2.8 | 15.7 5.2 | 18.3 3.0 | 4.0 |
| EUROPE European Union Russian Federation | 319.2 217.9 143.1 34.3 | 231.7 154.6 33.4 | 227.1 150.9 32.1 | 12.5 | 4.1 2.7 0.3 | 4.2 | 15.7 5.2 2.5 | 18.3 3.0 2.7 | 4.0 2.2 |
| EUROPE European Union Russian Federation Serbia | 319.2 217.9 143.1 | 231.7 154.6 | 227.1 150.9 | 12.5 10.7 | 4.1 2.7 | 4.2 2.8 0.3 | 15.7 5.2 | 18.3 3.0 | 4.0 |
| EUROPE European Union Russian Federation Serbia Ukraine | 319.2 217.9 143.1 34.3 6.1 19.0 | 231.7 154.6 33.4 6.9 24.0 | 227.1 150.9 32.1 6.7 24.6 | 12.5 10.7 0.4 - | 4.1 2.7 0.3 | 4.2 2.8 0.3 - | 15.7 5.2 2.5 0.9 6.6 | 18.3 3.0 2.7 1.4 11.0 | 4.0 2.2 1.4 10.5 |
| EUROPE European Union Russian Federation Serbia | 319.2 217.9 143.1 34.3 6.1 | 231.7 154.6 33.4 6.9 | 227.1 150.9 32.1 6.7 | 12.5 10.7 0.4 | 4.1 2.7 0.3 | 4.2 2.8 0.3 | 15.7 5.2 2.5 0.9 | 18.3 3.0 2.7 1.4 | 4.0 2.2 1.4 |
| EUROPE European Union Russian Federation Serbia Ukraine OCEANIA Australia | 319.2 217.9 143.1 34.3 6.1 19.0 11.2 10.6 | 231.7 154.6 33.4 6.9 24.0 13.5 12.9 | 227.1 150.9 32.1 6.7 24.6 11.9 | 12.5 10.7 0.4 - - 0.2 | 4.1 2.7 0.3 - - 0.2 | 4.2 2.8 0.3 - - - 0.2 | 15.7 5.2 2.5 0.9 6.6 3.8 3.8 | 18.3 3.0 2.7 1.4 11.0 4.9 | 4.0 2.2 1.4 10.5 4.4 4.4 |
| EUROPE European Union Russian Federation Serbia Ukraine OCEANIA Australia WORLD | 319.2 217.9 143.1 34.3 6.1 19.0 11.2 10.6 | 231.7 154.6 33.4 6.9 24.0 13.5 12.9 | 227.1 150.9 32.1 6.7 24.6 11.9 11.4 | 12.5 10.7 0.4 - - 0.2 - 118.9 | 4.1 2.7 0.3 - - 0.2 - | 4.2 2.8 0.3 - - 0.2 - | 15.7 5.2 2.5 0.9 6.6 3.8 3.8 | 18.3 3.0 2.7 1.4 11.0 4.9 4.9 | 4.0 2.2 1.4 10.5 4.4 4.4 |
| EUROPE European Union Russian Federation Serbia Ukraine OCEANIA Australia WORLD Developing countries | 319.2 217.9 143.1 34.3 6.1 19.0 11.2 10.6 1 069.9 480.4 | 231.7 154.6 33.4 6.9 24.0 13.5 12.9 1 115.2 478.4 | 227.1 150.9 32.1 6.7 24.6 11.9 11.4 | 12.5 10.7 0.4 - - 0.2 - 118.9 78.6 | 4.1 2.7 0.3 - - 0.2 - 110.0 79.5 | 4.2 2.8 0.3 - - 0.2 - - 112.0 81.2 | 15.7 5.2 2.5 0.9 6.6 3.8 3.8 118.7 32.6 | 18.3 3.0 2.7 1.4 11.0 4.9 4.9 110.0 26.7 | 4.0 2.2 1.4 10.5 4.4 4.4 112.0 28.6 |
| EUROPE European Union Russian Federation Serbia Ukraine OCEANIA Australia WORLD | 319.2 217.9 143.1 34.3 6.1 19.0 11.2 10.6 | 231.7 154.6 33.4 6.9 24.0 13.5 12.9 | 227.1 150.9 32.1 6.7 24.6 11.9 11.4 | 12.5 10.7 0.4 - - 0.2 - 118.9 | 4.1 2.7 0.3 - - 0.2 - | 4.2 2.8 0.3 - - 0.2 - | 15.7 5.2 2.5 0.9 6.6 3.8 3.8 | 18.3 3.0 2.7 1.4 11.0 4.9 4.9 | 4.0 2.2 1.4 10.5 4.4 4.4 |

Table A3 (b). Coarse grain statistics

| | Tot | al Utilizatio | on | Sto | ks ending | in | | Per caput | | |
|------------------------------------|----------------------------|-------------------|---------------|--------------------------|-------------|--------------------|----------------------------|-------------|-------------|--|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 | |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast | |
| | (| | millio | n tonnes | |) | (| . Kg/year |) | |
| ASIA | 315.0 | 324.0 | 331.4 | 79.9 | 90.8 | 91.3 | 15.1 | 14.5 | 14.7 | |
| China | 162.3 | 171.3 | 174.4 | 60.6 | 72.9 | 71.3 | 9.3 | 9.8 | 9.7 | |
| of which Taiwan Prov. | 4.7 | 4.5 | 4.5 | 0.5 | 0.4 | 0.4 | 7.0 | 7.0 | 7.0 | |
| India | 36.1 | 34.0 | 35.6 | 2.2 | 1.8 | 3.1 | 22.1 | 19.3 | 20.3 | |
| Indonesia | 13.1 | 15.4 | 16.4 | 0.8 | 1.5 | 1.7 | 28.6 | 31.4 | 30.8 | |
| Iran, Islamic Republic of | 7.6 | 7.7 | 7.7 | 0.7 | 0.5 | 0.4 | 1.4 | 1.4 | 1.4 | |
| Japan | 20.0 | 20.0 | 20.0 | 1.9 | 1.8 | 1.6 | 29.0 | 29.2 | 29.3 | |
| Korea, D.P.R. | 2.2 | 2.1 | 2.3 | 0.1 | 0.1 | 0.1 | 52.2 | 51.8 | 52.9 | |
| Korea, Republic of | 8.9 | 8.4 | 8.8 | 1.7 | 1.4 | 1.7 | 4.4 | 4.4 | 4.4 | |
| Malaysia | 2.7 | 2.7 | 2.7 | 0.3 | 0.3 | 0.3 | 1.8 | 1.7 | 1.7 | |
| Pakistan | 3.8 | 3.8 | 3.9 | 1.0 | 1.0 | 1.2 | 9.4 | 8.8 | 8.5 | |
| Philippines | 6.8 | 7.1 | 7.1 | 1.0 | 1.0 | 0.9 | 16.9 | 17.4 | 17.7 | |
| Saudi Arabia | 9.1 | 9.5 | 9.7 | 2.1 | 1.9 | 1.8 | 3.9 | 3.7 | 3.7 | |
| Thailand | 4.0 | 4.1 | 4.1 | 0.2 | 0.2 | 0.2 | 2.8 | 2.7 | 2.7 | |
| Turkey | 13.4 | 12.2 | 12.4 | 3.2 | 2.0 | 2.0 | 16.9 | 17.0 | 16.8 | |
| Viet Nam | 4.8 | 5.1 | 5.3 | 1.1 | 1.1 | 1.2 | 12.9 | 15.6 | 15.6 | |
| AFRICA | 112.9 | 118.0 | 121.5 | 12.2 | 13.3 | 13.8 | 76.6 | 76.5 | 76.4 | |
| Algeria | 3.5 | 4.1 | 4.3 | 0.8 | 1.1 | 1.1 | 20.0 | 20.1 | 20.0 | |
| Egypt | 12.8 | 13.3 | 13.5 | 0.8 | 0.6 | 0.6 | 46.8 | 46.8 | 46.6 | |
| Ethiopia | 11.8 | 11.9 | 12.1 | 0.8 | 0.8 | 0.6 | 126.2 | 122.6 | 123.3 | |
| Kenya | 3.8 | 3.9 | 4.0 | 0.4 | 0.3 | 0.3 | 88.4 | 88.1 | 87.9 | |
| Morocco | 4.0 | 4.7 | 5.2 | 0.8 | 1.3 | 1.3 | 52.0 | 52.9 | 53.9 | |
| Nigeria | 20.4 | 20.9 | 21.5 | 0.9 | 0.6 | 0.6 | 97.9 | 95.3 | 96.0 | |
| South Africa | 9.9 | 10.0 | 10.8 | 1.7 | 2.8 | 3.7 | 97.4 | 98.1 | 97.8 | |
| Sudan | 5.2 | 4.5 | 4.4 | 1.0 | 0.2 | 0.3 | 104.2 | 96.3 | 96.4 | |
| Tanzania, United Rep. of | 4.3 | 4.4 | 4.5 | 0.4 | 0.4 | 0.4 | 88.6 | 87.8 | 87.7 | |
| CENTRAL AMERICA | 49.3 | 50.9 | 51.2 | 3.8 | 3.5 | 3.1 | 101.7 | 101.7 | 101.9 | |
| Mexico | 40.4 | 41.8 | 42.0 | 2.8 | 2.5 | 1.9 | 144.6 | 144.5 | 144.9 | |
| SOUTH AMERICA | 72.6 | 77.6 | 79.3 | 8.6 | 11.0 | 10.0 | 25.4 | 26.3 | 26.4 | |
| Argentina | 8.3 | 7.4 | 8.8 | 1.8 | 1.7 | 2.2 | 7.5 | 7.5 | 7.4 | |
| Brazil | 44.8 | 49.7 | 50.0 | 3.9 | 6.8 | 5.2 | 23.2 | 24.8 | 25.1 | |
| Chile | 3.6 | 3.9 | 3.7 | 0.4 | 0.3 | 0.3 | 18.8 | 19.0 | 18.8 | |
| Colombia | 5.0 | 5.4 | 5.4 | 0.7 | 0.6 | 0.6 | 38.0 | 37.9 | 37.4 | |
| Peru | 3.2 | 3.3 | 3.4 | 0.6 | 0.5 | 0.5 | 19.1 | 20.0 | 19.4 | |
| Venezuela | 3.7 | 3.9 | 3.9 | 0.4 | 0.3 | 0.4 | 49.8 | 49.5 | 50.4 | |
| NORTH AMERICA | 287.6 | 308.3 21.5 | 321.6 | 47.5 4.7 | 53.8 | 55.1 4.4 | 18.1 6.4 | 18.2 | 17.8 | |
| Canada United States of America | 22.6 265.0 | 286.8 | 20.4 301.2 | 4.7 | 4.8 49.0 | 50.6 | 19.4 | 6.7 19.4 | 6.7 19.0 | |
| EUROPE | 214.9 | 220.0 | 217.5 | 26.8 | 31.2 | 26.7 | 22.4 | 22.5 | 22.6 | |
| European Union | 149.8 | 155.4 | 154.6 | 18.4 | 21.8 | 16.9 | 17.5 | 18.1 | 18.4 | |
| Russian Federation | 31.1 | 32.8 | 30.5 | 3.1 | 3.9 | 3.6 | 30.5 | 29.9 | 30.0 | |
| Serbia | 5.2 | 5.3 | 5.3 | 0.7 | 0.9 | 0.9 | 20.9 | 20.9 | 20.9 | |
| Ukraine | 12.4 | 12.6 | 13.4 | 2.0 | 2.8 | 3.5 | 43.3 | 42.8 | 42.9 | |
| OCEANIA | 8.6 | 7.9 | 7.3 | 2.0 | 3.1 | 3.5 | 7.4 | 7.3 | 7.2 | |
| Australia | 7.9 | 7.2 | 6.6 | 1.9 | 3.0 | 3.4 | 10.6 | 10.6 | 10.5 | |
| WORLD | 1 061.0 | 1 106.7 | 1 129.7 | 180.8 | 206.7 | 203.6 | 27.9 | 27.8 | 28.0 | |
| Developing countries | 513.3 | 533.9 | 545.6 | 100.0 | 113.2 | 112.2 | 29.1 | 28.9 | 29.1 | |
| Developed countries | 547.6 | 572.8 | 584.1 | 80.8 | 93.5 | 91.4 | 23.4 | 23.4 | 23.4 | |
| LIFDCs | 332.3 | 346.7 | 355.2 | 76.8 | 89.6 | 89.8 | 28.6 | 28.2 | 28.6 | |
| LDCs | 57.2 | 59.6 | 60.5 | 7.3 | 7.3 | 6.8 | 54.7 | 54.8 | 54.7 | |

Table A4 (a). Maize statistics

| ASIA 220.4 227.2 229.4 242.4 43.9 5.2 5.4 4.8 5.4 6.1 | | F | Production | 1 | | Imports | | | Exports | | | | | |
|--|---------------------------|-------|------------|--------|------|--------------|---------|------|---------|---------|--|--|--|--|
| ASIA | | | 2009 | 2010 | | 2009/10 | 2010/11 | | 2009/10 | 2010/11 | | | | |
| ASIA | | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast | | | | |
| China of which Taiwan Prov. 156.7 158.0 158.0 4.4 4.4 4.5 2.0 0.5 0.3 India India 17.9 17.3 18.5 - - 0.1 1.6 1.0 1.0 Iran, Islamic Republic of Iran, Islamic Republic of Japan 1.5 1.2 15.5 2. | | (| | | m | illion tonne | s | | | | | | | |
| China of which Taiwan Prov. 156.7 158.0 158.0 4.4 4.4 4.5 2.0 0.5 0.3 of which Taiwan Prov. - - - - - 0.1 1.6 1.0 1.0 India 17.9 17.3 18.5 - - 0.1 1.6 1.0 1.0 India 12.6 17.6 18.1 0.6 0.1 0.2 0.3 1.5 1.8 Izan, Islamic Republic of 1.5 1.2 1.7 | ASIA | 220.4 | 227.2 | 229.4 | 44.2 | 42.4 | 43.9 | 5.2 | 5.4 | 4.8 | | | | |
| India | China | 156.7 | 158.0 | | 4.4 | 4.4 | 4.5 | 2.0 | 0.5 | 0.3 | | | | |
| Indonesia 12.6 17.6 18.1 0.6 0.1 0.2 0.3 1.5 1.8 1.8 1.8 1.8 1.8 1.5 1.5 1.2 1.5 1 | of which Taiwan Prov. | - | - | - | 4.3 | 4.3 | 4.4 | - | - | - | | | | |
| Iran, Islamic Republic of 1.5 1.2 1.5 2.5 | | | | | | | | | | | | | | |
| Japan 16.6 16.6 16.7 - - - - - - | Indonesia | | | | | | | 0.3 | 1.5 | 1.8 | | | | |
| Korea, DPR. 1.7 1.7 1.7 1.8 1.8 1.7 1.8 1.7 1.8 1. | Iran, Islamic Republic of | 1.5 | 1.2 | 1.5 | | | | - | - | - | | | | |
| Korea, Republic of 0.1 0.1 0.1 0.1 2.6 2 | Japan | - | - | - | 16.6 | 16.6 | 16.7 | - | - | - | | | | |
| Malaysia 0.1 0.1 0.1 2.6 2.6 2.6 2.6 - | Korea, D.P.R. | 1.7 | 1.7 | 1.7 | 0.3 | 0.4 | 0.5 | - | - | - | | | | |
| Pakistan 3.4 3.2 3.6 - - - - - - - - - | Korea, Republic of | | | | | | | - | - | - | | | | |
| Philippines | - | | | | 2.6 | 2.6 | 2.6 | - | - | - | | | | |
| Thailand | Pakistan | | | | - | - | - | - | - | - | | | | |
| Turkey Viet Nam 3.9 4.3 4.0 0.8 0.2 0.3 - 0.3 0.1 AFRICA 52.1 60.1 61.1 13.5 13.7 13.8 2.6 4.2 4.1 Algeria - - - 2.2 2.2 2.4 - | | | | | | | | | | | | | | |
| Viet Nam 4.2 4.4 4.8 0.7 0.7 0.7 - - AFRICA 52.1 60.1 61.1 13.5 13.7 13.8 2.6 4.2 4.1 Algeria - - - - 2.2 2.2 2.4 - - - Ethiopia 4.4 3.9 4.1 0.1 | | 4.0 | 4.3 | 3.9 | 0.3 | 0.4 | 0.4 | 0.5 | 8.0 | 0.5 | | | | |
| AFRICA 52.1 60.1 61.1 13.5 13.7 13.8 2.6 4.2 4.1 Algeria - - - - 2.2 2.2 2.4 - | | | | | | | | - | 0.3 | 0.1 | | | | |
| Algeria Egypt 7.1 7.0 7.2 4.8 5.0 5.2 Ethiopia 4.4 3.9 4.1 0.1 0.1 0.1 0.1 0.1 - Ethiopia 2.6 2.4 3.0 0.7 1.4 0.8 Morocco 0.2 0.2 0.2 1.7 1.6 1.7 Nigeria 7.3 8.8 8.8 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.3 South Africa 9.1 12.6 13.7 0.6 0.1 - 1.1 2.4 2.5 Tanzania, United Rep. of 3.4 3.4 3.5 0.1 0.1 0.1 0.1 0.1 0.1 0.1 CENTRAL AMERICA 26.8 27.0 26.7 13.7 12.6 13.7 0.2 0.1 0.1 Mexico 23.0 23.0 22.6 8.7 7.8 9.0 0.1 0.1 0.1 SOUTH AMERICA 81.1 74.3 81.8 8.7 9.1 9.2 22.5 16.9 19.9 Argentina 19.4 13.1 18.5 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 Colombia 1.7 1.7 1.7 1.7 3.1 3.3 3.3 0.1 Peru 1.4 1.5 1.5 1.5 1.5 1.4 1.6 Peru 1.4 1.5 1.5 1.5 1.5 1.4 1.6 Venezuela 2.5 2.0 2.2 0.8 1.2 1.3 NORTH AMERICA 312.6 343.1 350.2 2.6 2.5 2.5 55.3 49.0 49.7 Canada 10.4 9.6 10.2 2.2 2.3 2.2 0.5 0.4 0.2 United States of America 302.2 333.5 340.0 0.4 0.2 0.3 54.8 48.6 49.5 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 | Viet Nam | 4.2 | 4.4 | 4.8 | 0.7 | 0.7 | 0.7 | - | - | - | | | | |
| Egypt 7.1 7.0 7.2 4.8 5.0 5.2 - - - Ethiopia 4.4 3.9 4.1 0.1 0.1 0.1 0.1 0.1 - | AFRICA | 52.1 | 60.1 | 61.1 | 13.5 | 13.7 | 13.8 | 2.6 | 4.2 | 4.1 | | | | |
| Ethiopia 4.4 3.9 4.1 0.1 0.1 0.1 0.1 - | Algeria | - | - | - | 2.2 | 2.2 | 2.4 | - | - | - | | | | |
| Kenya 2.6 2.4 3.0 0.7 1.4 0.8 - 1.1 2.4 2.5 Tanzania, United Rep. of 3.4 3.4 3.5 0.1 | Egypt | 7.1 | 7.0 | 7.2 | 4.8 | 5.0 | 5.2 | - | - | - | | | | |
| Morocco 0.2 0.2 0.2 0.2 1.7 1.6 1.7 - 1.1 0.3 0.3 0.3 South Africa 9.1 12.6 13.7 0.6 0.1 0.2 0.2 0.1 | | 4.4 | 3.9 | 4.1 | 0.1 | 0.1 | 0.1 | 0.1 | - | - | | | | |
| Morocco 0.2 0.2 0.2 0.2 1.7 1.6 1.7 - - - - - - - - - - - - - - - - - - 1.1 0.3 0.2 0.3 0.3 0.2 0.3 0.3 0.2 < | • | 2.6 | | 3.0 | 0.7 | 1.4 | 0.8 | - | _ | - | | | | |
| South Africa 9.1 12.6 13.7 0.6 0.1 - 1.1 2.4 2.5 Tanzania, United Rep. of 3.4 3.4 3.5 0.1 0.1 0.1 0.1 0.1 0.1 CENTRAL AMERICA 26.8 27.0 26.7 13.7 12.6 13.7 0.2 0.1 0.1 Mexico 23.0 23.0 22.6 8.7 7.8 9.0 0.1 0.1 0.1 SOUTH AMERICA 81.1 74.3 81.8 8.7 9.1 9.2 22.5 16.9 19.9 Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 | • | 0.2 | 0.2 | 0.2 | 1.7 | 1.6 | 1.7 | - | - | - | | | | |
| CENTRAL AMERICA 26.8 27.0 26.7 13.7 12.6 13.7 0.2 0.1 0.1 Mexico 23.0 23.0 22.6 8.7 7.8 9.0 0.1 0.1 0.1 SOUTH AMERICA 81.1 74.3 81.8 8.7 9.1 9.2 22.5 16.9 19.9 Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - - - - Venezuela 2.5 2.0 2.2 0.8 < | Nigeria | 7.3 | 8.8 | 8.8 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | | | | |
| CENTRAL AMERICA 26.8 27.0 26.7 13.7 12.6 13.7 0.2 0.1 0.1 Mexico 23.0 23.0 22.6 8.7 7.8 9.0 0.1 0.1 0.1 SOUTH AMERICA 81.1 74.3 81.8 8.7 9.1 9.2 22.5 16.9 19.9 Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - - - - Venezuela 2.5 2.0 2.2 0.8 < | • | 9.1 | 12.6 | 13.7 | 0.6 | 0.1 | - | 1.1 | 2.4 | 2.5 | | | | |
| Mexico 23.0 23.0 22.6 8.7 7.8 9.0 0.1 0.1 0.1 SOUTH AMERICA 81.1 74.3 81.8 8.7 9.1 9.2 22.5 16.9 19.9 Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - | | 3.4 | 3.4 | 3.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | | | | |
| Mexico 23.0 23.0 22.6 8.7 7.8 9.0 0.1 0.1 0.1 SOUTH AMERICA 81.1 74.3 81.8 8.7 9.1 9.2 22.5 16.9 19.9 Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - | CENTRAL AMERICA | 26.8 | 27.0 | 26.7 | 13.7 | 12 6 | 13.7 | 0.2 | 0.1 | 0.1 | | | | |
| Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - - - - - Venezuela 2.5 2.0 2.2 0.8 1.2 1.3 - | | | | | | | | | | | | | | |
| Argentina 19.4 13.1 18.5 - - - - 13.4 8.3 11.0 Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - - - - - Venezuela 2.5 2.0 2.2 0.8 1.2 1.3 - | SOUTH AMERICA | 91 1 | 7/12 | Q1 Q | 9.7 | 0.1 | 0.2 | 22.5 | 16.0 | 10.0 | | | | |
| Brazil 51.2 51.2 53.3 1.0 0.9 0.9 7.8 7.5 8.0 Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - - - - Venezuela 2.5 2.0 2.2 0.8 1.2 1.3 - - - - NORTH AMERICA 312.6 343.1 350.2 2.6 2.5 2.5 55.3 49.0 49.7 Canada 10.4 9.6 10.2 2.2 2.3 2.2 0.5 0.4 0.2 United States of America 302.2 333.5 340.0 0.4 0.2 0.3 54.8 48.6 49.5 EUROPE 77.7 82.9 85.3 8.8 | | | | | | | | | | | | | | |
| Chile 1.4 1.3 1.2 1.6 1.7 1.7 0.1 - - Colombia 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - - Peru 1.4 1.5 1.5 1.5 1.4 1.6 - - - - Venezuela 2.5 2.0 2.2 0.8 1.2 1.3 - - - - NORTH AMERICA 312.6 343.1 350.2 2.6 2.5 2.5 55.3 49.0 49.7 Canada 10.4 9.6 10.2 2.2 2.3 2.2 0.5 0.4 0.2 United States of America 302.2 333.5 340.0 0.4 0.2 0.3 54.8 48.6 49.5 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 European Union 52.2 57.0 58.2 7 | _ | | | | | | | | | | | | | |
| Colombia 1.7 1.7 1.7 1.7 3.1 3.3 3.3 0.1 - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6.0</td> | | | | | | | | | | 6.0 | | | | |
| Peru 1.4 1.5 1.5 1.5 1.4 1.6 - | | | | | | | | | - | - | | | | |
| Venezuela 2.5 2.0 2.2 0.8 1.2 1.3 - | | | | | | | | 0.1 | - | - | | | | |
| NORTH AMERICA 312.6 343.1 350.2 2.6 2.5 2.5 55.3 49.0 49.7 Canada 10.4 9.6 10.2 2.2 2.3 2.2 0.5 0.4 0.2 United States of America 302.2 333.5 340.0 0.4 0.2 0.3 54.8 48.6 49.5 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 European Union 52.2 57.0 58.2 7.8 2.4 2.5 1.2 1.2 1.2 Russian Federation 4.6 4.3 4.5 0.3 0.3 0.3 0.5 0.3 0.2 | | | | | | | | - | - | - | | | | |
| Canada 10.4 9.6 10.2 2.2 2.3 2.2 0.5 0.4 0.2 United States of America 302.2 333.5 340.0 0.4 0.2 0.3 54.8 48.6 49.5 EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 European Union 52.2 57.0 58.2 7.8 2.4 2.5 1.2 1.2 1.2 1.2 Russian Federation 4.6 4.3 4.5 0.3 0.3 0.3 0.5 0.3 0.2 | | | | | | | | | 40.0 | | | | | |
| EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 European Union 52.2 57.0 58.2 7.8 2.4 2.5 1.2 1.2 1.2 1.2 Russian Federation 4.6 4.3 4.5 0.3 0.3 0.3 0.5 0.3 0.2 | | | | | | | | | | | | | | |
| EUROPE 77.7 82.9 85.3 8.8 3.2 3.3 5.2 7.9 7.8 European Union 52.2 57.0 58.2 7.8 2.4 2.5 1.2 1.2 1.2 1.2 Russian Federation 4.6 4.3 4.5 0.3 0.3 0.3 0.5 0.3 0.2 | | | | | | | | | | | | | | |
| European Union 52.2 57.0 58.2 7.8 2.4 2.5 1.2 1.2 1.2 Russian Federation 4.6 4.3 4.5 0.3 0.3 0.3 0.5 0.3 0.2 | | 302.2 | 333.5 | 340.0 | 0.4 | 0.2 | 0.3 | 54.8 | 48.6 | 49.5 | | | | |
| Russian Federation 4.6 4.3 4.5 0.3 0.3 0.3 0.5 0.3 0.2 | | | | | | | | | | | | | | |
| | • | | | | | | | | | | | | | |
| Cardia | Russian Federation | 4.6 | | 4.5 | 0.3 | 0.3 | 0.3 | | 0.3 | 0.2 | | | | |
| | Serbia | 5.7 | 6.4 | 6.3 | - | - | - | 0.9 | 1.4 | 1.4 | | | | |
| Ukraine 6.9 10.2 11.4 2.3 5.0 5.0 | Ukraine | 6.9 | 10.2 | 11.4 | - | - | - | 2.3 | 5.0 | 5.0 | | | | |
| OCEANIA 0.5 0.5 0.5 0.1 0.1 0.1 | OCEANIA | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 | - | - | - | | | | |
| WORLD 771.2 815.1 835.0 91.6 83.5 86.5 91.1 83.5 86.5 | WORLD | 771.2 | 815.1 | | 91.6 | | 86.5 | 91.1 | 83.5 | 86.5 | | | | |
| Developing countries 369.6 374.3 383.6 61.5 60.0 62.7 29.4 24.2 26.4 | Developing countries | 369.6 | | | 61.5 | | | 29.4 | 24.2 | 26.4 | | | | |
| Developed countries 401.6 440.8 451.4 30.0 23.5 23.8 61.7 59.4 60.1 | Developed countries | 401.6 | 440.8 | | 30.0 | | 23.8 | 61.7 | 59.4 | 60.1 | | | | |
| LIFDCs 250.3 261.0 263.2 13.5 13.6 13.9 5.5 5.4 5.1 | LIFDCs | 250.3 | 261.0 | | 13.5 | | 13.9 | 5.5 | 5.4 | 5.1 | | | | |
| LDCs 28.2 31.1 30.1 1.8 1.7 2.0 1.7 1.8 1.8 | LDCs | 28.2 | 31.1 | 30.1 | 1.8 | 1.7 | 2.0 | 1.7 | 1.8 | 1.8 | | | | |

Table A4 (b). Maize statistics

| | Total Utilization | | | Stoo | cks ending | in | Per caput | | |
|---------------------------|----------------------------|---------|---------|--------------------------|------------|--------|----------------------------|---------------------|-------------|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | | estim. | f'cast | n tonnes | estim. | f'cast | (| estim. . Kg/year | f'cast \ |
| | (| | | Connes | |) | (| . Kgryear |) |
| ASIA | 249.3 | 263.7 | 267.9 | 70.7 | 83.3 | 84.0 | 8.5 | 8.9 | 8.5 |
| China | 149.8 | 160.4 | 163.4 | 58.8 | 71.7 | 70.3 | 5.4 | 5.9 | 5.9 |
| of which Taiwan Prov. | 4.5 | 4.3 | 4.3 | 0.5 | 0.4 | 0.4 | 5.4 | 5.4 | 5.4 |
| India | 16.0 | 17.2 | 16.3 | 1.8 | 1.5 | 2.8 | 6.2 | 6.6 | 5.7 |
| Indonesia | 13.0 | 15.4 | 16.3 | 0.8 | 1.5 | 1.7 | 28.4 | 31.2 | 30.6 |
| Iran, Islamic Republic of | 3.9 | 4.0 | 4.0 | 0.3 | 0.2 | 0.2 | 1.0 | 1.0 | 1.0 |
| Japan | 16.8 | 16.8 | 16.8 | 1.2 | 1.0 | 1.0 | 26.7 | 26.7 | 26.8 |
| Korea, D.P.R. | 2.0 | 2.0 | 2.2 | 0.1 | 0.1 | 0.1 | 49.7 | 49.8 | 50.9 |
| Korea, Republic of | 8.4 | 7.9 | 8.3 | 1.6 | 1.3 | 1.6 | 1.8 | 1.9 | 1.9 |
| Malaysia | 2.7 | 2.7 | 2.7 | 0.3 | 0.3 | 0.3 | 1.8 | 1.7 | 1.7 |
| Pakistan | 3.3 | 3.3 | 3.4 | 1.0 | 1.0 | 1.2 | 7.6 | 7.3 | 7.1 |
| Philippines | 6.8 | 7.0 | 7.1 | 1.0 | 1.0 | 0.9 | 16.8 | 17.3 | 17.7 |
| Thailand | 3.8 | 3.9 | 3.8 | 0.2 | 0.2 | 0.2 | 1.3 | 1.3 | 1.2 |
| Turkey | 4.6 | 4.3 | 4.3 | 0.7 | 0.6 | 0.5 | 13.1 | 13.2 | 13.1 |
| Viet Nam | 4.8 | 5.1 | 5.3 | 1.1 | 1.1 | 1.2 | 12.9 | 15.6 | 15.6 |
| AFRICA | 63.5 | 67.9 | 69.9 | 6.8 | 8.4 | 9.2 | 39.0 | 39.9 | 39.5 |
| Algeria | 2.2 | 2.1 | 2.3 | 0.3 | 0.3 | 0.4 | 3.7 | 3.7 | 3.7 |
| Egypt | 11.8 | 12.3 | 12.4 | 0.8 | 0.6 | 0.6 | 43.3 | 43.4 | 43.2 |
| Ethiopia | 4.3 | 4.2 | 4.2 | 0.2 | 0.1 | 0.1 | 45.3 | 41.7 | 41.7 |
| Kenya | 3.5 | 3.6 | 3.8 | 0.3 | 0.2 | 0.3 | 83.6 | 83.3 | 83.6 |
| Morocco | 1.8 | 1.8 | 1.9 | 0.4 | 0.3 | 0.3 | 10.9 | 10.6 | 10.5 |
| Nigeria | 7.1 | 8.5 | 8.5 | 0.4 | 0.4 | 0.4 | 31.7 | 34.7 | 33.9 |
| South Africa | 9.3 | 9.3 | 10.1 | 1.6 | 2.6 | 3.5 | 92.6 | 93.4 | 93.2 |
| Tanzania, United Rep. of | 3.3 | 3.5 | 3.6 | 0.2 | 0.3 | 0.2 | 68.2 | 68.4 | 68.4 |
| CENTRAL AMERICA | 39.7 | 40.4 | 40.7 | 3.2 | 2.6 | 2.6 | 100.5 | 100.6 | 100.7 |
| Mexico | 31.2 | 31.8 | 32.0 | 2.2 | 1.6 | 1.4 | 144.2 | 144.1 | 144.6 |
| SOUTH AMERICA | 64.2 | 69.2 | 69.4 | 7.4 | 9.8 | 8.9 | 23.9 | 24.7 | 24.9 |
| Argentina | 5.4 | 5.1 | 5.0 | 1.2 | 1.0 | 1.5 | 7.3 | 7.3 | 7.3 |
| Brazil | 42.1 | 46.8 | 47.1 | 3.6 | 6.5 | 5.0 | 22.1 | 23.7 | 24.1 |
| Chile | 3.0 | 3.0 | 2.9 | 0.3 | 0.2 | 0.2 | 16.8 | 16.9 | 16.7 |
| Colombia | 4.6 | 4.9 | 4.9 | 0.7 | 0.6 | 0.6 | 36.4 | 36.4 | 35.9 |
| Peru | 2.8 | 2.9 | 3.0 | 0.6 | 0.5 | 0.5 | 13.0 | 13.1 | 13.0 |
| Venezuela | 3.2 | 3.4 | 3.4 | 0.3 | 0.3 | 0.4 | 49.3 | 49.0 | 49.9 |
| NORTH AMERICA | 263.0 | 284.4 | 299.0 | 40.5 | 45.5 | 47.9 | 14.8 | 14.8 | 14.5 |
| Canada | 12.3 | 11.8 | 11.6 | 1.6 | 1.4 | 1.7 | 3.4 | 3.3 | 3.3 |
| United States of America | 250.7 | 272.6 | 287.4 | 39.0 | 44.1 | 46.2 | 16.0 | 16.0 | 15.7 |
| EUROPE | 82.9 | 80.0 | 81.7 | 9.6 | 8.4 | 7.5 | 7.4 | 7.3 | 7.3 |
| European Union | 60.0 | 60.2 | 61.0 | 6.8 | 6.0 | 4.5 | 7.3 | 7.7 | 7.7 |
| Russian Federation | 4.6 | 4.4 | 4.6 | 0.2 | 0.2 | 0.2 | 2.8 | 2.8 | 2.8 |
| Serbia | 4.8 | 4.9 | 4.9 | 0.6 | 0.9 | 0.9 | 19.3 | 19.3 | 19.2 |
| Ukraine | 4.7 | 5.0 | 5.9 | 0.3 | 0.6 | 1.2 | 11.9 | 11.6 | 12.1 |
| OCEANIA | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.2 | 2.7 | 2.6 | 2.6 |
| WORLD | 763.1 | 806.2 | 829.0 | 138.4 | 158.3 | 160.2 | 16.5 | 17.0 | 16.8 |
| Developing countries | 387.5 | 412.3 | 417.9 | 85.1 | 100.5 | 100.1 | 17.2 | 17.9 | 17.6 |
| Developed countries | 375.6 | 393.9 | 411.2 | 53.3 | 57.8 | 60.1 | 13.8 | 13.8 | 13.7 |
| LIFDCs | 247.9 | 267.4 | 271.6 | 69.5 | 83.7 | 83.9 | 14.4 | 15.1 | 14.7 |
| LDCs | 27.7 | 30.2 | 30.7 | 3.8 | 5.0 | 4.7 | 25.4 | 25.8 | 25.6 |
| | 27.7 | 30.2 | 30.7 | 3.0 | 5.0 | 7.7 | | 23.0 | |

Table A5 (a). Barley statistics

| | F | roduction | | | Imports | | | Exports | |
|---------------------------|--------------------------|-----------|--------|----------------------------|--------------|---------|----------------------------|---------|---------|
| | 2006-2008 average | 2009 | 2010 | 06/07-08/09 average | 2009/10 | 2010/11 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| | (| | | m | illion tonne | s | | |) |
| ASIA | 21.0 | 19.7 | 20.6 | 12.7 | 14.7 | 14.2 | 0.6 | 0.8 | 0.5 |
| China | 3.6 | 2.5 | 2.5 | 1.4 | 1.6 | 1.6 | _ | - | - |
| India | 1.3 | 1.7 | 1.6 | - | - | _ | _ | - | _ |
| Iran, Islamic Republic of | 2.8 | 2.0 | 2.5 | 1.0 | 1.5 | 1.1 | - | - | - |
| Iraq | 0.9 | 0.5 | 1.0 | - | - | _ | 0.1 | - | _ |
| Japan | 0.2 | 0.2 | 0.2 | 1.4 | 1.4 | 1.3 | _ | - | _ |
| Kazakhstan | 2.1 | 2.6 | 2.3 | 0.1 | _ | _ | 0.4 | 0.6 | 0.4 |
| Saudi Arabia | _ | _ | _ | 6.6 | 7.4 | 7.4 | _ | _ | _ |
| Syria | 0.6 | 0.9 | 1.0 | 0.7 | 1.0 | 1.0 | _ | _ | _ |
| Turkey | 7.6 | 7.3 | 7.5 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 |
| AFRICA | 5.1 | 9.2 | 7.8 | 1.6 | 0.8 | 1.0 | _ | _ | _ |
| Algeria | 0.9 | 2.4 | 1.8 | 0.2 | 0.1 | _ | - | - | _ |
| Ethiopia | 1.6 | 1.7 | 1.7 | _ | _ | _ | _ | - | _ |
| Libya | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.4 | _ | _ | _ |
| Morocco | 1.5 | 3.7 | 3.2 | 0.4 | 0.1 | 0.1 | _ | _ | _ |
| Tunisia | 0.4 | 0.9 | 0.6 | 0.6 | 0.2 | 0.5 | - | - | - |
| CENTRAL AMERICA | 0.8 | 0.8 | 0.8 | 0.2 | 0.3 | 0.2 | _ | _ | _ |
| Mexico | 0.8 | 0.8 | 0.8 | 0.2 | 0.3 | 0.2 | - | - | - |
| SOUTH AMERICA | 2.5 | 2.6 | 2.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 |
| Argentina | 1.5 | 1.6 | 1.6 | - | - | - | 0.7 | 0.8 | 0.8 |
| NORTH AMERICA | 15.4 | 14.5 | 13.0 | 0.6 | 0.5 | 0.3 | 2.4 | 2.0 | 2.0 |
| Canada | 10.8 | 9.5 | 8.8 | - | - | - | 1.8 | 1.8 | 1.8 |
| United States of America | 4.6 | 4.9 | 4.1 | 0.5 | 0.5 | 0.3 | 0.5 | 0.2 | 0.2 |
| EUROPE | 92.2 | 95.4 | 90.1 | 0.9 | 0.4 | 0.5 | 9.9 | 10.0 | 10.1 |
| Belarus | 2.0 | 2.0 | 1.9 | - | - | - | - | - | - |
| European Union | 59.4 | 62.1 | 58.2 | 0.4 | 0.1 | 0.2 | 3.6 | 1.5 | 2.5 |
| Russian Federation | 19.0 | 17.9 | 17.0 | 0.2 | 0.1 | 0.1 | 2.0 | 2.4 | 2.0 |
| Ukraine | 9.8 | 11.7 | 11.3 | - | - | - | 4.2 | 6.0 | 5.5 |
| OCEANIA | 6.7 | 8.4 | 8.3 | - | - | - | 3.0 | 3.8 | 3.5 |
| Australia | 6.4 | 8.0 | 8.0 | - | - | - | 3.0 | 3.8 | 3.5 |
| WORLD | 143.5 | 150.5 | 143.2 | 16.8 | 17.5 | 17.0 | 16.8 | 17.5 | 17.0 |
| Developing countries | 25.7 | 28.2 | 28.1 | 13.4 | 14.6 | 14.3 | 1.0 | 1.1 | 1.0 |
| Developed countries | 117.8 | 122.3 | 115.1 | 3.3 | 2.9 | 2.7 | 15.8 | 16.4 | 16.0 |
| LIFDCs | 11.5 | 13.2 | 13.2 | 2.5 | 2.7 | 2.6 | 0.1 | - | - |
| LDCs | 2.1 | 2.3 | 2.2 | - | - | - | - | - | - |

Table A5 (b). Barley statistics

| | Tot | al Utilizatio | on | Sto | ks ending | in | | Per caput | |
|---------------------------|----------------------------|---------------|---------|--------------------------|-----------|--------|----------------------------|-----------|---------|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 |
| | g | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| | (| | millio | on tonnes | |) | (| . Kg/year |) |
| ASIA | 34.4 | 33.7 | 34.2 | 7.3 | 5.9 | 6.0 | 0.6 | 0.7 | 0.6 |
| China | 5.1 | 4.3 | 4.3 | 0.9 | 0.5 | 0.4 | 0.1 | 0.1 | 0.1 |
| India | 1.2 | 1.7 | 1.6 | - | - | - | 0.9 | 1.2 | 1.2 |
| Iran, Islamic Republic of | 3.7 | 3.7 | 3.7 | 0.4 | 0.3 | 0.2 | 0.4 | 0.4 | 0.4 |
| Iraq | 0.9 | 0.5 | 1.0 | - | - | 0.1 | 3.8 | 3.7 | 3.8 |
| Japan | 1.6 | 1.6 | 1.6 | 0.5 | 0.5 | 0.4 | 2.2 | 2.4 | 2.4 |
| Kazakhstan | 1.8 | 1.8 | 1.9 | 0.5 | 0.6 | 0.6 | 1.3 | 1.2 | 1.2 |
| Saudi Arabia | 7.0 | 7.4 | 7.5 | 2.0 | 1.8 | 1.7 | 1.1 | 1.1 | 1.1 |
| Syria | 1.5 | 1.7 | 1.6 | 0.3 | 0.5 | 0.9 | 13.4 | 11.9 | 11.6 |
| Turkey | 8.3 | 7.3 | 7.5 | 2.4 | 1.3 | 1.4 | 1.1 | 1.1 | 1.1 |
| AFRICA | 6.9 | 8.6 | 9.0 | 1.6 | 2.4 | 2.2 | 3.4 | 3.4 | 3.4 |
| Algeria | 1.2 | 2.0 | 1.9 | 0.5 | 0.8 | 0.7 | 16.2 | 16.3 | 16.4 |
| Ethiopia | 1.6 | 1.7 | 1.8 | 0.2 | 0.2 | 0.2 | 15.7 | 15.6 | 16.0 |
| Libya | 0.4 | 0.4 | 0.5 | - | - | - | 13.3 | 12.9 | 12.6 |
| Morocco | 2.1 | 2.9 | 3.3 | 0.5 | 1.0 | 1.0 | 41.0 | 42.2 | 43.2 |
| Tunisia | 1.0 | 1.1 | 1.0 | 0.3 | 0.2 | 0.2 | 8.8 | 8.8 | 8.7 |
| CENTRAL AMERICA | 1.0 | 1.1 | 1.1 | 0.1 | 0.2 | 0.1 | _ | - | - |
| Mexico | 1.0 | 1.1 | 1.1 | 0.1 | 0.2 | 0.1 | - | - | - |
| SOUTH AMERICA | 2.3 | 2.3 | 2.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 |
| Argentina | 0.7 | 0.7 | 0.8 | 0.2 | 0.4 | 0.4 | - | - | - |
| NORTH AMERICA | 12.9 | 12.6 | 11.8 | 3.6 | 4.7 | 3.8 | 0.5 | 0.5 | 0.5 |
| Canada | 8.2 | 7.9 | 7.2 | 2.0 | 2.2 | 1.6 | 0.3 | 0.3 | 0.3 |
| United States of America | 4.7 | 4.7 | 4.7 | 1.6 | 2.5 | 2.2 | 0.6 | 0.6 | 0.6 |
| EUROPE | 81.8 | 86.4 | 83.6 | 12.2 | 15.7 | 12.6 | 1.2 | 1.4 | 1.3 |
| Belarus | 2.0 | 2.0 | 1.9 | 0.2 | 0.3 | 0.3 | - | - | - |
| European Union | 55.9 | 60.2 | 58.9 | 8.5 | 11.0 | 8.0 | 0.8 | 8.0 | 0.8 |
| Russian Federation | 16.2 | 16.9 | 15.4 | 1.8 | 2.3 | 2.0 | 0.4 | 0.4 | 0.4 |
| Ukraine | 5.4 | 5.4 | 5.6 | 1.3 | 1.8 | 2.0 | 8.1 | 10.9 | 10.3 |
| OCEANIA | 4.6 | 4.1 | 4.2 | 1.4 | 2.2 | 2.7 | 0.2 | 0.2 | 0.2 |
| Australia | 4.3 | 3.7 | 3.9 | 1.3 | 2.2 | 2.7 | 0.3 | 0.3 | 0.3 |
| WORLD | 144.0 | 148.7 | 146.4 | 26.5 | 31.6 | 27.9 | 1.0 | 1.1 | 1.1 |
| Developing countries | 39.6 | 40.4 | 41.5 | 8.1 | 7.6 | 7.6 | 1.0 | 1.1 | 1.1 |
| Developed countries | 104.3 | 108.3 | 105.0 | 18.4 | 24.0 | 20.3 | 1.1 | 1.2 | 1.1 |
| LIFDCs | 14.3 | 15.0 | 15.5 | 2.1 | 2.5 | 2.7 | 1.0 | 1.1 | 1.1 |
| LDCs | 2.0 | 2.3 | 2.2 | 0.2 | 0.3 | 0.2 | 1.6 | 1.6 | 1.6 |

Table A6 (a). Sorghum statistics

| | F | roduction | | | Imports | | Exports | | | |
|--------------------------|--------------------------|-----------|--------|----------------------------|--------------|---------|----------------------------|---------|---------|--|
| | 2006-2008 average | 2009 | 2010 | 06/07-08/09 average | 2009/10 | 2010/11 | 06/07-08/09 average | 2009/10 | 2010/11 | |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast | |
| | (| | | m | illion tonne | s | | |) | |
| ASIA | 10.8 | 9.1 | 10.1 | 1.6 | 1.6 | 1.6 | 0.1 | - | - | |
| China | 2.3 | 1.7 | 1.6 | 0.1 | 0.1 | 0.1 | - | - | - | |
| India | 7.5 | 6.5 | 7.5 | - | - | - | - | - | - | |
| Japan | - | - | - | 1.3 | 1.4 | 1.4 | - | - | - | |
| AFRICA | 25.6 | 22.4 | 24.4 | 0.9 | 1.4 | 0.9 | 0.8 | 0.5 | 0.4 | |
| Burkina Faso | 1.6 | 1.5 | 1.7 | - | - | - | 0.1 | 0.1 | 0.1 | |
| Ethiopia | 2.7 | 2.0 | 2.3 | 0.1 | 0.2 | 0.1 | - | - | - | |
| Nigeria | 9.4 | 8.7 | 9.0 | - | - | - | 0.1 | 0.1 | 0.1 | |
| Sudan | 4.4 | 2.6 | 3.5 | 0.3 | 8.0 | 0.5 | 0.3 | 0.1 | 0.1 | |
| CENTRAL AMERICA | 6.5 | 6.7 | 6.7 | 1.8 | 2.3 | 2.3 | _ | _ | - | |
| Mexico | 6.1 | 6.2 | 6.2 | 1.8 | 2.3 | 2.3 | - | - | - | |
| SOUTH AMERICA | 5.3 | 4.9 | 5.7 | 0.3 | 0.5 | 0.5 | 0.9 | 0.7 | 0.5 | |
| Argentina | 2.7 | 1.8 | 2.8 | - | - | - | 0.9 | 0.6 | 0.4 | |
| Brazil | 1.6 | 1.8 | 1.8 | - | - | - | 0.1 | - | - | |
| Venezuela | 0.5 | 0.5 | 0.4 | - | - | - | - | - | - | |
| NORTH AMERICA | 10.6 | 9.7 | 9.0 | - | - | - | 4.9 | 4.0 | 3.9 | |
| United States of America | 10.6 | 9.7 | 9.0 | - | - | - | 4.9 | 4.0 | 3.9 | |
| EUROPE | 0.6 | 0.6 | 0.6 | 2.4 | 0.2 | 0.1 | 0.1 | _ | - | |
| European Union | 0.5 | 0.6 | 0.6 | 2.3 | 0.1 | - | 0.1 | - | - | |
| OCEANIA | 2.3 | 2.7 | 1.3 | 0.1 | 0.1 | 0.1 | 0.6 | 0.8 | 0.7 | |
| Australia | 2.3 | 2.7 | 1.3 | - | - | - | 0.6 | 0.8 | 0.7 | |
| WORLD | 61.7 | 56.1 | 57.8 | 7.0 | 6.0 | 5.5 | 7.2 | 6.0 | 5.5 | |
| Developing countries | 48.0 | 42.8 | 46.6 | 3.1 | 4.3 | 3.8 | 1.7 | 1.2 | 0.9 | |
| Developed countries | 13.6 | 13.4 | 11.2 | 3.9 | 1.8 | 1.7 | 5.5 | 4.8 | 4.6 | |
| LIFDCs | 35.9 | 30.9 | 33.9 | 1.0 | 1.4 | 1.0 | 0.8 | 0.5 | 0.4 | |
| LDCs | 14.6 | 11.9 | 13.5 | 0.7 | 1.2 | 8.0 | 0.7 | 0.4 | 0.3 | |

Table A7 (a). Other coarse grain statistics - millet, rye, oats and other grains

| | Production | | | | Imports | | Exports | | | |
|-----------------|--------------------------|--------|--------|----------------------------|--------------|---------|----------------------------|---------|---------|--|
| | 2006-2008 average | 2009 | 2010 | 06/07-08/09 average | 2009/10 | 2010/11 | 06/07-08/09 average | 2009/10 | 2010/11 | |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast | |
| | (| | | m | illion tonne | s | | |) | |
| ASIA | 18.4 | 15.3 | 17.1 | 0.6 | 0.6 | 0.4 | 0.1 | 0.1 | 0.1 | |
| AFRICA | 17.6 | 16.7 | 17.7 | 0.1 | 0.1 | 0.1 | 0.4 | 0.3 | 0.3 | |
| CENTRAL AMERICA | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | - | - | - | |
| SOUTH AMERICA | 1.4 | 1.3 | 1.3 | 0.1 | 0.2 | 0.2 | - | - | - | |
| NORTH AMERICA | 6.9 | 5.3 | 5.6 | 2.2 | 1.8 | 1.9 | 2.3 | 2.0 | 2.1 | |
| EUROPE | 47.4 | 52.8 | 51.1 | 0.4 | 0.3 | 0.3 | 0.5 | 0.4 | 0.3 | |
| OCEANIA | 1.6 | 1.9 | 1.9 | - | - | - | 0.2 | 0.3 | 0.2 | |
| WORLD | 93.6 | 93.4 | 94.9 | 3.5 | 3.0 | 3.0 | 3.5 | 3.0 | 3.0 | |

Table A6 (b). Sorghum statistics

| | Total Utilization | | | Stoo | ks ending | in | Per caput | | | |
|--------------------------|----------------------------|---------|---------|--------------------------|-----------|--------|----------------------------|-----------|---------|--|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 | |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast | |
| | (| | millio | on tonnes | |) | (| . Kg/year |) | |
| ASIA | 12.3 | 10.8 | 11.8 | 1.0 | 0.9 | 0.7 | 2.0 | 1.7 | 2.0 | |
| China | 2.4 | 1.8 | 1.7 | 0.4 | 0.2 | 0.1 | 1.0 | 1.0 | 1.0 | |
| India | 7.4 | 6.4 | 7.5 | 0.2 | 0.2 | 0.2 | 5.4 | 4.4 | 5.2 | |
| Japan | 1.2 | 1.4 | 1.4 | 0.1 | 0.3 | 0.2 | - | - | - | |
| AFRICA | 25.5 | 24.4 | 24.9 | 2.3 | 1.3 | 1.3 | 20.1 | 19.3 | 19.5 | |
| Burkina Faso | 1.5 | 1.6 | 1.6 | 0.1 | 0.1 | 0.1 | 83.2 | 83.7 | 83.5 | |
| Ethiopia | 2.7 | 2.5 | 2.4 | 0.2 | - | - | 27.2 | 25.7 | 25.5 | |
| Nigeria | 9.4 | 8.7 | 9.0 | 0.2 | 0.1 | 0.1 | 46.9 | 43.1 | 43.7 | |
| Sudan | 4.3 | 3.8 | 3.8 | 0.7 | 0.1 | 0.2 | 86.7 | 80.5 | 82.9 | |
| CENTRAL AMERICA | 8.3 | 9.2 | 9.2 | 0.5 | 0.8 | 0.5 | 0.9 | 1.0 | 1.0 | |
| Mexico | 7.9 | 8.7 | 8.7 | 0.5 | 0.7 | 0.4 | - | - | - | |
| SOUTH AMERICA | 4.7 | 4.6 | 5.9 | 0.7 | 0.7 | 0.6 | 0.1 | 0.1 | 0.1 | |
| Argentina | 1.8 | 1.2 | 2.5 | 0.3 | 0.3 | 0.3 | - | - | - | |
| Brazil | 1.6 | 1.9 | 1.9 | 0.2 | 0.2 | 0.1 | - | - | - | |
| Venezuela | 0.5 | 0.5 | 0.5 | - | - | - | - | - | - | |
| NORTH AMERICA | 5.8 | 6.0 | 5.5 | 1.2 | 1.1 | 1.1 | _ | - | - | |
| United States of America | 5.8 | 6.0 | 5.5 | 1.2 | 1.1 | 1.1 | - | - | - | |
| EUROPE | 2.7 | 1.0 | 0.9 | 0.5 | 0.4 | 0.2 | 0.3 | 0.3 | 0.3 | |
| European Union | 2.6 | 0.9 | 0.8 | 0.5 | 0.4 | 0.2 | 0.4 | 0.4 | 0.4 | |
| OCEANIA | 1.9 | 1.6 | 0.9 | 0.4 | 0.6 | 0.5 | 0.2 | 0.2 | 0.2 | |
| Australia | 1.8 | 1.5 | 0.8 | 0.4 | 0.6 | 0.5 | - | - | - | |
| WORLD | 61.1 | 57.7 | 59.1 | 6.5 | 5.7 | 4.8 | 4.2 | 4.0 | 4.2 | |
| Developing countries | 49.2 | 47.4 | 50.0 | 4.3 | 3.2 | 2.7 | 5.2 | 4.9 | 5.1 | |
| Developed countries | 12.0 | 10.3 | 9.0 | 2.2 | 2.5 | 2.1 | 0.3 | 0.3 | 0.3 | |
| LIFDCs | 35.8 | 33.1 | 34.6 | 3.0 | 1.6 | 1.6 | 6.4 | 6.0 | 6.3 | |
| LDCs | 14.3 | 13.9 | 14.0 | 2.0 | 1.0 | 1.0 | 14.1 | 13.9 | 13.9 | |

Table A7 (b). Other coarse grain statistics - millet, rye, oats and other grains

| | Tota | al Utilizatio | on | Stoc | ks ending | in | Per caput | | | |
|-----------------|----------------------------|---------------|---------|--------------------------|-----------|--------|----------------------------|-----------|---------|--|
| | 06/07-08/09 average | 2009/10 | 2010/11 | 2007-2009 average | 2010 | 2011 | 06/07-08/09 average | 2009/10 | 2010/11 | |
| | | estim. | f'cast | _ | estim. | f'cast | | estim. | f'cast | |
| | (| | millio | n tonnes | |) | (| . Kg/year |) | |
| ASIA | 19.1 | 15.8 | 17.5 | 0.9 | 0.7 | 0.7 | 4.0 | 3.2 | 3.6 | |
| AFRICA | 17.1 | 17.1 | 17.7 | 1.6 | 1.3 | 1.2 | 14.2 | 13.8 | 13.9 | |
| CENTRAL AMERICA | 0.2 | 0.2 | 0.3 | - | - | - | 0.2 | 0.2 | 0.2 | |
| SOUTH AMERICA | 1.6 | 1.5 | 1.5 | 0.1 | 0.1 | 0.1 | 0.9 | 0.9 | 0.9 | |
| NORTH AMERICA | 5.8 | 5.3 | 5.3 | 2.2 | 2.4 | 2.3 | 2.8 | 2.8 | 2.8 | |
| EUROPE | 47.5 | 52.6 | 51.3 | 4.5 | 6.6 | 6.3 | 13.5 | 13.5 | 13.7 | |
| OCEANIA | 1.6 | 1.7 | 1.7 | 0.2 | 0.1 | 0.1 | 4.3 | 4.3 | 4.2 | |
| WORLD | 92.8 | 94.2 | 95.2 | 9.4 | 11.2 | 10.7 | 6.2 | 5.7 | 5.9 | |

| Tak | | | | | | |
|-----|--|--|--|--|--|--|
| | | | | | | |
| | | | | | | |

| 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 2009 2010 2006-2008 | | F | Production | | | Imports | | | Exports | |
|--|--------------------------|---------|------------|--------|--------------|---------------|--------------|---------|---------|--------|
| Sestim. Frast Fr | | | 2009 | 2010 | | 2009 | 2010 | | 2009 | 2010 |
| ASIA 401.6 411.4 427.0 14.2 13.4 14.5 24.0 23.7 24.8 Bangladesh 29.2 33.3 33.7 1.2 0.1 0.4 - | | are.age | estim. | f'cast | are.uge | estim. | f'cast | are.uge | estim. | f'cast |
| Bangladesh 29.2 33.3 33.7 1.2 0.1 0.4 1.2 0.9 1.1 | | (| | | million tonr | nes, milled e | equivalent . | | |) |
| China of which Taiwan Prov. 128.9 135.1 137.3 1.0 0.9 0.9 1.2 0.9 1.1 India 96.4 89.3 100.7 0.1 0.1 0.1 4.7 2.5 2.2 Indonesia 36.1 40.5 40.9 0.9 0.3 0.2 - - 0.1 Iran, Islamic Republic of 1.6 1.7 1.8 1.1 1.4 1.2 - - 0.1 Japan 7.9 7.7 7.8 0.6 0.7 0.7 0.2 0.2 0.2 Korea, D.P.R. 1.4 1.5 1.6 0.4 | | | | | | | | 24.0 | 23.7 | 24.8 |
| of which Taiwan Prov. 1.1 1.0 1.0 0.1 0.2 0.2 - 0.1 0.1 India 96.4 89.3 100.7 0.1 0.1 0.1 4.7 2.5 2.2 Indonesia 36.1 40.5 40.9 0.9 0.9 0.2 - - 0.1 Iran, Islamic Republic of 1.6 1.7 1.8 1.1 1.4 1.2 - - - - Japan 7.9 7.7 7.8 0.6 0.7 0.7 0.2 0.2 0.2 Korea, D.P.R. 1.4 1.5 1.6 0.4 0.4 0.4 - - - - Korea, Republic of 4.6 4.9 4.8 0.3 0.3 0.1 - | 9 | | | | | | | - 12 | - | - |
| India | | | | | | | | | | |
| Indonesia 36.1 40.5 40.9 0.9 0.3 0.2 - - 0.1 Iran, Islamic Republic of 1.6 1.7 1.8 1.1 1.4 1.2 - - - Japan 7.9 7.7 7.8 0.6 0.7 0.7 0.2 0.2 0.2 Korea, D.P.R. 1.4 1.5 1.6 0.4 0.4 0.4 0.4 - - Malaysia 1.5 1.6 1.6 0.9 0.9 0.9 0.9 - - Myanmar 19.5 19.5 20.2 - 0.1 - 0.1 1.1 1.3 Pakistan 6.0 6.7 6.7 - - - 3.0 2.9 3.6 Philippines 10.7 10.5 11.4 2.0 1.8 2.5 - - Saudi Arabia - - - 1.0 1.0 0.9 0.9 0.9 0.9 3.6 Thailand 20.6 19.7 19.9 0.1 0.4 0.5 9.0 8.5 8.8 AFRICA 14.7 15.6 16.3 9.8 9.8 9.8 9.9 0.5 0.6 Cote d'Ivoire 0.4 0.4 0.4 0.9 0.9 0.9 0.9 0.5 0.6 Madagascar 2.5 2.8 2.7 0.2 0.1 - 0.1 - 0.9 0.5 0.6 Madagascar 2.5 2.8 2.7 0.2 0.1 0.2 0.2 - - - Nigeria 2.3 2.6 2.7 1.9 1.8 1.8 - - - - Senegal 0.2 0.4 0.4 0.9 0.9 0.9 0.9 0.5 0.6 CENTRAL AMERICA 1.6 1.8 1.9 2.3 2.3 2.4 - - - CENTRAL AMERICA 1.6 1.8 1.9 2.3 2.3 2.4 - - - CENTRAL AMERICA 1.6 1.8 1.9 2.3 2.3 2.4 - - SOUTH AMERICA 1.7 1.7 2.0 2.0 0.1 0.1 0.1 - - 0.5 0.5 0.5 Brazil 7.8 8.4 7.7 0.6 0.7 1.0 0.3 0.6 0.5 Peru 1.7 2.0 2.0 2.0 0.1 0.1 - - 0.8 0.7 0.7 NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 1.1 3.2 3.0 3.3 | | | | | | | | | | |
| Iraq Slamic Republic of 1.6 | | | | | | | | 4.7 | | |
| Iraq | | | | | | | | - | | 0.1 |
| Japan 7.9 7.7 7.8 0.6 0.7 0.7 0.2 0.2 0.2 0.2 | | | | | | | | _ | | - |
| Korea, D.P.R. 1.4 1.5 1.6 0.4 0.4 0.4 - <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.2</td> <td></td> <td></td> | • | | | | | | | 0.2 | | |
| Korea, Republic of 4.6 4.9 4.8 0.3 0.3 0.3 0.1 | • | | | | | | | 0.2 | | |
| Malaysia 1.5 1.6 1.6 0.9 0.9 0.9 - | • | | | | | | | 0.1 | _ | _ |
| Myanmar 19.5 19.5 20.2 - 0.1 - 0.1 1.1 1.3 Pakistan 6.0 6.7 6.7 - - - 3.0 2.9 3.6 Philippines 10.7 10.5 11.4 2.0 1.8 2.5 - <th< td=""><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td>_</td></th<> | • | | | | | | | | _ | _ |
| Pakistan 6.0 6.7 6.7 - - - - 3.0 2.9 3.6 Philippines 10.7 10.5 11.4 2.0 1.8 2.5 - </td <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>11</td> <td>13</td> | - | | | | | | | | 11 | 13 |
| Philippines | • | | | | | | | | | |
| Saudi Arabia - - - 1.0 1.0 0.9 - | | | | | | | | | | 5.0 |
| Sri Lanka 2.3 2.5 2.7 0.1 0.1 0.1 - | | 10.7 | | 11.4 | | | | | | - |
| Thailand Viet Nam 24.6 25.9 25.9 25.9 0.3 0.4 0.5 9.0 8.5 8.8 Viet Nam 24.6 25.9 25.9 0.3 0.4 0.5 4.6 6.0 5.8 AFRICA 14.7 15.6 16.3 9.8 9.8 9.8 0.9 0.5 0.6 Cote d'ívoire 0.4 0.4 0.4 0.9 0.9 0.9 0.9 | | 23 | | 27 | | | | _ | _ | - |
| Viet Nam 24.6 25.9 25.9 0.3 0.4 0.5 4.6 6.0 5.8 AFRICA 14.7 15.6 16.3 9.8 9.8 9.8 0.9 0.5 0.6 Cote d'Ívoire 0.4 0.4 0.4 0.9 0.9 0.9 0.9 0.5 0.6 Egypt 4.8 3.9 4.1 - 0.1 - 0.9 0.5 0.6 Madagascar 2.5 2.8 2.7 0.2 0.1 0.2 - - - - Nigeria 2.3 2.6 2.7 1.9 1.8 1.8 - - - - Senegal 0.2 0.4 0.4 0.9 0.9 0.8 - - - - - South Africa - - - 0.8 0.9 1.0 - - - - Cuba 0.3 0.3 0.3 | | | | | | | | 9.0 | 9 5 | 0 0 |
| AFRICA 14.7 15.6 16.3 9.8 9.8 9.8 0.9 0.5 0.6 Cote d'Ívoire 0.4 0.4 0.4 0.9 0.9 0.9 0.9 - | | | | | | | | | | |
| Cote d'Ívoire 0.4 0.4 0.4 0.9 0.9 0.9 0.9 0.9 0.5 0.6 Egypt 4.8 3.9 4.1 - 0.1 - 0.9 0.5 0.6 Madagascar 2.5 2.8 2.7 0.2 0.1 0.2 - | Viet Ivaiii | 24.0 | 23.3 | 23.9 | 0.5 | 0.4 | 0.5 | 4.0 | 0.0 | 5.6 |
| Egypt 4.8 3.9 4.1 - 0.1 - 0.9 0.5 0.6 Madagascar 2.5 2.8 2.7 0.2 0.1 0.2 - | AFRICA | 14.7 | 15.6 | 16.3 | 9.8 | 9.8 | 9.8 | 0.9 | 0.5 | 0.6 |
| Madagascar 2.5 2.8 2.7 0.2 0.1 0.2 - | Cote d'Ívoire | 0.4 | 0.4 | 0.4 | 0.9 | 0.9 | 0.9 | - | - | - |
| Nigeria 2.3 2.6 2.7 1.9 1.8 1.8 - | Egypt | 4.8 | 3.9 | 4.1 | - | 0.1 | - | 0.9 | 0.5 | 0.6 |
| Senegal 0.2 0.4 0.4 0.9 0.9 0.8 - | Madagascar | 2.5 | 2.8 | 2.7 | 0.2 | 0.1 | 0.2 | - | - | - |
| South Africa - <t< td=""><td>Nigeria</td><td>2.3</td><td>2.6</td><td>2.7</td><td>1.9</td><td>1.8</td><td>1.8</td><td>-</td><td>-</td><td>-</td></t<> | Nigeria | 2.3 | 2.6 | 2.7 | 1.9 | 1.8 | 1.8 | - | - | - |
| Tanzania, United Rep. of 0.9 0.9 0.9 0.1 0.2 0.2 - - - - CENTRAL AMERICA 1.6 1.8 1.9 2.3 2.3 2.4 - <td>Senegal</td> <td>0.2</td> <td>0.4</td> <td>0.4</td> <td>0.9</td> <td>0.9</td> <td>0.8</td> <td>-</td> <td>-</td> <td>-</td> | Senegal | 0.2 | 0.4 | 0.4 | 0.9 | 0.9 | 0.8 | - | - | - |
| CENTRAL AMERICA 1.6 1.8 1.9 2.3 2.3 2.4 -< | South Africa | - | - | - | 8.0 | 0.9 | 1.0 | - | - | - |
| Cuba 0.3 0.3 0.4 0.6 0.6 0.5 - | Tanzania, United Rep. of | 0.9 | 0.9 | 0.9 | 0.1 | 0.2 | 0.2 | - | - | - |
| Cuba 0.3 0.3 0.4 0.6 0.6 0.5 - | CENTRAL AMERICA | 16 | 1.8 | 1 9 | 23 | 23 | 24 | _ | _ | _ |
| Mexico 0.2 0.2 0.2 0.6 0.6 0.6 - | | | | | | | | | _ | _ |
| SOUTH AMERICA 15.4 16.8 16.1 1.0 1.2 1.5 1.9 2.2 2.2 Argentina 0.8 0.9 1.0 - - - 0.4 0.5 0.5 Brazil 7.8 8.4 7.7 0.6 0.7 1.0 0.3 0.6 0.5 Peru 1.7 2.0 2.0 0.1 0.1 - - - - - - - - - - - - - - 0.8 0.7 0.7 NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 3.2 3.0 3.3 | | | | | | | | | - | _ |
| Argentina 0.8 0.9 1.0 - - - 0.4 0.5 0.5 Brazil 7.8 8.4 7.7 0.6 0.7 1.0 0.3 0.6 0.5 Peru 1.7 2.0 2.0 0.1 0.1 - - - - - - - - - - - - - - - - - - 0.7 0.7 NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 3.2 3.0 3.3 | | | | | | | | 1.0 | 2.2 | 2.2 |
| Brazil 7.8 8.4 7.7 0.6 0.7 1.0 0.3 0.6 0.5 Peru 1.7 2.0 2.0 0.1 0.1 - - - - - - - - - - - 0.8 0.7 0.7 NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 3.2 3.0 3.3 | | | | | | 1.2 | | | | |
| Peru 1.7 2.0 2.0 0.1 0.1 - - - - - Uruguay 0.9 0.9 0.8 - - - - 0.8 0.7 0.7 NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 3.2 3.0 3.3 | | | | | | - | | | | |
| Uruguay 0.9 0.9 0.8 0.8 0.7 0.7 NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 3.2 3.0 3.3 | | | | | | | | | 0.6 | |
| NORTH AMERICA 6.2 6.9 7.6 1.0 1.0 1.1 3.2 3.0 3.3 | | | | | | | - | | - 0.7 | |
| | • • | 0.9 | 0.9 | 0.8 | - | - | - | 0.8 | 0.7 | 0.7 |
| Callada 0.5 0.5 0.5 | | 6.2 | 6.9 | 7.6 | | | | 3.2 | 3.0 | 3.3 |
| | | 6.2 | 6.9 | 7.6 | | | | 3.2 | 3.0 | 3.3 |
| EUROPE 2.4 2.9 3.0 1.8 1.5 1.6 0.2 0.2 0.3 | EUROPE | 24 | 2 9 | 3.0 | 1 8 | 15 | 1.6 | 0.2 | 0.2 | 0.3 |
| | | | | | | | | | | 0.2 |
| | | | | | | | | 0.1 | | 0.2 |
| | | | | | | | | | | |
| | | | 0.1 | | | | | | | 0.1 |
| Australia 0.3 - 0.1 0.1 0.2 0.2 0.2 0.1 0.1 | Australia | 0.3 | - | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| WORLD 442.3 455.5 472.0 30.4 29.7 31.3 30.4 29.7 31.3 | WORLD | 442.3 | 455.5 | 472.0 | 30.4 | 29.7 | 31.3 | 30.4 | 29.7 | 31.3 |
| | | | | | | | | | | 27.4 |
| | | | | | | | | | | 3.9 |
| | LIFDCs | | 344.6 | | | 14.9 | 16.1 | 10.8 | 8.3 | 9.3 |
| | LDCs | 65.1 | 71.4 | 71.8 | 7.1 | 6.1 | 6.5 | 1.2 | 2.8 | 3.1 |

Table A8 (b). Rice statistics

| Tota | al Utilizatio | on | Stoc | ks ending | in | I | Per caput | |
|----------------------------|-------------------|------------------------------|-----------------------------|--------------------|---------------------------|----------------------------|-----------------------|------------------------------|
| 05/06-07/08 average | 2008/09 estim. | 2009/10 <i>f'cast</i> | 2006-2008 average | 2009 estim. | 2010 <i>f'cast</i> | 05/06-07/08 average | 2008/09 estim. | 2009/10 <i>f'cast</i> |
| (@ | | | | | | | | |

75

Table A9. Cereal supply and utilization in main exporting countries (million tonnes)

| | | Wheat ¹ | | Coarse Grains ² | | | Rice | e (milled ba | sis) |
|---------------------|---------|--------------------|--------------------------|----------------------------|-------------------|--------------------------|---------|-------------------|------------------------------|
| | 2008/09 | 2009/10 estim. | 2010/11 f'cast | 2008/09 | 2009/10 estim. | 2010/11 f'cast | 2008/09 | 2009/10 estim. | 2010/11 <i>f'cast</i> |
| | UNITED | STATES (Ju | une/May) | UI | NITED STAT | ES | UNITED | STATES (A | ug./July) |
| Opening stocks | 8.3 | 17.9 | 25.8 | 45.1 | 47.1 | 49.0 | 0.9 | 1.0 | 1.0 |
| Production | 68.0 | 60.3 | 55.6 | 326.3 | 350.0 | 354.9 | 6.4 | 6.9 | 7.6 |
| Imports | 3.0 | 2.6 | 2.5 | 3.1 | 2.5 | 2.6 | 0.6 | 0.7 | 6.9 |
| Total Supply | 79.3 | 80.8 | 83.9 | 374.4 | 399.6 | 406.5 | 7.9 | 8.5 | 15.4 |
| Domestic use | 34.2 | 31.9 | 32.8 | 276.2 | 286.8 | 301.2 | 3.9 | 4.3 | 4.3 |
| Exports | 27.3 | 23.0 | 24.0 | 51.2 | 63.8 | 54.7 | 3.0 | 3.3 | 3.3 |
| Closing stocks | 17.9 | 25.8 | 27.1 | 47.1 | 49.0 | 50.6 | 1.0 | 1.0 | 1.6 |
| | CANA | ADA (Augu | st/July) | | CANADA | | THAIL | AND (Nov. | ⁄Oct.)³ |
| Opening stocks | 4.4 | 6.6 | 7.1 | 4.1 | 6.4 | 4.8 | 4.2 | 5.3 | 5.1 |
| Production | 28.6 | 26.5 | 24.2 | 27.4 | 22.5 | 22.8 | 21.0 | 19.7 | 19.9 |
| Imports | 0.0 | 0.1 | 0.1 | 2.0 | 2.1 | 2.1 | 0.4 | 0.5 | 0.6 |
| Total Supply | 33.0 | 33.2 | 31.4 | 33.4 | 31.0 | 29.7 | 25.5 | 25.5 | 25.6 |
| Domestic use | 7.9 | 8.2 | 8.1 | 21.6 | 21.5 | 20.4 | 11.7 | 11.7 | 11.9 |
| Exports | 18.6 | 17.9 | 17.6 | 5.4 | 4.7 | 4.8 | 8.5 | 8.8 | 8.6 |
| Closing stocks | 6.6 | 7.1 | 5.7 | 6.4 | 4.8 | 4.4 | 5.3 | 5.1 | 5.1 |
| | ARGE | NTINA (De | c./Nov.) | | ARGENTINA | ١ | IND | IA (Oct./Se | ot.)³ |
| Opening stocks | 3.3 | 0.5 | 0.5 | 2.5 | 1.6 | 1.7 | 16.7 | 21.2 | 15.1 |
| Production | 8.4 | 7.5 | 10.7 | 27.0 | 16.9 | 23.4 | 99.2 | 89.3 | 100.7 |
| Imports | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| Total Supply | 11.7 | 7.9 | 11.2 | 29.5 | 18.5 | 25.1 | 116.0 | 110.6 | 115.9 |
| Domestic use | 4.9 | 5.0 | 5.0 | 7.6 | 7.4 | 8.8 | 92.3 | 93.3 | 96.6 |
| Exports | 6.3 | 2.5 | 4.0 | 20.4 | 9.4 | 14.1 | 2.5 | 2.2 | 2.5 |
| Closing stocks | 0.5 | 0.5 | 2.2 | 1.6 | 1.7 | 2.2 | 21.2 | 15.1 | 16.8 |
| | AUST | RALIA (Oct | ./Sept.) | | AUSTRALIA | | PAKIS | TAN (Nov./ | Oct.)³ |
| Opening stocks | 3.7 | 3.1 | 2.9 | 1.6 | 2.1 | 3.0 | 0.4 | 1.2 | 1.1 |
| Production | 20.9 | 21.7 | 21.4 | 13.6 | 12.9 | 11.4 | 7.0 | 6.7 | 6.7 |
| Imports | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Supply | 24.7 | 24.8 | 24.4 | 15.2 | 15.0 | 14.3 | 7.3 | 7.9 | 7.8 |
| Domestic use | 6.8 | 6.7 | 6.9 | 8.7 | 7.2 | 6.6 | 3.2 | 3.2 | 3.3 |
| Exports | 14.7 | 15.1 | 14.3 | 4.5 | 4.9 | 4.4 | 2.9 | 3.6 | 3.4 |
| Closing stocks | 3.1 | 2.9 | 3.2 | 2.1 | 3.0 | 3.4 | 1.2 | 1.1 | 1.1 |
| | E | U (July/Jun | e) | | EU | | VIET I | NAM (Nov./ | Oct.)³ |
| Opening stocks | 9.5 | 18.5 | 18.0 | 15.8 | 23.0 | 21.8 | 4.4 | 4.3 | 4.3 |
| Production | 150.6 | 139.4 | 143.1 | 163.3 | 154.6 | 150.9 | 25.8 | 25.9 | 25.9 |
| Imports | 7.9 | 6.5 | 6.5 | 4.1 | 2.7 | 2.8 | 0.4 | 0.5 | 0.7 |
| Total Supply | 168.0 | 164.4 | 167.6 | 183.2 | 180.3 | 175.5 | 30.6 | 30.7 | 30.8 |
| Domestic use | 124.4 | 127.4 | 129.6 | 154.8 | 155.4 | 154.6 | 20.4 | 20.6 | 20.8 |
| Exports | 25.1 | 19.0 | 21.5 | 5.5 | 3.0 | 4.0 | 6.0 | 5.8 | 5.8 |
| Closing stocks | 18.5 | 18.0 | 16.5 | 23.0 | 21.8 | 16.9 | 4.3 | 4.3 | 4.2 |
| | TOTA | L OF ABO | /E | TOTA | L OF ABOV | 'E | TOTAI | L OF ABOV | Έ |
| Opening stocks | 29.2 | 46.5 | 54.3 | 69.0 | 80.1 | 80.3 | 26.5 | 33.0 | 26.5 |
| Production | 276.5 | 255.4 | 255.0 | 557.6 | 557.0 | 563.3 | 159.3 | 148.6 | 160.8 |
| Imports | 10.9 | 9.2 | 9.1 | 9.2 | 7.3 | 7.5 | 1.5 | 1.8 | 8.3 |
| Total Supply | 316.7 | 311.1 | 318.4 | 635.8 | 644.4 | 651.1 | 187.3 | 183.3 | 195.5 |
| Domestic use | 178.1 | 179.2 | 182.3 | 468.8 | 478.3 | 491.6 | 131.5 | 133.1 | 136.9 |
| Exports | 92.0 | 77.5 | 81.4 | 86.9 | 85.8 | 82.0 | 22.9 | 23.7 | 23.6 |
| Closing stocks | 46.5 | 54.3 | 54.7 | 80.1 | 80.3 | 77.6 | 33.0 | 26.5 | 28.8 |

¹ Trade data include wheat flour in wheat grain equivalent. For the **EU** semolina is also included.

² **Argentina** (December/November) for rye, barley and oats, (March/February) for maize and sorghum; **Australia** (November/October) for rye, barley and oats, (March/February) for maize and sorghum; **Canada** (August/July); **EU** (July/June); **United States** (June/May) for rye, barley and oats, (September/August) for maize and sorghum.

³ Rice trade data refer to the calendar year of the second year shown.

Table A10. Total oilcrops statistics (million tonnes)

| | Р | roduction ¹ | | | Imports | | | Exports | |
|---------------------------|----------------------------|------------------------|---------|----------------------------|---------|---------|----------------------------|---------|---------|
| | 05/06-07/08 average | 2008/09 | 2009/10 | 05/06-07/08 average | 2008/09 | 2009/10 | 05/06-07/08 average | 2008/09 | 2009/10 |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| ASIA | 122.7 | 126.5 | 121.4 | 53.7 | 64.9 | 71.1 | 2.6 | 2.2 | 2.3 |
| China | 57.4 | 59.2 | 55.4 | 34.9 | 46.7 | 51.6 | 1.4 | 1.2 | 1.5 |
| of which Taiwan Prov. | 0.1 | 0.1 | 0.1 | 2.4 | 2.2 | 2.4 | - | - | - |
| India | 34.5 | 35.0 | 33.6 | _ | 0.3 | 0.2 | 0.6 | 0.4 | 0.3 |
| Indonesia | 7.6 | 8.5 | 9.1 | 1.4 | 1.6 | 1.8 | 0.1 | 0.1 | 0.1 |
| Iran, Islamic Republic of | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | - | - | - |
| Japan | 0.3 | 0.3 | 0.3 | 6.7 | 5.9 | 6.2 | - | - | - |
| Korea, Republic of | 0.2 | 0.2 | 0.2 | 1.4 | 1.4 | 1.5 | - | - | - |
| Malaysia | 4.4 | 4.6 | 4.8 | 0.7 | 0.7 | 0.7 | 0.1 | - | - |
| Pakistan | 4.9 | 4.7 | 4.8 | 1.0 | 0.9 | 1.2 | - | - | - |
| Thailand | 0.7 | 8.0 | 8.0 | 1.6 | 1.7 | 1.7 | - | 0.1 | - |
| Turkey | 2.1 | 2.1 | 1.9 | 2.0 | 1.7 | 2.1 | - | - | - |
| AFRICA | 16.2 | 16.8 | 16.2 | 2.3 | 2.5 | 2.5 | 0.7 | 0.9 | 0.7 |
| Nigeria | 4.6 | 4.9 | 4.8 | - | - | - | 0.1 | 0.2 | 0.2 |
| CENTRAL AMERICA | 1.1 | 1.2 | 1.1 | 6.2 | 5.4 | 5.7 | 0.1 | 0.1 | 0.1 |
| Mexico | 0.7 | 8.0 | 0.7 | 5.6 | 4.8 | 5.0 | - | - | - |
| SOUTH AMERICA | 121.2 | 105.2 | 140.8 | 3.2 | 2.7 | 1.4 | 40.9 | 41.0 | 42.4 |
| Argentina | 50.0 | 36.4 | 57.7 | 1.9 | 1.6 | 0.2 | 10.9 | 6.2 | 8.7 |
| Brazil | 61.5 | 60.0 | 70.7 | 0.1 | 0.2 | 0.1 | 25.2 | 30.2 | 26.1 |
| Paraguay | 6.1 | 4.6 | 7.6 | - | - | - | 4.0 | 3.5 | 5.1 |
| NORTH AMERICA | 105.8 | 107.0 | 116.0 | 1.9 | 2.1 | 2.1 | 38.7 | 47.0 | 50.8 |
| Canada | 13.7 | 17.3 | 16.6 | 0.7 | 0.7 | 0.7 | 8.2 | 10.8 | 10.2 |
| United States of America | 92.1 | 89.7 | 99.4 | 1.2 | 1.4 | 1.3 | 30.6 | 36.3 | 40.6 |
| EUROPE | 39.8 | 49.0 | 50.1 | 19.0 | 19.4 | 18.7 | 2.6 | 4.6 | 3.9 |
| European Union | 24.4 | 27.3 | 30.0 | 18.0 | 18.6 | 17.6 | 0.9 | 0.7 | 0.8 |
| Russian Federation | 7.4 | 8.8 | 8.4 | 0.2 | 0.2 | 0.6 | 0.3 | 0.4 | 0.4 |
| Ukraine | 6.3 | 10.7 | 9.4 | - | - | - | 1.2 | 3.2 | 2.3 |
| OCEANIA | 2.0 | 3.0 | 3.0 | 0.1 | 0.1 | 0.1 | 0.7 | 1.3 | 1.4 |
| Australia | 1.7 | 2.6 | 2.6 | 0.1 | - | 0.1 | 0.6 | 1.2 | 1.3 |
| WORLD | 408.8 | 408.6 | 448.7 | 86.4 | 97.0 | 101.6 | 86.4 | 97.1 | 101.6 |
| Developing countries | 256.3 | 244.2 | 275.0 | 57.7 | 68.6 | 73.5 | 44.2 | 44.0 | 45.5 |
| Developed countries | 152.5 | 164.5 | 173.7 | 28.6 | 28.5 | 28.1 | 42.2 | 53.1 | 56.1 |
| LIFDCs | 126.5 | 130.3 | 125.4 | 38.2 | 50.5 | 55.9 | 3.1 | 2.9 | 3.0 |
| LDCs | 10.0 | 10.2 | 10.0 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |

¹ The split years bring together northern hemisphere annual crops harvested in the latter part of the first year shown, with southern hemisphere annual crops harvested in the early part of the second year shown; for tree crops which are produced throughout the year, calendar year production for the second year shown is used.

Table A11. Total oils and fats statistics ¹ (million tonnes)

| | | Imports | | | Exports | | ı | Jtilization | |
|--------------------------|------------------------|---------|---------|----------------------------|---------|---------|----------------------------|--------------------|------------|
| | 05/06-07/08 average | 2008/09 | 2009/10 | 05/06-07/08 average | 2008/09 | 2009/10 | 05/06-07/08 average | 2008/09 | 2009/10 |
| | 210.292 | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| ASIA | 30.8 | 35.7 | 35.9 | 34.8 | 40.3 | 41.5 | 74.0 | 82.3 | 85.0 |
| Bangladesh | 1.2 | 1.2 | 1.2 | - | - | - | 1.4 | 1.4 | 1.5 |
| China | 9.6 | 11.3 | 10.8 | 0.5 | 0.8 | 0.8 | 28.3 | 30.8 | 32.5 |
| of which Taiwan Prov. | 0.4 | 0.4 | 0.4 | _ | _ | _ | 0.8 | 0.9 | 0.9 |
| India | 5.6 | 8.4 | 8.8 | 0.5 | 0.5 | 0.3 | 15.2 | 17.7 | 18.2 |
| Indonesia | 0.1 | 0.1 | 0.1 | 14.7 | 18.4 | 19.6 | 4.8 | 6.6 | 6.6 |
| Iran | 1.2 | 1.2 | 1.2 | 0.2 | 0.2 | 0.1 | 1.6 | 1.6 | 1.6 |
| Japan | 1.1 | 1.1 | 1.1 | - 0.2 | - | - | 3.1 | 3.0 | 3.0 |
| Korea, Republic of | 0.8 | 0.8 | 0.9 | _ | _ | _ | 1.1 | 1.2 | 1.2 |
| Malaysia | 1.1 | 1.5 | 1.7 | 15.5 | 17.4 | 17.9 | 3.6 | 4.1 | 4.2 |
| Pakistan | 1.9 | 2.1 | 2.2 | 0.1 | 0.2 | 0.1 | 3.4 | 3.5 | 3.7 |
| Philippines | 0.4 | 0.5 | 0.5 | 1.0 | 0.2 | 1.0 | 0.8 | 3.5 1.1 | 3.7 1.1 |
| • • • | | 0.5 | 0.5 | | | | 0.8 | | |
| Singapore | 0.6 | | | 0.3 | 0.3 | 0.3 | | 0.3 | 0.3 |
| Turkey | 1.3 | 1.2 | 1.1 | 0.2 | 0.4 | 0.3 | 2.4 | 2.2 | 2.3 |
| AFRICA | 6.6 | 6.8 | 7.0 | 1.1 | 1.1 | 1.1 | 11.8 | 12.4 | 12.6 |
| Algeria | 0.6 | 0.5 | 0.6 | 0.1 | "- | | 0.7 | 0.7 | 0.7 |
| Egypt | 1.4 | 1.7 | 1.7 | 0.1 | 0.1 | 0.1 | 1.7 | 2.0 | 2.0 |
| Nigeria | 0.3 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 | 1.9 | 2.0 | 2.0 |
| South Africa | 0.3 0.7 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 | 1.9 | 1.1 | 1.1 |
| 30uth Airica | 0.7 | 0.0 | 0.7 | 0.1 | 0.1 | 0.1 | 1.1 | 1.1 | 1.1 |
| CENTRAL AMERICA | 2.3 | 2.2 | 2.4 | 0.5 | 0.7 | 0.6 | 4.5 | 4.5 | 4.5 |
| Mexico | 1.1 | 1.2 | 1.2 | 0.1 | 0.1 | 0.1 | 2.9 | 2.9 | 2.9 |
| SOUTH AMERICA | 2.2 | 2.1 | 2.2 | 11.0 | 9.6 | 8.7 | 9.9 | 12.0 | 12.9 |
| Argentina | 0.1 | 0.1 | - | 7.2 | 6.0 | 5.5 | 1.1 | 1.9 | 2.3 |
| Brazil | 0.3 | 0.4 | 0.4 | 2.5 | 2.1 | 2.0 | 5.5 | 6.4 | 6.9 |
| NORTH AMERICA | 3.4 | 4.1 | 4.1 | 5.2 | 5.8 | 6.2 | 17.3 | 16.7 | 17.0 |
| Canada | 0.5 | 0.6 | 0.5 | 1.9 | 2.2 | 2.3 | 0.9 | 0.9 | 0.9 |
| United States of America | 3.0 | 3.6 | 3.6 | 3.3 | 3.6 | 3.9 | 16.4 | 15.8 | 16.1 |
| EUROPE | | | | | | | | | |
| | 12.9 | 13.4 | 13.2 | 4.5 | 5.8 | 5.4 | 32.8 | 34.9 | 36.0 |
| European Union | 10.4 | 10.9 | 10.7 | 1.9 | 2.1 | 2.1 | 27.4 | 29.3 | 30.0 |
| Russian Federation | 1.2 | 1.1 | 1.0 | 0.6 | 0.9 | 0.5 | 3.4 | 3.5 | 3.7 |
| Ukraine | 0.4 | 0.5 | 0.5 | 1.7 | 2.4 | 2.4 | 0.7 | 0.9 | 1.0 |
| OCEANIA | 0.5 | 0.6 | 0.6 | 1.6 | 1.7 | 1.8 | 1.0 | 1.0 | 1.1 |
| Australia | 0.3 | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |
| WORLD | 58.6 | 65.0 | 65.4 | 58.7 | 65.0 | 65.4 | 151.3 | 163.8 | 169.0 |
| Developing countries | 39.6 | 44.8 | 45.4 | 47.9 | 52.1 | 52.6 | 95.1 | 106.1 | 109.9 |
| Developed countries | 19.0 | 20.2 | 20.0 | 10.8 | 12.9 | 12.8 | 56.2 | 57.7 | 59.1 |
| LIFDCs | 25.6 | 31.0 | 31.0 | 18.4 | 22.4 | 23.6 | 66.3 | 74.4 | 76.8 |
| LDCs | 4.1 | 4.1 | 4.3 | 0.4 | 0.4 | 0.4 | 6.9 | 7.0 | 7.1 |

 $^{^{\}rm 1}$ Includes oils and fats of vegetable, marine and animal origin.

Table A12. Total meals and cakes statistics¹ (million tonnes)

| | Imports | | | Exports | | Utilization | | | |
|--------------------------|------------------------|---------|---------|----------------------------|---------|-------------|----------------------------|---------|---------|
| | 05/06-07/08 average | 2008/09 | 2009/10 | 05/06-07/08 average | 2008/09 | 2009/10 | 05/06-07/08 average | 2008/09 | 2009/10 |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| ASIA | 23.0 | 24.6 | 25.6 | 13.2 | 13.1 | 12.8 | 99.4 | 106.9 | 114.5 |
| China | 2.4 | 2.8 | 2.6 | 1.2 | 1.8 | 2.0 | 50.1 | 54.8 | 61.2 |
| of which Taiwan Prov. | 0.5 | 0.5 | 0.6 | - | - | - | 2.4 | 2.4 | 2.4 |
| India | 0.2 | - | 0.1 | 5.6 | 4.6 | 3.9 | 10.8 | 11.7 | 12.0 |
| Indonesia | 2.4 | 2.7 | 2.8 | 2.4 | 2.8 | 2.9 | 2.7 | 3.1 | 3.2 |
| Japan | 2.3 | 2.5 | 2.6 | - | - | - | 7.2 | 7.0 | 7.0 |
| Korea, Republic of | 3.3 | 3.3 | 3.6 | _ | - | - | 4.4 | 4.6 | 4.7 |
| Malaysia | 0.9 | 0.9 | 1.0 | 2.2 | 2.3 | 2.3 | 1.7 | 1.7 | 1.8 |
| Pakistan | 0.3 | 0.4 | 0.5 | 0.1 | 0.1 | 0.1 | 2.9 | 2.7 | 2.9 |
| Philippines | 1.7 | 1.6 | 1.6 | 0.5 | 0.3 | 0.5 | 2.2 | 2.3 | 2.3 |
| Saudi Arabia | 0.7 | 0.6 | 0.6 | _ | _ | _ | 0.7 | 0.6 | 0.6 |
| Thailand | 2.5 | 2.7 | 2.9 | 0.1 | 0.1 | 0.1 | 4.4 | 4.6 | 4.7 |
| Turkey | 0.9 | 1.0 | 0.9 | 0.1 | - | - | 3.1 | 3.1 | 3.1 |
| Viet Nam | 1.6 | 2.3 | 2.5 | 0.1 | - | - | 1.8 | 2.6 | 2.8 |
| AFRICA | 3.6 | 3.7 | 4.0 | 0.8 | 0.9 | 0.8 | 9.0 | 9.4 | 9.7 |
| Egypt | 0.7 | 0.6 | 0.7 | - | - | - | 1.8 | 1.7 | 1.9 |
| South Africa | 1.1 | 1.1 | 1.2 | - | 0.1 | 0.1 | 1.7 | 1.8 | 1.9 |
| CENTRAL AMERICA | 3.6 | 3.5 | 3.6 | 0.1 | 0.2 | 0.2 | 8.3 | 7.9 | 8.1 |
| Mexico | 2.0 | 1.9 | 2.0 | 0.1 | 0.1 | 0.1 | 6.3 | 5.8 | 5.9 |
| SOUTH AMERICA | 4.1 | 4.5 | 4.8 | 43.1 | 42.5 | 42.1 | 21.9 | 24.1 | 25.1 |
| Argentina | 0.1 | 0.2 | 0.1 | 26.4 | 25.4 | 25.0 | 3.3 | 4.3 | 4.9 |
| Bolivia | - | - | - | 1.1 | 1.0 | 1.1 | 0.3 | 0.4 | 0.3 |
| Brazil | 0.2 | 0.2 | 0.4 | 12.6 | 13.0 | 13.5 | 13.0 | 13.8 | 13.9 |
| Chile | 0.9 | 8.0 | 0.9 | 0.6 | 0.6 | 0.4 | 1.3 | 1.2 | 1.3 |
| Paraguay | - | - | - | 0.9 | 8.0 | 8.0 | 0.2 | 0.4 | 0.4 |
| Peru | 0.7 | 0.7 | 8.0 | 1.5 | 1.6 | 1.2 | 0.9 | 0.9 | 0.9 |
| Venezuela | 0.9 | 1.3 | 1.3 | - | - | - | 1.0 | 1.4 | 1.4 |
| NORTH AMERICA | 3.5 | 3.3 | 3.4 | 10.7 | 10.8 | 13.0 | 37.9 | 33.7 | 33.0 |
| Canada | 1.5 | 1.3 | 1.4 | 2.4 | 2.7 | 2.6 | 2.4 | 2.1 | 2.2 |
| United States of America | 1.9 | 2.0 | 2.0 | 8.3 | 8.1 | 10.4 | 35.4 | 31.6 | 30.8 |
| EUROPE | 32.7 | 31.2 | 30.3 | 3.9 | 4.7 | 4.4 | 59.5 | 60.9 | 61.5 |
| European Union | 30.2 | 28.7 | 28.0 | 1.1 | 1.1 | 1.1 | 54.5 | 55.4 | 55.5 |
| Russian Federation | 0.8 | 0.5 | 0.5 | 1.0 | 1.3 | 1.0 | 2.4 | 2.4 | 2.8 |
| Ukraine | 0.1 | 0.1 | 0.1 | 1.4 | 1.9 | 1.9 | 0.2 | 0.6 | 0.6 |
| OCEANIA | 1.5 | 1.7 | 1.8 | 0.2 | 0.2 | 0.2 | 2.1 | 2.4 | 2.5 |
| Australia | 0.7 | 0.8 | 0.8 | - | | - | 1.3 | 1.4 | 1.4 |
| WORLD | 71.9 | 72.4 | 73.5 | 72.1 | 72.4 | 73.5 | 238.0 | 245.2 | 254.3 |
| Developing countries | 30.6 | 32.2 | 33.8 | 57.1 | 56.5 | 55.8 | 128.1 | 137.6 | 146.7 |
| Developed countries | 41.3 | 40.2 | 39.7 | 14.9 | 15.9 | 17.7 | 110.0 | 107.6 | 107.6 |
| LIFDCs | 9.9 | 10.3 | 10.6 | 10.9 | 10.7 | 10.5 | 76.4 | 82.9 | 90.1 |
| LDCs | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 3.2 | 3.4 | 3.5 |
| | | | | | | | | | |

¹ Includes meals and cakes derived from oilcrops as well as fish meal and other meals from animal origin.

Table A13. Sugar statistics (million tonnes, raw value)

| | Produ | uction | Utiliz | ation | lmp | orts | Ехр | orts |
|--------------------------|-------------------|--------------------------|-----------------------|--------------------------|-------------------|--------------------------|-----------------------|--------------------------|
| | 2008/09 estim. | 2009/10 f'cast | 2008/09 estim. | 2009/10 f'cast | 2008/09 estim. | 2009/10 f'cast | 2008/09 estim. | 2009/10 f'cast |
| ASIA | 50.7 | 52.5 | 75.0 | 76.5 | 24.2 | 29.4 | 10.0 | 9.7 |
| China | 13.6 | 12.8 | 16.1 | 17.0 | 1.8 | 1.9 | 0.1 | 0.1 |
| India | 15.8 | 17.6 | 24.4 | 24.6 | 2.5 | 6.0 | 0.2 | 0.1 |
| Indonesia | 2.6 | 3.1 | 5.3 | 5.3 | 1.9 | 2.2 | - | - |
| Japan | 0.9 | 0.9 | 2.3 | 2.3 | 1.3 | 1.5 | - | - |
| Malaysia | - | - | 1.3 | 1.3 | 1.5 | 1.6 | 0.2 | 0.2 |
| Pakistan | 3.5 | 3.3 | 4.6 | 4.3 | 0.3 | 8.0 | 0.3 | 0.1 |
| Philippines | 2.1 | 2.1 | 2.2 | 2.3 | - | 0.2 | 0.2 | 0.2 |
| Thailand | 7.5 | 7.3 | 2.6 | 2.7 | - | - | 5.0 | 5.1 |
| Turkey | 2.4 | 2.6 | 2.1 | 2.2 | - | - | - | - |
| Viet Nam | 1.0 | 1.1 | 1.5 | 1.5 | 0.5 | 0.4 | - | - |
| AFRICA | 10.4 | 10.8 | 15.0 | 15.5 | 9.5 | 9.5 | 4.8 | 5.0 |
| Egypt | 1.7 | 1.8 | 2.7 | 2.8 | 1.2 | 1.1 | 0.2 | 0.2 |
| Ethiopia | 0.3 | 0.3 | 0.4 | 0.4 | 0.1 | 0.2 | 0.1 | 0.1 |
| Kenya | 0.6 | 0.6 | 0.8 | 0.9 | 0.3 | 0.3 | - | - |
| Mauritius | 0.5 | 0.5 | - | - | - | - | 0.5 | 0.6 |
| Mozambique | 0.3 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 |
| South Africa | 2.3 | 2.3 | 1.6 | 1.6 | 0.1 | 0.1 | 0.9 | 1.0 |
| Sudan | 8.0 | 0.9 | 1.2 | 1.3 | 0.5 | 0.6 | 0.2 | 0.2 |
| Swaziland | 0.6 | 0.6 | - | - | - | - | 0.6 | 0.6 |
| Tanzania, United Rep. of | 0.3 | 0.3 | 0.5 | 0.5 | 0.2 | 0.2 | - | - |
| CENTRAL AMERICA | 11.6 | 11.6 | 8.8 | 8.9 | 0.7 | 1.3 | 4.7 | 4.1 |
| Cuba | 1.4 | 1.4 | 0.7 | 0.7 | 0.1 | 0.1 | 0.7 | 0.8 |
| Dominican Republic | 0.5 | 0.5 | 0.4 | 0.4 | - | - | 0.2 | 0.2 |
| Guatemala | 2.2 | 2.2 | 0.8 | 8.0 | - | 0.1 | 1.5 | 1.6 |
| Mexico | 5.2 | 4.9 | 5.3 | 5.3 | 0.2 | 0.7 | 1.3 | 0.3 |
| SOUTH AMERICA | 44.2 | 45.4 | 20.4 | 20.9 | 1.4 | 1.4 | 25.9 | 27.4 |
| Argentina | 2.3 | 2.4 | 1.9 | 1.9 | - | - | 0.6 | 0.8 |
| Brazil | 36.2 | 37.2 | 12.8 | 13.1 | - | - | 24.0 | 25.2 |
| Colombia | 2.4 | 2.5 | 1.6 | 1.6 | 0.2 | 0.1 | 0.7 | 0.9 |
| Peru | 1.1 | 1.1 | 1.2 | 1.2 | 0.1 | 0.2 | 0.1 | 0.1 |
| Venezuela | 0.7 | 0.5 | 1.0 | 1.1 | 0.4 | 0.4 | - | - |
| NORTH AMERICA | 6.9 | 7.3 | 10.9 | 10.7 | 4.1 | 3.7 | 0.2 | 0.2 |
| United States of America | 6.8 | 7.2 | 9.6 | 9.4 | 2.8 | 2.4 | 0.1 | 0.2 |
| EUROPE | 22.3 | 23.8 | 29.1 | 28.9 | 7.2 | 7.6 | 1.7 | 3.0 |
| European Union | 15.2 | 17.0 | 18.7 | 18.5 | 3.7 | 3.7 | 0.7 | 2.0 |
| Russian Federation | 3.8 | 3.6 | 6.0 | 6.1 | 1.9 | 2.3 | 0.2 | 0.1 |
| Ukraine | 1.7 | 1.5 | 2.3 | 2.1 | 0.4 | 0.4 | - | - |
| OCEANIA | 5.0 | 4.9 | 1.7 | 1.5 | 0.3 | 0.4 | 3.8 | 3.8 |
| Australia | 4.8 | 4.3 4.7 | 1.7 | 1.2 | 0.5 | U. 4 | 3.6 | 3.6 |
| Fiji | 0.2 | 0.2 | 0.1 | 0.1 | _ | 0.1 | 0.2 | 0.2 |
| | | | | | 4 | | | |
| WORLD | 151.1 | 156.3 | 160.8 | 162.6 | 47.5 | 53.1 | 47.5 | 53.3 |
| Developing countries | 113.7 | 117.2 | 112.8 | 115.4 | 31.6 | 37.2 | 40.6 | 45.0 |
| Developed countries | 37.3 | 39.1 | 48.0 | 47.2 | 15.8 | 16.0 | 6.9 | 8.3 |
| LIFDCs | 47.1 | 49.3 | 71.0 | 72.6 | 20.1 | 24.4 | 5.4 | 5.3 |
| LDCs | 3.5 | 3.8 | 6.7 | 7.0 | 4.9 | 5.0 | 1.8 | 2.0 |

Table A14. Total meat statistics¹ (thousand tonnes, carcass weight equivalent)

| | Produ | ıction | lmį | oorts | Exp | oorts | Utiliz | ation |
|---------------------------|----------------|--------------------|--------------------|-----------------------|--------------------|--------------------|----------------|---------------------------|
| | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 <i>f'cast</i> |
| ASIA | 116 896 | 119 825 | 11 340 | 11 512 | 3 259 | 3 382 | 124 977 | 127 954 |
| China | 77 028 | 79 102 | 3 051 | 3 276 | 1 528 | 1 569 | 78 551 | 80 809 |
| of which Hong Kong, SAR | 187 | 186 | 1 688 | 1 818 | 773 | 763 | 1 101 | 1 241 |
| India | 6 916 | 7 204 | 2 | 2 | 575 | 608 | 6 344 | 6 598 |
| Indonesia | 2 689 | 2 780 | 110 | 108 | 6 | 5 | 2 794 | 2 883 |
| Iran, Islamic Republic of | 2 371 | 2 448 | 176 | 176 | 27 | 27 | 2 521 | 2 597 |
| Japan | 3 205 | 3 199 | 2 610 | 2 649 | 17 | 18 | 5 798 | 5 830 |
| Korea, Republic of | 1 893 | 1 973 | 731 | 701 | 23 | 22 | 2 601 | 2 651 |
| Malaysia | 1 294 | 1 320 | 230 | 222 | 33 | 33 | 1 491 | 1 508 |
| Pakistan | 2 422 | 2 469 | 21 | 21 | 26 | 29 | 2 418 | 2 461 |
| Philippines | 2 706 | 2 738 | 248 | 236 | 15 | 16 | 2 939 | 2 958 |
| Saudi Arabia | 757 | 768 | 782 | 803 | 56 | 57 | 1 484 | 1 514 |
| Singapore | 114 | 117 | 268 | 264 | 26 | 23 | 356 | 358 |
| Thailand | 2 300 | 2 339 | 5 | 5 | 619 | 667 | 1 687 | 1 678 |
| Turkey | 1 944 | 1 958 | 92 | 97 | 122 | 115 | 1 914 | 1 940 |
| Viet Nam | 3 385 | 3 412 | 606 | 595 | 33 | 33 | 3 958 | 3 974 |
| AFRICA | 13 135 | 13 258 | 1 870 | 1 854 | 132 | 136 | 14 873 | 14 977 |
| Algeria | 614 | 619 | 87 | 86 | - | - | 701 | 706 |
| Angola | 140 | 140 | 367 | 373 | - | - | 506 | 513 |
| Egypt | 1 225 | 1 193 | 254 | 239 | 9 | 10 | 1 470 | 1 423 |
| Nigeria | 1 153 | 1 171 | 2 | 2 | - | - | 1 154 | 1 173 |
| South Africa | 2 154 | 2 155 | 287 | 290 | 38 | 38 | 2 403 | 2 407 |
| CENTRAL AMERICA | 8 249 | 8 354 | 2 379 | 2 420 | 318 | 339 | 10 310 | 10 435 |
| Cuba | 309 | 322 | 209 | 185 | - | - | 518 | 507 |
| Mexico | 5 627 | 5 671 | 1 677 | 1 722 | 136 | 151 | 7 168 | 7 241 |
| SOUTH AMERICA | 36 628 | 37 693 | 985 | 954 | 7 820 | 8 108 | 29 793 | 30 540 |
| Argentina | 5 081 | 5 207 | 41 | 45 | 836 | 627 | 4 287 | 4 624 |
| Brazil | 22 855 | 23 651 | 39 | 43 | 5 971 | 6 389 | 16 923 | 17 305 |
| Chile | 1 415 | 1 441 | 201 | 206 | 277 | 283 | 1 338 | 1 364 |
| Colombia | 2 140 | 2 154 | 56 | 54 | 109 | 113 | 2 087 | 2 095 |
| Uruguay | 742 | 777 | 14 | 14 | 384 | 427 | 373 | 364 |
| Venezuela | 1 390 | 1 394 | 571 | 530 | - | - | 1 961 | 1 924 |
| NORTH AMERICA | 46 410 | 46 403 | 2 384 | 2 484 | 8 243 | 7 925 | 40 551 | 40 963 |
| Canada | 4 430 | 4 369 | 652 | 734 | 1 664 | 1 685 | 3 418 | 3 419 |
| United States of America | 41 980 | 42 033 | 1 712 | 1 731 | 6 579 | 6 240 | 37 113 | 37 524 |
| EUROPE | 54 278 | 55 054 | 5 293 | 5 183 | 2 946 | 2 962 | 56 625 | 57 275 |
| Belarus | 907 | 932 | 62 | 66 | 182 | 176 | 788 | 822 |
| European Union | 42 803 | 43 225 | 1 748 | 1 771 | 2 590 | 2 619 | 41 962 | 42 377 |
| Russian Federation | 6 514 | 6 804 | 2 610 | 2 471 | 70 | 63 | 9 055 | 9 212 |
| Ukraine | 1 952 | 1 969 | 364 | 345 | 39 | 36 | 2 277 | 2 278 |
| OCEANIA | 5 885 | 5 856 | 360 | 366 | 2 550 | 2 522 | 3 695 | 3 700 |
| Australia | 3 997 | 3 957 | 179 | 179 | 1 673 | 1 640 | 2 503 | 2 496 |
| New Zealand | 1 404 | 1 408 | 50 | 53 | 874 | 880 | 580 | 581 |
| WORLD | 281 482 | 286 444 | 24 611 | 24 774 | 25 268 | 25 374 | 280 825 | 285 843 |
| Developing countries | 167 381 | 171 580 | 13 188 | 13 335 | 11 441 | 11 875 | 169 129 | 173 040 |
| Developed countries | 114 101 | 114 863 | 11 422 | 11 439 | 13 827 | 13 499 | 111 696 | 112 804 |
| LIFDCs | 105 733 | 108 489 | 3 849 | 3 912 | 1 702 | 1 790 | 107 881 | 110 611 |
| LDCs | 7 843 | 7 977 | 1 043 | 1 058 | 4 | 4 | 8 881 | 9 030 |

 $^{^{\}rm 1}$ Including "other meat".

 Table A15. Bovine meat statistics (thousand tonnes, carcass weight equivalent)

| | Produc | ction | Impo | orts | Exp | orts | Utiliza | ition |
|---------------------------|--------|--------|--------|--------|--|--------|---------|--------|
| | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 |
| | estim. | f'cast | estim. | f'cast | estim. | f'cast | estim. | f'cast |
| ASIA | 15 269 | 15 279 | 2 659 | 2 673 | 787 | 811 | 17 106 | 17 150 |
| China | 5 784 | 5 520 | 366 | 407 | 128 | 118 | 6 022 | 5 809 |
| India | 2 848 | 3 011 | 1 | 1 | 548 | 580 | 2 301 | 2 432 |
| Indonesia | 412 | 428 | 89 | 90 | 1 | 1 | 501 | 518 |
| Iran, Islamic Republic of | 370 | 370 | 116 | 120 | _ | _ | 485 | 490 |
| Japan | 517 | 510 | 689 | 694 | 7 | 6 | 1 196 | 1 199 |
| Korea, Republic of | 267 | 287 | 276 | 280 | 1 | 1 | 510 | 573 |
| Malaysia | 28 | 28 | 145 | 140 | 6 | 6 | 167 | 162 |
| Pakistan | 1 457 | 1 486 | 5 | 5 | 17 | 20 | 1 445 | 1 471 |
| Philippines | 280 | 285 | 118 | 100 | 6 | 7 | 391 | 379 |
| AFRICA | 4 790 | 4 807 | 566 | 542 | 71 | 72 | 5 285 | 5 276 |
| Algeria | 125 | 125 | 81 | 80 | '- | · - | 206 | 205 |
| Angola | 85 | 85 | 101 | 102 | _ | _ | 186 | 187 |
| Egypt | 370 | 335 | 197 | 200 | 5 | 5 | 562 | 530 |
| South Africa | 800 | 800 | 10 | 5 | 7 | 8 | 803 | 798 |
| | | | | | | | | |
| CENTRAL AMERICA | 2 403 | 2 460 | 448 | 444 | 192 | 203 | 2 659 | 2 700 |
| Mexico | 1 700 | 1 735 | 323 | 330 | 52 | 58 | 1 971 | 2 007 |
| SOUTH AMERICA | 15 378 | 15 708 | 381 | 350 | 2 787 | 2 686 | 12 971 | 13 372 |
| Argentina | 3 403 | 3 400 | 2 | 2 | 580 | 338 | 2 825 | 3 064 |
| Brazil | 8 935 | 9 205 | 31 | 35 | 1 510 | 1 585 | 7 456 | 7 655 |
| Chile | 240 | 240 | 154 | 156 | 11 | 11 | 383 | 385 |
| Colombia | 930 | 940 | 2 | 2 | 106 | 110 | 826 | 832 |
| Uruguay | 590 | 615 | 2 | 2 | 345 | 382 | 247 | 235 |
| Venezuela | 385 | 380 | 180 | 143 | - | - | 565 | 523 |
| NORTH AMERICA | 13 211 | 13 085 | 1 367 | 1 422 | 1 357 | 1 454 | 13 244 | 13 112 |
| Canada | 1 245 | 1 215 | 240 | 281 | 448 | 457 | 1 037 | 1 039 |
| United States of America | 11 966 | 11 870 | 1 123 | 1 137 | 909 | 997 | 12 203 | 12 069 |
| EUROPE | 10 889 | 10 829 | 1 456 | 1 473 | 338 | 344 | 12 007 | 11 958 |
| European Union | 7 888 | 7 840 | 495 | 500 | 148 | 150 | 8 235 | 8 190 |
| Russian Federation | 1 728 | 1 695 | 835 | 844 | 37 | 33 | 2 526 | 2 506 |
| Ukraine | 450 | 450 | 13 | 12 | 19 | 21 | 443 | 441 |
| OCEANIA | 2 735 | 2 705 | 47 | 47 | 1 726 | 1 710 | 1 056 | 1 042 |
| Australia | 2 101 | 2 076 | 9 | 10 | 1 255 | 1 242 | 856 | 844 |
| New Zealand | 615 | 610 | 9 | 8 | 470 | 466 | 155 | 152 |
| WORLD | 64 675 | 64 874 | 6 924 | 6 951 | 7 259 | 7 281 | 64 328 | 64 611 |
| Developing countries | 35 461 | 35 867 | 3 207 | 3 170 | 3 821 | 3 758 | 34 815 | 35 285 |
| Developing countries | 29 214 | 29 007 | 3 717 | 3 782 | 3 438 | 3 523 | 29 513 | 29 326 |
| LIFDCs | 16 647 | 16 673 | 782 | 765 | 865 | 893 | 16 565 | 16 545 |
| LDCs | 2 845 | 2 896 | 154 | 150 | 2 | 2 | 2 996 | 3 043 |
| LD (3 | 2 043 | 2 030 | 1 34 | 150 | | | 2 330 | 2 042 |

 Table A16. Ovine meat statistics (thousand tonnes, carcass weight equivalent)

| | Prod | uction | lmp | oorts | Exp | orts | Utilia | zation |
|---------------------------|----------------|---------------------------|--------------------|--------------------|--------------------|---------------------------|----------------|---------------------------|
| | 2009 estim. | 2010 <i>f'cast</i> | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 <i>f'cast</i> | 2009 estim. | 2010 <i>f'cast</i> |
| ASIA | 7 623 | 7 690 | 331 | 343 | 49 | 49 | 7 904 | 7 985 |
| Bangladesh | 220 | 225 | 331 | 343 | - | - | 220 | 225 |
| China | 3 804 | 3 804 | 102 | 106 | 15 | 13 | 3 891 | 3 898 |
| India | 800 | 820 | - | - | 20 | 21 | 780 | 799 |
| Iran, Islamic Republic of | 500 | 502 | _ | _ | - | | 500 | 502 |
| Pakistan | 435 | 450 | _ | _ | 8 | 8 | 428 | 442 |
| Saudi Arabia | 98 | 97 | 65 | 65 | 5 | 5 | 158 | 157 |
| Syria | 225 | 230 | - | - | _ | - | 225 | 230 |
| Turkey | 318 | 320 | 1 | 1 | - | - | 319 | 321 |
| AFRICA | 2 230 | 2 252 | 47 | 45 | 15 | 15 | 2 262 | 2 282 |
| Algeria | 208 | 210 | 5 | 5 | - | - | 212 | 215 |
| Nigeria | 258 | 264 | - | - | - | - | 258 | 264 |
| South Africa | 157 | 158 | 12 | 10 | 1 | 1 | 169 | 167 |
| Sudan | 334 | 334 | - | - | 1 | 1 | 333 | 333 |
| CENTRAL AMERICA | 122 | 123 | 35 | 30 | - | - | 157 | 153 |
| Mexico | 97 | 97 | 21 | 16 | - | - | 118 | 113 |
| SOUTH AMERICA | 332 | 340 | 7 | 7 | 36 | 43 | 303 | 304 |
| Brazil | 110 | 111 | 7 | 7 | - | - | 117 | 117 |
| NORTH AMERICA | 123 | 124 | 104 | 98 | 9 | 9 | 218 | 213 |
| United States of America | 107 | 109 | 81 | 75 | 8 | 9 | 180 | 175 |
| EUROPE | 1 325 | 1 311 | 300 | 292 | 16 | 15 | 1 609 | 1 587 |
| European Union | 1 030 | 1 009 | 280 | 274 | 10 | 9 | 1 300 | 1 274 |
| Russian Federation | 180 | 185 | 10 | 8 | - | - | 190 | 193 |
| OCEANIA | 1 229 | 1 213 | 41 | 41 | 707 | 698 | 563 | 556 |
| Australia | 678 | 654 | - | 1 | 335 | 318 | 343 | 337 |
| New Zealand | 550 | 558 | 5 | 4 | 372 | 380 | 183 | 182 |
| WORLD | 12 985 | 13 054 | 864 | 856 | 832 | 830 | 13 016 | 13 080 |
| Developing countries | 9 695 | 9 786 | 417 | 425 | 100 | 106 | 10 011 | 10 104 |
| Developed countries | 3 290 | 3 268 | 447 | 431 | 732 | 723 | 3 005 | 2 975 |
| LIFDCs | 7 996 | 8 063 | 115 | 125 | 39 | 41 | 8 072 | 8 146 |
| LDCs | 1 459 | 1 469 | 7 | 7 | 1 | 1 | 1 465 | 1 475 |

 Table A17. Pigmeat statistics (thousand tonnes, carcass weight equivalent)

| | Prod | uction | Imp | oorts | Ex | ports | Utilia | zation |
|--------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 2009 estim. | 2010 f'cast |
| ASIA | 59 852 | 61 685 | 2 603 | 2 712 | 505 | 478 | 62 025 | 63 925 |
| China | 49 886 | 51 594 | 787 | 900 | 423 | 403 | 50 249 | 52 091 |
| of which Hong Kong, SAR | 125 | 123 | 546 | 628 | 185 | 160 | 486 | 591 |
| India | 500 | 500 | 1 | 1 | 3 | 3 | 498 | 498 |
| Indonesia | 650 | 670 | 1 | 1 | 1 | 1 | 650 | 671 |
| Japan | 1 310 | 1 300 | 1 085 | 1 096 | 1 | 1 | 2 414 | 2 403 |
| Korea, D.P.R. | 172 | 173 | 4 | 4 | - | - | 176 | 177 |
| Korea, Republic of | 1 062 | 1 100 | 366 | 329 | 8 | 6 | 1 474 | 1 423 |
| Malaysia | 190 | 190 | 21 | 23 | 7 | 5 | 204 | 208 |
| Philippines | 1 606 | 1 630 | 54 | 60 | 2 | 2 | 1 658 | 1 688 |
| Thailand | 865 | 865 | - | 1 | 16 | 16 | 850 | 850 |
| Viet Nam | 2 578 | 2 600 | 45 | 50 | 33 | 33 | 2 590 | 2 617 |
| AFRICA | 877 | 891 | 162 | 170 | 11 | 12 | 1 027 | 1 049 |
| Madagascar | 80 | 82 | - | - | _ | - | 80 | 83 |
| Nigeria | 222 | 225 | - | - | - | - | 222 | 225 |
| South Africa | 145 | 145 | 33 | 35 | 4 | 4 | 174 | 176 |
| Uganda | 65 | 65 | - | - | - | - | 65 | 65 |
| CENTRAL AMERICA | 1 691 | 1 712 | 710 | 739 | 88 | 97 | 2 313 | 2 354 |
| Cuba | 200 | 210 | 25 | 25 | - | - | 225 | 235 |
| Mexico | 1 162 | 1 166 | 574 | 596 | 72 | 82 | 1 664 | 1 680 |
| SOUTH AMERICA | 4 860 | 5 008 | 82 | 88 | 856 | 942 | 4 085 | 4 153 |
| Argentina | 230 | 230 | 32 | 36 | 2 | 2 | 261 | 264 |
| Brazil | 3 130 | 3 250 | 1 | 1 | 714 | 797 | 2 417 | 2 454 |
| Chile | 528 | 535 | 7 | 5 | 140 | 143 | 394 | 397 |
| Colombia | 165 | 165 | 9 | 7 | - | - | 174 | 172 |
| Venezuela | 160 | 165 | 11 | 17 | - | - | 171 | 182 |
| NORTH AMERICA | 12 250 | 11 896 | 604 | 634 | 2 751 | 2 854 | 10 099 | 9 676 |
| Canada | 1 945 | 1 890 | 182 | 210 | 1 016 | 1 022 | 1 111 | 1 078 |
| United States of America | 10 305 | 10 006 | 416 | 419 | 1 735 | 1 832 | 8 982 | 8 593 |
| EUROPE | 25 997 | 26 473 | 1 131 | 1 136 | 1 508 | 1 536 | 25 619 | 26 073 |
| Belarus | 380 | 385 | 30 | 35 | 45 | 40 | 365 | 380 |
| European Union | 21 729 | 22 164 | 38 | 50 | 1 414 | 1 450 | 20 353 | 20 764 |
| Russian Federation | 2 181 | 2 231 | 760 | 729 | 25 | 21 | 2 916 | 2 939 |
| Serbia | 620 | 620 | 15 | 16 | 6 | 6 | 628 | 629 |
| Ukraine | 590 | 570 | 156 | 167 | - | - | 746 | 737 |
| OCEANIA | 469 | 471 | 212 | 216 | 35 | 28 | 646 | 659 |
| Australia | 326 | 327 | 164 | 163 | 35 | 28 | 455 | 462 |
| Papua New Guinea | 70 | 70 | 3 | 4 | - | - | 73 | 74 |
| WORLD | 105 995 | 108 135 | 5 504 | 5 694 | 5 755 | 5 947 | 105 814 | 107 888 |
| Developing countries | 65 620 | 67 643 | 2 367 | 2 503 | 1 456 | 1 523 | 66 585 | 68 622 |
| Developed countries | 40 375 | 40 493 | 3 138 | 3 191 | 4 300 | 4 424 | 39 229 | 39 267 |
| LIFDCs | 53 398 | 55 180 | 510 | 563 | 301 | 299 | 53 607 | 55 444 |
| LDCs | 1 162 | 1 196 | 107 | 113 | - | - | 1 268 | 1 309 |

 Table A18. Poultry meat statistics (thousand tonnes, carcass weight equivalent)

| | Produ | uction | lmį | oorts | Exp | oorts | Utiliz | ation |
|---------------------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|
| | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 f'cast | 2009 estim. | 2010 f'cast |
| ASIA | 32 243 | 33 244 | 5 705 | 5 741 | 1 885 | 2 011 | 36 063 | 36 974 |
| China | 16 148 | 16 767 | 1 790 | 1 857 | 944 | 1 018 | 16 994 | 17 606 |
| of which Hong Kong, SAR | 44 | 45 | 891 | 916 | 518 | 530 | 417 | 431 |
| India | 2 624 | 2 726 | - | - | 3 | 3 | 2 621 | 2 723 |
| Indonesia | 1 490 | 1 540 | 15 | 12 | - | - | 1 505 | 1 552 |
| Iran, Islamic Republic of | 1 485 | 1 560 | 60 | 55 | 26 | 26 | 1 519 | 1 589 |
| Japan | 1 366 | 1 377 | 797 | 820 | 9 | 11 | 2 154 | 2 186 |
| Korea, Republic of | 553 | 575 | 78 | 81 | 13 | 15 | 618 | 641 |
| Kuwait | 44 | 44 | 280 | 285 | 2 | 2 | 322 | 327 |
| Malaysia | 1 075 | 1 100 | 45 | 40 | 19 | 22 | 1 101 | 1 118 |
| Saudi Arabia | 580 | 590 | 620 | 635 | 40 | 41 | 1 160 | 1 184 |
| Singapore | 89 | 90 | 119 | 110 | 8 | 7 | 200 | 193 |
| Thailand | 1 134 | 1 171 | 1 | 1 | 596 | 643 | 539 | 529 |
| Turkey | 1 250 | 1 260 | 90 | 95 | 117 | 110 | 1 223 | 1 245 |
| Yemen | 115 | 120 | 140 | 150 | - | - | 255 | 270 |
| AFRICA | 3 852 | 3 893 | 1 065 | 1 067 | 27 | 28 | 4 890 | 4 933 |
| Angola | 8 | 8 | 190 | 190 | - | - | 198 | 198 |
| South Africa | 1 030 | 1 030 | 232 | 240 | 20 | 20 | 1 242 | 1 250 |
| CENTRAL AMERICA | 3 914 | 3 938 | 1 166 | 1 187 | 36 | 37 | 5 043 | 5 087 |
| Cuba | 33 | 34 | 170 | 150 | - | - | 203 | 184 |
| Mexico | 2 567 | 2 570 | 743 | 765 | 11 | 11 | 3 299 | 3 324 |
| SOUTH AMERICA | 15 820 | 16 396 | 514 | 509 | 4 074 | 4 370 | 12 261 | 12 535 |
| Argentina | 1 263 | 1 389 | 7 | 7 | 214 | 246 | 1 055 | 1 150 |
| Brazil | 10 650 | 11 055 | 1 | 1 | 3 724 | 3 984 | 6 926 | 7 072 |
| Chile | 620 | 640 | 39 | 45 | 118 | 122 | 541 | 563 |
| Venezuela | 837 | 840 | 380 | 370 | - | - | 1 217 | 1 210 |
| NORTH AMERICA | 20 578 | 21 048 | 299 | 320 | 4 089 | 3 570 | 16 836 | 17 815 |
| Canada | 1 202 | 1 227 | 204 | 217 | 181 | 187 | 1 224 | 1 257 |
| United States of America | 19 376 | 19 821 | 85 | 92 | 3 907 | 3 383 | 15 601 | 16 548 |
| EUROPE | 14 873 | 15 248 | 2 246 | 2 122 | 999 | 981 | 16 121 | 16 389 |
| European Union | 11 114 | 11 170 | 835 | 847 | 936 | 928 | 11 013 | 11 089 |
| Russian Federation | 2 336 | 2 605 | 964 | 848 | 7 | 8 | 3 293 | 3 445 |
| Ukraine | 864 | 900 | 195 | 165 | 19 | 14 | 1 040 | 1 051 |
| OCEANIA | 1 044 | 1 052 | 56 | 58 | 40 | 44 | 1 059 | 1 066 |
| Australia | 871 | 878 | 4 | 4 | 34 | 37 | 840 | 845 |
| New Zealand | 147 | 147 | 1 | 1 | 6 | 7 | 141 | 141 |
| WORLD | 92 325 | 94 819 | 11 051 | 11 004 | 11 149 | 11 041 | 92 273 | 94 799 |
| Developing countries | 52 736 | 54 359 | 7 118 | 7 156 | 5 960 | 6 381 | 53 893 | 55 132 |
| Developed countries | 39 589 | 40 461 | 3 933 | 3 848 | 5 189 | 4 660 | 38 380 | 39 667 |
| LIFDCs | 24 476 | 25 311 | 2 405 | 2 421 | 466 | 524 | 26 415 | 27 208 |
| LDCs | 1 758 | 1 782 | 751 | 763 | - | - | 2 509 | 2 544 |

Table A19. Milk and milk products statistics (million tonnes, milk equivalent)

| | Р | roduction | | | Imports | | | Exports | |
|---|-----------|-----------|--------|------------|------------|------------|------------|------------|--------------------|
| | 2006-2008 | 2009 | 2010 | 2006-2008 | 2009 | 2010 | 2006-2008 | 2009 | 2010 |
| | average | | | average | | | average | | <i>a</i> . |
| | | estim. | f'cast | | estim. | f'cast | | estim. | f'cast |
| ASIA | 238.7 | 251.5 | 262.6 | 19.6 | 21.6 | 22.4 | 5.3 | 4.8 | 4.6 |
| China | 39.2 | 39.4 | 41.8 | 2.1 | 3.3 | 3.0 | 0.5 | 0.2 | 0.2 |
| India ¹ | 103.9 | 112.3 | 119.0 | 0.1 | 0.2 | 0.2 | 0.5 | 0.5 | 0.6 |
| Indonesia | 0.9 | 0.9 | 0.9 | 1.5 | 1.4 | 1.5 | 0.3 | 0.2 | 0.2 |
| Iran, Islamic Republic of | 7.6 | 7.7 | 7.7 | 0.3 | 0.4 | 0.5 | - | - | 0.1 |
| Japan | 8.0 | 7.9 | 7.9 | 1.4 | 1.2 | 1.2 | - | - | - |
| Korea, Republic of | 2.2 | 2.1 | 2.1 | 0.3 | 0.4 | 0.3 | - | - | - |
| Malaysia | - | 0.1 | 0.1 | 1.2 | 1.0 | 1.5 | 0.4 | 0.3 | 0.2 |
| Pakistan | 32.2 | 34.3 | 35.3 | 0.2 | 0.1 | 0.1 | - 0.3 | - 0.2 | - |
| Philippines | 1.0 | 1.0 | 2.0 | 1.2 2.1 | 1.4 | 1.2 | 0.3 | 0.2 | - 1.2 |
| Saudi Arabia Singapore | 1.8 | 1.9 | 2.0 | 1.2 | 2.2 1.3 | 2.3 1.1 | 1.3 0.7 | 1.3 0.6 | 1.3 0.6 |
| Thailand | 0.8 | 0.8 | 0.8 | 0.8 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 |
| Turkey | 12.2 | 12.2 | 12.2 | 0.8 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 |
| • | | | | | | | | 0.1 | |
| AFRICA | 35.4 | 36.7 | 36.7 | 6.8 | 6.9 | 7.0 | 0.7 | 1.0 | 1.0 |
| Algeria | 2.0 | 2.0 | 2.0 | 2.1 | 2.4 | 2.3 | 0.7 | 1.0 | 1.0 |
| Egypt | 5.5 | 6.3 | 6.3 | 0.5 | 0.7 | 0.7 | 0.3 | 0.6 | 0.6 |
| Kenya | 4.1 | 4.0 | 3.9 | - | - | | - | - | - |
| South Africa | 3.0 | 3.0 | 3.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Sudan | 7.4 | 7.5 | 7.4 | 0.3 | 0.3 | 0.3 | - | - | - |
| Tunisia | 1.0 | 1.1 | 1.1 | 0.1 | 0.1 | 0.1 | 0.1 | - | - |
| CENTRAL AMERICA | 15.4 | 16.2 | 16.4 | 4.0 | 3.9 | 3.8 | 0.4 | 0.4 | 0.4 |
| Costa Rica | 0.9 | 0.9 | 0.9 | | - | - | 0.1 | | - |
| Mexico | 10.6 | 11.1 | 11.4 | 2.1 | 2.3 | 2.4 | 0.1 | 0.1 | 0.1 |
| SOUTH AMERICA | 57.5 | 59.4 | 60.2 | 1.6 | 2.0 | 1.7 | 3.1 | 3.1 | 2.8 |
| Argentina | 10.2 | 10.4 | 10.7 | - | - | - | 1.5 | 1.6 | 1.4 |
| Brazil | 27.1 | 28.9 | 29.0 | 0.3 | 0.6 | 0.5 | 0.5 | 0.2 | 0.2 |
| Colombia | 7.0 | 6.6 | 6.6 | - | - | - | 0.1 | - | - |
| Uruguay | 1.7 | 1.8 | 1.9 | - | - | - | 0.6 | 8.0 | 0.7 |
| Venezuela | 1.6 | 1.7 | 1.6 | 0.9 | 1.0 | 8.0 | - | - | - |
| NORTH AMERICA | 92.5 | 94.0 | 94.3 | 2.4 | 2.0 | 2.1 | 3.7 | 3.0 | 3.4 |
| Canada | 8.2 | 8.2 | 8.3 | 0.5 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| United States of America | 84.3 | 85.8 | 86.0 | 1.9 | 1.7 | 1.7 | 3.5 | 2.9 | 3.2 |
| EUROPE | 215.1 | 215.5 | 216.0 | 4.7 | 4.6 | 4.9 | 12.8 | 13.3 | 13.6 |
| Belarus | 6.0 | 6.4 | 6.5 | - | - | _ | 1.7 | 2.2 | 2.2 |
| European Union | 150.8 | 154.0 | 154.4 | 1.4 | 1.3 | 1.2 | 9.5 | 9.5 | 9.9 |
| Russian Federation | 32.0 | 32.4 | 32.7 | 2.5 | 2.4 | 2.7 | 0.2 | 0.2 | 0.2 |
| Ukraine | 12.4 | 11.5 | 11.2 | 0.1 | 0.2 | 0.3 | 1.0 | 0.6 | 0.6 |
| OCEANIA | 25.0 | 26.1 | 25.7 | 0.7 | 0.8 | 0.8 | 13.7 | 16.3 | 16.9 |
| Australia ² | 9.6 | 9.4 | 8.8 | 0.5 | 0.5 | 0.6 | 3.5 | 3.5 | 3.4 |
| New Zealand ³ | 15.3 | 16.7 | 16.8 | 0.1 | 0.1 | 0.1 | 10.3 | 12.8 | 13.5 |
| WORLD | 679.5 | 699.5 | 711.9 | 39.7 | 41.8 | 42.6 | 39.8 | 41.9 | 42.7 |
| Developing countries | 318.8 | 334.5 | 346.1 | 29.9 | 32.4 | 32.8 | 9.3 | 9.1 | 42.7 8.6 |
| Developing countries Developed countries | 360.7 | 365.0 | 365.9 | 9.8 | 9.4 | 9.8 | 30.5 | 32.8 | 34.2 |
| LIFDCs | 239.7 | 253.8 | 264.7 | 10.8 | 12.3 | 12.4 | 4.1 | 4.6 | 4.4 |
| | | | | | | | | | |
| LDCs | 24.3 | 25.1 | 25.2 | 2.7 | 2.7 | 2.8 | 0.1 | 0.1 | 0.1 |

¹ Dairy years starting April of the year stated (production only).

³ Dairy years ending May of the year stated (production only).

Note: Trade figures refer to the milk equivalent trade in the following products: butter (6.60), cheese (4.40), milk powder (7.60), skim condensed/evaporated milk (1.90), whole condensed/evaporated milk (2.10), yoghurt (1.0), cream (3.60), casein (7.40), skim milk (0.70). The conversion factors cited refer to the solids content method. Refer to IDF Bulletin No. 390 (March 2004).

² Dairy years ending June of the year stated (production only).

Table A20. Fish and fishery products statistics ¹

| | | fisheries uction | Aquacultu produ | re fisheries uction | | Exports | | | Imports | |
|--|--------------|---------------------|--------------------|------------------------|-------------------|-------------------|-------------------|-------------|-------------|-------------------|
| • | 2007 | 2008 | 2007 | 2008 | 2007 | 2008 | 2009 estim. | 2007 | 2008 | 2009 estim. |
| | Million | tonnes (liv | e weight eq | uivalent) | | USD billion | | | USD billion | |
| ASIA | 46.3 | 46.9 | 44.2 | 46.7 | 31.4 | 35.4 | 34.3 | 29.5 | 32.8 | 31.0 |
| China ² | 16.0 | 16.0 | 31.7 | 33.1 | 11.3 | 12.6 | 12.3 | 7.4 | 8.4 | 8.3 |
| of which: Hong Kong SAR | 0.2 | 0.2 | - | - | 0.4 | 0.5 | 0.4 | 2.2 | 2.4 | 2.5 |
| Taiwan Prov. | 1.2 | 1.0 | 0.3 | 0.3 | 1.6 | 2.0 | 1.6 | 0.6 | 0.7 | 0.8 |
| India | 3.9 | 4.1 | 3.1 | 3.5 | 1.7 | 1.6 | 1.6 | - | 0.1 | 0.1 |
| Indonesia | 5.1 | 5.0 | 1.4 | 1.7 | 2.1 | 2.5 | 2.3 | 0.1 | 0.2 | 0.2 |
| Japan | 4.3 | 4.2 | 8.0 | 0.7 | 1.7 | 1.6 | 1.6 | 13.2 | 14.4 | 13.2 |
| Korea, Rep. of | 1.9 | 1.9 | 0.6 | 0.5 | 1.1 | 1.3 | 1.3 | 3.1 | 2.9 | 2.7 |
| Philippines | 2.5 | 2.6 | 0.7 | 0.7 | 0.5 | 0.6 | 0.6 | 0.1 | 0.1 | 0.2 |
| Thailand | 2.3 | 2.5 | 1.4 | 1.4 | 5.7 | 6.5 | 6.2 | 1.7 | 2.4 | 2.0 |
| Viet Nam | 2.0 | 2.1 | 2.1 | 2.5 | 3.8 | 4.6 | 4.7 | 0.4 | 0.5 | 0.5 |
| AFRICA | 7.2 | 7.2 | 0.8 | 0.9 | 4.5 | 4.8 | 4.5 | 2.4 | 2.8 | 2.9 |
| Ghana | 0.3 | 0.3 | - | - | 0.1 | - | - | 0.2 | 0.1 | 0.1 |
| Morocco | 0.9 | 1.0 | - | - | 1.4 | 1.6 | 1.5 | 0.1 | 0.1 | 0.1 |
| Namibia | 0.4 | 0.4 | - | - | 0.5 | 0.5 | 0.6 | - | - | - |
| Nigeria | 0.5 | 0.5 | 0.1 | 0.1 | - | 0.1 | 0.1 | 0.5 | 0.6 | 0.6 |
| Senegal | 0.4 | 0.4 | - | - | 0.3 | 0.2 | 0.2 | - | - | - |
| South Africa | 0.7 | 0.6 | - | - | 0.5 | 0.5 | 0.4 | 0.2 | 0.2 | 0.3 |
| CENTRAL AMERICA | 2.0 | 2.1 | 0.3 | 0.3 | 2.0 | 2.1 | 2.0 | 1.1 | 1.2 | 1.0 |
| Mexico | 1.5 | 1.6 | 0.3 | 0.3 | 0.8 | 0.8 | 0.8 | 0.5 | 0.6 | 0.4 |
| Panama | 0.2 | 0.2 | - | - | 0.4 | 0.4 | 0.4 | - | - | - |
| | | 0.2 | | | 0.4 | 0.4 | 0.4 | | | |
| SOUTH AMERICA | 13.9 | 13.8 | 1.4 | 1.4 | 9.1 | 10.4 | 9.4 | 1.4 | 2.0 | 2.0 |
| Argentina | 1.0 | 1.0 | - | - | 1.1 | 1.3 | 1.1 | 0.1 | 0.1 | 0.1 |
| Brazil | 8.0 | 8.0 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.6 | 0.7 | 0.7 |
| Chile | 3.8 | 3.6 | 8.0 | 8.0 | 3.7 | 4.0 | 3.6 | 0.2 | 0.3 | 0.1 |
| Ecuador | 0.4 | 0.4 | 0.2 | 0.2 | 1.4 | 1.8 | 1.6 | 0.1 | 0.2 | 0.2 |
| Peru | 7.2 | 7.4 | - | - | 2.0 | 2.4 | 2.2 | - | 0.1 | 0.1 |
| NORTH AMERICA | 6.0 | 5.5 | 0.7 | 0.6 | 8.4 | 8.3 | 7.5 | 15.6 | 16.2 | 15.1 |
| Canada | 1.0 | 0.9 | 0.2 | 0.1 | 3.7 | 3.7 | 3.3 | 2.0 | 2.0 | 2.0 |
| United States of America | 4.8 | 4.3 | 0.5 | 0.5 | 4.4 | 4.4 | 4.0 | 13.6 | 14.1 | 13.1 |
| EUROPE | 13.2 | 13.0 | 2.4 | 2.3 | 35.9 | 38.9 | 34.8 | 46.8 | 51.6 | 45.3 |
| European Union ² | 5.2 | 5.1 | 1.3 | 1.3 | 24.3 | 26.2 | 23.4 | 41.9 | 45.4 | 40.5 |
| Iceland | 1.4 | 1.3 | - | - | 2.0 | 2.0 | 1.7 | 0.1 | 0.1 | 0.1 |
| Norway | 2.4 | 2.4 | 0.8 | 0.8 | 6.2 | 7.0 | 6.9 | 1.1 | 1.2 | 1.2 |
| Russian Federation | 3.5 | 3.4 | 0.1 | 0.1 | 2.4 | 2.6 | 1.7 | 2.0 | 2.8 | 1.8 |
| OCEANIA | 1.3 | 4 4 | 0.2 | 0.2 | 2.2 | 2.2 | 2.4 | 4.3 | 1.3 | 1.3 |
| Australia | 0.2 | 1.1 0.2 | 0.2 0.1 | 0.2 0.1 | 2.3 0.9 | 2.3 0.9 | 2.1 0.8 | 1.3 | 1.3 | 1.3 1.1 |
| New Zealand | 0.2 | 0.2 | 0.1 | 0.1 | 0.9 | 1.0 | 0.8 | 1.1 0.1 | 1.1 0.1 | 0.1 |
| | | | | | | | | | | |
| WORLD ³ | 89.9 | 89.7 | 49.9 | 52.5 | 93.5 | 102.2 | 94.5 | 98.1 | 108.0 | 98.6 |
| Developing countries Developed countries | 65.6 | 66.3 | 45.9 | 48.7 | 45.7 47.9 | 51.5 50.7 | 48.9 | 21.3 | 24.5 | 23.8 |
| LIFDCs | 24.2 35.4 | 23.4 35.9 | 4.0 | 3.9 41.0 | 47.8 18.1 | 50.7 19.7 | 45.6 | 76.8 6.9 | 83.4 8.1 | 74.9 8.1 |
| LDCs | 35.4 7.9 | 35.9 8.1 | 38.8 1.8 | 1.9 | 2.5 | 2.7 | 19.4 2.7 | 0.9 | 0.9 | 0.9 |
| LDC3 | 1.5 | 0.1 | 1.0 | 1.9 | ۷.۶ | 2.1 | 4.1 | 0.3 | 0.5 | 0.3 |

Production and trade data exclude whales, seals, other aquatic mammals and aquatic plants. Trade data include fish meal and fish oil.
 Including intra-trade. Cyprus is included in the European Union as well as in Asia.
 For capture fisheries production, the aggregate includes also 63 346 tonnes in 2007 and 59 408 tonnes in 2008 of not identified countries, data not included in any other aggregates.

Table A21. Selected international prices of wheat and coarse grains (USD/tonne)

| | | Wheat | | Mai | ze | Sorghum |
|--------------------|--|--|--------------------------|------------------------------|------------------------|------------------------------|
| Period | US No. 2 Hard Red Winter Ord. Prot. ¹ | US Soft Red Winter No. 2 ² | Argentina Trigo Pan ³ | US No. 2 Yellow ² | Argentina ³ | US No. 2 Yellow ² |
| Annual (July/June) | | | | | | |
| 2004/05 | 154 | 138 | 123 | 97 | 90 | 99 |
| 2005/06 | 175 | 138 | 138 | 104 | 101 | 109 |
| 2006/07 | 212 | 176 | 188 | 150 | 145 | 155 |
| 2007/08 | 361 | 311 | 322 | 200 | 192 | 206 |
| 2008/09 | 270 | 201 | 234 | 188 | 180 | 170 |
| Monthly | | | | | | |
| 2009 – May | 265 | 201 | 210 | 180 | 186 | 167 |
| 2009 – June | 263 | 201 | 228 | 177 | 185 | 167 |
| 2009 – July | 232 | 175 | 234 | 151 | 164 | 145 |
| 2009 – August | 218 | 161 | 229 | 153 | 166 | 154 |
| 2009 – September | 200 | 158 | 208 | 152 | 163 | 152 |
| 2009 – October | 212 | 175 | 214 | 168 | 175 | 174 |
| 2009 – November | 227 | 204 | 214 | 172 | 175 | 182 |
| 2009 – December | 221 | 207 | 240 | 166 | 177 | 182 |
| 2010 – January | 213 | 197 | 236 | 167 | 177 | 177 |
| 2010 – February | 207 | 192 | 221 | 162 | 164 | 169 |
| 2010 – March | 204 | 191 | 211 | 158 | 160 | 167 |
| 2010 – April | 200 | 187 | 228 | 156 | 161 | 160 |
| 2010 – May | 196 | 190 | 244 | 163 | 170 | 164 |

¹ Delivered United States f.o.b. Gulf

Sources: International Grain Council and USDA

² Delivered United States Gulf

³ Up River f.o.b.

Table A22. Wheat and maize futures prices (USD/tonne)

| | | July | Sep | tember | De | ecember | r | March | |
|----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|--|
| | July 2010 | July 2009 | Sept 2010 | Sept 2009 | Dec 2010 | Dec 2009 | Mar 2011 | Mar 2010 | |
| Wheat | | | | | | | | | |
| April 12 | 177 | 196 | 183 | 206 | 193 | 215 | 203 | 220 | |
| April 19 | 176 | 190 | 182 | 200 | 193 | 208 | 203 | 214 | |
| April 26 | 179 | 191 | 185 | 201 | 195 | 209 | 205 | 215 | |
| May 4 | 188 | 202 | 193 | 212 | 203 | 220 | 213 | 226 | |
| May 11 | 181 | 217 | 187 | 227 | 198 | 235 | 208 | 240 | |
| May 18 | 172 | 217 | 178 | 227 | 190 | 235 | 200 | 240 | |
| May 25 | 169 | 225 | 176 | 234 | 187 | 243 | 198 | 249 | |
| Maize | | | | | | | | | |
| April 12 | 142 | 156 | 146 | 160 | 150 | 165 | 155 | 170 | |
| April 19 | 141 | 149 | 145 | 153 | 149 | 157 | 154 | 162 | |
| April 26 | 142 | 150 | 145 | 154 | 148 | 158 | 153 | 163 | |
| May 4 | 145 | 160 | 149 | 163 | 152 | 168 | 157 | 172 | |
| May 11 | 148 | 166 | 151 | 169 | 155 | 173 | 160 | 177 | |
| May 18 | 142 | 166 | 145 | 170 | 149 | 174 | 154 | 178 | |
| May 25 | 143 | 168 | 146 | 172 | 151 | 177 | 156 | 181 | |

Source: Chicago Board of Trade (CBOT)

Table A23. Selected international prices for rice and price indices

| | Inter | national price | s (USD per to | nne) | | FAO indices (2002-2004=100) | | | | |
|------------------|--------------|------------------|-------------------------------|---------------------|-------|-----------------------------|----------------|----------|----------|--|
| | | | | | | Ind | ica | | | |
| Period | Thai 100% B¹ | Thai broken ² | US long grain ³ | Pakisan Basmati⁴ | Total | High quanlity | Low quality | Japonica | Aromatic | |
| Annual (Jan/Dec) | | | | | | | | | | |
| 2006 | 311 | 217 | 394 | 516 | 137 | 135 | 129 | 153 | 117 | |
| 2007 | 335 | 275 | 436 | 677 | 161 | 156 | 159 | 168 | 157 | |
| 2008 | 695 | 506 | 782 | 1077 | 295 | 296 | 289 | 314 | 251 | |
| 2009 | 587 | 329 | 545 | 937 | 253 | 229 | 197 | 341 | 232 | |
| Monthly | | | | | | | | | | |
| 2009 – May | 559 | 316 | 544 | 1060 | 251 | 224 | 195 | 341 | 236 | |
| 2008 – June | 581 | 320 | 537 | 1100 | 252 | 225 | 189 | 344 | 243 | |
| 2009 – July | 586 | 323 | 530 | 1100 | 251 | 227 | 189 | 338 | 247 | |
| 2009 – August | 565 | 310 | 544 | 1100 | 251 | 223 | 190 | 339 | 253 | |
| 2009 – September | 560 | 307 | 532 | 838 | 232 | 221 | 185 | 288 | 234 | |
| 2009 – October | 535 | 303 | 504 | 750 | 232 | 213 | 182 | 304 | 228 | |
| 2009 – November | 558 | 338 | 528 | 750 | 241 | 227 | 207 | 295 | 227 | |
| 2009 – December | 618 | 394 | 544 | 750 | 249 | 238 | 234 | 283 | 224 | |
| 2010 – January | 601 | 426 | 542 | 830 | 251 | 232 | 237 | 289 | 232 | |
| 2010 – February | 576 | 410 | 590 | 865 | 242 | 227 | 218 | 283 | 231 | |
| 2010 – March | 543 | 388 | 522 | 880 | 219 | 213 | 205 | 235 | 232 | |
| 2010 – April | 500 | 341 | 510 | 856 | 204 | 197 | 185 | 221 | 230 | |
| 2010 – May | 475 | 322 | 485 | 760 | 201 | 192 | 181 | 223 | 221 | |

¹ White rice, 100 percent second grade, f.o.b. Bangkok, indicative traded prices.

Note: The FAO Rice Price Index is based on 16 rice export quotations. 'Quality' is defined by the percentage of broken kernels, with high (low) quality referring to rice with less (equal to or more) than 20 percent brokens. The sub-index for Aromatic Rice follows movements in prices of Basmati and Fragrant rice.

Sources: FAO for indices. Rice prices: Jackson Son & Co. (London) Ltd., Thai Department of Foreign Trade (DFT) and other public sources.

 $^{^{2}\,}$ A1 super, f.o.b. Bangkok, indicative traded prices.

³ United States No.2, 4 percent brokens f.o.b.

⁴ Basmati: ordinary, f.o.b. Karachi.

Table A24. Selected international prices for oilcrop products and price indices

| | I | nternational price | s (USD per tonn | | FAO | indices (2002-20 | 04=100) | |
|-------------------|-----------------------|--------------------------|-----------------------|------------------------------|------------------------------|------------------|--------------------------|----------------|
| Period | Soybeans ¹ | Soybean oil ² | Palm oil ³ | Soybean cake ⁴ | Rapesed meal ⁵ | Oilseeds | Edible/soap fats/oils | Oilcakes/meals |
| Annual (Oct/Sept) | , | | | | , | | , | |
| 2003/04 | 322 | 632 | 488 | 257 | 178 | 121 | 116 | 114 |
| 2004/05 | 275 | 545 | 419 | 212 | 130 | 105 | 105 | 104 |
| 2005/06 | 259 | 572 | 451 | 202 | 130 | 100 | 125 | 107 |
| 2006/07 | 335 | 772 | 684 | 264 | 184 | 129 | 153 | 148 |
| 2007/08 | 549 | 1325 | 1050 | 445 | 296 | 217 | 202 | 243 |
| 2008/09 | 422 | 826 | 627 | 385 | 196 | 156 | 144 | 180 |
| Monthly | | | | | | | | |
| 2008 - October | 394 | 928 | 545 | 338 | 156 | 151 | 153 | 162 |
| 2008 - November | 378 | 824 | 488 | 323 | 155 | 143 | 133 | 154 |
| 2008 - December | 366 | 737 | 508 | 307 | 172 | 137 | 126 | 154 |
| 2009 - January | 411 | 788 | 553 | 369 | 202 | 152 | 134 | 169 |
| 2009 - February | 386 | 744 | 571 | 378 | 215 | 144 | 131 | 172 |
| 2009 - March | 380 | 728 | 590 | 346 | 208 | 141 | 129 | 165 |
| 2009 - April | 410 | 802 | 699 | 383 | 220 | 151 | 147 | 175 |
| 2009 - May | 472 | 893 | 799 | 441 | 230 | 174 | 168 | 196 |
| 2009 - June | 504 | 894 | 734 | 445 | 227 | 184 | 160 | 200 |
| 2009 - July | 467 | 834 | 641 | 428 | 186 | 169 | 144 | 198 |
| 2009 - August | 474 | 891 | 722 | 437 | 186 | 171 | 156 | 204 |
| 2009 - September | 424 | 850 | 676 | 428 | 192 | 155 | 150 | 206 |
| 2009 - October | 427 | 891 | 676 | 413 | 187 | 158 | 152 | 207 |
| 2009 - November | 442 | 939 | 728 | 422 | 196 | 164 | 162 | 216 |
| 2009 - December | 448 | 931 | 791 | 425 | 219 | 167 | 169 | 224 |
| 2010 - January | 435 | 919 | 793 | 407 | 243 | 163 | 169 | 221 |
| 2010 - February | 406 | 915 | 804 | 393 | 230 | 154 | 169 | 214 |
| 2010 - March | 410 | 920 | 832 | 381 | 200 | 156 | 175 | 213 |
| 2010 - April | 412 | 900 | 826 | 378 | 205 | 157 | 174 | 224 |
| 2010 - May * | 406 | 864 | 813 | 353 | 226 | 153 | 170 | 214 |

^{*} Provisional.

Note: The FAO indices are calculated using the Laspeyres formula; the weights used are the average export values of each commodity for the 2002-2004 period. The indices are based on the international prices of five selected seeds, ten selected oils and fats and seven selected cakes and meals.

Sources: FAO and Oil World.

¹ Soybeans: US, No.2 yellow, c.i.f. Rotterdam.

 $^{^{2}}$ Soybean oil: Dutch, f.o.b ex-mill.

³ Palm oil: Crude, c.i.f. Northwest Europe.

⁴ Soybean cake: Pellets, 44/45 percent, Argentina, c.i.f. Rotterdam.

⁵ Rapeseed meal: 34 percent, Hamburg, f.o.b. ex-mill.

Table A25. Selected international prices for milk products and dairy price index

| | | FAO dairy price index (2002-2004=100) | | | |
|------------------|---------------------|---|--------------------------------|-----------------------------|-----|
| Period | Butter ¹ | Skim milk powder ² | Whole milk powder ³ | Cheddar cheese ⁴ | |
| Annual (Jan/Dec) | | | | | |
| 2006 | 1 774 | 2 218 | 2 193 | 2 681 | 128 |
| 2007 | 2 959 | 4 291 | 4 185 | 4 055 | 212 |
| 2008 | 3 607 | 3 278 | 3 846 | 4 633 | 220 |
| 2009 | 2 335 | 2 255 | 2 400 | 2 957 | 142 |
| Monthly | | | | | |
| 2009 – April | 1 800 | 1 975 | 2 063 | 2 425 | 117 |
| 2009 – May | 1 900 | 2 000 | 2 200 | 2 575 | 124 |
| 2009 – June | 1 892 | 2 008 | 2 100 | 2 575 | 123 |
| 2009 – July | 1 938 | 2 013 | 2 013 | 2 700 | 126 |
| 2009 – August | 2 055 | 2 080 | 2 168 | 2 725 | 129 |
| 2009 - September | 2 300 | 2 344 | 2 675 | 2 938 | 144 |
| 2009 - October | 2 725 | 2 488 | 2 850 | 3 213 | 158 |
| 2009 - November | 3 688 | 3 375 | 3 525 | 4 263 | 208 |
| 2009 - December | 4 100 | 3 375 | 3 550 | 4 425 | 216 |
| 2010 - January | 3 800 | 3 063 | 3 300 | 4 200 | 202 |
| 2010 - February | 3 688 | 2 750 | 3 125 | 4 013 | 191 |
| 2010 - March | 3 725 | 2 875 | 3 175 | 3 800 | 187 |
| 2010 - April | 3 800 | 3 550 | 3 750 | 3 963 | 204 |
| 2010 - May | 4 075 | 3 500 | 3 963 | 4 025 | 211 |

¹ Butter, 82 percent butterfat, f.o.b. Oceania; indicative traded prices

Note: The FAO Dairy Price Index is derived from a trade-weighted average of a selection of representative internationally-traded dairy products Sources: FAO for indices. Product prices: Mid-point of price ranges reported by Dairy Market News (USDA)

 $^{^{2}\,}$ Skim Milk Powder, 1.25 percent butterfat, f.o.b. Oceania, indicative traded prices

³ Whole Milk Powder, 26 percent butterfat, f.o.b. Oceania, indicative traded prices

⁴ Cheddar Cheese, 39 percent max. moisture, f.o.b. Oceania, indicative traded prices

Table A26. Selected international meat prices

| | Pigmeat | t prices (USD pe | r tonne) | i | Bovine meat price | s (USD per tonne |) |
|------------------|---------------|-------------------------|----------|---------------|-------------------|------------------|-----------|
| Period | United States | Brazil | Japan | United States | Argentina | Japan | Australia |
| Annual (Jan/Dec) | | | | | | | |
| 2006 | 1 986 | 1 964 | 4 540 | 3 803 | 2 270 | 5 685 | 2 547 |
| 2007 | 2 117 | 2 034 | 4 500 | 4 023 | 2 385 | 5 925 | 2 603 |
| 2008 | 2 270 | 2 834 | 5 117 | 4 325 | 3 615 | 6 275 | 3 138 |
| 2009 | 2 202 | 2 020 | 5 617 | 3 897 | 2 526 | 5 409 | 2 636 |
| Monthly | | | | | | | |
| 2009 - April | 2 218 | 1 926 | 5 310 | 3 940 | 2 656 | 5 087 | 2 555 |
| 2009 - May | 2 312 | 1 982 | 5 435 | 4 014 | 2 844 | 5 297 | 2 637 |
| 2009 - June | 2 235 | 1 914 | 5 433 | 4 088 | 2 359 | 5 207 | 2 692 |
| 2009 - July | 2 239 | 2 089 | 5 569 | 4 078 | 2 283 | 5 462 | 2 734 |
| 2009 - August | 2 246 | 1 889 | 5 533 | 3 883 | 2 357 | 5 494 | 2 727 |
| 2009 - September | 2 169 | 1 956 | 5 762 | 3 855 | 2 252 | 5 406 | 2 727 |
| 2009 - October | 2 105 | 2 071 | 5 798 | 3 648 | 2 476 | 5 566 | 2 648 |
| 2009 - November | 2 121 | 2 179 | 5 890 | 3 739 | 2 581 | 5 845 | 2 756 |
| 2009 - December | 2 169 | 2 167 | 5 830 | 4 014 | 2 844 | 5 297 | 2 637 |
| 2010 - January | 2 229 | 2 316 | 5 753 | 3 986 | 2 930 | 5 874 | 2 951 |
| 2010 - February | 2 233 | 2 309 | 5 813 | 4 076 | 3 017 | 5 813 | 3 125 |
| 2010 - March | 2 386 | 2 385 | 5 786 | 4 337 | 3 266 | 5 963 | 3 353 |

Pig Meat Prices

UNITED STATES - Export unit value for frozen product - Foreign Trade Statistics of the United States Census Bureau

BRAZIL - Export unit value for pig meat, fob – A.B.I.P.E.C.

JAPAN - Pork Import Price (cif): Frozen Boneless Cuts – A.L.I.C..

Bovine Meat Prices

UNITED STATES - Frozen beef, export unit value - Foreign Trade Statistics of the United States Census Bureau

ARGENTINA - Export unit value of frozen beef cuts - S.A.G.P.yA.

JAPAN - Beef Import Price (c.i.f.): Boneless Cuts, fresh or chilled – A.L.I.C.

AUSTRALIA - Up to Oct 02: cow forequarters frozen boneless, 85 percent chemical lean, cif the United States port (East Coast) ex-dock

From Nov 02: chucks and cow forequarters - World Bank.

Table A27. Selected international meat prices and FAO meat price indices (1998-2000=100)

| | Poultry | meat prices (USD p | per tonne) | | FAO indices (20 | 02-2004=100)¹ | |
|------------------|---------|--------------------|------------|------------|-----------------|---------------|--------------|
| Period | USA | Japan | Brazil | Total meat | Bovine meat | Pig meat | Poultry meat |
| Annual (Jan/Dec) | | | | | | | |
| 2006 | 734 | 1 852 | 1 180 | 107 | 117 | 95 | 114 |
| 2007 | 935 | 1 964 | 1 443 | 112 | 121 | 98 | 135 |
| 2008 | 997 | 3 064 | 1 896 | 128 | 139 | 108 | 175 |
| 2009 | 989 | 2 541 | 1 552 | 118 | 118 | 110 | 153 |
| Monthly | | | | | | | |
| 2009 - April | 972 | 2 397 | 1 453 | 115 | 115 | 108 | 146 |
| 2009 - May | 1 012 | 2 247 | 1 573 | 118 | 119 | 112 | 149 |
| 2009 - June | 1 020 | 2 122 | 1 607 | 118 | 118 | 110 | 148 |
| 2009 - July | 1 001 | 2 323 | 1 654 | 119 | 120 | 111 | 152 |
| 2009 - August | 1 022 | 2 318 | 1 734 | 119 | 119 | 111 | 156 |
| 2009 - September | 1 002 | 2 311 | 1 695 | 118 | 118 | 111 | 153 |
| 2009 - October | 974 | 2 191 | 1 683 | 117 | 117 | 109 | 149 |
| 2009 - November | 1019 | 2 165 | 1 743 | 120 | 121 | 111 | 153 |
| 2009 - December | 1029 | 2 036 | 1 470 | 120 | 124 | 111 | 142 |
| 2010 - January | 1052 | 2 196 | 1 723 | 124 | 128 | 112 | 154 |
| 2010 - February | 1048 | 2 341 | 1 708 | 125 | 128 | 113 | 157 |
| 2010 - March | 967 | 2 396 | 1716 | 128 | 132 | 114 | 159 |

Poultry Meat Prices

 ${\tt UNITED\ STATES\ -\ Broiler\ cuts,\ export\ unit\ value\ -\ Foreign\ Trade\ Statistics\ of\ the\ United\ States\ Census\ Bureau}$

JAPAN - Broiler Import Price, cif; Frozen, other than leg quarters - A.L.I.C.

BRAZIL - Export unit value for chicken, fob - A.B.E.F.

The FAO Meat Price Indices consist of three poultry meat product quotations (the average weighted by assumed fixed trade weights), four bovine meat product quotations (average weighted by assumed fixed trade weights), one ovine meat product quotation (average weighted by assumed fixed trade weights), one ovine meat product quotation (average weighted by assumed fixed trade weights): the four meat group average prices are weighted by world average export trade shares for 2002-2004.

| Table A28. Selected international commodity prices | | | | | | | | | | |
|--|-------------------|----------------|------------------|---------------|--------------|----------------------|--|--|--|--|
| | Currency and unit | Effective date | Latest quotation | One month ago | One year ago | Average 2005-2009 | | | | |
| Sugar (ISA daily price) | US cents per lb | 21-05-10 | 16.00 | 16.83 | 16.34 | 13.13 | | | | |
| Coffee (ICO daily price) | US cents per lb | 18-05-10 | 128.11 | 126.89 | 123.05 | 106.54 | | | | |
| Cocoa (ICCO daily price) | US cents per lb | 18-05-10 | 138.12 | 146.11 | 112.52 | 95.71 | | | | |
| Tea (FAO Tea Composite Price) | USD per kg | 30-03-10 | 2.79 | 2.84 | 2.29 | 2.10 | | | | |
| Cotton (NYBOT) 1 | US cents per lb | 14-05-10 | 80.37 | 79.50 | 59.04 | 58.92 | | | | |
| Jute "BTD" | USD per tonne | 30-04-10 | 1050.00 | 1020.00 | 525.00 | 425.40 | | | | |
| (Fob Bangladesh Port) | | | | | | | | | | |
| Wool (64's, London) ² | Pence per kg | | | | | | | | | |

 $^{^{\}rm 1}$ Quotation is from NYBOT (New York Board of Trade) as of July 2007 $^{\rm 2}$ Quotation discontinued as of July 2007

OCEAN FREIGHT RATES

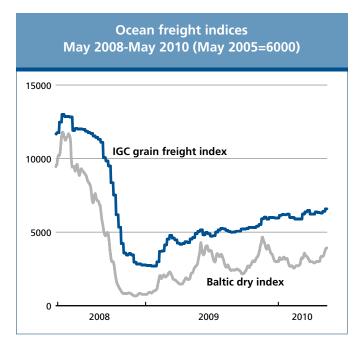
Contributed by the International Grains Council (www.igc.org.uk)

OCEAN FREIGHT MARKET (December 2009 – mid-May 2010)

Ocean freight rates for grains and oilseeds continued to firm between December 2009 and May 2010 in response to quite strong global trading activity. However, the market for larger-sized vessels was frequently influenced by ongoing volatility, especially in the non-grain Capesize sector, where fluctuations in Asian minerals demand and logistical factors had a considerable impact.

After a hesitant start to the year most sectors, except the Capesize market, strengthened in March. This was attributed to active commodity trading, including heavy shipments of grains and oilseeds from the United States and South America, with Handysize/Supramax rates climbing to an 18-month high by the end of the month. April was charecterized by generally weaker conditions due to seasonal holidays in Europe and Asia and limited mineral demand. Rates again increased markedly in May, particularly in the Capesize and Panamax sectors due to renewed demand for minerals and fertizers as well as tightening tonnage supply in the North Atlantic. Rising bunker fuel prices also pushed rates higher. However, there were indications that freight rates for larger ships could weaken later this year due to the arrival of newlybuilt ships and conversions from obsolete single-hull tankers into dry bulk carriers. Since December, the Baltic Dry Index (BDI) fell by 8 percent, mainly due to the initial sharp drop in the Capesize sector. In contrast, the IGC Grain Freight Index (GFI)¹, which does not include Capesize vessels, advanced by about 9 percent.

Except for a dip in February, largely attributed to surplus tonnage in the US Gulf, exacerbated by ballasters arriving from the Indian Ocean, Atlantic **Panamax** rates maintained their strength. This was underpinned by good demand for minerals, grains and oilseeds and from mid-April onwards, by an upturn in Capesize values. Although quite volatile over the



course of the past six months, transatlantic round voyages in mid-May showed no net change from November 2009 levels, at about USD 39-40 000 daily. Tight tonnage supply and increased chartering activity in the Baltic underpinned rates in Europe. Grain fixtures in May included a cargo from the Black Sea to Saudi Arabia at USD 32 500 daily and a shipment from the Mississippi River to Europe (Rotterdam) at USD 26.00/ton. Rates in the Pacific, while also volatile at times, were firmer over the period as a whole, supported by China's demand for minerals from Australia, India and Indonesia, as well as continuing congestion in Australia's ports. In May, a time-charter for five-seven months was reported at USD 30 500 daily, 5 percent higher than in November 2009.

The Atlantic **Handysize/Supramax** market strengthened significantly after February, assisted by strong demand for grains, oilseeds, sugar and other commodities. More recently, chartering activity increased in the South Atlantic, the Black Sea and the US Gulf, with a grains rate from the US Gulf to China reported at about USD 53 000 daily. The Indian Ocean market remained very strong for larger sizes, underpinned by China's increased iron ore purchases from India. To lock in higher rates, owners preferred short-period timecharter contracts, quoted in May at about USD 23-25 000 daily for one year.

¹ The GFI distinguishes grain routes from mineral and other dry bulk routes also included in more general dry bulk indices such as the Baltic Dry Index (BDI). The GFI is composed of 15 major grain routes, representing the main grain trade flows, with five rates from the United States, and two each from Argentina, Australia, Canada, the European Union and the Black Sea. Vessel sizes are adequately represented, with ten Panamax rates and five in the Handysize sector. The GFI is calculated weekly, with the average for the four weeks to 18 May 2005 taken as its base of 6000.

After peaking in November last year, rates in the Capesize sector plummeted the following month and by April touched a six-month low. This was attributed to China reducing its mineral imports and more ships, including newly-built and tanker conversions, looking for cargo. However, in May, rates bounced back on increased chartering enquiries from China and Japan, recouping nearly half the previous losses. Although some orders for new ships were cancelled in the aftermath of the financial crisis and the demolition of old ships continued at a high rate, about 75 million tonnes deadweight of new tonnage is expected to enter the market in 2010, equal to nearly 40 percent of the existing Capesize fleet, likely again exerting downward pressure on rates.

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IMPLIED VOLATILITIES

With concerns about rising unpredictability in international markets, Food Outlook now regularly features an analysis of implied volatility. Based on the expectation of major commodity exchanges, the metric provides an insight into which direction global markets for several key commodities are likely headed as well as the uncertainty about future price movements.

Implied volatilities for wheat, maize and soybeans have been steadily creeping up over the past two decades. High implied volatility now appears to have become a more permanent feature in their markets than was the case in the past. The persistence of volatility reflects the continued uncertainty in how market fundamentals have unfolded and how they are likely to unfold. A detailed examination of the recent past, however, shows that implied volatility for the three commodities may have stabilized and more importantly, reached a turning point.

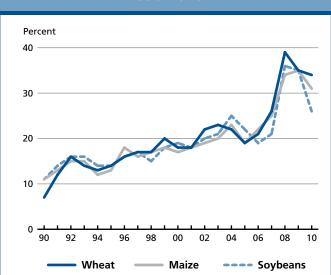
Implied volatility for wheat fell to a two-year low in September 2009, down roughly a half from the March 2008 peak, and has since fluctuated within 10 points above the September level. The evolution of implied volatility in the international maize market has tended to mirror that of wheat, but the degree of movement has been less pronounced. By contrast, soybean volatility has undergone a much more

marked downturn, culminating in a 30-month low in May 2010.

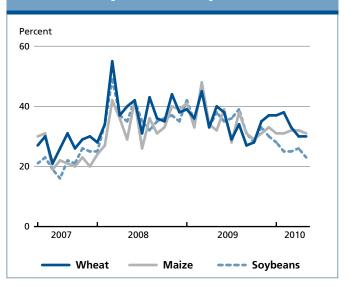
During the middle of the month, implied volatility stood at 30 percent for wheat, 31 percent for maize and 24 percent for soybeans. These percentages are a measure of the deviation in the futures price (six months ahead) from underlying expected values. Under reasonable assumptions, one can say 'the market estimates with 68 percent certainty that prices will rise or fall by 30 percent for wheat, 31 percent for maize and 24 percent for soybeans'. In a similar vein, the likelihood that prices will exceed their current values by more than 50 percent in six months time is perceived to have a probability of around 2 percent, in other words quite unlikely.

To put these indications into a wider perspective, implied volatility has undergone a gradual moderation in the past 12 months, suggesting that markets are a little more assured than they were last year, but does this reflect a real turning point? Certainly, stronger market fundamentals expected ahead have brought quiescence to markets, but with so many other factors affecting market sentiment, a return to a passage of higher turbulence cannot be ruled out.

Implied volatilities (annual) 1990-2010



Implied volatilities (monthly) May 2007 to May 2010



Implied Volatilities: 1990-2010 and May-2007 to May-2010

The Black-Scholes model was used to compute implied volatilities from Chicago Board of Trade underlying data. Key inputs and assumptions are as follows: (i) 6-month time expiration on contracts; (ii) settlement premium for the call options 'at the money' i.e. with a strike price nearest to the settlement price for the futures contract associated with the call option contract (mid-monthly prices were used); (iii) option strike price; (iv) futures settlement price and (v) 6-month US treasury bill yields were assumed for the risk-free rate.

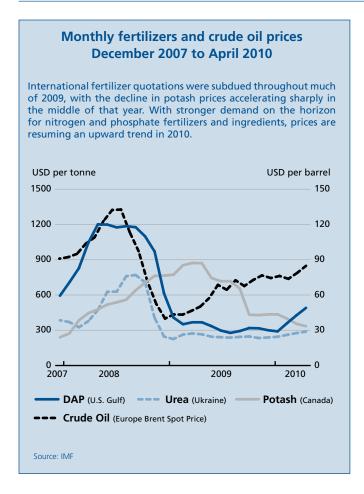
Measuring Implied Volatility

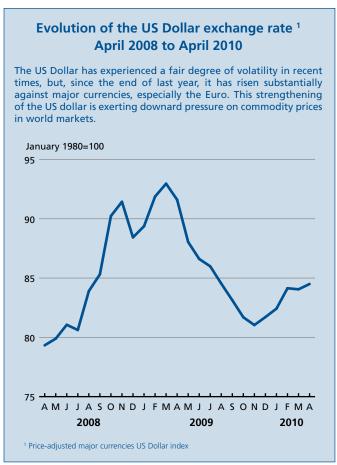
Implied volatility represents the market's expectation of how much the price of a commodity is likely to move in the future. It is called "implied" because, by dealing with future events, it cannot be observed, and can only be inferred from the prices of derivative contracts such as "options".

An "option" gives the bearer the right to sell a commodity (put option) or buy a commodity (call option) at a specified price for a specified future delivery date. Options are just like any other financial instrument, such as futures contracts, and are priced based on the market estimates of future prices, as well as the uncertainty surrounding these estimates. The more divergent are traders' expectations about future prices, the higher the underlying uncertainty and hence the implied volatility of the underlying commodity.

Does implied volatility matter? Prices of derivative commodities are determined by underlying expectations and uncertainties about such expectations, pertinent to the market and the commodity. Hence, implied volatility, as reflected or inferred by the prices of derivative contracts, is an important component of the price discovery process and is a barometer as to how traders expect prices to evolve in the shorter term.

FOOD IMPORT BILLS





Global cost of imported food could rise by another USD 100 billion

At USD 921 billion, the global cost of imported foodstuffs this year would be some USD 100 billion or 11 percent more than in 2009, but short by a similar mark of the USD 1 trillion record in 2008.

Much of the anticipated growth would be fuelled by higher expenditures on non-cereal products, which could rise by as much as 17 percent to the tune of USD 650 billion, or around two-thirds of global food import expenditures. Dairy products, vegetable oils and sugar are among the foodstuffs driving expected bills through a combination of higher import volumes and prices, to the extent that expenditures on these imported commodities are forecast to surpass or near the record levels witnessed in the high price episode of 2008. In the first five months of 2010, for instance, international quotations for dairy

produce averaged some 45 percent higher than last year, while the increase for sugar and vegetable oils averaged well over 20 percent.

Global cereal import bills in 2010 are anticipated to remain largely unchanged from 2009, as lower prices, especially for wheat, are expected to mostly offset marginally higher trade volumes forecast for the commodity group. Rising freight costs constitutes another factor behind higher bills in 2010, putting additional pressure on countries' ability to cover their import costs. Indeed, indicators of freight rate movements, such as the Baltic Dry Index and the International Grain Council's Freight index, average around 75 percent more so far this year than in the corresponding period of 2009.

The cost of purchasing food on the international market place for the most economically vulnerable groups, Least Developed Countries (LDCs) and Low-Income Food Deficit Countries (LIFDCs) is set to rise in the order of ten and

Forecast import bills of total food and major foodstuffs (USD million)

| | World | | Developed | | Developing | | LDC | | LIFDC | | Sub-Saharan Africa | |
|----------------|---------|---------|-----------|---------|------------|---------|--------|--------|---------|---------|--------------------|--------|
| | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 | 2009 | 2010 |
| TOTAL FOOD | 826 466 | 921 102 | 552 305 | 611 079 | 274 160 | 310 023 | 20 772 | 22 783 | 100 521 | 114 109 | 23 968 | 26 485 |
| Cereals | 264 256 | 264 304 | 153 416 | 153 532 | 110 840 | 110 773 | 7 932 | 7 258 | 27 855 | 26 787 | 10 276 | 9 802 |
| Vegetable Oils | 109 364 | 132 013 | 53 809 | 64 595 | 55 556 | 67 418 | 3 741 | 4 683 | 22 871 | 27 553 | 3 392 | 4 171 |
| Dairy | 58 699 | 87 100 | 40 353 | 60 094 | 18 346 | 27 006 | 1 024 | 1 550 | 5 424 | 7 951 | 1 280 | 1 862 |
| Meat | 92 532 | 103 868 | 67 667 | 75 833 | 24 866 | 28 035 | 931 | 1 053 | 3 362 | 3 811 | 1 067 | 1 180 |
| Sugar | 44 560 | 61 807 | 23 985 | 31 363 | 20 575 | 30 444 | 2 759 | 3 504 | 8 558 | 13 058 | 3 452 | 4 664 |

fourteen percent respectively, from last year. Some respite comes in a slight fall expected in the cost of importing cereals on account of good domestic production prospects and lower international quotations, but much higher expenditures on non-staples easily counteracts these gains. The foreseen rise in LIFDC bills in 2010 would be the highest of all groups, far exceeding the increase at the global level, but the composition of the imported food basket mirrors an overall improvement in economic prospects.

However, expectations surrounding import bills are greatly conditioned by the economic environment. Prevailing concerns over the global macroeconomic outlook and the state of financial markets as well as fluctuations in exchange rates will weigh heavily on international food markets. Therefore, final outcomes with regard to import expenditures are still subject to much uncertainty.

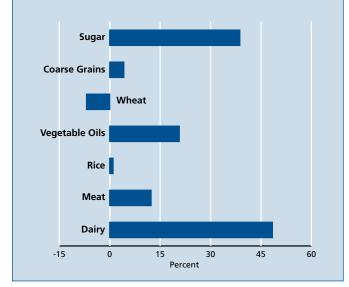
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Forecast Changes in Global Food Import Bills by Type 2010 over 2009 (%)

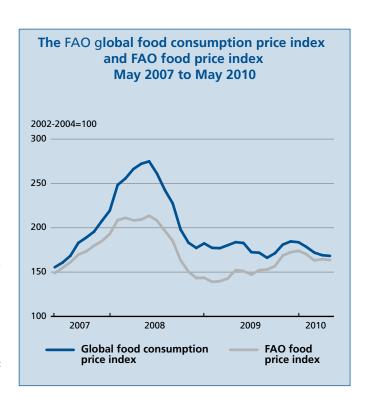
Substantially higher international price prospects for livestock products, vegetable oils and sugar supported by larger trade volumes and rising shipping costs could pave the way for much larger import bills for those commodities. However, lower cereal quotations in combination with a marginal increase in trade ought to keep in check any significant rise in cereal bills.



THE FAO PRICE INDICES

FAO Global Food Consumption Price Index

Launched in the June 2009 issue of Food Outlook, the **FAO Global Food Consumption Price Index** tracks changes in the cost of the global food basket as portrayed by the latest FAO world food balance sheet (see http://faostat.fao.org/). Representative international prices for each of the commodities or commodity groups appearing in the balance sheet are weighted by their contribution to total calorific intake. The index fell to a 25 month low in September 2009, before gaining ground to almost 180 basis points in November. This implies that the cost of the typical food basket is now some 80 percent more than what it was in 2002/04. A slight recovery in cereal prices in recent weeks, which hitherto had been steadily falling, combined with a sharp rise in dairy product prices, has led to the index being more aligned to movements in the export weighted FAO Food Price Index.



FAO Food Price Index *

The **FAO Food Price Index** averaged 164 points in May 2010, up almost 7 percent from the corresponding period last year, but still down 23 percent from its peak in June 2008. The index rose sharply between August 2009 and January 2010, reflecting increases in world prices of nearly all food commodities. However, with a decline in the international prices of cereals and sugar more than offsetting increases in meat and dairy, the Index fell in March and remained generally stable in April and May.

The **FAO Cereal Price Index** averaged 156 points in May 2010, down nearly 9 percent, or 15 points, from December 2009 and as much as 43 percent below its April 2008 peak of 274 points. International prices for all major cereals have fallen considerably since the beginning of 2010 in view of ample export supplies and prospects for large crops in 2010. Wheat and rice prices have declined while maize prices increased in recent weeks, mostly in reaction to unexpected large purchases by China.

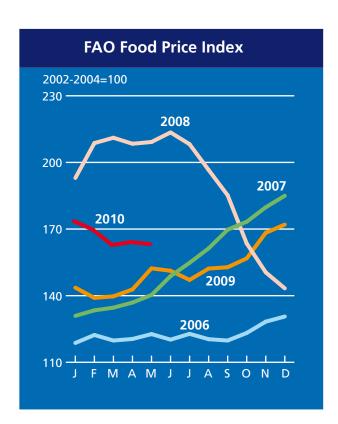
The **FAO Oils/Fats Price Index** stood at 170 points in May 2010, below the two preceding months but 3.5 points above the corresponding period in 2009 and high historically. Overall, the index has been rising since October 2009, the beginning of the current marketing season. The continuing firmness in prices is the result of relatively slow growth in global oils/fats production, not keeping pace with demand from both food and biodiesel sectors. As a result, the scope for a recovery in stocks from their low opening levels remains limited.

The **FAO Meat Price Index** averaged 135 points in May 2010, up 12 percent from beginning of the year and as much 14 percent, or 16 points, higher than in the corresponding period last year. International meat prices experienced a sustained recovery over the first half of 2010, boosted in part by signs of economic recovery. Beef export prices increased the fastest and low export supplies. Poultry and pig meat prices have increased marginally so far this year, mainly reflecting tighter import restrictions by the Russian Federation.

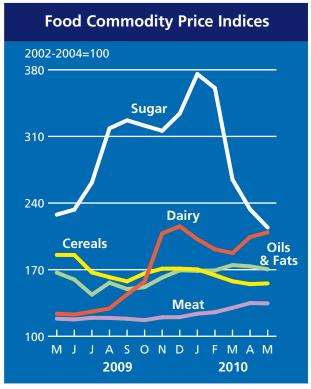
^{*} The FAO food price indices are updated on monthly basis and are available on http://www.fao.org/worldfoodsituation/

The **FAO Dairy Price Index** averaged 209 points in May 2010. The index climbed continuously through the second half of 2009 and remained firm between January and May 2010. Reduced supplies from Oceania and sustained purchases from Asia and some oil exporting countries have contributed to creating a tight market situation. Butter prices in Oceania in May 2010 were USD 4 050 per tonne, or levels similar to those observed during the recent episode of soaring agricultural commodity prices in 2007/08. Prices of other dairy products were also high, but slightly below their recent peaks.

The **FAO Sugar Price Index** averaged 214 points in May 2010, down 43 percent from the 30-year price high reached in January 2010. After being on an upward trend for most of 2009 and the beginning of 2010, international sugar prices began to retreat in February 2010, driven by prospects for a large crops in both India, the world's largest sugar consumer, and Brazil, the world's largest sugar producer. Preliminary reports for the new 2010/11 season, indicating the possibility of a small surplus, coupled with the strengthening of the US dollar, also contributed to the downward pressure on sugar prices.



The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities.



The FAO Food Commodity Price Indices show changes in monthly international prices of major food commodities.

FAO Food Price Index

| | | Food Price Index ¹ | Meat ² | Dairy ³ | Cereals ⁴ | Oils and Fats ⁵ | Sugar ⁶ |
|------|-----------|-------------------------------|-------------------|--------------------|----------------------|----------------------------|--------------------|
| | | | | | | | |
| 2000 | | 90 | 94 | 95 | 85 | 68 | 116 |
| 2001 | | 92 | 94 | 107 | 86 | 68 | 123 |
| 2002 | | 90 | 90 | 82 | 95 | 87 | 98 |
| 2003 | | 98 | 99 | 95 | 98 | 101 | 101 |
| 2004 | | 111 | 111 | 123 | 107 | 112 | 102 |
| 2005 | | 115 | 113 | 135 | 103 | 104 | 140 |
| 2006 | | 122 | 107 | 128 | 121 | 112 | 210 |
| 2007 | | 154 | 112 | 212 | 167 | 169 | 143 |
| 2008 | | 191 | 128 | 220 | 239 | 225 | 182 |
| 2009 | | 152 | 118 | 142 | 174 | 150 | 257 |
| 2009 | May | 152 | 118 | 124 | 186 | 167 | 228 |
| | June | 151 | 118 | 123 | 185 | 160 | 233 |
| | July | 147 | 119 | 126 | 167 | 144 | 261 |
| | August | 152 | 119 | 129 | 162 | 156 | 318 |
| | September | 153 | 118 | 144 | 158 | 150 | 327 |
| | October | 157 | 117 | 158 | 166 | 152 | 321 |
| | November | 169 | 120 | 208 | 171 | 162 | 316 |
| | December | 172 | 120 | 216 | 171 | 169 | 334 |
| 2010 | January | 174 | 124 | 202 | 170 | 169 | 376 |
| | February | 170 | 125 | 191 | 164 | 169 | 361 |
| | March | 163 | 130 | 187 | 158 | 175 | 265 |
| | Apr | 165 | 135 | 204 | 155 | 174 | 233 |
| | May | 164 | 135 | 209 | 156 | 170 | 214 |

¹ **Food Price Index**: Consists of the average of six commodity group price indices mentioned above weighted with the average export shares of each of the groups for 2002-2004: in total 55 commodity quotations considered by FAO Commodity Specialists as representing the international prices of the food commodities noted are included in the overall index.

² **Meat Price Index**: Consists of three poultry meat product quotations (the average weighted by assumed fixed trade weights), four bovine meat product quotations (average weighted by assumed fixed trade weights), one ovine meat product quotation (average weighted by assumed fixed trade weights), one ovine meat product quotation (average weighted by assumed fixed trade weights): the four meat group average prices are weighted by world average export trade shares for 2002-2004.

³ Dairy Price Index: Consists of butter, SMP, WMP, cheese, casein price quotations; the average is weighted by world average export trade shares for 2002-2004.

⁴ **Cereals Price Index**: This index is compiled using the grains and rice price indices weighted by their average trade share for 2002-2004. The grains Price Index consists of International Grains Council (IGC) wheat price index, itself average of nine different wheat price quotations, and one maize export quotation; after expressing the maize price into its index form and converting the base of the IGC index to 2002-2004. The Rice Price Index consists of three components containing average prices of 16 rice quotations: the components are Indica, Japonica and Aromatic rice varieties and the weights for combining the three components are assumed (fixed) trade shares of the three varieties.

⁵ Oil and Fat Price Index: Consists of an average of 11 different oils (including animal and fish oils) weighted with average export value shares of each oil product for 2002-2004.

⁶ Sugar Price Index: Index form of the International Sugar Agreement prices with 2002-2004 as base.





Trade and Markets Division Information, Analyses and Forecasts

Food Outlook is published by the Trade and Market Division of FAO under Global Information and Early Warning System (GIEWS). It is a biannual publication (June and November) focusing on developments affecting global food and feed markets. Each report provides comprehensive assessments and short term forecasts for production, utilization, trade, stocks and prices on a commodity by commodity basis and includes feature articles on topical issues. Food Outlook maintains a close synergy with another major GIEWS publication, Crop Prospects and Food Situation, especially with regard to the coverage of cereals. Food outlook is available in English, French, Spanish and Chinese.

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This report is based on information available up to mid-May 2010.

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