World Cereal Market: Situation & Outlook

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Presentation Overview

I. Market Situation (2007/08)

a) Food Markets and Rising Prices

b) World Supply and Demand For Wheat

c) World Supply and Demand for Coarse Grains

d) Biofuels

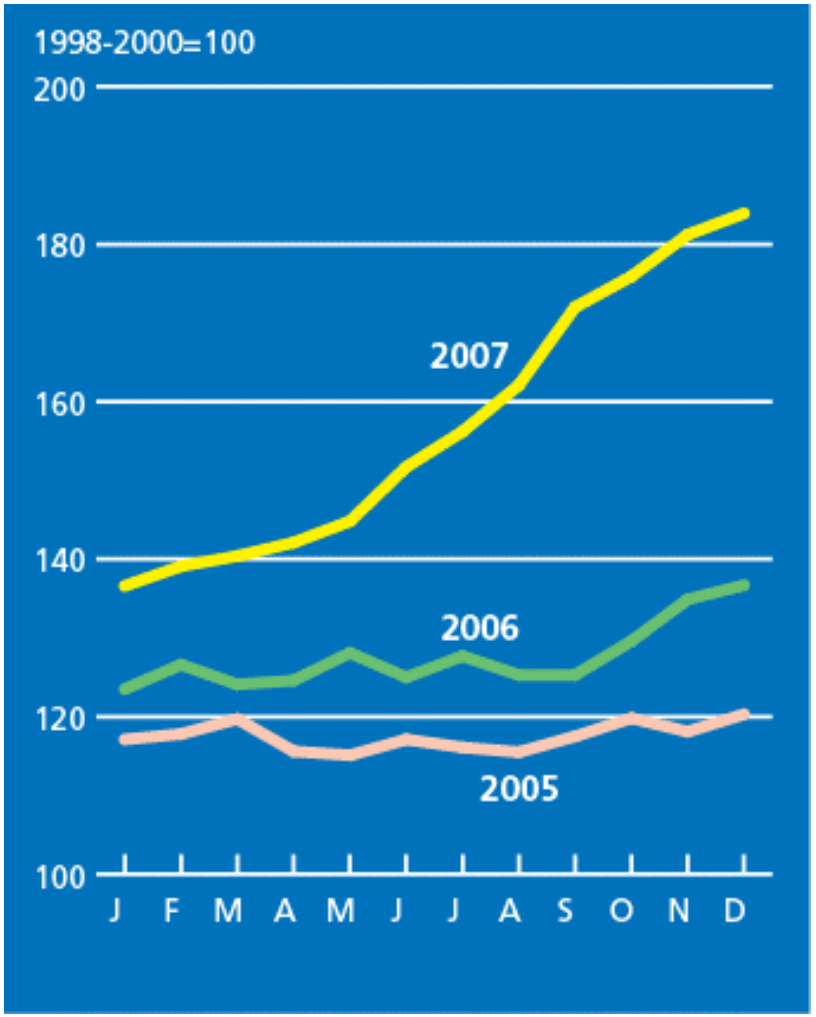
II. Outlook

a) Markets in 2008/09

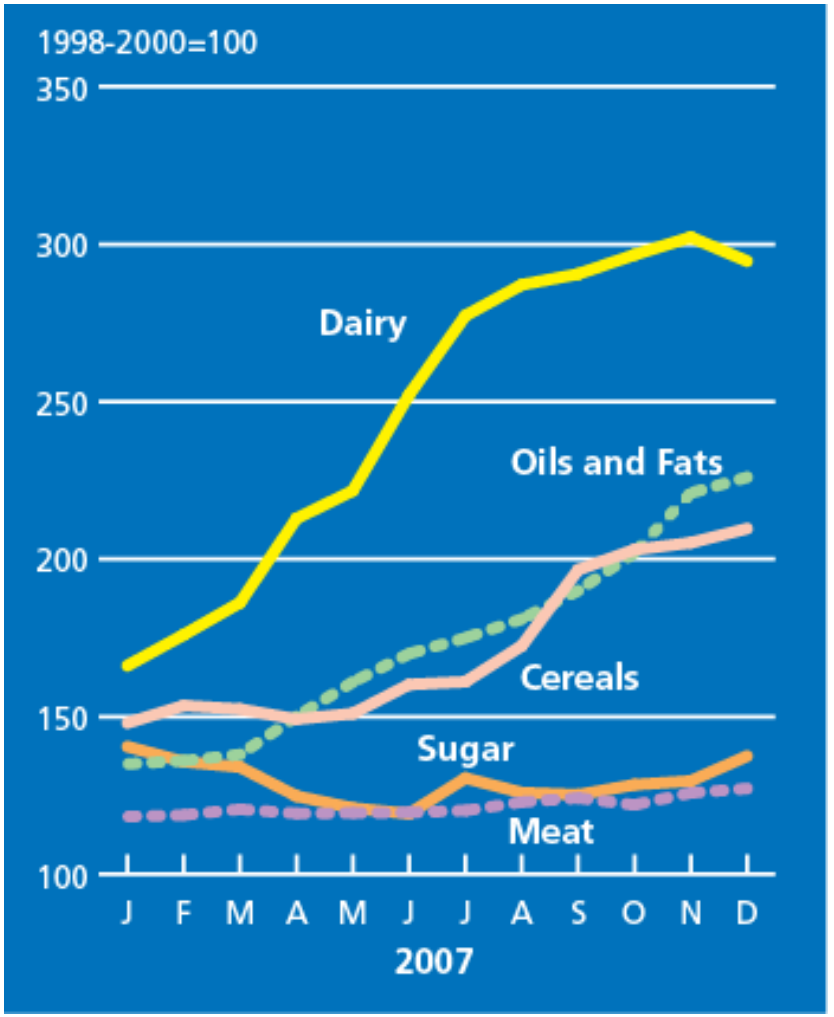
b) And beyond

III. Summary

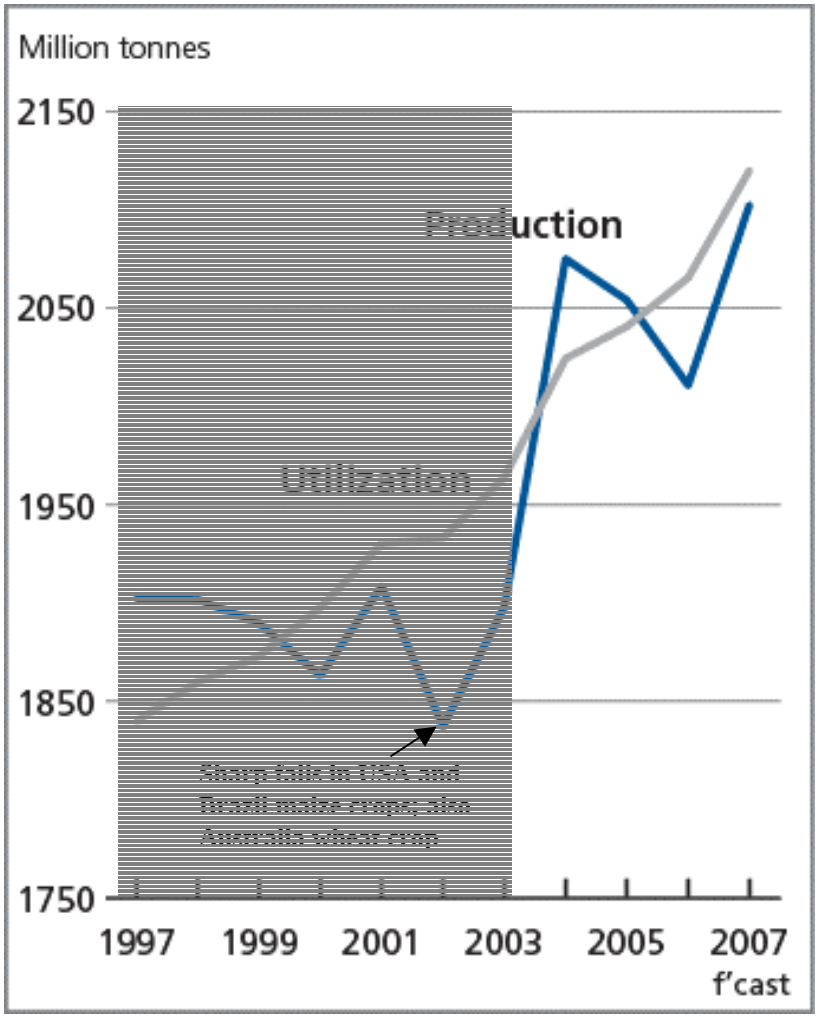
FAO food price index



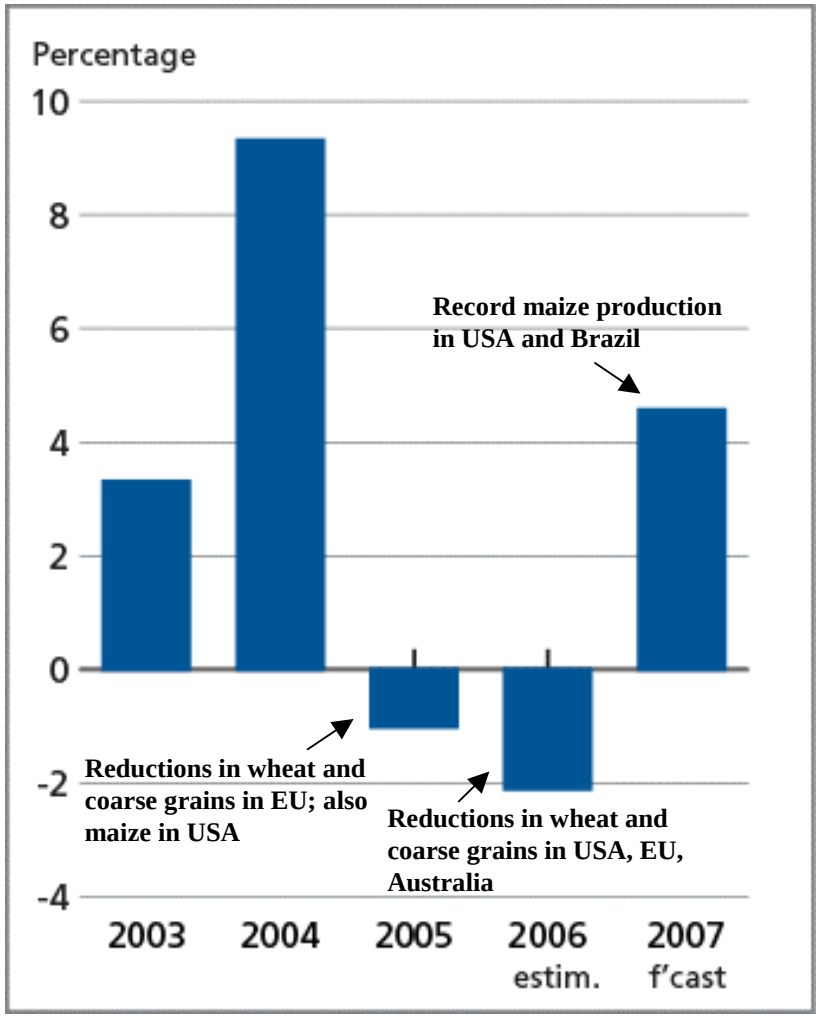
Food commodities price indices



Cereal production and utilization



Year-to-year change in cereal production



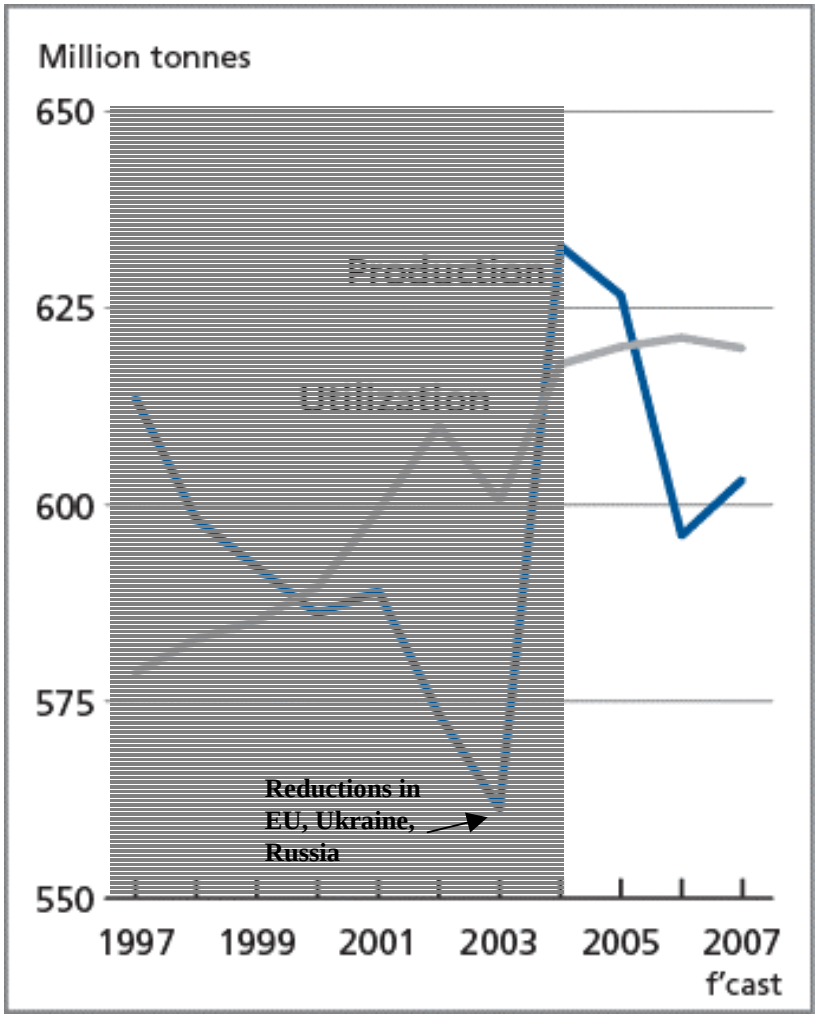
World wheat market at a glance

	2005/06	2006/07 estim.	2007/08 f'cast	Change: 2007/08 over 2006/07
		million tonnes		*%*
WORLD BALANCE				
Production	**626.7**	**596.1**	**603.2**	**1.2**
Trade	**110.5**	**113.3**	**107.0**	**-5.5**
Total utilization	**620.1**	**621.3**	**619.9**	**-0.2**
Food	438.2	442.7	446.2	0.8
Feed	116.7	113.0	109.9	-2.7
Other uses	65.2	65.6	63.8	-2.7
Ending stocks	**182.8**	**161.8**	**146.8**	**-9.3**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World *(Kg/year)*	68.0	67.8	67.6	-0.4
LIFDC *(Kg/year)*	58.9	58.6	58.2	-0.6
World stock-to-use ratio %	29.4	26.1	23.1	
Major exporters' stock-to-disappearance ratio %	23.8	16.1	11.7	

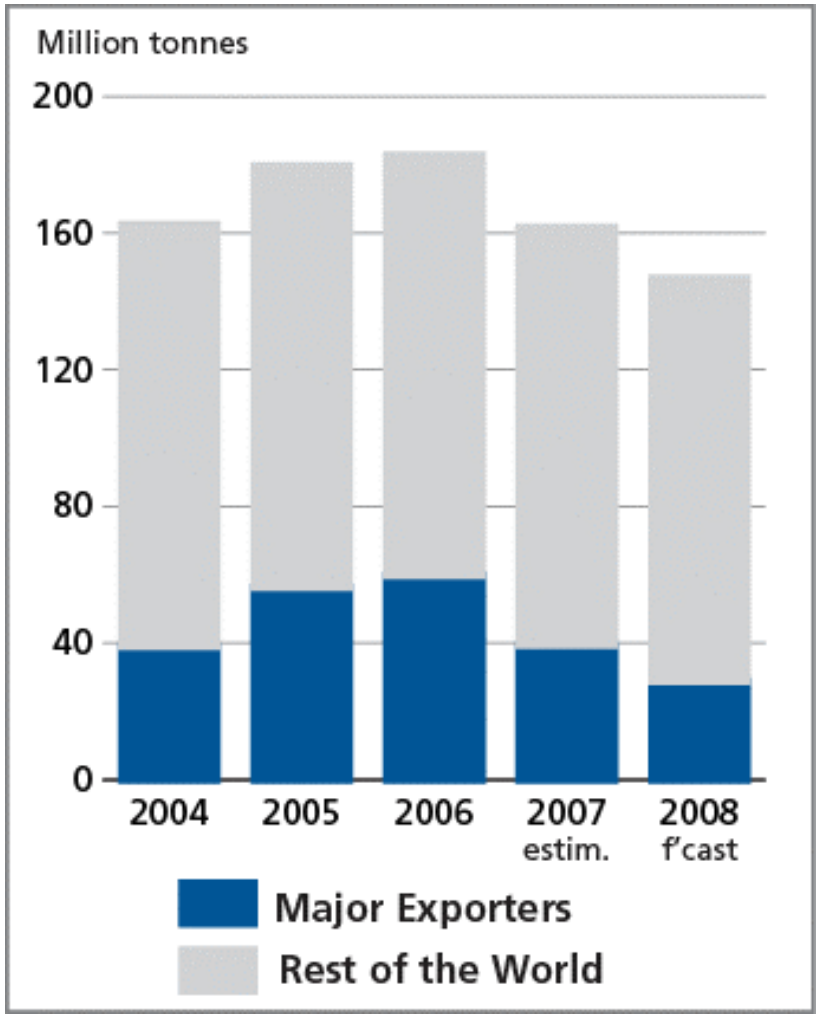
source: FAO (February 2008)

World wheat situation and stocks

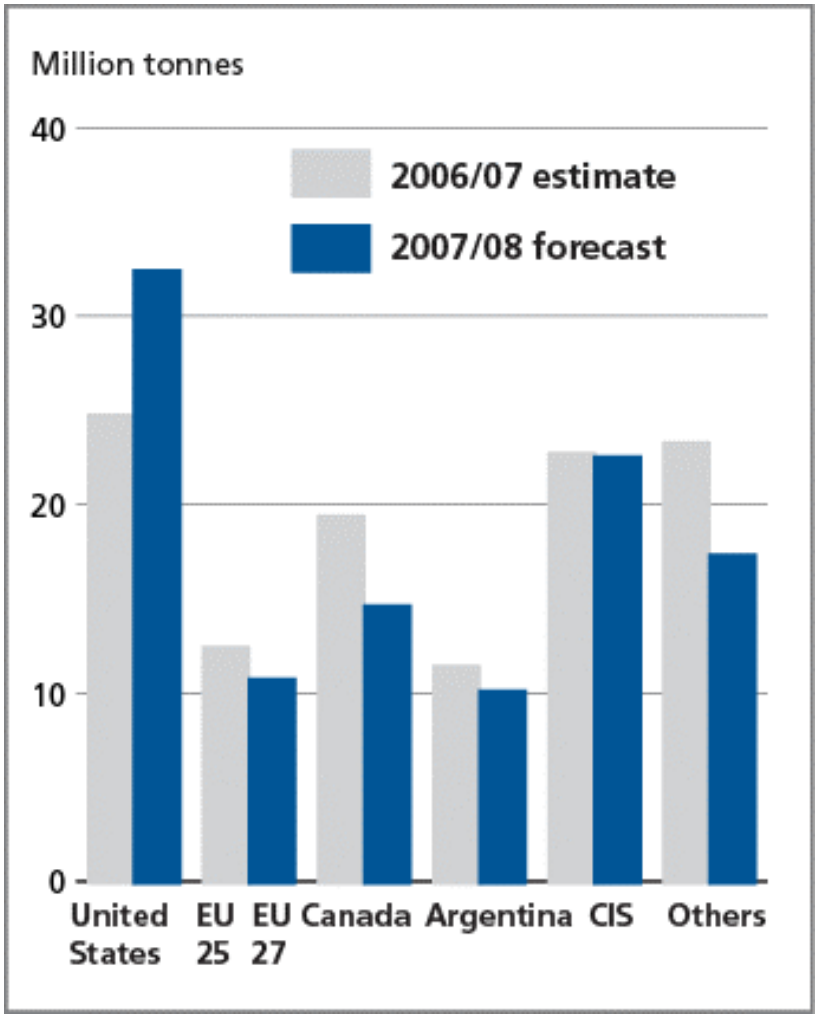
Production and Utilization



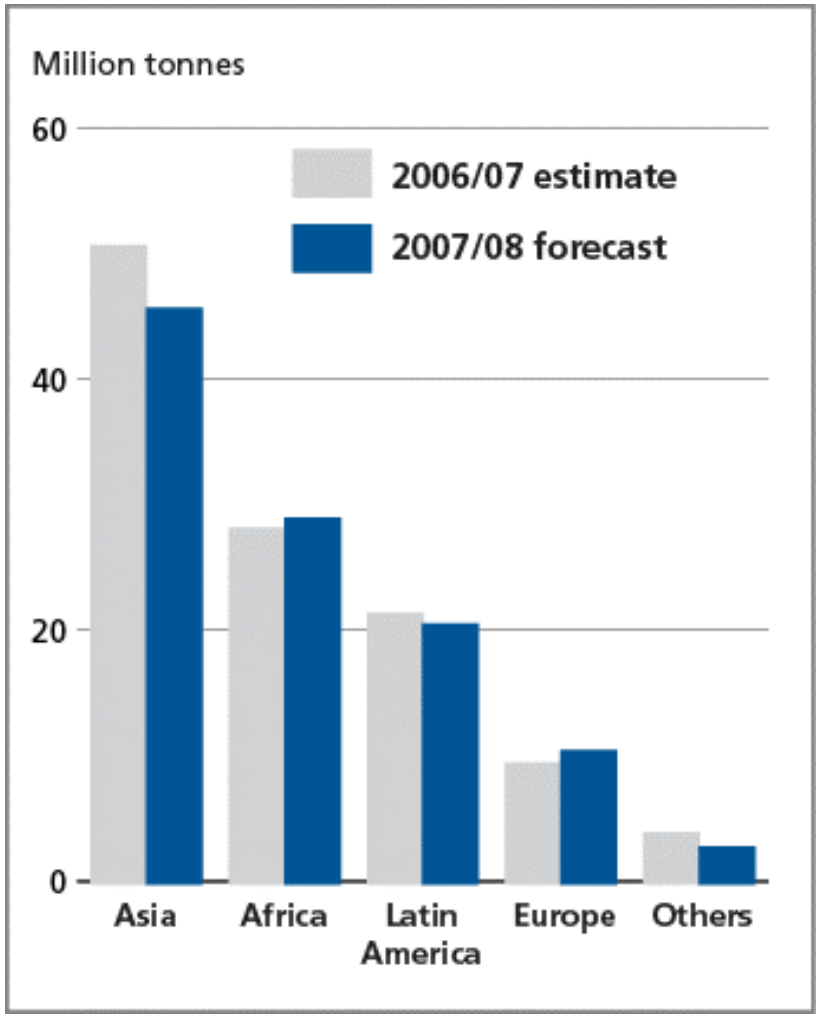
Stocks



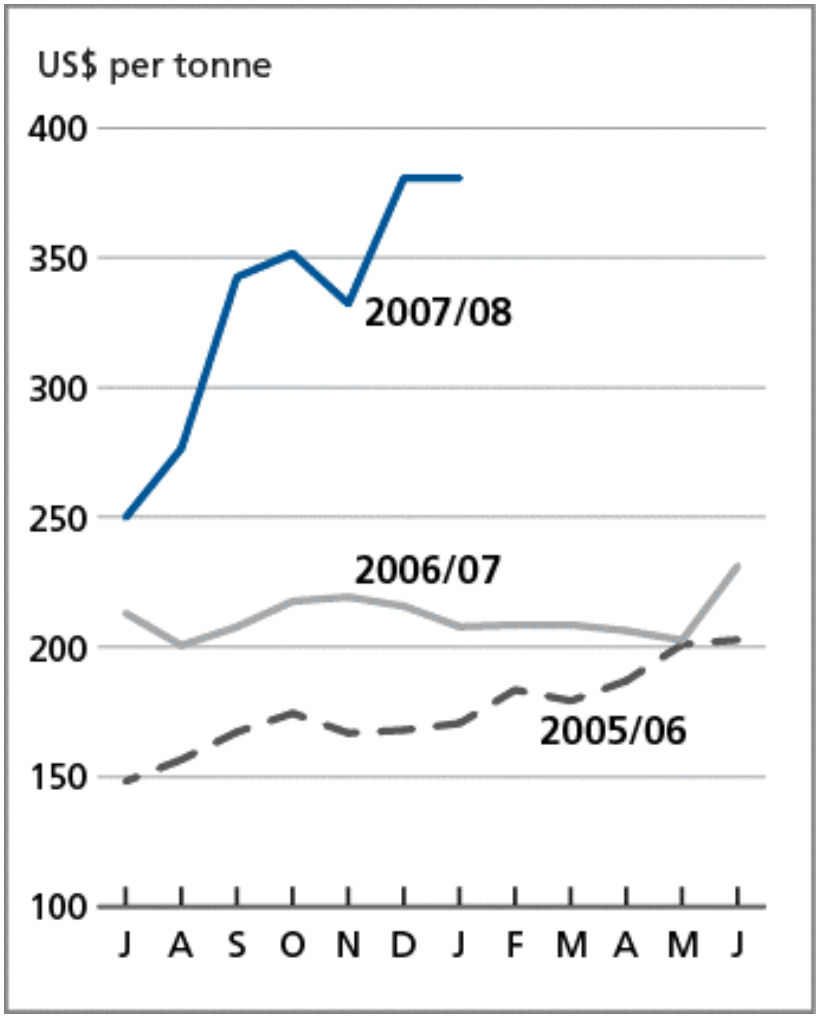
Wheat exporters



Wheat imports

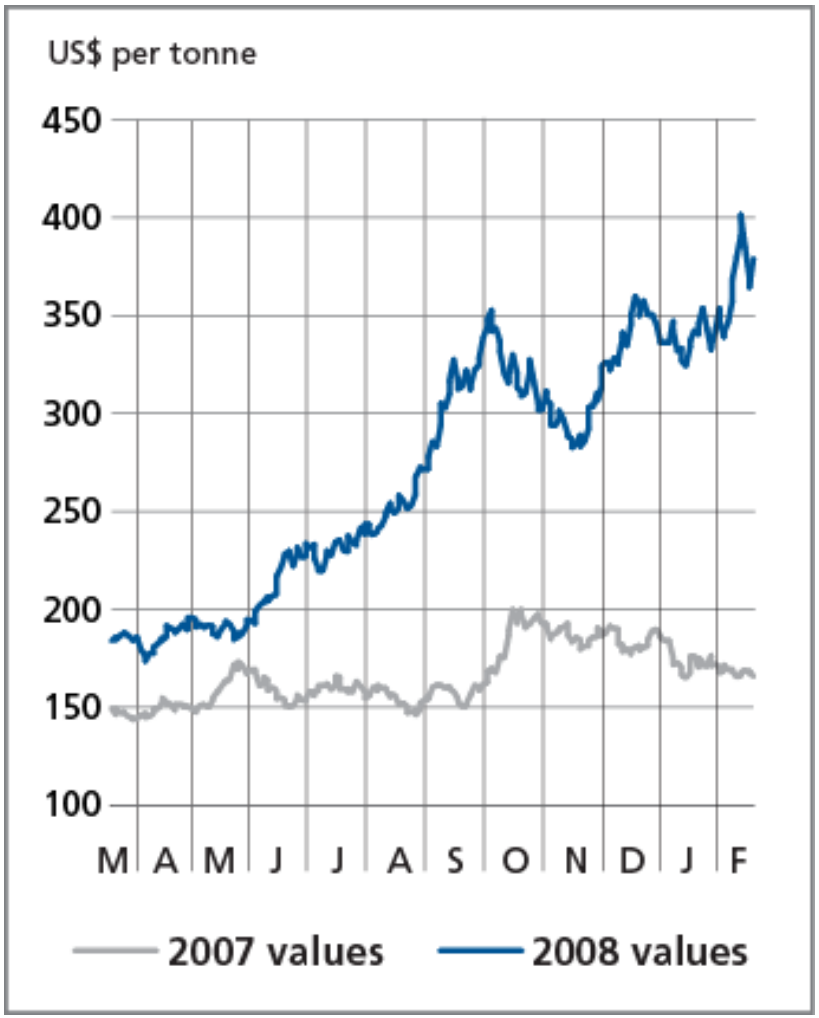


Wheat price (U.S. No.2 H.R.W. delivered U.S. Gulf)

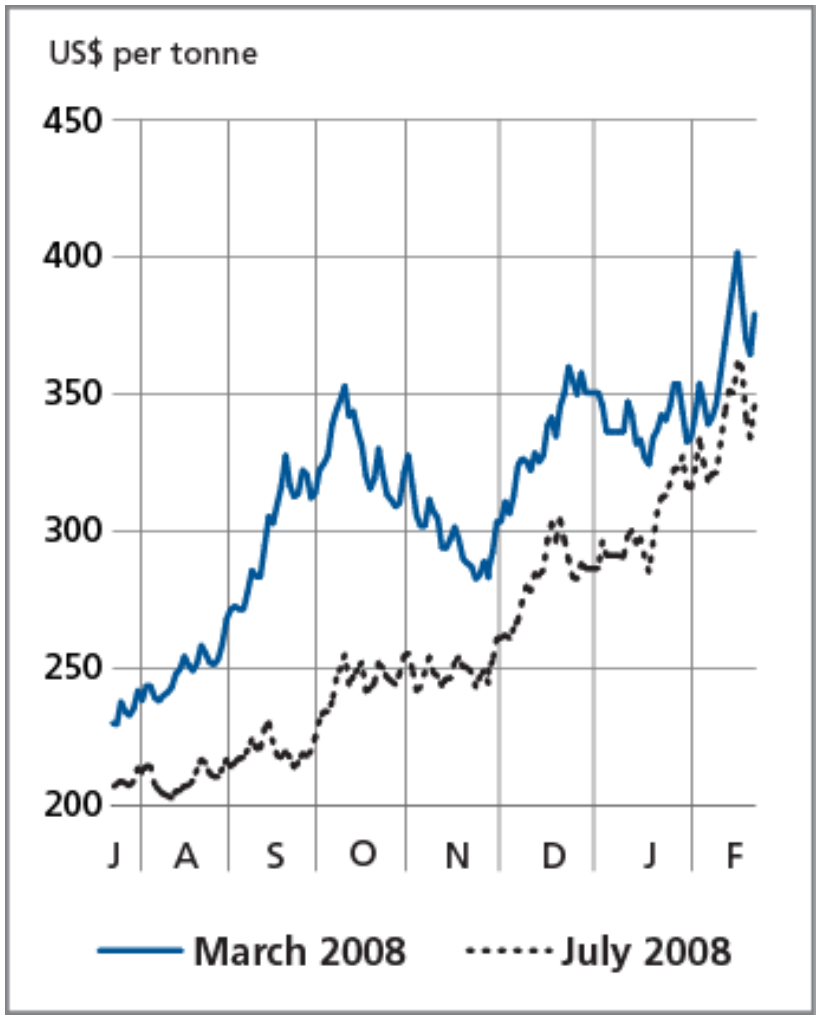


US$ versus major currencies

CBOT Wheat Futures for March



CBOT Wheat Futures for March and July



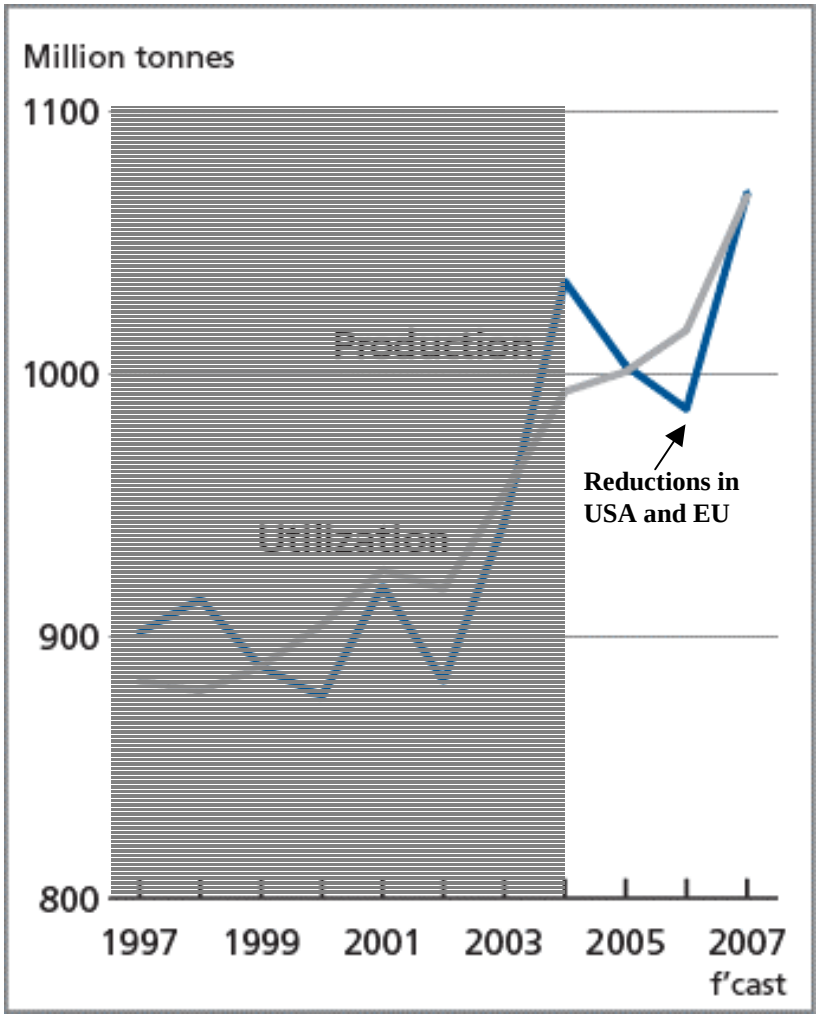
World coarse grain market at a glance

	2005/06	2006/07 estim.	2007/08 f'cast	Change: 2007/08 over 2006/07
		million tonnes		*%*
WORLD BALANCE				
Production	**1 003.2**	**986.6**	**1 069.0**	**8.4**
Trade	**107.0**	**111.4**	**120.5**	**8.1**
Total utilization	**1 000.9**	**1 016.7**	**1 068.0**	**5.0**
Food	175.8	180.2	182.4	1.2
Feed	624.9	615.7	633.0	2.8
Other uses	200.2	220.8	252.5	14.4
Ending stocks	**185.3**	**162.0**	**156.1**	**-3.7**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World *(Kg/year)*	27.3	27.6	27.6	0.0
LIFDC *(Kg/year)*	28.4	28.7	28.8	0.2
World stock-to-use ratio %	18.2	15.2	15.0	
Major exporters' stock-to-disappearance ratio %	17.9	12.5	11.2	

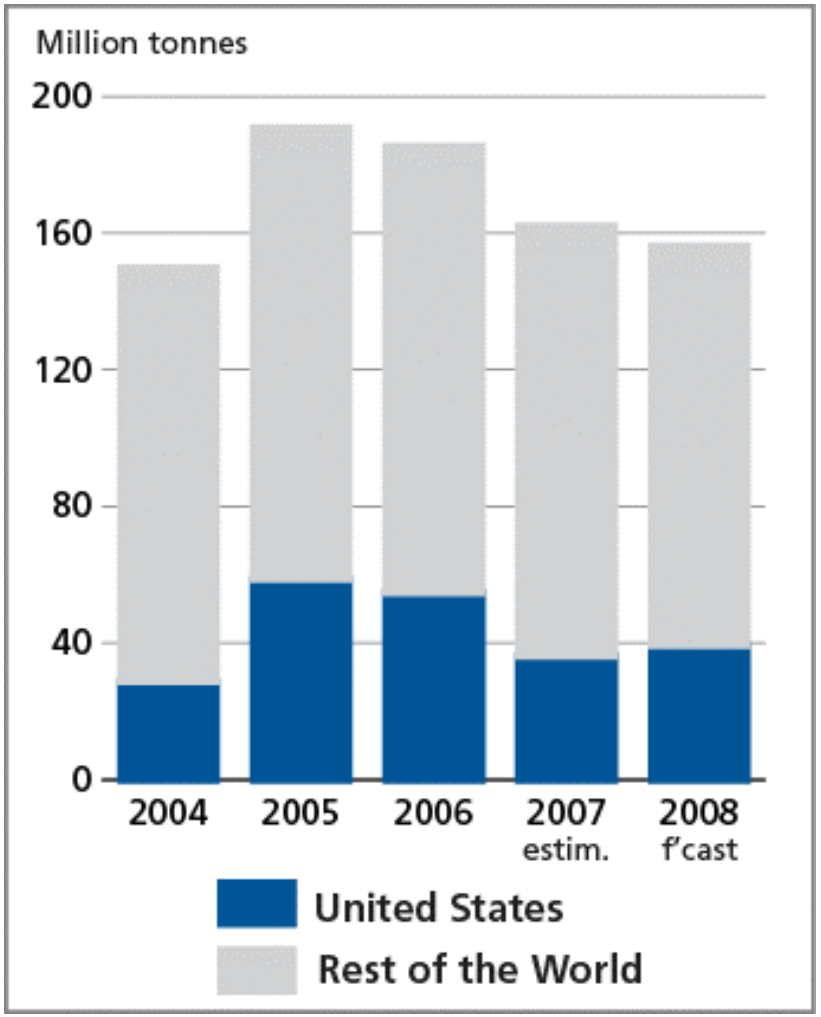
source: FAO (February 2008)

World coarse grains situation and stocks

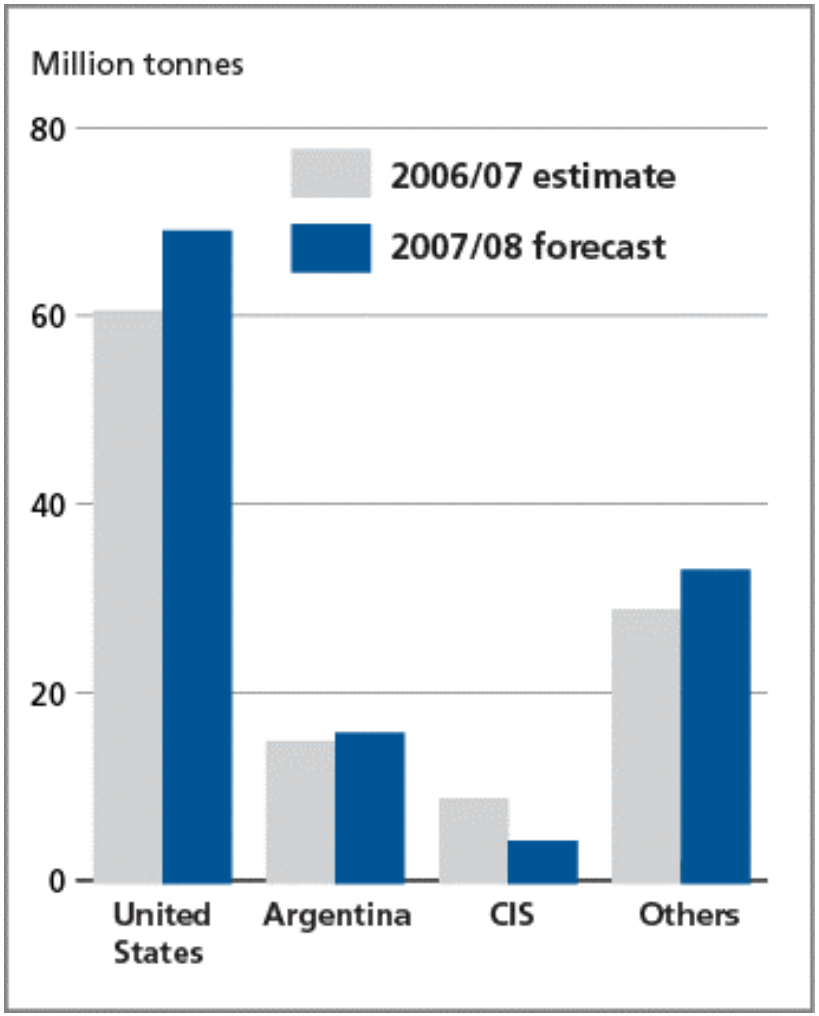
Production and utilization



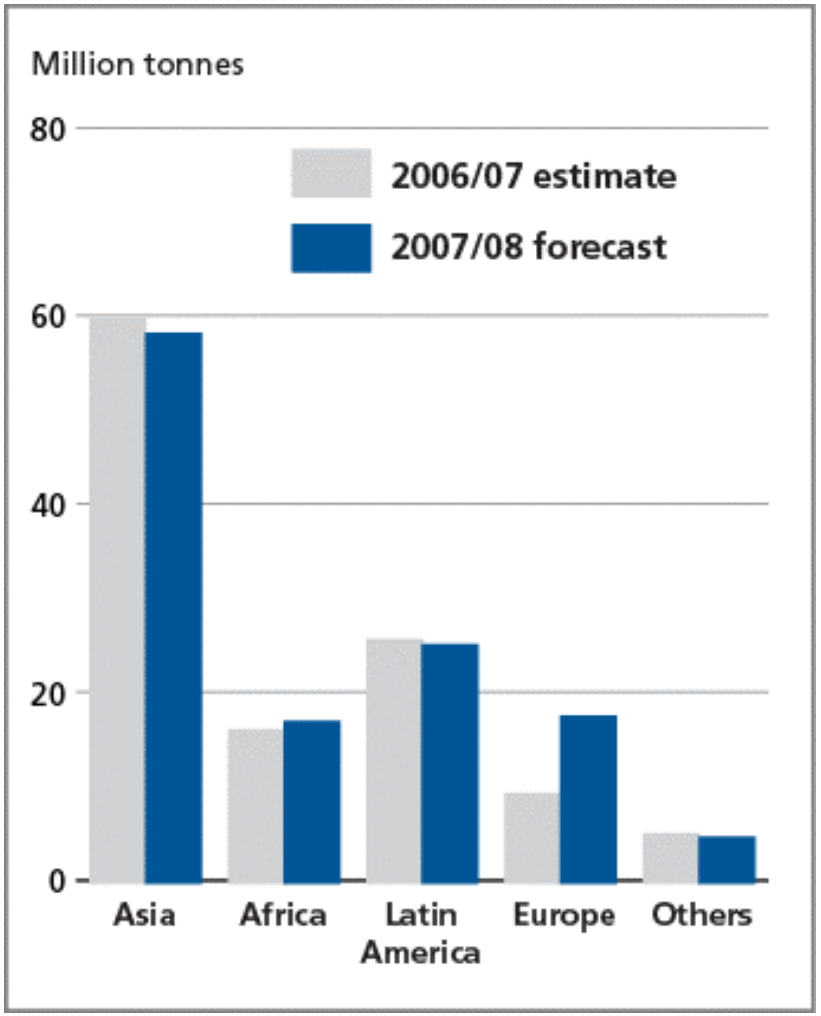
Stocks



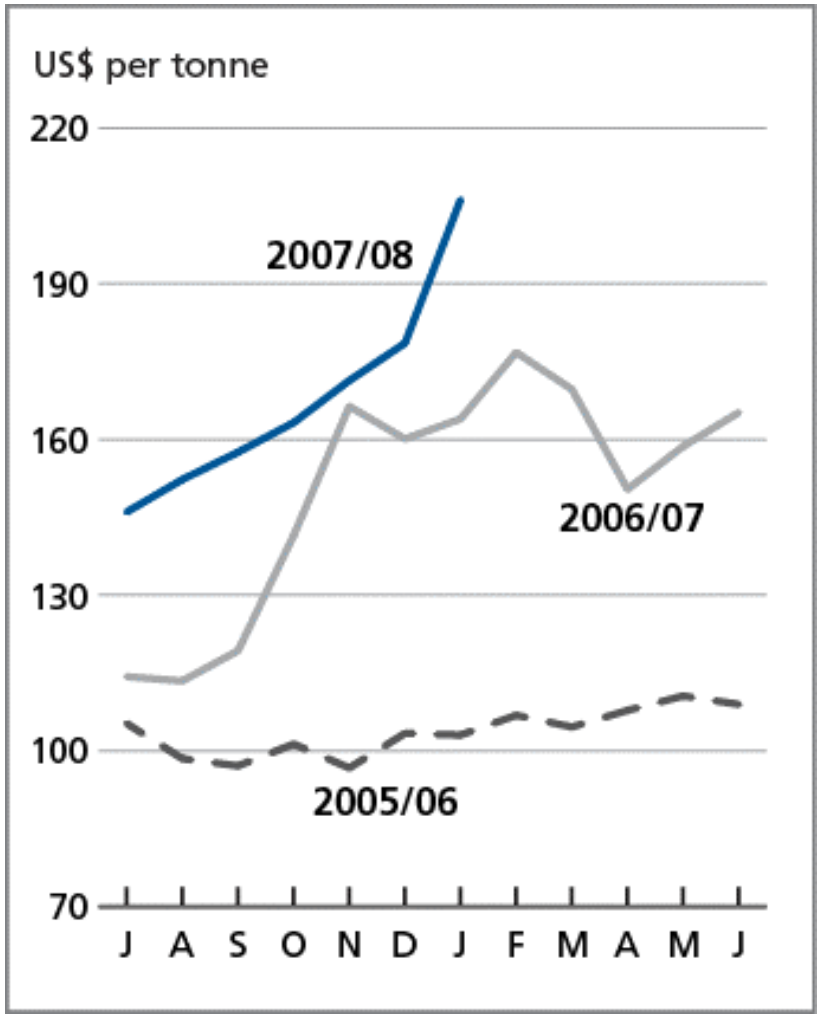
Coarse grains exporters



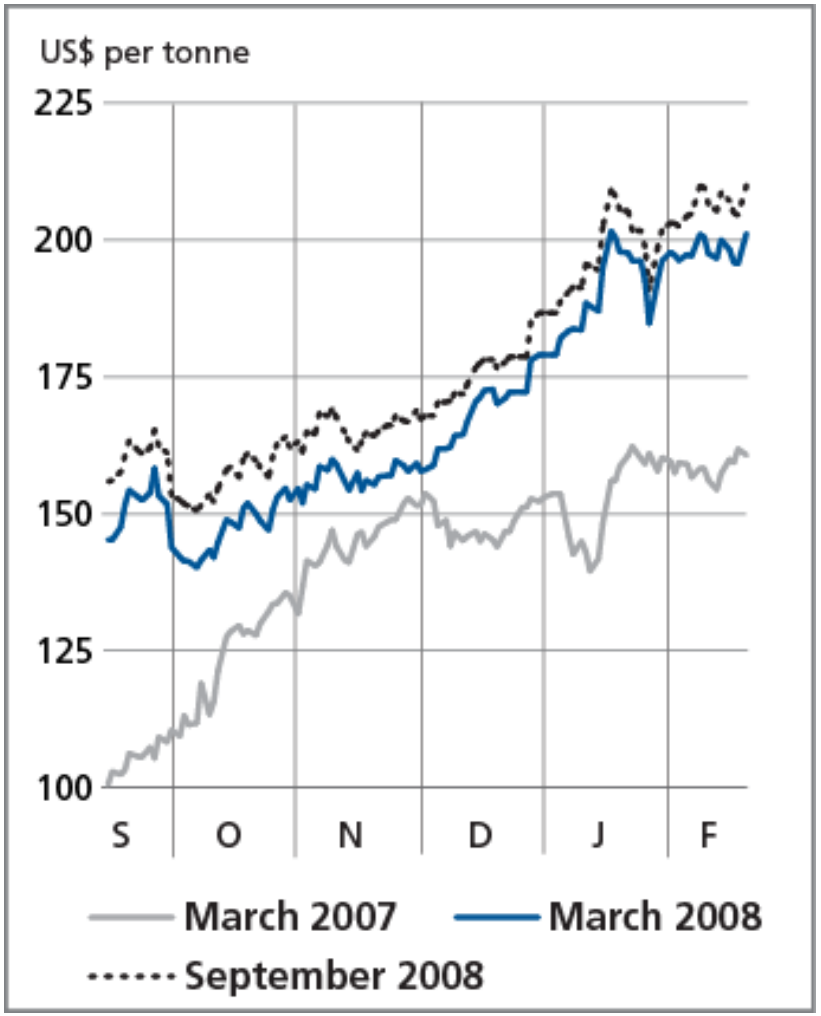
Coarse grains imports



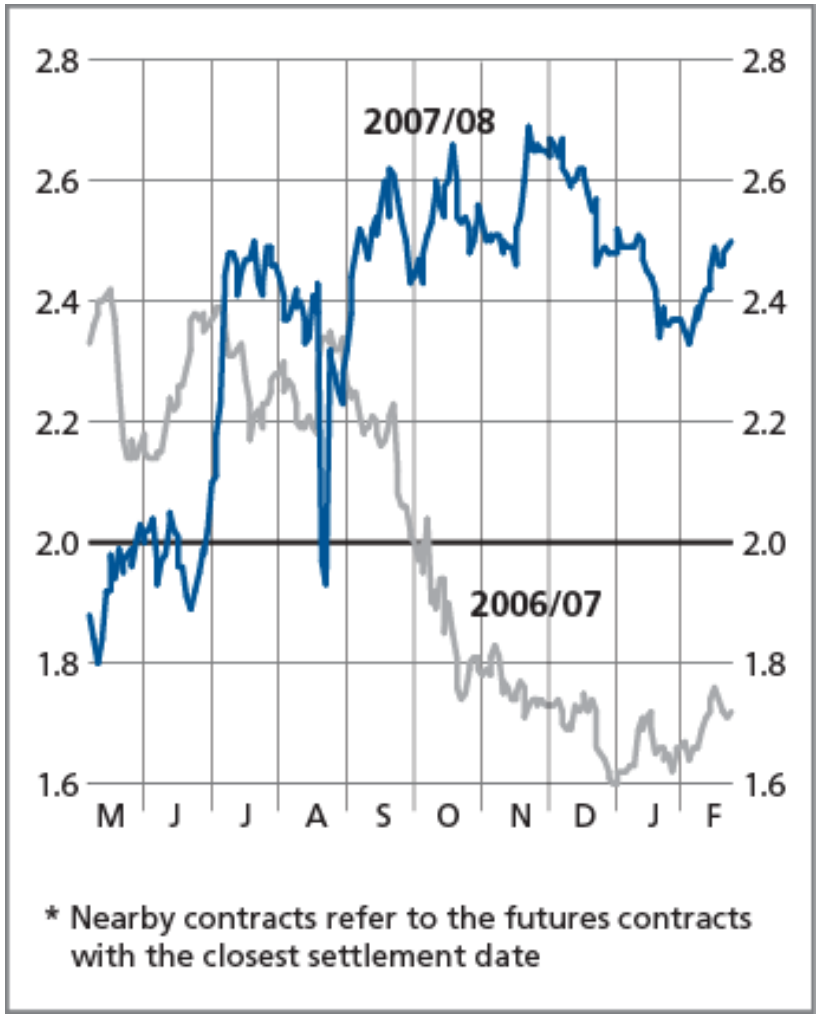
Maize price (U.S. No.2 Yellow, U.S. Gulf)



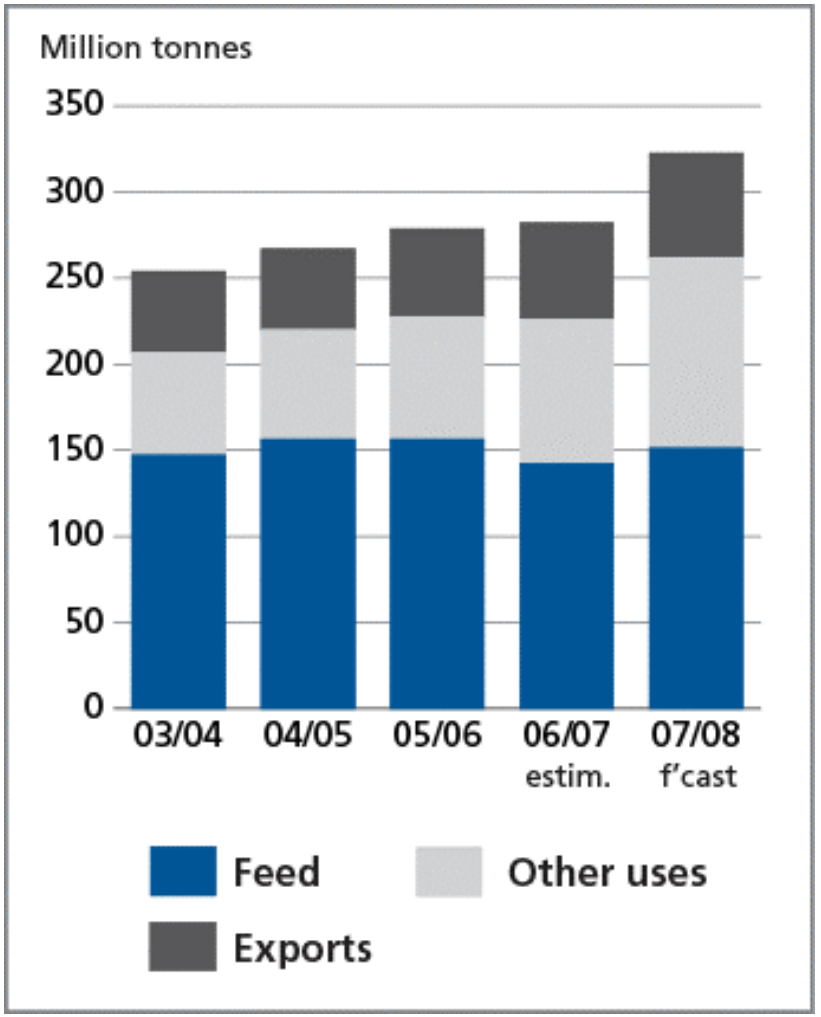
CBOT Maize Futures for March and September



Soybeans/Maize nearby futures ratio



Maize utilization and exports in the United States



Early Prospects for Grain Production in 2008 Assuming "Normal Weather"

Wheat

Total Area: up 3 to 5 %

Total Production: up 5-10%

Biggest expansions in:

EU – up at least 10mt (suspension of the compulsory 10% set-aside and reduction in rapeseed plantings)

USA (+5mt) , Canada (+3mt), Morocco (+3mt)

Ukraine (+2mt), Turkey (+2mt)

China (unchanged) but India (-1mt)

Australia (too early but + 10mt is possible)

Coarse Grains

Too early

Total Area: may decline (USA)

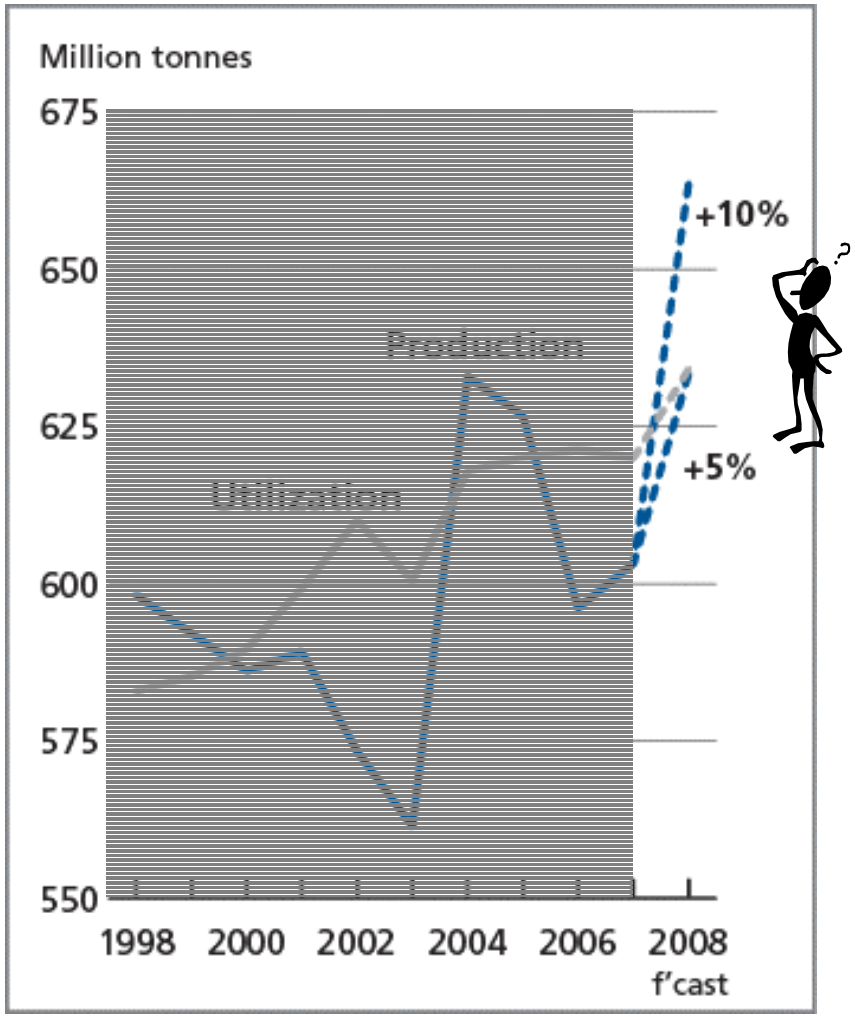
Total production: 0-3% increase

Recovery in the EU (barley and maize) and Ukraine (barley)

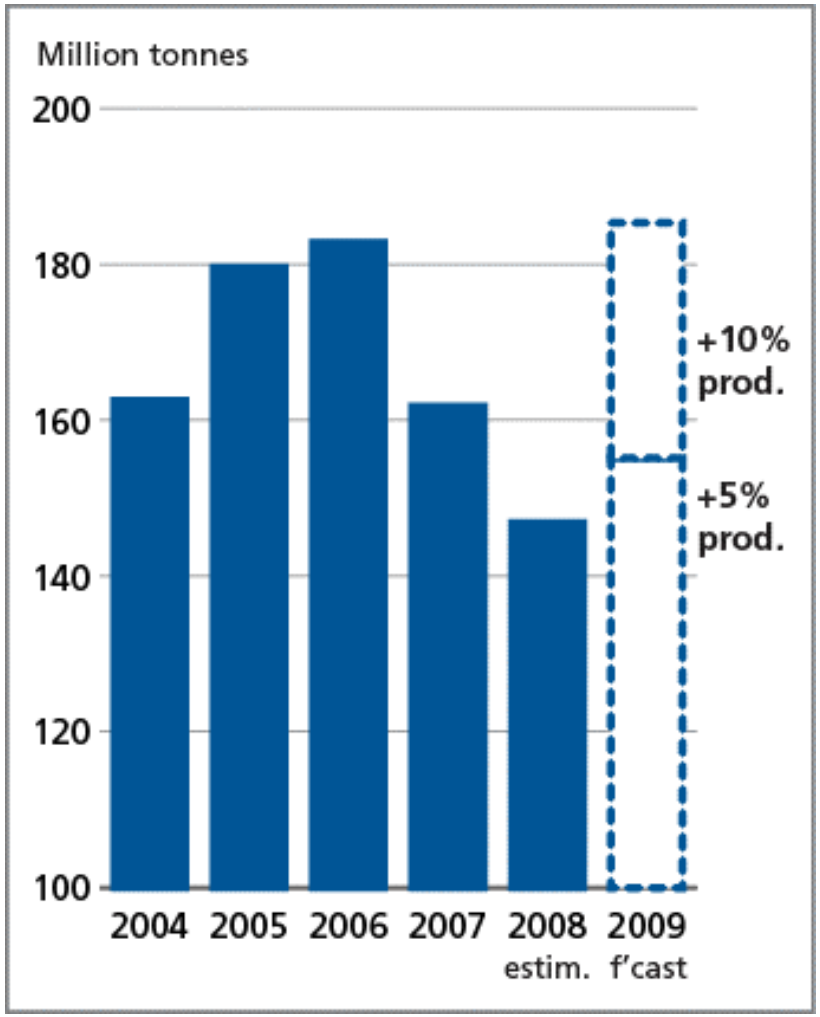
Possible Reduction in the USA maize plantings in favour of wheat and soybeans

World wheat situation and stocks with two production scenarios for 2008: 5% or 10% increase

Production and utilization

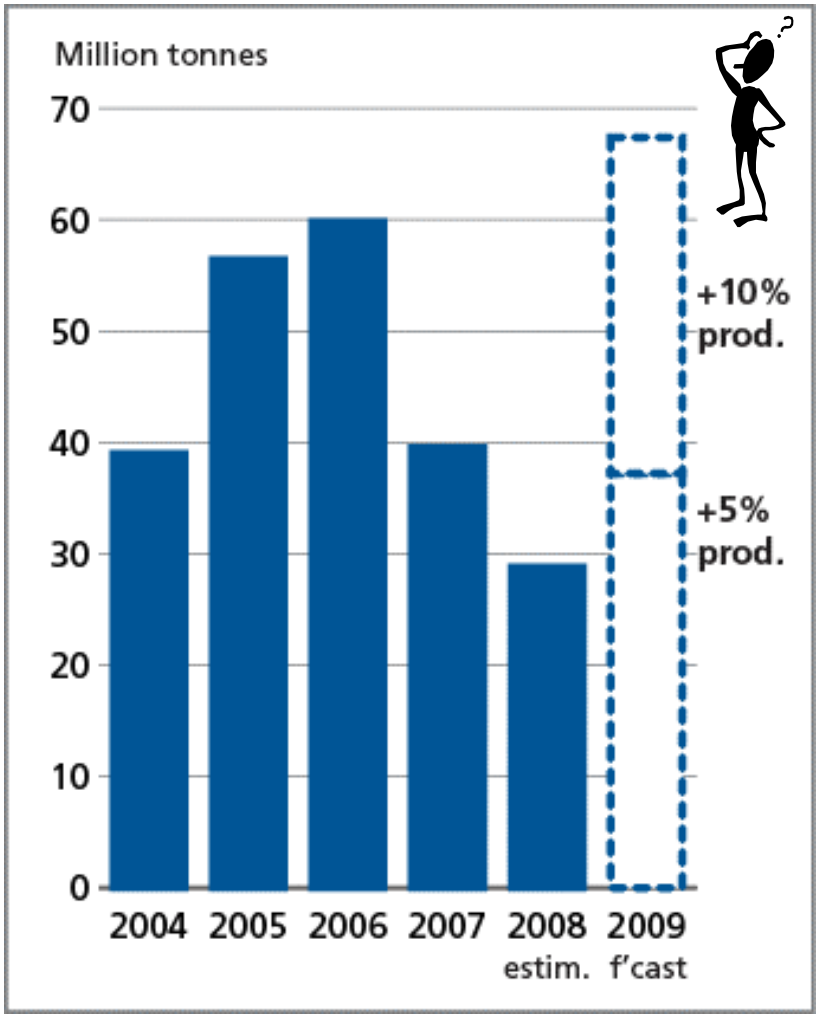


Stocks

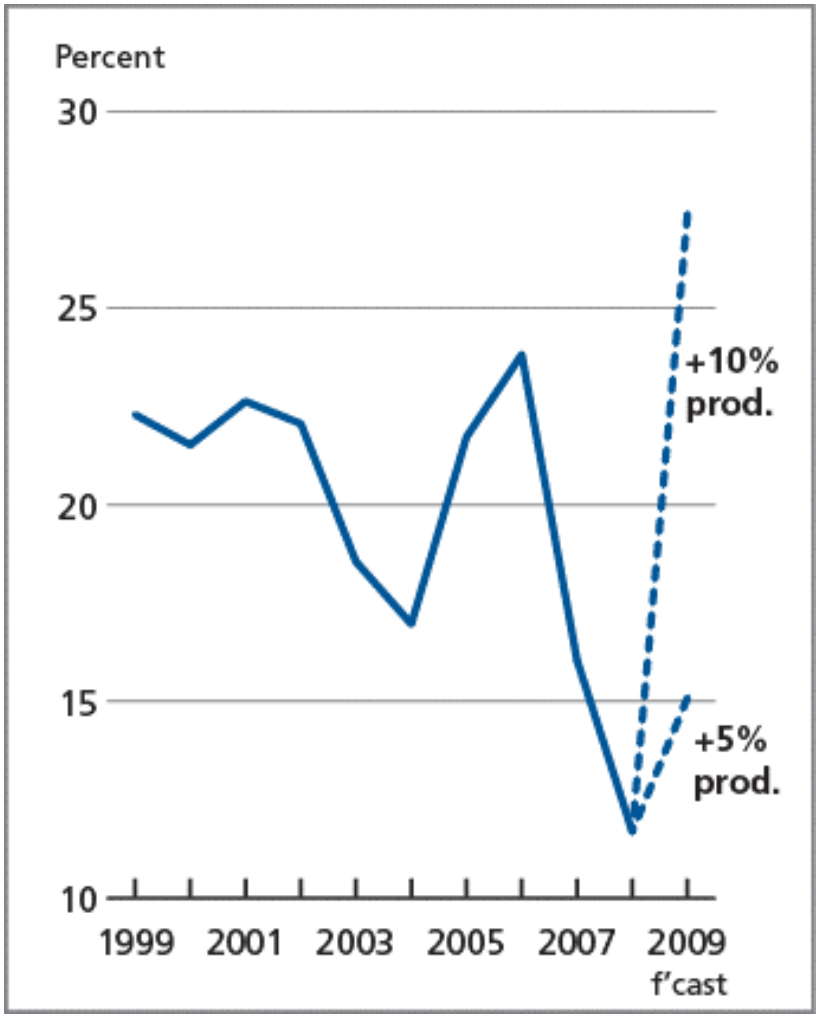


Wheat stocks of major exporters

Total

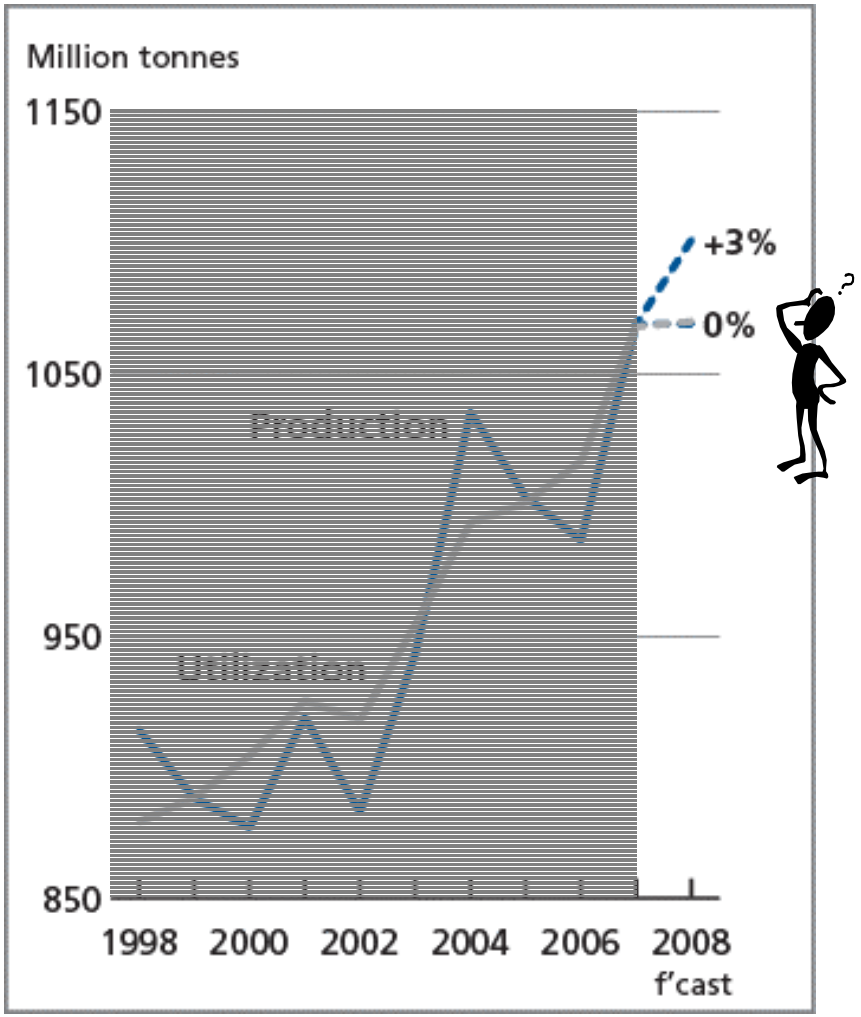


As a % of total disappearance

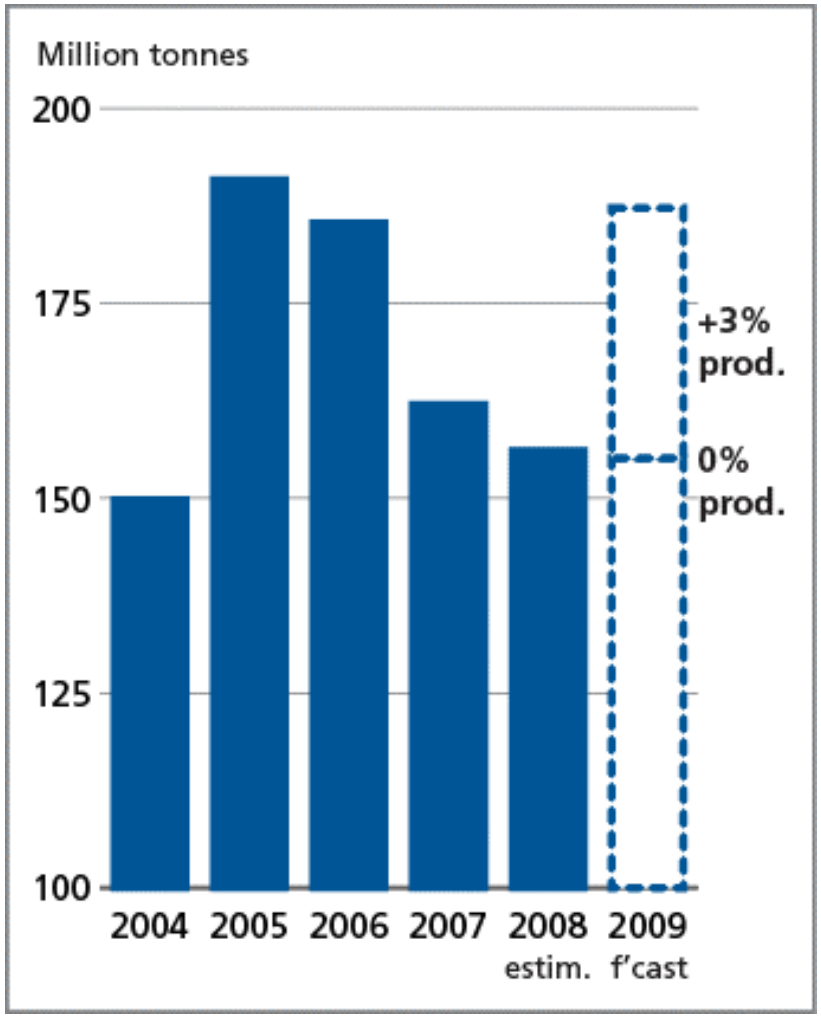


World coarse grains situation and stocks with two production scenarios for 2008: 0% or 3% increase

Production and utilization

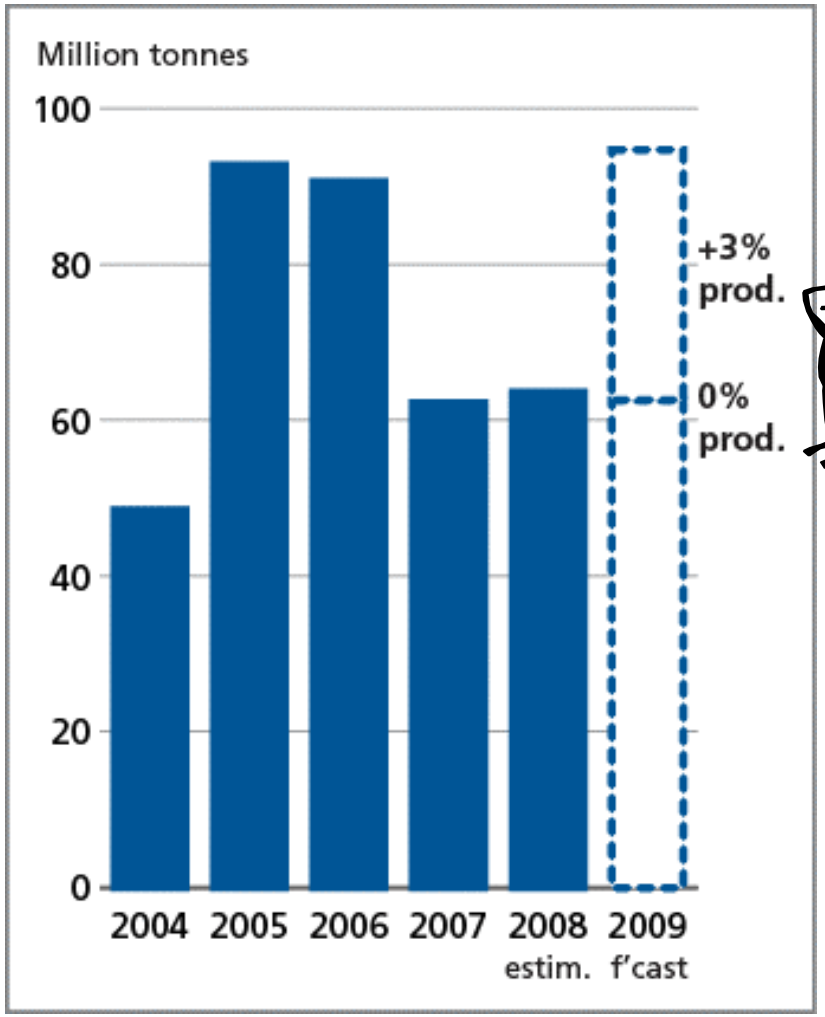


Stocks

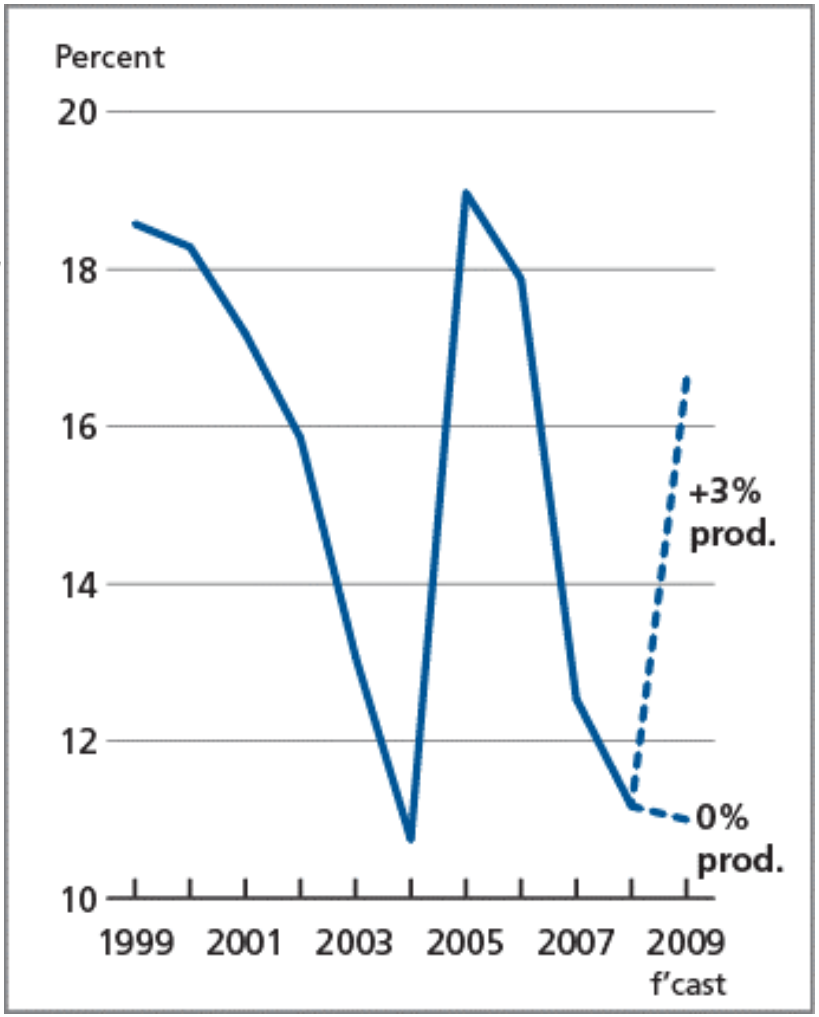


Coarse grains stocks of major exporters

Total



As a % of total disappearance



Why Biofuels?

I. Growing scientific evidence is confirming climate change and therefore the need to reduce greenhouse gas (GHG) emissions (carbon emissions)

II. Plant biomass is energy neutral in that it takes carbon from the air and return it when generating energy (e.g. when used in a car engine)

III. Reduce dependency (imports) on fossil fuels (oil, coal) – energy security

IV. Fast rise in world demand (driven by Asia) for energy will result in a supply crunch unless OPEC double production by 2030 to 60.6m* b/d (from now 36m b/d). This will require at least $600 billion* investment

V. A way to reduce farm support policies (subsidies) in rich countries (at least in theory) and to revitalize the agricultural production and rural development in low income countries

VI. Unlike fossil fuel, most countries can produce some form of bioenergy. Producing domestic energy reduces the oil import bill

*Source: International Energy Agency, IEA (November 2007)

Why Now?

I. The steady rise in the cost of oil since 2003 and expectation of high long term prices

II. At the current oil price, production of liquid biofuels from nearly any form of energy feedstock (sugar, maize, rapeseed, etc..) becomes profitable:

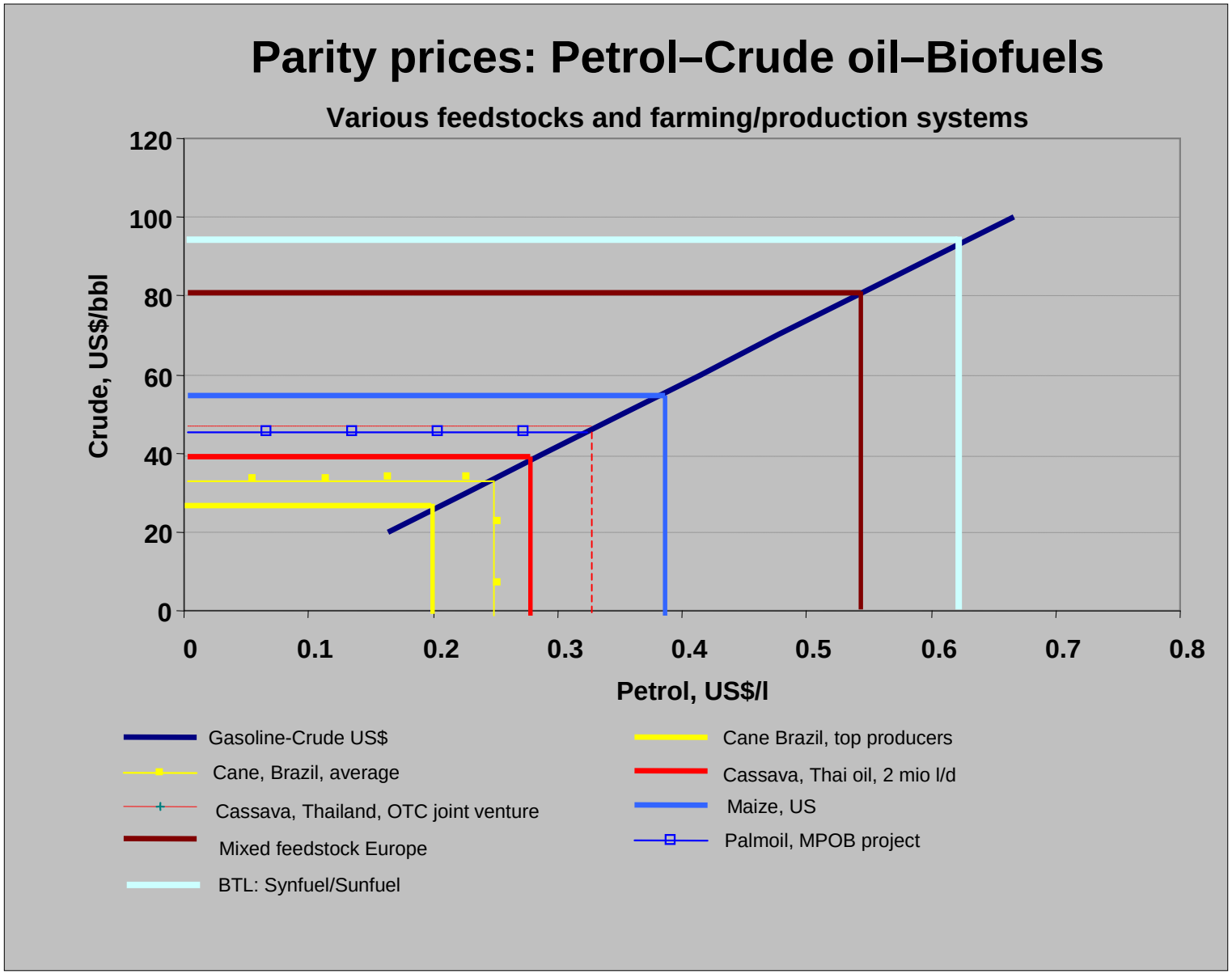
a) Ethanol from sugar cane is economic at oil prices of $30-35 /barrel (Brazil)*

b) Ethanol from maize is economic at $55 (USA)*

c) Bio-diesel from oilseeds is economic at $80 (EU)*

*Source: International Food Policy Research Institute, IFPRI (December 2006)

Competitiveness by feedstock



Source: J. Schmidhuber, FAO (2005)

Bio-energy Today

I. **Bio-energy already accounts for 14% of total world energy use; 33% in developing countries (70% in Africa) but only 2-3% in industrial countries**

II. **Small scale burning of biomass accounts for most household source of energy for cooking and heating in poor countries (2-3 billion people!)**

III. **Liquid biofuels used for transport still small: 40% of transport fuel in Brazil but only 3-5% in USA and EU and even less elsewhere**

Source: P. Hazell and R.K. Pachauri (IFPRI, 2007)

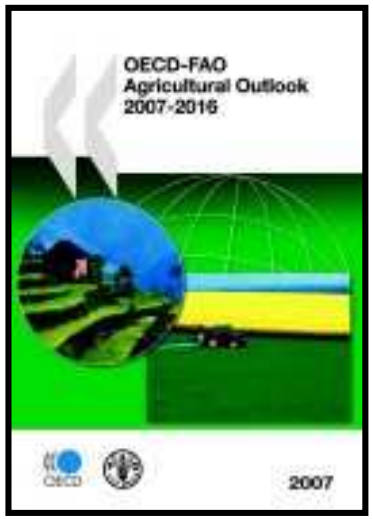
High food prices and biofuels, are they related? Explaining the nature of price linkages...

I. As energy prices rise, costs of agricultural inputs (fertilizers, pesticides and diesel) increase, putting pressure on agricultural prices

II. Also biofuels derived from different feedstocks become competitive with fossil fuels at different levels (so-called parity price), putting pressure on the prices of feedstocks

III. The link weakens as rising feedstock prices make them too expensive as a source of fuel

Medium Term Projections: OECD-FAO Agricultural Outlook



- **Joint work between OECD and FAO: projecting trends in production, consumption, stocks, trade and prices looking 10-year ahead**
- **Three joint reports have been published, the latest report (2007-2016) was released on 4 July 2007**

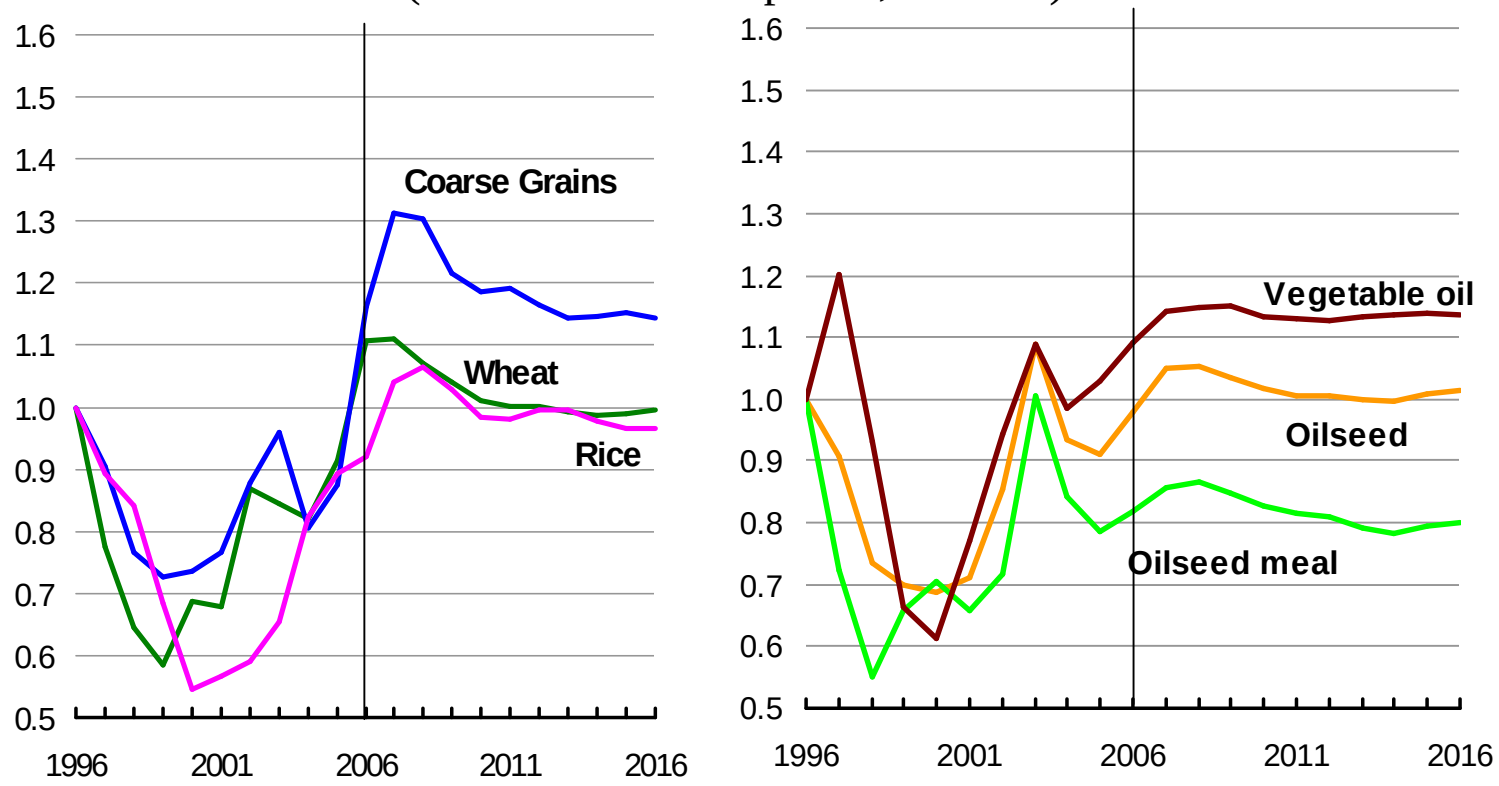
- **The joint work incorporates the OECD** Aglink model **(for the OECD countries) with the FAO's newly established** COSIMO **(Commodity Simulation Model). The market projections cover 39 countries and 19 regions, OECD members as well as key non-OECD agricultural producers — such as India, China, Brazil, Russia and Argentina.**
- **COSIMO is a partial equilibrium agricultural model. It solves for international commodity prices on annual basis. For several countries, it incorporates domestic policies such as trade measures and producer support prices**
- **The projection covers leading agricultural markets, including** cereals**, the** oilseeds**,** livestock**,** dairy**,** sugar**, and** roots and tubers**.**

2007-2016: Assumptions

- Assumption related to supply & biofuel production
  - ✓ Average crop yields to increase in line with past trends
  - ✓ No significant technological breakthrough that would alter recent trends
  - ✓ No animal diseases outbreaks
  - ✓ Normal weather conditions
  - ✓ Implicit and exogenous assumptions for biofuel production in leading biofuel producing countries. For example: The US is expected to remain the leading producer of grain-based ethanol, doubling its cereal use for biofuels from 2006 level; the EU to increase its (wheat) use for biofuels from only 1.4mt in 2006 to almost 18mt in 2016
  - ✓ Current biofuel tax and tariff provisions are assumed throughout the projection period
- Continuation of existing national and trade policies
  - ✓ Full compliance with all bilateral and multilateral agreements.
  - ✓ Continuation of the present farm policies
- Macro economic assumptions
  - ✓ Population growth in line with past trends
  - ✓ Low inflation in OECD countries
  - ✓ Oil prices remaining relatively high in nominal terms
  - ✓ Strong growth in real income
  - ✓ GDP growth in OECD to stay close to 2.5%
  - ✓ China, India, Brazil, and Russia key drivers of global economic growth

In last year's projections (for 2016), prices were expected to decline from their peaks in 2006 but stay above the 1990s. In this year's projections (for 2017) we may see a similar trend but at much higher levels!

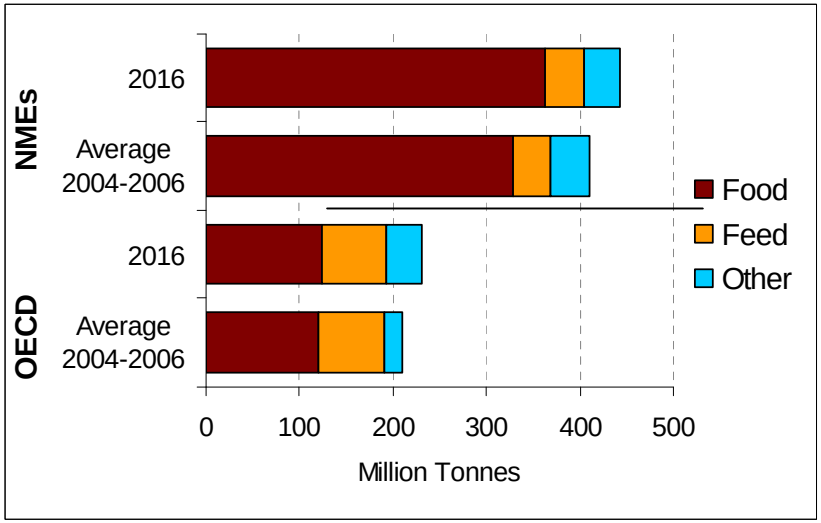
(Index of nominal prices, 1996=1)



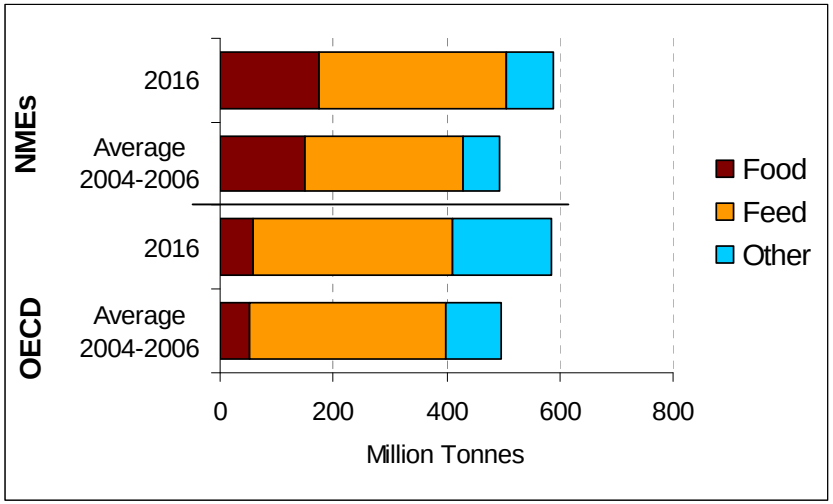
Source: OECD-FAO Agricultural Outlook 2007-2016

Projected grain utilization in OECD and non-OECD countries

Wheat



Coarse Grains



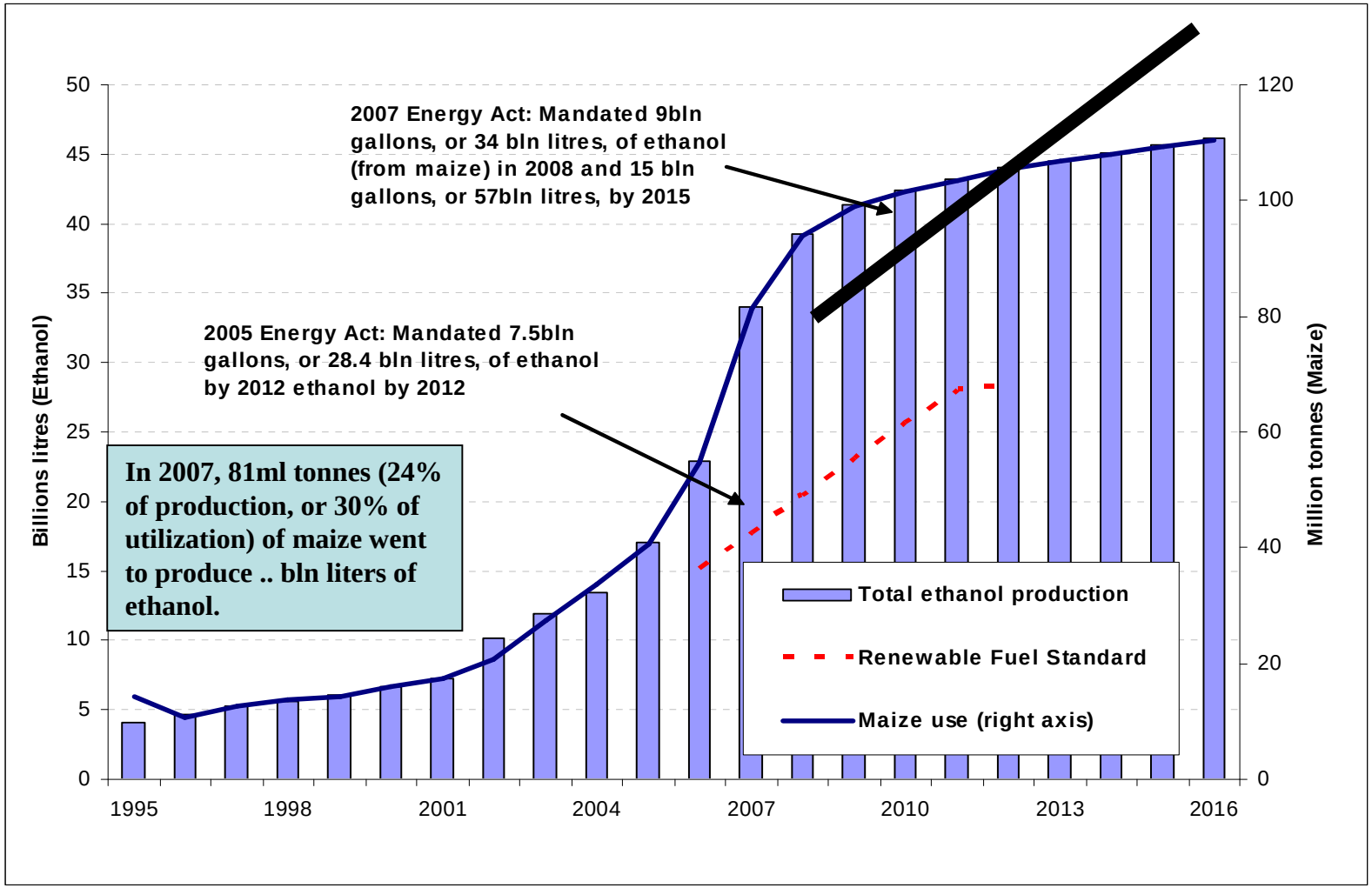
Source: OECD-FAO Agricultural Outlook 2007-2016

The 2007 Energy Independence and Security Act (EISA): Set out a Renewable Fuels Standard (RFS) of 36bln gallons of biofuels by 2022

..... in billion gallons .....

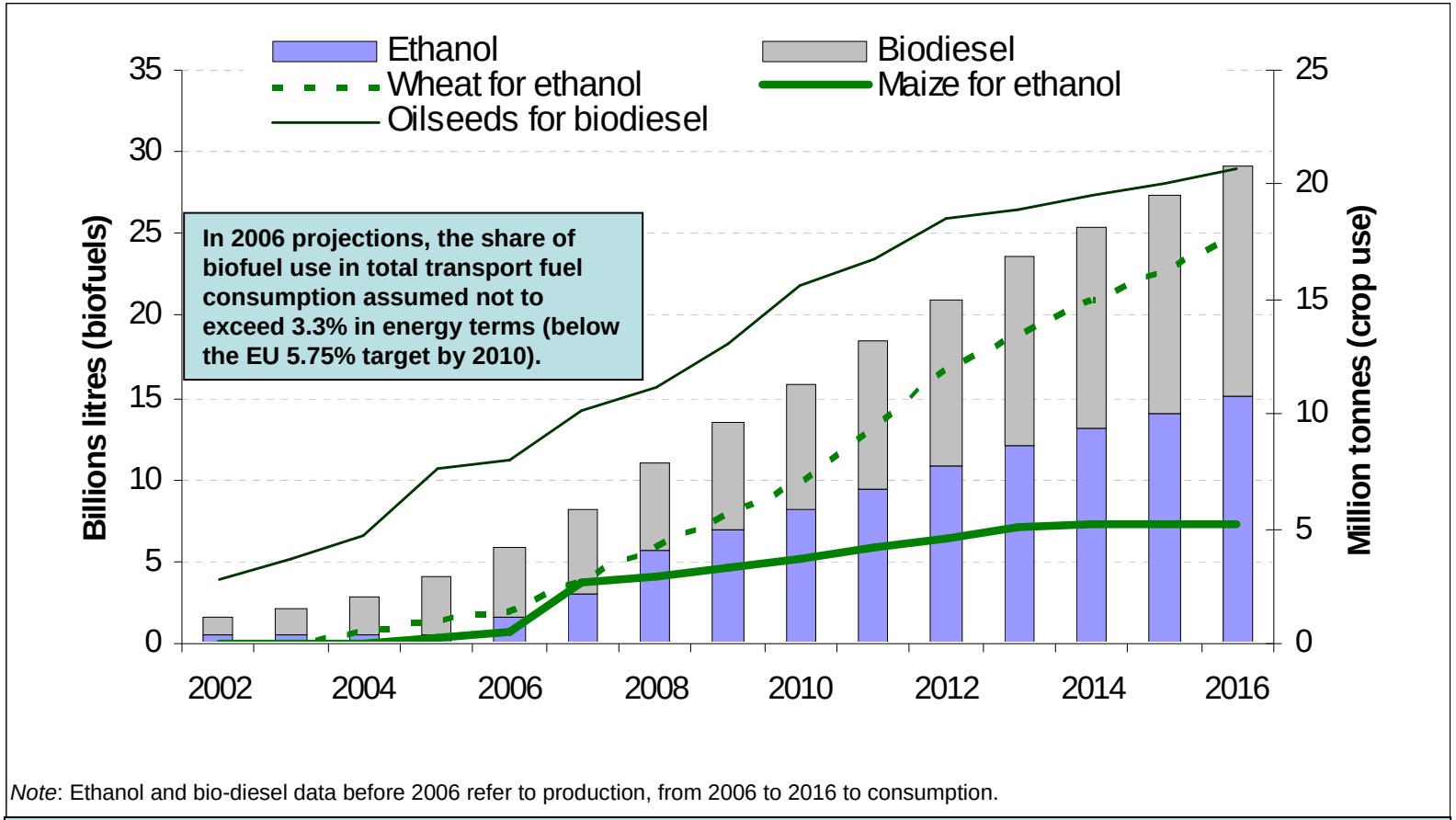
Year	Renewable Biofuel (basically ethanol from mostly maize)	Advanced Biofuel	Cellulosic Biofuel	Biomass-based Diesel (mostly soybean oil)	Undifferentiated Advanced Biofuel	Total RFS
2008	9.0 (34bln l)					9.0
2009	10.5 (40)	.6		.5	0.1	11.1
2010	12 (45)	.95	.1	.65	0.2	12.95
2011	12.6 (48)	1.35	.25	.8	0.3	13.95
2012	13.2 (50)	2	.5	1	0.5	15.2
2013	13.8 (52)	2.75	1		1.75	16.55
2014	14.4 (54)	3.75	1.75		2	18.15
2015	15 (57)	5.5	3		2.5	20.5
2016	15	7.25	4.25		3.0	22.25
2017	15	9	5.5		3.5	24
2018	15	11	7		4.0	26
2019	15	13	8.5		4.5	28
2020	15	15	10.5		4.5	30
2021	15	18	13.5		4.5	33
2022	15	21	16		5	36

Expansion of US ethanol production and corresponding use of maize



Sources: ERS, FAO

In 2006, FAO-OECD projected ethanol and bio-diesel use in the EU to increase sharply (based on wheat, rapeseed and also imports), but the future is less uncertain now!

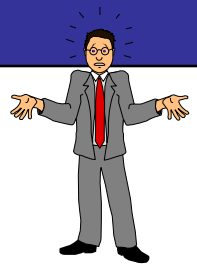


Note: Ethanol and bio-diesel data before 2006 refer to production, from 2006 to 2016 to consumption.

By 2020, the EU is committed to increase renewable energy to 20% of primary energy supply, compared to 8.5 percent in 2007, raise energy efficiency by 20% and biofuel in transport fuels in sustainable ways to 10%. The emissions reduction will be increased to 30% by 2020 when a new global climate change agreement is reached.

Sources: EU Commission, OECD Secretariat, FAO

Uncertainties & Challenges



Short-term

- **Supply: This year's tight situation to continue until the next harvests.**
- **Demand: Is robust, particularly for ethanol and feed**
- **Trade: Record trade in coarse grains driven by large demand in the EU. But trade in wheat declines as a result of high prices and lower import demand**
- **Stocks/Prices: Stocks remain low, particularly those held by major exporters. Prices are high and volatile**
- **Production in 2008: Early indications point to a significant increase in wheat production but the overall grain situation is likely to remain tight for at least another season**
- **Other factors: Developments in other markets, including exchange rates, freights, investment funds will continue to influence the global cereal market**

Medium-term

- **Assumptions: Any major deviations from the current assumptions; i.e. production shocks, outbreak of animal diseases, policy changes such as the new USA Farm Bill, outcome of Doha negotiations, etc...**
- **Supply: Will the Growth in production be sufficient to meet the rising demand at currently projected prices**
- **Demand: The future of the global/USA ethanol market; developments in the animal feed sector and formulations of feed rations, including the role of distillers grains**
- **Trade: Wheat and barley exports from Russia and Ukraine? The EU grain market (under zero se-aside), the China factor and market developments in the USA (for maize) and India (wheat)**

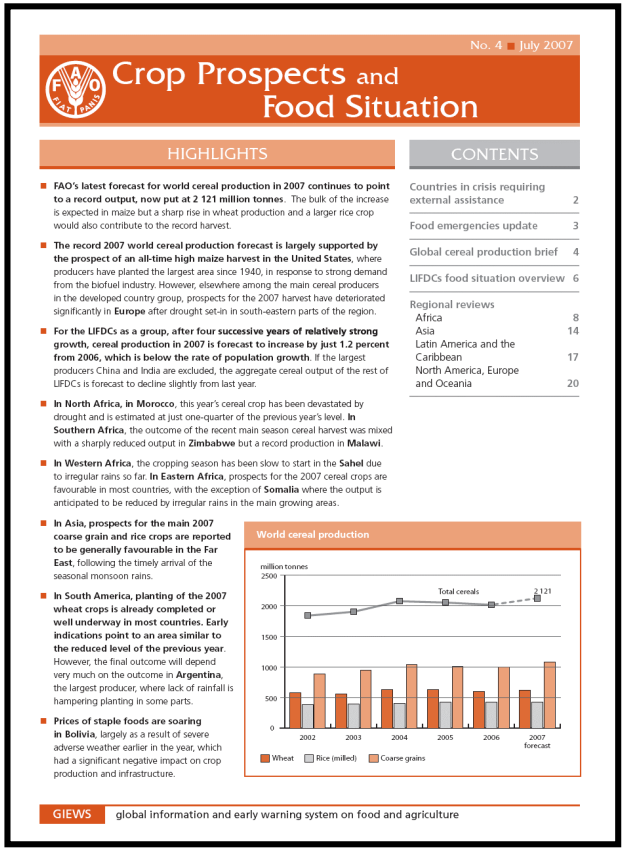
Summary

MARKET OUTLOOK

Wheat	2007/08 forecast	2008/09 preliminary	2016/17 Projection
Production	▲	▲	▲
Trade	▼	▲	▲
Stocks	▼	▲	▲
Prices	▲	▼ (but high)	▼
Coarse Grains	**2007/08**	**2008/09**	**2016/17**
Production	▲	▲	▲
Trade	▲	▼	▲
Stocks	▲	▲	▲
Prices	▼	▼ (but high)	▼

More In....

April 2008*


No. 4 ■ July 2007

Crop Prospects and Food Situation

HIGHLIGHTS

- **FAO's latest forecast for world cereal production in 2007 continues to point to a record output, now put at 2 121 million tonnes**. The bulk of the increase is expected in maize but a sharp rise in wheat production and a larger rice crop would also contribute to the record harvest.
- **The record 2007 world cereal production forecast is largely supported by the prospect of an all-time high maize harvest in the United States**, where producers have planted the largest area since 1940, in response to strong demand from the biofuel industry. However, elsewhere among the main cereal producers in the developed country group, prospects for the 2007 harvest have deteriorated significantly in **Europe** after drought set-in in south-eastern parts of the region.
- **For the LIFDCs as a group, after four successive years of relatively strong growth, cereal production in 2007 is forecast to increase by just 1.2 percent from 2006, which is below the rate of population growth**. If the largest producers China and India are excluded, the aggregate cereal output of the rest of LIFDCs is forecast to decline slightly from last year.
- **In North Africa, in Morocco**, this year's cereal crop has been devastated by drought and is estimated at just one-quarter of the previous year's level. **In Southern Africa**, the outcome of the recent main season cereal harvest was mixed with a sharply reduced output in **Zimbabwe** but a record production in **Malawi**.
- **In Western Africa**, the cropping season has been slow to start in the **Sahel** due to irregular rains so far. **In Eastern Africa**, prospects for the 2007 cereal crops are favourable in most countries, with the exception of **Somalia** where the output is anticipated to be reduced by irregular rains in the main growing areas.
- **In Asia, prospects for the main 2007 coarse grain and rice crops are reported to be generally favourable in the Far East**, following the timely arrival of the seasonal monsoon rains.
- **In South America, planting of the 2007 wheat crops is already completed or well underway in most countries. Early indications point to an area similar to the reduced level of the previous year**. However, the final outcome will depend very much on the outcome in **Argentina**, the largest producer, where lack of rainfall is hampering planting in some parts.
- **Prices of staple foods are soaring in Bolivia**, largely as a result of severe adverse weather earlier in the year, which had a significant negative impact on crop production and infrastructure.

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World cereal production

GIEWS global information and early warning system on food and agriculture

*published 5 times a year

June 2008*


June 2007

Food Outlook

Global Market Analysis

FOCUS

Food import bills reach a record high partly on soaring demand for biofuels

Based on FAO's latest analysis, global expenditures on imported foodstuffs look set to surpass US$400 billion in 2007, almost 5 percent above the record of the previous year. The bulk of the increase can be levelled against rising prices of imported coarse grains and vegetable oils, the commodity groups which feature most heavily in biofuel production. Import bills for these commodities are forecast to rise by as much as 13 percent from 2006. More expensive feed ingredients will lead to higher prices for meat and dairy products, raising the expenditures on imports of those commodities. In several cases, such as meat and rice, the import bills are likely to be driven higher also because of larger world purchases. On the other hand, in the case of sugar, generally high and volatile prices could lead to smaller import volumes, the net effect of which is likely to be a drop in the cost of global sugar imports. The rise of international freight rates to new highs also affected the import value of all commodities, putting additional pressure on countries' ability to cover their food import bills.

Among economic groups, developing countries as a whole are anticipated to face a 9 percent increase in aggregate food import expenditures in 2007. The more economically vulnerable countries are forecast to be most affected, with total expenditures by low-income food-deficit countries (LIFDCs) and least developed countries (LDCs) anticipated to rise by 10 percent each from 2006. To put matters in further perspective, the annual food import basket for LDCs in 2007 is expected to cost roughly 90 percent more than it did in 2000, which is in stark contrast to the 22 percent growth in developed country import bills over the same period.

MARKET SUMMARIES

CEREALS

World cereal production in 2007 is forecast to reach 2 125 million tonnes, up 6 percent from the reduced level in 2006. It would exceed world cereal utilization in 2007/08 which is forecast to grow by 2 percent, to 2 114 million tonnes. As a result, world cereal stocks are likely to rise by 10 million tonnes to 413 million tonnes, still a very low level. World trade in cereals in 2007/08 is forecast at 247 million tonnes, down slightly from 2006/07. While the prospect of a strong recovery in global cereal production in 2007 is a positive development for the 2007/08 marketing season, total supplies in the new season would still be barely adequate to meet an anticipated rising demand, not only from the traditional food and feed sectors but in particular from the fast-growing biofuels industry. As a result, international prices for most cereals are likely to remain high and volatile again in 2007/08.

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FAO food price indices (1998-2000=100)

*published 2 times a year

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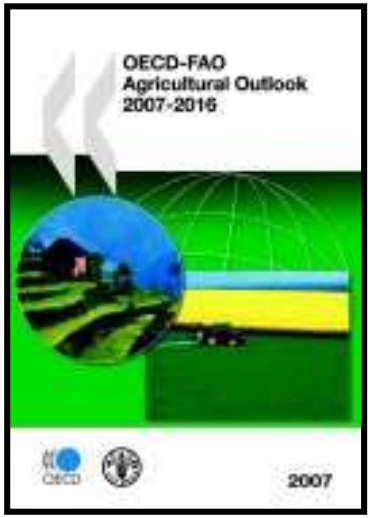
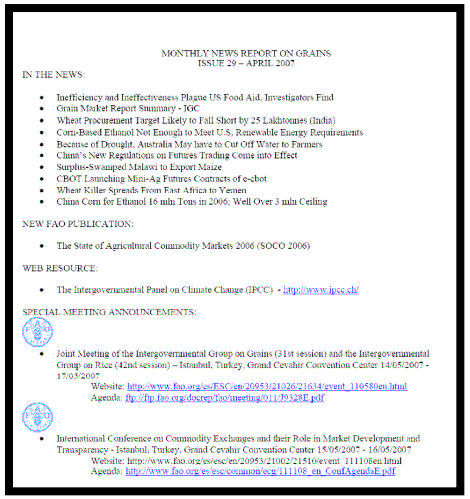


Monthly News Report on Grains


MONTHLY NEWS REPORT ON GRAINS
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IN THE NEWS:

- Inefficiency and Ineffectiveness Plague US Food Aid, Investigators Find
- Grain Market Report Summary - IGC
- Wheat Procurement Target Likely to Fall Short by 25 Lakhtonnes (Indi)
- Corn-Based Ethanol Not Enough to Meet U.S. Renewable Energy Requirements
- Because of Drought, Australia May have to Cut Off Water to Farmers
- China's New Regulations on Futures Trading Come into Effect
- Surplus-Swamped Malawi to Export Maize
- CBOT Launching Mini-Ag Futures Contracts of e-cbot
- Wheat Killer Spreads From East Africa to Yemen
- China Corn for Ethanol 16 mln Tons in 2006; Well Over 3 mln Ceiling

NEW FAO PUBLICATION:

- The State of Agricultural Commodity Markets 2006 (SOCO 2006)

WEB RESOURCE:

- The Intergovernmental Panel on Climate Change (IPCC) - http://www.ipcc.ch/

SPECIAL MEETING ANNOUNCEMENTS:

- Joint Meeting of the Intergovernmental Group on Grains (31st session) and the Intergovernmental Group on Rice (42nd session) – Istanbul, Turkey, Grand Cevahir Convention Center 14/05/2007 - 17/05/2007
  Website: http://www.fao.org/es/ESC/en/20953/21026/21634/event_110580en.html
  Agenda: ftp://ftp.fao.org/docrep/fao/meeting/011/J9328E.pdf
- International Conference on Commodity Exchanges and their Role in Market Development and Transparency - Istanbul, Turkey, Grand Cevahir Convention Center 15/05/2007 - 16/05/2007
  Website: http://www.fao.org/es/esc/en/20953/21002/21510/event_111108en.html
  Agenda: http://www.fao.org/es/esc/common/ecg/111108_en_CoutAgendaE.pdf

World Food Situation

at www.fao.org (or http://www.fao.org/worldfoodsituation/)

This portal offers latest information on food commodity prices, supply and demand and factors that affect world food markets

World Cereal Market Situation & Outlook

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