

Food Prices January February 2012 update

Little movement in cereals spot & futures prices

Maize stocks a concern

KEY POINTS

- International spot prices of maize, rice, and wheat are little changed from the last update; they remain high relative to historical prices;
- With stocks being rebuilt and reasonable prospects for harvests in 2012, rice and wheat prices are more likely to fall than rise;
- Maize is the exception. Booming demand for first biofuels and now feed for China mean that consumption is outstripping supply, so that stocks are at very low levels. A harvest failure for maize would almost certainly lead to a sharp spike in maize prices, dragging up wheat prices as feedlots switched to that grain.
- This bulletin includes a commentary that looks at the changing face of maize and in particular, how it is now closely related to the crude oil price.

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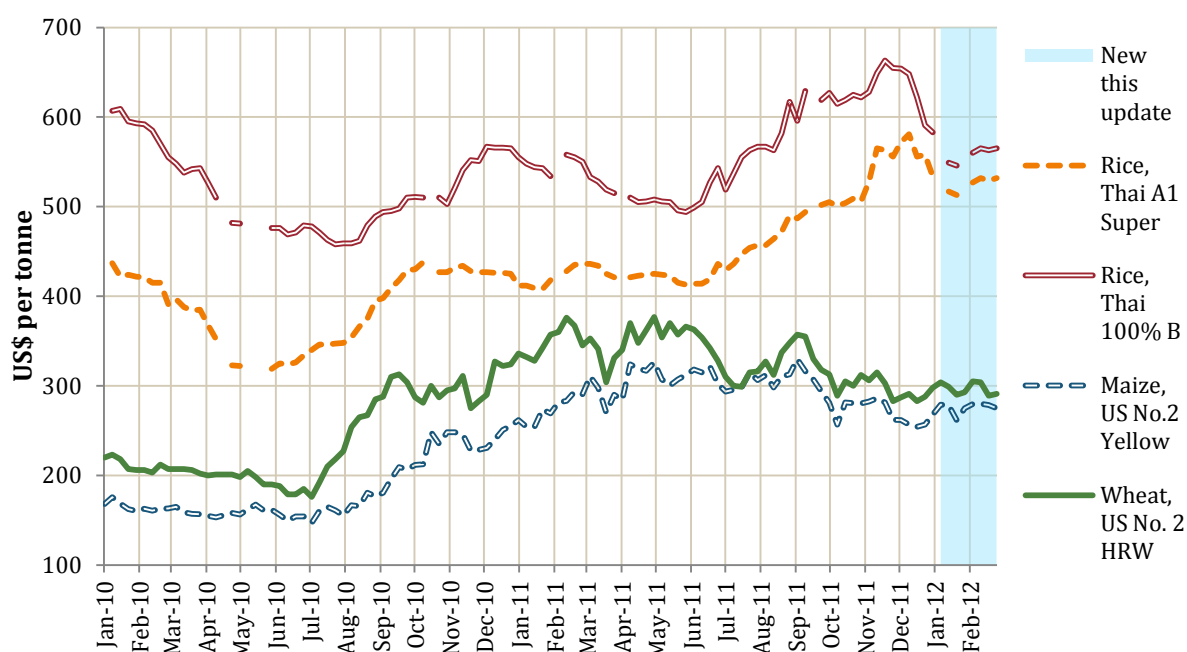
RECAP FROM THE EARLIER UPDATES

- International maize and wheat prices rose sharply from mid 2010, driven largely by poorer than hoped for harvests and strong demand, particularly for maize to make ethanol, then fell back from early 2011 since the main harvests of 2011 were good;
- Rice prices were high in 2011 owing to flood losses in Thailand and concern over the impact of Thai policies on exports from that country;
- Stocks of both wheat and rice are being rebuilt, sufficient to cope with modest harvest failures in the near future; and.
- Maize, however, is the exception, thanks to demand for biofuel and feed in China outstripping production increases. Stocks are low, at less than 15% of use,; not enough to withstand a harvest failure without a spike in maize prices.

KEY DEVELOPMENTS IN 2012

Cereals prices

Figure A: International cereals prices from Jan 2010 to week ending Feb 24, 2012



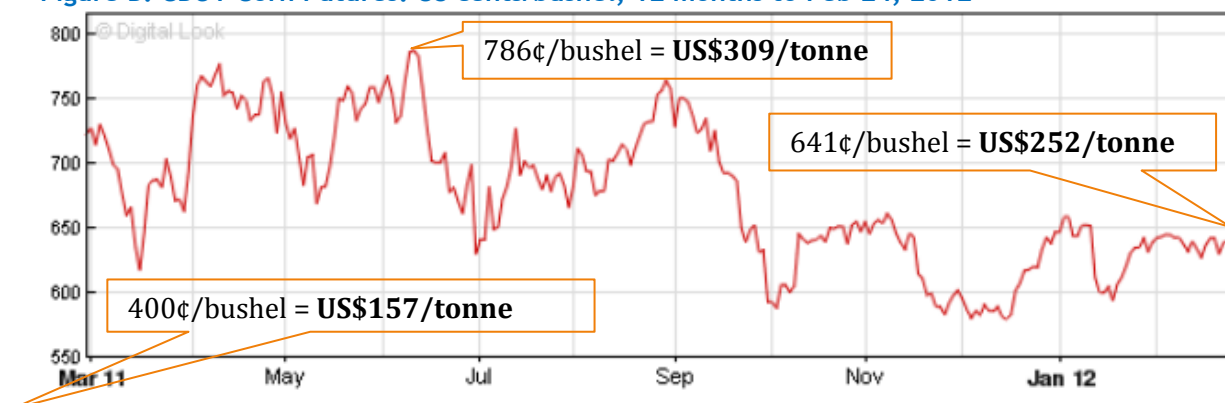
Source: Constructed with data from FAO ESC. Note: The last 8 weeks are new data for this update.

Maize and wheat prices

Since the last update in December 2011, **maize** and **wheat** spot prices have remained high, most recently at US\$275 and US\$290 a tonne, respectively. Futures prices, see Figures B and C, are some US\$40 a tonne less than spot prices. They have changed little since the new year, although they temporarily fell after a favourable market report on January 12th, 2012.¹

¹ The sharp declines after Jan 12th 2012 are largely attributable to an encouraging USDA WASDE estimate. Futures markets tend to respond to USDA bulletins. Javier, L.A. Jan 13, 2012. Corn Declines After USDA Unexpectedly Increases Global Supply Estimates. Bloomberg. <http://www.bloomberg.com/news/2012-01-13/corn-declines-after-usda-unexpectedly-increases-global-supply-estimates.html>

Figure B: CBOT Corn Futures: US cents/bushel, 12 months to Feb 24, 2012



Source: BBC Market data. US\$/tonne added

Figure C: CBOT Wheat Futures: US cents/bushel, 12 months to Feb 24, 2012



Source: BBC Market data. US\$/tonne added

Maize prices are kept high by strong demand from the US for ethanol feedstock, and from China for all uses, especially animal feed.

Latest stock-to-use ratios for maize are down to 14.4% globally, from an already low 15.3% in 2010/11. This is lower than the 15.2% they were in 2006/07 going into the food price spike of 2007/08. For the top ten maize exporters, stock-to-use ratios are expected to fall to 9.9% for 2011/12, from 11.4% in 2010/11. Both figures are lower than the 13.3% seen in 2006/07 — see figures in Annex 1.

Rice prices

Over the last eight weeks rice spot prices have moved little. They remain at US\$530–560 a tonne for good quality grades. Heavy losses to flood damage in October contributed to price rises, though they were already on the way up, driven by concern over Thai government policy.

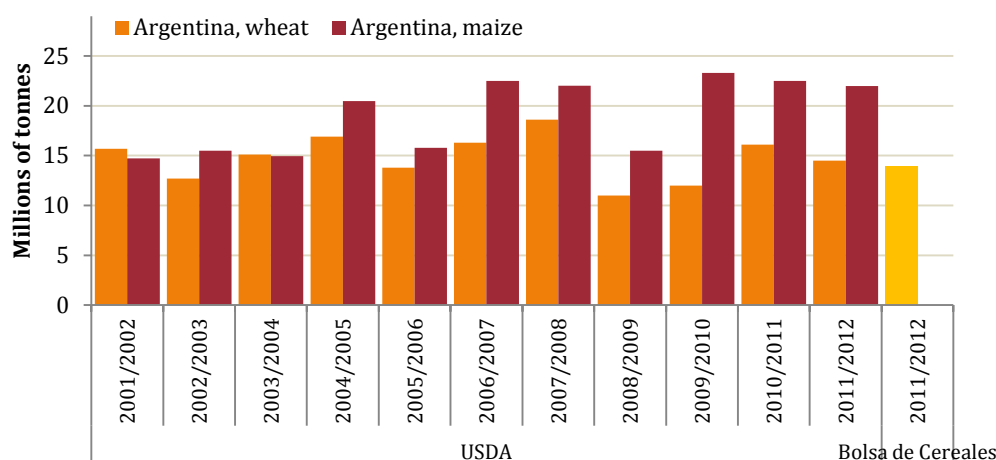
Harvest prospects

Southern Hemisphere maize and wheat

Estimates for **Argentina** wheat production, see Figure D, have improved since the last update. Prolonged dry weather from August to October reduced yields, but not as dramatically as feared. Wheat harvest in 2011/12 is expected to be about 14M tonnes, down about 5% on the previous 5-year average.

Maize is likely to be more badly hit by dry weather from La Niña. USDA has sharply revised its estimate for 2011/12 Argentine production from 29M to 22M tonnes. This is still about 4% above the previous 5 year average, however, since a large area was planted. See figure D.

Figure D: Argentine wheat and maize harvests, past and predicted

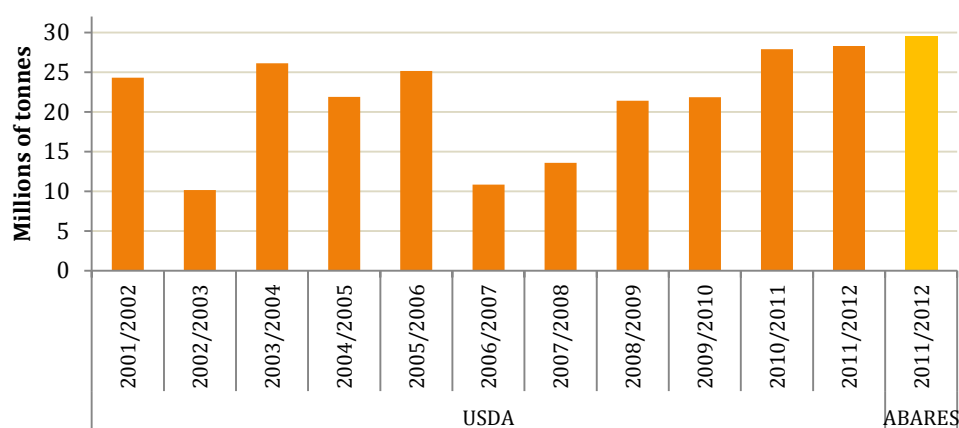


Source: USDA and Bolsa de Cereales for the latest wheat estimate.

Note: It is still too early for an estimate from Bolsa de Cereales for maize production this year.

The news from **Australia** continues to encourage, with 2011/12 harvest estimates for wheat slightly up in February, see Figure E.²

Figure E: Australian wheat harvest predicted



Source: USDA and ABARES Feb 2012 for latest estimate

Winter wheat

In **Ukraine**, where dry weather reduced wheat prospects, it was reported that wheat exports would be restricted in 2012³. This has been denied by government officials, citing a strong harvest historically, despite weather damage⁴.

² Australia is also holding large levels of stocks (USDA estimates its stock-to-use ratio for 2011/12 at over 140%, though these levels have been extremely variable over the last dozen years—see Annex A). Estimates suggest about 31% of this is feed wheat, see *Southwest Farm Press*, Feb 24, 2012. *Australia's record wheat stocks*.

<http://southwestfarmpress.com/grains/australia-s-record-wheat-stocks> 'On January 31, Australian wheat stocks were estimated to be a record 941 million bushels. Milling quality wheat was estimated at 647 million bushels and feed quality wheat at 294 million bushels, which is a record high percentage of feed wheat.'

³ Reuters, Feb 17, 2012. UPDATE 1-Ukraine traders agree to limit wheat exports-report.

<http://www.reuters.com/article/2012/02/17/ukraine-wheat-exports-idUSL5E8DH1TX20120217>

⁴ Agrimoney. Feb 22, 2012. Ukraine, again, denies wheat export curbs. <http://www.agrimoney.com/news/ukraine-again-denies-wheat-export-curbs--4190.html>

Elsewhere, prospects for winter wheat appear to be good, with winter wheat in **Kansas**—the main US producing state—growing well⁵, and USDA estimates an overall US wheat crop about 8% more than last year.⁶

In the **EU**, despite damage from cold weather in some areas and threat of drought in Spain, the European Commission's first estimates of the EU wheat crop for this year are set to rise 3.2M tonnes over 2011 levels.⁷

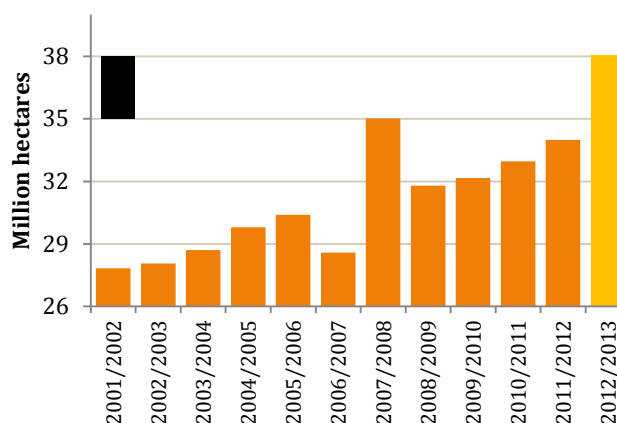
US Maize planting

Early estimates for corn acreage in the US suggest production will rise in 2012/13, weather permitting, with the largest area planted to corn since 1944⁸, see Figure F.

Compared to last year, areas planted to cotton as well as enrolled in the Conservation Reserve Programme (CRM) are lower⁹.

Area enrolled in the CRM has fallen from 15M hectares in 2007 to 12M hectares in 2012, an area equivalent to the black square in Figure F.

Figure F: Area planted to maize in the USA



Source: Data from USDA

Rice

The good news is that India, expecting a bumper crop in 2010–11, is continuing to allow unrestricted export non-basmati rice, as well as of wheat.¹⁰

Thailand, partly on the back of high Indian exports and partly owing to government schemes¹¹, is likely to export less rice¹². USDA predicts Thai rice stock-to-use ratios are set to rise from 53% in 2010/11 to 69% in 2011/12, see Annex 1.

⁵ Reuters, Feb 28, 2011. US Plains HRW Wheat-Basis steady, Kansas wheat improves.

<http://af.reuters.com/article/commoditiesNews/idAFL2E8DR5WW20120228> Note: Kansas is the largest winter wheat producing state, responsible for close to a quarter of US production, see http://www.usda.gov/oce/weather/pubs/Other/MWCACP/Graphs/USA/winter_wheat.pdf

⁶ Reuters, Feb 24, 2011. GRAINS-Spring wheat falls to 14-month low on harvest view.

<http://www.reuters.com/article/2012/02/24/markets-grains-idUSL4E8DO4UB20120224>

⁷ Agrimony, Feb 28, 2012. The world's biggest wheat harvest, the European Union's is to rise this year, lifting inventories by 40%. <http://www.balkans.com/open-news.php?uniquenumber=137291>

⁸ Bloomberg, Feb 14, 2012. U.S. Farmers to Plant Most Corn Acres Since 1944, USDA Says.

<http://www.bloomberg.com/news/2012-02-14/u-s-farmers-to-plant-most-corn-acres-since-1944-usda-says-1.html>

⁹ AgWeb, Feb 27, 2012. Biggest Corn Acreage in 68 Years?

http://www.agweb.com/article/2012_biggest_corn_acreage_in_68_years/

¹⁰ When opening up exports in Sep 2011 it suggested the lack of restriction would be reviewed once 2MT had been exported, but having passed this point it does not wish to restrict exports. See: The Economic Times. Jan 17, 2012. Government can continue with wheat, non-basmati rice exports: KV Thomas.

http://articles.economictimes.indiatimes.com/2012-01-17/news/30635629_1_wheat-and-non-basmati-rice-ban-on-wheat-exports-unrestricted-export

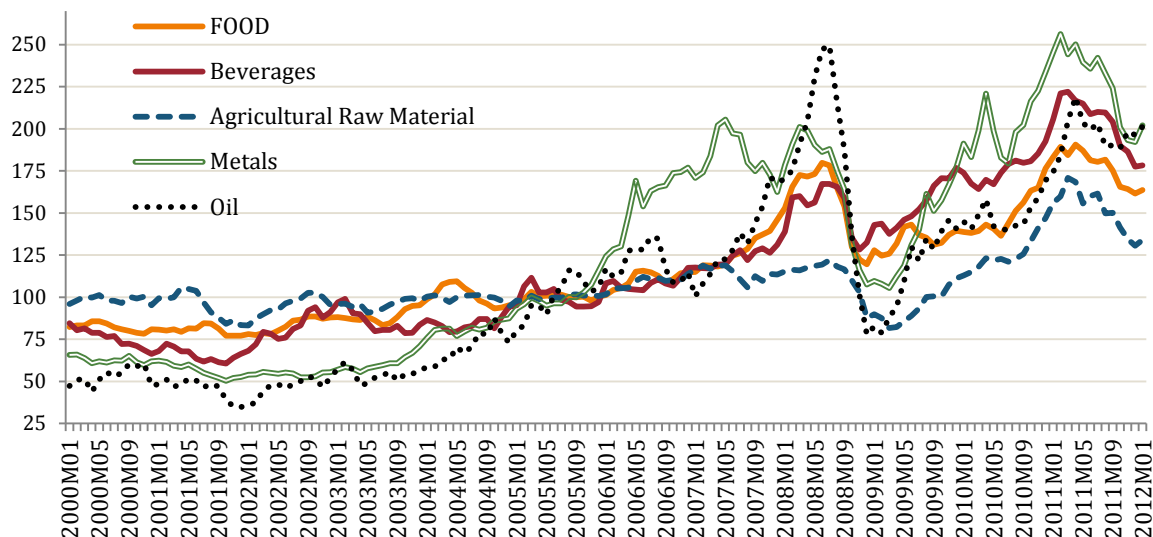
¹¹ The Pheu Thai party, elected in 2011, promised to more than double paddy prices received by Thai farmers; with the aim to pay about US\$500/tonne for white rice.

¹² See: Financial Times. Jan 17, 2012. Thai rice exports set to plunge. <http://www.ft.com/cms/s/0/9351ba78-4114-11e1-b521-00144feab49a.html?ftcamp=rss#axzz1ji5gcEIH>

IMF commodity indices: commodity price resurgence?

Most commodities peaked in February to March 2011 and subsequently have been falling. That may be changing, since the oil price index turned up in November, and in January 2012 there were slight jumps across the commodity indices. It is not yet clear if this indicates a trend.

Figure G: IMF commodity indices to Jan 2000 to Jan 2012

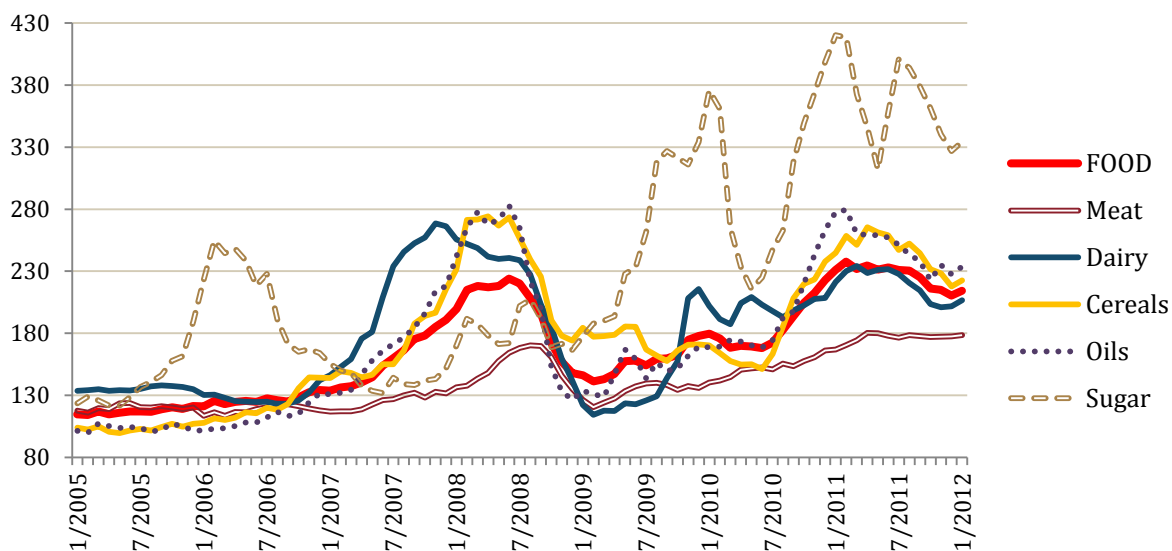


Source: IMF Data. Note: 2005 = 100

FAO food commodity price indices

Similarly, FAO's food prices index, in decline since early 2011, rose a little in Jan 2012, as most indices, except meat, turned up.

Figure H: FAO Food Price Indices to Jan 2012



Source: FAO Note: 2000 - 2004 = 100

Commentary: the changing face of maize

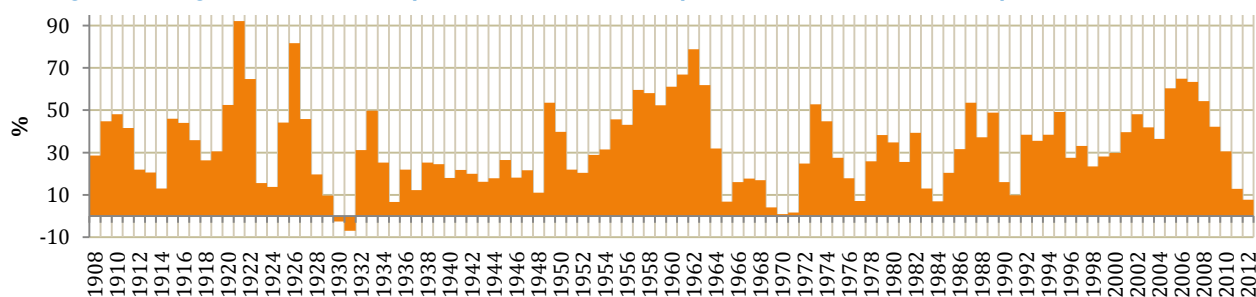
Maize, for so long the cheapest grain, used heavily for feed, has become exceptional — thanks to its role as a feedstock for biofuel in the US. In 2011 more than 130M tonnes of maize went to the ethanol distilleries, around one third of the harvest. Few would have predicted this a decade ago.

Four things stem from this, as follows:

One, despite increasing production of maize, consumption has exceeded the harvest in recent years. Hence prices of maize are remarkably high — well over US\$200 a tonne for a grain that in the 1990s was sometimes traded at as little as US\$75 a tonne. Stocks of maize, moreover, are very low compared to use. If a significant maize harvest were to fail, then maize prices would rise sharply, albeit mitigated by substitution from maize to wheat for feed;

Two, high maize prices have seen the premium paid for wheat over maize cut to slim margins, see Figure I. In more than a century, the current margin of under 8% has only been lower in nine years.

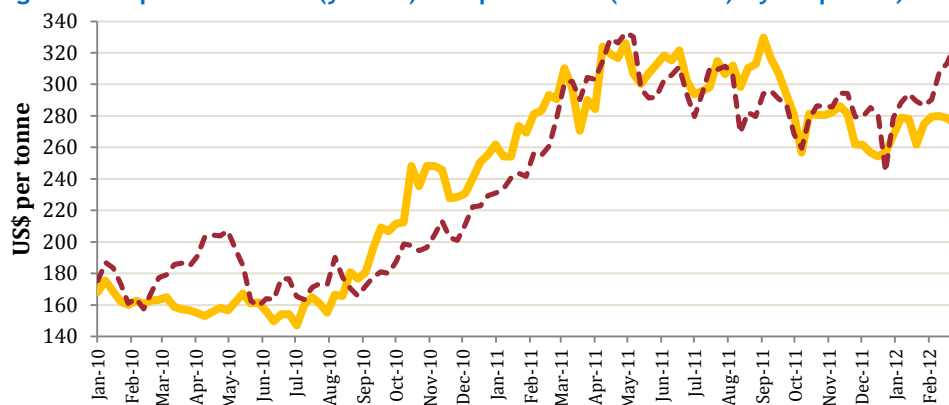
Figure I Margin on the wheat price over the maize price as a % of the maize price



Source: Constructed with data from USDA NASS from 1908 - 2004 and FAO ERS 2005 - 2012. **Note:** Annual averages are constructed from monthly average prices for 1908 - 2004 and for weekly average prices for 2005 - 2012

Three, maize prices now track the crude oil price to a surprising degree. Prior to late 2005 and the surge in US ethanol production, little more than 10% of the movement of the maize price could be predicted from the oil price: subsequently 67% or more of maize price movements can be attributed to changing oil prices.¹³ As Figure J shows over the last two years a predicted price from oil tracks the observed spot price closely.

Fig J Maize prices: actual (yellow) and predicted (red dash) by oil prices, Jan 2010 to Feb 2012



Source: Constructed with weekly maize prices from FAO ESC and Brent crude oil prices from BP.

Note: Estimates were constructed using simple linear regression of weekly prices, $P_{\text{maize}} = -82 + 3.34 \cdot P_{\text{oil}}$

¹³ Linear regression of weekly prices for Brent oil on US maize for May 2002 to Dec 2005 gives an adjusted R-square of 0.12; whereas from Jan 2006 to Feb 2012, this improves to 0.67. For Jan 2010 to Feb 2012 it rises still further to 0.84.

Four, the now high volumes of maize being distilled in the US are producing significant amounts of Distillers Dried Grains with Solubles (DDGS), an animal feed rich in protein, fat, and fibre. USDA estimates that roughly one-third of every tonne of corn distilled to ethanol returns as livestock feed in the form of DDGS. In the US, DDGS are used to supply both protein and energy in place of corn and soya meal feeds, mostly for beef or dairy cattle.

The US exported an estimated 9M tonnes of DDGS in 2010, the largest importers being China, Mexico, Canada, South Korea, Vietnam, Turkey, Thailand, Ireland, Indonesia, and Japan.¹⁴

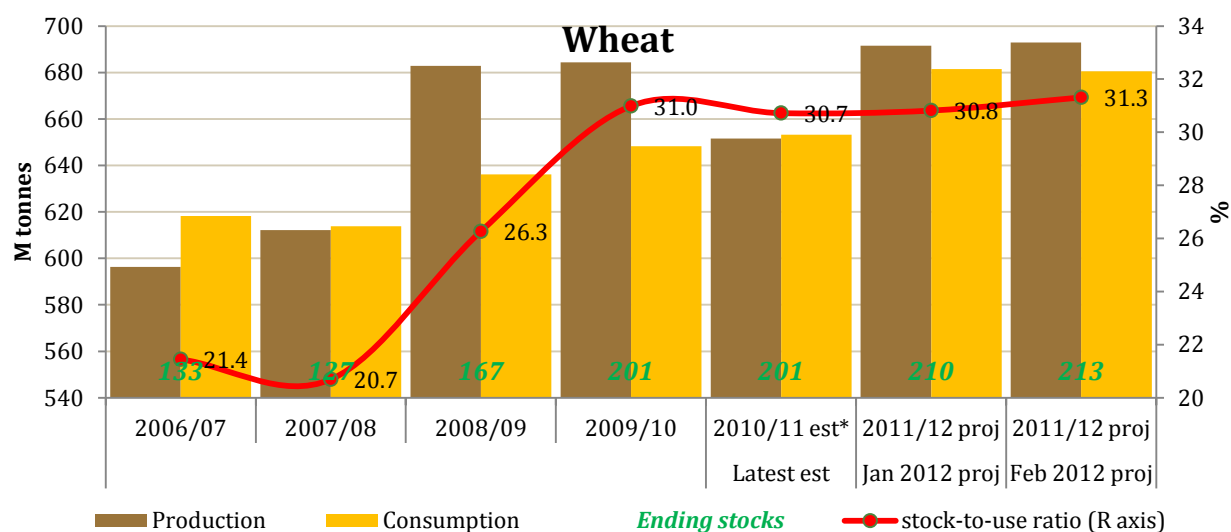
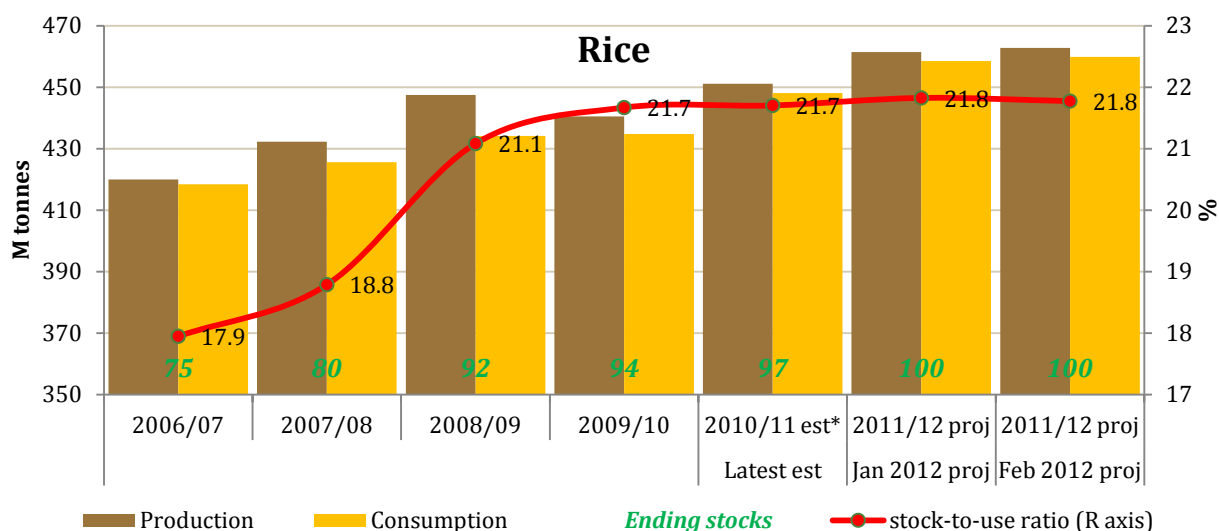
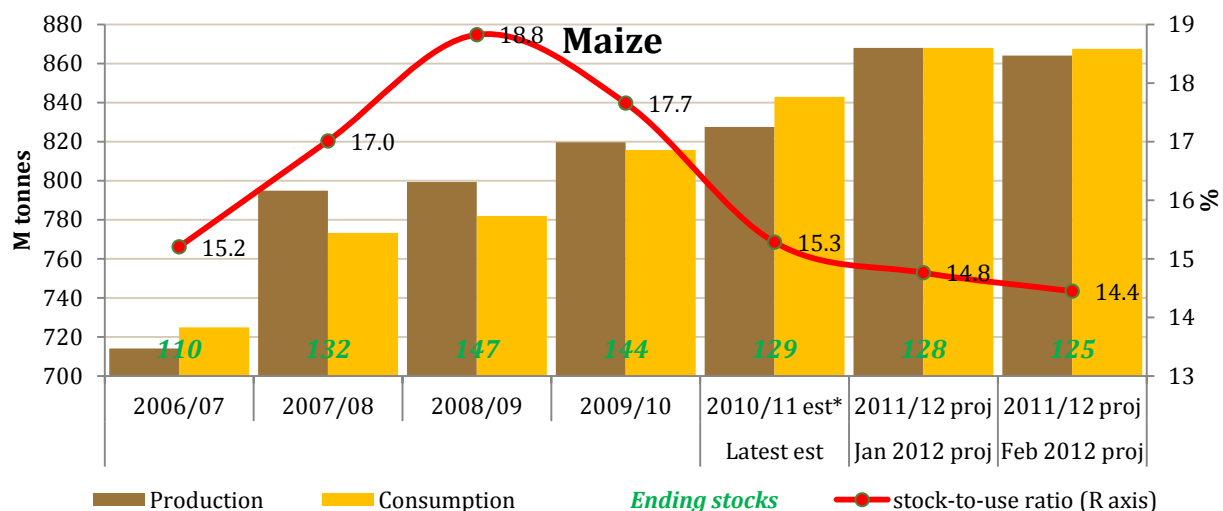
¹⁴ Hoffman, Linwood A., & Allen Baker. Oct 2011. Estimating the Substitution of Distillers' Grains for Corn and Soybean Meal in the U.S. Feed Complex. USDA.

<http://www.ers.usda.gov/Publications/FDS/2011/09Sep/FDS11I01/FDS11I01.pdf>

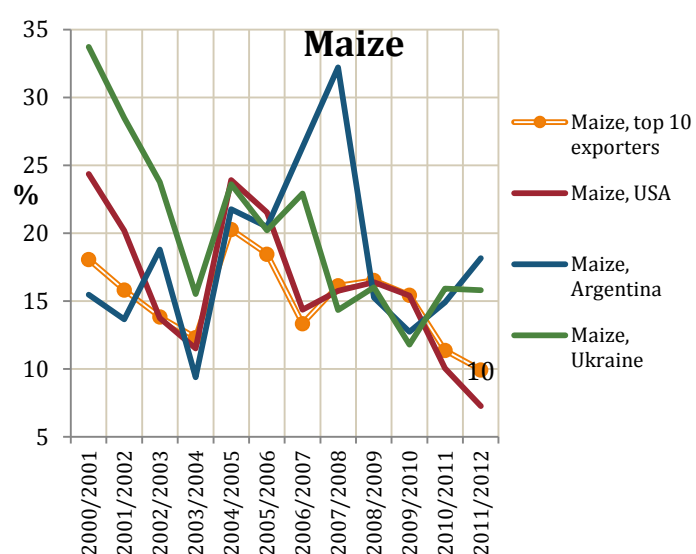
USDA. June 2, 2010. Distillers Dried Grain Exports Surge On Chinese Demand.
http://www.fas.usda.gov/grain/highlights/2010/DDG_IATreport_June_10.pdf

ANNEX 1: MAIZE, RICE, AND WHEAT LATEST ANNUAL PROJECTIONS FROM USDA:

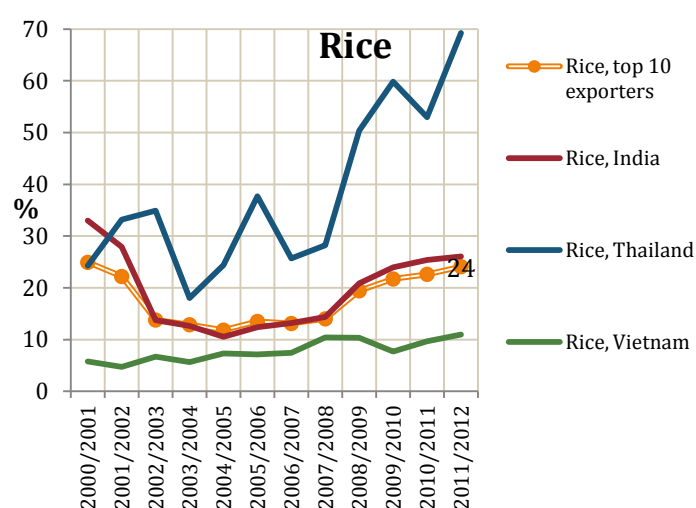
Global production, consumption, stock-to-use ratios, ending stocks



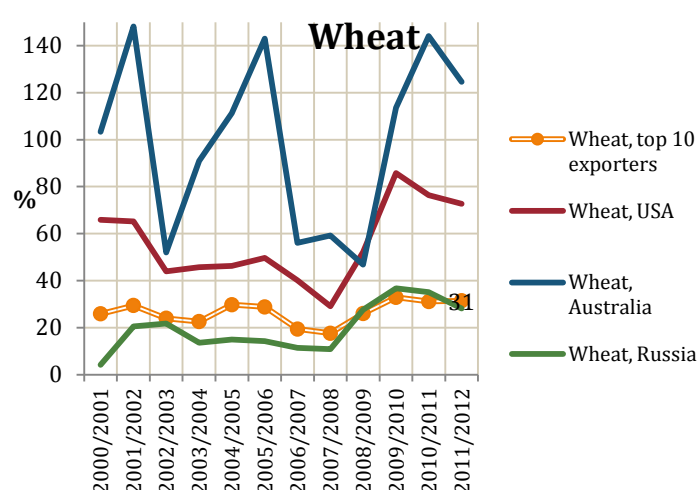
Stock-to-use ratios for major exporters, 2000 – 2011: Maize, Rice, & Wheat



EXPORT POSITION, 2011/12	% of total exports (cumulative)	% total exports
USA	45.5	45.5
Argentina	60.2	14.7
Ukraine	75.0	14.7
Brazil	84.5	9.5
EU-27	87.1	2.6
India	89.4	2.3
South Africa	91.5	2.1
Serbia	93.2	1.7
Paraguay	94.8	1.6
Russia	96.0	1.3



EXPORT POSITION, 2011/12	% of total exports (cumulative)	% total exports
India	19.6	19.6
Thailand	39.2	19.6
Vietnam	58.8	19.6
Pakistan	70.1	11.3
USA	78.6	8.5
Cambodia	81.6	3.0
Uruguay	84.3	2.7
Burma	86.6	2.3
Brazil	88.7	2.1
Argentina	90.6	1.9



EXPORT POSITION, 2011/12	% of total exports (cumulative)	% total exports
USA	18.9	18.9
Australia	33.9	15.0
Russia	48.5	14.6
Canada	61.0	12.5
EU-27	73.1	12.1
Argentina	79.5	6.4
Kazakhstan	85.6	6.1
Ukraine	89.9	4.3
Turkey	92.5	2.6
Uruguay	93.4	0.9

Source: With data from USDA