



## Food Prices

### August 2014 update

Special feature on fears of El Niño

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#### Key messages

- **Projections for 2014/15** maize, rice, and wheat see harvests of some 2.18 billion tonnes — up 5M tonnes from the 2013/14 record, and 27M tonnes above projected consumption
- **Spot prices of maize and wheat have fallen further** to **US\$176** a tonne for maize and **US\$282** a tonne for wheat.
- Rice prices from three major exporters – Thailand, India, and Vietnam – are around **\$380 to \$400** a tonne for 25% broken rice. Less than two years ago ruling Thai prices were US\$550 a tonne.
- **Fears of a strong El Niño** — warming of the Pacific that causes drought in Asia — later this year have abated. It may still happen, but is likely to be moderate to weak rather than strong. If it does occur, crop losses should be small relative to stocks, so that any price rises should be modest — probably less than 30%.

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# Contents

<b>Recap from earlier updates</b>	<b>ii</b>
<b>Key developments since June 2014</b>	<b>1</b>
Supply	1
Maize	1
Wheat	2
Rice	3
Harvest prospects	3
Cereals prices on world markets	4
<b>Special feature: What risk to global cereals prices if El Niño occurs in 2014/15?</b>	<b>7</b>
Commentary	9
References [for special feature]	9

## Recap from earlier updates

- Good harvests of maize and wheat since early 2013 have allowed maize and wheat prices to ease back from the highs of September 2012.
- Rice prices which were high but stable over much of 2011 and 2012 fell in 2013. The substantial gap between Thai prices and those of other leading exporters which opened in the last year disappeared by the end of 2013.
- The Thai government suspended its rice paddy pledging programme in early 2014. The new government seems unlikely to reverse that.
- Fears over events in Ukraine in early 2014 caused maize and wheat prices to rise, but these look more like temporary interruptions to a falling trend.
- With no major harvest failures, global maize, rice, and wheat produced in 2013/14 set a new record, reaching some 2.17 billion tonnes combined (USDA estimate).

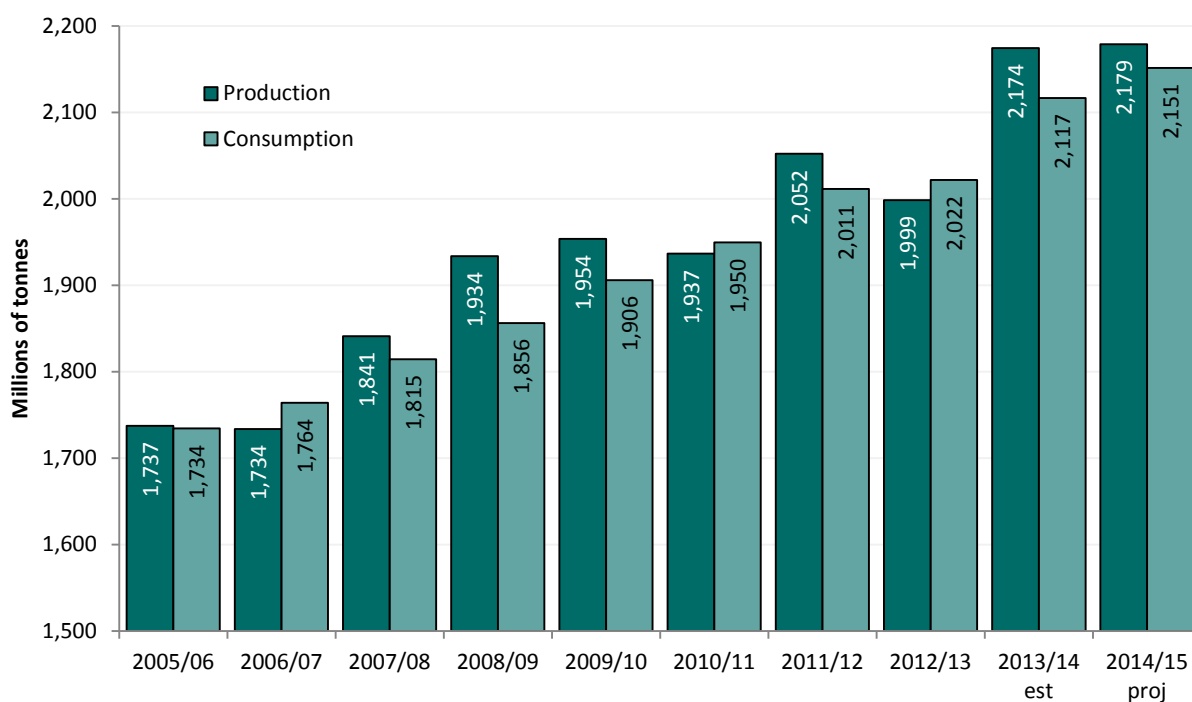
# Key developments since June 2014

## Supply

**2014/15 projections** now expect another record year

Maize, rice, and wheat production in 2014/15 is now projected to beat 2013/14's record harvest by a small margin of some 5M tonnes; a change from earlier projections that put 2014/15 production slightly below last year's record. Production in 2014/15 is expected to exceed consumption by some 27M tonnes: see Figure A (USDA WASDE, August 2014).

**Figure A: World maize, rice, and wheat production and consumption, 2005/06 to 2014/15 forecast**



**Source:** Data from USDA FAS (August 2014 forecast).

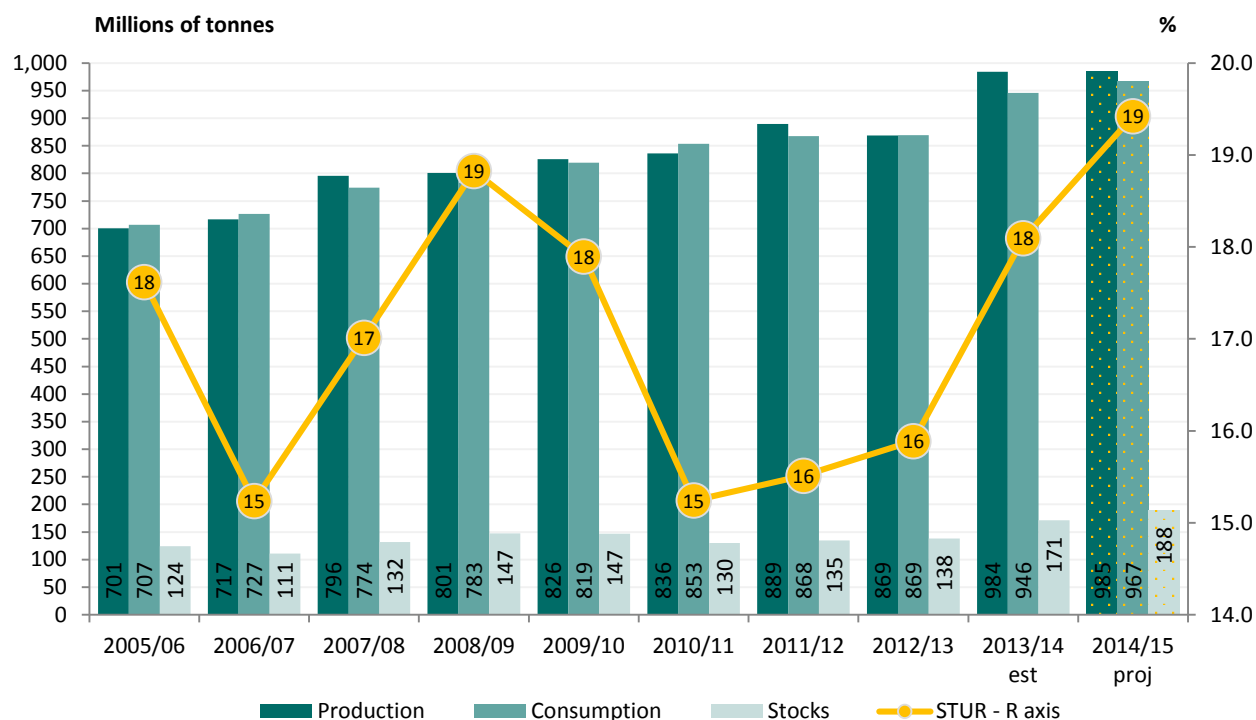
**Note:** Rice is milled equivalent.

## Maize

World *maize* projections up slightly

World maize harvests for 2014/15 of **985M** tonnes are predicted, 1M tonnes above 2013/14's record. Production is again expected to exceed consumption with stocks expected to be rebuilt by some 17M tonnes — the fourth consecutive year of restocking allowing the stock-to-use ratio to climb above 19%, see Figure B, the highest stock ratio for maize since 2003/04.

**Figure B: World maize production, consumption, ending stocks and stock ratios, 2005/06 to 2014/15 projection [at August 2014]**



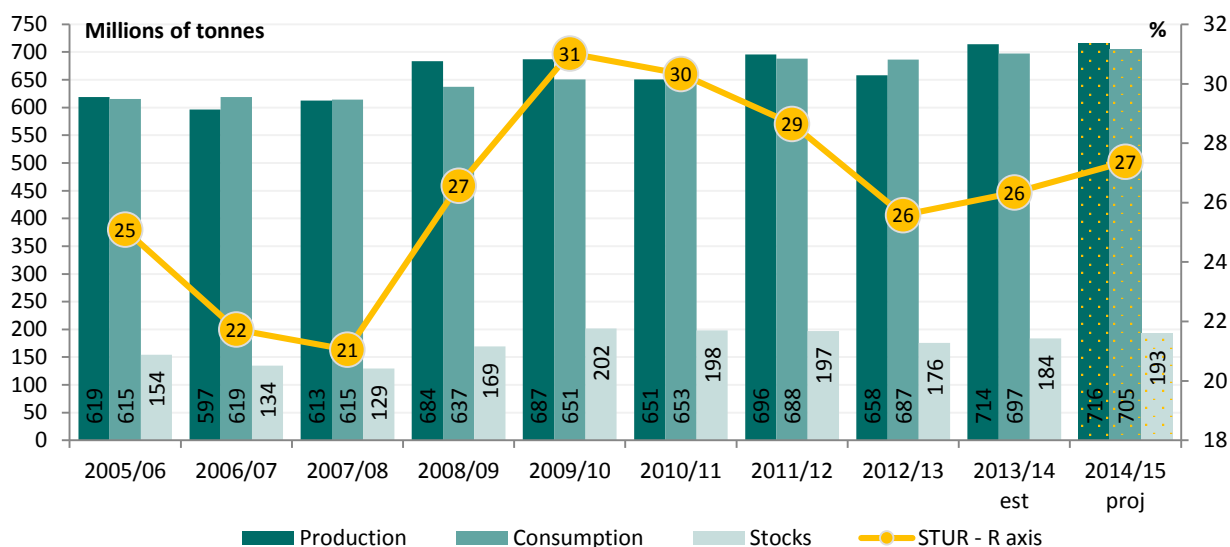
**Source:** Data from USDA. **Note:** STUR (stock-to-use ratio) expresses ending stocks as a percent of total consumption.

### Wheat

A bumper world *wheat* harvest also projected

Worldwide, wheat harvests for 2014/15 are projected to be **716M** tonnes, up 2M tonnes from the 2013/14 record, and greater than projected consumption by 11M tonnes. Stocks and stock-to-use ratios will rise a little, for the third year running, to reach 27%, see Figure C.

**Figure C: World wheat production, consumption, ending stocks and stock ratios, 2005/06 to 2014/15 projection [at August 2014]**



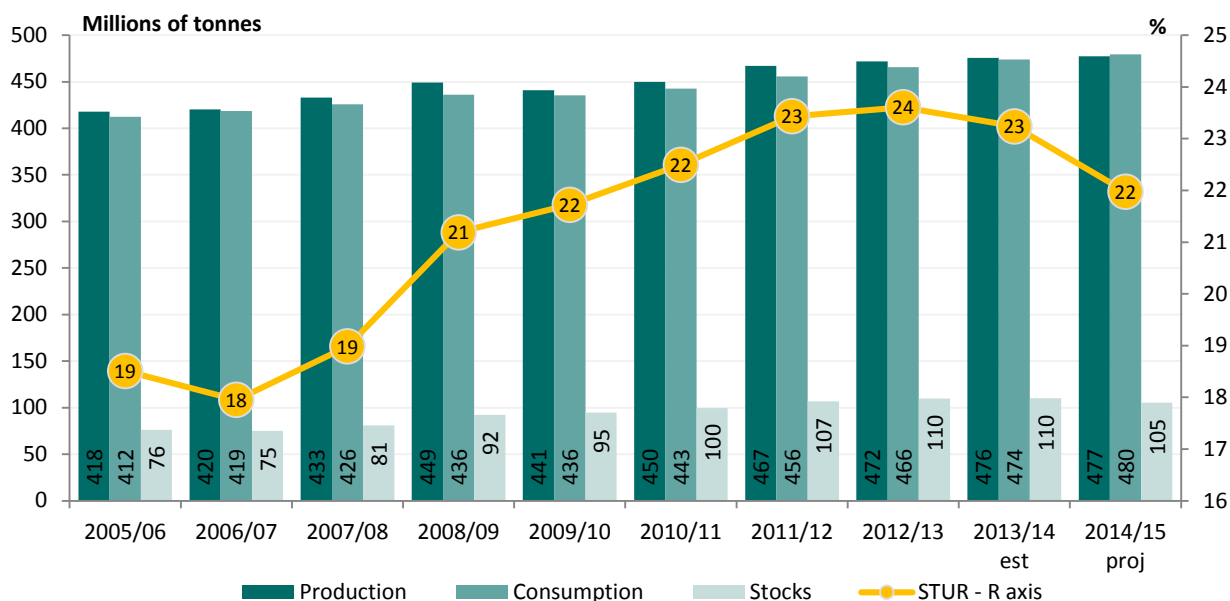
**Source:** Data from USDA

## Rice

*Rice* harvest still projected to be high

Rice production forecast for 2014/15 is down slightly, but still estimated to exceed last year's record, by 1M tonnes. Consumption, however, is projected to exceed production for the first time since 2004/05, and stocks should fall slightly to a ratio of 22%, see Figure D.

**Figure D: World rice production, consumption, exports, ending stocks and stock ratios, 2005/06 to 2014/15 projection [at August 2014]**



**Source:** Data from USDA. **Note:** Rice is expressed on a milled basis.

**Stocks:** The difference between production and consumption does not equate to changes in ending stocks, as ending stocks are calculated using production, consumption, imports, and exports: but USDA's estimates for imports and exports globally are not the same (for instance, in 2012/13, USDA estimated some 36.1 million tonnes of rice would be imported, and some 39 million tonnes exported). Hence the small differences between the implicit stock change of production minus consumption, as opposed to the fuller estimate.

## Harvest prospects

*Maize* on track for record harvests

Improvements in global maize supply projected for 2014/15 come mainly from higher than expected maize crops in the US and EU. Slightly smaller harvests on the other hand are expected for India, where delayed monsoons have lowered projected harvests.

*Wheat prospects* improved

Wheat prospects are improved for Russia (up 6M tonnes from July) and Ukraine (up 1M tonnes), as winter wheat yields prove higher than expected, particularly in the case of Russia. China too saw better wheat production, raised by 2M tonnes from last month's projection.

*Rice* prospects are slightly lowered

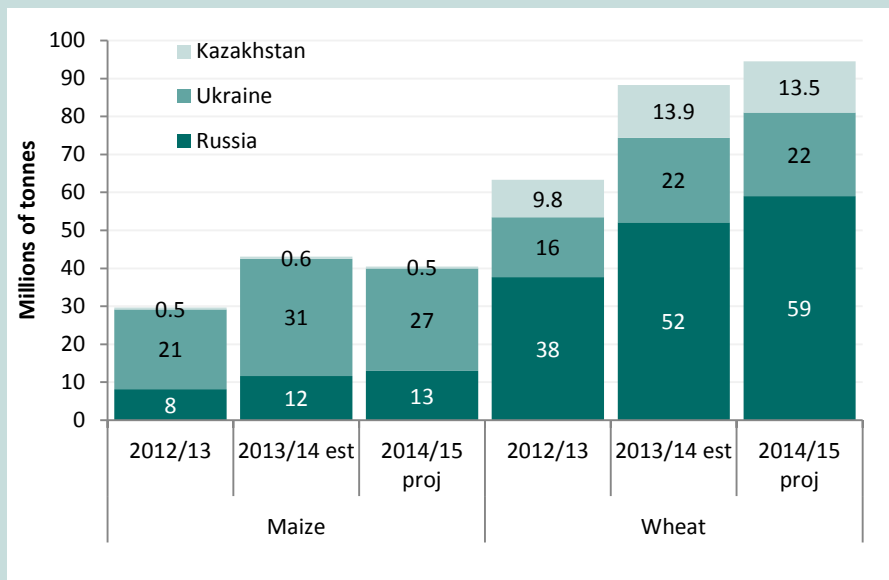
Rice production prospects too have been slightly dampened by the delayed monsoon rains. Prospects for production in Bangladesh, Brazil, India and Indonesia were lowered from July to August, though offset to a degree by a projected increase in rice to come from the US.

## Black Sea region: good prospects for maize and wheat continue despite turmoil in Ukraine

Although events in Ukraine shocked markets earlier in the year, USDA's projections of maize from Ukraine and the rest of the Black Sea region is only slightly lower than in 2013/14, and remains above the year before that. Ukraine is again projected to be the world's fifth highest maize producer<sup>1</sup>.

Wheat production should now be higher than last year, driven by higher than expected yields for Russia's winter wheat: see Figure E.

**Figure E: Black Sea region maize and wheat production**



Source: USDA FAS PSD, downloaded August 2014

## Cereals prices on world markets

*Spot prices* for maize and wheat continue to fall

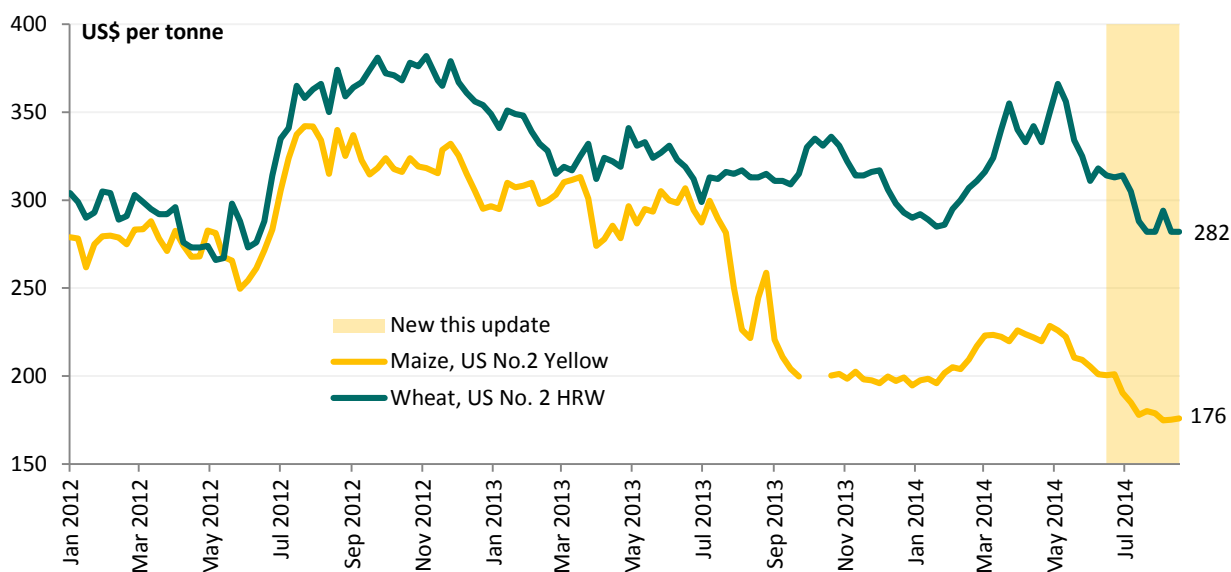
Bumper harvests in the last year helped drive down *spot prices for maize and wheat* until late January 2014, when prices turned up as events in Ukraine spooked importers, while dry conditions in the US led to fears of a poor winter wheat crop.

From late January to early May 2014, maize prices rose by US\$30 a tonne, or 15%, while wheat prices rose by US\$81 a tonne, or 28%; but both have since begun falling back. By the third week of August, maize and wheat prices stood at **US\$176** and **US\$282** a tonne, respectively, down US\$50 and US\$84 per tonne from their May peaks — see Figure F.

With healthy prospects for Northern hemisphere harvest, it is likely those falls will continue. This expectation is corroborated by futures prices, particularly in the case of wheat, that are well below current spot prices — see Figures G and H.

<sup>1</sup> After US, China, Brazil, and EU (USDA FAS does not disaggregate the EU into member states).

**Figure F: Maize and wheat weekly spot prices from Jan 2012 to August 2014**



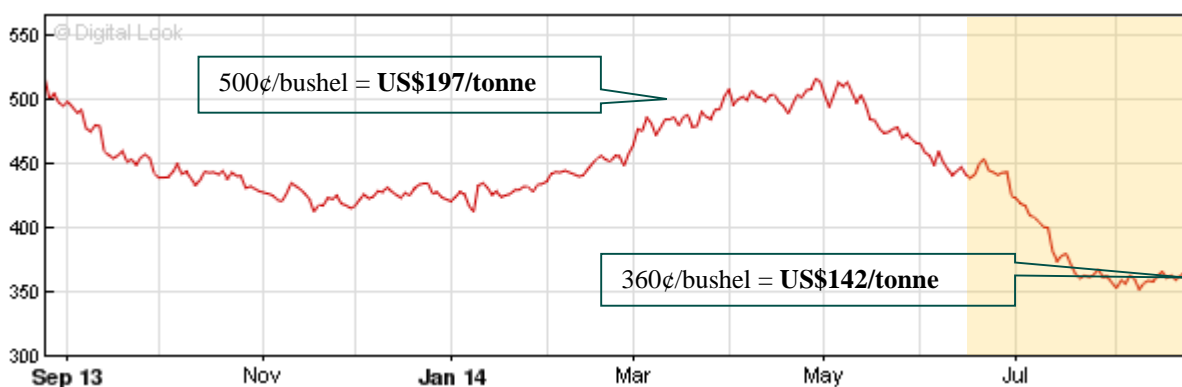
Source: FAO EST

Note: Prices are weekly, to the week ending Aug 22, 2014

**Maize futures** stabilising around a new low

With good prospects for crops in the Northern hemisphere for 2014, futures prices continued to fall through June and July. From late July through most of August they have stabilised around US\$140 per tonne. By August 26 2014, maize futures at US\$142 a tonne were some US\$34 lower than spot prices (see Figure G); indicating traders expect spot prices to fall in the foreseeable future.

**Figure G: Chicago (CBOT) Corn Futures: US cents/bushel, 12 months to August 26, 2014**

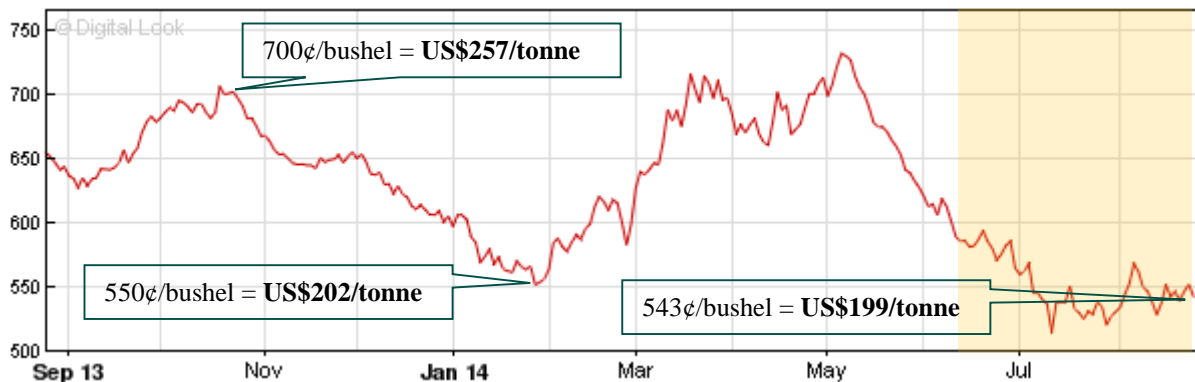


Source: BBC Market data. US\$/tonne added. Note: Shaded area represents new data for this update.

**Wheat futures** also relatively stable

**Wheat futures** which turned up sharply in late January peaked in early May. They dropped to around US\$200 a tonne by early July, since when they have been fairly steady, just below US\$200 a tonne, see Figure H. That, however, is more than US\$80 a tonne less than the current spot prices: traders expect a strong fall in prices when harvests come in later this year.

**Figure H: Chicago (CBOT) Wheat Futures: US cents/bushel, 12 months to August 26, 2014**



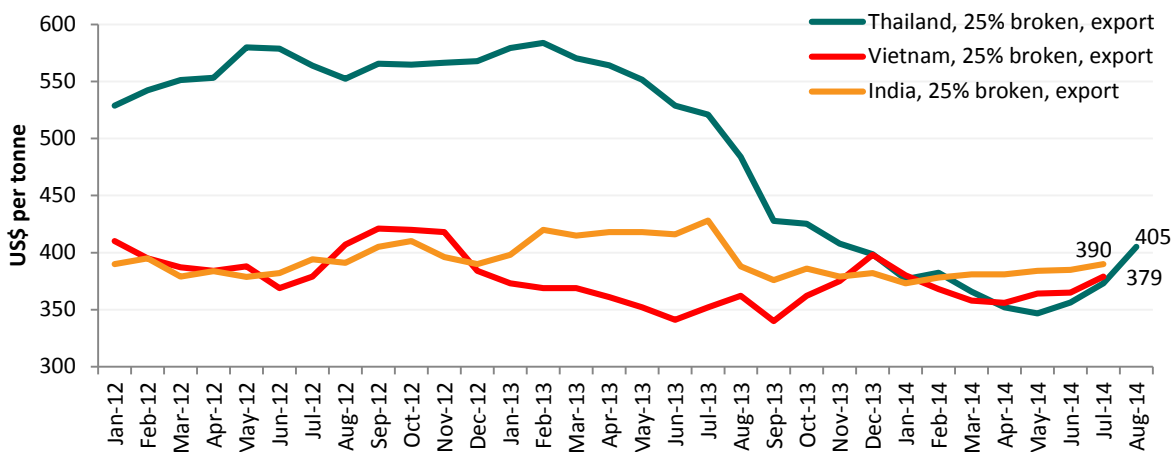
Source: BBC Market data. US\$/tonne added. Note: Shaded area represents new data for this update.

**Rice prices** seeing slight upturns

**Rice prices** are slightly up from June, although prices offered by different exporters remain around the same level, with exports of 25% broken grade from Thailand, India, and Vietnam selling for US\$405, US\$390, and US\$379 a tonne respectively by July/August: see Figure K.

Sales of Thai government rice stocks to raise funds to pay farmers under the paddy pledging scheme contributed to Thai rice price falls to May 2014. Since then, however, the military government which seized power in May halted rice sales while a national stock inspection was implemented. Prices rose with this news. The first sale of rice from government stores since May was approved on August 15.<sup>2</sup> With further government rice sales expected from Thailand in the coming months, prices may not rise much further.

**Figure K: Rice prices, monthly averages, Jan 2012 to August 2014**



Source: Data from FAO GIEWS.

Note: Vietnam and India prices were not available for August. Thailand August figure downloaded August 26<sup>th</sup> 2014

<sup>2</sup> Kaewjinda, K & P. Thepumpant, Aug 15, 2014. Thai military government approves first rice sale since coup. Reuters Bangkok. <http://uk.reuters.com/article/2014/08/15/uk-thailand-rice-idUKKBN0GF19320140815>



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## Special feature: What risk to global cereals prices if El Niño occurs in 2014/15?

An El Niño is a climatic variation in which equatorial waters in the Pacific become unusually warm and reverse their flow, thereby changing the weather on both sides of the Pacific. Less rain falls on the western Pacific rim, while much more falls— and often in torrential downpours — on countries on the eastern rim. El Niños have typically occurred once or twice a decade in recent times, albeit with varying strengths.

### *How likely is El Niño to occur this year, and what can we say about its strength?*

A few months ago, some suggested a strong El Niño event might be on the cards (Samenow, 2014). More recent reports temper these predictions. A June update on El Niño from the World Meteorological Organization (WMO) suggests while an El Niño is likely, it is more likely to be a moderate rather than a weak or strong one (WMO, June 2014). Subsequently the US government's Climate Prediction Centre assessed a 70% chance of developing El Niño this summer, and an 80% chance by early winter — but with a weak-to-moderate intensity (Fritz, July 2014). Latest news suggests these probabilities may have dropped further: the US Climate Prediction Centre in early August cut the probability of El Niño during the Northern hemisphere's autumn and early winter from almost 80% in July to about 65% (Sedgman, Aug 26, 2014).

### *What does El Niño mean for key staple crop production?*

El Niño tends to make droughts more likely in parts of Australia, Southeast Asia, and India, reducing crop harvests. On the west coast of Latin America it tends to bring severe storms that are more of a threat to life and property than for crops.

Indications suggest that El Niño may be associated with changed rainfall in Africa, the most marked effect being drought during the late cropping season in south-east Africa.

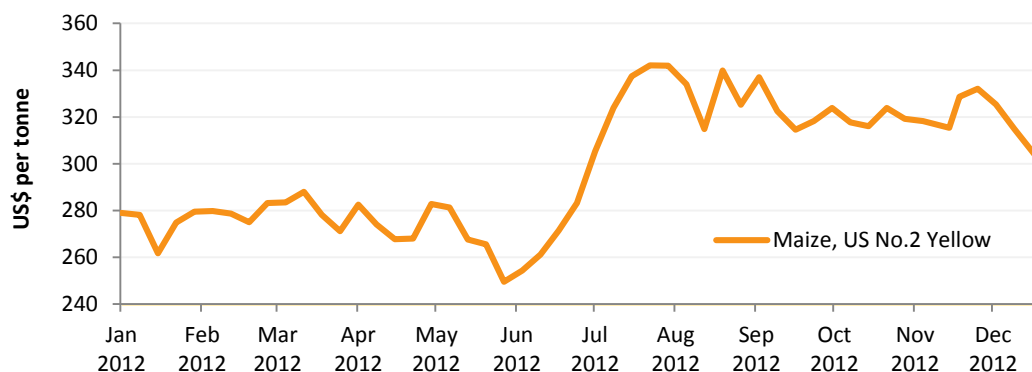
Crop losses to an El Niño have recently been modelled (Iizumi et al., 2014). They find it likely to change global yields of maize, rice and wheat by between -4.3 and +0.8 percent.

If El Niño comes this year and, in a worst-case scenario, 4.3% of maize, rice, and wheat are lost, *what impact would this have on production and food prices?*

Losses of grains would be 93M tonnes out of the 2,163M tonnes projected to be produced in 2014/15 (USDA June 2014 estimate). It is an appreciable loss, but represents just 19% of estimated year-end stocks of 483M tonnes. Stocks could thus replace losses to an El Niño with some margin to spare. Prices would rise, at least by enough to draw stocks onto the market, but not necessarily by that much.

We can gauge how large the price effect might be by considering a recent shock of similar size. In 2012, drought in the US Midwest knocked some 100M tonnes of maize off the projected harvest. Maize prices rose from US\$250 a tonne in the first week of June 2012 to US\$342 a tonne in late July/early August, an increase of 37%.

**Figure L: Maize prices over the 2012 US drought**



Source: Data from FAO

An El Niño in 2014/15 might be expected to have less impact on prices, given losses would be spread across more than one crop, and given that stock-to-use ratios are higher than they were in 2012.<sup>3</sup> Stocks for maize, rice, and wheat combined for the year ending 2012/13 were 424M tonnes, and the stock-to-use ratio 21%, while in 2013/14 end stocks of 465M tonnes were estimated, putting the combined ratio at 22%.

Furthermore, governments seemed to have learned from the spike of 2007/08. They are probably less likely to exacerbate price spikes by restricting trade. More important, governments are preparing to mitigate impacts of a possible El Niño event by making sure they have stocks (India), by helping farmers to escape drought by planting early (Indonesia), and by conserving water (Malaysia and the Philippines) (Taylor & de la Cruz, 2014).

**To conclude**, while the extreme scenario of a 4.3% loss of major staples would be unwelcome, this would not cause absolute food shortage, and price rises should be limited — almost certainly less than the 37% increase seen for maize prices in 2012. This is much less than seen during the price spike of 2007/08 when prices roughly doubled for maize and wheat and tripled for rice.

<sup>3</sup> In 2007/08, part of the reason why prices spiked so dramatically owed to very low stock-to-use ratios (STUR) which meant stores provided little resilience in the face of a few harvest failures and a ramped-up demand. STUR in 2006/07 and 2007/08 were 18% and 19% respectively

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## Commentary

Following the shock of events in the Ukraine and dry weather in the US early in the year, maize and wheat prices have fallen back.

With every passing month, it seems maize and wheat prices are adjusting to a new equilibrium. Maize and wheat futures prices have been stable around the US\$140 and US\$200 per tonne respectively from mid-July 2014 to late August 2014, indicating spot prices are expected to fall.

The mild uncertainty created by price rises in early 2014 is evaporating, so that the medium term trend identified in the [Annual Review of 2013/14](#) is confirmed. We argued that cereals prices may be reaching a new equilibrium following exceptionally turbulent years that began in 2007. Prices look to have almost adjusted to medium-term drivers that have raised prices, chief among them: increased demand for maize for ethanol in the US; a higher oil price; and rising farm labour costs, particularly in Asia.

Prospects of a strong El Niño in late 2014 added to uncertainty, but with every passing month even a moderate El Niño seems less likely. With stocks rebuilt, likely crop losses to such an event should not raise global cereals prices to the extent seen in recent years.

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