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Food Prices Update

June – Aug 13 2012

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Drought knocks 103M tonnes off predicted US maize crop: much worse than expected even a month ago

Prices of maize and wheat rose in June and July, but have been have been surprisingly unaffected by further bad news

KEY POINTS

- The US maize harvest will now fail badly, with a loss of 103M tonnes on the expected harvest — only a month ago it was hoped that losses might be ‘only’ 45M tonnes.
- Surprisingly, maize and wheat prices have not increased further, even if they are already alarmingly high at more than US\$330 a tonne for maize, US\$365 a tonne for wheat.
- A severe price spike may yet be averted because:
 - So far only the US maize crop is hit hard;
 - There has been no panic in world grain markets — yet; and,
 - The market will probably buffer some of the loss to US exports through reduced consumption of US maize in ethanol and feedlots.
- Maize stocks will soon be rock-bottom. With little or slack in the system, any significant harvest failure in the next 12 months could prompt much larger price rises.

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Recap from the earlier updates

- Prices of maize and wheat, which were falling from early 2011 owing to good harvests, have shot up over the last few months, largely owing to drought in the US Midwest which knocked 46M tonnes off US maize harvest estimates by mid July.
- High maize prices have seen the premium paid for wheat over maize cut to slim margins. The latest rises in maize prices have helped to push up wheat prices, though stocks of wheat remain 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. They have been high, but relatively stable this year.

KEY DEVELOPMENTS

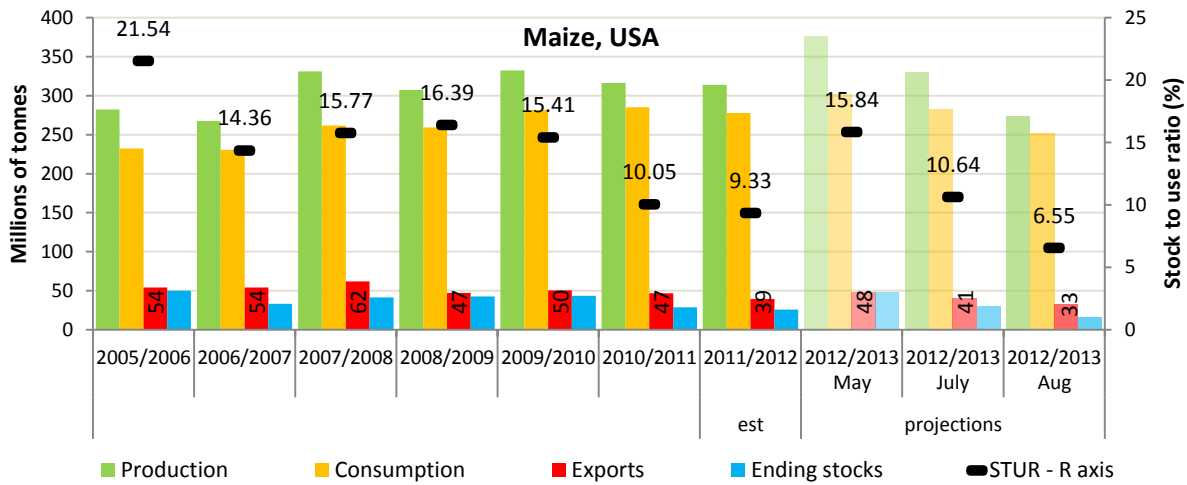
Supply: watching the harvests

Maize: US harvest estimate cut by 103M tonnes

In mid-July it became clear just how bad the drought in the US Mid-West was, as USDA downgraded its *maize* harvest forecast by no less than 46M tonnes. This, however, would still have left the harvest at above previous levels.

Since then, however, the drought has persisted. The US maize harvest is now expected to be about 103M tonnes below the May estimate: a huge loss by any reckoning — see Figure H, according to USDA's World Agricultural Supply and Demand Estimates (WASDE) of August 10.

Figure A US Maize production, consumption, exports, ending stocks and stock ratios, 2005/06 to 2012/13 projection



Source: With data from USDA WASDE and USDA FAS.

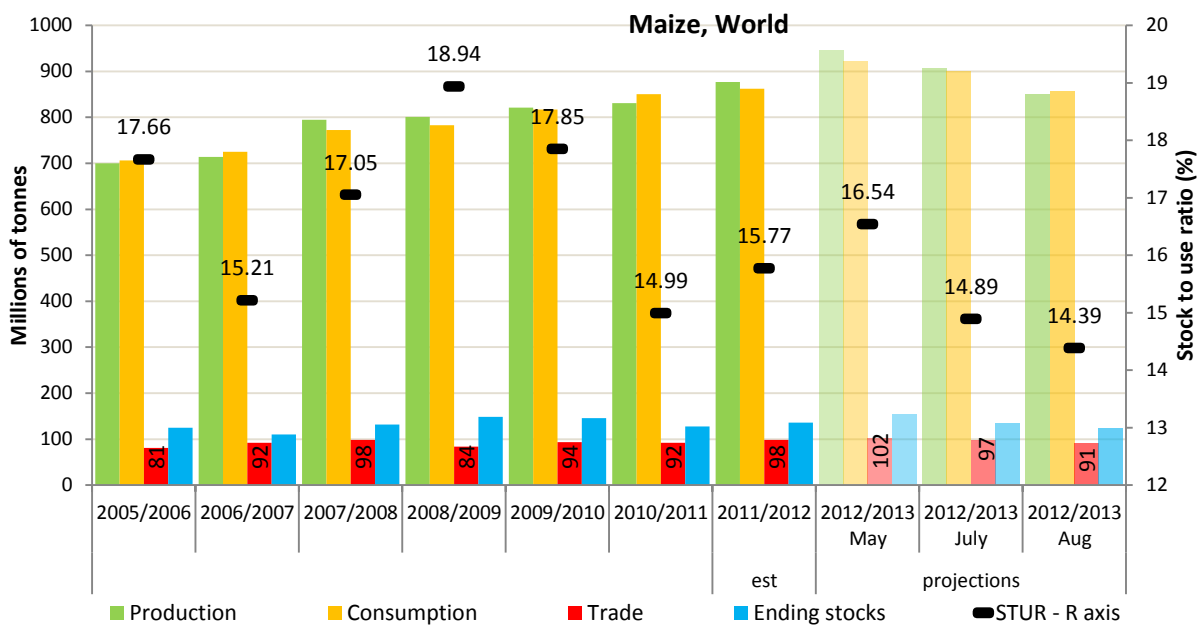
Note: STUR is the Stock-to-use ratio, expressing ending stocks as a percent of total consumption.

This reduced estimate leaves any hopes of the US having a bumper harvest in tatters. Instead of exceeding last year's harvest, the maize crop is expected to be 41M tonnes down on last year.

Maize: world harvests down by 97M tonnes

World maize harvests have not surprisingly also been cut: by slightly less than the US cut, down 97M tonnes, see Figure B. Mercifully, nowhere else looks likely to see major failures of the maize crop.

Figure B World maize production, consumption, exports, ending stocks and stock ratios, 2005/06 to 2012/13 projection



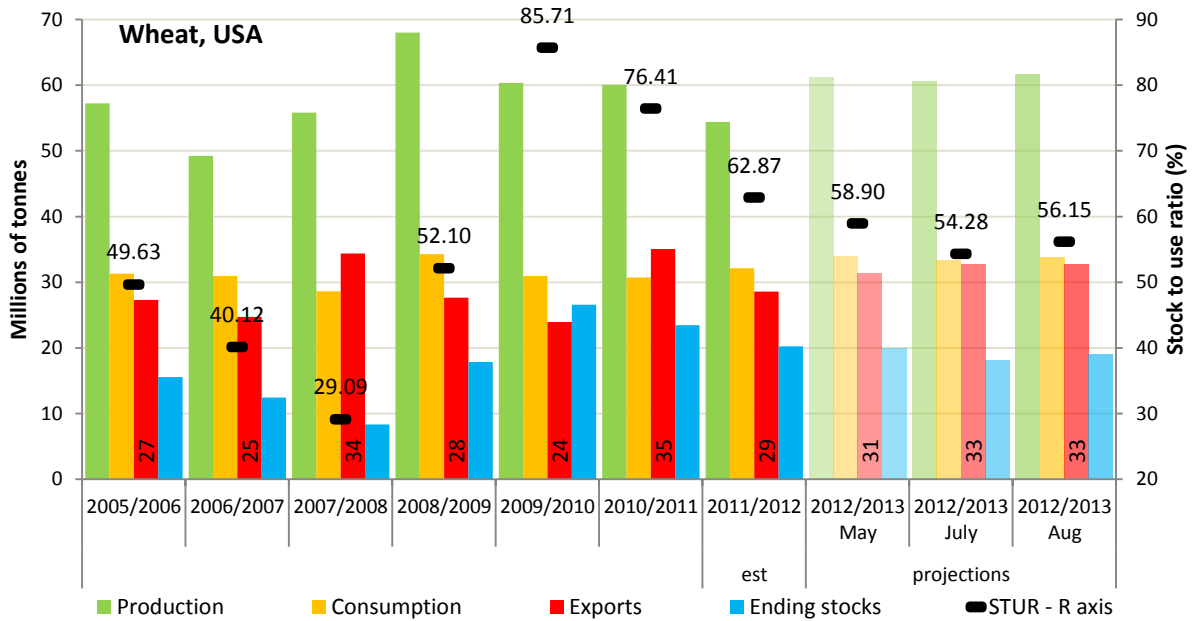
Source: With data from USDA WASDE and USDA FAS.

Note: STUR is the Stock-to-use ratio, expressing ending stocks as a percent of total consumption.

Wheat: US harvest little affected — will surpass last year

The devastation of drought in the Mid-West has not, however, much affected the US *wheat* crop. This is now expected to reach almost 62M tonnes, 7M tonnes more than last year, see Figure C.

Figure C US wheat production, consumption, exports, ending stocks and stock ratios, 2005/06 to 2012/13 projection



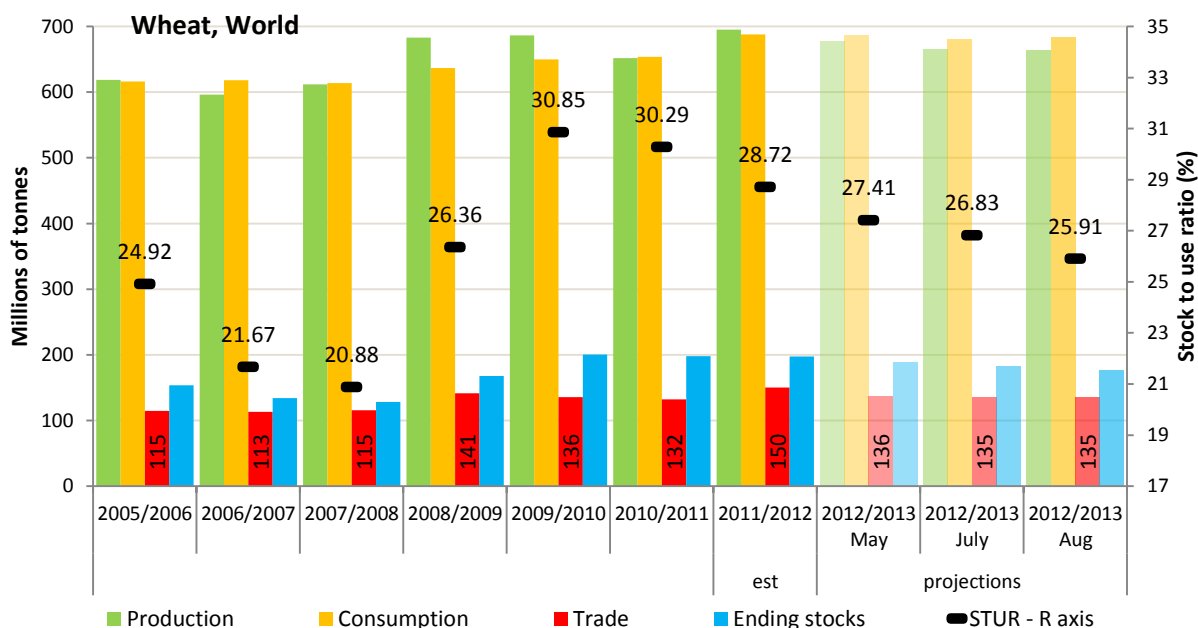
Source: With data from USDA WASDE and USDA FAS.

Note: STUR is the Stock-to-use ratio, expressing ending stocks as a percent of total consumption.

World wheat harvests expect to fall slightly

Worldwide, expectations of wheat harvests for 2012/13 remain little changed: the total expected to reach 684M tonnes, 11M tonnes down on last marketing year.

Figure D World wheat production, consumption, exports, ending stocks and stock ratios, 2005/06 to 2012/13 projection

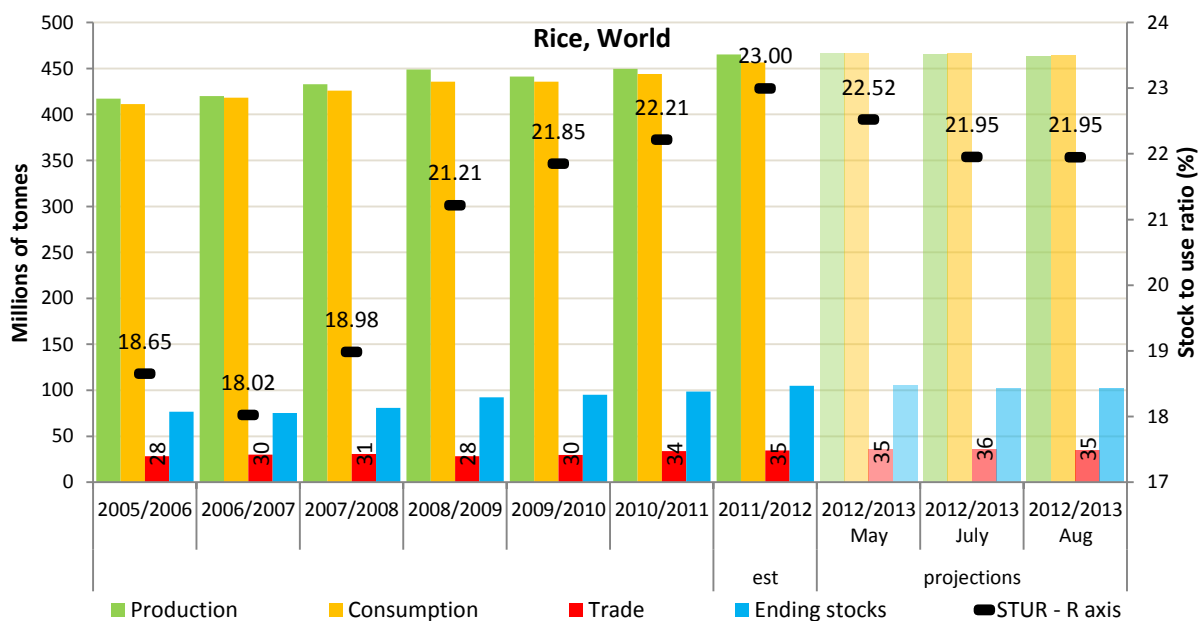


Source: With data from USDA WASDE and USDA FAS.

Note: STUR is the Stock-to-use ratio, expressing ending stocks as a percent of total consumption.

Rice: harvest on course *Rice* harvests remain on course, at 463M tonnes, to almost equal last year's record-breaking harvest, see Figure E.

Figure E World rice production, consumption, exports, ending stocks and stock ratios, 2005/06 to 2012/13 projection



Source: With data from USDA WASDE and USDA FAS.

Note: STUR is the Stock-to-use ratio, expressing ending stocks as a percent of total consumption

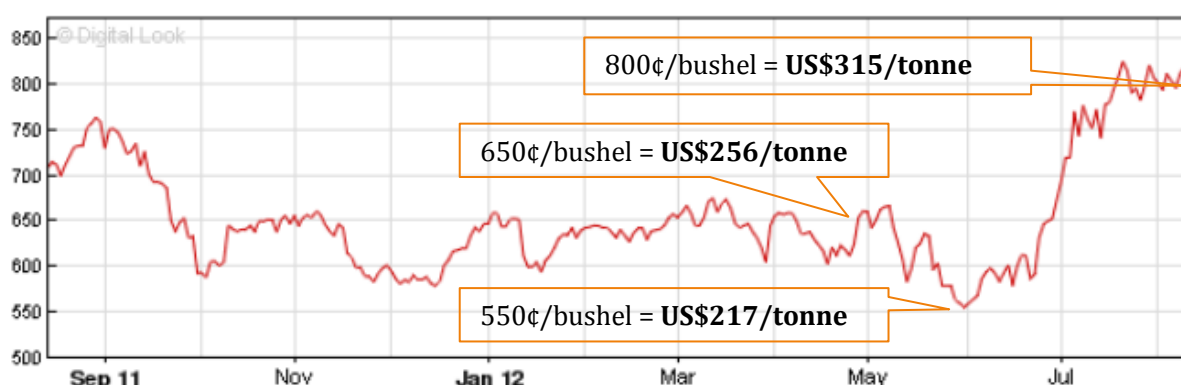
So, in sum, the US maize harvest will fail badly, and by implication so will the world maize harvest.

Fortunately rice and wheat harvests are likely to meet expectations.

Cereals prices on world markets

Maize futures: When it was clear in mid-July how poor the US harvest was likely to be, *maize futures* prices rose by almost US\$100 a tonne within a few weeks, see Figure F. But muted response to further bad news has had no discernible effect: if anything prices have fallen back marginally.

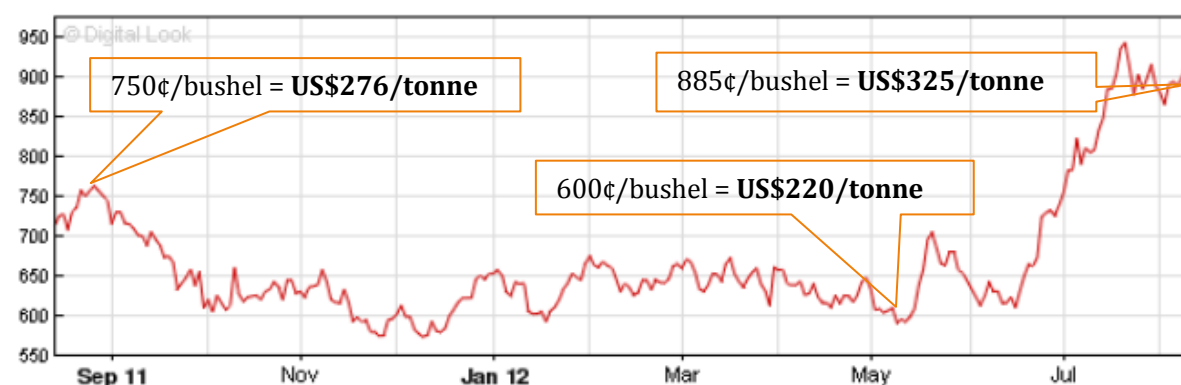
Figure F Chicago (CBOT) Corn Futures: US cents/bushel, 12 months to Aug 13, 2012



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

Wheat futures also unmoved by the bad maize harvest. *Wheat futures* also shot up by US\$105 a tonne when it became clear in July the maize harvest was failing: wheat prices are linked to those of maize through the livestock feed market. They have similarly been unaffected by the news of an even worse maize harvest. See Figure G.

Figure G Chicago (CBOT) Wheat Futures: US cents/bushel, 12 months to Aug 13, 2012



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

Spot prices for maize and wheat high, but not rising on last week's news

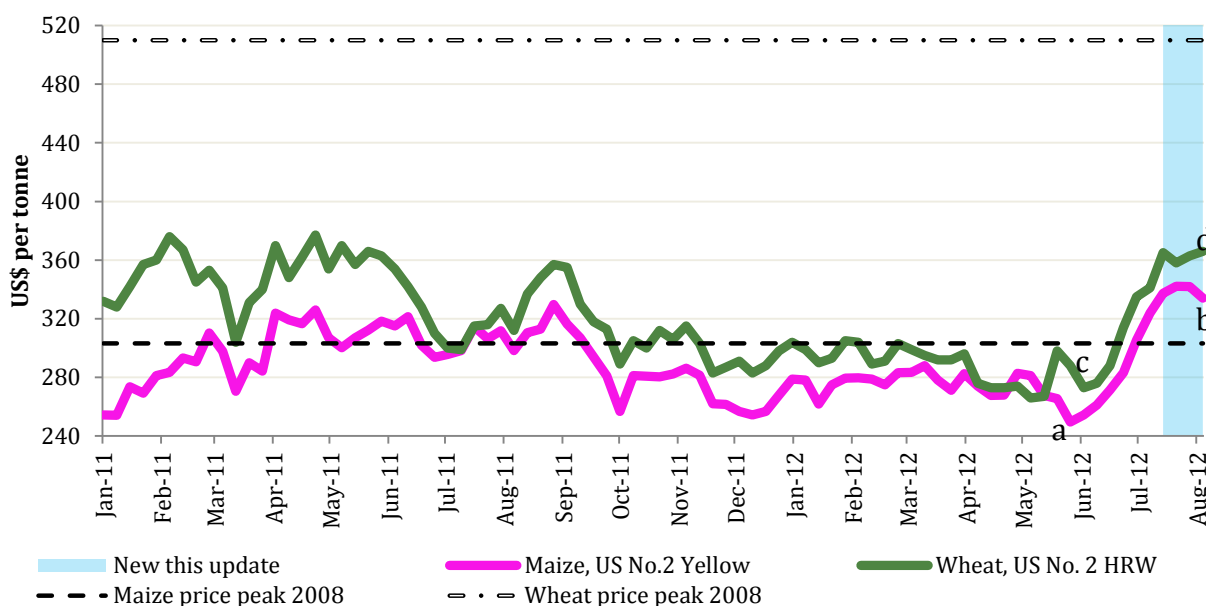
Futures prices for maize and wheat may not have risen further, but at around US\$315 for a tonne of maize, and US\$325 for a tonne of wheat, they are high; especially for maize whose price did not reach US\$300 in the 2007–08 price spike.

Spot prices for maize and wheat also reacted to the failing US maize crop. In the week ending August 10, 2012, maize and wheat spot prices were **US\$334** and **US\$366** a tonne, respectively, see Figure H: US\$19 a tonne higher than futures for maize, US\$41 a tonne higher than futures for wheat.

For both crops, the rise seen since their last low points (c, a on Fig. H) in early June to the present (d, b) is around 34%.

Maize prices per tonne have climbed almost US\$40 *above* the peak reached in the food price spike in mid-2008. Those for wheat remain about US\$150 *below* the levels touched in early 2008 — represented by the dotted black lines in Figure B.

Figure H Maize and wheat spot prices from Jan 2011 to week ending Aug 10, 2012



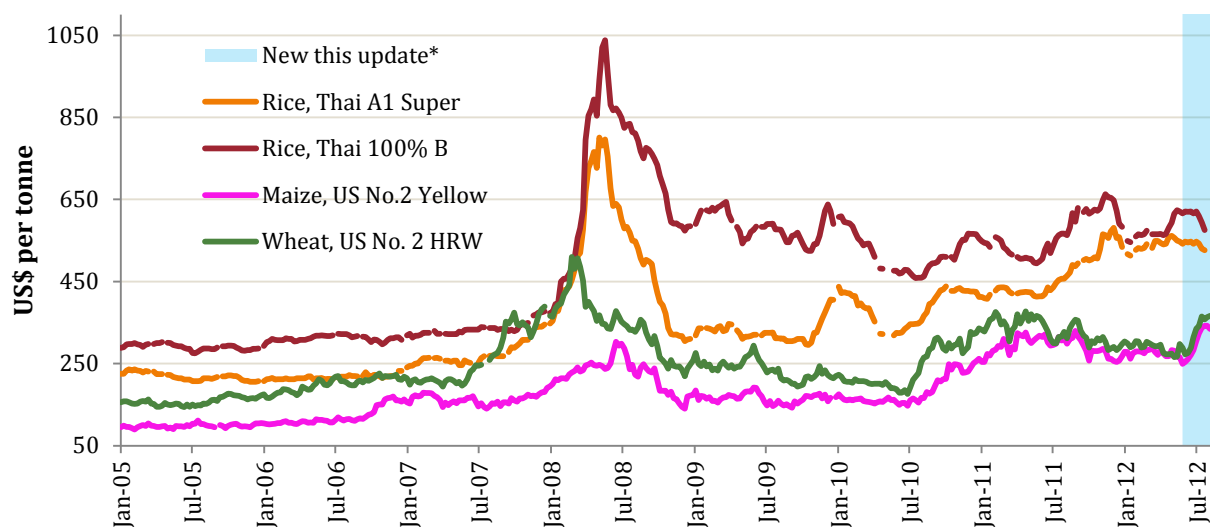
Source: Constructed with data from FAO ESC.

Note: The last 4 weeks show new data for this update.

Rice prices high, but little changed all year

Rice prices have changed little in the last couple of months: indeed they remain close to the levels seen at the beginning of the year, see Figure J.

Figure J Rice and other cereals prices, spot world markets, since Jan 2005



Source: With data from FAO ESC. August data for rice from FAO GIEWS.

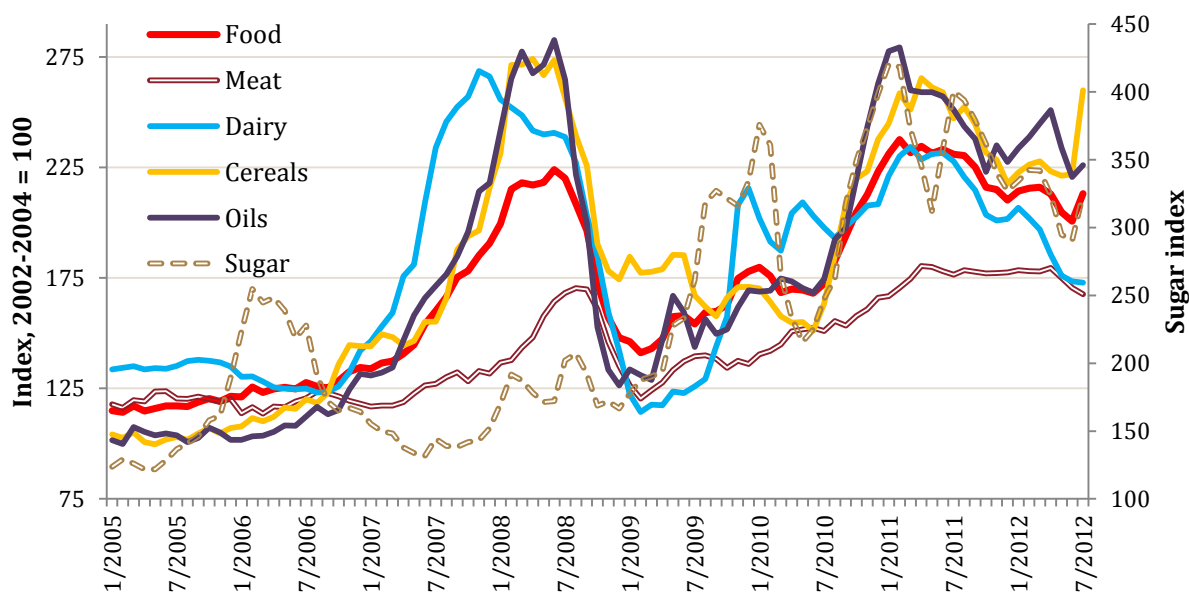
Note: *The last 11 weeks are new for rice in this update, while the last 4 weeks are new for maize and wheat, as these crops were covered in a [Special Update released July 18th](#), 2012, in response to a sharp revision in the 2012/13 maize harvest estimates.

Food price indices

Food price index up with cereals prices As might be imagined, rising maize and wheat prices over the last two months have sharply increased the cereals price index of FAO, dragging the overall food price index upwards, see Figure K.

Oils and sugar indices have also risen, offset by falls for the meat and dairy indices.

Figure K FAO monthly Food Price Indices, Jan 2005 to July 2012



Source: FAO

Commentary

A bad maize harvest, higher world prices — yet it could be worse

Why aren't cereals prices spiking more strongly on world markets?

The 103M tonnes lost from the US maize harvest is as bad as it was unexpected a few months ago. Back then the hopes — and plans of farmers — were for a bumper crop: big enough to meet burgeoning demand for maize, big enough to see maize stocks built up from their perilously low levels.

Those hopes have been dashed, victims of the worst drought seen in the US in half a century or longer.

A 103M tonne loss should hit the markets like a tsunami. To put this in perspective, world trade in maize averaged around 90M tonnes over the last 5 years— see Figure B, with the US exporting almost 50M tonnes of this.

Surprisingly, Chicago futures in maize have not responded to the worsening harvest. They jumped when the first reports of a failing crop were made official in mid-July; but the far worse report last week has actually seen futures prices fall back a little.

So why hasn't a 103M tonne loss — which could get worse before actual harvesting starts in September — not caused more ructions on the market? Three things may explain this:

Three things buffering the system:

Shocks apply to US maize — bad enough — but not more widely

1. ***It's almost entirely a loss to one crop, in one country*** — even if it's the biggest grain in the biggest producer and exporter country.

Wheat harvests thus far are barely affected by the US drought. Yes, wheat prices are high, higher than maize but that's largely because as maize prices rise, some feed-lotters will switch from maize to wheat for animal feed.

Rice also is unaffected. The world, moreover, has a new safety valve for rice: the large stocks being piled up in Thailand at taxpayers' expense, with Bangkok effectively bankrolling global rice stocks.

Plentiful rice and adequate wheat mean the situation now is not as serious as four to five years ago:¹ FAO's Abdolreza Abbassian comments:

'It is a serious situation which has to be monitored closely but it is too early to refer to it as a food crisis situation. We do not see any production or supply problems with rice. That is very important for food security of millions of people around the world.' (Reuters, 2012)

No panic — yet

2. ***Panic has yet to set in***. In late 2007 and 2008, the price spike across the three main cereals led to several major grain exporters limiting their supplies to the world market; while importers, fearing a stock-out, over-ordered in a tight market. This applied especially to the world rice market, already a thin market, explaining why the price spike was so extreme for rice.

This isn't to say that some importers may not yet take fright. Reports say Mexico may be lining up larger maize imports than normal². But so far, reactions have been muted.

¹ Reuters, July 21, 2012. No food crisis yet as grain prices soar: U.N. Milan.

<http://english.alarabiya.net/articles/2012/07/21/227582.html>

² Reuters, Aug 9th, 2012. Attempts to avoid food crisis may worsen problem.

<http://www.reuters.com/article/2012/08/09/food-prices-idUSL6E8I97YS20120809>

Markets cushioning the blow

3. **Markets are expected to cushion the blow.** Most of the 103M tonnes that will be missing from the US markets later this year will be taken up by lower consumption in the US. At the new and expected prices, ethanol distilleries and feedlots will take less, while stocks will be drawn further down. All told, the August WASDE predicts only a 15M tonne cut in expected US exports. That's a big fall in US exports, but not 103M tonnes less.

Moreover, across the world the expectation is of some feedlots moving to wheat and other grains: quantity demanded shifting down as price rations this lower supply

Higher maize, wheat prices here for duration, feeding through to meat prices as well

What are the prospects for world cereals over the next 12 months?

Even if things get no worse than they are, the bill will be twofold:

1. **Markedly higher prices for maize and wheat** than anyone imagined six months ago. This will hit those countries that import maize and wheat: low income consumers will face higher prices for staple foods unless governments are able to protect them — which is possible in middle income countries, but rarely in low income countries.

There may also be political fall-out in the US and other OECD countries: affluent consumers may barely notice an increase in bread prices, but the effect on the prices of cheap meat — much of it produced from grain-fed pigs and poultry — may register; and,

Very low maize stocks leave cereals markets highly vulnerable to any new crop failure ...

2. **Stocks for maize were already very low** — in the red zone — before this latest shock. Hopes of rebuilding them have been dashed. They will sink even further: barely more than 14% of annual use. That leaves maize supplies almost entirely dependent on harvests: any shortfalls will have to be rationed by fierce price rises.

With virtually no maize stocks, any further harvest failures for maize and wheat in the near future could spark a sharp price spike.

Moreover, it is unlikely that response will be linear — panic will probably set in if harvests over the next year fail.

Early reports that the Southern Hemisphere may see an El Niño during the growing season of 2012–13 are thus worrying.³ This climatic anomaly brings heavy rains to South America, drought to Indonesia, Australia and New Zealand. It may also bring drought to Southern Africa, wet weather to equatorial East Africa.

Much thus depends on how strong the probable El Niño becomes. If strong, it will play havoc with the maize and wheat crops of the Southern Hemisphere.

... and El Niño is forecast for the Southern Hemisphere this next growing season

Suspend biofuel mandates in US & EC

What should policy-makers be doing?

If ever there was a moment for diverting maize from feed and industry uses to human food in **OECD countries**, this has to be it. The US ethanol distilleries took more than 120M tonnes of maize last year. Idling some of that capacity this year would provide some relief. It is thus not surprising that the Director-General of FAO has called for precisely this.⁴

It is unlikely, however, that the US would take such action to moderate world prices. But there is an important domestic lobby: feed-lotters who face soaring prices for

³ <http://www.reuters.com/article/2012/07/17/us-australia-weather-elnino-idUSBRE86G08C20120717>

⁴ Financial Times, Aug 9, 2012. The US must take biofuel action to prevent a food crisis. <http://www.ft.com/cms/s/0/85a36b26-e22a-11e1-b3ff-00144feab49a.html#axzz23QIb7UYZ>. See also New York Times, July 30th, 2012. Corn for Food, Not Fuel. <http://www.nytimes.com/2012/07/31/opinion/corn-for-food-not-fuel.html>

their feed, feed which makes up two-thirds or more of their costs. The prospect of significant hikes in the price of burgers and sausages in the US may focus political attention. Against that, the short term reaction of livestock producers using more costly feed will be to reduce operations, selling off stock and so temporarily depressing meat prices. So it may take a few months before consumers see the eventual costs of higher feed prices.

The main call is for mandates to produce renewable fuels to be suspended: those will only cut ethanol production however if oil prices are low enough for gasoline to compete with ethanol produced with maize, albeit ethanol whose costs rise with the pressure on maize prices. Without a change to mandates, USDA expects just over 10M tonnes (400M bushels) less maize to be distilled in 2012. Suspending the mandates might encourage more to be diverted.

Prepare for higher prices in the developing world: raise production, prepare to roll out social protection

In the *developing world*, much depends on exposure to maize and wheat prices. For countries where rice is the staple, then impacts will be limited — although there may be some increase in demand for rice as some consumers shift from more costly wheat.

Those countries that can rapidly raise production of staples would be advised to do so: either to limit more costly imports, or to reap windfall gains on export markets.

Most developing countries that have large numbers of consumers living in or close to poverty who are net food buyers — some subsistence farmers may escape — need to consider additional social protection to offset higher cereals prices.

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