



Steve Wiggins

‘Stocks need to be rebuilt and never again allowed to drift down as they did in the 2000s’

Is the global food system broken?

With more than 800 million people undernourished, 26% of children under five underweight, and as many as two billion suffering from micronutrient deficiencies, the state of the world’s nutrition is woeful. To make matters worse, food prices have risen dramatically on world markets, with knock-on effects for domestic and local food prices, reducing the access of the poor to the food they need for a healthy diet.

Is the world food system broken and in need of fundamental repair? Not quite.

The system that produces staple foods entering world markets should provide enough surplus to meet demand reasonably reliably and at prices that are low, declining, and reasonably stable.

It has done just that, for most of the time, since 1960. Increasing amounts of staple foods were produced at prices on world markets that declined overall by 55% to 65% in real terms — see Figure 1. Although the variability of prices did not decline, there was only one major price spike during that time: that of 1973/74.

A key factor was the success of the ‘green revolution’ in developing countries. While production of the three main grains — maize, rice and wheat — in North America and Europe increased by 2.5 to 3 times between the early 1960s and the

present, in many parts of the developing world the equivalent increase was 3.5 times or more.

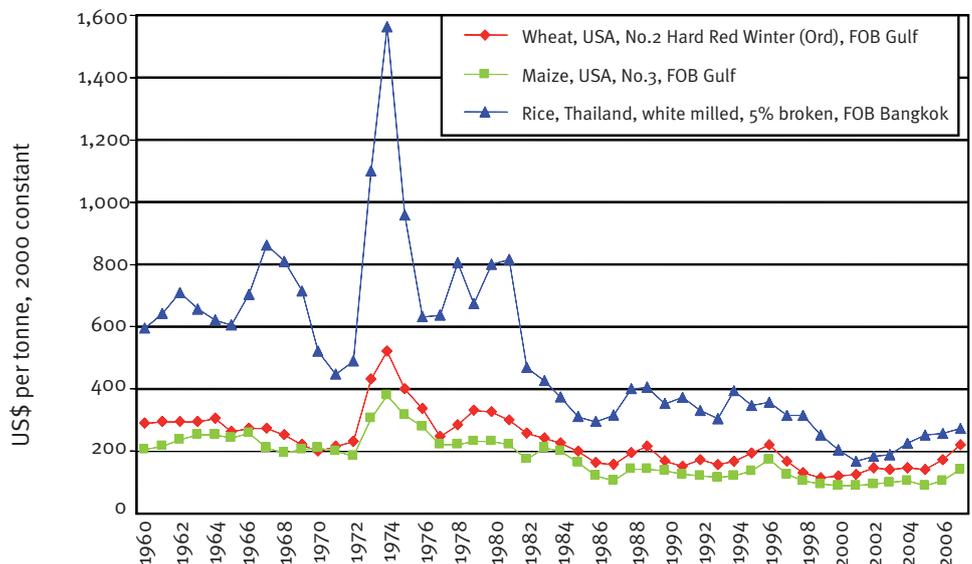
So why has the system now run into trouble? The current spike in food prices can be seen as the result of shifts in supply, demand and stocks over the last ten years, creating conditions in which short-term shocks cause large price increases that have been made worse by the reactions of key players.

The growth in world production of cereals has been slowing down: see Figure 2. While increases in production averaged 2.8% a year until the mid-1980s, comfortably ahead of population growth; subsequent growth rates have fallen to around 1% a year on average, behind growth of both population and consumption.¹

As production growth has slowed, stocks have dwindled. Built up in the decade following the food price shock of 1973/74, they have been run down since the turn of the new century. Stocks that once stood at more than one-third of annual use fell to less than one-fifth. Consequently, the ability of the system to cope with shocks has weakened.

Two shocks have struck food supplies in the last three years. Wheat harvests in Australia failed for three years from 2005 to 2007, as did those in Russia and the Ukraine in 2006 and 2007. In

Figure 1: Prices of cereals in real terms, since 1960



Source: UNCTAD data, deflated by the US GDP deflator.

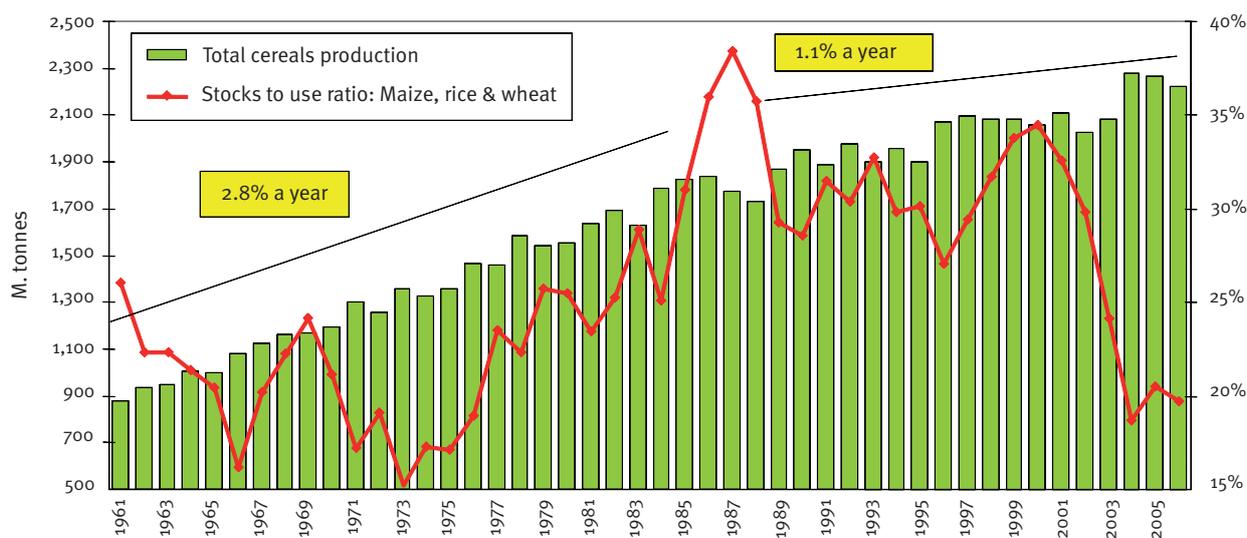
Overseas Development Institute

ODI is the UK’s leading independent think tank on international development and humanitarian issues.

ODI Opinions are signed pieces by ODI researchers on current development and humanitarian topics.

This and other ODI Opinions are available from www.odi.org.uk

Figure 2: World cereal production and stocks since the early 1960s



Source: Cereals Production from FAOSTAT; stocks of the three main grains from USDA data.

addition, oil prices have risen sharply. These push up the costs of agricultural production, in particular by raising the cost of nitrogen fertiliser. More importantly, higher oil prices have made it profitable to produce ethanol in the USA from the maize crop.² Whereas in 2002/03 ethanol distilleries bought up 10% of the US maize crop, this year they are buying around 24%.

The combination of lower production as a result of drought and the diversion of maize to industrial use, in a market with low stocks, pushed up grain prices. This, in turn, led to key actors changing their behaviour. Some countries restricted exports of grain by imposing additional export taxes or limiting exports and in some cases, such as Argentina, India, Ukraine and Vietnam, banning them altogether. Rice prices, in particular, soared as a result.

In addition, some importing countries, fearing even higher prices and absolute shortages, ordered more imports than usual to be on the safe side. Countries with petrodollars could afford the higher prices. Oman, for example, imported double the amount of rice it normally consumes in the current marketing year.

As prices rose on agricultural markets, hedge funds entered the futures markets on a large scale. Whether this affected spot prices is questionable, but the additional buying of futures and options probably pushed these prices higher and contributed to uncertainty and anxiety about the likely severity of the price rises.

It seems unlikely that the food supply system is beyond repair. The world produces over 340kg a head of grain each year: enough to feed everyone more than adequately.

The current situation would be worse had the system not performed rather well for the last 30 or more years. Hunger and malnutrition are not so much problems of supply, as of income and its distribution.

The markets will recover: with high prices farmers will respond with higher production³ and prices will come down. The crisis will pass within 18 months, as it did in 1973/74, even though prices will stabilise at a level higher than those seen before the crisis hit. But action is needed to make sure that this crisis does not recur.

What needs to be done? Stocks need to be rebuilt and never again allowed to drift down as they did in the 2000s. To do so, production needs to be increased: but not by much. Just raising the growth rate of cereals output to a little more than the growth rates of population and consumption — perhaps 2% a year — would be sufficient. A target this modest can be met: investing in research would help. In addition, governments need to pay for larger physical stocks, perhaps another 250 million tonnes on top of the 400 million tonnes currently in store, and coordinate policies to buy in and release stocks. Leaving the management of food stocks to private companies operating just-in-time inventories is not good enough.

The remedies are modest, but the need to act is urgent. The triggers of the current price shock, primarily harvest failures, will get worse with the more variable climate expected in the near future. If the system has been tightened to the point where one drought in Australia provokes crisis, heaven help us in the future.



Overseas Development Institute

111 Westminster Bridge Road, London SE1 7JD

Tel +44 (0)20 7922 0300

Fax +44 (0)20 7922 0399

Email publications@odi.org.uk

Readers are encouraged to quote or reproduce material from ODI Opinions for their own publications, but as copyright holder, ODI requests due acknowledgement and a copy of the publication.

© Overseas Development Institute 2008

ISSN 1756-7629

Endnotes

- 1 World population growth averaged 1.4% in the 1990s and has slowed to 1.2% between 2000 and 2006. Consumption of the three main grains —maize, rice and wheat — has increased at an average of 1.7% since the mid-1980s.
- 2 Subsidies on ethanol production and directives to produce specified quantities of alternative fuels contribute, but most of the recent impetus comes from the oil price rather than the policies.

- 3 Most of the response will come initially from farmers already producing for the market who can rapidly gear up production. Given a little more time, farmers producing only small surpluses will respond as well.

For further information contact Steve Wiggins, ODI Research Fellow (s.wiggins@odi.org.uk).