

Third update, July 2008

The Big Rise in Food Costs

The 1993 International Nutrition Congress in Adelaide was informed, in a quantitative review, that food production had tended to increase faster than the world's population over the preceding 10 years (24 versus 20%) thanks to great progress in genetics, technology and biotechnology in food production and processing. This was not what Malthus had predicted in 1798.

Since then food prices continued downwards (in real terms) from their peak in 1974 and nutritionists have perhaps come to think that food supply is not a problem unless there is some local disaster, such as war or drought or severe poverty (see the examples in chapter 19). Overweight and its complications have appeared or increased even in developing countries.

Then at the end of 2007 the Economist magazine's cover story was "The End of Cheap Food". This sudden change is having a big impact in 2008. As usual the poorest people in the world, who were already facing hunger, are most affected.

Prices of rice, wheat, maize, soya and palm oil have all gone up dramatically. World stocks of cereals are the lowest ever recorded. The Economist's food price index (started in 1845) is the highest it has ever been. IMF food prices are now twice what they were in 2005.

There have been demonstrations and political repercussions in Haiti, Cairo, Mexico, West Africa, Bangladesh and other countries. The World Bank estimates 33 countries are in danger of political destabilisation and internal conflict. Some rice exporting countries, Indonesia, Vietnam, India, Ukraine have moved to curtail exports.

The UN Secretary General has appealed to the international community for \$70 million in emergency funds to meet the crisis.

It is the foods that are traded internationally that have suddenly gone up so much, those foods that can be shipped between countries and stored. Rice, wheat and maize are the first, second and third sources of calories for the world's population.

The background reasons for this rise of food prices are three slowly building forces.

Firstly, added to the 1.3% annual increase in the world's population is increased prosperity in China, India and some other countries. Real income has been doubling every 9 years in China. Many millions of people can now afford meat and dairy foods that they seldom ate before. Meat consumption has gone from 20 kg/head/year in China to 50 kg/head/year. This has disproportionately increased demand for grains. It takes 3 kg of cereals to grow 1 kg of pork and 8 kg of cereals for 1 kg of beef.

Secondly, petroleum production is somewhere near its historic peak, yet demand for oil and oil products is higher than ever because growing middle classes in China, India and other countries are now owners of cars and other vehicles. Oil has soared in price, and this affects farmers who need it for tractors and other farm machinery. It is also needed for transport of food and for making fertilizers and agricultural chemicals.

Thirdly, global warming and climate change have caused less than average harvests, in parts of the world, such as Australia, because of drought.

Added to these gradual effects is the recent enthusiasm for biofuels, especially in the USA, to soften the sudden increase of gasoline for cars and to reduce dependence on imported oil from unfriendly countries. Especially maize (American corn) is being used to make ethanol for use by cars. Approximately one third of maize grown in the USA (the world's biggest producer) is expected to be used for fuel ethanol, not food in

2008. The Federal Government subsidies for this are costing \$7 billion per year (equivalent for \$1.9 per gallon of petrol).

Because of the attractive price farmers are planting more corn and less wheat and soya. So the increased price of corn makes tortillas more expensive in Mexico, where thousands marched in tortilla riots and the government had to put a cap on the price. Production of ethanol from corn is not very efficient: 240 kg of corn – enough to feed a person for a year – are needed to make 100 litres of ethanol - a tankful for a large American sports utility vehicle! Brazil can make ethanol more efficiently from sugar, but this is kept out of the USA by an import tariff. There are plans for 'second generation' (non food) crops for biofuels but they are expected to take 10 years to be developed, and will compete with food crops for land and water. European and other industrial countries also thought biofuels were a good idea, but a backlash has started and the EU is now rethinking its position.

The last explanation for the sudden rise of food prices appears to be the activities of market speculators. With a weakening dollar and low interest rates in the USA speculative money has flowed from financial markets into futures markets for raw materials, including foods. The evidence for this is fairly plain to see. What to do about it is not so plain. The Indian government has stated its intention to ban futures trading in agricultural commodities.

In affluent countries foods take up only about one-tenth of average income but in poorer countries it already has been taking up over half of peoples income, and it will be more now. We can no longer take cheap food for granted.

What can nutritionists do?

In developed countries

- Include cost of foods in dietetic advice.
- Lobby politicians to stop use of foodstuffs, from anywhere in the world to make biofuels.

- Lobby for removal of any sales tax, VAT, etc on basic fresh foods (bread, milk, vegetables, fruit).

In developing countries

- Foods that are not traded internationally have escaped the price increase, eg potatoes.
- Small farmers need more government support.
- Home gardens, even small plots can help produce food.
- Be on the lookout for nutrient deficiencies.
- Pre-school children of poor people are most vulnerable.

Further Reading

1. Anonymous (2007) The End of Cheap Food: cheap no more. The Economist, Dec 8, pp 81-83.
2. Pace N, Seal A, Costello A (2008) Food commodity derivatives: a new cause of malnutrition? Lancet, 371 : 1648-1640.
3. Boddington D (2007) Boosting biofuel crops could threaten food security. Lancet, 370 : 923-924.
4. Rerat AA (1995) Nutrition, food and the environment. Proc XV International Congress of Nutrition: IUNS Adelaide, Editors Wahlqvist ML, Truswell AS, Smith R & Nestel PJ, pp 1-16. Smith Gordon, London.