

Food prices

Cheap no more

Dec 6th 2007

From The Economist print edition

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**Rising incomes in Asia and ethanol subsidies in America have put an end to a long era of falling food prices**

ONE of the odder features of last weekend's vote in Venezuela was that staple foods were in short supply. Something similar happened in Russia before its parliamentary election. Governments in both oil-rich countries had imposed controls on food prices, with the usual consequences. Such controls have been surprisingly widespread—a knee-jerk response to one of the most remarkable changes that food markets, indeed any markets, have seen for years: the end of cheap food.

In early September the world price of wheat rose to over \$400 a tonne, the highest ever recorded. In May it had been around \$200. Though in real terms its price is far below the heights it scaled in 1974, it is still twice the average of the past 25 years. Earlier this year the price of maize (corn) exceeded \$175 a tonne, again a world record. It has fallen from its peak, as has that of wheat, but at \$150 a tonne is still 50% above the average for 2006.

As the price of one crop shoots up, farmers plant it to take advantage, switching land from other uses. So a rise in wheat prices has knock-on effects on other crops. Rice prices have hit records this year, although their rise has been slower. *The Economist's* food-price index is now at its highest since it began in 1845, having risen by one-third in the past year.

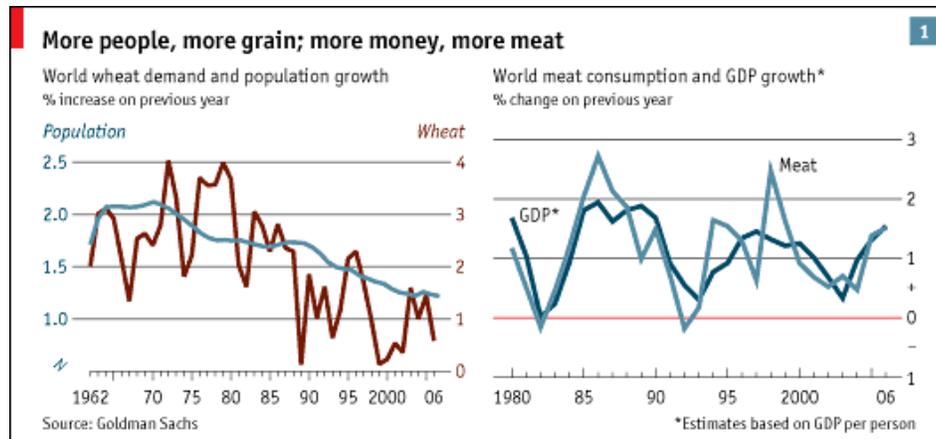
Normally, sky-high food prices reflect scarcity caused by crop failure. Stocks are run down as everyone lives off last year's stores. This year harvests have been poor in some places, notably Australia, where the drought-hit wheat crop failed for the second year running. And world cereals stocks as a proportion of production are the lowest ever recorded. The run-down has been accentuated by the decision of large countries (America and China) to reduce stocks to save money.

Yet what is most remarkable about the present bout of "agflation" is that record prices are being achieved at a time not of scarcity but of abundance. According to the International Grains Council, a trade body based in London, this year's total cereals crop will be 1.66 billion tonnes, the largest on record and 89m tonnes more than last year's harvest, another bumper crop. That the biggest grain harvest the world has ever seen is not

enough to forestall scarcity prices tells you that something fundamental is affecting the world's demand for cereals.

The meat of the question

Two things, in fact. One is increasing wealth in China and India. This is stoking demand for meat in those countries, in turn boosting the demand for cereals to feed to animals. The use of grains for bread, tortillas and chapattis is linked to the growth of the world's population. It has been flat for decades, reflecting the slowing of population growth. But demand for meat is tied to economic growth (see chart 1) and global GDP is now in its fifth successive year of expansion at a rate of 4%-plus.



Higher incomes in India and China have made hundreds of millions of people rich enough to afford meat and other foods. In 1985 the average Chinese consumer ate 20kg (44lb) of meat a year; now he eats more than 50kg. China's appetite for meat may be nearing satiation, but other countries are following behind: in developing countries as a whole, consumption of cereals has been flat since 1980, but demand for meat has doubled.

Not surprisingly, farmers are switching, too: they now feed about 200m-250m more tonnes of grain to their animals than they did 20 years ago. That increase alone accounts for a significant share of the world's total cereals crop. Calorie for calorie, you need more grain if you eat it transformed into meat than if you eat it as bread: it takes three kilograms of cereals to produce a kilo of pork, eight for a kilo of beef. So a shift in diet is multiplied many times over in the grain markets. Since the late 1980s an inexorable annual increase of 1-2% in the demand for feedgrains has ratcheted up the overall demand for cereals and pushed up prices.

Because this change in diet has been slow and incremental, it cannot explain the dramatic price movements of the past year. The second change can: the rampant demand for ethanol as fuel for American cars. In 2000 around 15m tonnes of America's maize crop was turned into ethanol; this year the quantity is likely to be around 85m tonnes. America is easily the world's largest maize exporter—and it now uses more of its maize crop for ethanol than it sells abroad.

Ethanol is the dominant reason for this year's increase in grain prices. It accounts for the rise in the price of maize because the federal government has in practice waded into the market to mop up about one-third of America's corn harvest. A big expansion of the ethanol programme in 2005 explains why maize prices started rising in the first place.

Ethanol accounts for some of the rise in the prices of other crops and foods too. Partly this is because maize is fed to animals, which are now more expensive to rear. Partly it is because America's farmers, eager to take advantage of the biofuels bonanza, went all out to produce maize this year, planting it on land previously devoted to wheat and soybeans. This year America's maize harvest will be a jaw-dropping 335m tonnes, beating last year's by more than a quarter. The increase has been achieved partly at the expense of other food crops.

This year the overall decline in stockpiles of all cereals will be about 53m tonnes—a very rough indication of by how much demand is outstripping supply. The increase in the amount of American maize going just to ethanol is about 30m tonnes. In other words, the demands of America's ethanol programme alone account for over half the world's unmet need for cereals. Without that programme, food prices would not be rising anything like as quickly as they have been. According to the World Bank, the grain needed to fill up an SUV would feed a person for a year.

America's ethanol programme is a product of government subsidies. There are more than 200 different kinds, as well as a 54 cents-a-gallon tariff on imported ethanol. That keeps out greener Brazilian ethanol, which is made from sugar rather than maize. Federal subsidies alone cost \$7 billion a year (equal to around \$1.90 a gallon).

In theory, what governments mandate, they can also scrap. But that seems unlikely with oil at the sort of price that makes them especially eager to promote alternative fuels. Subsidies might be trimmed, of course, reducing demand occasionally; this is happening a bit now. And eventually, new technologies to convert biomass to liquid fuel will replace ethanol—but that will take time. For the moment, support for the ethanol programme seems secure. Hillary Clinton and John McCain used to be against ethanol subsidies, but have changed their minds. Russia and Venezuela are not the only countries that like to meddle in food markets for political reasons.

So demand for grain will probably remain high for a while. Demand, though, is only one side of the equation. Supply forms the other. If there is a run of bumper harvests, prices will fall back; if not, they will stay high.

Harvests can rise only if new land is brought into cultivation or yields go up. This can happen fairly quickly. The world's cereal farmers responded enthusiastically to price signals by planting more high-value crops. And so messed-up is much of the rich world's farming systems that farmers in the West have often been paid not to grow crops—something that can easily be reversed, as happened this year when the European Union suspended the “set aside” part of its common agricultural policy. Still, there are limits to how much harvests can be expanded in the short term. In general, says a new report by the International Food Policy Research Institute (IFPRI), which is financed by governments and development banks, the response tends to be sticky: a 10% rise in prices yields a 1-2% increase in supply.

In the longer run, plenty of new farmland could be ploughed up and many technological gains could be had. But much of the new land is in remote parts of Brazil, Russia, Kazakhstan, the Congo and Sudan: it would require big investments in roads and other infrastructure, which could take decades—and would often lead to the clearing of precious forest. Big gains could be had if genetically modified foods were brought into production or if new seed varieties were planted in Africa. But again, that will take time. Moreover, GM foods will not live up to their promise unless they shed the popular suspicion that dogs them, especially in Europe. And some of the new land—dry, marginal areas of Africa, Brazil and Kazakhstan—could be vulnerable to damage from global warming. By some measures, global warming could cut world farm output by as much as one-sixth by 2020. No less worryingly, high oil prices would depress the use of oil-based fertilisers, which have been behind much of the increase in farm production during the past half-century.

It is risky to predict long-run trends in farming—technology in particular always turns out unexpectedly—but most forecasters conclude from these conflicting currents that prices will stay high for as much as a decade. Because supplies will not match increases in demand, IFPRI believes, cereal prices will rise by between 10% and 20% by 2015. The UN's Food and Agriculture Organisation's forecast for 2016-17 is slightly higher. Whatever the exact amount, this year's agflation seems unlikely to be, as past rises have been, simply the upward side of a spike.

If prices do not fall back, this will mark a break with the past. For decades, prices of cereals and other foods have been in decline, both in the shops and on world markets. The IMF's index of food prices in 2005 was slightly lower than it had been in 1974, which means that in real terms food prices fell during those 30 years by three-quarters (see chart 2). In the 1960s food (including meals out) accounted for one-quarter of the average American's spending; by 2005 the share was less than one-seventh.

In other words, were food prices to stay more or less where they are today, it would be a radical departure from a past in which shoppers

and farmers got used to a gentle decline in food prices year in, year out. It would put an end to the era of cheap food. And its effects would be felt everywhere, but especially in countries where food matters most: poor ones.

A blessing and a curse

If you took your cue from governments, you would conclude that dearer food was unequivocally a bad thing. About a score of countries have imposed food-price controls of some sort. Argentina, Morocco, Egypt, Mexico and China have put restraints on domestic prices. A dozen countries, including India, Vietnam, Serbia and Ukraine, have imposed export taxes or limited exports. Argentina and Russia have done both. In all these places governments are seeking to shelter their people from food-price rises by price controls. But dearer food is not a pure curse: it produces winners as well as losers.

Obviously, farmers benefit—if governments allow them to keep the gains. In America, the world's biggest agricultural exporter, net farm income this year will be \$87 billion, 50% more than the average of the past ten years. The prairie farmers of the Midwest are looking forward to their Caribbean cruises.

Other beneficiaries are in poor countries. Food exporters such as India, South Africa and Swaziland will gain from increased export earnings. Countries such as Malawi and Zimbabwe, which used to export food but no longer do so, also stand to gain if they can boost their harvests. Given that commodity prices have been falling for so long in real terms, this would be an enormous relief to places that have suffered from a relentless decline in their terms of trade.

In emerging markets an income gap has opened up between cities and countryside over the past few years. As countries have diversified away from agriculture into industry and services, urban wages have outstripped rural ones. Income inequality is conventionally measured using a scale running from zero to one called the Gini coefficient. A score of 0.5 is the mark of a highly unequal society. The Asian Development Bank reckons that China's Gini coefficient rose from 0.41 in 1993 to 0.47 in 2004. If farm incomes in poor countries are pushed up by higher food prices, that could mitigate the growing gap between city and countryside. But will it?

Guess who loses

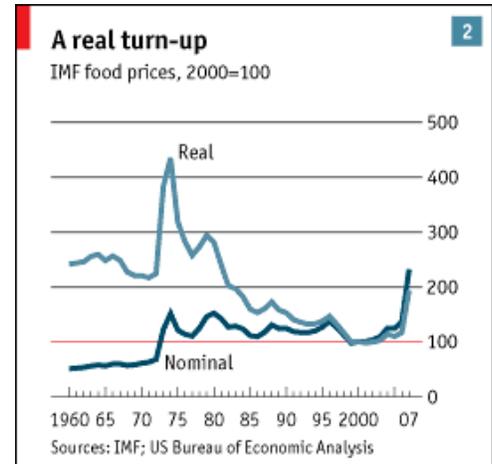
According to the World Bank, 3 billion people live in rural areas in developing countries, of whom 2.5 billion are involved in farming. That 3 billion includes three-quarters of the world's poorest people. So in principle the poor overall should gain from higher farm incomes. In practice many will not. There are large numbers of people who lose more from higher food bills than they gain from higher farm incomes. Exactly how many varies widely from place to place.

Among the losers from higher food prices are big importers. Japan, Mexico and Saudi Arabia will have to spend more to buy their food. Perhaps they can afford it. More worryingly, some of the poorest places in Asia (Bangladesh and Nepal) and Africa (Benin and Niger) also face higher food bills. Developing countries as a whole will spend over \$50 billion importing cereals this year, 10% more than last.

Rising prices will also hurt the most vulnerable of all. The World Food Programme, the main provider of emergency food aid, says the cost of its operations has increased by more than half in the past five years and will rise by another third in the next two. Food-aid flows have fallen to their lowest level since 1973.

In every country, the least well-off consumers are hardest hit when food prices rise. This is true in rich and poor countries alike but the scale in the latter is altogether different. As Gary Becker, a Nobel economics laureate at the University of Chicago, points out, if food prices rise by one-third, they will reduce living standards in rich countries by about 3%, but in very poor ones by over 20%.

Not all consumers in poor countries are equally vulnerable. The food of the poor in the Andes, for example, is



potatoes; in Ethiopia, teff: neither is traded much across borders, so producers and consumers are less affected by rising world prices. As the World Bank's annual *World Development Report* shows, the number of urban consumers varies from over half the total number of poor in Bolivia, to about a quarter in Zambia and Ethiopia, to less than a tenth in Vietnam and Cambodia.

But overall, enormous numbers of the poor—both urban and landless labourers—are net buyers of food, not net sellers. They have already been hard hit: witness the riots that took place in Mexico over tortilla prices earlier this year. According to IFPRI, the expansion of ethanol and other biofuels could reduce calorie intake by another 4-8% in Africa and 2-5% in Asia by 2020. For some countries, such as Afghanistan and Nigeria, which are only just above subsistence levels, such a fall in living standards could be catastrophic.

So it is no good saying “let them eat cake”: there are strong welfare arguments for helping those who stand to lose. But the way you do it matters. In general, it is better to subsidise poor peoples' incomes, rather than food prices: this distorts price signals the least and allows farmers to benefit from higher prices. Where it is not possible to subsidise incomes (because to do so requires a decent civil service), it is still possible to minimise the unintended consequences if food subsidies are targeted and temporary. Morocco fixed bread prices (the food of the poor) during Ramadan, the Muslim month of fasting; at the same time, it cut tariffs on food imports to increase competition.

In contrast, Russia shows how not to do it. It imposed across-the-board price controls on milk, eggs, bread and other staples, benefiting everyone whether they needed help or not. Food is disappearing from shelves and farmers are bearing the brunt. As Don Mitchell of the World Bank points out, “if you want to help consumers, you can do it without destroying your producers but only if you go about it in the right way.” In reality, many of the recent price controls are blatant politicking. About half the countries that imposed price controls did so before elections or other big political events. Russia's are due to run out just after next year's presidential election. Funny, that.

There is one last important knock-on effect of agflation. It is likely to help shift the balance of power in the world economy further towards emerging markets. Higher food prices have increased inflation around the world, but by different amounts in different countries. In Europe and America food accounts for only about one-tenth of the consumer-price index, so even though food prices in rich countries are rising by around 5% a year, it has not made a big difference. There have been clucks of concern from the European Central Bank and a consumer boycott of pasta in Italy, but that is about all.

In poor countries, in contrast, food accounts for half or more of the consumer-price index (over two-thirds in Bangladesh and Nigeria). Here, higher food prices have had a much bigger impact. Inflation in food prices in emerging markets nearly doubled in the past year, to 11%; meat and egg prices in China have gone up by almost 50% (although that is partly because pork prices have been pushed up by a disease in pigs). This has dragged up headline inflation in emerging markets from around 6% in 2006 to over 8% now. In many countries, inflation is at its highest for a decade.

Central bankers are determined to ensure that what could be a one-off shift in food prices does not create continuing inflation by pushing up wages or creating expectations of higher prices. So they are tightening monetary policy. China increased interest rates in August, Chile in July, Mexico in May. The striking thing about these rises is that they are the opposite of what has been happening in some rich countries. The Federal Reserve reduced rates by 50 basis points in September and 25 points in October; the Bank of Canada cut rates this week. The indirect effect of food-price rises has therefore been to widen the interest-rate differential between rich and emerging markets.

And all this is going on as the economic balance of power is shifting. Growth in America and Europe is slowing; China and India are going great guns. Financial confidence in the West has been shaken by the subprime-mortgage crisis; capital flows into emerging markets are setting records.

This shift will be tricky to handle. Such transitions always are. The risk is of a bubble in emerging markets. As Simon Johnson, the IMF's director of research, wryly notes, “every bubble starts with a change in the real



But a problem too

economy." Food markets are an obvious place to start. How emerging countries fare—and how poor consumers cope—depends on their economic policies. The imposition of food-price controls was not exactly a good start.

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