ITEM Club Special Report

FOOD FOR THOUGHT: HOW GLOBAL PRICES WILL HIT UK INFLATION AND EMPLOYMENT

Key points

- World food prices are soaring in response to rapid global population growth, increasing real incomes, the expansion of biofuels and drought-like conditions in the major cereal-producing nations.

- These pressures are set to escalate: the world's population is projected to climb from 6.6 billion today to 8.3 billion by 2030; rising living standards are increasing demand for protein in the form of meat and livestock products in emerging markets (notably China); many countries are looking to expand biofuels production as they seek to reduce their reliance on imported oil; and climate change is threatening to cut agricultural production by 20% in emerging markets by 2020 and by 6% in developed countries.

- Rising food prices are having devastating impacts on the living standards of the poor in many developing countries, where food accounts for 40-60% of household spending. This has led to instances of public unrest in countries such as Mexico, China, India, Egypt and in the Middle East. In response, some countries, including Russia, have imposed price freezes on basic consumer goods, such as bread.

- In the UK, while food and non-alcoholic beverages account for only around 11% of the CPI basket, the sharp acceleration in food price inflation to 6.6% over the last year is adding to the recessionary forces threatening the economy. Rising food and energy prices alone are now contributing over 1.7% points to CPI inflation, leaving little room for other price increases if the government's 2% inflation target is to be met. With food prices set to rise further, oil prices at over US$125 a barrel and threatening to rise to US$150 and household energy bills possibly set to rise by as much as 40% by end-2008, other prices will have to fall significantly if the Monetary Policy Committee is to get inflation back on target over the next two years.

- The UK is more exposed to rising world food prices than its peers – it runs a trade deficit in food equal to 1% of GDP, whereas the US is in balance and France runs a surplus. The UK's deficit in food, beverages and tobacco has deteriorated by 14% over the last year, and sterling weakness and further rises in world prices will add to the deterioration in the terms of trade, thereby dragging down growth.

- The implications for UK businesses are profound. Input costs climbed 23.3% over the year to April yet, with consumers' disposable incomes falling, output prices rose just 7.5% as companies continued to squeeze margins. But the latest commodity price rises may force companies to harden their stance with customers, leading to yet higher inflation. In this new environment, companies are redefining the economics of their business models. More than ever, they are leveraging global scale to hedge against price fluctuations, improve efficiency in operations and review value propositions and pricing. This challenge creates a unique and complex trade-off between new legislation, increasing costs, scarce supply and reduced consumer spending.

- Consumers, particularly the less well-off, will also face some tough choices. Will the price point soon be reached for organic and fair-trade products that puts such purchases beyond the reach of all but the comfortably well-off?

- This surge in global food and energy prices highlights a weakness in the UK's inflation-targeting regime. This regime encouraged excessively loose monetary policy for much of the last ten years as global deflationary pressures – thanks in good measure to cheap imports from China and weak world food prices – helped to suppress inflation, leading to the credit boom that has now turned to bust.

- Equally, the danger now is that rising world prices will lead to excessively tight monetary policy, as the Bank of England tries to counter the impact of higher food and energy prices and seeks to quell both heightened public perception of inflation and an increasing risk of wage and other second-round effects breaking out. This in turn would imply a substantial squeeze on household incomes, with an even harder impact on the poor – those who are already being hit by the 10p tax fiasco.

- The current situation leaves the government with an indigestible menu of short-term policy choices. One option is to insist on the 2% inflation target - this means no more interest rate cuts for some time and hence weaker economic growth and a further deterioration in the living standards of its core supporters. The Treasury model suggests that GDP would need to be ¾% lower and unemployment 60,000 higher in two years' time to offset the effect on headline CPI inflation of food prices rising by 5% a year in real terms.

- Another option would be to offset the direct impact of higher food prices by cutting indirect taxes, such as VAT, which some economists recommended as the appropriate response to the oil price shocks of the 1970s. But this path is ruled out by the lack of fiscal room for manoeuvre resulting from the government's failure to use the economic good times to create a 'war chest' that it could draw upon in tougher times, especially after the £2.7 billion handout in higher tax allowances to try to defuse the furore over the axing of the 10p tax band.

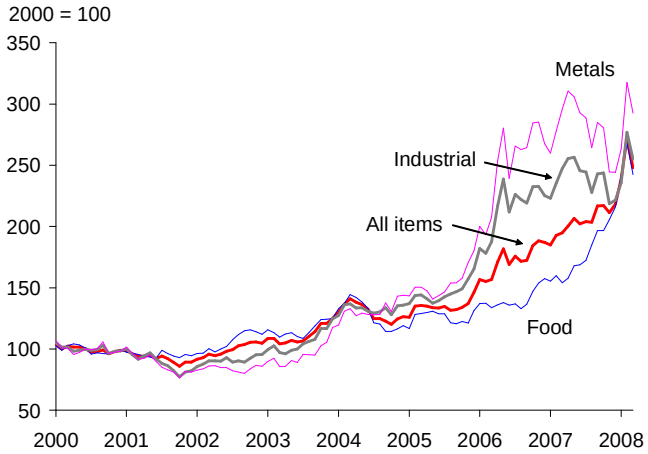
- Or the government could make an active choice about the inflation/growth trade-off and raise its inflation target for the next couple of years. The US Federal Reserve's remit allows it discretion to accept somewhat higher inflation in order to preserve growth and jobs but the Bank of England does not have that discretion – under the UK policy framework, that is a choice for government. This is not a time for dithering – the Chancellor must give the Bank a clear steer and accept that the consequences will reflect his judgement on the trade-off between holding to an arbitrary inflation target in the face of a major global shock or supporting activity and employment.

- ITEM believes that it is time to take another look at the specification of the target regime. There is a good case for switching the target to core CPI inflation, which excludes the effect of food and energy prices.

Food joins global commodity price boom…

World commodity prices have risen strongly in the last four years, driven primarily by the surge in oil to record highs but with prices of metals and industrial materials also climbing steeply. Although there have been some supply issues that have played a part in this price surge, a key driver has been the strength of global demand, with rapidly-growing economies such as China and India accounting for a large chunk of the increase in demand in recent years. The International Energy Agency has warned that crude oil imports by these two emerging giants could almost quadruple by 2030, posing a global supply "crunch" as soon as 2015.

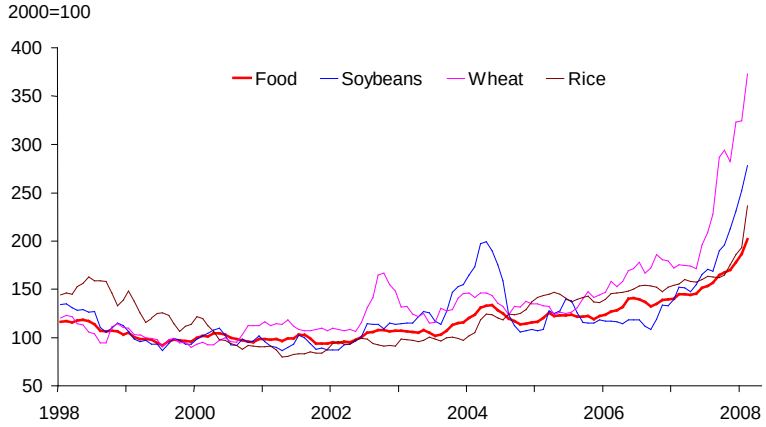
The Economist commodity price index - aggregates



Source : The Economist

Having lagged behind other commodities in the early-2000s, food prices are now also rising very strongly. Wheat and maize prices have more than doubled since end-2005, soya bean prices are at a 34-year high and rice is at its highest in over 20 years. It is particularly striking that nearly all food and feed prices are rising strongly now: previous soft commodity price surges have usually been driven by one or two commodities.

World food prices



Source: Oxford Economics

…with pressure from both demand and supply factors…

A number of factors explain the rise in global food prices:

- **Rapid global population growth** - According to the Food and Agriculture Organisation (FAO), the world's population has been growing at 1.35% per annum (pa) over the last 20 years, whereas food production has been rising at 1.3% pa.
- **Rising real incomes** - Rising standards of living, especially among the emerging markets where the bulk of the population growth is occurring, are boosting global food demand. In particular, increased affluence – most notably in China - is leading to very strong growth in demand for protein in the form of meat and other livestock products. Consumption of meat in the newly industrialising countries is growing ten times faster than in the developed world. This in turn implies higher demand for grains, as it takes some 7 kg of animal feed to produce 1 kg of meat, contributing to the doubling in world wheat prices.
- **The expansion of biofuels** - The IMF has highlighted that although biofuels still account for only 1.5% of the global liquid fuel supply, they accounted for almost half of the increase in consumption of major food crops in 2006-07, mostly because of corn-based ethanol produced in the US. And while world cereal production in 2007-08 is expected to rise by some 5%, most of this is for the production of ethanol or biofuel. In the US, a quarter of total maize production is now being used for biofuel generation, reducing the supply of food for human consumption and pushing up prices.
- **Adverse weather** - Drought-like conditions in the major cereal producers – Australia, the US and the EU – together with extreme conditions facing Central Asian and African grain producers have added to the pressure on food prices.

…which is set to intensify further…

Moreover, many of these pressures will only get more intense in coming years. For example, the world's population is projected to climb from 6.6 billion currently to 8.3 billion by 2030; and GDP per capita in China is expected to rise by around 7% pa in real terms over the next five years and 5% per head out to 2030.

…exacerbated by demand for biofuels…

Similarly, demand for biofuels is also expected to continue to rise strongly. The US Department for Agriculture expects that about a third of the 2008-09 US corn crop will be used for biofuels and, as part of its strategy to reduce dependence on oil-producing countries and cut its trade deficit, the US is planning to increase its biofuel output from around 34 billion litres this year to 136 billion litres by 2022. There is a similar story emerging in the EU, which has set a target for 10% of all EU fuels to come from green sources by 2020 – France, for example, is aiming for 7% of its fuel consumption to come from biofuels by 2010.

And both China and India have plans for a major expansion of biofuels in order to reduce their reliance upon world oil markets. China is seeking to raise biofuel production fourfold to 15 billion litres of ethanol, or 9% of its projected petrol demand, by 2020; while India has approved a plan to require all oil companies to sell petrol with a blend of at least 10% of ethanol by next year, double the current level. As a result, a 2007 study by the International Water Management Institute concluded that, in order to meet their biofuel targets, China would need to produce 26% more maize and India 16% more sugarcane. This diversion of resources and land previously earmarked for food crops will inevitably have a further impact on food prices in the next few years.

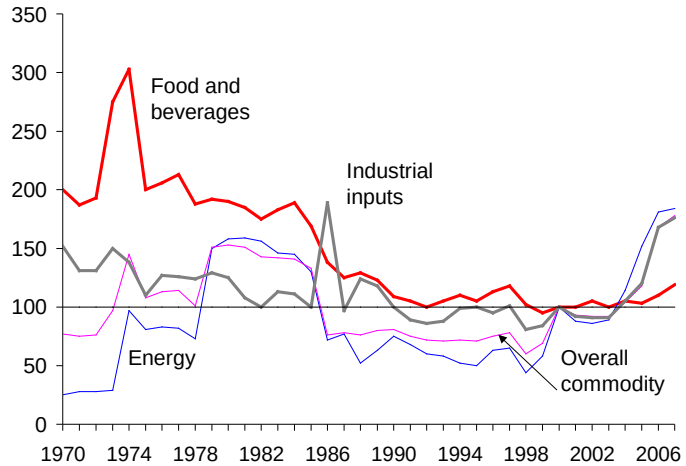
…and the threat from climate change

Moreover, while some of the recent adverse weather conditions may be one-offs, there is a longer–term threat to global food supply from climate change. A recent report by the International Food Policy Research Institute in Washington, for example, warned of the dangers of climate change on food security. It projected that by 2020 the production of all agricultural produce in the emerging markets would decline by 20%, while production in the developed countries would fall by 6%. And it estimated that a 3° C rise in average temperatures could lead to a 40% increase in foodgrain prices. The FAO has the same message, stating that agriculture in the Middle East and North Africa is suffering losses because of rising temperatures, lack of rainfall and soil degradation. And with many countries facing possible shortages of commodities such as grain, the situation is being compounded as large exporters of grain cut back on shipments in order to prevent domestic shortages and avert further pressure on local prices.

Some analysis suggests that world food production will have to rise by up to 3% pa in order to meet the growth in demand for food driven by rapid population growth, changing diets and the rise of biofuel production. Under present policies, and given the climate change threat, it seems unlikely that arable land supply will increase at anything like this sort of pace. As a result, the rise in food prices looks set to continue, especially with US grain reserves at their lowest in 35 years according to the USDA and the EU stockpiles largely depleted. It is striking that, in contrast to other commodities, food prices are still well below their levels in the 1970s and early-1980s in real terms.

World commodity price aggregates

2000=100 deflated by manufacturers unit value



Source: IMF

Rising food prices devastating for the world's poor…

Rising food prices are having devastating impacts on the living standards of the poor in many developing countries, where food accounts for 40-60% of household spending (eg 44% in Egypt, 54% in Bangladesh). This has led to well-publicised instances of public unrest in countries such as Mexico, China, India, Egypt and in the Middle East. In response, some countries, including Russia, have imposed price freezes on basic consumer goods such as bread to contain an increasingly worrying situation.

…and are adding to the pressure on the major economies

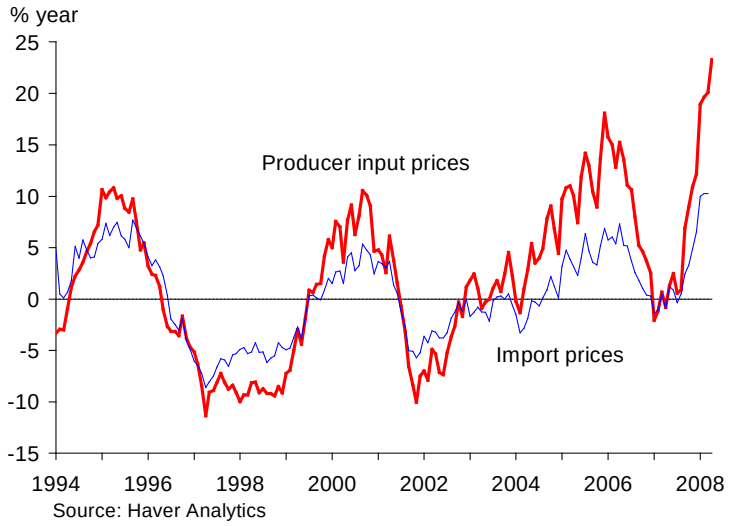
Although food and non-alcoholic beverages account for only around 11% of the CPI basket in the UK and other European economies, and around 8% in the US, the sharp acceleration in food price inflation over the last year is also adding to the recessionary forces threatening the developed economies, especially in conjunction with higher oil and other energy prices. For example, in the UK, rising food and energy prices alone are currently contributing over 1.7% points to CPI inflation, leaving almost no room for other price rises if the government's 2% inflation target is to be met. With food prices still rising and oil prices threatening to rise to $150 per barrel, it is likely that other prices would have to fall if the Monetary Policy Committee is to get inflation back on target over the next two years.

	Weight of food in CPI basket	Balance of trade in food	
		US$bn	% of GDP
UK	10.9	-28.5	-1.0
US	7.6	5.1	0.0
Japan	18.9	-54.6	-1.1
Germany	10.7	-12.6	-0.3
France	10.8	14.5	0.5
Italy	15.7	-10.0	-0.4

The UK is more exposed than most…

Indeed, in some respects the UK is more exposed to rising world food prices than its peers among the leading developed economies. As the table above shows, the UK is now running a trade deficit in food equivalent to 1% of GDP, whereas the US is in trade balance and France runs a net trade surplus. The UK's deficit in food, beverages and tobacco has deteriorated by 14% over the last year and further rises in world prices will add to the deterioration in our terms of trade, thereby dragging down growth. In contrast, rising food prices in the US and France, for example, typically represent a redistribution of spending power between different groups within those countries (ie from consumers to farmers), with no direct impact on domestic real income.

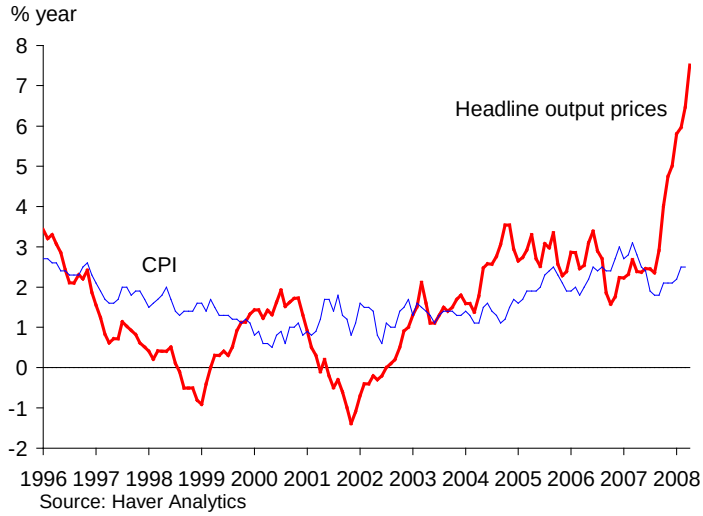
UK: Import and producer input prices



Given this greater dependence on imported food, plus the weakness of sterling, the rise in food, fuel and other commodity costs, UK companies are facing steep rises in input costs.

With import prices climbing 10% over the past year, producers' input prices rose 23.3% in the year to April while output prices were up 7.5% (both at their highest rates since records began in 1986), suggesting that there are further price pressures to feed through into consumer prices. Profit margins have been steadily squeezed in recent years and there is a limit to how far this process can continue. In addition, energy companies are warning of sharp rises in household energy bills of up to 40% this year, another factor that will hit the poorest hardest. It is also worth noting that transport price inflation eased in April this year, but will inevitably climb further on the back of higher energy prices.

UK: Producer output prices and CPI



Source: Haver Analytics

…and exacerbated by the inflation targeting regime…

The larger-than-expected jump in CPI inflation to 3.0% in April and the inevitable further rise in the coming months (which will require the Governor of the Bank of England to write a letter to the Chancellor explaining what is being done to get inflation back down towards target) highlights the monetary policy dilemma now facing the authorities. The inflation-targeting regime will now add to the pressures on the economy. In contrast to the US, where the Federal Reserve's remit allows it discretion to accept somewhat higher inflation in order to preserve growth and jobs, the Bank of England is required to offset the impact of higher food prices on inflation. In ITEM's view, this highlights the weakness of the current inflation-targeting regime.

The primary focus on the inflation target encouraged excessively loose monetary policy for much of the last decade as global deflationary pressures – thanks in good measure to cheap imports from China and weak world food prices – helped to suppress UK inflation, leading to the credit boom which has now turned to spectacular bust. Effectively, by focusing too much on short-term inflation developments – and ignoring signals from asset prices, the money supply etc – the Bank of England helped to sow the seeds for today's crisis in the financial and housing markets.

So the danger now is that rising world food and energy prices will lead to excessively tight monetary policy, as the Bank of England seeks to offset the impact of higher food and energy prices by squeezing domestic costs. This in turn implies a substantial squeeze on household real incomes, which would impact particularly on the poor – ie those who are already being hit by the 10p tax fiasco. With food accounting for over 15% of spending by many pensioners and fuel bills continuing to rise strongly, an increasing number of old people may be faced this winter with the stark option of "eat or heat".

…which could cost 60,000 UK jobs

To illustrate the real economy implications of sticking rigidly to the 2% inflation target at a time of rapidly rising world food prices, we have conducted a simulation with the Treasury model. We have calculated how much interest rates would need to rise (from 2008Q3) to reduce CPI inflation by 0.6% points by 2010 – sufficient to offset the direct effect on inflation of food price inflation running at 5% a year in real terms over the next two years (only slightly above the 4% real increase recorded over the last year). As the table below shows, interest rates would have to be 1.5% points higher than otherwise required to stick to the inflation target, which would reduce GDP by about ¾% by 2010 and cut employment by over 60,000.

Table 1: Impact of tightening policy to offset 5% real food price inflation

Impact relative to baseline forecast

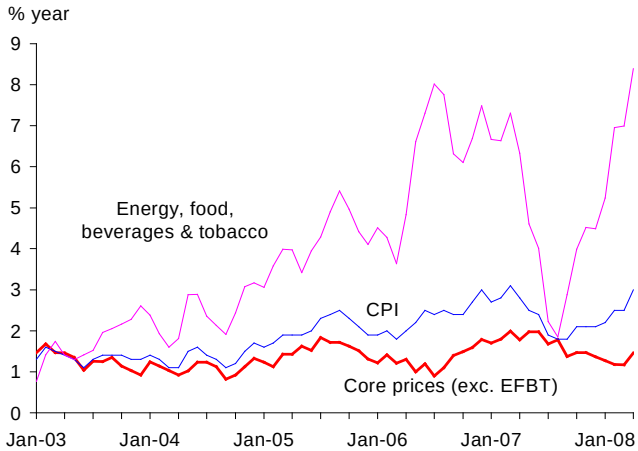
	Bank rate (% points)	GDP (% change in level)	CPI inflation (% points)	Employment (000s)
2009Q4	+1.5	-0.7	-0.1	-49
2010Q2	+1.5	-0.8	-0.6	-63

Another option available to the government would be to offset the direct impact of higher food prices by cutting indirect taxes such as VAT, which some economists recommended as the appropriate response to the oil price shocks of the 1970s. But this option is ruled out by the lack of fiscal room for manoeuvre resulting from the government's failure to use the economic good times to create a 'war chest' that it could draw upon in tougher times. The fiscal position is even tighter after the £2.7 billion hand-out in higher tax allowances to try to defuse the furore over ending of the 10p tax band.

Or the government could make an active choice about the inflation-growth trade-off and amend its inflation target for the next couple of years, instructing the Bank of England to accommodate the impact of the rise in global food and energy prices. For example it could instruct the MPC to keep the core CPI (which excludes food and energy costs) in a band centred on 1.5%. The core rate is now at 1.4%.

In the US, the Federal Reserve has the discretion to make that kind of choice about the policy trade-off. In the UK, the government chose to retain that power – it now needs to be explicit in exercising it one way or another. Is it still sensible to ask the MPC to target a price index like the CPI, which places a big weight on food and energy prices that are set beyond its control in world commodity markets? It is imperative that UK wages and costs remain restrained. But it is not necessary to repress them further just to offset higher food prices.

UK: Core inflation



Source: Haver Analytics

UK consumer and business implications

There are major implications for UK consumers and firms from rapidly rising food prices:

- Policymakers in the UK (and the EU) have downplayed the social impact of food price rises because food is a small and declining proportion of the average household budget. But although food and beverages are only 10.9% of the CPI basket in the UK, lower-income groups spend over 15% of their budgets on food. These are also the groups living mostly on staples and hence least able to cut their food bills by reducing meat consumption. And many of these will also be seriously disadvantaged by rising fuel and utility bills, in addition to the ending of the 10% tax rate.

- UK consumers are caught in a perfect economic storm - with food inflation approaching 7%, oil over US$125 a barrel, utility prices rising 10-15% and the credit crunch hitting mortgages – all of which combine to squeeze real disposable incomes. Low-income consumers have to make difficult decisions about what they spend their money on; food versus products or value versus price. Higher-wealth consumers now need to build economics into their ethical decisions. With confidence at a 15-year low, consumers have to make hard choices between their personal finances and their moral beliefs. Do they continue to buy organic chickens, change to factory-farmed chickens or go with their moral beliefs and stop buying chickens?

- When food prices rise in real terms, UK households tend to raise their spending to consume the same volume – so other areas of discretionary expenditure are squeezed. The macroeconomic impact is therefore to restrain spending on other areas - eg clothing, household durables, eating out – worsening the negative impact those sectors were already experiencing from slower growth of real incomes.

- Rising commodity prices have also hit businesses hard, especially increasing raw materials, packaging and energy costs. There is a growing trend on the demand side of companies to re-analyse their product offerings in terms of optimal position and price to address changing customer preferences. Consumer product companies are analysing where they can make better trade and brand investment. These changes are driving a shift in the balance between consumer products companies and retailers, where historically the latter have had it their own way, which had pushed the real price of core food products to all-time lows.

- UK mass-market food retailers are still using common ‘known value’ food items as targets for discount, so are resistant to passing on farm gate price rises. But while they can hold food prices down partly by reducing value-added (eg packaging, preparation) and launching more economy/value lines, these work mainly at the higher end – basics like bread, milk, cornflakes rise in line with the main input price. Profitability of food producers was already under pressure from supermarkets’ concentration of buying power and now it is being hit further hit by input price rises that are difficult to pass on.

- On the supply side, producers have seen input prices rising 23.3% over the year to April, yet have only been able to push up output prices by 7.5%. In response to this situation, a number of strategies are emerging. Companies are establishing global functions to hedge against price fluctuations, as well as to provide greater management and visibility on the flow of supply, in order to allocate scarce commodities optimally. Furthermore, given new legalisation, companies are fundamentally re-evaluating their cost-to-service equation and having to include the further complications of corporate social responsibility variables. This challenge creates a unique and complex trade-off between new legislation, increasing costs, scarce supply and reduced consumer spend.

Some other implications of rising world food prices

Land usage and irrigation

The challenge is to raise food production, which will require policies to encourage greater and better use of arable land. Incentives for local farmers will be needed and a fresh look at land policy will be required. This may well drive up the price of land in certain rural areas. In the developing world, greater funding will need to go into irrigation and water resources - a policy aspect that has been neglected in some countries – to ensure greater water security.

Opportunities exist to increase agricultural productivity rates in some countries – for example, Russia, Ukraine and Kazakhstan, where acreage planted has fallen 12% since Soviet days. With the right investment, global productivity could increase and thereby support the development of further food stocks to feed the rising population.

EU agricultural policy

Ironically, the global food imbalance is arriving at just the time when the EU has run down its food mountains after 30 years of heavy criticism about the harm its policies have done to food production in the developing world. But the world has changed dramatically, with food shortages, high prices, food riots, starvation etc all serious threats. The whole EU policy towards agricultural support needs looking at afresh to encourage increased production, and not only in terms of Europe's food security.

Biofuel production

Shortages of food are inevitably casting a spotlight on the recent rush to encourage the growth of crops for biofuels. Targets set by developed countries such as the US and the EU will have to be scaled back, something that the UK has already called for. This situation may be complicated by continued high world oil prices, but the latter should eventually ease production increases in Africa, Asia and the Middle East, together with other sources of more expensive oil such as Canada's tar sands. Subsidising farmers to produce fuel crops instead of food crops risks fresh distortions in global markets at exactly the time that some rich countries are seeing the folly of their ways in earlier subsidies on food crops.

According to the UN, it takes 232kg of corn to make 50 litres of bioethanol, enough corn to feed a child for a year. As a result, the UN food rapporteur, Jean Ziegler, has called for a five-year moratorium on biofuel production to enable science to make progress towards "second generation" biofuels made from agricultural waste or from non-agricultural plants.

GM foods

Sustained high world prices and potential shortages will also add to the pressure to adopt the widespread use of GM foods. GM crops are already being grown in a number of countries, including the US, Latin America, India and China. And, although there will continue to be debate about safety and the ethics of GM foods, it seems inevitable that more countries will move down this path in the coming years.

Doha world trade round

Higher world food prices may smooth over some of the disagreements between the US, the EU, India and China in the Doha world trade round as developing countries receive more for their agricultural exports in relation to the developed world. But with India and China now facing the prospect of requiring more food imports, their stance on opening up agricultural and industrial markets in various countries and on how to cut farm subsidies may begin to change. There are still gains to be made in terms of lower commodity tariffs and export taxes, and reduced subsidies on agriculture in the developed world. But mounting concerns about food security could tend to stall the move towards greater liberalisation – indeed, it is likely that there will be greater protectionism.