WHAT ACCOUNTS FOR THE SURGE IN GLOBAL FOOD PRICES?

The surge in international commodity and particularly food prices has fuelled debate about the underlying factors, as well as prospects for future developments. Since the beginning of 2006 maize prices have almost tripled, the prices of soybeans have more than doubled and wheat prices have risen by more than 80%. While the rise in food prices was initially fairly broad-based, more recently price developments have been less synchronised: since March 2008 maize prices have continued to rise and soybean prices have been rather volatile – albeit below their peak levels – whereas prices for wheat have declined sharply (see Chart A). Taking a long-term perspective reveals two important points. Firstly, the increase in global food prices – particularly if measured in real terms – represents a partial reversal of the secular decline recorded over the last decades and, secondly, real food prices are still well below the levels recorded throughout most of the 1980s (see Chart B). This notwithstanding, domestic food retail prices have faced substantial upward pressures in all countries, as the rising global food prices ripple through the supply chain. Inflationary trends in advanced economies have been strongly affected, and even more so in

**Chart A Maize, wheat and soybeans prices**

(USD per bushel)

- maize
- wheat
- soybeans

Source: Bloomberg.

**Chart B Food and tropical beverages prices**

(index: 2000 = 100)

- real prices
- nominal prices

Sources: HWWI, US BLS.
Note: Real prices are deflated by the US CPI.
emerging economies where food prices have a higher weight in the consumption basket and where the increase in food prices has caused particularly serious and tangible problems for low-income households.

In addition to global demographic developments, which imply a gradual increase in food demand, the recent rally in food commodity prices seems to be strongly related to other structural demand determinants, such as the shift in food consumption patterns in fast-growing emerging markets as a result of rapidly rising income levels and increased demand for biofuels in industrialised economies. The price effects of these demand-side factors have been exacerbated by the difficulties in quickly expanding supply in those market segments experiencing high demand growth and disruptions owing to unfavourable weather conditions.

One of the most important structural factors on the demand side emanates from changing diets in dynamic emerging markets. With strong income growth, food consumption patterns have been gradually changing in major emerging economies from staple food to high protein food. For instance, meat consumption in non-OECD countries rose by around 40% between 1995 and 2006. The strong repercussions on demand for food commodities mainly stem from the fact that the production of meat requires a significant amount of grain-based animal feed. As emerging markets are widely expected to continue their fast catching-up process, this trend is unlikely to dissipate soon.

Biofuel production has been another major source of demand-related market tightness in agricultural markets. Global biofuels production has risen exceptionally in recent years, reinforced by supportive government policies. This rise was most strongly influenced by a strong increase in US ethanol production and the corresponding use of maize. The quantities of land and crops involved are non-trivial. For the United States, the most important global maize exporter, in 2006 biofuels production required around one-fifth of maize production (around 55 million tonnes), which was almost the same amount as US maize exports (in 2006/07). The higher demand for maize also affected the supply-demand conditions for a number of substitute crops (e.g. wheat and soybeans). Higher prices provided an incentive to raise maize plantations at the expense of substitute crops, which also contributed to upward pressures on their prices. While market speculation in the context of abundant global liquidity has often been cited as an additional demand-side factor putting upward pressure on prices, its potential contribution to the recent run-up of prices is difficult to quantify.

On the supply side, with higher energy prices, transport and (energy-intensive) fertiliser costs have risen, thus increasing the marginal costs of all crop producers and fuelling food prices. Weather-related production shortfalls also played a crucial role. In particular Australia has experienced a sharp drop in the wheat harvest in recent years owing to severe drought conditions. As the current wheat harvest is projected to make a strong recovery, prices have already declined significantly. In the longer term, however, a possible rise in extreme weather events in the context of climate change implies a structural downside risk for agricultural production and, correspondingly, an upside risk on prices. Finally, protectionist measures, often aimed at curbing commodity exports, have also increasingly affected global food prices in recent months.

In contrast to other commodities (such as oil and metals), the supply reaction of food commodities to price changes has been historically rather elastic. In principle, there is sufficient unused potential arable land which could be employed to accommodate rising global cereal demand. However, institutional factors limit such a supply response in the short term. Land quality and
suitability is likely to decrease with arable land expansion. Also, most of the countries with unused land resources exhibit infrastructural shortcomings and in some countries with abundant potential arable land, political instability renders efficient agricultural production difficult. Moreover, there is often a conflict of objectives between increasing agricultural production, preserving natural reserves (rainforests, water), urbanisation and other uses (e.g. cattle farming). In the longer term, rising demand for food commodities could also be accommodated by higher agricultural productivity. While growth in yields has declined substantially over the past decade, emerging markets still possess considerable leeway to employ more advanced technologies and increase yields towards the levels recorded in advanced economies.

The overall outlook for global food prices remains highly uncertain. The extent to which evidently rising demand pressures going forward will translate into actual further price increases will depend crucially on the supply response as well as advances in agricultural research and the impact of global warming. At the present state of knowledge, the range of possible outcomes is therefore very wide.

At the European level, several measures have been taken in the framework of the Common Agricultural Policy (CAP) to mitigate the effects of the food price increases. These include a suspension of import duties on cereals and the set-aside obligation on the use of farmland, an increase in milk quotas and the sale of intervention stocks. In the medium to long term, food supply could be supported by further improving the market orientation in agriculture, ensuring the sustainability of biofuels policies and increasing productivity growth. Moreover, in the context of the review of the CAP, launched by the European Commission, proposals have been put forward to permanently abolish the set-aside farmland scheme with immediate effect, to gradually phase out milk quotas by 2015 and to eliminate market intervention for most cereals. Finally, at national level, competitive structures in the food retail and distribution sectors should be strengthened.