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## Perspective

# Crop plants versus energy plants—On the international food crisis

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## ABSTRACT

The recent price explosion of important agricultural commodities has lead to an international food crisis. The price rise is attributed to fundamental factors, such as the rising demand for dairy and meat products in China and the development of the bioenergy branch as well as on short-term factors such as the behaviour of speculators. Mobilising the worldwide supply can help to overcome the demand driven shortage of food this can be achieved through a proper design of the agricultural policy both in developed and developing countries.

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World agricultural markets are developing rapidly. The prices of important agricultural commodities have exploded in recent years and have reached historical records. The prices of rice rose in the last two months by about 75%, the wheat prices more than doubled in the last year and also maize became very expensive in 2007. Experts estimate that this trend will remain as such in the long run and this despite the current slight drop of the high price shock. The price explosion of agricultural commodities is already mirrored in the food prices. This is particularly observed in many developing and transition countries, where in 2007 alone the food prices rose varying from 20% to 25%. This development appears threatening for poor households, which spend up to 75% of their budget for food. For those that are the most affected it would not be an exaggeration to talk about a food crisis. The World Bank speaks of seven years lost in the battle against hunger and poverty and calls to a “new deal on global food policy”. In order though to find the proper measures that should be applied, it is necessary to drill down to the factors that caused the price explosion: rising demand for high-valued food on the world markets due to population and income growth as well as urbanisation in emerging markets, transformation countries and oil exporting countries; a worldwide rising, highly subsidised and enmeshed through the high energy prices use of agricultural land for producing bioenergy instead of food and feed; the gradual reduction of trade barriers that already started to take place within the framework of the world trade negotiations and especially the reduction of protection and agricultural overproduction in high income countries. According to the World Bank full liberalization of the agricultural markets would

lead to an increase of the prices for agricultural raw materials by 5.5% in average and for food by about 1.3% again in average. The drop of the stocks of important agricultural commodities, which is observed over the recent years and has in-between reached historical low levels, has certainly contributed to the crisis.

The rising demand for meat and dairy products as well as the due demand for feed in China and India is one of the fundamental factors that boosted upwards the food prices. This trend is clearly verified by the constantly dropping stocks and is expected to result in the long run in a supply deficit. The high demand for agricultural commodities (such as maize, wheat, sugar and oilseeds) for the production of biofuels, bioelectricity and bioheat is without doubt another main reason for the upward move of the food prices. The International Food Policy Research Institute (IFPRI) expects an additional rise of the prices of the above mentioned commodities varying from 10% up to almost 30% until 2020 if the support for the bioenergy production remains at the current levels. In the event of a drastic extension of the green subsidies the additional price rise should be of up to 70%, IFPRI suggests. Due to the boom of the bioenergy already about one third of the area under maize in the USA and large areas under sugar cane in Brazil are used for the bioenergy production. Although this makes about only 2% of the world agricultural land, it still has a remarkable influence on the world agricultural prices. After all it is the marginal producer and consumer that determine the prices and not the average actors.

Short-term factors also play a significant role on the currently observed extreme price development. Long drought periods in Australia and supply drops in major exporting countries as well as the newly aroused interest of investors and speculators on agricultural commodities are such examples. Nowadays agricultural markets seem to be more than ever related to the international

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energy and capital markets and to underlie their regulatory framework. The contribution of investors and speculations to the price explosion seems though to be overestimated and even if this is politically popular, to distract from own market failures. Within this content it is important to realise that investors and speculators cannot constantly take distance from the already mentioned fundamental factors and that fresh capital is urgently needed for the liquidation of the investment-bottleneck in the agrifood sector of several developing countries.

A way to overcome the demand driven shortage is crucial to mobilise the worldwide supply. The answer to the reduction of agricultural land is to intensify the production. Sustainability though is a necessary pre-condition and can be secured only through the application of modern production facilities and innovative techniques. The call goes in particular to producers of pesticides, fertilisers, land machinery, seed, and feed, which should be supported by effective trade and modern logistics. We need a new green revolution, which also though public support should promote agricultural research. The conversion of the conventional agriculture to organic farming—as recently the self-appointed World Agricultural Council supported—as well as the renouncement of “industrialised agriculture”—i.e. the participation of farmers and their market partners in the supply chain—is certainly the wrong way. On the contrary in the event of further population growth such measures would result not only in dramatically increased demand for agricultural land including areas that are today under tropical forests, but would also increase radically hunger and poverty in the world.

The mobilisation of the supply side can be achieved only through a proper design of the agricultural policy. To this belong measures such as: reduction and elimination of production quotas and of set-aside; cut down of support for extensification and removal of ecological compensation areas; review of the massive support for bioenergy, which competes the production of food and feed as well as the material exploitation of renewable raw materials; policy towards genetically modified organisms and

pest management that can on the one side guarantee safety but on the other side is not market distorting; elimination of export taxes and any other measure that prohibits exports, as currently applied by several developing and transformation countries aiming to fight their domestic inflation accompanied by reduction of import subsidies and industrial support in developing countries, which apply it attempting to correct their overvalued currencies, as well as privatisation of public monopolies in the areas of food marketing, which in total discriminate the farmers of the third world.

Cutting down all those factors that keep supply in low levels could help to fight the shortage on the international food markets at least on the middle and long run. Still though the poorest cannot wait for so long and this therapy could be too late for them. It is thus necessary to start immediately the fight against poverty and in this all the involved parties in the economic development are needed. Within this content it is important not to forget that developing countries must consider their own failures in the fight against poverty and hunger and must find the courage to take the necessary reforms. Key in this is the agricultural and food sector. Only when this sector is economically healthy and productive can the food crisis be resolved and can sustainable development be guaranteed and accomplished.

## References and notes

### Suggested reading

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