

Sorting the truth out from the lies about the explosion of world agricultural prices¹

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I – Classification of the causes of the recent explosion in agricultural prices

One can distinguish the causes linked to the increased demand from those linked to a lower supply or higher production costs, knowing that some causes have had short term effects while others correspond to long term trends.

1) – Causes linked to demand

a) The main cause has been the soaring production of biofuels since 2006 which has reduced the volumes of cereals and oilseeds available for direct human consumption and led to the price hike of animal products having consumed feedstuffs.

b) If the increased consumption of food products, notably of animal products and therefore of 'grains' (cereals and oilseeds), is clearly linked to the rapid rise in the living standard of emerging countries such as China and India, this is a trend which has been going on for many years and which cannot account for the recent explosion in world agricultural prices.

The world population growth in the long run – from 6.6 billion in 2007 to 9.3 billion in 2050, which will occur only in developing countries (DCs) – cannot be responsible for this explosion. But it suggests the difficulties ahead to satisfy the food needs in 2050, the more so as 854 million human beings are still suffering from chronic under nutrition and more than 2 billion from malnutrition (deficit in proteins, vitamins or trace elements).

c) More recently the massive financial speculation on agricultural commodities (and non agricultural ones, of which oil) linked to the collapse of securities and the US real estate market (subprimes) and to the dollar depreciation.

d) But also the speculation by traders and consumers expecting the continuation of prices hikes, and governmental imports in countries such as the Philippines in order to discourage the speculation of national traders.

2) – Causes linked to supply

a) Production falls:

- in the short run, those due to natural disasters (drought or excessive rainfall);
- or, as trends going on for years, production increases at a lower pace than demand and leading to collapsing stocks. This results mainly from stagnating yields and, above all, from a reduced competitiveness of DCs agriculture due to imports at dumping prices. This is the fruit of the absurd agricultural trade rules – devised and fostered by the World Bank, the IMF, the WTO and developed countries – which have forced DCs to reduce drastically their import protection while allowing the dumping of developed countries products to be perpetuated under the cover of massive domestic agricultural subsidies.

b) The explosion of oil prices which has raised the cost of agricultural inputs and transport charges and which has justified the political decisions to accelerate the production of biofuels.

¹ Summary of a French paper of 54 pages on which you can check the bibliography, graphs and tables.

c) More recently the export restrictions or embargos on food products in many exporting DCs so as to guarantee the food security of their citizens at affordable prices, which has accelerated the world prices explosion.

II – The responsibility of the main countries in the explosion of world agricultural prices

Western media hold China and India as largely responsible for that explosion because of the rapid surge in their food consumption, particularly of animal products, linked to their large per capita GDP growth rates. Actually the US and EU bear almost all the responsibility. What is fundamental to focus on, in the context of the food prices explosion, is the reality of the food trade balances much more than of the agricultural trade balances.

1) China

China's food trade has generated an average surplus of \$4 billion from 2000 to 2006, of which \$4.947 billion in 2006, 2004 having registered a slight deficit of \$306 million. And this despite net imports of 28 million tonnes (Mt) of oilseeds and 8.5 Mt of vegetable oils in 2006-07. China has remained a net exporter of cereals, except in 2004.

Has China contributed to the biofuels boom which has fostered the explosion of world grains prices? The answer is mixed. If China has produced 3.8 billion litres of ethanol in 2006 (3rd largest producer), 90% of which from corn, it has forbidden in June 2007 any new production from corn because the price of pork had jumped by 42% in 2006. Its production has then been halved, to 1.8 billion litres, in 2007. As China has kept exporting corn, one cannot charge it with a responsibility in the explosion of world cereals prices. And, as it has produced only 50,000 tonnes of biodiesel in 2006 against an objective of 2 Mt in 2010, this has not impacted on vegetable oils world prices. However because, before halving its ethanol production in 2007, China had shifted 10% of its area sown in soybean to corn and because of bad weather, its oilseeds production has dropped by 4.5 Mt in 2007 (much less than the drop by 16 Mt in the US soybean production however) and forced it to increase its oilseeds imports by 5 Mt and vegetable oil imports by 1.5 Mt in 2007-08².

China's agricultural added value has risen by 4.5% per year from 2003 to 2007. However 154 million Chinese were still chronically undernourished in 2002-04.

Therefore a negative impact of China on the recent explosion of world cereals prices should be discarded although its increased oilseeds imports have had an impact on oilseeds prices, much lower however than the impact of the US fall in soybean production in 2007.

In the long run however China is likely to face an increased deficit in its agricultural trade balance. China is aware of those challenges: agricultural investments have surged by 31% in 2007 and agricultural subsidies would double in 2008, to \$79.2 billion, in relation to 2004.

2) India

It has remained an average net exporter of \$3.4 billion in food products from 2000 to 2006, of which \$4.3 billion in 2005 as in 2006. The average net exports of \$1.337 billion of cereals account for 20% of exports but have fallen to \$500 million in 2006 because India has imported 6 Mt of wheat whereas it had exported a net average of 2.3 Mt from 2000 to 2005. India has again imported 2 Mt of wheat in 2007 but could have a surplus in 2008. But India exports mainly rice (4.7 Mt in 2006) and some maize (0.6 Mt in 2006).

² <http://www.fas.usda.gov/oilseeds/circular/2008/May/oilseeds.pdf>

India's deficit in oilseeds trade has almost disappeared in 2006 (\$0.3 billion against \$1.5 billion in 2003) because if it is importing a lot of soybean oil and palm oil, it exports in return peanut oil and castor oil and above all oilseeds meals. However forecasts for 2007-08 expect a slight increase in oilseeds deficit.

India is also a net exporter of meat and dairy. All in all, the surplus of India's agricultural trade balance has likely remained the same in 2007-08.

India and biofuels: in 2006 India was the fourth producer of bioethanol with 1.9 billion litres but the production has collapsed to 200 million litres in 2007. It intended to cover 20% of its needs in diesel for 2011-12 from biodiesel extracted from the non edible oil of *Jatropha* cultivated on arid soils, but this programme will not succeed because the government has established a biodiesel price lower than the production cost of processors who pay to farmers a non remunerative price. And India's finances Minister has spoken the 26 March 2008 of "*the foolishness of growing food and converting it into fuel*", which leads to anticipate the end of government support to biofuels.

However Indian agricultural production is much less dynamic than that of China and its agricultural added value has increased by only 2.7% a year from 2003 to 2007. Despite the fact that India is a net exporter of cereals and that its GDP growth rate has exceeded 8% since 2004, it had still 212 million of chronic undernourished people in 2002-04 and the number has increased by 10 million since 1995-97.

All in all, if it would be more difficult for India than for China to face its food needs in the long run, it bears no responsibility in the recent explosion of world agricultural prices.

3) The US

The US have registered a deficit of \$11.3 billion in its food trade in 2006 (as in 2005), notably because of a deficit in fish products of \$9.7 billion. However the explosion in agricultural prices has allowed them to get a surplus in 2007 and will allow an even larger one in 2008.

The US shoulders undoubtedly the main responsibility for the explosion of world agricultural prices and hunger riots because of its crazy objectives of biofuels production and because it is price maker for the world prices of grains, then for the prices the other exporting countries can charge.

Corn production for ethanol has jumped from 41 Mt in 2005-06 to 79 Mt in 2007-08, that is from 14.4% of production to 23.7% and should reach 33.2% in 2015-16 to fulfil Congress' mandate. US economists estimate that this would increase corn prices even more and would imply larger subsidies to ethanol processors in order to make a profit.

Links between the rise in corn prices induced by ethanol and the price of the other grains: the surge in corn prices in 2006-07 has fostered a large increase in the acreage sown in corn in 2007, to the detriment of the acreage sown in wheat and soybean so that their prices have jumped by a higher rate than that of corn, the more so as their production costs are lower.

It is clear that, with 79 Mt of corn for ethanol in 2007-08 – that is 23.7% of the harvest, 24% more than corn for exports and 82.5% of corn global exports –, and because US FOB prices of grains are making the world prices, the US is the first responsible for the explosion in the world prices of corn and the other grains, given their substitution effects.

It is comforting to underline that USDA has just acknowledged the responsibility of US ethanol from corn in the explosion of world agricultural prices³.

The responsibility of the US corn ethanol in the explosion of the world prices of grains is all the less questionable that Brazil's ethanol, which production follows on the heels the level of the US ethanol, is produced from sugarcane and because the world price of sugar has remained very low in 2007 and was still lower in February 2008 than its average 2006 level.

But the US is also the main culprit for the explosion of world oilseeds prices in 2007-08 because the shift to corn in the acreage sown in soybean has reduced its soybean production by 16 Mt in 2007 (against a 4.5 Mt reduction in China).

The US is all the more hanging a threat on the higher level of future grains prices that it does not have any reason to stop the expansion of biofuels which has been so beneficial to its agricultural economy: farmers' income has surged by 48% in 2007 and would rise again by 4% in 2008, and the agricultural trade surplus has jumped from \$4.6 billion in 2006 to \$11.9 billion in 2007 and would jump again to \$24.5 billion in 2008. And indeed the new Farm Bill just adopted by Congress has increased the subsidies to biofuels.

Never say die however since the three presidential candidates have just changed their mind about their previous support to corn ethanol, particularly the polls' favourite, Barak Obama⁴, which is all the more noteworthy that, as Senator to Congress from Illinois, the second State for corn and ethanol production, he has long been a vibrant promoter of it.

4) The EU

The EU claims its responsibility to feed the world and points its finger at China and India as bearing a large responsibility in the explosion of world agricultural prices! This posture is laughable and afflicting because it is the EU, even more than the US, which is actually receiving a massive net food aid from developing countries.

a) The EU had a food trade deficit of \$20.2 billion (€16.1 billion) in 2006 with fish products and of \$3.5 billion (€2.8 billion) without them.

b) The EU-27 is the 1st net importer of oilseed products, far ahead China: 17 Mt of oilseeds (of which 15.3 Mt of soybean), 27 Mt of cakes (of which 22.1 Mt of soybean) and 8.2 Mt of vegetable oils (of which 1.4 Mt of soybean) in 2006-07.

c) The EU-27 has become in 2007-08 the third net importer of cereals, at 12.4 Mt: it would remain a net exporter of wheat for 2.5 Mt but its net imports of coarse grains would reach 13.9 Mt, plus 1 Mt of rice.

d) The EU biofuels is also responsible for the explosion of agricultural prices: the EU has the objective of incorporating 5.75% of biofuels in transport fuels for 2010 and 10% for 2020.

i) Biodiesel accounted for 80% of EU-25 biofuels in 2006 (4.9 Mt against 1.2 Mt for bioethanol) which has produced 77% of the global biodiesel in 2006, far ahead the US (0.8 Mt). It has consumed 64 % of the rapeseed oil used in the EU-25, the trade balance of rapeseed grains is in deficit, the EU

³ <http://www.ers.usda.gov/Publications/WRS0801/WRS0801.pdf>

⁴ <http://www.washingtontimes.com/article/20080505/NATION/903546115>

imports 45% of its needs in vegetable oils and its imports have doubled from 2000 (5.2 Mt) to 2006 (10 Mt). This has fostered a hike in the price of vegetable oils, notably of rapeseed oil.

ii) The EU production of bioethanol has reached 1.77 billion litres in 2007, at the 4th rank after the US (24.6 billion litres), Brazil (19 billion litres) and China (1.84 billion litres). As the EU consumption of biodiesel has been of 2.7 billion litres in 2007, imports from Brazil have reached 1 billion litres, despite an import duty of \$0.26 per litre. The 1.560 billion litres of EU bioethanol in 2006 have been produced from 1.4 Mt of wheat, 1.1 Mt of barley, 0.5 Mt of corn and 0.8 Mt of sugarbeet. But the objective for 2012 to reach 10.1 billion litres of bioethanol would imply 11.2 Mt of wheat, 1.1 Mt of barley, 3.2 Mt of corn, 0.5 Mt of rye and 35.2 Mt of sugarbeet. If bioethanol has had already a significant impact on their prices surge, the impact would be infinitely larger up to 2012 if the objective is maintained and reached.

INRA (French National Institute of Agronomic Research) estimates that to incorporate 5.75% of biofuels in transport fuels in 2010 without imports would require 13 million hectares, that is 20% of the present EU arable land, which would harm the environment and increase significantly rapeseed prices. A fortiori the 10% objective for 2020 would have a much greater impact on the arable land and the environment, not only in the EU but also in DCs from which would come increased imports.

iii) The criticisms of EU biofuels: those of the EU civil society demanding a moratorium on biofuels production and imports and those of public authorities – Gordon Brown, Romano Prodi, Angela Merkel, the European Parliament, the EU Commissioner to the environment Stavros Dimas, OECD, the World Bank, IMF and FAO – have led the European Commission to propose restrictions on imports of vegetable oils from countries where their production is detrimental to the environment.

But the European Commission has rejected the 14 April 2008 Jean Ziegler's statement that the production of biofuels is "*a crime against mankind*", arguing that questioning that component of its programme to fight global warming would also challenge its objective to reduce by 20% in 2020 the emission of greenhouse gas. The Commission follows the biofuels industry which denies that they may have any impact on world prices.

For that matter we should not conclude that any biofuel should be condemned but only those which are competing with food production. Clearly biogas coming from the methanisation of wastes should be encouraged provided that, for agricultural wastes, this would not reduce the soil balance in organic matter, through returning the compost issued from methanisation. The direct use of raw vegetable oil in the farmers' tractors and cars should be promoted. And the second generation of biofuels, coming from wood and other cellulosic matter, if they happen to be profitable, should not reduce the available land for food production and be compatible with a sustainable development at the economic, social and environmental levels.

5) The other US and EU responsibilities in the present hunger riots

a) The US and EU have devised jointly the WTO Agreement on Agriculture (AoA) which has ruined most DCs' farmers

In front of the present explosion of food prices, the IMF, World Bank, WTO and OECD conclude that it is all the more pressing to finalize the Doha Round so as to liberalize more agricultural trade. Actually it is the reduction in the import protection of DCs agriculture together with the massive dumping of US and EU agricultural exports which have increased DCs food dependency after having ruined their farmers and agri-food industries.

The US and EU are not only pressuring DCs to go on reducing their import protection on agricultural and non agricultural products, but the AoA has allowed them to continue a massive dumping of their agricultural exports through two mechanisms:

i) By the definition of dumping and allowed subsidies: for the WTO, there is no dumping as long as exports are made at the domestic price, even when it is lower than the average national production cost. This has been the main reason of the CAP (Common Agricultural Policy) reforms since 1992: bringing domestic agricultural prices closer to world prices has allowed the EU to export without or with low export subsidies, but with massive domestic subsidies allowed by the WTO. This has also been the main reason of the Farm Bills since 1996: lowering domestic prices of 'grains' to eliminate foreign competitors on the world market and compensating these low prices by payments (marketing loans, countercyclical payments) covering the gap with guaranteed prices.

ii) By the violation of the AoA rules and without taking into account the precedents of the WTO Appellate Body's rulings: selling at a price lower than national production cost is only possible in rich countries which compensate these low prices with domestic subsidies 'decoupled' from the current level of production or price and permitted by the WTO. Today the main source of the US and EU massive agricultural dumping lies in the domestic subsidies to the exported products because the specific export subsidies have been much lowered since the 1990s in the EU and have never been large in the US. However the WTO Appellate Body has ruled several times since 2001 that dumping should take into account the domestic subsidies to the exported products and that the so-called 'decoupled' subsidies are not really such. But the WTO does not consider its Appellate Body's rulings as precedents.

Thus, on US total cotton subsidies of \$5.1 billion in 2005, \$4.8 billion were domestic subsidies, of which \$4.5 billion to farmers and \$0.3 billion to mills. As 73.5% of cotton has been exported, \$3.3 billion were domestic subsidies to farmers for the exported cotton, that is 93% of the \$3.6 billion in total subsidies to the exported cotton, the exporters having received \$253 million. Thus, if the US has been condemned by the WTO to eliminate its formal export subsidies in August 2006, it has maintained 93% of its subsidies to farmers for cotton. A similar observation can be made for other US and EU exported products.

Consequently the persistence of a low price of cotton until November 2007 explains partially the recent food riots in West Africa, together with the massive dumping of the EU and US exports of basic staples (wheat, sugar, rice, oilseeds, dairy and poultry meat). Indeed they were constrained to import them because they had been forced to lower considerably their import protection under the pressures of the IMF and World Bank, which are the 'military wing' of the EU and US which control together the majority of their capital.

iii) The EU and US did not notify to the WTO their feed subsidies in the category of those subjected to reduction: the EU has 'forgotten' to notify in this category about €10 billion per year since 1995. The US has also forgotten to notify in that category its direct payments to grains used as feedstuffs for about \$2 billion per year.

b) The AoA as well as the CAP and Farm Bill have consecrated the progressive deregulation of national and international agricultural markets, the 'free play of market forces' being supposed to optimize prices for all actors, and first for consumers. The largest losers are the small farmers, particularly in DCs since they did not benefit, as their Northern colleagues, of massive subsidies compensating the past drop in prices, the reason why they still account for about ¾ of the 854 million of the chronic undernourished population. The only winners have been the agri-food corporations more and more globalized which have seen a large surge in profits, particularly in the recent

explosion of agricultural prices: those of Cargill have jumped by 86% in the November 2007-February 2008 period in relation to the same period of the previous 12 months; those of ADM, the first corn ethanol producer in the US and one large biodiesel producer in the EU, have jumped by 65% from 2006 to 2007; those of Bunge, which produces also biodiesel in the EU, have skyrocketed by 750% over December 2007-March 2008 in relation to the previous 12 months.

c) The EU and US heaviest responsibility in the recent, and even more future, explosion of hunger riots lies in their bilateral free-trade agreements imposed to DCs, notably NAFTA imposed to Mexico by the US and Canada since 1994 and the EPAs (Economic Partnership Agreements) imposed to ACP countries at the end of 2007. US corn exports to Mexico, where tortilla is the basic staple, have jumped from 0.9 Mt in 1991-93 to 8.8 Mt in 2006. Above all the EPAs represent the fuse which will trigger in the medium run a bomb whose explosion will provoke in Sub-Saharan Africa hunger riots of such a magnitude that the recent ones would appear trivial.

6) Brazil

For the President Lula, "*The true crime against mankind would be to reject biofuels a priori, and to leave in dependency and insecurity countries already strangled by a lack of food and energy*" and he questions "*the negative impact... of subsidies and protectionism in the agricultural sector*".

Clearly, being extracted from sugarcane, Brazil bioethanol, whose volume follows on the heels that of the US, has nothing to do with the explosion in cereals prices and even less in the sugar price which has to the contrary fallen since 2006. For that matter this does not justify Brazil's production of sugarcane ethanol and soybean oil biodiesel. Because they reinforce industrial monocultures for exports, more and more with GMOs, of the large agribusiness corporations, to the detriment of the small family farms and agrarian reform, of poor consumers, the environment and biodiversity.

President Lula's global crusade to promote biofuels can be explained also by the considerable knock-on effect on Brazil's economy: huge increase of agribusiness profits, food and ethanol exports, with an amazing agricultural trade surplus of \$50 billion in 2007. The worst is that Brazil betrays the DCs through selling its leadership over them for a lentils meal since, in this context of high agricultural prices so profitable for its exports, it is before all looking for finalizing the Doha Round which could open new markets. In full contradiction with the objective of the bulk of DCs which prioritize the protection of their domestic market.

Yet this headlong flight in agribusiness for exports, largely controlled by foreign multinationals, would entail considerable ecological damages, at a time when two Brazilian meteorologists have appraised the likely impact of global warming on Brazil capability to produce food. A 5.8 degrees increase in the century would halve the lands apt to grow coffee, rice, beans, corn and soybean and a 3 degrees increase would reduce them by one third. And this at the same time as the reserves of Brasil and Argentine cultivable lands are considered essential to feed the 9.3 billion of world population expected in 2050.

III – The role of financial speculation on agricultural commodities in the explosion of world agricultural prices

The explosion by 120% to 190% in two years, from January 2006 to March-April 2008, in the prices of cereals and oilseeds cannot be explained only by the 19% fall in the world cereals stocks, by the 11% fall in the oilseeds stocks and by the 12% fall in the vegetable oils stocks – notably as a result of their use for biofuels – but by an amazing financial speculation which has magnified considerably the fluctuations and has leant on self-fulfilling expectations. We find again here the recurrent

phenomenon of speculative bubbles having taken place on stock markets or real estate markets in several countries in the last 20 years.

How to explain otherwise the surge in a single day of the rice price by 31% the 27 March 2008, from \$580 to \$760/tonne, or by 29% of the HRW wheat price the 25 February 2008?

According to the New York Times of 22 April 2008, "*Prices of broad commodity indexes have climbed as much as 40 percent in the last year and grain prices have gained even more — about 65 percent for corn, 91 percent for soybeans and more than 100 percent for some types of wheat. This price boom has attracted a torrent of new investment from Wall Street, estimated to be as much as \$300 billion*".

The Commodity Futures Trading Commission monitoring US futures, "*found the Wall Street funds control a fifth to a half of the futures contracts for commodities like corn, wheat and live cattle on Chicago, Kansas City and New York exchanges. On the Chicago exchanges... the funds make up 47 percent of long-term contracts for live hog futures, 40 percent in wheat, 36 percent in live cattle and 21 percent in corn. "These are jaw-dropping numbers," said Dan Basse, president of AgResources, an agricultural research firm in Chicago*".

This involvement of hedge funds in agricultural commodities futures markets has the effect that "*today's crop prices are not just much higher, they also are much more volatile... Traders in March expected wheat prices to swing up or down by more than 72 percent in the coming year, three times the average volatility for that month and the highest level since at least 1980... Those wild swings in expected prices are damaging the mechanisms — like futures contracts and options — that in the past have cushioned the jolts of farming*".

Besides the speculation on financial markets, there is also that of other operators, among which farmers and exporters, who have to face also the appreciation of their national currency against the dollar. Indeed agricultural trade is essentially made in US dollars, including rice between Asian countries. Thus the dollar has dropped from 40.77 Thai bahts in January 2006 to 31 bahts in the mid-March 2008 and exporters who have sold for future delivery are complaining that rice growers and mills are hoarding stocks, expecting new surges in prices, so that eventually they must often buy the rice at a higher price than their selling price.

Finally another perverse effect of the explosion in agricultural prices is the parallel surge in agricultural land prices. In the United Kingdom "*the value of farmland rose by 28 per cent during the second half of 2007... [and] by more than 10 per cent in the first quarter of 2008*". According to USDA the average price of arable land rose by 13% in 2007 and is likely to go up by a further 15% in 2008.

However, as all the other speculative bubbles having occurred on the financial or real estate markets, the on-going one on agricultural commodities will end up bursting, the more so as the elasticity of food demand is very low so that a slight increase in world supply would trigger a collapse in prices. Already the HRW wheat price has collapsed by 43.3% between the last week of February and the second week of May 2008 and the SRW by 33%. But the higher cost of production and transport of agricultural and food products linked to the soaring oil price will maintain the agricultural prices at levels significantly higher than those having prevailed before 2006.

Therefore only rebuilding agricultural policies on food sovereignty without dumping will allow to overcome the challenges of a sustainable agricultural development in the long run at the economic, social and environmental levels.