

Food Inflation

Figure 1 – FAO: price indexes
1998-2000 = 100

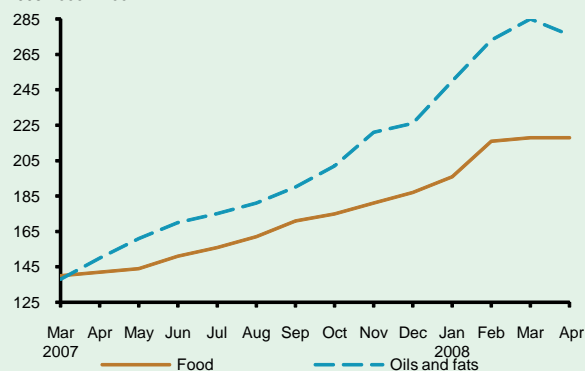
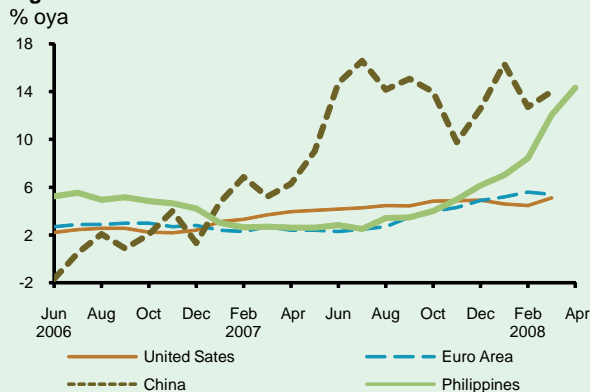


Figure 2 – Food inflation



After a long period of low inflation, partly explained by the reduced labor costs in the Southeast Asia, the world economy has been facing a process of upturn in prices since 2007. Inflationary pressures, which were restricted to the prices of oil and metallic commodities by mid-2007, now incorporates the high prices of soybeans, corn and wheat, products that exert a strong impact on the prices of meat, egg and milk. In this sense, the United Nations' Food and Agriculture Organization (UN/FAO) food price index, which includes 55 agricultural commodities, posted a 57% high between March 2007 and March 2008.

The rise in agricultural prices, captured differently by consumer price indices in mature¹ and emerging economies, certainly affects more severely the poorest countries. According to the UN/FAO, while food represents 10% to 20% of the baskets of consumption in mature economies, this ratio outperforms, in some cases, 80% of that in poor countries.

This inflation upward trend in a global scenario of low rates of unemployment, high rates of expansion of money supply and increased speculation with commodities, although primarily explained by pressures exerted on prices by the continued world economic growth, reflected especially in the strong demand increase observed in large emerging economies, is also conditioned by a supply shortage represented by low stocks of grains. This shortage is explained by the occurrence of adverse weather conditions in important producing regions, as well as the prevalence of inefficient patterns for allocation

1/ Cumulative 12-month inflation in the end of March 2008, considering the CPI and the food item separately, reached, respectively, 4.0% and 4.5% in the United States; 3.6% and 5.6% in the Euro Zone; 2.4% and 5.5% in the United Kingdom; and 1.2% and 1.6% in Japan..

of agricultural areas consequent upon protectionist policies, especially in mature economies.

Demand pressures

The performance of prices of agricultural commodities reflects basically the strong demand pressures resulting from the rise in food consumption and in the production of biofuels.

The rising in food consumption,² particularly observed in emerging countries, reflects the persistent process of income gains registered in those economies with pent-up demand in this segment of goods. This movement, in view of the perspective of maintenance of growth rates in countries with high rates of population and poverty, demonstrate that pressures on food prices will continue in the upcoming years.

In the context of the emerging economies, food inflation in China, which was impacted by adverse weather conditions during last winter, has been recording high levels since December, registering 22.1% p.y. in April, as a result of strong increases in the prices of pork, 68.3%, and oil and edible fats, 46.6%. One should highlight that this evolution, notwithstanding the adoption of measures including the freezing of prices, the utilization of buffer stocks of pork and the introduction of taxes on the exports of grains, reflects the rise in the consumption of food products with high levels of animal protein – it is estimated that the average meat consumption per capita in China would go up to 50 kg in 2008, compared to approximately 20 kg in the late eighties –, a change in eating habits consequent upon the income increase coupled with the phenomenon of migration to the cities.

The second component of demand pressures refers to the growing utilization of grains in the production of bioenergy. According to F.O. Licht's World Ethanol and Biofuels Report, dated April 2008, the production of ethanol by means of grains in the U.S. and China consumed 4.5% of the total world

Table 1 – Asia: food inflation

	% oya			
	2004	2006	4Q 2007	Mar/2008
China	4.9	6.3	15.0	22.2
Indonesia	6.4	12.9	9.6	15.1
Hong Kong	1.7	2.6	6.5	10.4
Taiwan	3.3	-1.3	11.5	8.4
Philippines	8.1	4.7	3.8	8.0
Singapore	2.3	1.7	4.5	7.7
Thailand	4.3	6.0	3.0	6.2
Malaysia	2.9	3.0	3.0	4.9
India	2.7	8.7	2.9	3.5
Korea	4.9	1.5	4.2	1.8
Japan	1.2	0.7	0.5	0.9

Source: JPMorgan – Global Data Watch (05/02/08). Adapted.

^{2/} Economic Council of the White House estimates show that food consumption in emerging countries grew about 45% between 2001/2007 and 1991/2000.

supply of grains in 2007. In China, even though corn production has grown by 21.9% between 2001 and 2005, local factories demand has expanded 84%, to 23 million tons. In the U.S., while the demand for corn utilized in the production of ethanol increased from 41 million tons, in the 2005/2006 harvest, to around 81 million tons in the 2007/2008 period, the corn cultivated area expanded only 19% during last harvest.

Similarly, the demand for fats and oils, which prices, according to the UN/FAO, registered an average increase of 98% between the first quarter of 2008 and 2007, has been strongly impacted by the production of biodiesel – in fact, the demand for vegetable oils for this purpose increased from 3.7% of total supply in 2006 to 5.9% in 2007.³ One should also mention the pressures resulting from the reduction in the cultivation of soybean because of the growing urbanization in China and the replacement of soybean cultivation for corn in the U.S., where, according to the U.S. Department of Agriculture (USDA), the cultivated area diminished by 16% in 2007. Therefore, the price of soybeans, a product which global stocks represent only 10% of current world demand, stands at its highest level over the last 34 years.

Supply Components

With regard to supply pressures, it is important to highlight the rise in the costs of production faced by the food industry, the recurring crop failures in world grain production and the decimation of livestock in Asia.

The rise in the costs of production is explained by two factors. The first refers to the impact exerted by the high prices of oil on the prices of fertilizers, which have expanded sharply from 2007 onwards; on the prices of energy, since modern agriculture is increasingly energy-intensive; and on the costs of transportation, which not only affects the prices of food at the field, but also at the storage, processing and distribution stages.

3/ F.O. Licht's World Ethanol and Biofuels Report, op. cit.

The second component of cost pressure refers to the increasing consumption of grain in the production of agro-energy and the consequent reduction in the availability of these grains or their closest substitutes, which reflects not only on the prices of grains but also on the prices of animal feed and, as consequence, on the final prices of meat and dairy products. From this perspective, it is important to highlight the Brazilian contribution to alleviate some of these tensions, for instance, by expanding from 13.9 million hectares in 2001 to 22 million hectares in 2007 the area cultivated with soybeans.

It is also worth mentioning the occurrence of epidemics, like the outbreak of foot-and-mouth diseases and avian influenza in Asia, and adverse weather conditions, for instance the repeated severe droughts in Australia, the recent floods in Argentina, Malaysia, South Korea and India, the snowstorms in China, poor harvests in the United States, and the impact of drought on productivity on the dairy industry in New Zealand. In China, for example, the severity of the last winter was responsible for the death of nearly 16 million animals and the freezing of tons of vegetables, which contributed to aggravate the unbalance between supply and demand and raise inflation to a record level in more than a decade.⁴ India and Malaysia, on the other hand, have had to deal with the shortage of edible oils, wheat and rice. UN/FAO also expressed its concerns that the current difficulties in Russia, Ukraine and United States harvests may add potentially negative pressures on food prices in the short term.

The food inflation also demonstrates the inadequate volume of world stocks of grains. In this sense, the stocks of wheat, which, according to the International Monetary Fund's (IMF) World Economic Outlook, were at their lowest levels over the last 26 years in the end of 2006 and beginning of 2007, were reduced from around 30% of world's demand in 2000 to 15% in 2007, according to the USDA. Even though UN/FAO estimates point to record grain harvests for 2008, the increasing demand for corn and wheat certainly will exceed their supply growth, thus exerting additional pressures on prices. This

^{4/} Data published by the China Ministry of Agriculture

Table 2 – Corn & Wheat – World Supply and Stocks

	Millions of tons			
	2004/2005	2005/2006	2006/2007	2007/2008
Corn				
Supply	715	696	704	769
Stock	131	123	106	109
Wheat				
Supply	627	622	594	602
Stock	151	148	124	110

Source: World Bank - Development Prospect Group (Dec/2007). Adapted.

assessment is corroborated by the World Bank, which sustains that the stocks of wheat will likely to be reduced in the short and medium term to the lowest levels since 1960.

Moreover, it should not be forgotten the turbulence introduced on the markets of agricultural commodities by the action of speculators, which, in an environment of uncertainty in global financial markets and declining activity in mature economies, have migrated to the market of real assets.

In summary, the upward trend of food prices is not due only to the effects of demand pressures resulting from the expanded consumption in large emerging economies and the production of biofuels in areas with restricted land availability, but also to the rising production costs and the rigidity in food supply, which effects, in some cases, are reinforced by non-commercial demand. In this sense, it should be highlighted the mismatch between the growth in world population and in food production: while global population grew by 25.7% between 1990 and 2007, food production increased merely 12.7%.⁵

In this scenario in which the most vulnerable countries are those more dependant on the imports of oil and agricultural products, and, in particular, the share of food prices in inflation is more pronounced, the action of central banks in the short term has been characterized by the adoption of a more restrictive posture, either through raising interest rates or interrupting the cycles of loosen monetary policy, notwithstanding the global economic slowdown, in an attempt to prevent that the process of adjustment in relative prices turns into uncontrolled inflation.

5/ Bradesco, daily highlights, December 14, 2007.