

# Brazil responses to the world economic and financial crisis: an agricultural approach

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**Abstract:** This article analyses the impact of the world economic and financial crisis in the Brazilian agricultural production and exports with emphasis to agricultural commodity price behavior and the liquidity crisis faced by the sector. It reviews the major policy decisions undertaken to counteract the negative effects of price instability and disruption on the financing of agricultural production and exports, and take note of the main concerns related to the present review of the Brazilian agricultural policy.

**Keywords:** Brazil, financial crisis, price instability, agricultural policy.

## Respostas do Brasil à crise econômica mundial: um enfoque agropecuário

**Resumo:** Este artigo analisa o impacto da crise econômica e financeira internacional na produção e exportação agrícola brasileira, com ênfase no comportamento dos preços e na crise de liquidez do setor. São examinadas as principais decisões adotadas pelo governo para neutralizar os efeitos negativos da instabilidade de preços e da ruptura no financiamento da produção e das exportações agrícolas, bem como as principais questões relacionadas com a atual revisão da política agrícola brasileira e seu desempenho. A conclusão do trabalho mostra que a agricultura brasileira está mais bem preparada do que no passado para enfrentar a crise e superá-la, restabelecendo a confiança de consumidores e investidores, em cujo sentido suas características estruturais lhe asseguram uma posição vantajosa relativamente aos demais setores. A principal lição no enfrentamento dos efeitos da crise na agricultura consiste em assegurar coerência entre as decisões, setorial e macroeconômica, e preservar os investimentos estratégicos para o desenvolvimento do setor.

**Palavras-chave:** Brasil: crise financeira, instabilidade de preços, política agrícola, adido agrícola.

## Introduction

Brazil undertook deep changes on its economic policy based on the liberalization of domestic and foreign markets and on the deregulation of the domestic market. This guiding process initiated in the early nineties continued to be followed and included a deep

review of the Brazilian agricultural policy which was continuously adjusted to improve its efficiency in order to promote the sustainability of agricultural performance. Emphasis was attributed on the invigoration of market mechanisms, on the participation of private initiative in agricultural financing, and on the

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support of agricultural prices. The continuous effort to modernize agricultural policy and consolidate its instruments will allowed farmers better adjust themselves to market incertitude and expand and consolidate their insertion into the international market.

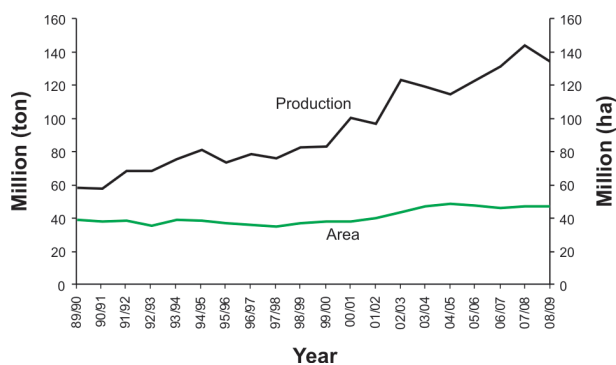
Thanks to sound agricultural and economic policies and producers entrepreneurship, the historical performance of the brazilian agriculture was exceptional, leading to the country outstanding achievement of becoming a world agricultural power. This is a privileged position that allows the sector better absorb the negative effects of the world economic and financial crisis and sustain its development although at a slower pace. The main concern of this article is to analyze impact of the crisis in the country agricultural production and exports with emphasis to agricultural commodity price behavior and the sector's liquidity crisis.

## Developments

For a long period of time Brazil has been self sufficient in food and is a big agricultural producer and exporter thanks to the existing favorable climatic conditions and ample availability of land, productivity growth and economic liberalization conjugated with agricultural policy modernization undertaken since the late eighties.

Brazilian agriculture faced indeed an upheaval in the last twenty years. The country undertook longstanding investments in agricultural research and has the most advanced tropical agricultural technology in the world, and followed a liberal approach in reforming its agricultural and macroeconomic policies. It allowed agribusiness to achieve a persistent and dynamic development of its production and exports.

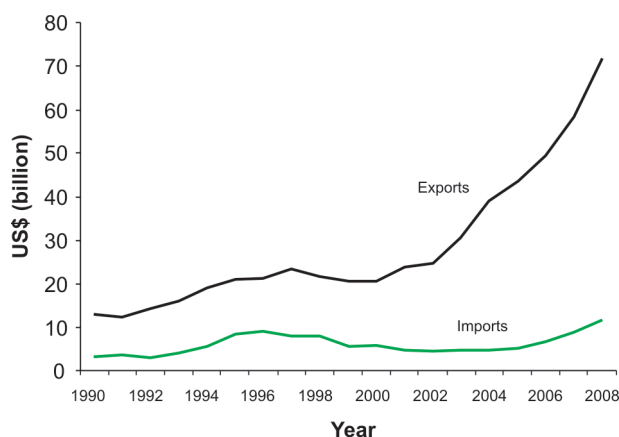
Grain production increased from 58.3 million tons in 1990 to 144.1 million in 2008, a growth of 250% in less than 20 years (Figure 1) which was accelerated in the last few years based on productivity increase at an annual rate of 3% and in reaction to market stimulus. The planted area in these years remained nearly the same around 47 million hectares.



**Figure 1.** Brazil Grain Production.

Source: National Company of Food Supply (CONAB, 2009).

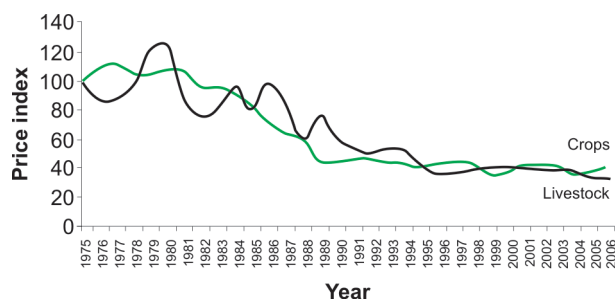
The agribusiness export performance was even higher than the one of production, reaching US\$ 71.8 billions in 2008 against US\$ 13 billions in 1990. It increased almost two folds in the last five years and a similar pattern of growth was followed by imports (Figure 2). Given that the magnitude of agribusiness imports is strongly lower than the one of exports, the resulting surplus is very high in support to the country balance of trade performance. The major sector's contribution for that surplus comes from the exports of soy and its products, beef, and meat of swine and poultry. Thus, the Brazilian agriculture plays an important role as a source of foreign exchange in addition to its contribution to ensure the supplying to the domestic market, and the production of renewable energy.



**Figure 2.** Yearly Agribusiness Trade Balance.

Source: Ministry of Agriculture, Livestock and Food Supply – Secretariat of Agribusiness (BRASIL, 2009d).

It is important to take note that the accomplishments aforementioned took place in spite of the fact that agricultural prices followed a strong historically declining tendency, which sharply slowed down in the period 1996–2005, following a pattern of stability (Figure 3).



**Figure 3.** Agricultural and Livestock Price Index.

Source: Barros (2008).

The strong increase in agricultural prices from 2006 to 2008 had a favorable impact on the Brazilian agriculture, which took advantage of the opportunities open by the world agricultural market. Consequently, it strengthened the modifying tendency of the agribusiness balance of trade throughout this decade.

The share of meat and ethanol in the agribusiness exports increased and the participation of soy and its products, skins, wood and wood products decreased. Furthermore the destination of exports also changed and became more diversified and new markets were opened for the exports mainly for beef and swine meat, whose number is 50, in addition to coffee.

Other important positive effects of agricultural price increase are the accelerated growth of production and exports, higher rural income and diminishing food stocks.

The Brazilian government carried on and even reinforced its agricultural support policy in face of hikes on production costs due to

oil price increase, devaluation of the Brazilian currency and high level of market interest rate. The idea was to maximize the benefits from the international agricultural market and at the same time contribute to curb price increase and mitigate its negative effects for consumers.<sup>2</sup> Furthermore, the anti-inflationary policy of target inflation succeeded in protecting the purchasing power of consumers as evidenced by the real increase of salary in the main Brazilian cities as well as it happened with the minimum wage, which increased 4.3% in 2008 and can reach 6.7% this year (BARROS, 2009).

Given that the rise of agricultural products and their inputs occurred at the same time and are interacted, the benefits from the former were in some extent neutralized by the later. Therefore, in order to attenuate the impact on production costs, the Agricultural and Livestock Plan 2009–2010 encompasses the review of minimum prices and increased resources for the financing of production and commercialization. Among the other measures already undertaken it is worthwhile to emphasize the recovery of the stocks of agricultural goods, the creation of a program for the recovery of degraded pasture areas and a special credit line for the acquisition of tractors by producers under the family farmers program.

The outbreak of the international financial crisis took place in a period of steady growth of the Brazilian agriculture, which is an important asset in facing it aside its positive effects for the agricultural and livestock sector. The devaluation of the Brazilian currency increased the competitiveness of Brazil exports and the fall of energy and input prices, mainly fertilizer and agrochemicals, to a level lower than the ones of 2008 and attenuated their pressure on production costs. These input prices remain however very high.

Another important favorable element brought by the crisis is the gradual and persistent

<sup>2</sup> In the last thirty years, the Brazilian agriculture contributed to reduce inflation thanks to declining basic foodstuff prices resulting from persistent increases in agricultural productivity, among other things.

decrease of the economy basic interest rate, called Selic, since last January as decided by the Brazilian government who indicated that it would further pursue this orientation. Last May Selic was set at 10.16% figured out based on a whole year, against 13.75% in December 2008 (BACEN, 2009).

Concerning the negative effects of the crisis in the agricultural sector, the most important ones are the lack of liquidity, the retreat of demand and the fall of agricultural prices, which however remains above the levels observed in the period 2003–2006, except for cotton and coffee.

The fall on grain and meat prices in the domestic market from their highest levels observed in the second semester of 2008 varied from 10% to 50%, but they remain above their historical average. The resulting loss from this fall on agricultural commodities was aggravated by the lower participation of farmers in the futures market due to the lack of credit to the marketing enterprises that trade these commodities.

In the last few months, the prices of cotton, soybean and maize increased approximately to their levels of last October, but it is too early to consider them as a tendency due to the prevailing uncertainties.

The collapse of agricultural liquidity in Brazil was a major concern for exporters that relied on foreign sources of financing, and among them in particular the exports addressed to the markets more severely hit by the crisis, as in the case of ethanol, sugar, poultry meat and swine meat.

The producers from the center west region, whose distance to the main domestic ports and markets are on average 2000 kilometers, suffered more seriously from the lack of liquidity, which is explained by their higher dependence on private financing at market interest rates, free from governmental support. Another reason for that is the use of

foreign sources of financing and borrowers almost disappear from the market. Furthermore, the cost of their foreign loans in dollar, contracted before the crisis, increased due to the devaluation of the Brazilian currency.

The lack of exporter's liquidity, whose loans comes from foreign sources of financing, was aggravated by the reduction of the Anticipating Exchange Contracts (AEC)<sup>3</sup>. It is an important source of export financing, including the ones of agricultural products. Thus, the Brazilian central bank sold dollars by auction to finance the anticipating contracts of exchange for the recovering of exporter's liquidity.

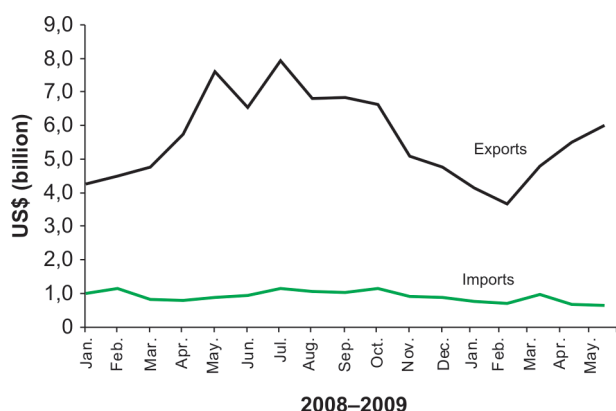
The lack of liquidity, the hike on input prices and the uncertainties related to agricultural prices, induced producers to reduce production costs by using smaller amount of inputs. That will provoke a fall in the crop 2008–2009 but the area reaped will remain nearly the same as the previous one at the level of 47.6 million hectares, except for cotton and maize. On the other hand, grain production will be 134.1 million tons, 6.9% lower than last crop. The main products for which production will reduce more are cotton (25.7%) and maize (15%), followed by soya (4.8%).

Wheat production this year will increase 46.8% thanks to its price hike and to the governmental support measures. This growth comes from a higher seeded area (31.9%) and higher productivity (12.5%). On the other hand, the country will continue however dependent on imports to ensure adequate supply to the domestic market.

As long as the financial crisis became economic and global, it arouses apprehension concerning the commercialization of the present crop and the beginning of the next one. This results from the uncertainties on the behavior of demand and agricultural related prices and on the growth of world economy, mainly China, European Union and the United States.

<sup>3</sup> It is an anticipation done to exporters of the equivalent to the value in foreign currency of their exports, provided by the banks on the bases of a credit line from abroad.

Concerning the impact of the crisis on the Brazilian agribusiness balance of trade, there was a persistent decrease on the volume and value of exports and imports between September 2008 and February 2009. The fall on the value of these exports and imports was 46.4% and 33.6%, respectively (Figure 4).



**Figure 4.** Monthly Agribusiness Trade Balance.

Source: Ministry of Agriculture, Livestock and Food Supply – Secretariat of Agribusiness (BRASIL, 2009d).

The dollar value of the agribusiness exports increased again since last March, from US\$ 3.6 billion in February to US\$ 6.0 billion in May but it remains below the 2008 figures, which does not happen if they measured in domestic currency. In this case, there was an increase of 15.8% in comparison with the same period of 2008. The major increase goes to sugar (106.4%), cotton (84.5%), soybean (42%), soy meal (35.4%) and industrialized poultry meat (33.9%). Major decreases were soy oil (-34.9%), leather and its products (-29.2%), wood (-27.1%) and alcohol (-21.2%).

In the last few months, agricultural imports regressed to the benefit of a higher contribution of the sector to the country balance of trade surplus, and there was a recovery on the value of agribusiness exports, thanks to the measures undertaken by the government to face the crises in support to producers and exporters. It will help them to recover their income and be better prepared for the next planting season of 2009–2010.

The reaction of the Brazilian government to the crisis in favor of agriculture was initially addressed to the strengthening of the banking system on the financing of rural producers. First of all a large amount of resources was injected in this system to face the liquidity crisis but the results did not correspond to expectations because the banks gave priority to other sectors rather than agriculture for which the financial risk is higher. This problem was attenuated by the actions undertaken by the Bank of Brazil whose major shareholder is the Brazilian government.

Other important measures undertaken to ensure agricultural credit supply and the maintenance of the sector's liquidity include mainly the increase on the percentage of compulsory banking deposits, from 25% to 30%, which the banks are obliged to loan to agriculture. In a similar way the percentage of resources from rural savings that banks shall address to agricultural financing, raised from 65% to 70%. These new percentages will be annually reduced to their initial levels until May 2014.

In addition to the availability of preferential rural credit resources, two new credit lines were created. One of them is for the financing of agribusiness working capital addressed to agricultural machinery industries and agricultural cooperatives, and the other one is for the financing of family farmer's indebtedness.

The prevailing expectations at the end of 2008 concerning the performance of agriculture due to market price behavior in the near future lead the government to foresee a higher level of agricultural marketing support in 2009. These expectations, however, were not fully confirmed. The Chinese demand for agricultural goods remained high and the severe climatic adversities occurred in Argentina, Uruguay and in the Brazilian southern States lead to price increases in the domestic market for soy, maize and wheat.

The Brazilian government brought to zero the import tax for acid sulphuric and phosphoric used on the production of fertilizer, which is



free from import tax. This measure was aimed at reducing production costs in agriculture, whose input prices remained high, mainly fertilizer, even after their fall provoked by the crisis.

Brazil imports 75% of the nitrogen, 51% of the phosphor and 91% of the potassium needed to supply the internal market and to overcome this foreign dependence the country faces the challenge of exploring its mineral fields. This is an objective pursued by Brazil, which will strongly alleviate the weight of fertilizer on agricultural production costs.

The Brazilian Petroleum Company (Petrobras), whose major shareholder is the government, announced investments that will support the target of increasing 3 million tons on the production of phosphor in 2013–2015 and 2 million tons on the production of potassium in 2014–2016.

Another initiative that will contribute to face the economic crisis and promote the strengthening of agriculture is the review of the Brazilian agricultural policy, which is under way by a working group integrated by representatives from rural producers, banks, Central Bank and other officials.

Similar to the progress achieved in modernizing agricultural policy and its instruments of commercialization support, the target is now is to improve the rural credit policy. It will rely on the following criteria: a) strengthening of the free market; b) increased efficiency on the allocation of public resources; c) improvement of its instruments; d) higher transparency on the rural indebtedness and on debtors' payment capacity and e) simplification and increased access to rural credit. The idea is also to create an instrument of price protection and stimulate the futures market, increase the scope of rural insurance and the participation of private sources of agricultural financing.

The Brazilian government recently publicized the climatic risk agricultural zoning for

sugar cane production in the State of Rio Grande do Sul (BRASIL, 2009a), and studies for other States are under way as part of a process of defining this zoning for the whole country in the next few years.

Sugar cane environmental zoning is another target pursued by Brazil which will identify the areas where production may take place without compete with food production and without entering into forest areas, and public support to sugar cane producers will be addressed only to these areas.

The Agricultural and Livestock Plan 2009–2010 (BRASIL, 2009c) just launched contemplate new production and commercialization support measures for the next crop, taking due account of the aforementioned problems related to the crisis.

Concomitant to those actions the government pursued with the implementation of the agricultural plan 2008–2009 (BRASIL, 2009b) adjusting it to the new conditions dictated by the crisis. In a similar way, this plan for the next season increases its support to producers, ensuring a 37% larger amount of resources for production and marketing. The same increase applies to rural investment financing.

Other main novelties of the Brazilian Agricultural Policy are higher support to medium producers under the Rural Proger<sup>4</sup>, and the strengthening of two other programs, by ensuring them greater amount of financing resources for which the access is more favorable (Plano Agrícola e Pecuário), Brasil (2009c). One of them is Produsa, aimed at recovering degraded areas, including pastures, and the other is Procap Agro, conceived to support the cooperatives.

In response to the sector's longstanding claim, Brazil approved the creation of eight agricultural attachés in the cities of Buenos Aires, Brussels, Geneva, Moscow, Beijing, Pretoria, Tokyo and Washington.

<sup>4</sup> Program of Rural Job and Income Creation.

As part of the biodiesel production and consumption program, the addition of biodiesel to the diesel will be 4%, starting next first of July (BIODIESELBR, 2009). It means that demand for vegetal oil and residual fat will increase by 1.5 billion liters.

## Conclusion

The Brazilian agriculture, as well as the country economy, is better prepared than in the past to face the world economic crisis and overcome it as currently observed, restoring consumers and investor's confidence. This performance relies on structural advantages inherent to agriculture in relation to other sectors, and on macroeconomic and agricultural policies already implemented.

One of the lessons of this crisis in facing its effects on agriculture is the importance of keeping coherence between macroeconomic and sectorial decisions, which shall emphasize instruments that follow the market logic. Thus, the appeal to protectionism as an answer to the crisis shall not occur.

In spite of the country existing restrictions, the long-term policies shall be preserved because they contribute to the efficiency of the short-term measures and are important to revitalize the economy. Thus, the priority and strategic investments shall continue as for example the infrastructure works essential for agriculture. The investments on fertilizer are also strategic for the agricultural development, given its dependence on imports, the existence of oligopoly in the internal market and the hike on its price, which has strong participation on production costs.

The Brazilian sound macroeconomic and agricultural policies, as the ones aforementioned, the due account of required long run ini-

tiatives, and the progress already achieved by agribusiness, will further contribute to recover the country's agriculture and ensure its sustainable development.

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