Part D

Case studies analysis

Full texts of case studies are available at the following address: http://www.inter-reseaux.org/ressources-thematiques/article/etude-grema-sur-les-instruments-de

1. Sub-Saharan Africa experiences

1.1 Cotton in Burkina Faso: the shift from government level price controls to a sector-led response to price volatility

Raphaël Beaujeu, IRAM

Summary

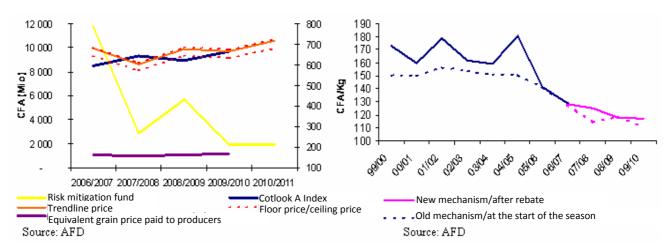
What has been done? In 2006, Burkina Faso implemented a new mechanism to stabilize producer prices in the cotton sector. It is innovative in two respects. Firstly, because the producer price is calculated from a "moving" average of international cotton prices. Until 2006, standard practice was to set a purchase price based on a hypothetical value of average long-term cotton prices. The result was to address price levels rather than price volatility. The advantage of stabilization measures based on a moving average, which is adjusted annually, is to strike a balance between the desire to reduce price volatility and the need make adjustments based on international prices. Moreover, a purchase price determined by mathematical rules limits opportunities for lobbying. The second innovative characteristic of this mechanism is the creation of a risk mitigation fund, the fonds de lissage, managed by local players in the cotton sector. Based on a matching contribution and withdrawal system, the fund is designed to manage risks associated with short-term, highly volatile cotton prices without government intervention. Depending on whether the selling price of cotton is lower or higher than forecasts made earlier in the year, cotton companies contribute or draw from the fund to ensure price stability and their financial balance. To ensure transparency, the fund's management has been outsourced (by tender) to a local bank.

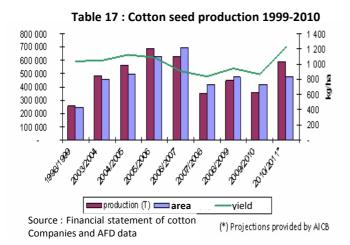
How has it been implemented? The evolution of price stabilization measures has gone through three distinct phases in Burkina Faso, which differ in terms of the level of coordination of local stakeholders and degree of government intervention. Prior to 1999, all activities of the cotton sector were administered by a single, state-run company, SOFITEX, which had a legal monopoly over purchasing, trituration, marketing and input supply. In 1999, a Memorandum of Understanding was signed, providing for a five year price-fixing mechanism based on negotiation within the cotton sector trade association. In 2005, the sector went through a crisis triggered by a combination of factors, including the sharp drop in international cotton prices, which the price-fixing mechanism was unable to adapt to. In 2006, the new mechanism was implemented. The evolution of price stabilization policy in Burkina Faso reflects the gradual withdrawal of government involvement, combined with the reinforcement of the sector's trade association and a context of low international prices, all which have facilitated reform.

What were the effects? Effective smoothing of producer prices: during the implementation period of the new mechanism, the coefficient of variation of the

Cotlook A Index was 5% compared to 4% for real prices to producers (after rebate). Moreover, the coefficient of variation of producer prices was also lower than under the old system (8%). The *fonds de lissage* has been divided by 6 in five years. Had cotton prices not improved in 2009/2010, the fund would have dried up. As regards the price trend, there is little capacity to predict the direction and magnitude of changes. Production levels have not improved despite the stabilization of producer prices.

Table 15 : Risk mitigation fund Table 16 : Real producer prices (FCFA/kg)





What recommendations could be derived? Various factors explain the stagnation of production, despite the relative stabilization of prices. (i) The "risk price" is only one factor of income instability. In particular, producers' high debt levels increase production risk, partially nullifying the expected effect of reducing price uncertainty; (ii) Stabilization mechanisms cannot mitigate "trends". A number of trends have diminished the margins of farmers, including lower international prices and the rising cost of inputs. (iii) The stabilization policy does not take a systems approach to farming. The drop in producer prices has led farmers to move into food crops, despite even greater price volatility in these markets.

1.2 Market regulation through a seasonal ban on potato imports: the case of Guinea

Arlene Alpha (GRET), Cécile Broutin (GRET), Kourahoye Diallo (FPFD)

Summary

What has been done?

From 1992 to 1998, the Guinean government implemented a seasonal ban on potato imports. For seven years, imports were banned during the period when local potatoes were sold on the market, from February 1 to June 30. The measure was introduced under pressure from Guinean potato producers, organized under a federation of producers in the country's main potato production region, the Federation of Fouta Djallon peasants. The seasonal ban was accompanied by significant production support (including distribution of certified seeds, fertilizers, extension services, management consulting, irrigation schemes) issued by the Federation itself to its members, thanks to the technical and financial support of several partners. These efforts helped overcome the Guinean government's shortcomings in the matter.

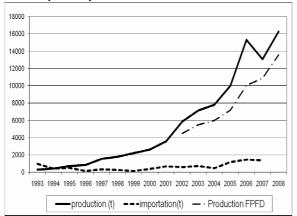
How has it been implemented?

The role of the Federation was instrumental in setting up and, eventually, lifting the seasonal ban, once the Federation had sufficient production capacity to supply the Conakry market. The Federation both lobbied the government to accept the ban (despite the constraints of the structural adjustments that were underway), and led negotiations with local retailers and importers. The Federation set up a contractual relationship with importing traders and supported the emergence of local traders (mostly women) to market local potato production.

What were the effects?

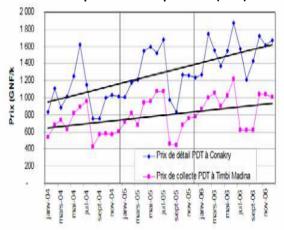
The combination of seasonal import bans on potatoes and the support measures to producers has had spectacular results on production and price stabilization. Local potato production has gone from 150 tons before 1990 to about 16,000 tons today. Demand on Guinean markets is largely met, and the Federation is in the process of exporting its surplus potatoes. Markets in neighboring countries present considerable potential (Senegal imported approximately 50,000 tons of potatoes from the European Union, for example). Leveraging this potential may help to stabilize prices in Guinea and strengthen the regional integration process, without necessarily exporting instability. When the Federation set out to boost potato production, one of its priorities was to strike a balance between attractive producer prices—negotiated by the Federation with traders—and reasonable consumer prices. Indeed, replacing imported potatoes with local production called for price competitiveness, not just quality. Retail potato prices have been contained so far and fluctuations smoothed thanks to several mechanisms: increased supply, lower production costs, cost control of margins related to marketing and storage.

Table 18: Trends in harvesting costs and retail prices of local potato production



Source: FAO DYNAFIV/GRET, Impact des mesures tarifaires sur l'agriculture et l'agroalimentaires, 2005; FPFD, Marketing Report, 2006, 2007, 2008

Table 19: Real prices of local potatoes (GNF)



Source: Pierre Bal, DYNAFIV, exploitation données SIPAG

What recommendations could be derived?

Several factors were determinant in the Guinean experience: the combination of a border measure with substantial production support; negotiations that involved producers, traders and the government; the capacity of the Federation to lobby the government, support its members, link to traders, track market prices; the existence of an export potential at the sub-regional level.

1.3 Maize marketing and trade policies in Kenya

Sophie Barthelon, ENGREF and Elodie Maître d'Hôtel, CIRAD

Summary

What has been done? Kenya has a long tradition of government intervention on maize markets, even during the so-called liberalization period. Recent interventions include:

- Reinforcement of maize marketing policies since 2000 (buffer stock, regulation of producer prices);
- Control of trade through non tariff measures and tariffs that tend to fluctuate less.

How has it been implemented? The government has implemented a wide scope of policies (thanks to higher public expenditures allocated to maize market regulation since 2000), but has not managed to enforce compliance with these policies. For example, the steps taken by the government related to imports ultimately exacerbated the maize crisis in 2008.

What were the effects? Prices seem to have stablilized in the wake of the government's renewed intervention in maize markets, particularly the tighter controls over marketing policies. Overall, producers have experienced higher production growth rates during interventionist periods. However, as our findings below show, producer prices have fluctuated more in the most recent period. (This is inconsistent with Jayne's findings that the National Cereals and Produce Board has a smoothing effect on price instability, but it is possible that our findings of increased instability are related to the 2008 crisis.)

Coefficient of variation	1994-2004	2005-2008
Producer prices (yearly data, FAOSTAT)	0.23	0.37

The effects of intervention on consumers has been a trend towards lower prices (perhaps due to a structural change in 2007?) and less volatility.

Coefficient of variation	1994-2004	2005-2008
Wholesale real price (monthly data)	0,22	0,19

What recommendations could be derived? There is still room to regulate markets more actively, through buffer stocks and import controls, for instance. Periods of heavy intervention on markets seem to correspond to greater stability (although better weather conditions during these periods could be the influencing factor, as well). The government should be encouraged to define and implement credible policies based on a transparent consultative process that involves the key stakeholders.

1.4 Rice stabilization policies in Madagascar

Hélène David-Benz (CIRAD), Johanna Rakotosoa (consultant), Patrick Rasolofo (Réseau des Observatoires Ruraux)

Summary

What has been done? Government intervention in marketing and the major production areas has been increasing since independence in 1960, through the early 1970s. From 1973 to 1977, state-run companies controlled all downstream marketing activities. From 1980 to 1990, the government gradually withdrew. Structural adjustment policies were accompanied by the rehabilitation of irrigation systems, which came under the management of water user associations. During the 2000s, policies aimed at increasing domestic supply through production support and regulation of urban supply through imports.

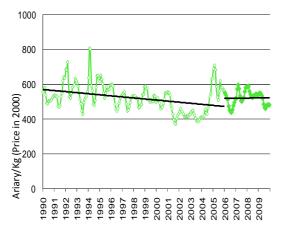
How has it been implemented? Until the late 70s, government intervention took the form of land development corporations in two of the main rice production areas. The government also intervened through parastatals, which had a monopoly over the purchase and distribution of rice, and set prices for both producers and consumers.

After liberalization, state intervention focused on setting import levies (with rates ranging from 30% to 0%) and ad hoc initiatives like facilitating imports during crises. Efforts to increase production included investment in irrigation infrastructure (rehabilitation), intensification incentives based on access to inputs (such as recent efforts to encourage off-season rice), and incentives to expand rainfed production through access to mechanization. Microcredit has also expanded significantly, to finance production and storage.

Starting in 2005, the government implemented two innovative instruments to improve the management of the sector: an observatory and a consultative mechanism to encourage dialogue between the government and industry players.

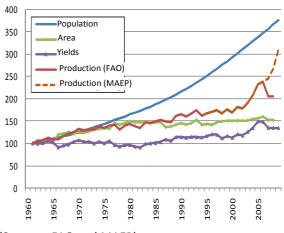
What were the effects? The centralizing policies of the 70s completely destroyed marketing channels and producers' interest in the market. Availability per capita fell (from 200 kg to 125 kg/per capita between 1970 and 2000) and imports increased. Since 2002, production levels have shown a marked increase, and starting in 2005, fluctuations in consumer prices stabilized, despite a troubled national and international context.

Table 20: Local real rice prices, retail (Tananarive)



(Source: Author's calculations based on datasets from INSTAT)

Table 21 : Population growth and agricultural production



(Sources: FAO and MAEP)

What recommendations could be derived? The period of total government control was catastrophic the recover long. The recent positive developments in the rice sector are partly the fruit of production support and infrastructure development efforts (irrigation and transportation), and partly due to a new form of governance that relies on well-informed decision-makers and public-private coordination. However, multi-stakeholder dialogue has not eliminated the unequal balance of power: measures (including price stabilization) are taken more in the interest of urban consumers than the protection of producers.

1.5 The effectiveness of food price stabilization policies: the experience of Mali (2004 - 2009)

Franck Galtier, CIRAD - UMR MOISA

Summary

What has been done? Since 2004, Mali has used four instruments to periodically stabilize domestic cereal prices (millet, sorghum, maize and rice): (i) a ban on exports (2007 and 2008), (ii) a recovery plan to boost production through input subsidies (for rice in 2008; for rice, maize and wheat in 2009), (iii) public stocks (especially since 2005, when two new types of stocks were set up (the State Intervention Stock and cereal banks), and (iv) tax exemptions on cereal imports (for rice and maize in 2005, 2007, 2008 and 2009 and for maize only in 2005). The outreach of these government interventions as well as their modalities have varied considerably, depending on the instrument, the year and products targeted.

How has it been implemented? The decision-making process is complex. The different instruments are often managed by different agencies (e.g., the Ministry of Commerce for export bans and tax exemptions on imports; the Ministry of Agriculture for recovery plans; the cereal bank management committee for decentralized stocks, located in 703 of the country's municipalities). Decisions are made by the President and the office of the Prime Minister, with support from the Food Security Commission. The effective implementation of policies has sometimes proved difficult. Export bans have been circumvented. Importers have not always benefited from tax exemptions. The subsidized inputs for producers often arrive late, and in insufficient quantities (particularly for seeds). Finally, purchases for certain public stocks at times came too late (especially for the State Intervention Stock, which lacks working capital to make timely purchases).

What were the effects? The ban on exports has not managed to discourage cereal exports. Not enough, at least, to affect prices in Mali. The bans have not had the expected moderating effect on consumer prices, but nor have they penalized producers—or only very marginally. Policies to boost production have had a moderate impact on production levels (+ 20% below the stated goal of a 50% increase) and prices (which declined slightly and stabilized at a high level). Public stocks have had little effect on prices. Perhaps they have helped absorb fluctuations due to seasonality, but they have failed to contain increases in times of crisis. This is probably due to the small size these operations: only 28,000 tons were released during the crisis of 2005 (15,000 tons of dry cereals + 13,000 tons of rice) and 53,000 tons during the 2008 (32,000 tons of dry cereals + 21 000 tons of rice). The tax exemptions on imports has had a moderating effect on prices of imported rice, but have also driven down prices of locally produced cereals (including dry cereals). This is what happened in the Kayes region in 2005 and in various other areas in 2009. This phenomenon holds true for both consumer prices and producer prices.

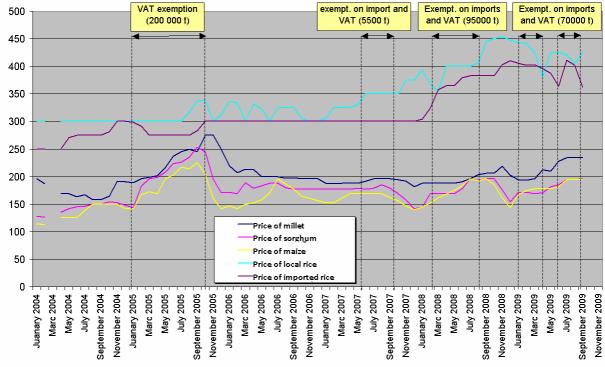


Table 22: Effects on retail prices in Kayes of VAT exemption and tax exemption on imports

Source: Galtier F., Diakité L. et Diarra S. (2011)

What recommendations could be derived? The *instruments* that have been found to be potentially effective are tax exemptions on imports, recovery plans to boost production, and public stocks (provided they grow in size). The *form of governance* and decision-making process is at least as important as the choice of instruments. For example, for public stocks to be effective, their administrators need working capital at their disposal. Similarly, for tax exemption measures to be effective, importers must actually benefit from them. This implies defining the terms of these exemptions with the importers, and ensuring compliance through control measures.

1.6 The Malawian experience in maize price stabilization

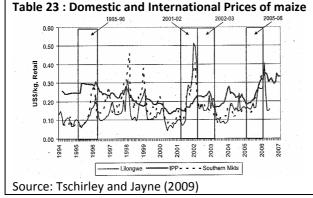
Arlène Alpha (GRET), Françoise Gérard (CIRAD)

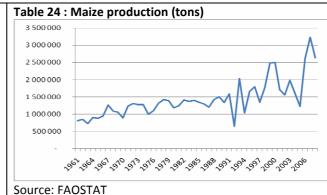
Summary

What has been done? Malawi has a long tradition of intervention in maize markets that dates back to the colonial period, was pursued after Independence and continued through the mid-1980's: pan-territorial and pan-seasonal prices, subsidization of fertilizers. After a liberalization period from 1987 to 2000, during which the Agricultural Development Marketing Corporation (ADMARC) was privatized, maize fertilizer subsidies and licensing requirements for traders were removed and the government once again started to intervene through a vast program of input subsidies and the reinforcement of ADMARC.

How has it been implemented? The Malawian government, which controls all formal maize imports, greatly influences maize trade policy. The main criticism of this policy concerns the unpredictable and discretionary nature of government decisions, such as sudden imposition of trade restrictions, import bans and changes in tariff rates. Ad-hoc governmental operations tend to increase risk and discourage private trade initiatives. They also often exacerbate food crises, driving the cost of food staples well beyond import parity price.

What are the effects? During the 1983-1993 period, the implementation of a policy package combining ADMARC's intervention on the grain market; seed, fertilizer and credit delivery; extension services; and rural infrastructure development resulted in positive effects on yield and production growth. More recently, growth in maize production has been striking. It is still too early to understand what is driving this trend. Favorable climatic factors may be at play. The free seed and fertilizer programs of 1998 and the Agricultural Input Subsidy Program in place since 2005, combined with stronger ADMARC's initiatives to guarantee producer prices and price ceilings at retail, may also be behind the increase of maize production. Domestic maize prices appeared to be more volatile than international maize prices during the 1994-2007 period. However, as soon as floor (and ceiling) prices were known, and other producer supports such as those on seed, fertilizer and credit were provided, producers took favorable decisions on farm investment.





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What recommendations could be derived? Maize price stabilization is only one component of Malawi's agricultural policy. Maize production growth is the result of a technical package that includes high-yielding varieties, fertilizer and technical advice. However, the unpredictable and discretionary nature of the price stabilization policy has weaken the policy's legitimacy. To be legitmate, the policy must be predictable and include a consultative process with key stakeholders. The choice of pan-territorial producer prices in such a long country leads to some difficulties and inefficiencies in remote areas. Some actors in Malawi are currently experimenting with market-based instruments, but it is too early to assess their impact.

1.7 Maize marketing and trade policies in Zambia

Elodie Maître d'Hôtel, CIRAD

Summary

What has been done? Zambia has a long tradition of intervention on maize markets, even during the so-called liberalization period. Intervention has intensified since 2005, including (i) measures to tighten control on trade through import licenses, import tariffs and non tariff measures; and (ii) policies influencing maize marketing, such as input subsidies and security and buffer stock schemes.

How has it been implemented? Zambia has implemented a wide scope of policies (thanks to higher public expenditures allocated to maize market regulation), but has not managed to enforce compliance with these policies. For instance, some discretionary policies have tended to discourage private actors' involvement in maize markets (2001/2002 and 2002/2003 crisis).

Despite the strong political influence of the Zambian National Farmers Union (ZNFU), small holders' interests are not really represented due to the lack of an official consultative mechanism.

What were the effects? Effects on producers include higher production growth rates during interventionist periods (no data is available on changes to producer prices).

Effects on consumers include a trend towards lower prices and less volatility.

Coefficient of variation	1994-2004	2005-2009
Wholesale real prices (monthly data)	0,35	0,24

Maize prices seem to have stabilized in the wake of the government's renewed intervention in maize markets, particularly the tighter controls over trade and marketing policies, but it is unclear whether this stabilization is due to increased public intervention or other factors (such as favorable climatic conditions). Authors have emphasized ineffectiveness of public intervention and widespread mistrust between the public and private sector, which tend to diminish policies' capacity to decrease food price volatility.

What recommendations could be derived? There is still room to regulate food markets more actively, such as through buffer stock and import controls. Periods of heavy market intervention seem to correspond to greater stability (although improved weather conditions could be the influencing factor, as well). The governement should be encouraged to define and implement credible policies based on a transparent consultative process that involves the key stakeholders.

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2. Asian experiences

2.1 Biting off more than it can chew? Agricultural price stabilization policies in India

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Summary

What has been done?

Stabilization policies can be broken down into three periods. After Independence in 1947, the government heavily intervened in agricultural prices. Before the Green Revolution, this involved forced levies on farmers and traders, an environment that shied away from private speculation, and subsidized food prices in large cities. Once the Green Revolution got underway (1965), policies focused on incentives to guarantee prices and redistribute surpluses to the entire population. Since 1991, there has been gradual liberalization.

How has it been implemented?

Since 1965, the Food Corporation of India, backed by state governments, has purchased wheat and rice at reserve prices (the same system exists for sugar), thereby amassing stocks that are distributed and sold at subsidized prices through a countrywide distribution network. Purchases by firms are still controlled, as are import-export transactions to a certain extent. Input subsidies (fertilizer, water, electricity) play a major role but ultimately, Indian agriculture is more taxed than than it is subsidized.

What were the effects?

The agricultural growth in areas influenced by the Green Revoluation has started to slow, the public distribution system is riddled with corruption, and food security stocks are poorly managed. The latter results in costly imports, less costly subsidized exports, and resale on the domestic market. But, India has acquired grain self-sufficiency and food sovereignty. Agricultural and food prices are smoothed compared to world prices, which (for the most part) allows the country to avoid "hunger riots". "The coefficient of variation for rice and wheat prices in India held steady around 4% to 7% between 1980 and 2000, compared to 15% to 20% for world prices" (High Level Committee, 2000, § 1.8).



Table 25: Trends in wheat prices (1979-99): India and world

What recommendations could be derived?

Protectionism and government price policy have brought agricultural expansion and relative consumer satisfaction. However, India lacks flexibility in its policy (long-term management of stocks devoid of political pressure, food vouchers in cities, measures to avoid competition with distribution channels used by local producers).

Summary

What has been done? Indonesia pursued rice price stabilization through two instruments used simultaneously: (i) intervention in marketing through public storehouses managed at a local level (ii) monopoly control over international trade. Price stabilization protects both consumers and producers by maintaining rice prices within a predetermined band and by widely disseminating floor and ceiling prices. Stable and low rice prices were a major objective of the government following the period of economic and political instability that came to an end in the mid-sixties. The rice price policy can be split into several periods, corresponding to changes in the country's context. These changes in turn have influenced the policy's implementing agency's objectives and constraints.

How has it been implemented? Rice price stabilization was implemented by a special agency created in 1968 (BULOG). BULOG managed a nationwide network of local agencies and district-level warehouses (DOLOG), which enabled it to store substantial quantities of rice. DOLOG warehouses bought rice to bring prices in rural markets up to the floor price. BULOG procured rice paddy from farmers' cooperatives as well as from private traders. Farmers were encouraged to establish village cooperatives. Major efforts were made to build capacity of BULDOG's management and staff from the beginning. Extensive analytical studies were carried out on key factors such as the size of margins between floor and ceiling prices, the size of buffer stocks, and the price of fertilizer relative to floor and world prices. A monopoly control over international trade was established, which allowed the government to import when domestic production was insufficient and to export when there was a surplus and stocks levels were already high.

What were the effects? The supply response was dramatic: rice production increased by 10.5 millions tons over the 1978-1985 period. Fertilizer use increased by 500% between 1970 and 1985, while yields increased from 2.5 T/ha in 1965 to 4.4 T/ha in 1990. A huge improvement in food security followed.

Figure 2 : World rice prices and domestic rice prices 1985 to 2002

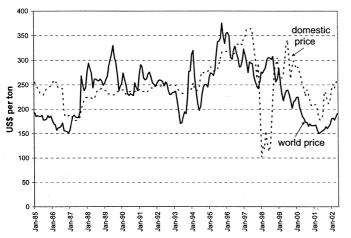
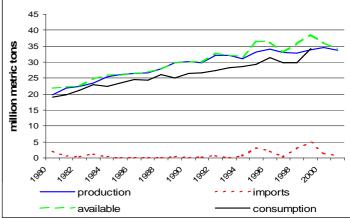


Figure 1 : Evolution of selected indicators for rice in Indonesia (1980-2001)



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Source: reprint from Timmer 2004 p. 7¹ Source: Central Bureau of Statistics

What recommendations could be derived? The Indonesian experience shows that government intervention can successfully adapt to a changing context and contribute to quick economic growth, but that it is difficult to implement. It is important to note that the rice price stabilization policy was only one component of the Indonesian approach to modernizing its rice economy. Public investment, not only in infrastructure such as roads and irrigation facilities, but also in human capital, through extension services and education, played an important role in the country's success. One important characteristic of government interventions is that they focused on avoiding markets failures and supporting private economic initiatives rather than substituting public initiatives for private initiatives. The whole commodity chain was not in the hands of parastatal companies.

The agricultural policy was part of a broader policy ensuring (i) macro-economic stability, (ii) making markets working more efficiently, (iii) ensuring political stability, and (iv) creating enabling environment for private investment.

Some technical lessons on price stabilization can also be drawn from the Indonesian experience:

- The target price should be aligned with international prices;
- The policy is far less costly when the country relies on imports than when it has to manage a surplus.

Key factors including the size of the margins between floor and ceiling prices, the size of buffer stocks, and the price of inputs relative to floor and world prices need to be constantly updated.

2.3 Rice price stabilization policies in Thailand

Yi Chen (SupAgro Montpellier, UMR MOISA)

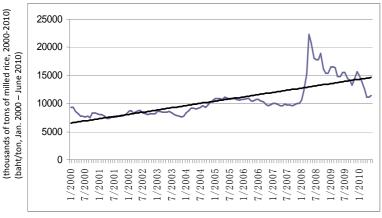
Summary

What has been done? 1) From 1950 to 1985, the government established export taxes (pro-consumer policies); 2) From the mid-1980s to 1997, it removed export taxes and implemented modest measures to support producer prices; 3) From 2001 to 2009, it developed buffer stock and support price schemes (pro-producer policies).

How has it been implemented? From late 1950s to the mid-1980s, Thailand used a combination of four instruments: a rice premium, ad valorem export duty, rice reserve requirement and quantitative restrictions on exports. From 2001 to 2009, the government purchased rice at above market prices under the Paddy Pledging Program; the pledged paddy was then sold through bids or "Government to Government contracts".

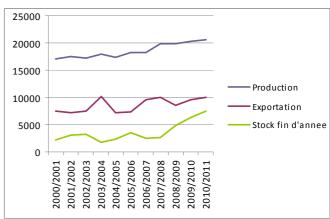
What were the effects? From late 1950s to the mid-1980s, export taxes on rice constituted an important source of government revenue. Domestic prices were kept below the export prices and stabilized during the spikes (1967 and 1973). From 2001 to 2009, production levels grew thanks to high intervention prices. Domestic prices started moving upwards, levels of buffer stock rose, and the government spent a considerable part of the budget on the policy. There were also some undesirable effects on exports (lower competitiveness and availability of rice).

Figure 4: Wholesale real price of rice 5% broken



Source: Bank Of Thailand, Website: http://www.bot.or.th/

Figure 3 : Trends in production, exportation and end-of-year stocks



Source: USDA-FAS

What recommendations could be derived? Up until the early 1980s, the comparative advantage of rice production in Thailand could be explained by the country's wealth of resources, optimized by government policies aimed at ensuring relatively equitable land tenure; investments in road, railway and irrigation infrastructure; and an active credit policy (Phélinas, 2010). Since 2001, the Thai government's policy to stabilize the income of rice producers has started to conflict with the sector's export orientation. Abovemarket intervention prices have led to significant production increases. The widespread outreach of intervention policies has appeared to cause difficulty for small actors on the market. Some undesirable effects may be related to inefficient management of buffer stocks and speculation on the part of market actors. Finally, there are questions as to whether intervention policies are equitable, as they do not benefit the poorest small-scale farmers.

3. South American experiences

3.1 Linking town and country: public policy as a tool to promote family farming, food security and market regulation

Carlos G.A. Mielitz Netto, Agronomist, PhD in Economics, Professor of the Programa de Pos-Graduação em Desenvolvimento Rural da Universidade Federal do Rio Grande do Sul - PGDR-UFRGS

Summary

What has been done? Created in 2003, the Family Farming Food Acquisition Program (PAA) aims to support family farms and encourage them to market to vulnerable populations facing food insecurity. The PAA uses four instruments: (i) Direct purchase of foodstuffs from family farmers (CDAF), whereby the government purchases produce from farmers at subsidized or market prices to supply populations facing food insecurity. (ii) A guaranteed purchasing contract for family farmers (CGCAF). Farmers' groups stock part of their production in exchange for a promissory note (CPR) that provides individual farmers access to financial resources. (iii) Direct local purchase of family farm production (CDLAF), whereby farmers' groups signed an agreement with one or more entities that serve vulnerable populations (e.g., charities, hospitals, public schools) to provide foodstuffs. The agreement defines the quality, quantity, value and delivery of the foodstuffs. The agreements in turn facilitates farmers' access to credit, for an amount that corresponds to the negotiated value placed on deposit with the national supply company (CONAB). (iv) Incentive program for milk production and consumption (IPCL): Based on the principle of sectoral preference, this instrument allows vulnerable populations to purchase milk directly from producers.

How has it been implemented? Brazilian agricultural policy is two-pronged. The Ministry of Agriculture mainly addresses export-oriented agribusinesses, while the relatively recent Ministry of Agrarian Development supports family farming and addresses issues of food security. The four mechanisms of the PAA are implemented by CONAB, based on an agreement with the Ministry of Social Development and Fight Against Hunger (MDS), the Ministry of Agrarian Development, state and local governments. The mechanisms are managed locally by family farmers' associations and civil society organizations. To participate, farmers must meet the criteria of the National Program to Strengthen Family Agriculture (PRONAF). Finally, there are caps on the amount of production each farmer can market through the PAA, to avoid supply surplus and inequality among beneficiaries.

What were the effects? The program has increased incomes of family farmers and improved food security of vulnerable populations. Thanks to increased consumption of fresh local produce and decreased consumption of processed products, dietary habits have improved. In addition, the program has resulted in a number of positive

externalities: quality and hygiene standards that sometimes extend to all local production and improve the nutritional value of foodstuffs as well as the health of non-direct beneficiaries; stronger ties between the town and country; and women's empowerment through processing activities. The PAA has faced some challenges. Outreach is limited due to financial constraints (less than 5% of family farmers are involved) and bureaucratic delays are common, due to a management structure that invovles three levels of government. Finally, the program is simply an initiative of the current government, and has not yet been institutionalized as a formal policy.

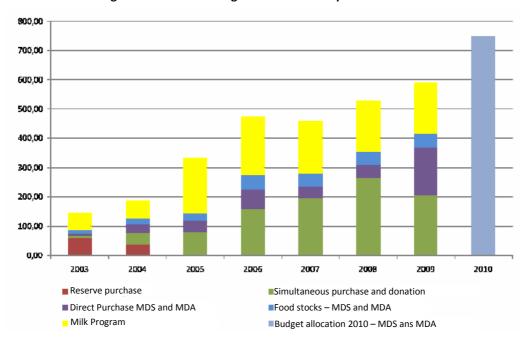


Figure 5: Trends in the growth of the PAA per instrument

What recommendations could be derived? The Brazilian experience is an example for countries with similar characteristics, i.e., a family farming sector with great production potential and a large segment of vulnerable consumers. In this context, food policies that aim to increase incomes/market access for family farmers and improve food security of vulnerable populations through social policies, can serve to rationalize resources and lay the groundwork for efficiency gains in the long term. Furthermore, the existence of two Ministries with different objectives allows for interventionist measures in favor of vulnerable populations, despite the hegemonic liberal discourse of Brazilian agribusiness.

4. Developed countries experiences

4.1 Comparative study on regulation of agriculture in the United States, Canada and the European Union

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Summary

What has been done? In the 1990s, the governments of these three countries set out to limit budget spending without affecting the incomes of farmers: a task easier said than done.

With the reform of the CAP in 1992, the European Union (EU) adopted a system of direct income aids, like those used by the United States (US). The two major powers came to an agreement on this basis, and imposed it on the world by including it in the "blue box" category, set up under the Marrakech Agreement. Initially, the EU measure involved compensatory aid to farmers, as a way to convince them to accept the price difference that might exist between the European domestic market and the global market. The aids were designed to be temporary. It was expected that European producers would gradually manage to offset the price difference by exporting larger volumes. But hopes for global market expansion proved overly optimistic. Markets for agricultural raw materials, and especially cereals, have barely increased since the early 1980s.

How has it been implemented? After a period of heavy market intervention, governments were seeking solutions that made producers more accountable. Public storage systems and the export subsidies used in some sectors in the United States and the European Union were phased out. So-called shared responsibility mechanisms and crop insurance schemes were set up. The problem was that these schemes could only operate at a high cost to their governments. Recently, however, governments have encouraged the processing of bio-fuels through heavy subsidies. The US has also sharply increased consumer subsidies on food for the poor.

What were the effects? The three countries studied have, over time, changed the instruments used to regulate their agricultural sectors, either as a response to internal pressure (often budgetary), or the international context (increased market competition and multilateral agreements on agriculture). In both the EU and the US, this first led to a decrease in the level of price support, replaced by an increase in the level of direct payments, with the objective of maintaining a guaranteed income to farmers. Gradually, direct payments have evolved and have been decoupled from production, to meet the constraints set by the Agreement on Agriculture of the Uruguay Round. This change is just about complete in the European Union, with the introduction of single payment

entitlements. It is still only partial in the United States, which has maintained countercyclical payments. In Canada, the picture is somewhat different. Price support policies, which target a few products (milk, poultry and eggs), continue intact to this day. Income support policies for other sectors of agricultural production, however, have also evolved towards decoupled payments.

What recommendations could be derived? At first glance, these regulatory instruments appear to have reduced economic distortions. But this statement must be qualified. If we look at the changes to levels of total support to agriculture in the three countries, it becomes clear that while all three have respected the commitments they made at the WTO on domestic support, they have not decreased overall support throughout the period.

In fact, for all three countries, total support granted to agriculture exceeds the level of commitments. Canada, the EU and the US have managed to respect their commitments, thanks to the "box game": to agree on priorities for reducing domestic support, types of aid were categorized in three boxes. The orange box was for aid that cause the most distortion and should be reduced first; the blue box included support measures considered less harmful and therefore still tolerable for a short period of time; the green box was for support deemed to cause little market distortion. The result has been a rise in green box aids everywhere.

The total support to agriculture remains as high as it was in 1995 in the European Union and even higher in Canada and the United States, before the sharp increase in agricultural commodity prices in 2007 and 2008. These results reflect a reality: the governments concerned consider the agricultural sector still needs support.

4.2 Corn markets in the United States

Lucien Bourgeois, Economist

Summary

What has been done? World corn production has exceeded that of wheat and rice. Production could reach 811 million tons in 2010-2011, which would be 2 million tonnes below the record high established in 2009-2010. This is exactly double 1980 production levels. Despite these perspectives, prices are soaring on the world market and exceeded \$7.40 a bushel in early March 2011, compared to \$3.70 a bushel in early March 2010, and \$3.25 in early July 2010. Prices have doubled in a year.

Unlike other cereals, corn production is highly concentrated in a small number of countries. The United States and China account for more than 60% of global harvests. With more than 40% of the total, the US is by far the largest player in the market. It is an interesting case study. Corn, which has become the most abundant food on the planet, depends essentially on the world's largest economy. But curiously, American supremacy in corn production has not yielded impressive results in terms of entering new foreign markets or improving the performance of the agro-food industries that rely on them. It is therefore relevant to see how agricultural policy has evolved in this country and its consequences on the world market.

How has it been implemented? Since the mid-1980s, the government has tried to reduce subsidies, hoping to develop demand in foreign markets. This new policy was fully formalized in the 1996 Farm Bill, entitled the "FAIR Act" to indicate that the US was ready to embrace competitive practices. Results were disappointing. Just two years later, prices collapsed and emergency measures were needed to once again support farmers' income. Unlike the EU, which has decoupled direct aid, the bulk of aid to US farmers is countercyclical, which takes into account market prices.

What were the effects? This strategy, aimed at developing export markets, has not been successful. US corn exports have not increased for 30 years and the overall balance of food products from the United States is in decline due to a relative inability to expand exports of processed products, which now make up most of the market.





Figure 6: Main corn exporters 2009



What recommendations could be derived? This new policy has another major drawback. It resulted in a long period of excessively low prices on the global market, which serves as a worldwide reference, despite representing just 10% of total production.

It took a sudden demand for corn from the domestic non-food market to turn things around. Starting in 2003, ethanol production began to absorb more than than 10% of annual corn production. In 2007, this table grew to 20%, and exceeded 40% in early 2011. This new demand now accounts for almost three times the tonnage of US corn exports. It is causing a decline in stocks that worries importing countries. This is what explains the prices spikes, even though harvest levels are record.

Due to a substitution effect, the increase has affected all types of grains. Furthermore, the absence of buffer stocks in both the US and the EU has encouraged speculation. Altogether, these factors have led to rising food prices in importing countries. What is ironic in this new scenario based on ethanol production is that market regulation is clearly easier when it relies on domestic demand rather than exports. Even when it comes to the world's largest economy.