Agricultural Adjustment and Food Policy Reform in Mexico

The Bank’s two successful agricultural adjustment loans to Mexico were unusual in supporting a number of key reforms to improve food security. Had they ignored food security issues, like most comparable operations financed by the Bank, they would have had less impact on poverty and perhaps more difficulty in accomplishing the structural reforms needed for long-run development.

After the debt crisis of 1982 and several years of poor economic performance, Mexico began redefining its basic economic strategy and growth policies. By the early 1990s, fiscal adjustment, trade liberalization, and deregulation, as well as reforms in industry, agriculture, finance, and infrastructure, had replaced the dirigiste, public production and control model of the 1970s with a market-oriented strategy that stresses integration into the world economy. The reforms were supported by sectoral adjustment loans from the Bank (see also Précis 97, Privatization and Deregulation in Mexico—ed.). Among these, the first and second agricultural sector adjustment loans addressed structural issues in agriculture and food security.

In Mexico agriculture provides more than a fourth of employment but contributes less than 10 percent of GDP. Production is dualistic. Commercial farmers use modern technology, achieve high yields, compete in international markets, and earn high incomes. Small-scale farmers produce mainly rainfed crops whose yields are well below those with irrigation; they do not generally compete in international markets, and earn subsistence incomes often supplemented by seasonal work on commercial farms.

Before the reforms, government agricultural policy sought to encourage production by protecting the major food crops and cotton through high guarantee prices, which were made feasible by import restrictions on the crops in question. Since the same guarantee prices applied throughout the country, producers near production centers received lower subsidies than those far away. Simultaneously, food policy worked to keep urban consumer prices below farm prices through heavy, untargeted subsidies and market regulations. These consumer subsidies were expensive, amounting to about 1 percent of GDP in 1986. They only covered urban areas. In rural areas, where the poor are concentrated, consumers often paid more for food than their urban counterparts.

The loans

The first agricultural adjustment loan, AGSAL I ($300 million, implemented 1988-90), sought to replace non-market mechanisms by market ones, while providing support for a poverty-oriented food assistance program. The loan was prepared before the Salinas government was elected in 1988, and the Bank had done no in-depth sector work on Mexican agriculture for five years. The idea was to go ahead with a quick, relatively easy, operation, as precursor to a more demanding operation to be designed after the election. The AGSAL I program, some of which was implemented before the loan took effect, was designed to:

- reduce government intervention in agricultural markets, including replacing guarantee prices with a price band based on world market prices, for some key commodities;
- abolish quantitative restrictions on many agricultural imports;
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Box: Modern technology helps target Mexico's food subsidies

For the tortilla subsidy program, a list of potential beneficiaries was selected through non-discretionary measures, including household surveys, and computerized. Criteria for including and excluding families were defined taking account of income, spending, housing conditions, and family possessions, and the poverty line was defined as families with incomes of two minimum wages or less. Calculations were made for each family listed.

Families who meet the eligibility criteria each receive a plastic card containing a unique bar code that identifies them as beneficiaries of the program. In 1994, the system began using "intelligent" memory cards. Optical readers in the affiliated shops read the bar codes. When the beneficiaries present their cards the shop gives them a kilogram of tortillas free of charge. Subsequently the store employee takes the optical reader to an exchange center where the bar code information is downloaded through a computer link, and the store is paid for the transactions at the official price of tortillas. Payments are made by an independent specialized agency, administered by the national credit institution, Banco Nacional de Comercio Interior, which works on the basis of a fully automated system.

The list of beneficiaries is continually monitored and updated; random verifications are carried out each quarter in each city and families who no longer qualify are replaced. The program uses a geographic information system based on digitized mapping. In 1994, the list of beneficiaries was consolidated with that of the milk subsidy program, permitting economies of scale through the joint management of the two programs.

Source: Government comments on the project completion report for AGSAL II.

- reduce the role of agricultural parastatals, including selling and closing some enterprises and limiting the government's coverage of parastatal operating losses;
- liberalize domestic agricultural trade;
- eliminate subsidies on farm inputs;
- increase the efficiency and volume of public investment in agriculture;
- decentralize and reduce staff of the agricultural ministry;
- establish a more targeted food subsidy program with adequate funding.

The first adjustment loan was successful overall. The parastatals were divested on schedule. The reform of quantitative restrictions on output and exports went further than loan conditions required. It reduced the share of agricultural and agro-industrial output protected by quantitative restrictions from 18 percent in 1986 to 13 percent in 1988. The agricultural economy moved closer to a market-pricing system. Arbitrary and costly trade restrictions were reduced.

Food vouchers (tortibonos) were introduced to safeguard the food consumption of the urban poor, with purchase prices that were to increase with inflation. This program reached a significant fraction of the nutritionally at-risk population at an acceptable cost. The value of urban food assistance reached $456 million in 1988, compared with the target of $250 million.

The second agricultural adjustment loan, AGSAL II ($400 million, implemented 1991-93), sought to increase agricultural growth while alleviating the poverty of the most vulnerable groups through better targeting of food programs. The loan package also contained measures to raise resource productivity and to help output and input markets function better. In particular, it contained:

- trade and other policy reforms to reduce further the government's role in producing, planning, marketing, storage, and processing agricultural products and inputs and to encourage more competition from the private sector;
- tighter targeting of consumer food subsidies; and
- changes in the role of the Ministry of Agriculture, away from attempted control of production and toward policy formulation and regulatory functions.

A pilot program of food assistance to the poor was introduced in selected rural areas. The program operated successfully and the Bank is currently discussing with the government the possibilities for its replication in a number of poor states.

The Bank and borrower had more difficulty agreeing on the consumption assistance than on the growth and productivity measures. The government suggested breaking the AGSAL II program into two operations: one to deal with growth and productivity, the other with food consumption. The Bank argued against this because the funding for the targeted food consumption programs would depend on the elimination of general subsidies, and the impetus for reform would decline considerably if the components were separated. The Bank argued for an expensive countrywide nutrition assistance program. As finally agreed, the loan provided for a pilot nutrition project in four states, whose results could be used to guide Mexico's Nutrition and Health Program.

Another source of contention was the continuing protection of
maize, wheat, and sugar. The Bank accepted the government's position that these crops were vital elements in the negotiation of the North American Free Trade Agreement (NAFTA) and that any additional conditionality on the Bank loan, to encourage speedier liberalization, would undermine the government's NAFTA negotiating position.

Overall, the second adjustment loan was successfully implemented. Remaining export restrictions on key food commodities were eliminated, as was the Ministry of Agriculture's system of imposing crop production targets. Prices of important food commodities were liberalized, as were those of pesticides. The agricultural investment budget was increased. The government met most of its contractual obligations.

However, backtracking on the earlier price rationalization, the government gave grain producers marketing support as part of the precios de concertación scheme (i.e., agreed prices between producers, consumers, and the government). Along with delays caused by Mexico's NAFTA negotiations, these subsidies, which were at odds with the reform program, delayed the release of the second tranche of the loan. The Bank finally accepted the government's position that the new subsidies were soon to be replaced by a new income support scheme for farmers, PROCAMPO.

Food security

The reforms supported by the two agricultural adjustment loans led Mexico to reduce the expensive general food subsidy and introduce a program of targeted subsidies. The targeted program costs less and has improved the government's fiscal position.

A key element of Mexico's food security program is the subsidization of tortillas for the urban poor. This subsidy evolved in two stages.

First, the tortibonos program substituted in part for Mexico's general subsidies on food. Tortibonos were vouchers distributed to urban consumers who used them to buy tortillas at below-market prices. The vouchers, whose value to consumers was to keep pace with inflation, were accepted at affiliated tortilla shops, which subsequently cashed them for amounts reflecting the market price of tortillas. The program was not targeted in that it had no instruments to monitor who was benefiting.

Second, under the second adjustment loan, the tortibonos program was replaced in 1991 by a targeted subsidy on tortillas. The tortilla subsidy program is designed to transfer income to poor urban families through provision of a staple food. Participating families receive one kilogram of free tortillas daily. The amount of the transfer is the important element, not the nutritional content or contribution to the beneficiaries' diet. By 1993, the tortilla subsidy program was operating in more than 200 cities, had more than 2 million beneficiary families—60 percent of the target families—and 13,000 affiliated tortilla shops. The use of leading edge technology makes possible more accurate targeting and greater operational efficiency (see box).

The Bank contributed to this success story because of the heavy emphasis it put on food security issues during the preparation and implementation of both adjustment loans. For the Bank this emphasis was unusual. More than 85 percent of the Bank's agricultural adjustment loans have completely ignored food security. Other Bank operations dealing primarily with agricultural policy reforms would do well to build in similar, substantial attention to this need.

Farm income support

Mexico is also exceptional in introducing a system of agricultural subsidies that does not distort resource allocation. PROCAMPO is an income support scheme that is designed eventually to replace agreed prices. The scheme is consistent with NAFTA requirements for gradually liberalizing agricultural pricing and marketing. Farmers receive subsidies based not on what they produce, but on the amount of land that they have cultivated for specific crops. Because payments are based on past cultivation practices, they do not affect prices, production levels, or any other requirement of performance, and thus their effect on production and trade is neutral. PROCAMPO restricts payments to the highest income
farmers by imposing a benefits ceiling.

Initially the Bank resisted PROCAMPO and advocated employment-generating and other infrastructure in rural areas, especially in the poor southern states, rather than a high cost subsidy to benefit all farmers, rich and poor. But finally it accepted PROCAMPO as a way to facilitate commodity price liberalization and to deal with the political need to support agriculture while minimizing the negative allocative effects. Although initially expensive, PROCAMPO payments are planned to decrease and then cease after some years.

The scheme has been reduced in scope because of its administrative complexity and high cost. Nonetheless, it is a considerable improvement over agricultural subsidy programs, such as those of OECD countries, that tie subsidy payments to the production of specific commodities, leading to substantial overproduction of protected commodities and excessive use of labor and capital in protected subsectors.

Supply response

The second agricultural adjustment loan sought to increase the rate of growth of agriculture by eliminating policy and institutional distortions. But, through 1994 at least, Mexico’s agricultural output hardly expanded. Agricultural GDP during 1991-94 grew at 0.7 percent a year, close to the 1984-87 average of 0.8 percent. By comparison, the growth of agricultural exports rose from 1.8 percent a year in 1984-87 to 2.7 percent a year in 1991-94, while the annual growth of total GDP increased from 0.2 percent in 1984-87 to 2.2 percent in 1991-94.

The expected faster growth of agriculture had been based on the assumption that Mexico’s agriculture was heavily taxed in the years immediately before the reforms, 1984-87. But it now appears that the discrimination against agriculture was more moderate. Further, Mexico’s two main crops, maize and beans, accounting for more than half the value of crop production, were essentially left out of the reforms and remained heavily protected by quantitative restrictions on imports. Production of wheat, also an important crop, was protected throughout the reform period.

Real producer prices for crops nevertheless fell, on average, during the reform period. Not only was the peso appreciating in 1991-94, holding down the value of export crops, but world market price trends for Mexican agricultural commodities were also falling throughout the decade 1984-94.

Meanwhile, on balance the agricultural adjustment program probably raised input prices. Agricultural input subsidies fell substantially on average. In 1988, they had amounted to about $2 billion—a large figure in relation to the $22 billion of value added in agriculture. In 1991-94 most of these subsidies, notably on credit, seed, power, and fertilizers, were eliminated. Both the elimination of input subsidies and the exchange rate appreciation would have reduced profitability. This output-input price squeeze explains the lack of supply response.

It is important to be clear at the outset on whether or not a reform program will stimulate overall agricultural growth. In the Mexican case, the failure of the reforms to induce a supply response has caused confusion and may have reduced support for the reform program.

Supporting analysis

Agricultural policy reform involves substantial learning, but it is better to begin with sector analysis rather than attempting to provide the knowledge base and the reform actions almost simultaneously. When the first agricultural adjustment loan to Mexico was conceived, the Bank had limited knowledge of the Mexican institutions most important for policy reform. Policy and institutional issues were analyzed collaboratively by Bank and borrower. But because of the lack of background sector work from before the operations, knowledge about the consequences of policy changes was slow in coming.

Institutional development

The adjustment loans did not have explicit institutional development goals. Even so, the cumulative institutional development resulting from the policy changes they supported will be enormous. Wide-ranging privatization of production and commerce stimulates the development of new production and market institutions. Opening up export markets leads to institutional change as farmers and other producers respond by learning about new markets, developing new business relationships, and applying new technology. In the public sector, there is now a new role for the agricultural authorities, and new organizations and rules for supporting the poor have been developed.