Supply Response to Adjustment in Low-income Countries: Lessons from Zambia

During the period before the supply response takes hold, often likened to "crossing the desert", structural adjustment programs are at high risk of being abandoned or reversed. Zambia had already abandoned several attempts at stabilization and adjustment by 1985, when the Bank approved the Agricultural Rehabilitation Project (ARP). An important goal of ARP was to achieve a quick supply response in agriculture to sustain consumption and elicit confidence in the structural reform process.

A recent OED audit* notes that this goal was not achieved. Reasons included incompatibility with other, concurrent reforms, and an unhelpful sequencing of price reforms. The reform process was abandoned after a move to reduce consumer subsidies on maize meal caused food riots that left 15 people dead. The experience offers general lessons on stimulating a quick supply response in low-income agrarian countries.

Goals

In Zambia, production and consumption of maize is critical to any effort at structural adjustment. Maize is the basic food staple, uses about 70 percent of cropland, and has been a very political crop.

In the 1980s, government set maize prices far below the export parity level given by an appropriate exchange rate. Maize prices throughout the marketing chain from farmer to retailer were held constant throughout the country and throughout the year. All maize marketing was done by a parastatal agency, inefficiently and at high cost.

By the mid-1980s, maize production was clearly being suppressed by low prices, ineffective marketing, and a devastating shortage of imported producer goods.

The ARP's basic goals were to liberalize agricultural prices and marketing and to achieve a rapid increase in maize production. Finance from IDA and other donors was designed to permit enough imports of tractors and other producer goods for commercial farmers to return to their "production frontiers." A dramatic and quick increase in maize production was expected to follow.

Outcome

Implementation of the ARP policy reforms began with a partial reduction in maize and fertilizer subsidies. By the time the second tranche was released (March 1986), producer prices for crops other than maize were (briefly) in line with border prices, but the maize price remained tightly controlled at a level far below the export-parity price.

In October, 1985, two months after the ARP became effective, Zambia's new foreign exchange auction went into operation. The kwacha, Zambia's currency, depreciated sharply, fuelled by accelerating inflation. Though farmers and farm-supply houses were encouraged to apply for foreign exchange at the auction-determined prices, their response was weak, unlike that of the highly protected industrial sector. Over a two year period, only a sixth of the expected imports of agricultural producer goods actually took place. Even these imports were mostly for crops other than maize.

The depreciation of the kwacha, by about 85 percent, while maize prices less than doubled, made profitable investment in maize impossible; costs of imported inputs (except fertilizer) had risen by much more than the maize producer price. Other factors discouraging investment in maize:

- High nominal interest rates, in response to inflation. Medium-term borrowing at fixed rates was typical practice in Zambia, but the unpredictability of inflation and maize prices made this too risky for farmers.
- An uncertain policy environment. The regime did not encourage the private sector. 1986 saw at least two large expropriations of private farms. Few would-be investors thought the policy reforms would last, given the history of aborted stabilization programs.

Government continued its consumer

*"Performance Audit Report, Zambia: Agricultural Rehabilitation Project", Report No. 11890. 1993. OED reports are available to Bank Executive Directors and staff from the Internal Documents Unit and from Regional Information Services Centers.
Supply Response

Zambia's experience suggests that the following are necessary for achieving a quick, buoyant investment response in agriculture:

- Macroeconomic policies that create favorable input-output price relationships, and are stable enough for investment outcomes to be calculated. In contrast, Zambia had high and unpredictable inflation and a continuing input/output price squeeze on maize production.
- A suitable sequence of reforms, beginning with a predictable macroeconomic environment. Within agriculture, controls on output prices need to be removed before changes are made in instruments—such as fertilizer subsidies—that limit input prices to farmers. (Input subsidies that have a high fiscal cost may need to be reduced before macroeconomic stability can be achieved.)
- Private sector confidence. Government should show its commitment to the reform process as early as possible. Where governments appear lukewarm, ambivalent, and divided, as was the case in Zambia, liberalization is unlikely to be carried through, and this deters initiatives by private investors.
- Markets that work: If investment is to take place, output and input markets need to work. In Zambia, unpredictable delays by the National Marketing Board of up to six months in payment to farmers of a price fixed at delivery, in a high-inflation economy, arbitrarily reduced farmers' incomes, increased their marketing risks, and depressed their investment in maize production.
- Farmer participation in planning: Farmers may still not undertake investments once the reformed incentive structure is in place. Letting farmers participate in project preparation can help to highlight weaknesses before, rather than after, implementation has started.
- Complementary investment projects, for example to restore infrastructure, promote exports, revitalize agricultural credit, or promote agricultural processing, may also be necessary.

Subsidies on maize meal, and of parastatal marketing operations. Together, these subsidies came to 3 percent of GDP, and a third of the budget deficit of 1985-87. Their contribution to Zambia's alarming inflation was substantial.

In December 1986, the Government—braving public outrage—tried to reduce the fiscal deficit by letting prices rise on "breakfast meal," the better quality flour that accounted for about 60 percent of maize meal production. A week of violent and bloody food riots followed.

The suspension of World Bank lending in May 1987, in response to payments arrears, formally ended Zambia's mid-1980s round of structural adjustment and associated agricultural policy reforms. By 1988 the fertilizer and maize meal subsidies had been fully restored and border pricing abandoned; maize and fertilizer marketing continued as public monopolies.

This attempt to revert to a highly centralized command economy also proved disastrous. A new adjustment program was started in March 1991 (see box). By the end of 1992, much of the reform program of the original ARP had been implemented, but five years had been lost.

Findings

Timing the supply response: Support within a country for structural adjustment can vary greatly within a brief period, depending upon public perceptions of whether or not adjustment is "working" and growth being rekindled. Particularly in low-income countries, the timing of the supply response has a crucial influence on these perceptions. Failure to achieve a rapid improvement leads to flagging support for structural adjustment as the skeptics come forward, and—as in Zambia in the late 1980s—to reversal of policy reforms or at least stalemate.

Detailed attention to agriculture:

Agriculture should feature more prominently in the design of adjustment programs in low-income agrarian countries. In such countries, growth in exports, manufacturing (food and export processing, textiles, farm inputs), commerce, transport, and banking depends closely on agricultural growth, so that a rapid supply response depends heavily on agricultural investment. To achieve this requires detailed attention. Within the Bank, this may call for more contributions from the agriculture divisions than has been typical.

Zambia's New Adjustment Program

Zambia's recent policy reforms have been in line with IMF/World Bank advice, including the freeing of prices, deregulation, and the promotion of private investment. Maize and fertilizer subsidies have been eliminated, despite the very serious drought of 1992. A social adjustment program has involved labor-intensive public works programs, including food for work.

But the entire reform program is threatened by poor fiscal and monetary policies. Early in 1993, annual inflation was 200 percent, largely because of the fiscal deficit. Government's second most pressing task is privatization; almost all the modern economy is built around parastats, some of them extremely inefficient.