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# Economic Issues in the Reform of Price Subsidies

4. Subsidy reform entails price liberalization or adjusting controlled prices of subsidized goods and services, often during macroeconomic adjustment. The economic goals are to correct fiscal imbalances and to improve allocative efficiency. Since the removal of subsidies may have adverse consequences for the poor, these effects must be analyzed and, to the extent feasible, mitigated or offset. In this context, the principal—and interrelated—issues that arise are the speed of price-subsidy reform and the options for protecting the real consumption of the poor.

## Speed of Price-Subsidy Reform

5. There is a trade-off between rapidly cutting budget-financed subsidies and avoiding an adverse impact on the poor. A one-time adjustment of prices to eliminate subsidies can yield immediate budget savings and quickly correct distortions in resource allocation. However, it can also result in a sudden and significant drop in standards of living, especially for low-income households. The need to compensate households implies that fiscal savings from price-subsidy reform are usually less than the amount spent on generalized subsidies before the reform.

6. Gradual reform is not without drawbacks. Apart from the fact that it takes longer to reap budgetary and economic gains, progress under gradual reform may falter, or even be reversed. A number of small price increases may engender more public opposition to continuing reforms than a single large increase. In addition, the continued presence during the phase-out period of institutions needed to administer the price subsidies contributes to the risk of a reversal of the reforms (this was a factor in the reappearance of the bread subsidy in Jordan in 1999, after five years of gradual reform).[1] Finally,

[1]Before 1994, generalized subsidies in Jordan covered many food items at an average cost to the budget of 2.2 percent of GDP. These subsidies took two forms: (1) coupons distributed to all households for buying rice, sugar, and milk; and (2) wheat price controls, which provided

a gradual approach may fail if it is adopted to postpone politically difficult reforms. Such failure can be avoided by publicly adopting a detailed timetable of measures.

7. The speed of price-subsidy reform depends on a number of elements (see Box 1). They are:

- *Fiscal considerations.* A high share of *explicit* subsidies in spending implies a greater potential for rapid budgetary savings. However, as noted above, the budgetary savings will be offset in part—at least in the short run—by compensation for the poor. Elimination of *implicit* subsidies, on the other hand, will not generally yield budgetary savings, although the revenues of public-sector agencies could increase. Consequently, the speed of reform of implicit subsidies should reflect the availability of resources, including from external sources. One way to generate resources for targeted compensatory programs is to charge market prices for donor-provided commodities. This policy would also avoid disincentives for domestic production.
- *Availability of social protection instruments and administrative capacity.* Compensating the poor for the elimination of subsidies requires not only resources, but also a system to deliver compensation to those who need it. Price-subsidy reform can be rapid when countries already have social protection instruments that can be adapted to the needs of the poor during reform (see Section 3). If new social safety net instruments need to be established, the administrative capacity to design and implement adequate and well-targeted social protection will affect the speed of reform. Availability of information on the socioeconomic and demographic characteristics of the poor will also influence the speed.
- *Willingness of governments to act on a technically sound reform package.* Political considerations have an impact on whether reforms are

an implicit subsidy for bread. In 1995, the government also began issuing coupons for bread, but the price of bread remained extremely low, leading to wasteful consumption (bread was used for animal feed) and smuggling. In 1996, the price of wheat was increased and the government replaced coupons with a cash transfer for bread. This also led to an increase in prices of other foods like poultry and dairy products, which provoked food riots. In 1999, the fall in international wheat prices offered the opportunity to align the domestic price with its international level and integrate cash transfers into the targeted social assistance programs administered by the National Aid Fund. But the authorities set the domestic price of bread somewhat below its production cost, and a small subsidy reappeared. The domestic price of wheat continues to be controlled, and the bread subsidies may rise if wheat import prices increase.

**Box 1. Speed of Subsidy Reform: Country Experience**

An examination of 23 countries that underwent price-subsidy reform and for which data are available (see Appendix 1) indicates that most countries did not rapidly reform generalized subsidies. Only two countries eliminated generalized price subsidies in one fiscal year, while an additional six countries achieved budgetary savings in excess of 2 percent of GDP over a two-year period (see below). The speed of reform in the countries studied was affected by:

- *Administrative capacity and availability of social protection instruments.* Many countries adopted a gradual approach to subsidy reform so as to adapt existing social protection instruments or to establish a social safety net (e.g., Algeria, 1992–96; Egypt, 1980–97; Hungary, 1992–94; Indonesia, 1997–2000; Jamaica, 1984–93; Jordan, 1994–99; Sri Lanka, 1978–82; Tunisia, 1990–99; and Ukraine, 1995–2000). In the case of Indonesia, a system of generalized subsidies on food items and petroleum products was introduced in 1997 as the country lacked an effective social safety net. In late 1998, when the budgetary cost of subsidies ballooned to 4.2 percent of GDP, the government began replacing the generalized food subsidies with a targeted subsidy for lower-quality rice. The reduction in the subsidy on petroleum products was delayed because of disagreement between parliament and government on the mechanism for delivering protection to the poor.

  In the short term, fiscal arrangements between the federal and subnational governments can complicate the implementation of price-subsidy reform. In the Russian Federation (1995–2000), the federal government has established the standard for cost recovery for housing and communal services

implemented in a timely manner. In part, they are determined by the popularity of the government and by the level of organization of the middle class (see Section 4 for more details). But, even under favorable conditions, governments may opt for a slower pace of reform in order to assess and react to unintended consequences, including any adverse political repercussions, and adjust the timing and speed of reforms accordingly. (As noted above, however, this runs the risk of reform reversal.)

## Temporary Mechanisms to Protect the Poor

8. Poor households can be temporarily protected from the effects of reforming implicit and explicit price-subsidies by:

provided by subnational governments. However, it is up to the subnational governments to apply this standard; they can choose to squeeze other (more productive) programs or accumulate arrears instead.

- *Lack of political support.* Even when countries have had the institutional and administrative capacity to protect the poor, the lack of political support has stalled or reversed reform efforts in some cases. For instance, in Ukraine, the objective of achieving full cost-recovery of housing and communal services is delayed, despite the availability of a well-functioning means-tested program targeted to the poor (see Box 2). A change in government led to the reversal of reforms in Sri Lanka (1982) and Mauritius (1995), although targeted income-support programs in lieu of generalized price subsidies had been established.

On the other hand, reform has been *rapid* where governments were politically strong and the social consequences of reform were largely ignored. Newly elected governments with mandates to deal with economic crisis sharply increased prices in Peru (1990) and Zambia (1991), effectively eliminating generalized subsidies in one fiscal year. Other quick reformers obtained important savings over a two-year period (Algeria, 1991–93, Egypt, 1991–94, Jordan, 1990–92, Sri Lanka, 1978–80, Yemen, 1997–99, and Zimbabwe, 1990–91). These latter reforms were aided by a relatively small social disruption—large-scale millers were the main losers in the elimination of the maize subsidy in Zimbabwe (1990) and government officials were the main losers in the elimination of the wheat subsidy in Yemen (1997–99) (Razmara and others, 1999). Reform can also be more rapid under favorable exogenous circumstances, such as low prices for imported staples.

- *Providing cash compensation to all or selected consumers—perforce including the poor—in lieu of the subsidy.* This can take the form of a separate benefit or be merged with existing social benefits (e.g., by increasing the minimum pension).[2] Cash transfers have many advantages. They allow for consumer choice, the cost to the budget is known with greater certainty than in the case of generalized subsidies, and they can be targeted to the poor. However, their real value may erode quickly during periods of high inflation and they may be prone to corruption.

[2]In some instances, the government awarded wage increases at the time of price liberalization. This policy is tantamount to a cash compensation targeted to workers in the public sector and recipients of social security benefits.

- *Limiting price subsidies to a subgroup of the population—again, including the poor.* If the target group is carefully selected and the scheme is effectively implemented, targeting can produce substantial budgetary savings with minimal social disruption (e.g., in Jamaica in 1984).

9. These *temporary* measures should be phased out and eventually subsumed under existing or new social assistance programs as the economic adjustment envisaged under economic reforms is completed. As the social impact of price-subsidy reform dissipates over time, the imperative of providing a coherent system of social protection for the poor overtakes the need to provide special protection to those affected by the reform. In practice, however, it has proven difficult to phase out temporary social safety nets.[3] To avoid this, their temporary nature should be addressed at the outset, through public pronouncements and, where feasible, sunset provisions. Alternatively, the cash compensation or targeted subsidy, as well as the qualifying criteria, can be held constant in nominal terms. In this case, the real value of the transfer and the number of recipients will decline over time with increases in the price level and the growth of nominal household incomes (e.g., as happened with the food stamp program in Sri Lanka during 1979–82; Edirisinghe, 1988).

10. During reform of producer subsidies, selected small producers and workers can be compensated for lower output prices or higher input prices by targeted cash transfers. Producers can be given income support (e.g., in relation to the size of landholding in agriculture). Unemployed workers can receive severance payments or benefits from an existing or adapted unemployment scheme.

## Targeting of Compensation and Consumer-Price Subsidies

11. The primary issues in deciding how to target compensation and price subsidies are the ability to identify the poor, the administrative capacity to deliver assistance, and the political support for the targeting scheme (see also Chu and Gupta, 1998a). The first two issues are discussed below and in Section 3; the third issue is taken up in Section 4.

12. The following economic objectives should guide the design of a targeting mechanism:

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[3]Korea has been successful in phasing out safety nets after the effects of the 1998 financial crisis dissipated.

- *Promote efficient targeting.* Targeting is subject to two types of errors. If the targeting is too tight, some people in the target group are excluded from the subsidy (errors of exclusion); conversely, if the targeting is too loose, the subsidy is granted to people for whom it is not intended (errors of inclusion). In this context, targeting should provide adequate protection to the poor, while minimizing leakage of benefits to the nonpoor in a cost-effective manner.[4]
- *Emphasize economic incentives and ensure consistency with overall fiscal and macroeconomic targets.* The disincentive to work stemming from income transfers should be recognized in the design, and the time and cost of travel to claim benefits should not be so high that it discourages participation by the poor (although it can be helpful if it limits participation by the well-off).

13. The goals of efficiency and equity can best be served if the government can limit its assistance to those truly in need. This requires the ability to design and implement an effective means test. A means test sets an income threshold above which benefits are phased out (see Box 2 for its application to Ukraine). Simple means tests do not value in-kind or seasonal income, or consider other individual adjustments. More sophisticated tests adjust family income according to, for instance, family size or the costs of major items such as housing and major medical expenses. A means test should be graduated, with benefits declining as income rises, to avoid discontinuities in labor supply.

14. Means tests have been difficult to implement in developing countries and transition economies because of the difficulty of observing in-

[4]Based on a sample of 24 targeted-subsidy and cash-transfer programs in 11 countries in Latin America, Grosh (1994) finds that the administrative cost as a share of total program cost ranges from 3 percent to 10 percent for self-targeted programs, against 4 percent to 16 percent for geographically targeted programs, and ½ percent to 29 percent for programs that assess eligibility individually for each participant. These wide differences in administrative cost are not reflected in the targeting efficiency; for all programs for which data were available, the share of benefits accruing to the poorest 40 percent was within or near the 70 percent to 75 percent range. This result can be attributed to the small share of screening cost of participants in the overall administrative cost of subsidy programs and disparity in the availability of existing mechanisms to channel benefits. Another reason might be that the administrative costs do not vary significantly with the level of the benefits; administration of a scheme that pays beneficiaries very little will thus tend to absorb a large share of the total program cost, independent of the targeting mechanism (see Foster, Goméz-Lobo, and Halpern, 2000).

**Box 2. Ukraine: Targeting of Housing and Communal Services Subsidy**

Since May 1995, the government of Ukraine has successfully implemented a targeted income-transfer program to cushion the impact on the poorest segments of the population of the gradual tariff increases to achieve full cost-recovery of housing and communal services. The objective of this program is to limit outlays on housing and communal services to 20 percent of total household income. Targeting is based on total household income (total reported income of all family members over age 16). Households have to requalify every six months by submitting income statements for the previous three months. The subsidy takes the form of a budget transfer to the providers of housing and communal services which in turn accept a discount on the amount households have to pay for these services.

In 1999, approximately 4.7 million households (25 percent of the population) were covered at a budget cost of 0.8 percent of GDP, down from 5.5 percent of GDP in untargeted subsidies in 1995. In addition to providing income support, this program established the administrative structure necessary to means test a general poverty benefit.

come earned in the informal sector. A clustering of incomes around a narrow range, implying a large change in the number of beneficiaries with a small change in the threshold, can also add to design and administration difficulties. In countries that are devolving responsibilities to lower levels of government, weak administrative capacity of subnational jurisdictions can limit the effective implementation of transfer programs.

15. In countries that are unable to establish an efficient means test, the poor have to be targeted indirectly.[5] Table 1 provides stylized examples of how to choose among the indirect targeting options listed below (see also Chu and Gupta, 1998b).

- *Target benefits to population groups that are likely to be poor on the basis of socioeconomic and demographic characteristics.* These groups could include the elderly, children, or the unemployed (categorical targeting), or those residing in specific areas within a country (geographical targeting). Categorical and geographical targeting are

[5]See also Van de Walle (1998). Several studies have shown that the targeting of social safety nets tends to become more efficient over time; see Hammer, Nabi, and Cercone (1995) and Lanjouw and Ravallion (1999).

associated with relatively low administrative and economic costs but tend to suffer from relatively large targeting inefficiencies. In some countries, including Chile, Colombia, Mexico, and a number of transition economies, categorical targeting has been further developed by using a combination of household indicators that are correlated with poverty but are more easily observed (proxy targeting). These indicators may include housing characteristics and location, family structure, occupation, education, gender of household head, and ownership of durable goods. Using more indicators can improve targeting efficiency and reduce program cost but will raise administrative costs.[6]

- *Link the subsidy or cash benefit to a self-targeting work requirement.* The benefit payment can be made in-kind through, for example, food-for-work programs (e.g., in Bangladesh, India, and Mexico). The obligations for the recipient can also come in the form of the requirement to send children to school (e.g., in India). Alternatively, beneficiaries can receive wage payments for participating in public-works programs (e.g., in Indonesia). The (monetary or in-kind) wage rate must be sufficiently low so that only those workers who are in need are willing to trade their time for the assistance (the wage rate should, in general, be below the prevailing wage for unskilled labor).[7] This would also allow more families to be helped. Such self-targeting also provides an exit incentive: once the economic situation of the participating families or individuals has improved, they will opt out of the programs. Self-targeting also requires less information than other targeting mechanisms. As a result, program and administrative costs can be low. A major drawback is that coverage of the poor may be imperfect because public works and food-for-work programs may not be available in all areas in which the poor live and because of the social stigma associated with such programs (e.g., in Brazil and Korea) (Alderman and Lindert, 1998). Moreover, such programs cannot target the working poor or those who are unable to work (e.g., the disabled, elderly, and mothers with young children).

[6]Targeted food supplements and nutrition interventions for women and children, including school feeding programs, are a special case of such targeting. The drawbacks of these programs are imperfect coverage of the poor and high administrative costs. On the other hand, they are not associated with labor market disincentive effects, and are subject to minimal leakage.

[7]In Zambia, where cash-for-work road construction projects offered a relatively high wage rate, some beneficiaries subcontracted their jobs to others at a lower wage.

TABLE 1. STYLIZED OPTIONS FOR TARGETING

| Socioeconomic and Demographic Characteristics of the Poor | Administrative Capacity | Existing Social Protection Instruments | Available Targeting Options |
|---|---|---|---|
| Rural landless workers and smallholders who are net purchasers of food; workers in the urban informal sector. | Information on the poor is lacking; weak governance and administrative capacity. | Nonexistent or limited. | Food-for-work and public works programs; commodity targeting; food transfer programs that build on existing efforts by nongovernmental organizations (NGOs); guaranteed minumum amount for all, equivalent to amount consumed by the poor using coupons. |
| Pensioners living alone; large families headed by single mothers; disabled. | Weak governance and administrative capacity. | Well-functioning social protection programs, including pensions, unemployment insurance, and family allowances. | Means-tested cash compensation; categorically targeted cash compensation and subsidies; public works programs; guaranteed minimum amount for all, equivalent to amount consumed by the poor using coupons. |
| Rural and urban informal sector workers and long-term unemployed. | Information on the poor is lacking; weak governance and administrative capacity. | Pensions with limited coverage of formal sector workers and limited social assistance programs. | Commodity targeting, as well as guaranteed minimum amount, for all, equivalent to amount consumed by the poor using coupons; public works programs. |
| Urban unemployed and low-skill formal sector workers; rural smallholders. | Information on the poor is lacking; governance and administrative capacity is somewhat weak, but there is experience with targeted social protection schemes. | Pensions for public sector workers. | Commodity targeting; limiting subsidies to amount consumed by the poor using coupons; public works programs. |

Note: In all cases, the subsidy to be reformed is assumed to be a generalized subsidy for basic food staples. The targeting options are meant to provide an indication of what may be appropriate under different circumstances. The choice would crucially depend on prevailing conditions, such as the incidence of corruption and available financing.

- *Self-target through subsidization of lower-quality items.* Commodity targeting limits price subsidies to items that are viewed as necessities for low-income families, but consumed in very low quantities—or not at all—by other groups (e.g., "inferior" items in the sense that the quantities consumed, and thus the subsidies, go down as household income rises). It is self-targeting in that benefits are available to all, but the program is specifically designed so that only the poor elect to participate. Brown sugar, coarser varieties of rice and wheat, and generic medicines are attractive options for commodity targeting.[8] The choice of packaging can also enhance the efficacy of self-targeting. Commodity targeting suffers from the same problems as other self-targeting schemes (imperfect coverage of the poor and, in some cases, lack of political support). Further, if the targeted commodity is consumed by the nonpoor, leakage of benefits will occur. In practice, at least one-third of the commodity-targeted subsidy can be expected to benefit the nonpoor (Alderman and Lindert, 1998).
- *Limit a generalized subsidy to or below the amount consumed by the poor.* A uniform benefit to all households at a low level equivalent to the consumption of the poor protects those below the poverty line and is likely to attract more political support than a scheme targeted just to the poor. On the other hand, by covering the nonpoor, the targeting is imperfect and the budgetary costs are raised. However, improvements can be made through the choice of delivery mechanism (e.g., the provision of food subsidies via health clinics in Jamaica—see Box 3). This kind of targeting has been used in various rationing schemes for administrative ease, including direct quantity rationing (e.g., the provision by the government to the consumer of a fixed quantity of the subsidized item at zero or below-market cost, as in India), cash transfers (at a value equal to or below the loss to poor households from price-subsidy reform as in Mauritius), and the issuance of coupons as in Sri Lanka. This principle also underlies the establishment of two-tier tariffs for electricity and water. In this case, households pay a lower tariff up to a certain level of consumption.

[8]The principal factors that underlie self-targeting in the broader sense are the opportunity cost of time used for obtaining benefits in work programs, the attractiveness of products to the poor, and social stigma.

**Box 3. Successful Price-Subsidy Reforms**

A successful price-subsidy reform should achieve significant budgetary or quasi-fiscal savings within a relatively short period of time, while avoiding social and political disruptions.

- *Tunisia* realized substantial budgetary savings from increased targeting of its generalized system of food-price subsidies, reducing spending from 2.8 percent of GDP in 1990 to 1.0 percent in 1999. Reform was gradual and involved repeated price adjustments, sensitizing the population to the need for reform, introducing compensatory measures (e.g., higher social assistance benefits, minimum wage adjustments, and increased student aid), and limiting subsidies to items perceived to be of lower quality (e.g., subsidized milk, bread, and wheat flour were packaged unattractively).
- *Jamaica* implemented a food stamp program in 1984 to provide staples to pregnant and lactating women, young children, the poor, the elderly, and the handicapped, in lieu of a generalized food-price subsidy. The cost to the budget fell from about 6 percent of GDP in the late 1970s to around 0.1 percent since 1993. Moreover, the innovative delivery mechanisms (such as the distribution of benefits through the health care system) allowed for a substantial increase in targeting efficiency. In 1998 the real value of the food stamps was only 73 percent of its value in 1990, and the program covered only a small share of the low-income consumption basket.
- Targeting in *Hungary* during the early 1990s relied on social assistance offices to target housing allowances to poor households, while raising housing rents to market levels and eliminating interest subsidies.
- The price-subsidy reforms in *Jordan* and *Ukraine* were successful in that they achieved reductions in government outlays while providing protection to vulnerable groups. Sustainability of the reform has been a problem in Jordan, however, while progress in Ukraine toward achieving full-cost recovery for communal and housing costs has been slow.

16. The choice among targeting options depends on the ability and willingness of governments to target subsidies and cash transfers. In cases where the country lacks both the administrative capacity to target price subsidies and social protection instruments that can be quickly adapted to compensate the poor, *self-targeting mechanisms or provision of a limited subsidy to all* are likely to be the only available options for compensating the poor, at least in the short run. Box 3 lists selected examples of countries where price-subsidy reform has been successful.