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Food Subsidies: The Concern to Provide
Consumer Welfare While Assuring Producer Incentives

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The intrinsic conflict between high food prices to provide producer incentives and low food prices to provide consumer welfare was discussed in earlier papers. Policies which attempt to strengthen incentives to expand food production through higher food prices may result in reduced real incomes of food consumers and severe hardships for those poor who do not derive their incomes from food production. Expenditures on food generally occupy a large share of the incomes of the poor.^{1/} Thus, food price increases may have important implications for their standard of living.

But not only the poor will be adversely affected. While the share of total incomes spent on food is likely to decrease with increasing incomes, absolute food expenditures increase. Thus, since the loss in real incomes caused by food price increases is roughly proportional to the amount spent on food, the poor will experience a smaller absolute loss than the better off consumers but a larger loss relative to current incomes.

Although increased food prices may contribute to the achievement of long-run economic growth and food self-sufficiency goals, the short run welfare and political implications may be untenable. Reactions by urban and in some cases rural consumers to recent attempts to increase

^{1/} Williamson Gray estimated that the poorest 30 percent of the Brazilian population spent 59 percent of total incomes on food as compared to 16 percent for the 20 percent with the highest incomes (Cheryl Williamson Gray, Food Consumption Parameters for Brazil and their Application to Food Policy. Research Report 32 (Washington, D.C.: International Food Policy Research Institute, September 1982). Mellor found that the poorest 20 percent of the Indian population spent 54 percent of their incomes on food grains alone, as compared to 15 percent for the richest five percent (John Mellor, "Food Price Policy and Income Distribution in Low-Income Countries". Economic Development and Cultural Change, Vol. 27, No.1, Oct 1978.

food prices in a number of countries have clearly demonstrated the strong opposition and the political difficulties of increasing food prices. Furthermore, a number of studies have shown that food price increases may cause serious hardships for the poor including a deterioration of an already precarious nutritional situation. Consequently, attempting to increase domestic food prices to provide stronger incentives to farmers while ignoring the implications for consumers would be to ignore political realities and short-run welfare goals.

There is no easy solution and no general "recipe" which would be most "appropriate" for all countries. The choice and design of the most appropriate policies must be based on a mix of economic, social, and political considerations which vary from one country to another.

The purpose of this paper is to present and briefly discuss some of the options available to governments for dealing with the issues raised above. In doing so, the experience from various countries and results from relevant studies will be drawn upon and attempts will be made to identify lessons and relationships believed to be of general validity and thus useful for policymakers in their efforts to identify the most appropriate policy measures. General food price policies and related subsidies are discussed first. Then follows a discussion of subsidies targetted on specific population groups and/or limited to specific foods or food rations. Alternative means for transferring purchasing power to the poor and compensating for losses associated with food price increases are discussed in the third sec-

tion and the paper finishes by highlighting some of the more important issues to be considered in decisions about how to deal with the impact of increasing producer prices on consumers.

General Food Policies and Subsidies

Many countries follow cheap food policies enforced through various combinations of exchange rate manipulations, domestic price fixing, forced food procurement, export taxes, and government monopolies in foreign and/or domestic food trade. Combined with similar measures for nonfood agricultural commodities, these policies have resulted in the extraction of economic surplus from agriculture for use in promoting growth in non-agricultural public and private sectors, while reducing investment and production incentives in agriculture.

The impact of cheap food policies on real incomes of the poor is not easily determined. Different groups of the poor may be affected differently, the most obvious distinction being whether or not they depend on food production for their incomes. Furthermore, the immediate impact may be quite different from the impact in the intermediate and longer run.

The immediate impact of an increase in food prices on poor wage earners who do not derive their incomes from food production would be negative. The longer run impact depends on the extent to which higher food prices will lead to higher wages and whether upward adjustment in food prices improves the efficiency of resource allocation and utilization and thus generates economic growth and increased employment. In a study of Argentina, Cavallo and Mundlak found that trade libera-

lization and exchange rate management would result in accelerated economic growth while causing agricultural prices to increase faster than non-agricultural wage rates, thus reducing real wages in terms of food.^{2/} They further demonstrated that compensation could be paid to the consumers in the form of subsidies which would keep food wages constant, at an economic cost considerably less than the gains from trade liberalization and exchange rate management. Thus, although the rate of economic growth would be lower if food wages were kept constant, it was shown to be feasible to pursue policies reflecting long term economic efficiency goals without adverse effects on food wages.

The extent to which benefits from food price subsidies are captured by consumers rather than passed on in the form of lower wages varies among countries and empirical evidence is scarce. The period of adjustment of wage rates is also likely to vary depending on institutional and other aspects. Pending additional empirical evidence it may be concluded only that the long-run negative effect of food price increases on real incomes of poor wage earners who do not derive their incomes from food production will be smaller than the immediate effects and may eventually become positive. However, the long run effects may be of little or no interest to the poor who are adversely affected in the short-run. The subjective discount rate for the poor

^{2/} Domingo Cavallo and Yair Mundlak. Agriculture and Economic Growth in an Open Economy: The Case of Argentina. Research Report 36. Washington, D.C.: International Food Policy Research Institute, 1982).

is likely to be very high and uncertain future gains may be insufficient to compensate for immediate losses, thus making food price increases politically difficult or impossible unless compensation is made for short-run losses.

The impact of food price increases on those poor who derive their incomes from food production would be expected to be positive provided the price increase is reflected in farm gate prices. Higher prices would add to revenues obtained from marketable surpluses and labor demand in food production would be expected to increase. However, total demand for rural labor need not increase if the food price increases cause substitution of less labor intensive for more labor intensive commodities, e.g. substitution of rice for jute in Bangladesh.^{3/}

It is important to note that food price increases may be much less favorable for the rural poor than often expected. Many of the rural poor do not derive a large share of their incomes from either wage labor in food production or sale of food. Preliminary results from a study of the implications of increasing domestic rice prices in Thailand show that the rural poor would not benefit greatly from such increases. ^{4/} Even though many of them are rice producers, the marke-

^{3/}Raisuddin Ahmed. Agricultural Price Policies Under Complex Socio-Economic and Natural Constraints: The Case of Bangladesh. Research Report No. 27 (Washington, D.C.: International Food Policy Research Institute, October 1981).

^{4/}Prasarn Trairatvorakul. Rice Price Policy and Equity Considerations in Thailand: Distributional and Nutritional Effects. (Washington, D.C.: International Food Policy Research Institute, Research report (pending publication)).

table surplus is often small and a large proportion are net buyers of rice. Although the findings from Thailand may not reflect the general case, it is clear that food price increases will create short-run hardships among many rural poor particularly those in the informal sector. Thus, compensatory measures may be needed both in urban and rural areas.

A variety of ways exists for such compensation including the increase of public sector wages and minimum wages in the private sector. While the poor non-wage earners, e.g. the large number of people working in the informal sectors, would be affected roughly the same way as wage-earners, compensation through wage manipulations would obviously not be possible. A series of other compensatory measures are discussed later in this paper.

Explicit General Subsidies

In order to maintain political stability, avoid negative impact on the poor, and/or maintain low wages, a number of countries have attempted to shield consumers from the effects of increasing food prices (whether the increase is in real or nominal terms) by driving in a publicly financed wedge between consumer and producer or import prices. The fiscal costs of such policies can be very high depending on:

- 1) The size of the wedge, e.g. the difference between government purchase and selling prices, 2) the marketing costs if borne by the public sector, and 3) the amount of food for which the subsidy is applied. The size of the wedge depends on the source and price of the food available to governments and the desired consumer price levels.

The wedge may be large, as illustrated by domestic consumer prices fixed by the government for wheat, sugar, and beans in Egypt, which were 28, 29, and 35 percent of the international prices in 1980.^{5/}

The size of the wedge may change considerably over time either to insulate domestic consumers from price fluctuations in the international markets or because of a widening gap between international and domestic price trends. Because of its traditionally large price fluctuations, the sugar market provides a good illustration of the former. Thus, the domestic sugar prices to the Egyptian consumer varied from 22 percent of the international prices in 1974 to approximately parity in 1977, 144 percent in 1978 and back to 29 percent in 1980.^{6/} One of the principal reasons for a widening gap between international and domestic price trends in some countries is a desire to maintain constant or near-constant nominal prices for basic food staples in the face of increasing general price levels. Alderman, von Braun, and Sakr report that consumer prices for wheat and rationed sugar, rice and lentils in Egypt were virtually unchanged in nominal terms during the period 1971-81.^{7/} As a result, since

^{5/} Joachim von Braun and Hartwig de Haen. The Effects of Food Price and Subsidy Policies on Egyptian Agriculture. Research Report No. 42, (Washington, D.C.: International Food Policy Research Institute, November 1983).

^{6/}Ibid.

^{7/}Harold Alderman, Joachim von Braun and Sakr Ahmed Sakr. Egypt's Food Subsidy and Rationing System: A Description, Research Report No. 34 (Washington, D.C.: International Food Policy Research Institute, October 1982.).

international prices increased in nominal terms and the value of the Egyptian currency fell, the price wedge increased. In the case of wheat, the wedge increased from 44 percent of international prices in 1971 to 72 percent in 1980.^{8/} Devaluation of local currencies is one occasion when the wedge is often increased to insulate consumers from the effect of higher domestic prices of imported foods, e.g. recent decisions by the Jamaican government to initially insulate the consumers from increases in the domestic prices of imported food caused by devaluation by introducing a publicly funded wedge which would be gradually reduced over time.

Unless the subsidized quantity is reduced, a larger publicly financed price wedge results in higher fiscal costs. If no targetting or rationing is attempted, the costs may be high. The fiscal costs of the wheat subsidies in Egypt which are neither targetted nor rationed increased from 21 million Egyptian pounds in 1970/71 to 511 million in 1980/81 which is equivalent to an increase from 0.05 to 3.5 percent of GDP.^{9/} Rationing of the quantities subsidized without targetting does not assure low fiscal costs. Although smaller than those of the wheat subsidies, the fiscal cost of subsidies on rationed foods in Egypt is also high.

Large public expenditures on food subsidies may have significant macro economic effects, as illustrated by Scobie in a study for

^{8/}Joachim von Braun and Hartwig de Haen. The Effects of Food Price.

^{9/} Harold Alderman, Joachim von Braun and Sakr Ahmed Sakr. Egypt's Food Subsidy.

Egypt.^{10/}

On the assumption that the explicit Egyptian food subsidy program is financed through deficit spending at the margin, i.e., changes in the fiscal costs of subsidies would be reflected in similar changes in deficit spending, it was estimated that a 10 percent change in subsidy expenditures would result in a change in the rate of inflation of 5 percent in the same direction, i.e., increasing subsidy costs would fuel inflation. Increasing subsidy costs would also cause an increase in foreign liabilities and a devaluation of the free market exchange rate for Egyptian currency.

Import demand for food in Egypt was found to be very inelastic. This is in large measure caused by the subsidy program and the high priority on maintaining stable and relatively low food prices for the Egyptian consumers and the government monopoly on food imports, which makes it easier for government to control import quantities. As a consequence, changes in either the price of imported food or the supply of foreign exchange are likely to be reflected primarily in the importation of industrial goods. It was estimated that a fall of one dollar in foreign exchange would reduce imports of food and other consumer goods by only 16 cents, while the importations of industrial raw material, fuel, and chemicals would fall by 40 cents, and capital goods by 34 cents. This has important implications for real output and

^{10/} Grant M. Scobie, Food Subsidies in Egypt: Their Impact on Foreign Exchange and Trade, Research Report 40 (Washington, D. C.: International Food Policy Research Institute. August 1983).

investment in the industrial sector. Thus, the study estimates that a fall in foreign exchange supplies of 10 percent reduces real industrial output by 4 percent and investment by 6 percent. Similarly, a 10 percent rise in the cost of imported food would result in a fall of 1 to 2 percent in industrial output as importation of raw materials is reduced to provide more foreign exchange for food imports.

Rapidly increasing fiscal costs occurred for the Sri Lankan food ration shop scheme up through the first half of the 1970s, reaching 1,000 million rupees in 1975, or around 15 percent of total government expenditures.^{11/} Changes in the subsidy program during the second half of the 1970s, including a shift to food stamps with a fixed nominal value, rapidly increasing food prices, and exclusion of about one-half of the population from the program, reduced fiscal costs of the Sri Lankan food subsidies dramatically to the current level of about 7 percent of total government expenditures. These reductions in fiscal costs have been attained by targetting as well as drastic reduction in the real value of the subsidy to the poor.

Targetted Food Price Subsidies

Because of the high fiscal costs of maintaining general food price subsidies, efforts have been and are currently being made to target food subsidies to groups of households expected to be particularly vulnerable to high and increasing food prices and to limit the subsidies to specific foods and/or food rations. If the sole goal of food subsidies is to increase or sustain the ability of the poor to

^{11/} James D. Gavan and Indrani Sri Chandrasekera. The Impact of Public Foodgrain Distribution on Food Consumption and Welfare in Sri Lanka. Research Report No. 13 (Washington, D.C.: International Food Policy Research Institute, December 1979).

purchase enough food to meet nutritional requirements along with other basic necessities, targetting could greatly reduce the costs and still reach the goal, provided that targetting is politically and logistically feasible.

The cost-effectiveness of explicit subsidies, that is, the government cost of improving the ability to acquire food among food-deficit households by a certain amount, is positively correlated with the degree of targetting up to a certain level. This is because targetting excludes some or all nondeficit households from sharing in the benefits from the subsidies. However, the administrative costs of operating a food price subsidy program increase with increasing degree of targetting. Thus, there is a point beyond which increases in administrative costs exceed the cost savings from further reducing benefit leakages to nondeficit households.

Targetting implies restriction of eligibility or participation. It may also imply rationing of the quantity of food that can be obtained under the subsidy program or the targetting may limit subsidies to particular periods of the year e.g. the lean months in cases where seasonal fluctuations in food supplies or purchasing power are a major cause of malnutrition. Targetting may be based on a number of criteria, the most obvious of which would be household income. While this is in fact used as a criterion in certain programs, e.g. the Sri Lankan food stamp scheme, it is usually quite difficult to obtain a reasonably accurate estimate of individual household incomes. A second criterion that is used relates to the location of the outlets for subsidized foods. The approach is to select neighborhoods with a

high proportion of poor households and to place outlets for subsidized foods in those neighborhoods. A third criterion may be that of selecting malnourished individuals at existing health clinics. This approach is used in a number of integrated health and nutrition programs, for example, the rural health clinics in Costa Rica and the recently terminated food stamp program in Colombia. A certain degree of targetting may also be provided in cases where the customers desiring to purchase subsidized foods must wait in line for a long period of time. Whether the long wait is intentional or merely a result of inefficient operation of the program, a higher alternative cost of time may discourage participation by higher-income groups. Of course, if the subsidy is sufficiently large, higher income groups may hire persons to wait in line for them.

Targetting can also be accomplished by offering lower quality foods or commodities that are generally undesirable to higher income groups. Distribution of subsidized wheat flour perceived to be of low quality (atta) in ration shops in Pakistan is a case in point. In a study of wheat flour consumption in Rawalpindi City, Khan found that purchase of subsidized wheat flour from ration shops decreased from more than 30 kg/month for poor households to around 20 kg/month for the highest income households while purchases of non-subsidized wheat flour from the open market increased from about 16 kg/month for the poor to 58 kg/month for the highest income group. ^{12/} A study for

^{12/} Riaz Ahmad Khan. Issues of Food Distribution in Pakistan. Pakistan Agricultural Research Council, Staff Paper AE-101, September 1982.

Bangladesh concluded that distribution of sorghum at the ration shops in Bangladesh would be more cost-effective than currently distributed rice and wheat because sorghum would be acquired almost exclusively by the poor. ^{13/}

Making an effective choice of commodities to subsidize depends on a number of criteria. First and foremost, the commodity chosen should reflect the nutritional needs of the target population. Second, it should be readily available. Third, it is important that the commodity chosen has a high price elasticity among target households and command a large share of their food budget. Finally a chosen commodity should provide relatively inexpensive calories.

Targetted or rationed food price subsidy programs may be implemented in various ways. In some cases such as India, Bangladesh and Pakistan, public ration shops distribute the food. The food may also be distributed through private shops or a combination of private and public shops, as is done in Egypt. If attempts are made to identify target households, these households may be issued ration cards that may be exchanged for subsidized foods. Such measures both identify the target household and ration the amount of food that can be obtained under subsidy. Although food price subsidy policies have been implemented with reasonable success in many urban areas, their success has been limited to rural areas except for Egypt and Sri Lanka where rural areas have been successfully covered. Limited success in

^{13/} Rezaul Karim, Manjur Majid and F. James Levinson. "The Bangladesh Sorghum Experiment". Food Policy, Vol. 5, No. 1, February 1980, pp. 61-63.

rural areas may be due to lack of rural infrastructure or government priorities.

The implementation of targetted food price subsidy programs may be difficult. Correctly identifying target groups and assuring that subsidized food is in fact obtained by these groups may be a much greater and more costly task than envisaged prior to initiating the program. As a result, a large proportion of the subsidized food may actually go to nontargetted households while administrative costs run high.

Obtaining food for the subsidy program presents difficult questions. These include the most appropriate way of procuring food domestically and the proper combination of foreign food aid, commercial imports, and domestic procurement.

Frequently, certain commodities are available on concessional terms under foreign food aid programs. Use of these commodities would greatly reduce government costs of a subsidy program. Furthermore, it might reduce the need for domestic procurement of food at a price below market prices at the expense of the producing sector. However, great care should be taken to avoid extensive use of food aid commodities that are not readily produced in the country, because consumer preferences may be generated that may be difficult to meet out of domestic production at a later time. The implications of heavy dependence on foreign food aid should be carefully considered in view of the uncertainty of future supplies of food under concessional terms. ^{14/}

^{14/} Joachim von Braun and Barbara Huddleston. "Implications of Food Aid for Price Policy in Recipient Countries." Paper prepared for IFPRI Food Policy Workshop Food and Agricultural Price Policy, April 29 - May 2, 1984.

Procurement schemes that include producer prices below market prices may be hard to enforce and may introduce not only large administrative costs but also large economic costs for the agricultural sector.

Rice subsidies in Egypt provide an illustration of this point. While the majority of the difference between consumer and producer/import prices is financed by the government for most of the foods in Egypt, i.e. the subsidy is mostly explicit, rice presents an exception in that the subsidy is basically implicit, i.e. borne by the producers through depressed prices. The low prices are enforced by a combination of forced procurement and export taxes. During the 1970s the procurement price varied from 11 percent of international prices in 1974 to 50 percent in 1972 and 42 percent in 1980 thus reflecting a relatively constant and low procurement price in the face of wide fluctuations in the international market. Losses to the producer sector were large and equal to about 20 percent of explicit food subsidies. However "because it is financed mainly by the farmers it does not appear in the government's accounts and the public awareness of it is small".^{15/} Insufficient recognition by the government of the costs of implicit subsidies is a common problem even when the cost is borne by the public sector. Unfortunately, it appears that government revenues foregone generally receive much less attention than government expenditures in deliberations about fiscal budgets and deficit spending.

^{15/} Joachim von Braun and Hartwig de Haen. The Effects of Food Price.

The Effectiveness of Subsidy Programs in Reaching the Poor

According to a number of studies, food subsidies have increased incomes and improved the nutritional status among the poor, particularly but not exclusively among the urban poor. Thus, a study of the past Sri Lankan food ration shop scheme "indicates that the scheme contributed to a better standard of living among low-income groups and a more even pattern of consumption throughout the society... At its peak, the ration subsidy contributed the equivalent of 16 percent of the purchasing power of low-income families in Sri Lanka." 16/

Research on the food ration shops in Kerala, India shows that about one-half of total incomes of low-income families was accounted for by ration income and the author concludes that "the removal of rationing would have a very serious impact on these low-income consumers."17/

Kumar found that the rations supplied the bulk of rice eaten by low-income groups and the subsidy scheme "greatly improved the distribution of income." She further concludes that the "subsidy program was effective in raising nutrition and consumption levels of the poorest households and was more effective than other forms of direct resource transfers." 18/

16/ James D. Gavan and Indrani Sri Chandrasekera. The Impact of Public Foodgrain Distribution...

17/ P. S. George. Public Distribution of Foodgrain in Kerala--Income Distribution Implications and Effectiveness. Research Report No. 7 (Washington, D.C.: International Food Policy Research Institute, March 1979).

18/ Shubh K. Kumar. Impact of Subsidized Rice on Food Consumption and Nutrition in Kerala, Research Report No. 5 (Washington, D.C.: International Food Policy Research Institute, January 1979).

In a study of the food ration shop scheme in Bangladesh, Ahmed concludes that "rationing has aided the urban poor quite successfully since without it the consumption levels of the poorest 15 percent of the urban population would have been 15 to 25 percent lower in 1973-74 than they were.^{19/} A strong urban bias was found in food subsidies in Bangladesh. Thus, while most of the poor people reside in rural areas, two-thirds of the subsidized grain were distributed to urban areas. Yet, the study concludes that expanding the rationing program in the rural areas would be extremely expensive and would, if based on external food aid, cause strong downward pressures on domestic food prices and disincentives to domestic producers.

The Egyptian food subsidy policies account for 6 to 7 percent of average consumer incomes.^{20/} The absolute value of the subsidy is virtually constant among income groups. Thus, the poor receive a much larger percentage of total income from subsidies than do the rich. Food subsidies account for about 16 percent of the incomes of the poorest quartile of the population but only about 3 percent for the richest quartile. Contrary to common beliefs prior to the study, no urban bias was found for the food price policies as a whole. However,

^{19/} Raisuddin Ahmed. Foodgrain Supply, Distribution, and Consumption Policies within a Dual Pricing Mechanism: A Case Study of Bangladesh. Research Report No. 8 (Washington, D.C.: International Food Policy Research Institute, May 1979).

^{20/} Harold Alderman and Joachim von Braun. Welfare and Distributional Impact of the Egyptian Food Ration and Subsidy System Research Report (pending publication), (Washington, D.C.: International Food Policy Research Institute).

due to higher consumption of wheat bread in the urban areas, some urban bias was found in the explicit wheat subsidy. This bias was offset by a higher rural consumption of explicitly and implicitly subsidized wheat flour. The relative bias was less than the difference between rural and urban incomes and the subsidies contributed 7 percent of rural and 6 percent of urban incomes. If other agricultural price distortions, such as the protection of animal production, are included, the rural sector received considerably larger net benefits than did the urban.

Further insights into the short run welfare and nutrition implications of food subsidies were provided by studies for Brazil 21/, Sudan 22/, and Mexico 23/. In the Brazil study, it was found that a shift of existing explicit subsidies on wheat to rice would greatly enhance the impact on calorie consumption by calorie-deficient population groups, without changing government outlays. Similar analyses aimed at the estimation of the short run nutrition effects of reducing or removing existing wheat subsidies among urban households in Sudan

21/ Cheryl Williamson-Gray. Food Consumption Parameters for Brazil and their Application to Food Policy. Research Report No. 32 (Washington, D.C.: International Food Policy Research Institute, September 1982.)

22/ Per Pinstrop-Andersen, et al. "Impact of Changes in Incomes and Food Prices on Food Consumption by Low-Income Households in Urban Khartoum, Sudan with Emphasis on the Effect of Changes in Wheat Bread Prices". Report submitted to Sigma One Corporation, Washington, D.C.: International Food Policy Research Institute, April 1983.

23/ Eileen T. Kennedy. "Determinants of Family and Preschooler Food Consumption". Paper presented at Food Policy Symposium, XI, International Congress of the International Union of Anthropological Sciences, Vancouver, August 20-25, 1983 and International Food Policy Research Institute Annual Report 1983.

found that poor and calorie-deficient households would make relatively large adjustments in calorie consumption in response to changes in bread prices. Thus, a 50 percent increase in the bread price would increase calorie deficiencies among the poorest 12.5 percent of the population by about one-third. The decrease in real incomes would be positively correlated with income level if measured in absolute terms, and negatively correlated with income level if expressed in percent of current income level.

While the above studies used household food consumption as a proxy for nutrition impact, one study -- a study of the Mexican milk subsidies -- analyzed the impact of a subsidy program on individual household members. Preliminary results from this study indicate that, while the subsidy caused an increase in milk consumption by preschool children, their total calorie consumption did not change significantly. However, total calorie consumption by the household increased. Thus, it appears that the program caused commodity substitution in the diet of the children, increasing protein intakes but leaving their calorie intakes constant, while calorie intakes by other household members increased.

Alternative Measures

Food price subsidies are but one of many ways in which governments may increase the purchasing power of the poor and compensate for losses in real incomes caused by higher general food prices. Tied or untied cash transfers as well as food transfers provide another set of policy measures which may be available. Untied cash transfers tend to

be less palatable politically than transfers which in some way are linked to food such as food stamps, targetted food price subsidies or food supplementation schemes. Political resistance to programs directly aimed at a reduction in starvation and malnutrition is likely to be much less severe than political resistance to cash transfers, even when the former results in transfer of real income that is partially or fully fungible such as most food stamp programs. Cash transfer programs are also very difficult to implement and the cost of the necessary control measures to avoid excessive leakage to non-target groups and fraud is likely to be high. Self-targetting, which may be possible if food subsidies are aimed at less desired foods, is not possible for cash transfers.

Another argument against cash transfers is that food price subsidy and direct feeding schemes reduce food prices relative to other commodity prices and thus contribute to a substitution of food for non-foods that would not occur as a result of a direct income transfer. This argument holds true only if food becomes cheaper at the margin which is often not the case because the quantities affected by subsidies or transfers are less than what would be acquired in the absence of subsidies.

There is some evidence that the marginal propensity to consume food is higher for real incomes originating from food subsidy programs or direct feeding schemes than for cash. The reason is probably to be found in differences in preferences of different household members and the relationship between source of income and intrahousehold distribution of budget control.

One major advantage of cash transfers or food stamp programs is that the actual distribution of food need not be undertaken by the public sector separate from other food distribution as in the case of most ration shop schemes. However, targetted and/or rationed food price subsidy programs may also be based on private sector food distribution as is partially the case in Egypt.

Finally, in comparing the pros and cons of cash vs. food transfer schemes it should be recognized that food may be available from foreign aid at a cost to governments which is considerably below its market value thus making food-related transfer less expensive.

In attempts to reduce leakages to nontarget households and focus more sharply on improved nutrition, some countries have opted for food supplementation or direct feeding of individuals deficient in calories and protein, usually children and pregnant women. School lunch programs and feeding of preschool children in health and nutrition clinics are examples of direct feeding. Such programs may assure that leakages to nontargetted households are small. However, intrahousehold leakages will still occur through reductions in the allocation of food to target individuals and households may reduce food acquisition from other sources.

In a study that reviewed over 200 reports of past food distribution programs for young children, Beaton and Ghassemi found that the net increase in food intake by the target recipients was 45-70 percent of the food distributed. ^{24/} Thus, the leakage varied between one half

^{24/} G. H. Beaton and H. Ghassemi. "Supplementary Feeding Programmes for Young Children in Developing Countries," report prepared for UNICEF and the ACC Subcommittee on Nutrition, 1979.

and one third of the food provided. But such leakage benefitted the households of which the target children were members through added real household income and possibly improved nutrition of other household members. The leakage is merely a reflection of household preferences regarding expenditure and consumption patterns as discussed earlier. Nevertheless, if the purpose is to improve nutrition of certain target groups and not to transfer real income, then these programs have generally not been very successful. Furthermore, administrative costs tend to be large relative to other means of income transfer programs.

Other policy measures are available for increasing the ability of the poor to acquire food such as food-for-work programs, and policies aimed at reducing unit costs in food production and marketing. These were dealt with in previous papers and will not be further discussed here.

Concluding comments

- Efforts to arrive at food price policies which are most appropriate for a given country involve a complex set of economic, social, and political considerations. Some such considerations were discussed in this paper with emphasis on the impact on consumers. Attempts were made to draw lessons from experiences of a number of countries as articulated in several studies by IFPRI and others. While no exhaustive summary will be provided here, a few key considerations are highlighted below. Further details are shown in earlier parts of the paper.

1. Changes in food prices may have very important implications for consumers particularly low-income ones. Failure to consider these implications in efforts to provide incentive pricing to farmers may result in severe hardships for the poor and political reactions which are untenable for the government.
2. Although policies to bring food prices more in line with relative resource cost may result in accelerated long term economic growth and employment, short term implications for consumers may be unacceptable unless compensatory measures are introduced.
3. Before such measures are designed it is important to clarify which consumer groups the government wishes to compensate and whether such compensation will meet welfare goals as well as alleviate political opposition. Opposition to food price increases may not be most effectively expressed by those most adversely affected.
4. General food price subsidies may be very costly either for the government in the case of explicit subsidies or for the agricultural sector in case of implicit subsidies. Irrespective of the source of financing, food subsidies are likely to have implications for economic growth.
5. Change from general to targetted food price subsidies may greatly reduce both fiscal and economic costs without reducing the effectiveness of the subsidy to reach welfare goals provided the target households can be identified.
6. Identifying households below a specified income level is one of the most challenging and difficult tasks facing governments in efforts

to improve cost-effectiveness of subsidy programs. A number of other targetting approaches are discussed in the paper.

7. In addition to targetted food price subsidies a number of alternative measures are available to governments for alleviating hardships experienced by poor consumers due to high or increased food prices. These measures include tied or untied cash transfers as well as food transfers and food-for-work programs.

8. The focus on subsidies and transfer programs in this paper should not be interpreted to imply that such programs are necessarily the most effective way of dealing with the conflict between desired high producer and low consumer prices of food. On the contrary, long term self-sustaining solutions should be sought in policies and development strategies which generate and expand income earning capacities of the poor while improving the efficiency and reducing unit costs in food production and marketing as discussed in other papers for this workshop. However, for a long time to come, large scale consumer subsidies and/or transfer programs will be needed in many developing countries if welfare goals are to be achieved in the short term.

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