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Sri Lanka: Price Changes and the Poor

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Abstract

This paper examines the short-run impact of Sri Lanka's recent structural adjustment program on the poorest segments of society. While the ultimate goal of all macroeconomic adjustment programs is to overcome structural rigidities and put the economy on a sustainable growth path, some of the measures implemented, such as the liberalization of food and energy prices, cuts in subsidies and other budgetary spending, and exchange rate changes, may cause significant increases in relative prices faced by the poor. On the other hand, there are offsetting income effects even in the short run, such as adjustments in wages and output prices and retargeting of subsidies.

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### Summary

This paper examines how Sri Lanka's recent structural adjustment program affects the poorest segments of society. While the ultimate goal of all macroeconomic adjustment programs is to overcome structural rigidities and put the economy on a sustainable growth path, some of the measures implemented in Sri Lanka, such as the liberalization of food and energy prices, cuts in subsidies and other budgetary spending, and exchange rate adjustment may increase prices paid by the poor. On the other hand, even in the short run, adjustments in wages and output prices and retargeting of subsidies will have offsetting income effects.

The first section presents a "poverty profile," describing the size, background, and expenditure pattern of the poor. Based on this information, the second section estimates the effects of program-related measures on real incomes of the poor. As food expenditures account for more than 80 percent of all spending by the poor, it is suggested that the income effect can be approximated by the increase in food prices adjusted for any increases in earnings. The weighted average increase in food prices related to the program is estimated to be 30 percent. Different poor groups are shown to be affected to varying degrees, as wage increases in the urban and rural informal sectors and the effects of the devaluation on output prices lead to different changes in the incomes of rural and urban workers and of smallholders.

The last part of the paper describes measures to protect the poor during adjustment. It focuses on the policy mix and compensatory measures associated with the program. While the economic situation prevailing at the outset of the program required strong adjustment efforts, some price increases were phased in gradually to allow the poor to adjust their consumption basket. Furthermore, given Sri Lanka's traditional emphasis on social welfare expenditures, more efficient targeting of these expenditures could substantially shelter the truly needy during the adjustment process.



## Price Changes and the Poor: The Case of Sri Lanka

Macroeconomic and structural adjustment programs include policy measures which are likely to affect domestic product and factor prices and thus the earnings and expenditures of the poor.

This paper discusses the implications for poor groups of policy measures under Sri Lanka's recent structural adjustment facility (SAF) program. The complexities of the poverty issues notwithstanding, the goal of the paper is to apply a "manageable" framework to quantify the effect of adjustment on the poor, which forces some limitations upon the calculations. First, the calculations on which the analysis rests are very rough, since numerous data problems prevent more detailed work. <sup>1/</sup> Second, the effects of policy measures on the poor will also certainly not be confined to the immediate effect originating from program-induced price movements; however, since it is much more difficult and vague to assess second-round effects, this paper focuses on immediate effects only. Finally, income and income distribution are the results of a general equilibrium process. While this is recognized in the study, "manageability" requires to assume away possible linkages in the short run. Despite these limitations, the calculations should give some indications of the immediate effect of policies on poor groups. It may also serve as a basis to design measures to protect the poor during adjustment.

Section I describes the main characteristics of poverty in Sri Lanka. Section II provides some background of the SAF program and attempts to quantify the program's effects on prices, wages, and the poor's real incomes. Section III discusses the measures put in place to protect the poor. Section IV presents some concluding observations about the problems that emerge in trying to assess the effects of policy measures on the poor.

### I. Poverty Profile

#### 1. Characteristics of poverty in Sri Lanka

Sri Lanka is a low-income country well known for providing to its population living standards--in terms of life expectancy, general health conditions, and access to education--far superior to those found in

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<sup>1/</sup> There are no reliable expenditure data for all poor groups. Furthermore, the data that are available do not allow judgments on possible substitutions in the consumption expenditures. For both reasons, no exact estimation of a given price change on the overall welfare of poor groups can be made. The expenditure data that are available usually were obtained in the last expenditure survey, which was carried out in 1985/86 and may not reflect actual expenditure patterns in 1989.

countries at comparable levels of development. These achievements notwithstanding, poverty remains a serious problem. In defining the poor, an expenditure-oriented classification of the population should complement basic needs indicators such as caloric intakes. 1/ It is also useful to distinguish "the poor" and the "ultra-poor". Almost half of Sri Lanka's population cannot satisfy 100 percent of their nutritional requirements. The authorities define this group as "poor". Within that group those classified as "nutritionally at risk" are the ones with the highest share of food in total expenditures and still sizable caloric deficiencies. With a limited amount of financial resources, this narrower group, or the ultra-poor, may be the group to focus on in designing policy measures. In this report, this is the group defined as "the poor" (Tables 1 and 2). 2/

Table 1. Sri Lanka: Poverty and Food Expenditures  
of the Poor, 1985/86

	Caloric Satisfaction <u>1/</u>	Share of Households <u>2/</u>	No. of Households
Poor households (Nutritionally at risk)	less than 80	22.4	685,000
Nutritionally deficient households	80-99	49.2	1,498,000

Source: Department of Census and Statistics (1987).

1/ In percent of average requirement.

2/ Percent of all households.

Note: Average household size: 5.16 members.

1/ See Annex on definition and measurement of poverty.

2/ Defined to be households that have met less than 80 percent of their calorie and protein requirements. Some data sources are available for the bottom 20 percent of the population only, which is taken to include the same group.

Table 2. Sri Lanka: Selected Characteristics of  
Households in Poverty, 1981/82 1/

	Distribution of Households in Poverty	Percent of Households Poverty
Incidence of poverty by sector		
Urban	14.4	24.0
Rural	82.2	23.0
Estate	3.4	9.2
All Island	100.0	22.3
Employment status		
Employed	92.5	20.6
Unemployed	0.4	31.8
Not in labor force	7.1	16.4
Total	100.0	22.3
Occupation and socio-economic group		
Professional, technical and managerial	1.6	24.5
Production workers	28.3	18.2
Farmers	17.3	28.2
Agricultural, forestry and fishery workers	34.0	13.5
Clerical, sales and service workers	12.4	16.5
Others	6.3	20.1
Total	100.0	22.3
Education		
No schooling	20.2	65.6
Primary	49.0	25.1
Secondary	26.9	16.9
High school	3.8	9.3
Total	100.0	22.3

Source: Central Bank of Sri Lanka (1984).

1/ The poor are defined as the bottom 20 percent of the population.

According to a 1985/86 survey, about 20 percent of the population was living in poverty. Poverty in Sri Lanka encompasses a sizable percentage of the population in all classified categories. Nevertheless, it is possible to draw a general picture of the poor. The poor households tend to live in rural areas; they are generally employed as casual workers; they have few or no assets and, particularly no land; they are engaged in low productivity activities (e.g., fishing or forestry) and they are less educated than the rest of the population. It is also noteworthy that poverty in the estate sector seems considerably lower (9.2 percent) compared with the overall average (22.3 percent). <sup>1/</sup>

## 2. Expenditure patterns of the poor

Among the poor, food expenditures cover a very high share in total expenditures. Compared with the average expenditures on food of the entire population, the poor spend a relatively higher proportion of their overall income on food (Table 3). Food expenditures of the poor also greatly surpass the weight of food items in the Colombo Consumer Price Index (CCPI). <sup>2/</sup> Deflating the poor's incomes by the CCPI will thus be a misleading indicator of the real effect of price changes on the income and spending power of the most vulnerable groups. Table 4 shows that the rural poor have a somewhat lower propensity to spend on food, probably reflecting the consumption of self-produced food items. Nevertheless, even for the rural poor the food share in total expenditure is the dominant expenditure category, and the food share surpasses the weight given to it in the CCPI.

The observed expenditure patterns reveal that, for the poor, the most vital price changes are those concerning their spending capacity on food. The immediate impact of program policies on the welfare of the poor is thus likely to work through the changes in relative prices for food and to some extent the price of other immediate basic needs such as fuel for heating and cooking.

Table 5 shows consumption levels of major staple goods in Sri Lanka. The data in Table 5 support the previous argumentation of the vital importance of food prices and there especially rice prices for the poor. In terms of quantities, consumption levels of the poor of almost all staple goods lie below the average of the different sectors, which suggests low spending power on even the most basic foods. It thus seems obvious that price changes of these goods will be the ones most vitally affecting the poor.

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<sup>1/</sup> Incomes in the estate sector are much more easily verifiable than in the non-estate sectors. Part of the large difference in the share of people affected by poverty may thus also result from under-declaration of income in non-estate sectors.

<sup>2/</sup> The weights are: food, 61.4 percent; clothing, 9.4 percent; fuel and light, 4.3 percent; house rent, 5.7 percent; miscellaneous, 18.7 percent.



Table 3. Sri Lanka: Food Expenditures as Percentage of Total Expenditures of Poor Households by Sector, 1981/82 1/

	<u>Sector</u>
Urban	63.3
Rural	69.9
Estate	76.1
All Island	70.1

Source: Central Bank of Sri Lanka (1984b).

1/ The poor are defined as the bottom 20 percent of the population.

Table 4. Sri Lanka: Expenditure Pattern of Rural Households in Poverty, 1985/1986 1/

Expenditure for:	A <u>2/</u>	B <u>3/</u>
Food and drink	64.5	67.9
Liquor and tobacco	5.3	5.1
Housing	3.9	3.1
Fuel and light	8.5	8.1
Clothing and textiles	5.0	4.6
Household services	0.2	0.2
Non-durable and semi-durable goods	2.6	2.2
Personal care and health	3.7	3.3
Transportation and communication	2.9	2.4
Recreation and education	1.1	0.8
Consumer durables	1.0	0.9
Miscellaneous	<u>1.5</u>	<u>1.2</u>
Total	100	100

Source: Department of Census and Statistics, Colombo (1987).

1/ The poor are defined as the bottom 20 percent of the population.

2/ A = Own-account workers in agriculture.

3/ B = Farm and manual laborers in agriculture.

Table 5. Sri Lanka: Monthly Consumption and Expenditure  
of Major Food Items by Sector 1/

	<u>Urban</u>		<u>Rural</u>		<u>Estate</u>		<u>Poor</u>	
	Qty. <u>2/</u>	Exp. (Rs)	Qty.	Exp. (Rs)	Qty.	Exp. (Rs)	Qty.	Exp. (Rs)
Rice <u>3/</u>	16.6	74.0	21.1	94.0	19.8	88.2	14.1	54.2
Wheat flour	1.2	9.5	1.2	9.5	1.2	9.5	1.0	7.9
Potatoes and yams	1.0	10.0	1.6	16.0	0.9	9.0	1.4	14.0
Coconuts (number)	6.2	31.2	7.7	38.7	5.8	29.2	4.8	24.1
Meat	0.8	14.1	0.3	5.2	0.2	3.5	0.1	1.7
Fish	2.6	32.9	2.0	25.3	0.9	11.4	1.0	17.6
Eggs (number)	2.3	3.7	1.1	1.8	0.7	1.1	0.2	0.3
Sugar	2.0	16.4	1.6	13.1	1.3	10.6	0.8	6.6

Sources: Bhalla and Glewwe (1986); and data provided by the Sri Lanka authorities and staff calculations.

1/ Spending pattern based on 1981-82 survey, expenditure in Sri Lankan Rupees based on 1988 average retail prices.

2/ In pounds, unless otherwise indicated.

3/ Rice valued at the average of the food stamp and free market price for the urban, rural and estate sectors and at the food stamp price only for the poor.

## II. Price Movements and Their Impact on the Poor

### 1. Background

Sri Lanka experienced growing macroeconomic and structural difficulties toward the mid-1980s. Output growth slowed, unemployment increased, inflation accelerated, and the balance of payments deteriorated steadily. This poor performance is attributable, inter alia, to excessive demand pressures due to large government budget deficits as well as structural weaknesses owing to inefficiencies in the large public sector and a lack of dynamism in the export sector. These problems were exacerbated by a prolonged civil conflict which has not only caused great loss of life and property, but also adversely affected production of goods and services (especially tourism), inhibited private sector investment, severely strained government resources, and delayed aid disbursements.

### 2. Summary of Program

The Sri Lanka Government initiated stabilization measures in late 1986 which eventually led to the formulation of a medium-term adjustment program supported by an arrangement under the Fund's structural adjustment facility (SAF) in 1988. Performance in the first year fell far short of expectations, mainly because civil unrest in the south of the country disrupted economic activity and demand pressures was exacerbated by large wage increases and enhanced recruitment in the government sector. Moreover, fiscal performance was threatened as major new expenditure plans were formulated. A critical balance of payments situation arose, in which external reserves were almost depleted, and the Central Bank made heavy recourse to short-term external borrowing. In mid-1989, the Government, in response to the gravity of the situation, revitalized its stabilization program. The policy framework paper (PFP) for 1989-92, and the program supported by the second-year SAF arrangement (October 1989-September 1990), focused on the need to restore economic stability in the short term, and to resume the structural reform effort commenced under the first PFP. Macroeconomic objectives included: (a) real economic growth of 2-3 percent in 1990; (b) an inflation rate of 12 percent in 1989, and 10 percent in 1990; and (c) an external current account deficit of about 10 percent of GDP in 1989, and 9 percent of GDP in 1990. Further improvements in each variable were anticipated. The authorities adopted this adjustment effort, taking into account a desire to prevent an aggravation of prevailing social tensions. The principal measures affecting prices were a devaluation of the Sri Lankan rupee (a 14 percent devaluation in the third quarter of 1989), increases in excise taxes, restraints on government expenditures (including wages), and adjustments in administered prices. These measures affected some prices that are important in the expenditures and incomes of the poor.

### 3. Effects on real income

To estimate the effects of the adjustment program on real incomes, the movements in both expenditure and income need to be assessed.

#### a. Expenditure side

The SAF program contained a number of measures affecting prices. In the fiscal area, the increase in excise taxes raised the prices of liquor, tobacco, and luxury goods. The monetary measures increased interest rates possibly leading to price changes in the housing market. The devaluation raised import and export prices in terms of Sri Lankan rupees. Furthermore, the program included the removal or reduction of subsidies and increases in administered prices.

Changes in the prices discussed above will touch the poor to different degrees and at different times. As is obvious from the previous discussion on the consumption patterns of the poor, the most sensitive prices for them are those that relate to food and heating, in particular, the prices of their staple foods and kerosene, the cooking material. 1/ Other price changes will have more indirect effects, working through increases in, for example, prices for production inputs, which may cause second-round price increases for the goods consumed by the poor. Since these second-round price effects are more difficult to estimate and would have to be judged against other second-round effects of stabilization measures on the income side, it seems advisable to investigate the issue first by concentrating on the immediate price changes for the poor's direct consumption items. 2/ Furthermore, some price increases, such as the increase in the price of more upscale products, are of concern only to those parts of the population that have spending capacities far in excess of their immediate food requirements. All these considerations thus seem to suggest that an evaluation of the short-run impact of the SAF program on the poor may be based upon an examination of the poor's purchasing power in terms of basic commodities.

It is estimated that price measures undertaken in anticipation of the SAF program in the period April to September 1989 raised food prices by 17 percent initially (Table 6). Taking into account further price increases that were phased in gradually, but excluding the effects of changes in world

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1/ Even though there are no detailed expenditure data for the urban poor, the data for the rural poor (Table 4) suggest that next to food the most vital price affecting the well-being of the population below the poverty line is the price for "fuel and light."

2/ The second round effects depend on the own and cross price elasticities of demand and supply. Empirical estimations of demand and supply functions are not available. The timing of the second-round effects is uncertain, whereas the impact of changes in administered prices or subsidies can be dated exactly.

Table 6. Sri Lanka: Price Increases for Major Consumption Items, 1988-1989 1/

	Initial Price Increase 4/89-9/89	Actual Percent Change in Price <u>2/</u> 6/89-1/90	Program Price Change <u>3/</u> 6/89-1/90
Food price increase <u>4/</u>	17	39	30
Rice	15	40	32 <u>5/</u>
Wheat flour	20	34	36
Bread	20	38	46
Sugar	--	35	15
Fertilizer	35	133	163
Petroleum	8	25	4 <u>6/</u>

Sources: International Monetary Fund (1989a, 1984b); and Fund staff estimates.

1/ Not all of the prices included are directly administered; however, in all cases those prices are influenced by the Government or government-controlled agencies.

2/ Domestic price changes (in terms of Sri Lanka rupees) from June 1989 to January 1990.

3/ Domestic price changes net of international price changes occurring in 1989.

4/ Weighted according to the expenditure shares for goods of the poorest 25 percent of the population.

5/ Net of changes in international wheat grain prices.

6/ Net of annual average increase in international prices for petroleum.

prices, food prices increased by about 30 percent during June 1989 to January 1990. Overall, the price of the poor's consumption basket is estimated to have increased by 24.6 percent if noncontrolled prices were assumed to have been constant. On the assumption that noncontrolled prices rose with the general rate of inflation, prices are estimated to have increased on average by around 26 percent. <sup>1/</sup> Observed price increases were higher than those estimates, reaching an average of close to 40 percent, as there was at the same time a general upward trend in the international prices of most of the poor's basic consumption goods.

b. Earnings side

Structural adjustment will impact not only on the expenditures of the poor but will most likely also effect their earnings. The effects on "income" originates from changes in wages (or wage patterns) and from changes in input and output prices for goods produced by the poor for their own use. In particular, the evaluation of the effect on income proves to be more complicated than measuring the effect on expenditure. Rough wage data for the informal sector are available and, thus, the movements in the incomes of dependent workers can be estimated. However, more problems arise in the case of "self-employed" poor such as e.g., smallholders.

For the poor working for their own account, the movements in input prices for their activities and in output prices for their products will determine the change in their welfare. For poor farmers, usually the most important "self-employed" group among the poor, the program measures will cause prices for fertilizer input to more than double (Table 6). The exact effect this will have on poor farmers depends on their overall spending on fertilizer, that is, the intensity of fertilizer use. Data on these input coefficients are not available and an exact evaluation cannot be made. It is, however, clear from background studies by the World Bank <sup>2/</sup> that the fertilizer subsidy was poorly targeted and the bulk of the fertilizer is actually used in the large state-owned estates. Therefore, the input cost effect of the fertilizer price increase should have only a small impact on poor farmers.

Table 7 presents some quantification of the movements in the poor's earnings in 1989. Based on wage surveys in the informal sector, it seems that urban workers received higher increases in wages than landless rural laborers; however, nominal incomes for both groups increased. As argued above, income changes for poor farmers are more difficult to evaluate. Data

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<sup>1/</sup> These estimates are based on the weighted average price increases, where the weights are those used in the Colombo Consumer Price Index.

<sup>2/</sup> See World Bank, "Sri Lanka - A Break with the Past: The 1987-90 Program of Economic Reforms and Adjustments" (1988).

Table 7. Sri Lanka: Income Changes for Poor Groups, 1988-89.

	Actual Percent Change	Movement in International Price <u>4/</u>	Devaluation <u>5/</u>
<u>Change in nominal wages</u>			
<u>Dependent workers in the informal sector</u>			
- Rural landless laborers <u>1/</u>	5.2	--	--
- Urban <u>2/</u>	11.8	--	--
<u>Change in output prices <u>3/</u></u>			
<u>Smallholders</u>			
- Rubber	-0.4	-0.2	25.4
- Coconut	-1.6	-8.5	25.4

Sources: Central Bank of Sri Lanka; and staff estimates.

1/ Includes transplanting, ploughing, and harvesting. Average of male and female wages.

2/ Based on wages in the construction sector for skilled helpers.

3/ In Sri Lankan rupees. Based on Colombo auction prices. How the prices received by smallholders changed is unknown.

4/ In U.S. dollars. These are proxies of the world prices of Sri Lankan rubber and coconut. How Sri Lanka's export prices of rubber and coconut behaved is unknown.

5/ There are large discrepancies between the changes in auction prices, adjusted for changes in international prices and devaluation. These discrepancies are not accounted for, but may be due to a number of factors, including the discrepancies between the international prices and Sri Lankan export prices, and the non-instantaneous pass-through of devaluation to auction prices.

are not available on the prices small farmers actually receive. Given, however, that domestic auction prices for rubber and coconut, the major agricultural products for smallholders, were almost stable in terms of Sri Lanka rupees in the initial months, increases in nominal incomes are not likely. <sup>1/</sup> However, as Table 7 shows, international prices for both rubber and coconut were falling over the period under consideration. It appears thus that the devaluation included in the program package prevented the farmers from being touched by the full impact of the downslide, especially of coconut prices.

In evaluating the above quantification, it should be kept in mind that it presents a partial and therefore short-run view. Overall, and over time the effects on income include all changes in wages, prices of tradables, and input prices as well as changes in production, resulting from the structural adjustment program. Many of these effects would, however, fall into the group of "second-round effects," materializing once an adjustment program has secured better employment and earning possibilities for the poor.

c. Net effects

Ideally, the evaluation of the effects of a structural adjustment program should compare the long-term effects on income and expenditure to arrive at a net effect. Given the difficulties to measure longer run income effects, the previous analysis allows only for measuring the short-run effect. The initial net effects on real spending power for the different groups of the poor are summarized in Table 8.

It is evident that wage adjustments, especially in the urban sector, already provided some cushioning in the short run. Landless laborers seem to have been affected harder initially. But even these groups were shielded to some extent by wage movements and the devaluations which prevented the full pass-through of the international price decline in rubber and coconut. The prices received by smallholders appear to have declined substantially, in spite of large devaluations. However, these two groups are engaged in the tradable goods sector which can, in the medium run, be expected to

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<sup>1/</sup> As weather conditions in 1989 were better than 1988, some improvement might have occurred, though through higher yields. Assuming, however, that smallholders use little or no fertilizer, it is to be expected that yields did not change very much.



Table 8. Sri Lanka: Short-Run Changes in Real Spending Power,  
June 1989-January 1990

	Excluding Effects of Changes in World Prices (Program induced changes)			Including Effect of Changes in World Prices (Actual changes )		
	Earnings	Food prices	Net	Earnings	Food Prices	Net
Urban informal sector	11.8	30.0	-18.2	11.8	39.0	-27.2
Rural landless laborers	5.2	30.0	-24.8	5.2	39.0	-33.8
Smallholders <u>1/</u>	25.4	30.0	-4.6	- <u>2/</u>	39.0	-

Source: Tables 6 and 7.

1/ Average for smallholders producing rubber and coconut.

2/ The exact pass through of the devaluation to the price received by smallholders is unknown.

benefit more from additional relative price changes originating from the devaluation. 1/ It is, therefore, likely that the income loss for rural groups will be compensated for in the medium term.

#### 4. Overall impact

The previous analysis showed that the price measures included in the SAF program will have some negative impact on the real spending power of the poor, but they are mitigated by positive effects on income. An evaluation of the overall effects of an adjustment program should, however, not only weigh income and expenditure effects but also consider the role of compensatory measures and, furthermore indicate some of the likely effects of disorderly adjustments on the poor.

Compensatory measures include all government programs aimed at poverty alleviation, such as the Food Stamp Program (FSP), the Jana Saviya Program (JSP) and the mid-day meal program. Problems with the efficient targeting of these programs notwithstanding 2/ the funds available for poverty alleviation could go far in keeping the share of consumption of the poor in GDP constant, 3/ protecting at least the relative position of the poor vis-a-vis other groups in society.

The dangers of disorderly adjustment also particularly threaten the living standards of the poor. Foremost among the effects to mention is inflation. The poor, are the group most likely to suffer the negative effects of inflation since they, contrary to the more wealthy groups of the population, cannot hedge against the danger of loss in the currency's buying power. Furthermore, the extent that the poor are engaged in the production of tradables (i.e., small farmers, industrial workers), an overvalued

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1/ In Table 8, "the earnings effects" for smallholders are proxied by cumulative devaluation (25.4 percent). Actual Colombo auction prices of rubber and coconut declined, respectively, by 0.4 percent and 1.6 percent, in spite of a large devaluation. In view of the fact that Sri Lanka is a price taker in the world rubber and coconut markets and that auction is a competitive process, devaluation should be expected to pass through to auction prices instantaneously, in the absence of other factors. The time needed for this effect depends on the speed of adjustment of prices to exchange rate changes. According to empirical estimates, these price changes may take time.

2/ See Section III.2 for details.

3/ According to the most recent available data from the 1986/87 Consumer Finance Survey, consumption of the bottom 22 percent of the population reached about 8.5 percent of GDP. Under the limiting assumption that prices for nontradables and wages and other income do not adjust, the program-induced price measures are estimated to reduce the poor's consumption in terms of percentage of GDP to 6.5 percent. This indicates that well targeted poverty alleviation programs of around 2 percent of GDP could efficiently shelter the relative position of the poor.

exchange rate might lead to a loss in competitiveness and a misallocation of resources. With overvalued exchange rates, the poor thus would suffer from a decline in labor demand and export opportunities which in various ways would impact negatively on their earning capabilities.

### III. Measures to Protect the Poor During Adjustment

Adjustment policies have the potential to improve and sustain the welfare of the poor through increased production and employment opportunities and price stability. However, as time is needed to implement policies and reap their benefits, the tolerance limit of the most vulnerable groups must be taken into account.

#### 1. Policy mix

In the formulation of the SAF program, steps were taken to mitigate the adverse effects of the program measures on the poor. At the time of the 1989 program, the economy was confronted with the potential balance of payments crisis. In such circumstances, the scope for modification of the program mix was limited. Nevertheless, some adjustments in administered prices (and the elimination of subsidies) were phased in gradually. The elimination of subsidy for rice, for example, was stretched over six months, while that for wheat flour was phased over one year. This gave time for households to adjust their consumption patterns more smoothly, mitigated the impact on prices of substitutes (such as maize and sorghum, grains widely consumed among the poorest groups), and also, to some extent, allowed time for incomes to adjust.

#### 2. Measures to protect the poor

Sri Lanka has traditionally allocated relatively large amounts for poverty alleviation. These efforts were stepped up with the introduction of the JSP program in the 1989 budget along with the continuation of the Food Stamp Program (FSP) and the mid-day meal program. The JSP was designed to provide income transfers to poor households, both to improve their access to employment and to raise nutritional intake. The mid-day meal program was launched with a view to providing one meal a day to all children enrolled in primary and secondary schools in the country. However, these programs were generally poorly targeted and costly. <sup>1/</sup> The Sri Lankan Government, with the technical and financial assistance of the World Bank, is therefore

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<sup>1/</sup> There were major problems associated with the design of the original JSP that led to disincentives to work, pressure on wages, and income inequities. The FSP consistently provided income supplements to half of the Sri Lankan population and the poorest 20 percent received only a small portion of total benefits. The mid-day meal program was costly and inefficient since it failed to reach pre-school children and lactating mothers, the population nutritionally most at risk.

engaged in the process of restructuring these programs. The major aims are to make the JSP more production oriented, eliminate leakage effects in the FSP program, and refocus the mid-day meals more directly on those most nutritionally at risk.

#### IV. Concluding Observations

The present paper focused on the short-run effects of adjustment on the poor. In the case of Sri Lanka, where a sizable proportion of the population has income levels that do not allow the fulfillment of basic needs, it argues that the most important short-run effect will be on the poor's expenditure for food. The paper also acknowledges the existence of further short-run effects, particularly those that affect the incomes of the poor, the costs for productive inputs and government services, as well as prices received for certain output goods.

The study finds that adjustment measures will change a number of relative prices faced by the poor. Some of the measures lead to substantial price increases for food products consumed by the poor and, seen in isolation, these price changes appear to indicate a loss in the spending capacity of the poor. However, while those price changes are more easily quantifiable, the paper argues that adjustment measures will also have a positive impact on the income side, which is more difficult to measure but nevertheless provides some offsetting increases already in the short run. Furthermore, well targeted poverty alleviation measures could help to shelter the needy.

The study is aimed at assessing the effects on poor groups of changes in relative prices resulting from program implementation. The focus is on a fast assessment based on minimum data. We find that such a framework is capable of giving information on the groups most at risk and therefore can usefully serve as a basis to improve program design and help preventing undue hardship on some or all of the poorest segments of society.

It is, however, acknowledged that the simplified framework presented here has certain shortcomings, such as neglecting the microeconomic aspects of poverty as well as the long-run impact of structural adjustment on growth and income distribution. Work along the lines presented in this paper should therefore be seen as a starting point, eventually to be supplemented by detailed micro-based studies on the causes of poverty, on the effects of specific poverty alleviation programs, and an evaluation of the longer run effects of the macroeconomic policies implemented. In the meantime, however, the more limited assessment presented here can be helpful in ensuring that the adjustment process toward the long run goals is sustainable.

### Definition and Measurement of Poverty

It is not easy to define and explain the exact meaning of "poverty." In the literature and in popular discussion, the term often refers to different phenomena that render comparisons between both theoretical approaches and empirical studies difficult. This annex summarizes some of the issues involved in a discussion of poverty and presents an "operational" definition of poverty.

#### 1. Absolute poverty

Poverty, in an absolute sense, is usually related to the "basic needs" concept, that is, the minimum income or expenditure needed to provide the most basic living standard. While this definition seems sensible, the appropriate indicators for measuring living standards are difficult to define. The major questions are whether to define poverty in terms of minimum income or minimum expenditures and whether to look at the individual or at so-called spending units (usually households). Recent research has been conducted mainly in terms of per capita expenditure. The reasons for this choice are the practical problems involved in measuring income and the obvious fact that "welfare" derived from a given income depends on the number of family members with whom this income must be shared. The expenditure measure used in most studies is even more narrowly defined in terms of per capita food expenditure. Per capita food expenditure is an appropriate variable to measure welfare because in situations where living standards are low, the satisfaction of basic needs is accorded high priority; and the need for food is the single most important basic need. <sup>1/</sup>

Once the measurement variable is defined, two issues remain. The first concerns the setting of the poverty threshold, that is the minimum (food) expenditure <sup>2/</sup> necessary for the adequate fulfillment of the basic needs defined. Everyone falling below the threshold line would then be considered to be "in poverty."

To judge the extent of poverty, once the poverty threshold is defined, the "head-count ratio" is used. This ratio is defined as:

$$H = q/n$$

where q = the number of individuals whose expenditures (or incomes)  
          fall below the poverty line; and  
      n = the total number of individuals

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<sup>1/</sup> "Therefore, . . . in a country where there is still some manifestation of poverty in the form of nutritional inadequacies, per capita food expenditure provides a better correspondence with welfare," (Bhalla, 1986).

<sup>2/</sup> Or income, if an income-based approach is preferred.

The head-count ratio allows for estimating the share of the entire population living in poverty. It does not, however, answer the question of the intensity of poverty--"how poor are the poor?" Furthermore, the head-count ratio does not change if the intensity of poverty changes within the group of the already poor, while it would change when income changes result in some individuals crossing the poverty threshold. Therefore, other measures, the so-called poverty indices, are used for many studies. One such index is given by the "absolute poverty gap" (G), which is defined as:

$$G = \frac{1}{zq} \left( \sum_{i=1}^q |z - y_i| \right)$$

where z = poverty line  
y = income of the i-th individual  
q = total number of individuals

The difference (z - y<sub>i</sub>) gives the shortfall of an individual's income or expenditure from the poverty threshold and the absolute poverty gap aggregates this information and presents an overall measure.

In the recent literature, more sophisticated indices have been suggested such as the "index P" proposed by Kakawani <sup>1/</sup> which is sensitive to the poverty gap as well as the number of people to whom it applies. This decomposable index can be interpreted as the percentage of total income that would have to be transferred from the non-poor to the poor in order to eliminate poverty.

The various measures of absolute poverty for Sri Lanka are shown below.

Table A1. Sri Lanka: Poverty Measures

	H		G		P <sup>1/</sup>	
	1978/79	1981/82	1978/79	1981/82	1978/79	1981/82
Urban	19.4	17.7	13.6	13.7	2.2	2.0
Rural	25.1	26.1	12.3	14.4	3.0	3.7
Estate	7.6	12.3	9.8	10.3	0.6	1.1
All island	22.3	23.6	12.4	14.2	2.5	3.1

Source: Gunaratne (1985).

<sup>1/</sup> H = Head-count ratio, percentage of population below poverty line,  
G = Absolute income gap,  
P = Poverty index according to Kakawani (percentage of income that would have to be transferred from the non-poor to the poor in order to eliminate poverty).

<sup>1/</sup> Kakawani (1980).

## 2. Relative poverty

"Relative" poverty does not depend on the satisfaction of basic needs, but refers to the distribution of income in a given population. Alleviation of "absolute poverty" thus may or may not impact on "relative" poverty, that is the share of total income accruing to the different groups.

While different measures of income inequality are addressed in the literature, these provide little or no guidance for the question of the "right," "fair," or "appropriate" distribution. The issue of distributional equality is, however, relevant in analyzing the impact of adjustment measures on poverty because of the widespread belief that these measures are geared toward increasing the rate of economic growth without being concerned about how the effects of growth are distributed.

Despite certain shortcomings, 1/ the Gini coefficient and the associated Lorenz curve are the most frequently used measure of income inequality; the data for Sri Lanka are shown in Table 2.

Table A2. Sri Lanka: Relative Poverty--Income Distribution as Measured by the Gini-Coefficient 1/

	1973	1978/79	1981/82
Rural	0.37	0.49	0.49
Urban	0.37	0.32	0.32
Estate	0.40	0.51	0.54
All island	<u>0.41</u>	<u>0.49</u>	<u>0.52</u>

Sources: Central Bank of Sri Lanka (1984a, 1984b), UNICEF-Colombo (1985).

1/ The Gini-coefficient is normalized between 0 and 1, where a higher value indicates a more unequal income distribution.

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1/ The major shortcoming is that the Gini coefficient suppresses all information into one measure which means that some information contained in the distribution itself may be lost.

Unfortunately, the calculation of this measure requires substantive empirical work on the microeconomic level (household surveys). Such surveys are usually conducted at infrequent intervals, and it is difficult to assess the before/after impact of adjustment measures. Furthermore, the reliability of income data obtained in such surveys has been questioned <sup>1/</sup> because of problems of income under-reporting. For the reasons mentioned, studies of income distributional effects seem to be infeasible for purposes of short-run assessment of programs and will have to be conducted in the framework of longer-run poverty studies.

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<sup>1/</sup> See, e.g., Gunaratne (1985).



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