ADJUSTMENT AND DISTRIBUTION:

THE INDIAN EXPERIENCE

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Foreword

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Abstract

This paper attempts to assess the distributive impact of the economic adjustment program in India. It begins by discussing the analytical complexities of disentangling the impact of reforms from that of other autonomous developments in the economy. It then goes on to isolate and analyze the main cause–effect linkages between adjustment and distribution.

The paper points out that there has been a distinct increase in poverty incidence in the post-adjustment period, but that this cannot be automatically attributed to adjustment. The natural growth of the workforce, combined with the slowdown in growth on account of stabilization, led to some increase in unemployment. However, the paper argues that this alone could not account for the increase in poverty incidence. The latter is mainly attributable to a sharp increase in administered food prices, a political decision which had little to do with reforms.

The adjustment program could have made a greater effort to protect the poor through antipoverty programs etc., but the paper suggests that the distributional impact of the adjustment program is on the whole quite limited. It concludes that the main concern about India's adjustment program is not so much its adverse impact on distribution but the fact that it remains incomplete. In the future, much will depend on the nature and stability of the ruling political formation that emerges.

I. Introduction

Bound together by ties of history, culture, and geographical proximity, the countries of South Asia also share many characteristics in the economic sphere. Their growth performance over the past two to three decades has been much less impressive than that of their neighbors in East and Southeast Asia, and the incidence of poverty continues to be quite high in most of these economies. Until recently, all of them were also characterized by autarkic policy regimes where the instruments and institutions of a command economy were widely used to contain, if not altogether supplant, the market mechanism. Licensing, regulation, high tariffs, and large-scale public investment were the order of the day. However, by 1990/1991 all of them had initiated wide-ranging adjustment programs aimed at stabilizing these economies and liberalizing their *dirigiste* policy regimes (Rana 1995).

Some of the countries have moved faster than others and some components of adjustment have progressed more rapidly than others. However, the basic composition of the adjustment programs in different South Asian countries has been quite similar to each other (Table 1) and similar to adjustment programs introduced elsewhere in Asia, Africa, and Latin America during the 1970s and 1980s. As latecomers to adjustment, the South Asian countries have had the advantage of hindsight. Lessons learned from the earlier experiences of adjustment could be drawn upon by the concerned governments, and by the International Monetary Fund and the World Bank, which worked with them in designing the adjustment programs in South Asia. One important aspect of that experience has to do with the distributive impact of adjustment—"adjustment with a human face"—as the issue has been evocatively phrased (Cornia et al. 1987). What lessons did South Asia learn from its predecessors on this question and what has been the South Asian experience in this regard?

The question is addressed in this paper in the specific context of India, where piecemeal attempts at promarket economic reform during the 1980s were followed by a comprehensive adjustment program starting in July 1991. However, the lessons drawn from the Indian experience is of relevance for other adjusting countries in South Asia and elsewhere. Section II deals with some methodological and other issues which outline the approach adopted in this paper and also its limitations. Section III discusses the choice of the distributive variables and how these have behaved in the post-adjustment period. This is followed by an analysis of the four strategic variables through which the impact of adjustment is transmitted to its distributive outcomes, i.e., unemployment and the wage rate (Section IV), the price of food (Section V), and fiscal policy and public social expenditure (Section VI). The regional impact of adjustment is then briefly examined in Section VII. Finally, Section VIII concludes the paper with some observations about the role of economics and politics in determining distributive outcomes.[1]

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[1]The draft of this paper was completed in November 1997, though publication was delayed due to unavoidable reasons. The paper therefore does not take into account some recent developments in India, in particular the sharp increase in defense spending in the FY 1998 budget.

TABLE 1
Policy Reforms in Selected South Asian Countries

I. Macroeconomic and Sector Reforms	Bangladesh	India	Nepal	Pakistan	Sri Lanka
A. Fiscal Reforms and Public Resource Management	VAT introduced in July 1991	Personal income taxation, maximum marginal rate reduced to 40%, surcharged abolished, exemption limit raised	VAT being introduced in phased manner	Coverage of general sales tax expanded	VAT introduced in 1994
	Personal income tax rate reduced in 1993/1994		Octrol to be abolished	Provinces initiating measures to implement agriculture income tax	Defense levy of 3% introduced in 1992
	A number of procedural changes in ADP implementation introduced, including the 3-year rolling plan	Excise duties being simplified to resemble a VAT system	Introduced a system of 3-year rolling plan		Introduced 5-year rolling plan in the 1980s
		Octrol being abolished			
B. Financial Sector	Significant deregulation of interest rates	Gradual deregulation of interest rates and reduction of directed credit to priority sectors.	Open market operations have been introduced	Open market operations have been introduced	Several financial institutions privatized
	Role of directed credit declined and NCBs given greater freedom	Private sector banks being allowed to expand and new private banks are being established	Four new private banks established	Of the five state-owned banks, two have been privatized and two others earmarked for privatization	Since 1991, foreign banks allowed to establish branches outside Colombo.
	Securities Exchange Commission established in 1993		Several new nonbank financial institutions (such as leasing and finance companies) established		Securities Council strengthened
		Securities and Exchange Board empowered to regulate stock exchange			Credit Information Bureau established
	Loan provisioning system introduced				
	Several new private and foreign banks allowed	Liberalized insurance sector			
	NCBs partially recapitalized	National Stock Exchange established	Nepal Stock Exchange established		Stock exchange opened to foreign investors since 1990
	One development finance institution (Bangladesh Shilpa Rin Sangstha) has initiated commercial transactions				
	Rupali Bank soon to be privatized				

TABLE 1 *(cont'd.)*

1. Macroeconomic and Sector Reforms	Bangladesh	India	Nepal	Pakistan	Sri Lanka
C. Trade	System of export incentives deepened by introducing bonded warehouses, duty drawback schemes and back-to-back letter of credit	Import licensing system for a wide range of industrial inputs and capital goods scrapped (Feb/Mar 1992)	75% of foreign exchange earnings can be sold at market-determined rates System of export incentives being developed	System of export incentives strengthened through concessional tariff treatment of imported inputs and freight subsidy	Import licensing system liberalized: only 11 reserved items require license Export taxes eliminated
	Tax exemption on import of capital machinery for 100% export-oriented industries				
	Quantitative restrictions on imports liberalized considerably: 193 to 112 items in 1993 and about 30 items by the end of FY1995	Quantitative restrictions on imports of non-consumer goods have been lifted	Import licensing system abolished for most raw materials and imported inputs	Import licensing system liberalized by reducing negative list	Foreign exchange surrender system lifted in March 1993 Import surcharge abolished in 1991
	Level and structure of tariff rates improved: Presently only two products (cigarette paper and alcoholic beverages) still have tariffs over 100 percent; maximum rate on others is 60%	Tariffs reduced in stages: maximum rate reduced from 400% in 1990/1991 to 65% in 1994 and 50% in 1995	Tariffs reduced in stages: presently range is from 5-100% and 8 sub-rates	Tariffs reduced in stages: from 225% in 1988 to 70% in 1994	Since 1991 import tariffs regrouped into a new four-band structure and rates reduced progressively since 1997
D. Exchange Rate	Dual exchange rate system abolished in 1992	Exchange rate of the rupee is basically market-determined: peg with the US dollar still maintained through Central Bank operations in the market	Exchange rate of the rupee is basically market-determined	Exchange rate of the rupee is basically market-determined	Exchange rate of the rupee is basically market-determined
	The taka is freely convertible for current account transactions	Rupee is freely convertible for current account transactions	Rupee is freely convertible for current account transactions	Rupee is freely convertible for current account transactions (since July 1994)	Rupee is freely convertible for current account transactions

TABLE 1 *(cont'd.)*

I. Microeconomic and Sector Reforms	Bangladesh	India	Nepal	Pakistan	Sri Lanka
E. Agriculture Sector and Land Issues	Significant deregulation of inputs have occurred	Slow: Massive subsidies for water, electricity and fertilizer remain	Distribution of agricultural inputs liberalized	Slow: Awami Tractor Scheme introduced	Privatized management of tea plantations
	Subsidies have been eliminated				
	Some actions taken in land reforms during the mid-1980s			Farm development package introduced to encourage crop diversification	
F. Industrial Policy and Public Enterprise	Industrial licensing system abolished	Industrial licenses abolished for all except 14 industries for considerations of health, defense, health, safety, and environment; liberal stance even in these 14 industries	Industrial licenses abolished for all except those in defense, health, and environment	Board of Investment established to reduce the multiplicity of institutions involved in investment decisions	New liberal guidelines for foreign investment announced in 1991
		Restrictions on expansion of large business houses abolished			Third investment promotion zone established in 1991
	Significantly liberalized foreign investment regulations	Significantly liberalized foreign investment regulations: approvals for up to 51% foreign equity participation is automatic (Jan. 1993)	Significantly liberalized foreign investment regulations: 100% ownership permitted in medium and large-scale industries and "one window" established	Significantly liberalized foreign investment for power generation	
	Incentive scheme upgraded	Five-year tax holiday for foreign investment in power generation, port, airlines and telecom			
	Institutional reforms including restructuring and privatization have been slow	A new policy announced in 1991, but institutional reforms including restructuring and privatization of public enterprises has been slow	Privatization Act is in place and several industries including airline industry have been privatized; restructuring policies have been slow	New privatization policy approved in February 1994; restructuring policies have been slow	Over 30 state-owned enterprises have been privatized

TABLE 1 *(cont'd.)*

I. Microeconomic and Sector Reforms	Bangladesh	India	Nepal	Pakistan	Sri Lanka
G. Public Administration	Slow: Various studies and reports prepared but little action	Slow	Slow: Several thousand civil servants retrenched	Slow	Serious efforts being made to reduce size of bureaucracy
H. Labor Market	Slow	Slow: Industrial Disputes Act and Companies Act are being revised National Renewal Fund for training and redeploying workers established	Slow	Slow	Slow

Source: Adapted from Rana (1995).

II. Adjustment and Distribution: Preliminary Remarks

In order to place in proper perspective the analysis that will follow, it is necessary to begin with a few preliminary remarks. First, it has to be noted that the time sequence of the benefits and costs of adjustment is asymmetric. The costs are experienced in the short term whereas the benefits appear mostly in the medium or long term. From this point of view, an attempt to assess the distributive impact of an adjustment program which began only four years ago in India is premature.

The adjustment programs in South Asia, as elsewhere, have included two broad components, a short-term Stabilization Program (SP) and a longer-term Structural Adjustment Program (SAP). Though both components are launched simultaneously in a typical adjustment program and there is some overlap in the use of instruments, e.g., exchange rate depreciation, the two components are quite distinct in their objectives, content, and sequencing. SAP is typically a long drawn out package of supply-side interventions aimed at correcting an accumulated range of distortions in incentives, policies, and institutions. At the end of this process, the adjusting economy is expected to reach a sustainable path of high growth with price stability. On the other hand, SP is a sharp, short-term demand-side intervention aimed at quickly eliminating a macroeconomic disequilibrium, which usually manifests itself as a foreign exchange liquidity crisis. Fund-led external assistance is usually made available for overcoming the liquidity crisis on the condition that these demand management measures will be undertaken fairly urgently.[2]

The demand management measures in turn typically consist of two components. Expenditure-switching policies like currency depreciation attempt to shift domestic and world demand in favor of import substitutes and exports by lowering their relative prices. However, since the effects of such relative price changes take time to work themselves out via the relevant demand elasticities, expenditure compression measures are simultaneously introduced in order to eliminate the gap between domestic absorption and domestic output, thereby eliminating the external deficit. The principal component of such expenditure compression is a reduction of the government's fiscal deficit, the assumption being that this will lead to a reduction of the external deficit.[3] In actual fact the demand compression often leads to a fall in the rate of growth of output. Moreover, the fiscal deficit is usually sought to be reduced through cuts in public expenditure, often "uncommitted" social and capital expenditure, rather than additional revenue mobilization. Hence, the first impact of adjustment typically experienced by the public is a sharp increase in inflation, driven by devaluation and the rise in prices of imported inputs, followed by a decline in growth or even the absolute level of output and employment. Simultaneously, the public may experience cutbacks in major subsidies, such as food subsidies, and a reduction in public expenditure on services like education and health.

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[2] For an analytical account of the logic of adjustment programs see IMF (1987).

[3] For appraisals of this "twin deficits" theory, see Khan and Knight (1985) and Feldstein (1992). Taylor (1988) provides a "structuralist" critique of the IMF's financial programming model along with a review of several adjustment programs. Some recent internal research in the IMF is based on a model that modifies the predetermined output growth assumption of the Fund's model (see Chand and Shome 1995). For a similar simulation analysis of alternative macroeconomic policies applied to India, which uses a model that endogenizes the determination of output growth along with inflation and the external deficit, see Mundle and Mukhopadhyay (1993).

Thus the costs of adjustment are front-loaded and their incidence on the poor is potentially very high, unless programs are explicitly designed to protect the poor.[4] They are not indexed against inflation, they have the least secure jobs, the lowest capacity to survive without employment, and the greatest dependence on publicly provided social services. The benefits of adjustment, on the other hand, are expected to accrue only in the medium and long term as the different components of SAP are gradually implemented and the supply-side responses to SAP come to fruition. A proper assessment of the distributive impact of adjustment should therefore allow a lapse of at least seven or eight years, if not a decade, for these effects to work themselves out and then be reflected in statistical data, which involves further lags in time. From this point of view an assessment of the distributive impact of India's adjustment program, which began only in July 1991, is still premature. It will inevitably capture most of the adverse effects, while the benefits are only beginning to appear. This has to be kept in view in order to place the assessment of this paper in its proper perspective. At the same time, it need not preclude a description of what has actually happened so far.

The second remark relates to the choice of method. There is by now a reasonable literature on assessment of the distributive effects of adjustment. Two approaches have been followed. One approach is the use of model-based counterfactual simulations that attempt to contrast actual distributive outcomes under alternative adjustment scenarios.[5] A problem with this approach is that the counterfactual is not determinate. The models can be closed with different counterfactual policy assumptions and the outcomes can be quite sensitive to the choice of closure. As such, the quantitative comparison of the actual and counterfactual outcome remains indeterminate, though useful qualitative insights can be gleaned from the comparisons. An alternative approach, which has been employed in this paper, is the "before-after" comparison. This approach runs the risk of falling into the familiar trap of *post hoc ergo propter hoc*, or sequence implies causality. Observable distributive outcomes are the "reduced form" net effects of adjustment measures combined with other simultaneous but autonomous events in an economy. Hence, it would be erroneous to attribute distributive outcomes to adjustment policies without properly establishing causality. In order to achieve this, it is necessary to specify *a priori* the possible set of causal linkages affecting a particular outcome, e.g., poverty incidence. The actual operation of each link or chain of linkages can then be verified against observed data in order to establish which potential links were active and which were not.

Such an *a priori* set of possible causal linkages has been presented in Figure 1. The arrows indicate the expected direction of causality. The impact of the "initial causes", i.e., the reform measures or autonomous factors on distributive outcomes, are shown to be mediated mostly through a set of intermediate economic variables, i.e., rural and urban employment, price or wage movements, and public social spending.[6] In all, 32 linkages are

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[4]For counterfactual simulation exercises showing that such protection is possible, see Chand and Shome (1995). Heller et al. (1988) and Bourguignon, de Mello, and Suwa (1991) present case studies that show how this has actually been done in countries like Chile, Ghana, Indonesia, Kenya, Malaysia, etc.

[5]On this approach, see Bourguignon, de Mello, and Suwa (1991) and Robinson (1991). Mundle (1993) illustrates an application of this approach to assess the impact of adjustment on employment in India.

[6]Ideally the impact on ownership of assets and property income should also be included here. However, the focus of this paper is really on poverty groups at the lower end of income distribution, whose control over property would be largely reflected as self employment and captured in the employment variables.

FIGURE 1. Determinants of Distributive Outcomes

DISTRIBUTIVE OUTCOMES

BY GENDER — (32)

BY INCOME GROUP

BY REGION — (31)

(29)

RURAL POVERTY — (26) — (27) — URBAN POVERTY — (28)

(30)

(25)   (24)   (23)

(21)   (22)

| RURAL OUTPUT, EMPLOYMENT & UNEMPLOYMENT | PRICE MOVEMENTS (FOOD) | PUBLIC SOCIAL SPENDING | (19) WAGE MOVEMENTS | (20) URBAN OUTPUT, EMPLOYMENT & UNEMPLOYMENT |

(18)   (17)   (16)

(10)

(11)   (13)   (15)

(1)   (2)   (3)   (4)   (5)   (6)   (7)   (8)   (9)   (12)

(14)

| EXTERNAL DEVELOPMENTS Changes in *Oil prices *Interest rates, *World economic outlook, etc. | MONSOONS, DEMOGRAPHIC CONDITIONS AND OTHER AUTONOMOUS FACTORS | POLITICAL DEVELOPMENTS | DEVALUATION | EXPENDITURE COMPRESSION | TAX REFORM *Direct tax changes *Tariff reduction *VAT *Better enforce-ment | TRADE AND INDUSTRY POLICY *Q.R. reduction *Privatization *Licensing abolition, etc. | FINANCIAL SECTOR REFORMS | LABOR MARKET REFORM |

AUTONOMOUS FACTORS — REFORM MEASURES

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identified. However the level of disaggregation represented here is somewhat arbitrary. For instance, the impact of monsoons, demographic conditions, and other autonomous factors on rural output and employment is shown as a single linkage though, in fact, several different relationships are involved here. Without such aggregation, the set of linkages could be expanded almost endlessly since what we are dealing with here is an extremely complex system where "everything depends on everything else." The aggregation and identification of particular linkages is driven by judgment about which linkages are potentially important in understanding distributive outcomes. This paper is largely devoted to tracing these links, from the initial causes to distributive outcomes.

The third preliminary remark relates to the distinction between a broad policy and its specific variants. The same basic policy can sometimes be implemented in different forms with quite different distributive and other outcomes. For instance, the stabilization package may include a policy of reducing the fiscal deficit. However, fiscal deficits can be reduced by raising revenues as well as cutting expenditure. Expenditure, in turn, can be compressed by, say, reducing expenditure on defense and general administrative services or by reducing interest obligations through sale of public assets to reduce public debt. Alternatively, it can be compressed through cuts in social spending and antipoverty programs. Clearly, the distributive impact of these different variants would be very different. But none of them in particular is a necessary component of the stabilization program. The particular variant chosen would depend on political feasibility and other considerations that may have nothing to do with the policy of deficit reduction *per se*. In assessing the impact of economic adjustment, therefore, it is necessary to carefully distinguish a general policy required by the adjustment program and the specific variant that may be chosen for reasons unrelated to adjustment.[7]

III. Recent Trends in Inequality and Poverty

During the past two decades, not only has the measurement of poverty and inequality become much more refined, but the concepts of poverty and inequality have themselves been widened far beyond an income (commodity) centered metric, to encompass capabilities to achieve various functionings, e.g., living a long and healthy life (Sen 1992). However, as Bardhan (1995) points out, there are operational difficulties in applying this wider concept for purposes of actual measurement of poverty or inequality. Also, poverty/inequality in some of these capabilities may be highly correlated with income poverty/inequality, in which case the latter may be used as a proxy for the former. Hence, in this paper, distributive outcomes have been restricted to the relatively narrow but measurable income concept.

Even here, one can measure different facets of income inequality, such as by income group, by gender, by region, and so forth. Though these three dimensions of income inequality are recognized in Figure 1, the available data for the adjustment period make it difficult to say much about the adjustment impact on gender distribution of income. Evidence on the regional distribution is also quite limited. Hence, this paper has mainly focused

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[7]For a similar argument see Srinivasan (1988). See also Cornia et al. (1987) and Taylor (1988), including the citations in footnote 3, which show how different ways of reducing a fiscal deficit have led to very different distributive outcomes.

on the distributive impact of adjustment across different income expenditure classes, particularly its impact on the incidence of rural and urban poverty.

In India, the main source of information on these outcomes is the National Sample Survey of consumer expenditure. The last year for which data are currently available on the basis of a full quinquennial sample survey is 1987/1988. Data for the 1993/1994 round are still under processing. Estimates based on thin sample annual surveys are available up to 1992. These are not strictly comparable with the quinquennial surveys and may not be as reliable. Nevertheless, the thin sample consumer expenditure surveys do provide some information on inequality and poverty trends before and after the adjustment program initiated in July 1991. Drawing on this data, Gupta (1995) attempted to measure intertemporal changes in expenditure inequality. His data show that the share of the bottom 30 percent and top 30 percent have remained about the same in both rural and urban areas, with the share of the richest 30 percent being roughly double that of the poorest 30 percent. However, the Lorenz ratios show some deterioration in 1992 as compared to 1990/1991 in both rural and urban areas (Table 2).

TABLE 2
Distribution of Consumption Expenditure[a]

Years Share of	Rural				Urban			
	Poorest 30%	Next 40%	Richest 30%	Lorenz Ratio	Poorest 30%	Next 40%	Richest 30%	Lorenz Ratio
1987/1988	15.57	33.29	51.14	0.298	13.33	31.06	55.61	0.353
1988/1999	15.71	33.67	50.62	NA	13.63	32.25	54.12	NA
1989/1990	16.00	34.42	49.58	0.278	13.40	31.08	55.42	0.350
1990/1991	15.96	34.80	49.24	0.271	13.74	32.41	53.85	0.335
1991 (Jul-Dec)	15.79	33.94	50.27	NA	12.89	30.07	57.04	NA
1992 (Jul-Dec)[b]	15.60	33.92	50.48	0.286	13.17	31.70	55.15	0.399

[a] Data are from Gupta (1995).

Using the same data, Tendulkar and Jain (1995) have compiled three different measures of poverty, i.e., the Head Count Ratio (HCR); Poverty Gap Index (PGI); and the Foster, Greer, Thorbecke Index (FGT) which measure, respectively, the prevalence, depth, and severity of poverty.[8]

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[8]For a detailed discussion of these different measures and what they capture, see UNDP-ILO (1993). Tendulkar and Jain (1995) have also generated estimates based on an alternative poverty line. These are not reproduced here, but they show intertemporal movements similar to those based on the official poverty line, shown here in Table 3.

TABLE 3
Poverty Indicators Based on the Official Poverty Line[a]

	Rural			Urban		
	HCR	PGI	FGT	HCR	PGI	FGT
1987/1988	44.88	0.1126	0.0404	36.52	0.0934	0.0338
1988/1989	42.23	0.1020	0.0354	36.98	0.0961	0.0349
1989/1990	37.94	0.0880	0.0295	32.41	0.0803	0.0284
1990/1991	36.55	0.0881	0.0303	32.43	0.0803	0.0288
1991 (Jul-Dec)	42.06	0.1002	0.0339	32.02	0.0790	0.0284
1992 (Jan-Dec)	48.07	0.1259	0.0458	33.87	0.0843	0.0297
1993/1994[b]	39.65		0.0314	30.94		0.0264

[a] Data are from Tendulkar and Jain (1995).
[b] Estimates are from Tendulkar and Jain (1996).

It is evident from Table 3 that the incidence of poverty, in all its dimensions, continued to decline until 1990/1991 and then rose quite sharply in the adjustment years 1991 and 1992, particularly in the rural areas.[9] Subsequently, there has been some improvement. However, even in 1993/1994, the last year for which data are now available, poverty incidence was still higher than in 1991. These estimates have not been disputed so far. Critics and supporters of the adjustment program both agree that inequality and, especially, poverty increased in the early adjustment period. However, it does not automatically follow that this deterioration in the poverty/inequality situation is attributable to adjustment. That depends on whether the processes leading to an increase in poverty incidence were set in motion by the adjustment program or by other autonomous factors identified in Figure 1. Tendulkar and Jain (1995), for instance, argue that the increase in poverty incidence is largely unrelated to adjustment. Mahendra (1995) has claimed, on the other hand, that adjustment measures are an important factor contributing to the rise in poverty incidence. These claims and counterclaims will be addressed in the final section of the paper after analyzing the underlying linkages that may have been at work.

IV. Unemployment and the Wage Rate

Recent research on the factors underlying poverty incidence has identified four distinct, though interrelated, variables as the principal determinants of poverty incidence measured in all its dimensions, i.e., prevalence, depth, and severity.[10] These four mediating variables, represented in Figure 1, are level of employment (or more appropriately, unemployment); wage rates; prices (especially food prices); and public social spending. The movement of each of these variables and their determinants are now analyzed in turn, starting with unemployment.

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[9] Adjustment period refers to the period after adjustment was initiated in July 1991. Note that the observation for 1991 actually refers to the six months period from July to December.

[10] For a summary of the main results of this research, see UNDP-ILO (1993).

Here, we are seriously handicapped by the nonavailability of full sample NSS employment data after 1987/1988. The results of the 1993/1994 full sample survey are not yet available while the annual thin sample data are found to be quite inappropriate for employment estimates.[11] Consequently, the employment/unemployment situation during the 1990s has had to be assessed on the basis of indirect estimates and projections.

For this purpose, employment in year t (N_t) can be estimated as the product of base year (1987/1988) employment N and the rate of growth of employment (g_n)

$$N_t = (1 + g_n)^t N \tag{1}$$

while g_n can be estimated as a product of the rate of growth of output (g_a) and the output elasticity of employment (e)

$$g_n = eg_a \tag{2}$$

such that

$$N_t = (1 + eg_a)^t N \tag{3}$$

It should be emphasized that e is not a demand elasticity but the reduced form relationship between variations in output and employment after various labor market responses to output change such as changes in labor demand, changing supply conditions, wage rate changes, etc. have worked themselves out.

The supply of labor in year t (L_t) is given by

$$L_t = l P_t \tag{4}$$

where l and P_t are, respectively, the labor force participation rate and population in year t.

Unemployment in year t (Ut) can then be derived from equations (1) to (4) as

$$U_t = lP - (1 + eg_a)^t N \tag{5}$$

Distinguishing between short-term SP and long-term SAP, it is evident that the employment effect of SP measures such as expenditure compression and deficit reduction would be transmitted more or less immediately through changes in the rate of growth of output. The impact of SAP, on the other hand, would be realized only over an extended period of time. Structural adjustment policies are intended to remove market rigidities and improve allocative efficiency in both labor and commodity markets. The market-driven adjustment of output structures to a labor-abundant factor endowment is likely to raise the demand for labor. This would be reinforced by greater labor market flexibility and financial sector reforms that would allow wage-rental ratios to better reflect factor scarcities. On

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[11]The thin sample NSS data are internally inconsistent. The data on employment and work force participation rate do not square with the unemployment data. For 1990/1991, the weekly status work force participation rate (WFPR) is found to exceed the labor force participation rate (LFPR), implying a negative unemployment rate. Also, estimates of the WFPR and LFPR or the employment elasticity estimates derived from thin samples are highly volatile and quite out of line with the behavior of the variables as observed from the full quinquennial surveys.

the other hand, improvements in efficiency and labor productivity would require less labor per unit of output. These different effects, working their way through the labor market, would ultimately impact on the output elasticity of employment. It is difficult to say *a priori* what would be the net effect. However, it is easy to see that these are long-term processes that would take several years to work themselves out, especially since most of the labor and financial market reforms are yet to be introduced (Table 1). Adjustment measures could also perhaps influence the labor force participation rate or the rate of growth of population via their effects on the level and quality of education and health services. However, these linkages also would operate as very long-term processes.

In the short term, therefore, estimates of employment/unemployment can be generated from estimates of population (P) and the rates of output growth (g_a) based on base year values of l, N and e. Of course, output growth would depend on SP as well as autonomous factors such as the state of the weather, etc. Table 4 gives three alternative unemployment estimates of our own, computed following the above method, and compares this with an official Planning Commission estimate (estimate 4). Estimate 1, prepared by Mundle (1993), was an *ex ante projection* of usual (principal plus secondary) status employment and unemployment based on projected rates of output growth and population estimates available at the time. The same method has been followed in estimate 2 by Mundle and Tulasidhar, using actual rates of output growth and the currently available estimates of population. Estimate 3 by Mundle and Tulasidhar follows the same procedure as estimate 2, but it estimates unemployment on a weekly status basis.[12] This estimate can be compared with the official Planning Commission estimate which also measures employment on a weekly status basis.

Since the actual rates of output growth have been a little higher, and population growth a little lower than those assumed in Mundle 1993 (estimate 1), our revised estimates of unemployment (estimate 2) are also slightly lower. For 1993/1994, for instance, as compared to the earlier estimate of 19 million (5 percent of labor force), we now estimate usual status open unemployment to have been around 17 million person-years or about 4.5 percent of the labor force. These estimates of unemployment are somewhat more conservative than the official estimate of unemployment, as will be evident from comparing the Mundle-Tulasidhar Weekly Status Unemployment estimate with the corresponding Planning Commission estimate.[13]

What can be inferred from these estimates about the impact of adjustment? Our estimates show that the open unemployment rate has risen from a little over 2 percent prior to adjustment (1990/1991) to around 4.5 percent at present. Moreover, this has happened over a period in which the monsoons have been good, and there has been robust growth of employment in agriculture, as has been pointed out by the Planning Commission (Government of India 1995c).

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[12]In order to capture the widespread phenomenon of underemployment, the NSS surveys present estimates of employment using alternative concepts. A person who reports as employed for most of the year is counted as Usual Status Employed in the survey. A person employed at any time during the reference week is counted as Weekly Status Employed. A person reporting employed for any time on a given day of the reference week is counted as Daily Status Employed for that day.

[13]Data from the 50th Round of NSS indicate a Daily Status unemployment rate of 6 percent for 1993/1994. However, this cannot be readily compared with the Weekly Status or Usual Status unemployment rates cited in Table 4. The latest Economic Survey of 1996/1997 gives no estimates of either poverty or unemployment and simply states that the estimation methods are being reviewed (Government of India 1997, 14).

TABLE 4

Trends in Employment and Unemployment

(Un)Employment/Million

	1983	1987/ 1988	1988/ 1989	1989/ 1990	1990/ 1991	1991/ 1992	1992/ 1993	1993/ 1994	1994/ 1995
Mundle (1993): All usual status $									
Labor Force		334	341	348	356	357	372	380	
Employed		322	333	339	345	343	354	361	
Unemployed		12	8	9	11	14	18	19	
Rate of Unemployment		3.6	2.4	2.6	3.1	3.9	4.8	5.0	
Mundle-Tulasidhar (1995): All usual status $$									
Labor Force		338	345	352	360	367	374	381	387
Employed		326	338	346	352	353	358	363	370
Unemployed		12	7	6	8	14	16	17	17
Rate of Unemployment		3.6	2.1	1.8	2.2	3.8	4.2	4.5	4.5
Mundle-Tulasidhar (1995): Weekly status @									
Labor Force	279	294	300	306	313	319	325	331	337
Employed	265	281	292	300	306	307	311	316	323
Unemployed	14	13	8	7	8	13	14	15	15
Rate of Unemployment	5.0	4.5	2.8	2.2	2.5	4.0	4.3	4.5	4.3
Planning Commission (1995): Weekly Status #									
Labor Force		299	304*	309*	314*	319	326	333	340
Employment		285	289	293	297	302	308	313	321
Unemployed		14	15*	16*	17*	17	17	19	19
Rate of Unemployment		4.8	5.0*	5.1*	5.3*	5.4	5.4	5.8	5.6
Employment in APP**		2.4			3.2	2.7	2.9	3.8	3.5
Employment in APP as % of Unemployed (Planning Commission)		17.0			19.3	15.6	16.5	19.5	18.2
GDP at factor cost (1980/81 prices)	144,865	170,322	188,461	201,453	212,276	214,156	223,438	233,042	245,626
GDP Growth Rate (%)		4.13	10.65	6.89	5.37	0.89	4.33	4.30	5.40
Population	735.6	795.1	811.3	827.4	846.3	862.2	878.6	894.6	910.89

Notes:

LFPR and WFPR denote labor force and work force participation rates.

$ Reproduced from High Growth Scenario cited in Mundle (1993).

$$ Using LFPR of 0.4254; usual status employment elasticity of 0.34 estimated for 1983–1987/88; actual GDP growth rates and latest official population projections. For the base year 1987/88 employment has been estimated using the WFPR of 0.4099 for that year.

@ Using LFPR of 0.3703; weekly status employment elasticity of 0.37 estimated for 1983–1987/88; actual GDP growth rates and latest official population projections. For the base year 1987/88 employment has been estimated using the WFPR of 0.3535 for that year. For 1983 estimates are taken directly from NSS.

Derived from Government of India, Planning Commission (1992, 1995c).

* Interpolated

** Antipoverty programs of the government. These data are given in million person–days of employment. They have been converted into million person-years by assuming that 276 person-days of work is equal to one person-year of employment.

Sources: Government of India (1992, 1994a, 1995c) and Mundle (1993).

The industrial sector, on the other hand, experienced a major recession as a consequence of aggregate demand compression under the stabilization program, from which it is now recovering (Government of India 1995a). Chandrashekhar and Sen (1995) have pointed out that the entire increase in employment in the early 1990s was accounted for by agriculture, while overall nonagricultural employment actually declined, with the increase in liberalized trade and financial services being more than offset by decreases in other nonagricultural activities. They attribute this to the cutback in public expenditure, the decline in real investment, and the industrial recession. It would seem to follow, therefore, that adjustment did lead to an increase in unemployment as had been expected (Mundle 1993).

At the same time, this increase alone cannot account for the trend reversal and sharp increase in poverty incidence that has been observed in the post-adjustment period. This is especially so because the increase in poverty incidence has occurred mainly in the rural sectors, even though employment growth in agriculture has been quite robust. This is partly explained by the fact that the incidence of unemployment increased the most among rural nonagricultural households as emphasized by Chandrashekhar and Sen (1995). An earlier study had shown that rural nonagricultural employment is indeed quite sensitive to public expenditure policies (UNDP-ILO 1993). Jobs in the urban organized sector are less sensitive because they are more secure and better protected by law as well as trade unions. However, if unemployment is the variable through which the distributive impact of growth is transmitted, and growth is distribution-neutral (Datt and Ravallion 1994), then the absolute level of per capita output would have had to decline significantly during the period in order to account for the increase in poverty incidence. This did not happen. Thus the rise in unemployment by itself could not have accounted for a rise in the incidence of poverty. At the same time, it was clearly a contributory factor and must be counted as one of the adverse distributive effects of adjustment.

That unemployment would increase had been anticipated. Some economists even attempted to estimate the likely level of unemployment, on the basis of information then available, costed what might be a minimal relief employment scheme, and demonstrated how this might be financed within the fiscal deficit target set by the program (Mundle 1993). They argued that a safety net program of this kind was essential if the adjustment program were to be made socially and politically sustainable. The issue was picked up by the media and discussed both inside and outside parliament. However, at the time the government tended to dismiss these concerns (Chandrashekhar and Sen 1995). In fact the allocation to these antipoverty employment programs (APP) was initially reduced and the volume of relief employment, which was limited to begin with, declined further (Tables 4 and 7).

This was in sharp contrast to the policy toward the specific problem of potentially redundant labor in the organized sector. SAP envisaged reforms in the public sector, combining restructuring of some public enterprises, privatizing others, and closing down basket cases. A range of job-protective legal provisions, especially the Industrial Relations Act, which disallowed such retrenchment except in very small units, made public sector reform difficult. Moreover, the reform measures were strongly resisted by powerful organized-sector trade unions affiliated with the ruling party as well as opposition parties. In response, the Government quickly put together the Voluntary Retirement Scheme, which was intended as a safety net for retrenchment. Under the scheme, certain categories of early retiring workers were eligible for their usual retirement package plus 45 days of pay per year of service.

Without the required information, it is not possible to get firm estimates about the number of surplus workers in the organized sector. All such estimates are based on various assumptions to fill in missing information. Estimates vary, depending on the assumptions made. Some calculations suggest that redundant labor might account for about 1.3 million, in the public and private sector combined, while other calculations place this figure at 1.9 million (Mundle 1994a). The value of the compensation package would vary from one industry to another. However, on a conservative assumption of Rs 100,000 per retiring worker, full implementation of the program would cost between Rs 130 billion to 190 billion. The actual outlay was reported to be only about Rs 36 billion. Though grossly inadequate, the alacrity with which this safety net was put together reflects a markedly different policy toward redundancy among organized-sector labor, a well-organized and unionized interest group, as compared to the larger problem of unemployment in the economy as a whole. So far, the government has also proceeded with great caution in matters of privatization or public sector restructuring, labor market reform, and actual retrenchment in the organized sector.

Though the larger problem of unemployment was not targeted by any special interest group, like redundancy in the case of unionized organized sector labor, it nevertheless remained an important issue in the political discourse on adjustment, thanks to India's open democratic system and a free and alert press. Eventually, the government reversed its initial policy and attempted to raise the allocations for antipoverty employment programs from the third year of adjustment. By 1993/1994, the total volume of employment offered under these programs stood at 3.8 million person-years, exceeding the preadjustment level of 3.2 million person-years in 1990/1991 (Table 4). Though still quite limited in scale, these programs are by no means insignificant. As shown in Table 4, they absorb almost a fifth of those openly unemployed, thereby considerably reducing the slack in the labor market. It also raises the opportunity cost of labor for those who can access these programs, thereby setting a floor to wages in the rural labor market. It is now quite well known that antipoverty employment schemes were primarily responsible for actually reducing the incidence of poverty in a year of severe drought in 1987/1988, something that had never happened before (UNDP-ILO 1993).

Returning to questions of rising poverty incidence in 1991/1992 and 1992/1993, if unemployment by itself cannot account for this, what is the alternative explanatory factor? As a first step in the search for an answer, it is interesting to look at the movement of agricultural wages. Table 5 presents data on the movement of nominal and real wages, represented here by the peak season wages for ploughing operations in 13 major states for which suitable data was available. It will be evident from this table that while nominal wages increased by almost 78 percent between 1990 and 1995, the real wage rate hardly changed. The increase in nominal wages was almost entirely offset by an increase in the agricultural workers' cost of living. Data on wages of rural nonagricultural workers for the relevant period is not yet available. However, it is arguable that since rural employment increased mainly in agriculture while it stagnated in nonagriculture, nominal wages of rural nonagricultural workers are unlikely to have increased as much as in agriculture. On the other hand, the increase in their cost of living would have been comparable to that of agricultural workers, implying a decline in their real wage rates.

TABLE 5
Peak Wage Movements in Agriculture (Ploughing)
(13 Major States Each)

	1990	1991	1992	1993	1994	1995
Nominal wages Rs.*	18.62	20.02	25.17	27.36	31.35	33.09
ACPI (Base 1960) #	726	792	967	1,063	1,181	1,239
Real wages Rs. (Base 1960)	2.56	2.53	2.60	2.57	2.65	2.67
Index of real wages (1990=100)	100	99	101	100	104	104

Notes:
@ Excludes Bihar and West Bengal.
* State-specific average peak (between June and August) ploughing wages have been aggregated using the distribution of agricultural labor in 1991. State-specific average wage is a simple average of wages reported in different centers in a state.
# Aggregated from state-specific ACPI using agricultural labor in 1991 as weights, where ACPI denotes consumer price index for agriculture workers. This index need not be the same as all-India ACPI.

Source: *Agricultural Situation in India* (various issues).

This combination of declining real wages and increase in the incidence of unemployment in rural nonagricultural labor households is one pair of factors that accounts for the increase in incidence of rural poverty. However, there may also have been some increase in underemployment, which is not reflected in the open unemployment estimates. More importantly, the increase in the cost of living would have adversely affected all households below or close to the poverty line, including the self-employed, not just rural labor households dependent on wage income.

V. The Price of Food

What accounts for the rise in the cost of living? The two key years that matter here are the first two adjustment years, 1991/1992 and 1992/1993, when there was a significant increase in poverty incidence. In these two years, the consumer price index for rural areas (ACPI) went up by about 34 percent, while the corresponding consumer price index for urban workers rose by 24 percent (Table 6). Food grains are the dominant and single largest item in the weighting diagram of these price indices, and the sharp increase in cost of living during these two years largely reflects an equally sharp increase in foodgrain prices, which rose by about 21 percent in 1991/1992 and another 14 percent in 1992/1993.

It has been noted earlier that poverty incidence is highly sensitive to food price movements. The 35 percent increase in foodgrain prices during the first two adjustment years is probably the single most important factor accounting for the increase in poverty incidence. Why did foodgrain prices rise so sharply in this period? Tendulkar and Jain (1995) have mentioned, among other factors, the dip in foodgrain production in 1991/1992. However, as shown in Table 6, this dip affected the actual availability of foodgrains only

in 1992/1993. The foodgrain price increase was sharpest in 1991/1992 when foodgrain availability actually increased by about 10 percent compared to the previous year. The major factor, which they have also identified, is the very large increase in procurement prices during this period.

The administered procurement price of wheat and paddy went up by 47 percent and 32 percent, respectively, during these two years. As is well known, hikes in the assured foodgrain procurement price also drive up prices in the open market since procurement accounts for a large proportion of the total marketed surplus of food grains. With a badly targeted public distribution system (PDS), large sections of poor consumers in rural areas were exposed to these market prices and some of them previously above the poverty line were evidently pushed below. Not that access to the PDS could have protected them, because PDS issue prices were themselves pushed up in line with procurement prices in order to cap the volume of food subsidy as part of deficit reduction under the SP. Ironically, this measure turned out to be self-defeating. While there were huge deliveries of grain to the government corporation in response to attractive procurement prices, consumers had little interest in commensurate purchases from the PDS since its issue prices now approximated market prices. The net result has been a huge accumulation of food stocks, amounting to around 36 million tons. The carrying cost and interest charges on food credit are now so high that, despite the increase in PDS issue prices, the food subsidy per quintal of grain delivered through the system is now more than twice what it was on the eve of the adjustment program (Table 6).

The PDS story notwithstanding, the fact remains that the principal factor driving up food prices was a political decision to drastically raise procurement prices and this in itself had little to do with the adjustment program, except indirectly as Tendulkar and Jain have claimed. With devaluation, Indian grain prices fell much below world prices and the farming lobby was also hostile to the tentative moves to reduce the fertilizer subsidy under the program. These clearly contributed to the pressures toward a large hike in the procurement price of foodgrains. However, the decision to do so was essentially a political decision driven by farming interests and not an essential component of the adjustment program.

On the other hand, the adverse distributional effects of this move could have been significantly offset by adequate counter measures to protect the poor, either integrated in the SP package itself or as add-on measures like the antipoverty employment program. As pointed out above, the impact of such relief programs on the rural labor market and poverty incidence is quite significant. These options for protecting the poor were not adequately exploited. On the contrary, such program and other social spending were initially cut back and only restored a couple of years later in response to wider democratic pressures.

TABLE 6
Inflation, Agricultural Production, and Food Price Movement

1	Net Food grains Availability (million tons) 2	WPI Food 3	Procurement Prices		Average # Issue Price/Quintal			CPI Industrial Workers 9	CPI Agricultural Workers 10	Food Subsidy*	
			Paddy (Rs) 4	Wheat (Rs) 5	Rice (Rs) 6	Wheat (Rs) 7	Average (Rs) 8			per Qtl. (Rs) 11	% of price 12
1980/1981	101.4	91	105	117	175	145	158.3	81	409	4.80	3.0
1987/1988	134.8	141	150	166	239.0	202.2	221.6	149	629	10.27	4.6
1988/1989	130.8	162	160	173	240.0	204.0	221.9	163	708	12.85	5.8
1989/1990	147.2	165	185	183	244.0	204.0	226.1	173	746	15.63	6.9
1990/1991	144.8	179	205	225	355.0	228.0	294.8	193	803	16.38	5.6
1991/1992	158.6	216	230	275	377.0	249.6	317.2	219	958	15.22	4.8
1992/1993	148.4	242	270	330	392.0	295.5	349.4	240	1,076	16.70	4.8
1993/1994	149.8	261	310	350	457.0	344.4	412.2	258	1,114	37.56	9.1
1994/1995	154.2	293	340	360	537.0	402.0	489.3	284	1170	38.75	7.9
1995/1996	167.8	313	360	380	537.0	402.0	451.7	313	1295	38.75	8.6

Indices (1990/91 = 100)

1980/1981	70	51	51	52	49	64	54	42	51	29	55
1987/1988	93	79	73	74	67	89	75	77	78	63	83
1988/1989	90	91	78	77	68	89	75	84	88	78	104
1989/1990	102	92	90	81	69	89	77	90	93	95	124
1990/1991	100	100	100	100	100	100	100	100	100	100	100
1991/1992	110	121	112	122	106	109	108	113	119	93	86
1992/1993	102	135	132	147	110	130	119	124	134	102	86
1993/1994	103	146	151	156	129	151	140	134	139	229	164
1994/1995	108	164	166	160	151	176	166	147	146	237	143

Growth Rates

1990–1995	1.85	10.36	13.48	12.47	10.90	15.23	13.50	10.14	9.87	24.03	9.27

Notes.

Food grains refer to rice plus wheat.

CPI and WPI denote consumer and wholesale price indices, respectively.

\# Annual average of monthly issue prices. Price of Food Grains (column 8) is the weighted average price of rice and wheat issued through the public distribution system.

* Food subsidy per quintal of grains (column 11) is computed by dividing central government's expenditure on food subsidy with the total quantity or rice and wheat distributed through the public distribution system. Subsidy in the price of food grains (column 12) has been derived by expressing subsidy per quintal (column 11) as percentage of average issue price of food grains (column 8).

Source: Government of India, *Economic Survey* (various issues).

VI. Fiscal Policy and Public Social Expenditure

Public social spending is the last of the four key mediating variables, identified in Figure 1, through which the impact of adjustment is transmitted to distributive outcomes. In order to discuss the operation of this linkage, it is necessary to situate public social spending within the larger context of overall fiscal trends in the adjustment period.

Starting with revenues, it is noted that the central government revenue:GDP ratio came down from nearly 13 percent in 1989/1990 to less than 10 percent by 1993/1994, mainly on account of the reduction of customs duties and excise rates as part of the tax reform program (Table 7). This is an example of conflict between the longer term objectives of SAP and the short-term goals of stabilization. The fiscal deficit, which had been reduced quite sharply from 8.3 percent of GDP in 1990/1991 to less than 6 percent in 1991/1992 and 1992/ 1993, again rose to around 7 percent in 1993/1994, mainly on account of the decline in the revenue:GDP ratio, thereby partially undermining the intended contractionary fiscal policy stance.[14]

The decline in revenue notwithstanding, tax reform is one of the most successful components of SAP, and this has also had a favorable distributive outcome. The principles guiding the Indian tax reforms have included simplification, transparency, and better enforcement; lower rates, fewer exemptions, and widening the tax base for direct taxes; narrowing the rate spread, and minimizing cascading effects by moving toward VAT in the case of indirect taxes. These principles have been driven by the objective of efficient revenue collection, i.e., adequate revenue mobilization with minimal distortion. The distortions have been considerably reduced and once the system adjusts to the changes, it is expected that the tax ratio will recover. This is also borne out by the recent buoyancy of direct tax receipts. Between 1990/1991 and 1994/1995, the receipts from corporate and personal income tax have risen by 148 percent and 104 percent, respectively. Additionally, the tax reforms have also contributed to equity by gradually raising the share of direct taxes, a tendency that is likely to be reinforced. This is because the poor have to share the burden of indirect taxes while being exempted from the burden of direct taxes.

Unlike measures on the revenue side, some adjustment measures on the expenditure side of the budget have tended to be regressive. The rise in the fiscal deficit, as a consequence of the decline in tax ratios, within two years after adjustment conceals the continuing compression of expenditure. From nearly 23 percent of GDP in 1989/1990, the central government public expenditure ratio has been reduced to less than 17 percent. Meanwhile, a deteriorating public debt situation, compounded by increasing resort to borrowing from the market instead of the central bank, has pushed up the share of interest payments from about 19 percent of government expenditure in 1989/1990 to over 30 percent by 1995/1996. This has required a double compression on some other items of public expenditure.[15] The expenditure items so squeezed in different years have included subsidies, defense expenditure, the antipoverty employment program, capital expenditure under the head economic services, and transfers to states.

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[14]The intended stance is evident from the *ex ante* budgetary targets, which aimed at much lower fiscal deficit ratios than what was realized.

[15]A compression arises even for items that maintained their share of central government expenditure since this aggregate itself was compressed relative to GDP. A further compression arises in the case of items whose shares of central government expenditure have been reduced.

TABLE 7
Trends in Public Expenditure: Central Government

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995-96 R
Fiscal deficit (billion)	356	446	363	402	603	577	650
Fiscal deficit to GDP (%)	7.79	8.33	5.89	5.69	7.44	6.05	5.92
Expenditure to GDP (%)	20.34	19.66	18.06	17.37	17.52	16.85	16.66
Revenue to GDP (%)	11.45	10.26	10.71	10.50	9.32	9.55	10.03
Share of direct taxes (%)	15.8	14.2	13.8	18.7	22.6	27.1	26.1

Percentages of Total Expenditure

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995-96 R
Total expenditure	100.00	100.00	100.00	100.00	100.00	79.73	81.07
Transfers to states @	18.74	19.44	19.06	17.71	16.94	19.55	18.50
Economic services #	18.88	15.53	14.12	14.74	15.06	15.09	14.33
Rural development *	2.98	4.43	3.92	4.69	5.11	4.19	4.24
Rural employment *	2.26	1.89	1.87	2.36	2.63	2.88	3.15
Spent through states	0.00	1.89	1.87	2.07	1.93	0.72	0.44
Social services	5.13	5.10	5.29	5.22	5.57	6.29	6.68
Subsidies	11.27	11.55	11.00	9.78	9.07	7.89	7.20
Food	2.67	2.33	2.56	2.28	3.90	3.14	3.05
Fertilizer	4.89	4.17	4.31	4.73	3.22	3.18	3.14
Interest payments	19.11	20.42	23.87	25.34	25.87	27.11	30.21
Defense	15.52	14.65	14.76	14.34	15.40	14.51	14.81
Other expenditure	11.35	11.43	10.03	10.80	10.17	8.83	7.84

@ Excluding shared taxes and transfers for employment programs
# Excludes subsidies
* Central government's total spending
R Revised estimates

Source: Union Budget Documents

Trends in defense spending are driven by security considerations, and in any case, cuts here are probably beneficial for distributional purposes.[15] The reduction in subsidies relative to total expenditure does not apply to the food subsidy. But the latter was capped for a few years in proportion to the general compression of public expenditure. This component has been allowed to rise again in the last couple of years, but it is being offset by a squeeze on the fertilizer subsidy. While on the whole this is desirable, with the bulk of the fertilizer subsidy accruing to large farmers, it has been hard on small and marginal farmers who have not been successfully protected against this cut. The expenditure on antipoverty

[15]Defense spending was subsequently increased and there were other tax and expenditure changes as well in the new budget launched in April 1998, while this paper was under processing for publication.

TABLE 8
Allocation of Government Expenditures for Social Sectors
(Center and States)

		Education	Health and Family Welfare*	Housing & Urban Development	Social Welfare	All Social Sectors	Rural Development	Total Expenditure All Heads
Total outlay# Rs. million at current prices								
Center and states	1989/90	153,624	65,914	13,721	39,475	294,731	54,082	1,387,970
	1990/91	173,781	74,964	15,379	46,049	334,102	51,474	1,562,257
	1991/92	192,038	84,021	18,861	53,210	374,377	55,373	1,783,098
	1992/93	214,659	93,200	19,280	59,339	414,681	62,978	2,003,496
	1993/94	243,415	108,793	20,344	65,109	469,208	85,835	2,272,986
	1994/95 R	284,133	119,178	24,706	80,238	554,799	117,984	2,646,249
Percent of Total Expenditure								
Center #	1989/90	2.29	0.87	0.40	0.87	6.87	3.68	100.00
	1990/91	2.25	0.90	0.45	0.76	6.96	0.66	100.00
	1991/92	2.22	0.86	0.45	0.81	6.96	0.70	100.00
	1992/93	2.15	0.89	0.50	0.81	6.82	0.63	100.00
	1993/94	2.13	0.86	0.37	0.92	6.78	1.69	100.00
	1994/95 R	2.19	0.32	0.38	0.94	7.03	3.74	100.00
States	1989/90	20.04	8.71	1.59	4.86	35.90	4.12	100.00
	1990/91	19.30	8.39	1.48	4.97	34.68	5.72	100.00
	1991/92	17.95	7.94	1.57	4.81	32.79	5.12	100.00
	1992/93	18.04	7.86	1.36	4.80	32.56	5.29	100.00
	1993/94	18.10	8.17	1.35	4.54	32.59	5.58	100.00
	1994/95 R	17.33	7.73	1.36	4.65	31.72	5.02	100.00
Center and states	1989/90	11.07	4.75	0.99	2.84	21.23	3.90	100.00
	1990/91	11.12	4.80	0.98	2.95	21.39	3.29	100.00
	1991/92	10.77	4.71	1.06	2.98	21.00	3.11	100.00
	1992/93	10.71	4.65	0.96	2.96	20.70	3.14	100.00
	1993/94	10.71	4.79	0.90	2.86	20.64	3.78	100.00
	1994/95 R	10.74	4.50	0.93	3.03	20.97	4.46	100.00
Percent of GDP								
Center and states	1989/90	3.76	1.61	0.34	0.97	7.21	1.32	33.96
	1990/91	3.64	1.57	0.32	0.96	6.99	1.08	32.70
	1991/92	3.47	1.52	0.34	0.96	6.77	1.00	32.26
	1992/93	3.40	1.48	0.31	0.94	6.57	1.00	31.76
	1993/94	3.33	1.49	0.28	0.89	6.41	1.17	31.06
	1994/95 R	3.31	1.39	0.29	0.93	6.46	1.37	30.83
Share of States in Total Sectoral Expenditure								
States	1989/90	89.6	90.7	79.7	84.6	83.7	52.3	49.5
	1990/91	90.3	91.0	78.2	87.7	84.4	90.4	52.0
	1991/92	90.6	91.6	80.7	87.7	84.9	89.7	54.3
	1992/93	90.8	91.1	76.0	87.4	84.8	90.8	53.9
	1993/94	90.8	91.7	80.7	85.2	84.8	79.3	53.7
	1994/95 R	91.1	96.9	82.1	86.5	85.4	63.5	56.4

Notes:

R Revised budget estimates

* Includes: Medical, Public Health, Family Welfare, Water Supply and Sanitation

Center's own expenditure, excludes transfers to states; "states" includes all states and union territories

Source: Government of India (1994b).

employment programs was significantly squeezed in absolute terms for a couple of years and has since been restored. On balance the expenditure compression measures were regressive during the first two years of adjustment. Moreover, expenditure measures are known to have a stronger distributive effect than revenue measures (Gillis 1989). Hence it is likely that the net distributive impact of fiscal measures was negative.

The adverse distributional effects of the compression of food subsidies and the employment program, and the role of democratic processes in ensuring the restoration of these cuts, have been discussed earlier. It only remains to be added here that cuts in capital expenditure under economic services—a large part of which includes wage payments to construction workers—have also had an adverse effect on poverty, via the foregone employment of nonagricultural labor. However, this linkage is less visible. Hence cuts in capital expenditure have not been politically as sensitive as the food subsidy or the antipoverty employment programs. The squeeze on capital expenditure continues. The share of government expenditure on economic services has been cut down quite drastically from nearly 19 percent in 1989/1990 to around 15 percent for the past few years, and it is sought to be reduced further to about 14 percent in the budget for the current year.

Central expenditure on social services has not been squeezed, except in so far as such expenditure is included in the transfers to states. As explained below, expenditure on social services like health and education is mainly undertaken by the state governments and it will have to be discussed taking this into account. Transfers to the states, other than employment programs, were curtailed during 1992/1993 and 1993/1994, partly to accommodate the recovery of spending on the employment programs. These have now been restored. However, the center's expenditure on employment program, which were being routed through the states for a few years, are now being disbursed by the center (Table 7).

These funds are now being transferred directly to local governments after the third tier of government became effective following the Panchayati Raj constitutional amendment. The same applies to a new District Primary Education Program, which has been initiated in districts with particularly low female literacy and will eventually cover all districts. The disbursement to the states may remain restricted on account of these programs. This rearrangement has important implications for federalism. On the one hand, it may fiscally weaken the states. On the other hand, direct disbursement of these funds to local governments will considerably strengthen the process of decentralization and empowerment at the level of local governments, which are likely to be much more accountable and responsive to the beneficiaries of these programs. This is an important institutional development that will have major implications for all distributive outcomes, i.e., by gender, region, and income groups. However, it is an autonomous political development which is not directly related to the adjustment programs.

The discussion of public expenditure has been confined so far to the central government. A proper analysis of public expenditure on social services like education and health must also include the expenditure of the state governments. As shown in Table 8, the states account for about 85 percent of total public expenditure on social services and over 90 percent of the public spending on education and health. The main pattern which emerges from the consolidated picture of this table is one of stability of the share of social expenditure in total public expenditure. Relative to GDP, total central and state governments' expenditure on social services declined slightly from 7.2 percent to 6.5 percent of GDP between 1990/1991 and 1994/1995. This is also true of individual items like expenditure on

education, health, housing and urban development, and social welfare. However, since GDP growth came down sharply at the outset of adjustment while inflation increased, it is arguable that public social expenditure declined even more in real per capita terms during the early adjustment period.

This was unfortunate in the South Asian context because even under normal conditions the levels of public social expenditure are abysmally low, even compared to other developing countries. Typically, public social expenditure amounts to around 20 percent of GDP in developing countries and around 30 percent in OECD countries, the difference being mainly accounted for by large welfare spending in OECD countries. As compared to these norms, the record of India and other South Asian countries is very poor, Sri Lanka being a remarkable exception. But this, of course, has nothing to do with adjustment. If anything, the resources released by trimming wasteful and inefficient government spending in many areas better left to the market, as part of the longer term SAP, could be reallocated toward an improvement of this record (Mundle 1994b).

VII. The Regional Impact of Adjustment

In the absence of gender-specific data from a full sample NSS survey on employment and wage rates, or gender-specific data on human development indicators for the adjustment period, it is not yet possible to comment on the distributive impact of adjustment by gender. However, a couple of limited observations can be made on the regional impact of the program. The public social expenditure data analyzed above has been reclassified in Table 9. Social expenditure trends in real terms have been presented for rich, poor, and middle-income states. After declining in real terms during the first two years of adjustment, total public social expenditure recovered in 1994/1995.[16] However, compared to 1990/1991 while it was 12 percent and 5 percent higher in the rich and middle-income states, respectively, it was only 3 percent higher in the poor states. Allowing for population growth, it was significantly lower in per capita terms, reflecting the inability of the poorer states to compensate for the compression of central transfers.

Sectorally, the same pattern is reflected in both education and health, though more sharply in the former. Here public expenditure in real terms increased by 12 percent between 1990/1991 and 1994/1995 in the richer states. In fact, there was no compression at all during the initial adjustment period. By contrast, it fell by about 10 percent during the first three years of reform in the poorer states. Although revised budget estimates indicate a complete recovery, in per capita terms this would imply at least a 6 percent fall in the outlay. This regressive pattern is partly attributable to the fact that a large component of central transfers to education and health are available on a matching grant basis and therefore not available to poorer states that are not able to mobilize enough resources of their own. In the health sector, moreover, the compression of transfers has mainly fallen on public health expenditure rather than expenditure on medical services (Tulasidhar 1993). Since the former is more important for the health status of a population, this implies an adverse effect on the health status of populations in poorer states.

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[16]Unfortunately, the recovery has not kept pace with population growth, implying a decline in per capita terms in the poor and middle-income states.

TABLE 9
Index of Government Current Expenditure on Social Services
(at 1981/82 prices)

	1990/91	1991/92	1992/93	1993/94 R	1994/95 R
Health #					
Poor states	100	98	97	102	104
Middle-income states	100	95	97	104	106
Rich states	100	98	101	105	105
All states	100	97	98	104	106
Education					
Poor states	100	91	96	96	100
Middle-income states	100	97	97	107	107
Rich states	100	103	104	111	112
All states	100	97	99	104	107
All Social Services*					
Poor states	100	96	98	98	103
Middle-income states	100	98	97	104	105
Rich states	100	101	102	106	112
All states	100	98	98	103	107

Notes:

"Poor" states include Bihar, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh; "Middle-income" states include Andhra Pradesh, Assam, Karnataka, Kerala, Tamil Nadu, and West Bengal; and "Rich" states include Gujarat Haryana, Maharashtra, and Punjab. States have been classified by per capita State Domestic Product.

\#   Includes medical and public health and family welfare

*   Includes among others Education, Health, Housing and Urban Development, and Social Welfare

R   Revised estimates

Source: RBI Bulletin (various issues).

Finally, some evidence is now available on how the liberalized investment environment is affecting the regional flow of private industrial investment. Table 10 compares the share of factory sector employment up to March 1991, prior to adjustment, with shares of employment in proposed new industrial projects during the adjustment period 1991 to 1995. The poorer states have, even in the past, had a low share of industrial employment at about 22 percent as compared to their population share of about 40 percent. This share has not been adversely affected by adjustment. Their share of employment in proposed new projects remains more or less the same at 22 percent. On the other hand, the changes in the shares of the rich and middle-income states are quite dramatic. The employment share of rich states in new projects at almost 49 percent is much higher than their preadjustment share of 33 percent. This increase is almost entirely at the cost of the middle-income states. Their employment share in new projects at 24 percent is about half their preadjustment share of 42 percent.

Pulling together the data on the regional distribution of public social spending and private industrial employment, it has to be concluded that on the whole, adjustment has had a negative effect on interregional distribution. It has increased the inequality of publicly provided health and education services between rich and poor states. The rich states have also considerably enhanced their shares of new industrial investment and employment, here mainly at the cost of the middle-income states.

TABLE 10
Distribution of Industrial Employment in the Reform Period

	Population Share 1991 (End-March 1991)	Factory Sector Employment Share (1991-1994)	Share of Proposed Employment in New Projects (number)
Poor states	39.86	21.86	21.98
Middle-income states	35.37	42.41	21.76
Rich states	19.35	32.66	49.59
All states	100.00	100.00	100.00

Notes:

"Poor" states include Bihar, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh; "Middle-income" states include Andhra Pradesh, Assam, Karnataka, Kerala, Tamil Nadu, and West Bengal; and "Rich" states include Gujarat Haryana, Maharashtra, and Punjab. Column totals do not add up to 100 because of excluded states that account for about 5.42 percent of the population.

Source: Government of India (1995b).

VIII. Conclusion: The Political Economy of Adjustment

In this paper an attempt has been made to assess the distributive impact of adjustment in India. The exercise has been challenging for a number of reasons. First of all distributive outcomes are not exclusively traceable to adjustment policies. Along with these policies there have been other simultaneous but autonomous developments in the economy that have also had distributive effects. Disentangling these cause–effect linkages is not an easy task methodologically. The counterfactual simulation approach and the before-after comparison of actual outcomes both have their limitations. Also, the data available at this point allows us to say very little about the distributive impact by gender, for instance, and only a couple of observations can be made regarding the regional impact. Most of the paper is therefore confined to an analysis of the distributive impact in terms of income groups, especially the impact on the incidence of poverty.

Here, too, the paper has been constrained by its timing. The sequencing of positive and negative distributive effects of an adjustment program is not symmetric. The negative effects, largely arising out of short-term austerity measures related to stabilization, are experienced first. The positive distributive effects flowing from the longer term structural adjustment component, directed at eliminating institutional and policy distortions in order to promote efficient growth, take several years to come to fruition and even longer before they get reflected in published statistical data. From this point of view it is still too early

to get a balanced picture of the distributive impact of India's adjustment program, which began only in July 1991. Any assessment at the present time will reflect most of the adverse effects and relatively little of the positive effects.

This bias implicit in the timing of the assessment notwithstanding, our analysis suggests that the adverse distributive effects of adjustment in India have been quite mild, compared to many adjustment episodes in Africa and Latin America. On the other hand, they have also not led to positive distributive outcomes as have been observed, for instance, in Indonesia, Malaysia, Ghana, Chile, etc. (Heller et al. 1988; Bourguignon, de Mello, and Morrison 1991).

In terms of actual outcomes, our main observations relate to the impact of adjustment on distribution by income groups. Regarding the latter, adjustment has affected them primarily through the macroeconomic policy stance and specific expenditure and taxation measures. On the positive side these effects include the increased share of direct taxes in revenue mobilization, the poor being exempt from the burden of such taxes. More importantly, public spending on social services like education and health, which are important in meeting the basic needs of the poor, seem to have been maintained at their preadjustment levels relative to GDP, and also in real terms. However, this provisioning has declined in per capita terms, particularly in the poor states. This is a cause for serious concern since the allocation of public resources to these services was quite low even before adjustment.

A much discussed effect of adjustment is the retrenchment of workers in some overmanned public enterprises. This has undoubtedly been hard on the families affected, and the safety net prepared under the National Renewal Fund has not been nearly enough to cope with the problem. However, organized sector workers in public enterprises are nowhere near the poverty line in India and the numbers involved are also too small to have had any impact on the incidence of poverty. The more important effect was the industrial recession triggered by overall macroeconomic compression and the consequent slowdown in growth of nonagricultural employment, a process reinforced directly by the cutback of public expenditure in labor-intensive economic services such as construction. This was partly offset by the robust growth of employment in agriculture, thanks mainly to a succession of good monsoons. Unemployment is nevertheless estimated to have increased during this period.

Though unemployment has increased, this alone cannot account for the fairly sharp increase in poverty observed during the initial adjustment period. The latter has been primarily traced to an increase in procurement prices, which led to a sharp increase in foodgrain prices at the consumer's end. This increase in procurement prices was essentially a political decision, driven by farming interests. However, it was indirectly related to adjustment since procurement price increases allowed domestic food grain prices to approach world prices after devaluation. Also, the cap on food subsidies, introduced as part of the package to reduce the fiscal deficit, implied that procurement price increases had to be passed on as issue price increases for consumers buying foodgrains from the public distribution system. But this accounts for only a fraction of total consumption and the increase in open market retail foodgrain prices could not have been avoided even if issue prices were not raised.

Thus, the increase in the incidence of poverty in the adjustment period was primarily the outcome of political developments, the effect of adjustment on food prices, with the rise in unemployment being a second contributory factor. The poor of course could have been

protected against the impact of both factors through an adequate antipoverty employment program. India has a long and successful experience with such programs. Leakages and administrative inefficiencies notwithstanding, such programs are well targeted because the nonpoor select themselves out. They have been used quite successfully to contain poverty incidence in the past. Such a policy would have compensated through a single instrument for both the rise in unemployment as well as the rise in food prices. Similar programs have also been used quite effectively in countries like Chile for reducing poverty along with adjustment. In India these antipoverty programs were first compressed when adjustment started, and then restored. The role of farming interests in pushing up food prices and the role of trade unions in protecting unionized labor, in contrast to the relatively low priority given to protecting the unemployed or to keeping food prices down, points to how much the distributive coalitions in India (Bardhan 1984) have mattered in determining the distributive outcomes of adjustment. At the same time, the eventual reversal of the policy to cut down antipoverty employment programs also points to the importance of open democratic political discourse and a free and active press in containing the burden of adjustment borne by the poor.

Looking at the record so far, it has to be said that the real concern with India's adjustment program is not so much that it has had an adverse distributive impact but that it has remained incomplete. The deficit has again started widening, the external account remains fragile and overly dependent on reversible portfolio investment flows, and price increases are close to the inflation tolerance of the country. If the program is abandoned midstream, this could lead to a retrogression, with major adverse effects on distribution. Here the role of politics is central. The analysis of the paper has shown that many of the strategic decisions were driven as much by political pressures as by economic considerations. A great deal will depend on the nature and stability of the ruling political coalition which has emerged. It will also depend on how far special interest groups can be contained by public action, and the oversight of governance by wider democratic processes.

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