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THE SOCIOECONOMIC IMPACT
OF
MACROECONOMIC ADJUSTMENT

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EXECUTIVE SUMMARY

This report analyzes the socioeconomic impact of macroeconomic adjustment programs based on (a) examination of the linkages between adjustment measures and specific groups' living standards, (b) review of existing empirical studies on how incomes, employment and consumption have evolved during periods of adjustment, and (c) case studies of Sri Lanka, Morocco, Costa Rica and Cote d'Ivoire.

Socioeconomic effects of adjustment vary considerably across countries due to differences in adjustment problems and strategies, economic structures and levels of development. But in general, some socioeconomic groups are potentially vulnerable to reductions in living standards during macroeconomic adjustment. Reductions are not always serious or persistent, but a careful ex ante analysis of likely effects of adjustment measures on these groups can ease the transition without compromising the objectives of the adjustment program. Vulnerable groups include landless rural laborers, food-deficit rural families, and the urban poor especially those in cyclically sensitive sectors such as construction. The best protected groups are food-surplus rural families, those in export-related manufacturing and agriculture, and to some extent, urban informal sector workers. The key to predicting where problems may arise is in understanding the economic linkages which connect policy changes to levels of wellbeing for each of these groups.

Food Policy

Food subsidies drain government budgets, depress producer prices and absorb foreign exchange. Eliminating or reducing them is a major part of many adjustment programs. In Morocco and Sri Lanka, subsidy systems gave substantial benefits to upper income classes. Theoretically targeting could have a greater impact on the living standards of the poor at a fraction of the cost. In practice, targeting is difficult to achieve and subsidy removal is politically very sensitive. Where subsidies have been reduced there is reasonably clear evidence of the following effects:

1. Food-surplus rural households gain.
2. Food-deficit rural households (often the poorest group in the country) and urban groups lose.
3. The rate of rural-urban migration slows.
4. The redistributive gain is greatest and the increase in poverty the least when
 - a) land holdings are small and widely distributed

- b) the potential for food self-sufficiency is good
- c) urban poverty incidence is relatively low
- d) the proportion of the population in agriculture is high
- e) the major crops are annuals and output is not highly drought-prone

Exchange Rate Adjustment

Overvalued currencies are a common symptom of adjustment problems and devaluation is usually part of the adjustment process. Again the evidence from the case studies on the socioeconomic impact of devaluation is fairly clear and accords well with expectations.

1. Export industries benefit, though many resource-based sectors such as agriculture may continue to be taxed due to revenue concerns.
2. Import--substituting industries gain, including some informal sector activities.
3. Debt-burdened enterprises are hurt and often face bankruptcy.
4. Urban groups are generally hurt more than rural groups. This is because often
 - a) imports form a greater share of urban consumption than rural consumption.
 - b) the rural sector exports a greater share of its output than the urban sector.
 - c) rural sector activities are less reliant on imported inputs.

Expenditure Restraint

Cutbacks in government investment are often the most important part of fiscal restraint. This has a clear contractionary effect on the construction industry and many unskilled and semi-skilled jobs are lost with adverse effects on urban poverty. Absorption of these workers in sectors stimulated by liberalization may be difficult where new sectors require higher skill levels. Workers often shift into the informal sector which may drive down incomes if the influx is substantial.

Reductions in government investment slow the rate of expansion of productive and social infrastructure but these effects do not generally show up in the short term. Reduced budgets for supplies and maintenance are a much more important cause of deteriorating public service provision especially in health and education. Public sector wage

restraint can also have adverse effects on productivity and may even exacerbate poverty where restraint has led to real wage collapse. Efforts to reduce overstaffing in the public sector often focus on lower-echelon personnel and as such may boost urban unemployment if job opportunities in other sectors are not simultaneously expanding.

Government Services and Transitional Measures

In some cases, the existing social service network and supplementary programs targeted to vulnerable groups were important in determining the incidence of adjustment costs. In Sri Lanka, targeted feeding programs reduced the negative impact of higher food prices on landless estate workers. In Costa Rica, the health program - historically of high quality - received an increased share of the budget during the adjustment period. Food-help programs were implemented, and several measures were taken to sustain failing businesses and preserve jobs during the debt crisis.

Wage and employment policy has sometimes been used to smooth the effects of adjustment. In many countries, traditionally high public service wages have dropped substantially in real terms and relative to other sectors. In Costa Rica and Morocco, minimum wages were increased to protect the urban poor. It is important, however, that such transitional measures do not impede progress toward longer-term objectives of deficit reduction, freer market functioning, and increased international competitiveness.

The Overall Macroeconomic Picture

Timing is critical in successful macroeconomic adjustment and delays can ultimately make the process much more difficult. Costa Rica, Cote d'Ivoire and Morocco treated windfall revenues from commodity price booms as if they were permanent and initiated ambitious expenditure programs. Programs emphasized investment in social and productive infrastructure rather than pure transfers. But expenditure levels were way above long-run revenue trends, and many investment projects were poorly chosen, implemented and maintained. Often discipline to correct structural fiscal deficits develops only with balance of payments crises. Availability of foreign credit provides leeway to procrastinate. This was the case in Costa Rica where serious reforms came only after credit was cut off.

It is difficult to change direction after a period of relatively high growth as in Costa Rica and Cote d'Ivoire. Reduced export earnings lower foreign exchange inflows and also lower export tax revenues. Moreover, structural adjustment measures themselves may initially make it

difficult to restore stability to the balance of payments and the government budget. Import and export tax reductions typically involved in trade liberalization may cause import surges and reductions in government revenue.

Positive benefits of reform may be slow to materialize even after price and other incentives have been put in place. The case studies suggest several general patterns in supply responsiveness in adjusting economies. First, in the agricultural sector, annual crops such as rice and other cereals often respond quickly. Perennial crops respond more slowly unless capacity has been underutilized due to depressed incentives. Second, the responsiveness of private sector firms to new incentives is better than that of public enterprises. Third, relatively advanced and dynamic economies such as Costa Rica recover more quickly from recession and are quicker to adapt to relative price changes and new investment opportunities. Finally, sharp reductions in foreign aid and/or commercial capital seriously hamper orderly adjustment because of import strangulation in the industrial sector.

Implications for Donors

For donors' purposes, there are two broad conclusions to be drawn from this work. First, it is possible *ex ante* to get a relatively clear picture of what groups are likely to need some form of assistance during transition. Every effort should be made on the basis of country-specific information to construct the profile of this group so that aid efforts can be focused and efficient. Second, care must be exercised in designing assistance programs to ensure that they do not frustrate the objectives of the adjustment program itself by introducing new distortions or creating unsustainable recurrent cost obligations.

Several more specific points have also emerged. One is that sharp reductions in external capital inflows have sometimes been necessary to "shock" countries into making necessary adjustments. However, the need for steady support and continued flows of foreign exchange to keep the adjustment process on track is very clear. Rescheduling, debt relief or concessional aid can be important for sustaining orderly adjustment.

Deficit reduction must mean more than just expenditure cutting. It must also involve expenditure restructuring to maximize the impact of available fiscal resources. Technical assistance in this area can be very important especially when the public service has very few trained people and faces long lists of IMF and World Bank restructuring conditions.

Close cooperation with the recipient country and other donors is necessary in the design of effective programs. Targeting and administration of food programs are much more effective if they exploit existing local networks rather than relying on new and largely external resources.

Aid programs which enhance the supply responsiveness of the country to changed incentives are valuable. These include: 1.) training programs geared to the needs of new industries, 2.) financing and capital rebuilding for industries in new growth areas established by adjustment policies, and 3.) refurbishment of infrastructure necessary to sustain growth (this is an area that often suffers during budgetary restraint.)

Summary of case studies

SRI LANKA

Sri Lanka's macroeconomic adjustment experience is divided into two phases. The first phase (1979-81) was characterized by multi-faceted economic liberalization, major reductions in social programs, and rapid expansion of public and private investment. This caused the economy to overheat and led to a second phase of adjustment (1982 on) emphasizing demand management. Thus the Sri Lankan case differs from others in that liberalization/structural adjustment began under expansionary fiscal and monetary policies. This study focused on the 1978-1982 period because detailed data on the post-1982 period are not yet available.

The Sri Lankan economy has three main components: a rural smallholder sector growing rice and other domestic crops; an estate sector growing export crops; and an urban sector. These sectors represent 72%, 8% and 20% of all households respectively. Incomes are highest in the urban sector and lowest in the estate sector.

The main features of the 1979-81 adjustment program were replacement of general food subsidies with a targeted food stamp program, liberalization of food prices, reduction of foreign exchange and import regulations, a massive increase in government investment, and the introduction of various incentives to encourage private investment.

Changes in the food subsidy system reduced the welfare of all three groups. The real value of food-related transfers was halved. Access to subsidized food was streamlined to focus on poorer groups. Overall, benefits were redistributed in favour of the rural sector at the expense of the other two sectors. The estate sector was hardest hit, ending up with about 1% of total benefits

although it is the poorest sector and represents 8% of all households.

Overall the rural sector benefited from the increased producer price of rice and its increased share of the food subsidy program. However, within the rural sector there is a large number of households growing only a portion of the food they consume. Any severe hardship caused by the reform was probably concentrated among these families.

The estate sector remains the worst off in terms of incomes and child malnutrition. Living standards on the estates did not improve significantly during the period, but the gap between estate workers and other groups narrowed considerably. This was partly due to the boom in tea prices. But it is also attributable to a well-targeted CARE program that boosted child feeding programs on the estates in anticipation of higher rice prices and removal of wheat subsidies.

The urban population was best positioned to adapt to changes occurring in the reform period. Urban areas were the center of economic expansion induced by the boom in public and private investment. The pace of urban job creation sharply accelerated. Although data on trends in urban diets over the reform period are not yet available, in 1981 instances of malnutrition were lowest in the urban sector. Thus, the urban sector seems to have suffered the least despite the rise in food prices. However, this may not be true for the period after 1981 when demand-restraining policies slowed the pace of urban job creation while food prices remained high. If soon-to-be-available data confirm a relative decline in the position of the urban sector, it would suggest that urban living standards are more sensitive to demand management policies while rural living standards are more sensitive to structural adjustment measures.

COTE D'IVOIRE

Côte d'Ivoire's adjustment problems originated with the 1975-77 "beverage boom" when the terms of trade moved sharply in its favour. Government investment was significantly expanded, requiring a sizeable increase in imports. Boom turned to bust soon thereafter, but since government expenditure and imports were not scaled back, Côte d'Ivoire developed large fiscal and current account deficits financed through heavy foreign borrowing.

In 1981, the government launched stabilization and adjustment programs. Fiscal contraction was the primary instrument used to stabilize the economy, particularly sharp reductions in public investment. Various fiscal austerity measures were enacted. Agricultural prices were adjusted to

better reflect world prices. Producer prices were increased, input subsidies were reduced, and consumer prices for bread, rice and palm oil were raised. The government also began to regularize effective protection for industrial activities in 1984.

Stabilization measures were very successful: by 1985, the current account deficit had fallen to a modest level, and the fiscal deficit was eliminated. However, the adjustment process and a serious drought provoked marked economic contraction between 1980 and 1984. Per capita GDP declined by almost one-quarter, suggesting a reduction in average living standards of alarming proportions.

The effects of economic contraction were distributed highly unevenly across socioeconomic groups due to the interaction of the country's adjustment strategy and its socioeconomic structure. Income distribution in Côte d'Ivoire is highly unequal. The uppermost socioeconomic strata earn incomes many times higher than the national average and tend to be urban-based. They are relatively well-educated, and more than half work in the private or public formal sector. In contrast, the lowest socioeconomic strata earn incomes well below the national average and are overwhelmingly rural. They have low levels of educational attainment, and almost all are self-employed in farming or informal sector activities.

A large share of the burden of adjustment fell on urban middle- to upper-income groups. The real incomes of these groups declined sharply in the first half of the 1980s. Manufacturing slipped into a deep recession, during which many firms closed, the work force was trimmed back, and remaining employees took sharp cuts in real pay. Construction employment contracted due to the recession plus cutbacks in government investment. Public sector employees' real incomes were compressed by a multi-year salary freeze and reduced fringe benefits. Yet, with the exception of casual laborers in construction, groups affiliated with these sectors had incomes well above the poverty line. Consequently they could withstand economic downswing through strategies that did not endanger minimum living standards.

In contrast, the effects of economic contraction on lower-income groups were fairly mild. Rural incomes fell only slightly and recovered when good rainfall resumed. Farmers benefited from increased prices for export and import-substituting crops. Demand for domestic foodstuffs increased as urban consumers shifted away from imported foods. Net food-purchasing rural households did not experience significant erosion of purchasing power since domestic food prices increased only modestly during the period. Urban informal sector incomes also fared better than average because informal sector goods and services are

relatively income-inelastic in demand and/or substituted for goods whose prices were rising.

MOROCCO

Morocco's adjustment problems began in 1973-1975 with a boom-bust cycle in the world price of Morocco's main export, phosphate. Imports soared and government investment was dramatically increased. When boom turned to bust, the fiscal and current account deficits ballooned. Unlike Côte d'Ivoire, for several years Morocco used various ad hoc measures to contend with adverse external trends, including heavy foreign borrowing, import tariffs and quotas, and price controls.

In 1983, Morocco began more systematic efforts to stabilize the economy and promote sustainable growth. Progress has been uneven. Key adjustment measures have included cutbacks in government investment, plans to eliminate food subsidies, import liberalization, simplification of export procedures, adjustments in the investment code and depreciation of the dirham.

Despite major adjustment problems, stabilization in Morocco has not produced contraction on same magnitude as in other heavily indebted countries. Consequently, incomes, employment and consumption have stagnated in the 1980s but have not been markedly compressed. Several factors account for the relatively mild socioeconomic effects of adjustment thus far. First, the pace of stabilization has been relatively relaxed. External capital has not dried up as sharply as it did in other heavily-indebted countries, partly because Morocco has made extensive and timely use of debt rescheduling possibilities. There was therefore no need to subject the economy to "shock treatment" to close the current account deficit. Second, the recessionary potential of adjustment was also minimized by timely implementation of growth-oriented policy reforms. Measures permitting imports of intermediate inputs and encouraging firms to increase export sales were particularly important in this regard. Finally, the fairly dynamic nature of the Moroccan economy meant that the lag in response to growth-oriented adjustment measures was relatively short. Increased competitiveness of Moroccan firms at home and abroad could often be exploited through better use of existing productive capacity. Private investment has also been responsive to newly-created opportunities.

Socioeconomically, the most difficult issue left on Morocco's adjustment agenda is reducing heavy subsidies on imported food. Subsidized foods figure prominently in urban diets and non-negligibly in rural diets. Upper-income groups receive the lion's share of benefits from the subsidy

program. Subsidies have depressed food producers' incomes due to high degrees of substitutability between domestic and imported foodstuffs. Repeated efforts to remove subsidies in the 1980s met with substantial unrest especially because severe droughts made domestic cereals scarce and expensive during this period. In the short- to medium-term, response of domestic production to higher food prices is unlikely to be strong due to the fragility of the rainfed cereals-producing sector. In the absence of any strong supply response, complete removal of the subsidies would cause a 20% reduction in the real incomes of the urban poor.

To find a more viable way of proceeding, the World Bank coordinated development of a plan for phasing out the general subsidies while targeting subsidized food to the poor. The plan took two years to develop, emphasizes donor coordination, and makes use of national institutions and PVOs experienced in administering targeted, developmentally-oriented food aid. Although the plan is not yet off the drawing board, it is an important model of relevance to other countries struggling to reduce food subsidies without inflicting excessive hardships on vulnerable sectors of the population.

COSTA RICA

The Costa Rican economy contracted in the early 1980s following the collapse of the Central American Common Market and the end of the coffee boom. Sudden loss of foreign exchange forced the government to stop debt service payments, after which foreign credit was cut off and the economy slumped. These developments caused a sharp drop in living standards although its duration was relatively short.

During the 1982 recession, real wages declined by 40% though they began to recover the following year. The drop in real wages particularly affected upper income groups. In the agricultural sector where poverty is concentrated, wages suffered the smallest reduction. Wages fell the most in the high-paying service sector. Minimum wages were adjusted so as to protect the poorer groups.

Unemployment also jumped up but quickly returned to trend levels in 1983. Increased unemployment was largely due to increased labor force participation rates, especially among school quitters. The rate of job creation was positive throughout the period. Employment growth sagged the least in the service and agricultural sectors. Employment in construction underwent the sharpest contraction. The informal urban sector withstood the recession relatively well and probably absorbed laid-off construction workers.

Indicators show evidence of a brief but serious deterioration in health standards during the worst year of the crisis. Both neonatal and infant mortality increased, although both subsequently resumed their decline after the crisis was over. Among the adult population, data show 5-10% reductions in consumption of all major nutrients, with protein intakes dropping the most. The decreases in intake appear to be somewhat larger in the rural areas than in the cities. Government spending on welfare and health remained strong through the crisis period, although education expenditures declined. Indices of health services display mixed trends but changes overall are small. Labor force participation rates rose but the bulk of the increases seem to come from school quitters rather than mothers. The incidence of breastfeeding rose sharply during the crisis due to both poverty and a special promotion program.

There are four important features of the Costa Rican adjustment experience. First, deteriorating external circumstances made some slackening in growth inevitable. The policies initially used were ad hoc and generally implemented later than they should have been. Second, there is evidence of a sharp but temporary decline in living standards during the worst part of the crisis. Third, the Costa Rican economy is relatively dynamic, recovering quickly after adjustment policies were adopted. After 1983, all the major economic indicators showed strong improvement, and adverse socioeconomic trends reversed.

Finally, during the crisis the government supplemented already solid social programs with special measures to insulate specific groups from the full and immediate effects of the adjustment policies. The country has a long-standing record of maintaining good health standards via an extensive health program. When food prices rose sharply in 1982, child nutrition was maintained through food-help programs focusing on preschool children.

The government also insulated certain groups from the 1981 devaluation by keeping the pre-devaluation exchange rate in effect for certain types of transactions (imports of medicine, wheat and petroleum; central government imports; payments on debts incurred before 1981; pre-export financing for coffee; and student remittances). A USAID-supported "firm salvage program" was implemented to prevent firm bankruptcies and curb increases in unemployment. Public commercial banks also provided special assistance to firms affected by the devaluation and collapse of the CACM.

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References

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THE SOCIOECONOMIC IMPACT OF MACROECONOMIC ADJUSTMENT

I. INTRODUCTION

I.A The Adjustment Problem

Between the mid-1970s and early 1980s, large and persistent macroeconomic imbalances emerged in many developing countries. Chronic deficits on the current account signaled deepening external imbalance, while internal imbalances were reflected in escalating fiscal deficits. These imbalances became unsustainable in the early 1980s. Affected countries have therefore attempted to correct underlying structural disequilibria through macroeconomic stabilization and adjustment. Such efforts are critical for establishing an environment favorable to sustained growth.

In broad terms, the adjustment problem consists of persistent, structurally-generated current account and fiscal deficits. Persistent macroeconomic imbalances have been particularly pronounced in Latin American and African countries due to (a) external developments affecting these countries and (b) the ways in which these developments were handled via domestic economic policies. With some notable exceptions, most Asian countries have avoided persistent macro imbalances, partly because they have not faced as serious a deterioration in external conditions, and partly because they have dealt with altered external conditions in a more timely fashion.

What factors gave rise to persistent macroeconomic imbalances? Substantial commodity price booms in 1973-1977 briefly buffered the impact of the first oil price shock. Increased availability of foreign exchange led to rapid growth in imports. Windfall government revenues were used to expand public expenditure programs. Middle-income countries supplemented available investment resources with cheap international loans.

When the commodity booms ended after 1977, export receipts and government revenues stagnated. Governments initially took few systematic measures to address sudden growth in current account and fiscal deficits. Instead, foreign borrowing was used to fill the widening gap between imports and exports, and government deficits were financed through domestic credit expansion.

The failure to adjust to altered external circumstances generated a number of side effects. These included real exchange rate appreciation, excess demand for imports, accelerating inflation, excess demand for credit, dwindling foreign exchange reserves, etc. Ad hoc measures to deal with these side effects included quantitative restrictions on imports, elevated import tariffs and export taxes, growing subsidies on basic consumer goods, domestic wage and price controls, credit rationing, and slowed implementation of public investment programs.

Ad hoc measures postponed adjustment to reduced availability of foreign exchange and government revenue, while creating incentive structures detrimental to sustained growth. The inadequacy of these measures became clear in the late 1970s and early 1980s, when external conditions sharply deteriorated. The second oil price shock again boosted import costs. World recession reduced demand for developing country exports, ushering in a period of extremely depressed non-fuel commodity prices. U.S. monetary restraint substantially increased real costs of foreign borrowing. Growing concerns about countries' creditworthiness sharply reduced their access to international capital markets.

Confronted with these difficulties, most affected countries shifted to more systematic adjustment strategies, often with the financial support of the International Monetary Fund, World Bank and other donors. Between 1979 and 1987, developing countries' outstanding drawings from the Fund rose fivefold. During the same period, the Bank approved a total of 121 structural and sectoral adjustment loans, accounting for over 12% of its total lending.

In general, macroeconomic balance has tended to improve with world recovery and the shift to systematic adjustment.¹ In 1984, domestic absorption shifted below domestic production in developing countries as group. Highly indebted countries have generated positive net exports since 1983, averaging over 4% of GDP. In Sub-Saharan Africa, domestic absorption equaled domestic production in 1985, whereas in 1982 absorption had exceeded production by almost 8%.

Part of this improvement in macroeconomic balance was forced by sharply diminished access to external capital. Net capital flows to developing countries fell by about two-thirds in the 1980s as debt-related capital outflows escalated, aid flows stagnated, and new commercial loans virtually dried up. Thus, between 1981 and 1986, the current account deficit fell sharply among non-fuel-exporting developing countries because it could not be financed. While export volumes did increase, the bulk of reduction in

¹See Figures 1 - 8.

Figure 5. Import volumes: developing countries, by predominant export, 1978-1986. (1978 = 100).

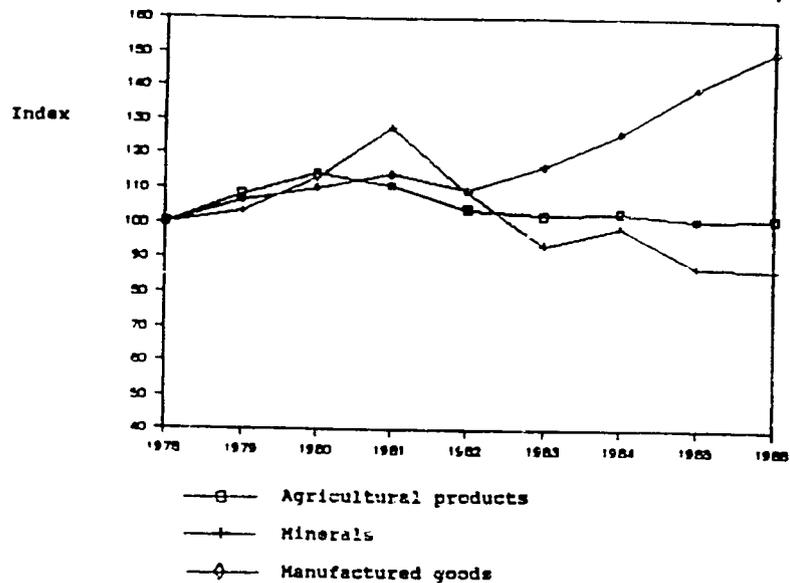


Figure 6. Fiscal balance as percent of GDP: developing countries, by predominant export, 1979-1986. (Percent).

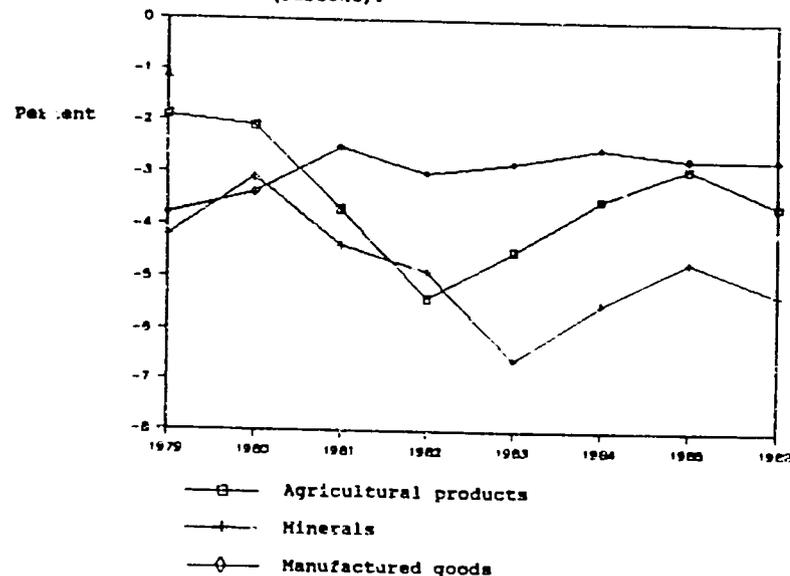


Figure 7. Real growth rates: developing countries, by predominant export, 1979-86. (Annual percent change).

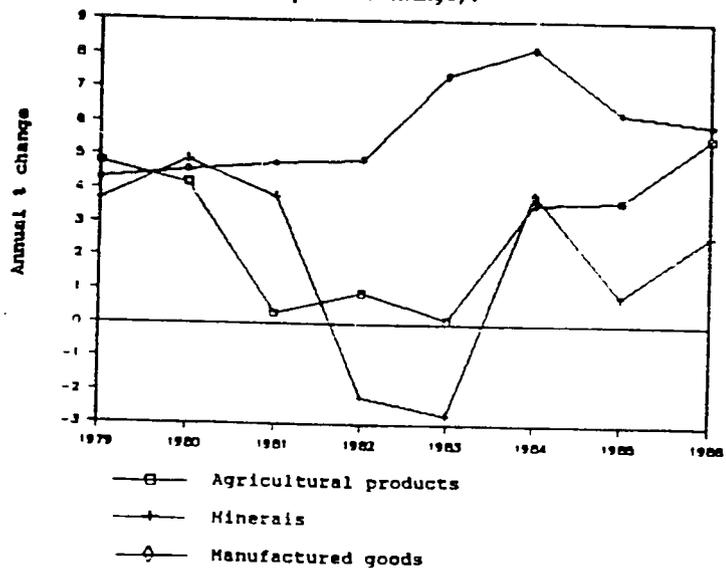


Figure 8. Trends in per capita GDP: selected developing countries, 1981-1986. (1981=100).

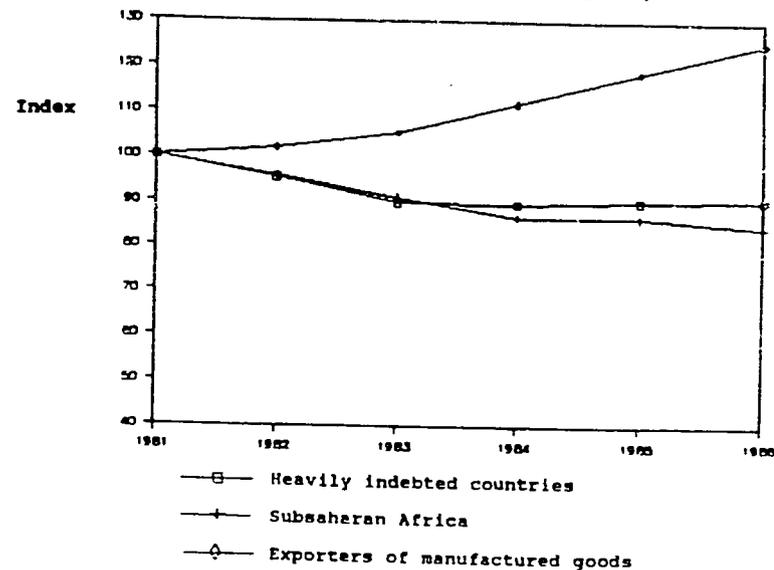


Figure 1. Commodity price trends, 1948 - 1986. (1979-81 = 100).

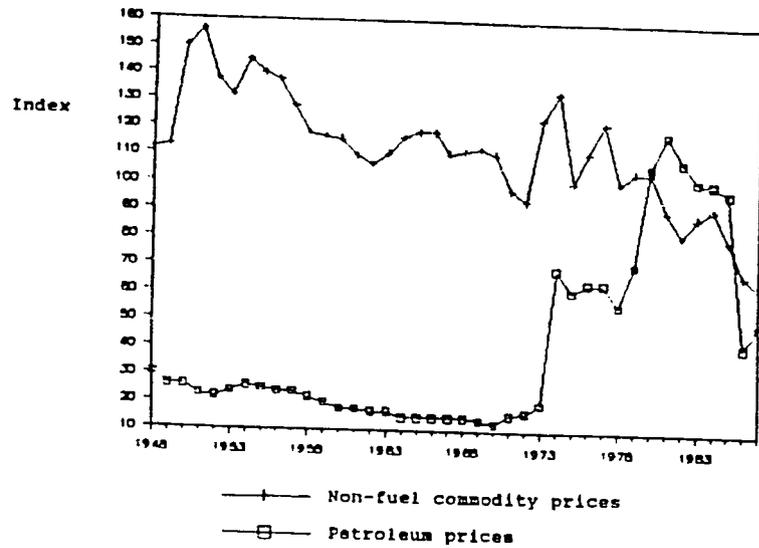


Figure 2. Net capital flows to developing countries, 1975 and 1980-85. (Billions of US\$).

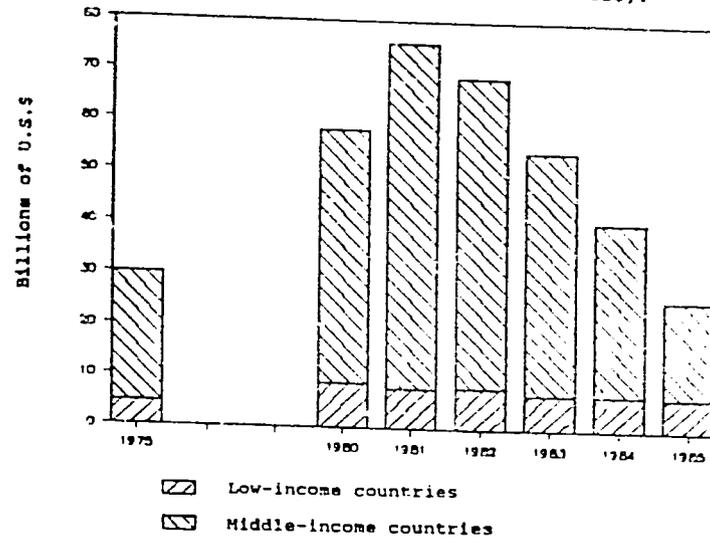


Figure 3. Current account balance as percent of exports: developing countries, by predominant export, 1979-1986. (Percent).

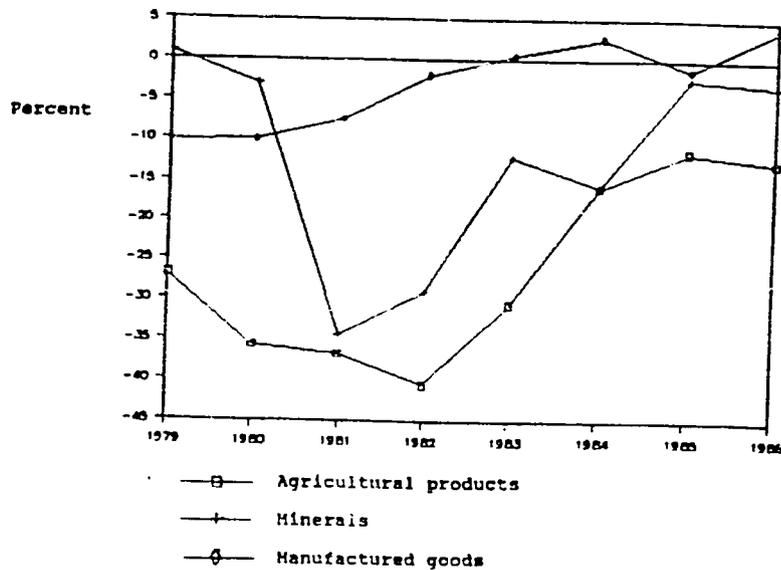
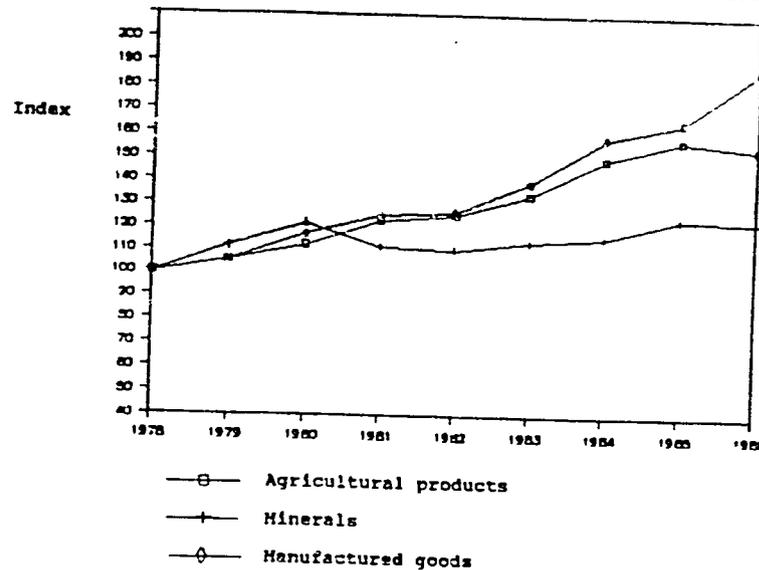


Figure 4. Export volumes: developing countries, by predominant export, 1978-1986. (1979 = 100).



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current account deficits was achieved through squeezing imports. Between 1981 and 1986, import volumes fell by an average of 2% per year in countries primarily exporting agricultural commodities and fell by almost 4% per year in those primarily exporting non-fuel minerals. There has also been moderate progress in cutting fiscal deficits, which declined from almost 5% of GDP in 1982 to 4.1% in 1986.

At the same time, aggregate growth rates have remained low and erratic. Economic growth has often been too slow to compensate for population growth, resulting in declining GDP per capita. Between 1978 and 1986, per capita GDP dropped by almost 10% in the heavily-indebted countries and by 15% in Sub-Saharan Africa. In contrast, it was 25% higher in countries primarily exporting manufactured goods.

A variety of factors explain why healthier rates of growth have not accompanied better macroeconomic balance.² Countries are still very much in the throes of putting growth-oriented policies in place. Growth in industrialized countries has been sluggish since 1984 and is expected to soften further in the next few years. Markedly slower expansion in the volume of world trade and heightened protectionist pressures have reduced opportunities for using non-traditional exports as an engine of growth. Non-fuel commodity prices are currently at levels prevailing in the 1930s, though they have increased somewhat since recent international financial turmoil. Net capital inflows are smaller now than they were in the pre-petrodollar era, and are not expected to recover in the medium term. Consequently the burden of debt overhang remains very heavy.

I.B The Socioeconomic Dimension of Adjustment

Given these difficult circumstances, systematic adjustment is the best means of ending macroeconomic crises and restoring conditions for economic growth. There is no great difference of opinion about the broad objectives of adjustment: fiscal and external deficits must come down, currencies must be realistically valued, public enterprises should not permanently drain the government budget, and so on. In the long-run, sound macroeconomic policies are necessary for sustained growth, from which all groups in the socioeconomic spectrum are likely to benefit.

But in the short- to medium-run, adjusting to exogenous shocks and dismantling ad hoc means of handling macro imbalances may significantly influence the living standards of different socioeconomic groups. Economic contraction

²See World Development Report 1987; Corbo, Khan and Goldstein (1987).

usually accompanies initial stabilization efforts.³ The degree and duration of hardship experienced by different groups varies, depending on how adjustment measures affect incomes and consumption patterns, employment prospects, and access to social services. Broader restructuring measures oriented toward restoring growth may improve the living standards of some groups while compressing those of others.

The purpose of this report is to examine the socioeconomic consequences of adjustment. A premise of this report is that poverty alleviation cannot be obtained without growth, and systematic adjustment is necessary to restore conditions for growth. The question then is what particular strategies or measures are most effective for solving macroeconomic problems, while avoiding undue compression of living standards in the short-run and enhancing them over time. This report therefore provides a systematic discussion of alternative adjustment measures and their likely impact over time on the living standards of different socioeconomic groups.

I.C Major Themes of the Report

There are four major themes of this this report. First, the socioeconomic effects of adjustment vary considerably across countries. In general, adverse socioeconomic trends tend to show up during periods of economic contraction, and urban groups are more likely to experience deteriorating living standards than their rural counterparts. These trends often reverse when recovery is underway. But there is significant variation across countries in the degree, duration and distribution of hardship involved in the adjustment process. Several factors account for this variation, including the magnitude and "deep-rootedness" of the adjustment problem, the strategy chosen to restore macroeconomic balance, the distribution of poverty across productive sectors, the speed of the economy's response to changed incentives, and the existence or absence of safety net programs targeted to the poor.

The second and related theme is that the transition period is critical in the adjustment process. Sound macroeconomic policies are necessary for sustained growth, which is likely to benefit all major groups in the socioeconomic spectrum. It is the potential for pockets of hardship and displacement to emerge in the short- to medium-term that is of concern, particularly if they affect the

³There is debate about whether recession inevitably accompanies typical stabilization programs. There is nothing in theory that says the two must occur together; see Khan (1987). In practice, however, the two have tended to be associated.

living standards of low-income groups who may not be able to withstand the turbulence of the transition. The question is how a country can move from its present situation into a phase of sustained growth while minimizing social costs of the transition. The central issues here concern timing, balance, phasing and degree in the mix of adjustment measures, including measures to protect the living standards of the poor. In short, while the long-run goals of adjustment are clear, we need to develop clearer methods for understanding and managing the transition process.

The third theme is that the transition process involves some basic tensions between achieving objectives of economic efficiency and protecting the welfare of particular socioeconomic groups. Trade-offs in adjustment program design can be made in a way that minimizes the tensions, and these should be more fully explored. But there is likely to remain a small core of people that suffer during the transition because they cannot effectively be reached through instruments used in the World Bank and IMF programs. These should be the focus of special efforts by governments, other donors and non-governmental organizations who wish to support the adjustment process.

The last theme is that a clear framework for the ex ante analysis of adjustment processes is needed to identify opportunities for minimizing the tensions referred to above and for identifying the core groups. Only then can work be done to anticipate likely problem areas and plan accordingly.

I.D The Plan of the Report

This report is organized as followed. Section II provides a typology of alternative adjustment strategies. Three main strategies - not necessarily mutually exclusive in practice - are identified: ad hoc, demand management and structural adjustment. For each strategy, typical policy measures used to contend with macroeconomic imbalances are discussed.

Section III aims at broadly identifying socioeconomic groups vulnerable to hardship under particular adjustment policies. It provides a classification of socioeconomic groups suitable for analyzing the impact of adjustment. Linkages between given policy measures and their likely impacts on each socioeconomic group are traced out. Short- and long-run effects of particular policy measures are distinguished. There follows a discussion of the effects of adjustment policies in combination. But because cumulative effects of adjustment measures unfold differently across countries, this analysis is not precise enough for

generating specific recommendations on how to fine tune adjustment strategies to minimize hardship.

Section IV covers methodological and conceptual issues in measuring welfare and poverty. A variety of problems are discussed concerning the accuracy and interpretation of changes in social indicators during period of adjustment.

Section V reviews existing empirical work on the socioeconomic impact of adjustment. Problems in establishing causal connections between adjustment measures and socioeconomic trends are first highlighted. Then key findings on how incomes, employment, consumption and poverty have evolved during periods of adjustment are reviewed.

Section VI evaluates the "state of the art" in measuring the socioeconomic impact of macroeconomic adjustment. A set of working hypotheses relating adjustment policies to social and economic variables is presented.

Section VII presents a methodology for assessing the socioeconomic impact of adjustment. The methodology is then applied in four country case studies, presented in Sections VIII-XI. Countries covered are Sri Lanka, Côte d'Ivoire, Costa Rica and Morocco. They were chosen for their representativeness of particular types of adjustment problems, strategies and socioeconomic structures, as well as the existence of data sufficient for reasonably rigorous work within a short time frame. Finally, Section XII presents conclusions and recommendations for donors.

II. ADJUSTMENT PROBLEMS AND POLICY RESPONSES

The nature and magnitude of adjustment problems differ across countries but origins of problems are relatively similar. In the 1970s, many developing countries promoted active roles for the state with large programs of public investment and extensive regulatory control. The direct costs of the investment programs and the hidden costs of the distortions created by the regulatory practices derived from three main sources. First, in many countries there was a series of commodity price booms in oil, bauxite, phosphate, copper, coffee and others. Second, there were major increases in Official Development Assistance. And third, the recycling of petro dollars combined with a initially improved creditworthiness based on commodity prices allowed sharply improved access to international capital.

Countries' abilities to finance expanded investment programs and elevated import levels was eroded by the 1970s oil price shocks as well as other adverse external developments. Strategies for adjusting to altered external conditions have varied across countries as well as across time within a given country. But three basic adjustment strategies can be distinguished.

II.A Ad Hoc Adjustment

The first type of strategy can be called ad hoc adjustment. In the second half of the 1970s, developing countries regarded emerging balance of payments and budgetary problems as temporary. Accordingly they used domestic and foreign borrowing to sustain the pace of expansion and were reluctant to make major adjustments in expenditures or exchange rates.

But commodity prices remained soft, interest charges mounted and the drag exerted by structural problems caused the situation to deteriorate. During this period many countries adopted a series of stop-gap measures. Efforts to conserve scarce foreign exchange included increased tariffs, export taxes, advance import deposits, quantitative restrictions on imports and a wide variety of licensing regulations. Similar temporary measures were taken in regard to government finance. There were sharp increases in public bank borrowing combined with an array of interest rate restrictions on both loans and deposits. Credit rationing controls were introduced or strengthened.

These policies did not emerge from a consistent appraisal of longer-term growth potential. In many cases they exacerbated existing structural weaknesses by introducing new distortions and rigidities and increasing

the future debt burden. Essentially, ad hoc policies were characteristic of the transition period during which it became clear that unfavorable circumstances were going to persist and new policies had to be worked out. It took longer in some countries than others and those that moved more quickly suffered least. Generally, the reconciliation of the policy framework with the new economic conditions had two dimensions, namely demand management and structural reform.

II.B Demand Management during Adjustment

Demand management programs are implemented to correct unsustainable rates of domestic absorption and associated current account deficits. Governments that financed current consumption and low-return public investment projects out of trade deficits and bank borrowing during the ad hoc period eventually faced reductions in access to external capital from both commercial and official sources. With the drying up of capital inflows, the need for reform programs that would restrain aggregate demand, especially public sector demand, became more obvious. Generally, it became clear that these programs would have to achieve the following objectives or the inevitable adjustment would be even more severe:

1. Reduce the current account deficit.
2. Reduce the fiscal deficit
3. Increase domestic savings
4. Control inflation

These objectives have been pursued through a variety of specific policy measures in various countries. But the following major components are found in most programs.

II.B.1 Devaluation

One of the main instruments of macroeconomic and structural adjustment is devaluation of the currency. This is necessary to help restore external balance. A devaluation increases the price of tradeable goods relative to non-tradeables in the domestic economy. This reduces the volume of imports. It should also stimulate export industries and efficient import-substituting industries. Existing industries in these sectors should expand and new ones should be established. However, it takes time to establish new productive capacity and many developing countries are poorly positioned to make such changes quickly, especially where new skills and technologies are required. While the

contractionary effects of expenditure-reducing macroeconomic adjustment policies should, in principle, be offset by increased stimulus to the export- and import substitute-producing sectors, bottlenecks and lags in the latter may cause the overall effect to be negative. The so-called J-curve in the balance of payments results. Devaluation should cause the trade account to improve but because of the lags and because of the need to honor signed contracts, the trade balance initially gets worse before the longer term benefits are felt.

It is this tendency towards contraction or recession in the opening stages of adjustment that creates the greatest potential for increases in poverty, unemployment and social stress. The depth and duration of the difficulties vary with the country in question and depend on such factors as the extent of the devaluation, the size of the external debt, the initial level of inflation, and the availability and mobility of human and physical capital needed for exploiting new production opportunities offered by the change in exchange rates.

II.B.2 Monetary and Financial Restraint

The second major element of most macroeconomic adjustment programs is the control of domestic monetary expansion. When the government faces reductions in the flow of capital from foreign sources it may be tempted to increase domestic borrowing. This can accelerate the pace of domestic credit expansion and risks fueling inflation. Inflation weakens the incentive to develop export industries and import-substituting industries so that further rounds of devaluation are necessary. Restriction of domestic credit expansion is a key element of most IMF programs and basically ensures that when the government finds its foreign credit cut off it responds by reducing expenditures, raising taxes or tapping private savings, rather than by printing money.

II.B.3 Public Expenditure Restraint

The third important element of macroeconomic adjustment programs is public sector expenditure reduction. This contributes directly to the objective of controlling the overall level of demand. In addition, it helps to relieve pressures on the banking system to provide credit to finance the government deficit.

II.B.4 Revenue Enhancement

Many macroeconomic adjustment programs have components designed to raise extra revenue. Given the structural

weaknesses of the tax systems in developing countries, however, tax increases cannot bear the whole of the burden of deficit reduction. Much of the working population is outside the personal income tax net and corporate taxes are often very small. Raising tariffs may conflict with efforts at trade liberalization and export promotion and there have occasionally been differences in policy recommendations emanating from the World Bank and the IMF on this issue.

However, where practical, revenue enhancement can serve the dual goals of demand restraint and deficit reduction.

II.C Structural Reform During Adjustment

Often basic structural reforms are necessary complements to demand management measures. Specifically, increased production can take the burden off reduced absorption in the elimination of structural macro imbalances. This requires changes in government policies to establish conditions for sustainable growth and better utilization of productive resources. Some demand management measures can have an impact on increasing aggregate supply, most notably devaluation. In other cases, complementary reforms in incentive structures are required to stimulate or enhance increased production and productivity. For instance, the effect of devaluation on promoting exports and restoring external balance may be significantly enhanced if the system of tariffs and export levies is simultaneously restructured. These structural changes must be made in a careful and consistent way that reduces existing distortions without introducing new ones.

The purpose of the structural adjustment programs then is twofold. One is to make specific changes necessary to support the demand management program. The second is to reduce distortions that make for inefficient allocation of resources. The programs often call for the elimination of producer and consumer subsidies. They also involve implementing liberalization programs that reduce or eliminate tariffs and quantitative restrictions on imports which may protect inefficient domestic production. The programs require parastatals to be run on a more commercial basis with full cost pricing and no subsidies. In short, the objectives of structural adjustment are as follows.

1. Eliminate quantitative restrictions and regularize effective protection in the trade regime.
2. Eliminate sources of price distortion due to producer and consumer subsidies.
3. Improve efficiency of government sector operations through administrative reforms and prioritize

expenditures for more effective use of limited resources.

The dividing line is not perfectly clear, but generally the IMF is primarily concerned with the demand management aspects of adjustment while the World Bank deals with structural reform. There are clearly many areas of mutual interest. However, it is fair to say that the IMF tends to focus on the macroeconomic aggregates, the exchange rate and monetary policy. The World Bank, on the other hand concerns itself more with matters of efficiency as embodied in various tax, tariff, and subsidy policies, and the associated regulatory and administrative practices while ensuring that its advice in these areas is broadly consistent with that of the IMF.

Generally, World Bank's structural adjustment programs and the elements of the IMF agreements that relate to structural adjustment include the following items:

1. Reduction of the average tariff rate
2. Compression of the tariff schedule about the average rate
3. Elimination of import quotas
4. Reduction of export taxes
5. Reduction of production subsidies
6. Reduction of consumption subsidies
7. Privatization or reform of public enterprises
8. Elimination of production licensing requirements
9. Minimum wage restraint
10. Restraint in public sector wages
11. Reductions in government sector employment
12. Changes in the size and composition of public investment
13. Easing of credit restrictions and interest rate controls
14. Devaluation of the currency

III. THE DISTRIBUTION OF POLICY IMPACTS

III.A Identifying the Relevant Socioeconomic Groups

As mentioned above, the analysis of any policy measure on welfare requires an appropriate disaggregation of the population. The ideal is to identify subgroups for whom a given policy measure will have a clear homogeneous effect in terms of direction, magnitude and timing. This disaggregation exercise is very important. If it is not done properly one risks losing some groups between the cracks. Since our primary interest is with those individuals on whom the adjustment measures have an extreme effect, we must be certain that the classification system does not average them in with some more moderately affected group.

While important, one must recognize that partitioning the population into groups is an exercise that will be sharply limited by data availability. Many developing countries have very limited data on these sorts of variables. Even if the data were highly disaggregated and accurate, there is a major problem with blending economic activities and consumption patterns of individuals within a given household which makes some statistical compromise necessary. In what follows we discuss socioeconomic effects of adjustment measures on particular groups in terms of actual household characteristics, referring to analytical but not empirical problems in performing categorization. Section IV covers problems in data accuracy and interpretation in detail.

For the moment, let us take the household as the basic social unit and leave aside differences between individual household members. Households can be grouped according to several criteria. They may be urban or rural. They may grow their own food or purchase it. The economically active members of the household may work in the formal sector or the informal sector. They may be employees, self-employed or unemployed. Table I covers the basic classification criteria for analyzing the effects of policy changes.

A household must be classified according to each major criterion. For instance, a household might be urban with a head in the protected industrial sector who is a paid employee. The family might have consumption basket that consists primarily of food that is a negatively protected import substitute plus some local and imported manufactured goods.

This classification framework is exhaustive in the sense that every household fits in somewhere. In practice, performing the classification is complicated by the fact that, on any given variable, households may not naturally fall into clear-cut categories but rather fall somewhere on a continuum. For example, households' income sources are often highly diversified. Farming households in Africa get an average of one-quarter to one-third of their incomes from non-agricultural activities. Households may have some income earners working in the formal sector and others

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Table 1. Household classification criteria

| | |
|----------------------------|---|
| GEOGRAPHIC | Urban Rural |
| SECTORAL (income source) | Industrial Sector export import substituting protected unprotected negatively protected non-traded Service Sector Agricultural Sector export import substituting protected unprotected negatively protected non-traded Government Sector |
| EMPLOYMENT STATUS | Unemployed Self-employed Paid unskilled semi-skilled clerical managerial |
| COMPOSITION OF CONSUMPTION | Manufactured goods imports exportables import substitutes protected unprotected negatively protected non-traded Services Agricultural Goods imports exports import substitutes protected unprotected negatively protected non-traded |

in the informal sector. Public employees may have significant income sources beyond their paychecks. While these "gray areas" make classification difficult, they should not frustrate the process completely. Rather the problem is to develop meaningful threshold points beyond which a person (or household) is classified under one category and not another.

Further disaggregation may be needed in other areas as well. For instance, government service consumption is by no means a homogeneous category. The relative importance of changes in government services to different groups depends on which specific services are affected. This issue is particularly important in the context of this study and is dealt with separately below.

To determine which groups are likely to be most seriously affected by the adjustment process it is necessary to establish two things. First, one must analyse what changes in the income and consumption of each group occur during the course of adjustment. Second, one must know the initial levels of income and consumption for each group so that it is possible to see who is likely to sink below minimum acceptable thresholds as the process unfolds. These issues are the subject of section III.

III.B Impacts of Demand Management Policies

III.B.1 Devaluation

A devaluation increases the relative price of tradeable goods (whether they are imported or exported) and decreases the relative price of non-tradeable goods. Clearly, households that are engaged in the production of tradeable goods will fare better under a devaluation than those producing non-tradeable goods.

Some examples may be useful. A devaluation should help the cocoa sector in a cocoa exporting country by increasing the local currency value of the exports. Assuming the increase is passed on to the producers, rather than being absorbed in the state trading corporation, wages and employment in the sector should rise and multiplier effects will result from the increased expenditure out of rural incomes. If poverty had been largely concentrated in the rural sector among paid farm labor, the devaluation might be expected to improve the distribution of income. Cocoa forms a very minor part of domestic consumption so the effect of the price rise on domestic welfare would be negligible. This is not always the case, however. Many developing countries export products which are also important consumption items for the local poor. If the export crop is rice, sugar, lumber or cotton, for instance, there may be adverse consumption effects.

The relative price of non-tradeable goods will fall with a devaluation. Service industries and construction will suffer. Workers in these sectors will experience lower real wages and increased unemployment. If there are high concentrations of poor in these areas the overall effect of the devaluation may be to

increase total poverty despite any positive effects in rural areas. There will be additional welfare effects that depend on the relative importance of tradeable and non-tradeable goods in the consumption patterns of rich and poor.

The effect of the devaluation on food prices is especially important. Higher prices of imported wheat and rice can cause serious problems for groups whose consumption is dominated by these commodities. Demand shifts to lower-priced domestic substitutes causing their prices to rise as well. This benefits producers and hurts consumers though they are less hurt when substitution possibilities are good.

Finally, one must consider the relative factor intensity of the tradeable and non-tradeable goods sectors. If the cocoa industry is relatively labor-intensive, while the construction industry is capital intensive the overall effect of the devaluation on poverty will be positive in the sense that the gains are in the labor intensive sector.

In summary, then, the effects of the devaluation will be best from the point of view of poverty alleviation if:

1. the tradeable goods sector is labor-intensive
2. the majority of the poor are employed in the tradeable goods sector
3. tradeable goods are of minor importance to the consumption of the poor

One final point bears mentioning. Worker remittances are an important source of foreign exchange in many developing countries. The terms on which these savings may be held in the domestic country, the rates of interest they bear and the exchange rates applied to them when they are converted into local currency can have an important impact on the magnitude of the flows. This in turn can effect the availability of foreign exchange to the government through changes in the level of foreign currency deposits in the banking system. Moreover the flows of foreign exchange depend on economic conditions in the host countries. When there is a general economic recession remittances fall off and this can cause serious changes in the living standards of the local remittance recipients.

III.B.2 Monetary and Financial Restraint

Restricting the pace of monetary expansion is a goal of most demand management programs. But it is difficult to establish direct links between changes in the rate of growth of the money supply and the socioeconomic well-being of individual groups. This is because the changes can be made in a number of different ways. Raising taxes, reducing government expenditures, limiting private sector access to credit through interest rate hikes or

direct allocation mechanisms - all of these are instruments that can be used to lower monetary growth. Depending on the combination and exact character of the instruments, the impact on various groups will be different. It is usually the structural adjustment phase of the reform program which spells out the appropriate combination and form. We will deal in greater detail with the effects of each instrument in the section on the impact of structural adjustment policies.

But at the macroeconomic level, there are two features of monetary restraint that have an important distributional dimension. The first relates to the role of monetary restraint in reducing inflation. Excessive monetary growth leads inevitably to inflation. There are lags and money growth may drive prices upward in fits and starts because complex expectation mechanisms are at work. But when the inflation does take hold some groups are better protected against it than others. Those on fixed incomes are least protected. Often government employees suffer serious erosion of real wages during periods of high inflation. There may be very serious disruptions of public services before adjustments are made. Formal sector employees whose incomes are determined by the minimum wage rate will suffer if the minimum wage is not adjusted according to the inflation rate. Often the official statistics on consumer prices understate the true rate of inflation. In addition, the basket of goods relevant to determining the purchasing power of particular groups may be different than that used for calculating the overall inflation rate. In both cases inflation may cause significant real income erosion for groups earning the minimum wage. To the extent that lower real wage rates are necessary to correct existing distortions, the longer-run overall effects may be positive in the sense that lower relative labor costs encourage job creation.

The form in which people hold their savings and the availability of instruments which enable people to anticipate inflation has implications for the distribution of wealth. Those who hold cash (a very significant number in many developing countries where the distrust of banks and tax collectors is great) will suffer most. Even those who hold deposits are likely to earn interest rates that do not fully reflect inflation. The holders of real assets will fare best.

III.B.3 Public Expenditure Restraint

The issue of public expenditure restraint is one of the areas in which the tension between macroeconomic adjustment and socioeconomic objectives are greatest. It is not possible to cut government expenditures without hurting some groups. The question is how make selective cuts in a way that minimizes the negative socioeconomic impact on those least able to bear the burden while still meeting the expenditure restraint targets. The issue is complicated by the wide variety of government programs and the variations in quality both within and across countries. In fact,

many governments have gone about as far as they can go with simple across-the-board expenditure cutting without incurring serious reductions in service delivery. Further restraint will have to be done in conjunction with comprehensive restructuring that will make programs more focused and efficient. Only then can expenditure reductions be accomplished without undue disruption. For the moment, however, we consider only expenditure cutting aspects of the problem leaving the restructuring issues for section III.C.

There are two basic components to the socioeconomic impact of expenditure cuts. One concerns the impact of expenditure cuts on factor incomes. The relevant breakdown for this analysis is called expenditure by economic type and includes:

Kenya & 1983

| | |
|---------------------------------|----|
| Current expenditures: | |
| Wages and salaries | 32 |
| Purchases of goods and services | 26 |
| Interest payments | 10 |
| Subsidies | 13 |
| Capital expenditures | 15 |
| Other | 4 |

The other relates to the effect of the cuts on the provision of government services. The relevant breakdown is called expenditure by function and includes:

| | |
|--|----|
| 1. general public services | 13 |
| 2. defense | 14 |
| 3. education | 21 |
| 4. health | 7 |
| 5. social security and welfare | - |
| 6. housing and community amenities | - |
| 7. other community and social services | 3 |
| 8. economic services | 24 |
| 9. other | 18 |

In terms of the distribution of factor payments, it is clear that the impact on the poor will be the least damaging if cuts are made in areas that minimize job losses and concentrate the income losses on a small number of relatively well-off groups. This means lowering capital expenditures, selected subsidies and purchases of goods and services from capital-intensive industries. At the same time payments on wages and subsidies directed to the poor should be protected. Obviously these objectives will have to be carefully balanced against the objectives of structural adjustment.

In terms of expenditure by function, cuts will be least damaging to the poor if the services cut are not the ones relied

upon most heavily by the poor. Cuts in defense and certain items in the general public service and economic service categories are the best. However, it may be difficult to make significant cuts by looking only at the discretionary portion of the budget. Interest payments are large and non-discretionary. In many countries defense may be also. Large percentage reductions in discretionary expenditures may be necessary to get even a small percentage reduction in the overall level.

It is not usually possible to assess the impact of government spending cuts simply by looking and the aggregated government accounts. It is necessary to do detailed analysis at the program level. For instance, the health category may include basic preventive health care that benefits a wide group of the poor. It may also include expensive intensive-care facilities that are used only by the urban rich. In education there are similar differences in the distribution of the benefits of primary and higher-level education.

III.B.4 Revenue Enhancement

The world has yet to stop inventing new taxes. A wide set of instruments can be used to raise revenue. Each has unique distributional consequences and these will be discussed in section III.C.

The distributional consequences of raising the overall level of taxes as opposed to altering its composition are probably not that significant in most developing countries because the scope for increasing taxes is typically not that great. For one thing the tax base is often narrow. Direct taxes account for a much smaller portion of total revenue than in most developed countries despite steeply progressive rate structures. Because of poorly developed administrative systems it is difficult to collect domestic sales and income taxes. The scope for raising border taxes is limited if one wants to avoid introducing new distortions in the trade regime.

If taxes can be increased it is important to consider the overall effects on government finances. If there are restrictions on credit creation so that the deficit cannot be financed by printing money, the alternative to taxing is borrowing. Looked at another way the choice is between taxing today and taxing tomorrow. While there is obviously a redistributive effect between generations it would seem unlikely that there be significant redistribution between rich and poor.

III.C Impacts of Structural Adjustment Policies

III.C.1 Tariff and Import Controls

The typical World Bank structural adjustment agreement has a section on trade tax and tariff reform that removes any quantitative restrictions (QRs) on imports replaces them with tariffs. Then the agreement has a clause to progressively reduce protective tariffs on goods unless there is an infant-industry or an anti-dumping argument that can reasonably be made to retain the tariff. There is often a provision for retaining high rates of duty on luxury items that are not domestically produced. This tends to offset revenue loss of reducing other rates. Further revenue offsets are sometimes made by raising some of the lower rates. The overall effect is to reduce the general dispersion of rates.

The winners and losers in this process are determined by the existing set of tariffs and QRs. One standard pattern of tariff rates is zero or low rates on raw materials, medium tariffs on intermediate goods and high rates of duty on final goods. In addition, food, medicine, state imports and certain other similar items usually enter at very low rates. There are usually special arrangements for petroleum products and these vary significantly across countries.

The impact of the tariff rate changes has production and consumption components. Producers of import substitutes will suffer because they are exposed to greater competition. If the tariff reform is done in a revenue neutral way (i.e. low rates raised and high rates lowered) they may also find themselves exposed to higher costs for imported inputs.

Tariff changes have no effect on the level of competition export producers face in the international market. Exporters may actually be better off if the general tariff reduction has the expected effect of lowering the value of the currency. They will not have to pay higher rates of duty on imported inputs if there is an export rebate system, an export processing zone or temporary admission procedure as is often the case.

Consumers will find that the price of imports and import substitutes will fall. The price of export goods is determined in world markets and will not be directly influenced by the tariff reform. It would appear then that the consumers win all around in respect of traded goods. However, it must be remembered that a general reduction in tariffs will lower the value of the currency. This will tend to offset to some degree the direct consumer gains from tariff reductions. In some instances, reductions in export taxes may be part of the adjustment program. This will be of benefits to producers, but it may mean higher prices for domestic consumers.

The impact on the price of non-tradeable goods will be restricted to the indirect effects of changes in tariff costs of imported inputs. To the extent that these costs fall with the reduction in tariffs, the consumers will gain. There are a wide range of basic commodities, many of them agricultural, which are produced with very little imported inputs. These goods will be largely unaffected by the tariff changes.

In addition to the production and consumption effects of the tariff reductions, it is important to evaluate the impact on the pattern of employment. The workers in the import-substituting sector will tend to lose and those in the exporting sector will gain while workers in the non-tradeable goods sector will be more or less unaffected. Overall changes in employment and wages will be determined by the relative changes in employment and wages will be determined by the relative labor intensity of the three sectors. The incidence of absolute poverty will be determined, in part, by the relative wage levels in the three sectors and the capacity of the workers to adjust.

Finally, it is important to recognize that the government cannot reduce tariffs without suffering a loss in revenues. Customs duties are often a major revenue source especially in smaller countries. Shortfalls are usually made up by increases in excise duties, sales taxes and sometimes income taxes. The more progressive are these alternative revenue sources the less will be the impact on the poor.

At the risk of over-generalizing it may be useful to describe a typical situation. Country X has a protected import-substituting sector that is non-competitive in the world market. It is a relatively capital intensive sector that produces mainly consumer goods such as plasticware, assembled electronic and electrical goods and some intermediate goods such as cement, iron reinforcing bars batteries and car tires. Value added is not high, the import content is substantial and sales are primarily to urban consumers. There is considerable excess capacity. Jobs are all in the urban formal sector. The export sector consists of two commodities copper and coffee. There is a large informal sector that produces yams, textiles and footwear.

The tariff reform consists of reducing duties and import restrictions on the import substituting sector and raising them on cars, gasoline and stereos none of which are locally produced.

With the tariff reductions the import-substituting industries are swamped by cheaper imports. They already have serious excess capacity problems and cannot service the debt they incurred to purchase the equipment. There are bankruptcies and the financial losses to the owners and the banks are considerable. The job losses are all in the urban areas at wage rates that were relatively high.

Consumers of these import-substitutes experience a rise in real income due to the fall in market prices after the tariff

reductions. The construction industry benefits from lower steel and cement prices. Workers shift from import-substituting industries to construction and services. But this takes time and there is a net job loss for a period.

Aside from some migration back to the villages there is little change in the rural sector. Basic food prices remain the same. There is some improvement in the price of cooking utensils and corrugated roofing material.

In general, the poverty effects will be least if the following are true:

- | | |
|--|----------------|
| 1. The protected import-substituting sector | |
| is small | sometimes true |
| has low value added | usually true |
| is capital intensive | usually true |
| produces basic consumer goods | usually true |
| produces intermediate inputs | sometimes true |
| 2. Imported goods are a major share of consumption of the poor | sometimes true |
| 3. Measures taken to offset revenue losses | |
| are higher luxury tariffs | usually true |
| are higher income taxes | sometimes true |
| are other progressive taxes | sometimes true |
| are input tariff rises affecting same industries as in 1. | sometimes true |

III.C.2 Subsidies

Food subsidies are a major expenditure item for many developing countries. Not only do they strain the treasury but they can also be damaging to the agricultural sector. When large quantities of food are imported and sold at subsidized prices there is little incentive for local farmers to produce. The problem is most acute when farmers are required to sell to state trading companies at prices lower than world levels. Efforts to compensate the farmers are sometimes made by reducing certain input costs particularly fertilizer. But this often benefits only the larger and better informed farmers and in also inhibits traditional fertilization and soil conservation methods.

Removal of the subsidies and the freeing of agricultural markets has very important redistributive effects. The urban groups who are the main beneficiaries will suffer. The rural farmers, especially the smaller ones producing crops for local consumption rather than export, may gain. The overall impact on poverty depends on several factors:

1. The relative number of urban and rural poor.

2. Distribution and availability of subsidized food.
3. The degree of targeting of food subsidies.
4. The purchase price controls and marketing board arrangements.
5. The land use substitution possibilities.
6. The consumption substitution possibilities

Clearly the greater the number of urban poor, the more damaging will be the effects of removing food subsidies. However subsidies are often badly targeted. In Egypt, for instance, over 90 percent of all families have food ration cards. There is undoubtedly considerable subsidization of the rich. Cuts could be made by restructuring the system in a way that would leave the truly needy unaffected.

The system of procurement prices for local products, the substitution possibilities in consumption, the land use substitution possibilities all interact in a complex way to determine the overall impact on farmers. An example illustrating the effects of a wheat subsidy may be useful.

Wheat is locally produced but only meets a portion of demand. The rest is imported. The state handles all wheat supplies. The state sells the wheat at subsidized prices and incurs substantial trading losses. It pays the same amount to local farmers as it pays for imports so there is no disincentive to the wheat farmers. (The exchange rate used in comparing local and import prices is the right one.)

But wheat and yams are close substitutes for consumers. Yams are not subsidized and there is no export market for them. Yam farmers clearly lose.

However, yams and cotton are close substitutes for farmers so the yam producers can switch land use and avoid the negative impact of the wheat subsidy. Of course, if there is a procurement policy that restricts the returns to cotton farming the yam farmers will be stuck.

This example illustrates that the effects of a single subsidy (or its removal) can spill over several markets and the overall impact ultimately depends on a range of other policy parameters. To judge properly the socioeconomic impact of subsidy changes, one must ensure that the scope of the analysis is sufficiently comprehensive to catch all the interactions.

III.C.3 Public Enterprises

Reform of public enterprises is an area where there is some overlap of demand management and structural reform objectives. Demand management programs often call for a reduction in the transfers to public enterprises as part of expenditure reduction efforts. The reductions are expected to come from structural reform initiatives. These take several forms.

1. Elimination of excess staffing.
2. Reductions in consumer subsidies that are absorbed in state enterprise deficits.
3. Elimination of inefficiencies related to excessive overheads and poor management.
4. Liquidation of enterprises that are non-viable.
5. Privatization

Items 1, 4 and 5 are likely to result in loss of jobs. The impact of this is generally limited to those directly affected, typically urban workers who have been earning better than the average wage.

The effect of food subsidy reductions has already been discussed. However, state enterprises are involved in a wide range of activities other than food production and distribution. Electricity rates are often subsidized with small consumers paying little or no fees despite the relatively high costs of providing service. Sometimes there are major industrial users who are offered subsidized rates as an industrial incentive. Kerosene, cooking oil and sometimes petroleum products are other goods for which implicit subsidies may show up as public enterprise deficits. The structural adjustment program usually calls for output prices to be brought more closely in line with costs (or opportunity costs in the case of oil exporting countries). Generally, the state enterprise has a monopoly and there is no issue of competing with other producers. The distributive effects of moving towards cost-pricing can therefore be judged by determining who pays more for the good or service.

The elimination of excess overheads and improvement of poor management is unlikely to have adverse effects on poverty and income distribution.

III.C.4 Public Investment

One of the most common areas of expenditure restraint in demand management programs is public investment. There are several reasons for this. First, public investment, especially in large infrastructure projects, is capital intensive and

frequently import intensive. The construction industry suffers but fewer direct and indirect jobs are lost than with other types of cuts. The reduction in imports also relieves pressure on the balance of payments.

But, despite the fact that a sizeable portion of public investment expenditure is for capital goods and imported materials, the related reductions in construction activity can have an important impact on urban poverty. The construction industry has a high concentration of unskilled manual workers who are employed on a casual basis. If there is a general recession accompanying public investment reduction, these workers will be especially hard hit.

Reductions in the level of public investment mean that the level of economic services will be lower than would otherwise have been the case. There is a tendency to cut expenditures for capital and operating costs before cutting wages or employment. This can have a serious effect on the level of service. Workers in the public sector may be left with no materials or equipment and are unable to perform their jobs effectively. Service levels therefore decline more than in proportion to the expenditure cuts.

However, the benefits of public investment can be focused on upper income groups and businesses. Moreover, the annual loss of benefits can be small in relation to costs when the projects are capital-intensive and yield service over many years. If there is a likelihood of recession in the initial stages of adjustment the government may wish to conserve its resources to support transition programs and postpone the investment project.

It must be emphasized, though, that reductions in public investment will eventually hamper long-term development. Moreover, the benefits of improving economic incentives will be much slower in materializing if there are serious delays in providing the necessary supporting social and physical infrastructure that is sustained by public investment.

III.C.5 Government Employment and Wages

The government's wage bill is often higher than appropriate given the country's limited resources. The reasons for this vary widely from country to country. Over-staffing can result in an excessive wage bill, even when wage rates are not sufficiently high to deter the better qualified individuals from going to the private sector or leaving the country. Such a wage and employment policy results in poor quality administration at relatively high cost.

In another common situation, average wages in the public sector are high relative to the private sector. The excesses may be concentrated in the lower and middle ranks. If the senior ranks are underpaid in order that the generally privileged

position of civil servants not be too apparent to the public, there is again a tendency towards poor-quality, high-cost government service.

Finally, it may be that the civil servants as a whole are over-paid and that the government draws too high a share of the best individuals from the private sector. Quality of service may be high but the cost to the treasury and to the private sector is also high.

The socioeconomic effects of changing the wage and employment policy depend on the initial situation. But generally there will be a cut in the wage bill. Since government wages are paid predominantly to residents of the capital city, there should be a reduction in urban bias. If the reductions are to correct for salaries that are too high it is unlikely that there be significant increases in poverty. But if over-staffing is the problem, then urban poverty may increase as layoffs are made.

If there is a restructuring of wage scales to arrest a drain of talented senior staff, there may be, in the longer term, an improvement in the quality of service that will benefit both rich and poor.

In some countries there is more than one layer of government. Nigeria, Kenya and others have important systems of local government that provide services of a social and community nature. These services may be much more important to the poor than the services covered by the central government. A concentration of salary or personnel cuts in local as opposed to central government may serve to accentuate urban bias and also reduce the services most critical to the poor.

III.D Short versus Long Run Impacts

Demand management and structural reform programs attempt to move the economic system towards a better long run posture. It is generally agreed on the demand management side that overvalued exchange rates produce high rates domestic absorption which reduce savings and stunt long-term growth. On the structural adjustment front as well there is a fairly clear consensus that price distortions, subsidies and excessive protectionism make the achievement of full development potential more difficult.

However, the shift from a low growth track to a higher growth track is not a smooth and uniform transition. Things may get worse before they get better. There may be sharp differences in the way the welfare of various groups evolves as the process unfolds. To minimize the instances of serious hardship it is important to understand the dynamics of the transition process and to focus on the relative movements of various socioeconomic groups.

The key difficulty in implementing demand management policies is the potential for triggering a sharp recession. Three of the basic elements of the demand management programs - tightening credit, cutting public expenditures, and raising taxes - all tend to cause a contraction of the economy. The people who will suffer the most are those who are most vulnerable to cyclical downturns in the economy. These are the urban self-employed, formal sector workers without job security, rural landless workers and others without savings or assets to draw upon during the downswing. The devaluation component of the demand management program will have a further dampening effect in the non-tradeable goods sector, although the contractionary effects of this should to some extent be offset by greater activity in the traded goods sector.

Similar transitional problems are evident in the structural adjustment process. The analysis presented earlier in this section on the winners and losers in structural adjustment is a comparative static analysis, that is, it considers who is better or worse off once the economic system has had a chance to fully respond to the effects of the changes. The changes in relative prices, removal of credit and import restrictions, and the reduction in tariff rates may well create new investment opportunities and new jobs. But old factories may close some time before the new ones open. Capital investments that were made at the old distorted prices may no longer be profitable to operate and it will take time to digest the losses implicit in having the equipment lie idle.

In short, there is a question of the responsiveness of supply to the changes and opportunities presented by the structural adjustment policies and the devaluation. If public sector infrastructure has been allowed to decay in the period leading up to adjustment, or if funds for its refurbishment are short because of the demand management policies, it may be difficult for new industrial capacity to be installed. Tight credit policies may contribute to this problem creating further supply response bottlenecks. In addition, there may have been political instability in the period before reform which makes foreign private investors hesitant to provide capital for development.

III.E Composite Effects

The socioeconomic impact of the various structural adjustment and demand management policies has been interpreted in terms of individual household characteristics. Focusing on each characteristic separately is an analytical device that helps to trace the main economic linkages in the system. But each household has a cluster of characteristics. The overall impact of a policy on a given household can be evaluated by reconstituting the whole from its parts. However, the reconstitution process may

not be strictly additive, i.e. the whole may be different from the sum of its parts.

As a practical matter, integrating the consumer and producer sides of the household portrait is the most important part of the "reconstitution" process. For example, one of the main impacts of a devaluation can be an increase in food prices. Imported food prices rise forcing up the price of domestic substitutes as well. While this is likely to have a general effect of reversing urban bias, the impacts in the rural sector are not homogeneous. Farming families also consume food. The question is one of whether they produce a surplus that is sold or simply meet a portion of their requirements. The impact of the policy for each household clearly depends on the exact balance between production and consumption.

In the example above, the production and consumption effects of the policy are offsetting. Where they are reinforcing, and negative, there is potentially a vulnerable group. Formal sector workers producing import substitutes are in this category with respect to a devaluation. The food they consume will become more expensive and there is an increased prospect of unemployment or wage rate cuts because of greater competitive pressure on their output.

The analysis so far has dealt with individual demand management and structural adjustment policies. But these policies are rarely implemented in isolation. Just as there may be reinforcing or offsetting effects over a range of household characteristics, there may be compound effects in a package of policy measures. To assess the overall situation it is necessary to consider the full range of policies and characteristics in an integrated way.

The following table shows the impact of various policy measures by household characteristics in both the short run and the long run. The household characteristics are the same as discussed in section III.A. The demand management policies are broken into two categories: devaluation and other. The "other" group includes monetary restraint, expenditure restraint and revenue enhancement. The reason for grouping the latter three is that we wish to focus on the general macroeconomic contractionary effects of such demand management policies. The distributive effects of specific measures such as reduction of food subsidies and reductions in public investment are dealt with in the structural adjustment section. Two of the policy reform measures discussed in sections III.B and III.C are not covered in the table. The effects of direct tax changes and those of public enterprise restructuring are excluded largely because their implications for the distribution of income and wealth are too dependent on the nature of the specific measures taken to allow a meaningful treatment in the context of this analysis.

IMPACT OF ADJUSTMENT POLICIES BY HOUSEHOLD CHARACTERISTICS

| HOUSEHOLD CHARACTERISTICS | DEMAND MANAGEMENT | | | | STRUCTURAL ADJUSTMENT | | | | | | | |
|---------------------------------|-------------------|----|-------|----|-----------------------|----|---------------------|----|---------------|----|-----------------|----|
| | Devaluation | | Other | | Food Subsidy | | pub. inv. reduction | | tariff reform | | govern. employ. | |
| | SR | LR | SR | LR | SR | LR | SR | LR | SR | LR | SR | LR |
| GEOGRAPHIC | | | | | | | | | | | | |
| Urban | | | | | | | | | | | | |
| Rural | | | | | -- | -- | - | - | | | - | |
| SECTORAL (income source) | | | | | | | | | | | | |
| Manufacturing Sector | | | | | | | | | | | | |
| export | + | | | | | | 0 | - | | + | | |
| import substituting | | | | | | | | | | | | |
| protected | + | | -- | - | | | 0 | - | | - | | |
| unprotected | + | | -- | - | | | 0 | - | | | | |
| negatively protected | + | | -- | - | | | 0 | - | | + | | |
| non-traded | - | | -- | - | | | 0 | - | | | | |
| Service Sector | | | | | | | | | | | | |
| | + | | -- | - | | | 0 | 1 | | | | |
| Agricultural Sector | | | | | | | | | | | | |
| export | + | | | | | | 0 | - | | + | | |
| import substituting | | | | | | | | | | | | |
| protected | - | | - | - | - | - | 0 | - | | - | | |
| unprotected | - | | - | - | - | - | 0 | - | | 0 | | |
| negatively protected | - | | - | - | + | + | 0 | - | | + | | |
| non-traded | - | | - | - | | | 0 | - | | 0 | | |
| Government Sector | | | | | | | | | | | | |
| | | | | - | | | - | - | | 0 | | |
| EMPLOYMENT STATUS | | | | | | | | | | | | |
| Paid | | | | | | | | | | | | |
| employed | | | | | | | | | | | | |
| unskilled | - | 0 | -- | 0 | - | - | | | | | | |
| semi-skilled | - | 0 | -- | 0 | - | - | | | - | + | - | - |
| clerical | | | - | 0 | - | - | | | - | + | - | - |
| managerial | | | - | 0 | | | | | - | + | - | - |
| Self-employed | | | | | | | | | | | | |
| unskilled | - | 0 | -- | 0 | - | - | | | - | + | | |
| semi-skilled | - | 0 | -- | 0 | - | - | | | - | + | | |
| professional | | | - | 0 | | | | | | | | |

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| HOUSEHOLD CHARACTERISTICS | DEMAND MANAGEMENT | | STRUCTURAL ADJUSTMENT | | | |
|------------------------------|-------------------|-------|-----------------------|------------------------|------------------|--------------------|
| | Devalu- ation | Other | Food Subsidy | pub. inv. reduction | tariff reform | govern. employ. |
| | SR LR | SR LR | SR LR | SR LR | SR LR | SR LR |
| COMPOSITION OF CONSUMPTION | | | | | | |
| Manufactured Goods | | | | | | |
| imports | - | | | | + | + |
| exportables | - | | | | - | - |
| import substitutes | | | | | | |
| protected | - | | | | + | + |
| unprotected | - | | | | | |
| negatively protected | - | | | | - | - |
| non-traded | | | | | | |
| Services | | | | | + | + |
| Agricultural Goods | | | | | | |
| imports | -- | | - | - | + | + |
| exportables | - | | - | - | - | - |
| import substitutes | | | | | | |
| protected | - | | - | - | + | + |
| unprotected | - | | - | - | | |
| negatively protected | - | | - | - | - | - |
| non-traded | - | | | | | |
| Government services | | - | - | - | - | - |

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In the table the direction of the impact is indicated by a minus or plus. In instances where the effect is likely to be especially strong it is marked with a double plus or minus. Zero or blank indicates no a priori direction of the effect. Only short run effects are given for tariff reform and devaluation. This is because in the long run such policy measures are likely to result in people changing jobs or sector of employment. There is little meaning to the long run effect on someone in a particular sector if, in the long run, they are not in that sector.

Let us focus first on the areas where there are large negative effects. These consist of those who

1. are heavily dependent on imported food under a devaluation
2. are in import substituting manufacturing industries and/or are in unskilled positions under a contractionary demand management policy
3. are urban dwellers under food subsidy cuts
4. are heavily dependant on government services when there are cuts in public expenditure.

Positive effects are felt for a devaluation in the export industries, the import substituting industries, and among lower skilled workers in the longer run. Tariff reform will also have positive effects for export industries and for less skilled workers in the longer run.

There are several differences between short run and long run effects. First, demand management policies initially have a contractionary effect especially on the manufacturing sector. The impact effect of these reductions tends to be greater than the long run effect. Economists suggest that there is a "multiplier-accelerator" mechanism at work in such instances and that its influence will weaken without additional cuts. Moreover, successful deficit reduction policies should, over time, reduce the debt load from what it would otherwise be, giving greater scope for fiscal stimulus.

Unskilled workers are more sharply affected by demand management policies in the short run than are skilled workers. They have little job security and employers have no incentive to carry them on the payroll through the slump although they might with highly skilled personnel who are difficult to find in more prosperous times.

After a devaluation the less skilled employees in the negatively affected sectors will be cut from the payrolls as soon as the increased competition from cheaper imports is felt. These employees may eventually be better off as they find alternative

employment in new industries which better exploit the natural comparative advantage expressed in the new, more realistic, exchange rate. But in the short run they will definitely be worse off.

A similar process governs the course of events during tariff reform. Formerly protected industries will shrink making way for newer more competitive ones, but with a lag involving transitional hardship for those workers who must shift.

But the most serious cases of hardship emerge when one considers adjustment policies in combination. One common situation involves a devaluation combined with fiscal contraction and reductions in food subsidies. The contractionary demand management policies will hurt workers in all industries that produce for domestic consumption. As far as the devaluation is concerned, unskilled and semi-skilled workers in non-traded goods industries who are heavily dependent on imported food will be most adversely affected. Finally, the reduction in food subsidies hits most net food consumers, particularly urban dwellers.

On the other hand agricultural sector workers and those in the rural regions generally are not as seriously affected. Food subsidy reductions may actually improve incomes and employment in the negatively protected agricultural sector, e.g. wheat and cotton producers in Egypt. Those engaged in export production of all sorts stand to benefit.

Various other interactive effects may be analyzed from the table. For instance, tariff reform is likely to have positive consumption effects offsetting the negative consumption effects of a devaluation, especially where imports are important in consumption.

III.F Other Factors Determining Vulnerability

In all of the foregoing analysis the focus has been on determining which groups are likely to gain and lose in the process of reform both in the short run and in the long run. However, to single out cases of severe hardship it is necessary to know from what base each group is moving. Without knowing the initial conditions it is difficult to judge who is likely to slip below the threshold representing real poverty. Baseline measures of welfare by socioeconomic group are therefore an important issue in isolating vulnerable groups.

Another issue concerns variations in household characteristics within the household groups used above. Family structure can be an important determinant of vulnerability. The existence of nursing children, the number of dependants, the number of income earners, the diversity of income sources and other characteristics can have a critical bearing on

vulnerability of certain families within the broader household groups discussed above.

The ability of households to withstand periods of economic hardship may depend on a range of factors other than the sector they work in or the pattern of their consumption. In particular, the level of savings and the ownership of assets may be critical. Rural smallholders may be much less affected by adjustment than landless agricultural laborers even though they do basically the same work, in the same sector, consume the same goods and live in the same region.

Analysis dealing with broad household groups can serve to indicate where the forces at work in the adjustment process create the potential for socioeconomic stress. It cannot pinpoint the particular instances of hardship. While it is useful to have clearly in view the "winning and losing" sectors and consumer groups that emerge from a given policy package, this is not enough to gauge the depth of individual problems that may arise or to design well-targeted assistance programs to smooth the transition process. To accomplish these tasks, more refined measurements of welfare and family structure are needed. The conceptual and statistical problems of making such measurements are the subject of the next section.

IV. WELFARE MEASUREMENT ISSUES AND METHODS

A variety of socioeconomic, fiscal, and biological parameters have been used to measure welfare. This section examines the validity and practicality of using such measures to judge the socioeconomic impact of macroeconomic adjustment. In the best of all worlds, no one's welfare would be reduced by macroeconomic adjustment. In the absence of rapid growth, however, some reduction in welfare is inevitable and the poorest are least able to sustain further deterioration of their already inadequate living standards. Better-off economic groups can better weather the crisis. Therefore the focus of this section is on welfare of the poor.

IV.A Economic Indicators

Some measure of income or income distribution is usually included in assessment of poverty. Income data are generally gathered from a single informant from each household in a cross-sectional sample. For a number of reasons including inadequate information on other household members' income, concealment of income to evade taxes, and engagement in illegal economic activities, respondents tend to underreport income. The greater the proportion of informal sector income and the lower the income level, the greater is the expected bias.

For the poorest groups, expenditures are often used in lieu of income to measure economic status. While recall errors are likely to underestimate expenditures as well, intentional underreporting of income is likely to be greater in magnitude. Expenditure data need to be matched with price data to determine material well-being since prices vary over time and economic strata.

Another problem with the typical income assessment is that it usually measures only market income (with perhaps one adjustment for nonmarketed agricultural and craft production). The income measure used often excludes the value of time used for essential household functions like cooking, breastfeeding, child care, gardening, fetching fuelwood. When wives and older children enter the work force, household income rises but unpaid household labor is lost or is by lower-quality or higher-cost substitutes. Examples include sibling child care, more expensive and less nutritious convenience foods such as infant formula and its nonnutritious analogues, and purchased fuel and water. These changes cause losses of welfare which may be reflected in poorer nutritional status in the face of stable or even increasing income but which are not fully captured by conventional measures of income and expenditure.

Income measures may also neglect or underestimate income received through transfers, namely remittances from relatives

working in wage-earning jobs in urban areas or abroad. As structural adjustment may affect both the size and value of remittances, recipient households may have to adjust their behavior in response to altered inflows of funds.

While national per capita income is the most widely used indicator of the level of development it says nothing about distribution. Trends in income share or per capita income for the bottom decile or quintile are often used as indicators of the welfare of the poor and are sometimes compared to the income share of the top percentiles. This is probably a fairly good gross estimate of relative welfare, but it does not accurately reflect absolute poverty, and the larger the lower percentile the more heterogeneous is the population with respect to living standards. Welfare is also represented as the proportion of the population whose income falls below some poverty threshold (usually calculated as the cost of a minimum consumption basket). The flaws in such estimates lie in the usually large proportion of the population that falls below the poverty line and the inability to detect those who are worst off.

Another problem with using income data is that they fail to take assets into account. Assets such as housing directly affect living standards. Others, such as land, equipment, and livestock, generate income that ultimately benefits their owners. While the very poor do not have great wealth, liquidation of assets such as draught animals and land can permanently affect income. Very little has been done specifically on the impact of macroeconomic adjustment on the assets of the poor, but work on seasonality (and its attendant financial difficulties) suggests that liquidation of assets is a coping strategy households resort to in the face of severe reductions in income and food availability and severe health problems (Chambers, Longhurst, and Pacey, 1981). Incomplete data on wealth and assets are often available from household economic surveys, but cross-national comparability is lacking.

Housing and household amenities are often used as indicators of wealth. However, trends in housing quality are difficult to interpret. If macroeconomic adjustment forces the poor back into rural areas from the cities (as is often maintained), the predictable reduction in housing quality is of uncertain meaning in terms of welfare. Other assets, such as water rights in an irrigation scheme or rights to community property, are less likely to be affected directly by macroeconomic adjustment.

The social support network is an important non-liquid asset. However, it is likely that this usually durable system of kinship and community relations will be strained by general economic hardship associated with macroeconomic adjustment, thus reducing the household's buffering capacity.

Regardless of the biases and errors in income data, they are widely available and worth examining.

Employment and wage-rate data are also used as economic indicators in many studies of structural transition. Employment rates are difficult to compare across time under changing economic conditions, however. "Employment" in the formal sector may be replaced by informal sector "underemployment," which is difficult to measure. In addition, as household income is adversely affected, non-working members, including children, may enter the labor force, increasing the denominator of the unemployment rate and reducing household production time. It is important, then, to disaggregate employment figures by age and sex as well as by formal and informal sector and by economic sector (agriculture, manufacturing, services, etc.), and to predict more accurately the welfare effects of employment changes. Employment may also be undertaken at the expense of schooling, which has negative impacts on human resource development. Public works employment is often proposed as a compensatory mechanism in macroeconomic adjustment. Hence it is important to differentiate between employment in government schemes and the rest of employment. Presumably welfare is increased when private employment rises. One hopes public sector employment is temporary and merely picks up the slack left over from the private sector. But poorly designed public works programs might also serve as a disincentive to productive employment. In this case employment trends say little about welfare trends.

The unemployed in many countries, particularly in Latin America, are entitled to social security payments. When cutbacks in fiscal outlays are made, social security may be cut. Since the individuals affected are usually ex-government or ex-formal sector employees, the population is heterogeneous in its income distribution although undoubtedly well above the poverty line. Hence efforts to protect social security from cutbacks may be of limited use to the lowest income groups. They are politically important, though because the urban groups are often very vocal and command more of the leaders attention than the less well organized and physically dispersed rural groups.

Wage rates and other means of measuring returns to labor are another way of calculating both welfare and productivity. One difficulty here is that the lower wage employees often have less job security and are the first to be laid off. Average wage rates measured at the aggregate level may therefore rise when economic contraction takes place. It is necessary to disaggregate to wage rates by level of worker.

In many Latin American countries, minimum hourly or daily wage rates are established by the governments but are easily avoided by employers. While some argue that the minimum wage contributes to unemployment and inefficiency, others hold that it is a mechanism for guaranteeing some floor on well-being of the poor. Since minimum wage rates are applied only to permanent, formal sector employees and seasonal agricultural workers, as a

general rule, fluctuations in minimum wages may be irrelevant for many of the poor. One compensatory used by governments in Latin America during periods of structural adjustment has been to raise the minimum wage (or provide cost of living adjustments) to approximate more closely the trends in inflation or the consumer price index. This is assumed to affect the poor positively, but its impact may be instead to lay off the lowest-level employees.

In order to measure accurately or to predict changes in welfare, one should disaggregate data on employment, assets, access to productive inputs, and income by sex, age, urban/rural location, household structure, economic sector, integration into the market, and income class. Disaggregation enables the analyst to classify winners and losers to design more efficient compensatory programs.

IV.B Food and Nutrition Indicators

It is widely asserted the adverse effects of macroeconomic adjustments will be reflected first in malnutrition. This is presumed to occur through reduced purchasing power of vulnerable groups, increased exposure to disease, and cutbacks in infectious disease care (infections are a major cause of malnutrition). The best indicator of gross nutritional status is the weight and height of very young children.¹ Children's growth is sensitive to small changes in dietary adequacy and disease. It is also a good proxy for human resource potential. Although nutritionists usually define weight-for-height as a measure of "acute" nutritional status and height-for-age as reflective of "chronic" nutritional status, in undernourished children under three to five years of age both measures are very sensitive over the short term to nutritional stress. Weight-for-age is also acceptable and has the advantage of being the most widely available anthropometric measure because it is easiest to measure. Sometimes arm circumference is also used as a rapid assessment tool. Malnourished individuals (adults as well as children) are defined as those whose measurements fall below certain cutoff points. For older children and adults weight-for-height or arm circumference measures short-term nutritional insults more specifically.

¹. Weight-for-age and height-for-age are the actual weight or height compared to the international reference standards (NCHS) for the child's age and best expressed as a Z-score (Deviation from the NCHS median as a proportion of standard deviation). Weight-for-height is the comparison between actual weight and the weight of the median reference child of the same height, also expressed as a Z-score.

While anthropometric measures are the best objective and responsive measure of biological well-being,² particularly when examining trends in one population, such data are often not available for the time series desired. National nutrition surveys are infrequent.

Some common samples used for estimates of nutritional status are flawed. For instance, the incidence of malnutrition among hospital admissions or clinic attendees is surely biased and reveals nothing of general trends unless the analysis quantifies the likely degree of bias in the sampled population.

One often-used proxy for nutritional status is food availability at the national, household, or individual level. Aggregate data on food availability (for instance FAO's food balance sheet) say no more about distribution of consumption and the quality of the diet than per capita GDP says about the prevalence of poverty. Even when adjustments are made for income distribution and income elasticity of demand for food (see Reutlinger and Selowsky, 1976; Reutlinger and Alderman, 1982), estimates fail to take into account the dynamics of adjustment to rapid or unforeseen changes in income or prices. But neither household food consumption data nor estimations based on adjustments to aggregate figures address questions of intrahousehold allocation of food, which can also be affected by adverse income shocks (for instance economically productive members might be more protected than others. Household food consumption data, usually collected on a weekly basis, also tend to overestimate household consumption, and therefore underestimate nutritional stress. Individual food consumption (intake), on the other hand, tends to underestimate actual intake because of recall errors or biased reporting. Food consumption data are expensive to collect, analyze, and interpret and must be complemented with analysis of economic and environmental factors.

Household food expenditures have been used most widely in assessments of macroeconomic adjustment. Data usually express households' food budgets as a percent of their total income or expenditures. Expenditures are often used in lieu of income to measure economic status. Both approaches are subject to underestimation of consumption due to recall errors, but the income-based approach involves the additional problem of intentional underreporting of income. Expenditure data need to be matched with price data to determine material well-being since prices vary over time, region and economic strata. Recently Lipton (1983) proposed defining ultrapovertry as those households that spend 80 percent or more of income on food but still consume less than 80 percent of the caloric requirements they need. The ultrapoor differ from the rest of the poor to the extent that

². Although not without problems in field assessment, especially the determination of age and accuracy of anthropometric measures, especially height.

they require additional food and health care in order to bring them to a minimal functional level. That is, they cannot increase income without first being better nourished. While this definition has merit and requires little more than analysis of existing consumption surveys, it has not been widely used. To assess the impact of macroeconomic adjustment using this method would require post-adjustment consumption surveys (as well as baseline data), which are often not available. Moreover, there may be problems when economic hardship causes a family to seek food from nonmarket sources such as barter, agricultural production of the extended family, microagriculture in urban areas, hunting and gathering. Formal sector food procurement, like employment, gives way to unmeasured sources. This introduces unknown errors in the interpretation of cross-sectional food expenditure data.

Of all the foods consumed in the household, one nonmarketed food is of paramount importance to the welfare of the infant. That is breastmilk. The incidence, intensity, and duration of breastfeeding and appropriate introduction of weaning foods can determine the nutrition, health, and mortality risks of children under two years old. When economic circumstances worsen, some poor women adopt breastfeeding instead of bottle-feeding because of its lower cost in spite of lower status which breastfeeding often has. Family hardship can also have the opposite effect, however. Mothers who are forced to enter the work force may not be able to breast-feed their infants. There is little question that initiating breastfeeding, exclusively breastfeeding on demand for three to six months, and continuing breastfeeding along with feeding complementary foods, is the best diet for the young child living in poverty in the developing countries. Data on the trends in infant feeding, however, are rarely used in analysis of macroeconomic adjustment. One breastfeeding promotion program in Honduras appeared to have had enormous success until it was noted that poverty more than education had probably induced a growing proportion of women to breast-feed their children (O'Gara, personal communication). The lesson to be learned here is that some foods of great importance are not captured by food consumption surveys and increased poverty can ameliorate or exacerbate early childhood malnutrition through its effect on breastfeeding. Women's time is of paramount importance to acquiring and utilizing nonmarketed foods.

Still, if household food consumption data are available they can be used to calculate income elasticity of demand, price elasticity of demand (if prices are available), and predictions made about consumption. Substitution of preferred with "inferior" foods (inferior in status but not usually in nutritional value) can offset losses in purchasing power without noticeable nutritional insult. All attempts to link food price increases, income loss, elasticity changes (without cross-price elasticities) to well-being suffer from lack of sufficient detail on such buffers in the food system. It stands to reason that those on the bottom of the income distribution have less

flexibility than others, however. For instance, those already subsisting on basic staples have no further cost-saving substitution options left. Hence it is crucial to know what is the actual level of dietary adequacy among target groups and how low on the food chain they are located.

Food prices and the cost of a minimum food basket in relation to some minimum income or to the CPI, which have been used by some investigators, are useful indicators of dietary stress but they do not necessarily result in increased malnutrition because of substitutions and nonmarket food acquisition. Sen's (1981) concept of "entitlement" provides a useful framework for examining the impact of macroeconomic adjustment on food consumption. The losses (or gains) in food access depend on the nature of food entitlement. If food is procured through the market then income and prices are of greatest interest. Where most of the household food supply comes from own production, access to factors of production (land and labor) determines the household's access to food. Changes in the terms of trade among agricultural sectors--particularly between grains and livestock or between cash crops and food crops--are predictive of changes in welfare of people in those sectors.

Food subsidies have been the focus of much analysis of the macroeconomic adjustment issue. It is widely thought that, where subsidies have increased food consumption among the poor, removing food subsidies will entail adverse nutritional consequences at least in the short-run.

In reality food subsidies have often failed because of poor design and implementation, and they are usually costly. Subsidy systems are often administered through parastatal marketing boards. These boards run large deficits which must be covered from general revenues. Sometimes efforts to contain the deficits result in reductions in the prices offered to local producers. This reduces the incomes of local farmers and gives impetus to the development of parallel markets. Even when local producers are paid a fair price for their output, there is often a non-price rationing system associated with the provision of subsidized food. Time costs involved with lineups and recurring shortages of subsidized items keep the parallel market active. Prices in the parallel market may be higher than they would be without the subsidy system and are certainly higher than the official prices. When subsidies are lowered, the poor may benefit from increased supply and reductions in waiting time. Moreover, the increases in prices may be more apparent than real.

Food subsidy programs may be targeted by food type (inferior status foods like coarse grains, unmilled grains, etc.), geographic area, vulnerable group, or income level. They are intended to be more progressive and less costly, although unintended diversions from such programs are a frequent occurrence. The administrative apparatus is often complex involving food stamps, ration shops and fair price shops. In

general, the more highly targeted the program, the greater the administrative cost and complexity. When reductions are made in these programs there is very likely to be a negative impact on the poor unless the administrative structure is sophisticated enough to cut out the least needy preferentially.

One common misconception about subsidies is that they do not benefit the rural poor because they grow their own food. In many parts of the world, the rural poor are net purchasers of food.³ Usually these groups are landless farm laborers or marginal farmers (Kennedy and Alderman 1987). They often do not benefit from such programs because administrative structures tend to be in urban areas for political reasons. If a targeted subsidized consumption program is designed for urban consumers, little can be done during structural adjustment to reverse the bias and satisfy the politically sensitive urban groups. So reductions in government expenditures on food subsidies negatively affect the poor to the degree that they were well targeted to the poor in the first place. As with other policy areas, it may be possible to take advantage of structural adjustment to reorient such programs toward the poor, but political costs can be high.

Food consumption data are often translated (via nutrient composition tables and comparison to recommended intakes) into some estimate of dietary (usually caloric) adequacy. If the same methods are used for repeated surveys, they provide good data on trends in relative adequacy of the diet. They say little about absolute adequacy or nutritional status, however. The validity of the dietary standards currently in use has been debated in recent years (see Joint FAO\WHO\UNU, 1985) with the result that "standards" have been reduced considerably to take into account smaller body size and assume an inactive person (allowance for occupational and "discretionary" activities are supposed to be added on). These lowered "requirements" are adequate for assessing severe short-term nutritional stress but grossly underestimate the magnitude of both immediate and future undernutrition.

The selection of food and nutrition indications will depend on what is available. Ideally one would have data on nutritional status, household food consumption and expenditures, and food prices. Except for food prices, however, such information is rarely available. In the usual situation, analysts may have to combine the prices of staple foods with some indicator of income trends among the poor to measure changes in purchasing power. In other words, given that data available is almost always "second best", selection of assessment strategy is largely an empirical matter.

³For example, in Thailand, one-quarter of small farmers are net purchasers of rice.

IV.C Health Indicators

The most widely used indicator of welfare in macroeconomic adjustment studies is the infant mortality rate (IMR) (deaths per 1,000 live births). High infant and child mortality rates (CMR--deaths per 1,000 children of that age group) in developing countries are caused primarily by low birth weight, poor prenatal and postnatal care, poor nutrition of mother and child, and high infectious disease load (especially diarrhea, respiratory disease, and measles). In all developing countries infant and child mortality rates have fallen steadily over the last fifteen to twenty years. But the rate of improvement is said to have slowed and this has been attributed to macroeconomic adjustment. Since the rate of decrease in infant mortality slows as infant mortality drops below fifty, interpretation of infant mortality rates is difficult. Certainly increases in IMR are bad, but deceleration could be a sign of either success or failure. The mechanism by which macroeconomic adjustment might adversely affect IMR and CMR is through worsening nutritional status of women (resulting in lower birth weights) and children and reduced access to preventive health care and infectious disease control.

While death is rarely difficult to measure, infant and child mortality rates are often unreliable in developing countries. Reporting mechanisms are inadequate and civil registries incomplete. Children who die very young often never enter the registries as a birth or a death. Because death is a rare event, even in developing countries, large sample sizes are required to demonstrate significant changes.

Morbidity (rates of illness) is a more common phenomenon than death, but reliability of self-reported illness is low, especially when done in a survey without adequate corroboration. The usual ways of expressing morbidity (prevalence, incidence, duration, and severity) each measure a different parameter of morbidity. For survey purposes, prevalence (number of existing cases) is probably the most reliable measure. Morbidity is likely to be adversely affected by deteriorating nutritional status, inadequate coverage of immunization, inadequate access to health service, and environmental contamination. These are a function of both external resources available to the family (food, public and private health care and drugs, income, water supply, and sanitation) and internal resources (household time and management ability), especially of the mother. If macroeconomic adjustment forces mothers to enter the work force, their time and energy to seek health care, prepare adequate and appropriate food, and encourage family hygiene may be diminished with a resulting negative impact on morbidity and probably mortality.

When direct health statistics are unavailable or unreliable, several investigators have used government expenditures on health as an indicator of welfare (Jolly and Cornea; Musgrove; Hicks and Kubisch). Gross expenditures on health are readily available.

However, the allocation of resources within the health sector is of at least as great importance as the total expenditures. Often a large proportion of the health budget is devoted to expensive hospital services that have little impact on overall mortality rates, which are heavily weighted by infant and childhood mortality in the poorest children. Maternal child health and nutrition programs are likelier to have a greater effect on mortality than hospital based curative care, especially chronic disease care. Not only are typical health budgets regressive, but they are also inefficient with respect to delivery of effective services. Budgets are overweighted with personnel costs, even in good times, but when budgetary cuts are made they exacerbate this imbalance by reducing operating costs (particularly drugs, transportation, and maintenance) more than personnel. As a result, medical providers become superfluous. Musgrove has proposed that trends in drug expenditures be used as a proxy for delivery of medical services. The usefulness of this measure may be diminished by simultaneous trends toward charging fees for drugs.

Even if analysis of the health budget demonstrates a change in availability of services, it reveals nothing about dispersion or access to health care. The remote rural areas often have little or no access to publically funded services, and the clinics lack basic drugs or are overcrowded. Private sources of health care including traditional healers are utilized by the poor in rural areas. As with food subsidies, the degree to which funding cutbacks negatively affect the poor depends on the quality of the program originally. Economic crisis has been seized upon as an opportunity to improve the equity and efficiency of such programs.

One mechanism that has been proposed to make services available more equitably is to charge fees for services, especially for drugs, curative care, and hospitalization but not preventive health care. By reducing superfluous demand, one can increase quality of care and availability without denying care to the poor who often use private health providers at considerable cost and for whom the opportunity costs of using crowded public health facilities which lack basic supplies and drugs are too high to make it worth their while. While budgetary savings generated from user fees may not be substantial, the allocative effect can be progressive.

Other measures of health system output include the number and kinds of consultations, proportion of pregnant women receiving prenatal care, hospitalizations and drug consumption. Such data may be irregularly collected or compiled, however, and usually cover only public health services. Where private and traditional practitioners provide a large amount of health care, these statistics become difficult to interpret. As surveillance systems improve, one often sees a paradoxical increase in disease prevalence simply because it is being counted. Hence comparisons

of reportable diseases and service delivery over time may be confounded by improvements in reporting.

Health insurance coverage is increasingly extended to public and private formal sector employees in the higher-income developing countries. When macroeconomic adjustment creates unemployment among this population, they not only lose their income but their health insurance as well. Although they are unlikely to be poor, this group has lost its buffer against illness. If the public health sector is simultaneously contracting, serious illness could mean a catastrophic loss of welfare and liquidation of assets. They can become the "new" poor. Some coverage may be needed (supported in part through public funding) to help them cope with severe illness until they find new employment.

The selection of health indicators depends on the quality and availability of such data in each country. The best analysis would examine global indicators of health (morbidity or credible infant and child mortality data), access to primary health care, and costs and quality thereof. Under less than ideal conditions, one is forced to use unrepresentative or obviously inaccurate figures on mortality, gross health expenditures, service utilization, drug distribution, or even percent of population with piped water. The best antidote for such bad data is to combine it with other kinds of data (economic, nutritional, demographic, and environmental) and to confine time series analysis to comparable data series wherever possible.

IV.D Demographic Effects of Macroeconomic Adjustment

Demographics have a great deal to do with welfare. As a general rule, poorer households are larger, so deterioration in household income has a more profound effect than on smaller households. Family dissolution, female-headedness, and polygamy are associated with worse health and nutrition of children. Female-headed households are usually poorer as well. Urban migration results in overloaded urban infrastructure even though the migrants themselves may be better off than their peers in the rural areas. Teenage pregnancy, closely spaced births, and high parity are associated with severely compromised health of mothers and children. Macroeconomic adjustment may affect any or all of these variables depending on the changes in incomes, prices, and perceptions faced by the poor.

Few studies have examined the demographic effects of macroeconomic adjustment aside from mortality rates. One would assume that household structure might be affected, as incomes fall, to the extent that urban households might tend increasingly to incorporate extended family and unrelated members as incomes and employment drop. When these additions are made within existing floor space, crowding can occur. It can also result in construction of additional but substandard living space. This

trend might be offset by a deceleration in urbanization brought on by layoffs in government and industry and increased returns from agriculture. Little has been written about the impact of macroeconomic adjustment on international migration. One would assume that it would increase, and governments would not discourage international migration since remittances comprise a significant share of foreign exchange earning. Absence of the (usually male) head of household, however, creates economic strains on many households. Female heads of household with absent husbands may be worse off than female heads of household with no husbands. They both experience low incomes, but the latter control family resources while the former must often defer to the decisions of the absent head.

One might also expect delayed age at marriage because of the parents' need for income or services from the older children. Delaying age of marriage (and perhaps age at first conception) would have reduce birth rates, which would be beneficial for maternal and child health. However, if delayed marriage means an increase in illegitimate births, then the impact on the child would be negative if family and community support does not compensate for the absence of the father.

Family dissolution is also likely to increase in times of economic hardship, increasing the number of female headed households who are more likely to live in poverty. Birth rates might increase or decrease depending on the effect of incomes and price changes on short-term parental investment strategies. Where contraceptive demand is a major determinant of birth rates, cutbacks in government family planning programs would bring about an increase in birth rates.

IV.E Education

Schooling and literacy have been positively associated with increases in nearly all desirable outcomes of development--labor productivity, agricultural productivity, infant mortality, life expectancy, nutritional status, and family planning. Therefore it is a matter of great concern that some investigators have warned that macroeconomic adjustment results in lower school attendance, greater dropout rate, and early entrance into the work force. Enrollment rates are difficult to interpret in many countries because, in the early phase of educational development, enrollment of overage children in school boosts apparent rates (gross enrollment of all ages at primary level as a percent of primary-aged children). As the educational system matures, enrollment rates fall because fewer overage students are included. In the interim, it is difficult to interpret the real implications of a rise or fall in enrollment. The most common proxy used, however, is public expenditures on education--both gross amounts and composition. Although literacy might seem to be a more direct measure of educational outcome, it is difficult to measure functional literacy using survey instruments. In terms

of equity and efficiency, public educational funds are better spent on primary education than on secondary and university education. Secondly, the proper balance needs to be maintained between personnel costs and operation budgets (material and infrastructure). As with health, personnel are often protected at the expense of teaching materials, so the composition of the education budget is important.

Imposition of fees for higher education add efficiency and equity to the system so that cutbacks in education budgets can be ameliorated by improved efficiency. In many countries--Haiti and Kenya, for instance--private education is in great demand even among the poor, reflecting their willingness to pay for education they deem to be valuable.

During periods of economic hardship children may be forced out of school and into the workforce or into household labor to replace older siblings or parents who are forced to work outside the home. This trend would have serious long-term cost to national development. Since poor health and nutrition also reduce educational efficiency, economic hardship would have second-order effects on education and productivity as well.

IV.F Economic Downturns and Social Indicators

When economic hardship increases, some investigators have observed an increase in antisocial behavior--alcoholism, crime, spousal and child abuse, child abandonment, and violence. These noneconomic contributors to the quality of life have not usually been systematically included in assessments of welfare impacts of macroeconomic adjustments, however. Such behaviors often exacerbate malnutrition, disease, and mortality as well as impair psychological well-being.

Using socioeconomic indicators of poverty--especially to detect short-term responses to economic change--requires sufficient disaggregation to identify vulnerable groups. At a minimum this means disaggregating by income group, rural/urban residence, economic sector(s) on which household economy depends and household structure.

V. Summary

In summary, there are many pitfalls in predicting social and microeconomic impacts of structural adjustments from the usual kinds of data available. Many potentially valuable kinds of information are rarely collected. Others are collected in a form that is of limited usefulness. There are problems because the data cannot be disaggregated, the representativeness of the sample cannot be determined, public and private buffers are

unexplored, breakdowns of public expenditures are needed, or because details on program targeting and access are missing. In general, much greater information is needed about what happens within the household.

Given the caveats and pitfalls of each method of measuring changes in welfare, especially when no baseline exists, there is no obvious way to accurately assess or predict impact of macroeconomic policy changes on physical well-being. If major new data collection is to be undertaken, it would be most useful to collect data on household food consumption, income or expenditures, employment or daytime occupation of each family member (including school, searching for work and unpaid work at home), access to and utilization of government services and income transfer programs, and some rapid indicator of health (e.g. weight of pre-schoolers of a certain age).

Short of undertaking a major data collection effort, the best strategy is either (a) to analyze existing data in an opportunistic fashion, joining together complementary sources of information, or (b) to undertake a rapid small-scale data collection effort. If the opportunistic approach is taken, efforts should be made to use different kinds of information (e.g. incomes, prices, physical well-being and public transfers). While individual indicators may be of debatable validity, the weight of evidence from multiple and disparate sources of information has been convincing in analysis to date. If the rapid appraisal approach is taken, individual, household, and community well-being should be assessed (e.g. weight of pre-schoolers, household food expenditures, and location and operating hours of the nearest health clinic). The sample should be representative of geographical and economic diversity with some oversampling of low income groups.

V. REVIEW OF EXISTING STUDIES

A small but rapidly growing body of empirical work investigates connections between adjustment programs and socioeconomic trends. Of particular interest are trends in employment, incomes, poverty incidence, consumption and access to social services of low-income groups during the course of adjustment. This section reviews existing work on the socioeconomic implications of macro adjustment. First the conceptual issues involved are discussed, particularly the problem of establishing causal links between adjustment measures and socioeconomic trends. Then the findings of existing studies are reviewed.

V.A Conceptual Issues

V.A.1 Capturing Causalities

The strategy a country uses to deal with difficult circumstances obviously influences how the costs of adjustment are distributed among socioeconomic groups. Yet most studies of the socioeconomic dimension of adjustment are based on straightforward description of trends. This represents a major conceptual problem because trends pick up both exogenous developments and the strategy chosen to deal with them. As discussed above, the external environment facing LDCs has unquestionably deteriorated in 1980s. Many countries have also faced on-going problems of erratic weather, ecological stress, domestic or regional political instability, accelerating population growth, and outbreaks of disease. This constellation of circumstances has been associated with declining per capita incomes, elevated unemployment and other adverse socioeconomic trends in the 1980s. Yet it is extremely difficult to figure out where the adjustment strategy has fit in. This is because the relationships between exogenous shocks, macroeconomic policies, and socioeconomic developments are often highly complex, and the nature, direction and magnitude of causalities are seldom very clear. Consequently empirical work does not tell us as much as we would like about how best to minimize negative impacts through correctly timed and sequenced combinations of adjustment measures.

The following section discusses existing studies which do attempt to address this problem of capturing causalities. Available methodologies have not yielded especially useful results so far, though some promising progress is being made in the area of formal economic modeling. Following this, the advantages and limitations of purely descriptive approaches are discussed.

V.A.2 Alternative Methods

(a) Cross-country comparisons. One way of attempting to trace the links between adjustment strategy and socioeconomic outcomes is to compare countries' experiences in contending with exogenous shocks. Almost 15 years have gone by since the first oil price shock, so examining alternative adjustment strategies ought to be able to shed some light on likely consequences of alternative approaches.

Cross-country studies are valuable for a variety of reasons. But they are not particularly well-suited for measuring the influence of the country's adjustment strategy on socioeconomic trends. First, for comparisons of policy impact to be meaningful, cases must be selected to minimize differences in non-policy factors (e.g. climate, geography, social and economic structure, initial import and export composition, timing and magnitude of external shock, etc). Few country sets or pairs are satisfactory in this regard.

Second, even when cases are selected to minimize readily-identifiable sources of variance, difficulties still arise in establishing the extent to which differences in outcomes were due to different policies. Country selection does not eliminate non-policy causes of differential performance but merely scales them back to some non-quantifiable degree.¹ In other words, there is potential for a high degree of ad hoc-ism in this approach. Nothing constrains analysis to disentangle effects of policy from other factors, so in the end much depends on the conscientiousness of the analyst.

Finally, documenting the relationship between socioeconomic developments and alternative adjustment strategies for a single country is not a simple task. Comparisons between two or more countries tend to multiply the methodological problems involved. Available empirical data are not comparable in type and scope, so that the best one can do is weave together a tight description of differences between cases. This can provide a highly useful "first crack" at the issues involved (e.g. Pfeffermann et al. 1986). But again it does not provide any basis for sorting out effects of policies from those of non-policy variables.

(b) Formal economic modeling. In contrast to cross-country comparisons, efforts to capture causalities through

¹ For this reason, the few studies that have tried to measure the importance of policy in explaining differential economic performance have not found that it had an overwhelmingly important role (Wheeler 1985).

formal economic modeling are highly systematic. But, at least at this time, this approach is not well-developed enough to be of practical use. Analyses relevant to this area are based on general equilibrium (CGE) models and related social accounting matrices (SAMs).

Basically, these models assemble data from the national accounts and associated household surveys to set up a complete "stylized" picture of the economy (see King 1981; Pyatt and Round 1985). The models capture the various important linkages within an economy: what inputs are bought from what sectors to be used in production of what goods; what level of income different groups receive from their activities; how different groups spend their incomes on different goods; the level and composition of government expenditures and revenues and the ways in which these influence economic activity; how the domestic economy articulates with the rest of the world via import demand, export supply, and net capital flows.

General equilibrium models themselves do not explicitly capture distributional issues. But their companion social accounting matrices (SAMs) were developed precisely for this purpose. The degree of disaggregation embodied in the SAM can be quite high, varying with the quality of data available and the purposes of the modeling effort.² To use Pyatt and Round's (1985) terminology, "first generation" SAMs focus on describing linkages between socioeconomic groups and productive sectors at a particular point in time. The more elaborate "second generation" SAMs build in stylized behavioral relationships necessary to set the stage for policy simulations.

Once set up, these models can be used to simulate the general equilibrium - i.e. economy-wide - effects of alternative policy scenarios, given particular developments in exogenous variables. With an accompanying "second generation" SAM, one could then trace through the consequences of particular policy options on the incomes, employment prospects and expenditure patterns of specific socioeconomic groups. In theory, this provides both (a) a basis for disentangling the respective influences of "bad luck" and "bad policy" (Sanderson and Williamson 1985), and

² For example, the Sri Lankan SAM divides households into urban, rural and estate sectors, then identifies six income brackets within each sector. The Cote d'Ivoire SAM has two rural groups (farmers and rural unskilled) and three urban groups (low-, medium- and high-income). The Thai SAM has 7 household groups: rubber farmers; non-rubber farmers, fisherman, etc.; own-account businesses; and blue collar, white collar and casual workers. See Pyatt and Round (1985).

(b) an important tool in designing socioeconomically appropriate adjustment strategies.

Unfortunately, the state of the art for addressing distributional issues within these models is still fairly primitive. CGEs have been used extensively to examine the impact on macroeconomic aggregates of alternative policies for dealing with exogenous shocks.³ As such, they generate some information relevant to socioeconomic developments, particularly the impact of policies on the rhythm of economic expansion or contraction and trends in private consumption. For example,

- the Cote d'Ivoire CGE model found that there was no way to reduce the balance of payments deficit without decreasing living standards. However, devaluing the currency while removing selected import quotas caused less hardship than a straight devaluation or a trade liberalization equalizing rates of effective protection across sectors.
- A (Keynesian) model for Nigeria found that a 30% devaluation would produce a fairly sharp short-run erosion in real wages. But within two years, real wages would be only 3% below their previous level, growth would rise from 2.8% to 3.6%, and the current account deficit would be cut by 25%.
- the Thai CGE found that a 10% wage cut would lead to a 14% improvement in the current account deficit. But, apart from being politically difficult, this strategy had a smaller impact than alternative policies.

One of the key weaknesses of simulations performed to date is that they rarely address distributional issues of alternative adjustment strategies, even when they are capable of doing so (Sanderson and Williamson 1985). One important exception is de Melo and Robinson's (1980) work on devaluation and distribution. They trace the distributional effects of response to terms of trade deterioration in three archetypical economies: one exporting primary products, another exporting manufactured goods, and third which is relatively closed. Some of their key results:

- As one would expect, underlying economic structure is important in determining (a) the magnitude of devaluation required for adjustment, and (b) its impact on the living standards of different groups.

³ See Sanderson and Williamson 1985 for a summary of World Bank efforts in this area.

- In all cases, devaluation improved the income share of smallholders. But the income share of unskilled laborers and urban informal sector workers decreased in the closed and manufactured export economies, as devaluation-induced price increases eroded their real incomes.
- In all three economies, poverty increased as a result of the deterioration in the terms of trade. But the composition of poverty varied with the adjustment strategy chosen. For example, in the primary product exporter, poverty among smallholders fell if the country adjusted via devaluation, whereas it increased if the country adjusted via foreign exchange rationing.

Since SAMs and SAM-related models are well-suited for evaluating distributional issues, the World Bank's "Social Costs of Adjustment in Sub-Saharan Africa" project intends to develop them in tandem with basic data collection to the extent that macroeconomic data permit. There is some disagreement about the usefulness of SAMs. This is because their complexity and the assumptions required to perform simulations can obscure underlying economic dynamics, i.e. results seem to be generated through a "black box" process. At the same time, the general equilibrium approach represents a major improvement over more piecemeal forms of analysis, since it develops a consistent picture of (a) how the size of the national pie is evolving over time and (b) how particular groups' pieces are changing in both relative and absolute terms. For this reason, it is likely that further development of SAMs and SAM-related models will eventually generate better-quality answers to questions about distributional consequences of alternative adjustment strategies.

V.A.3 Descriptive Approaches

Given the fairly overwhelming problems associated with capturing causalities, most work has instead remained on the methodologically firmer terrain of describing socioeconomic trends from empirical data. The key findings of such studies are summarized in the following section. Here some comments about the usefulness and limitations of descriptive approaches are made.

Well-done descriptive work is highly useful as a "first crack" at the issues involved in adjusting to altered external circumstances. In particular, detailed case studies give some sense as to (a) what has happened over time to the employment, incomes, and consumption of particular socioeconomic groups; and (b) how the basic needs of poorer groups have been affected by specific patterns of budgetary cutbacks. With balanced interpretation of available data, descriptive studies can signal emergence of critical

situations meriting actions on the part of both governments and donors. For example, the studies by Pfeffermann et al (1986) on poverty and depression in Latin America clearly demonstrate that "the effects of the [1980s economic] crisis on the poor are extremely serious, and that it would be unwise to wait for resumed growth before reforming government agencies dealing with education, health, nutrition, and other social services."

At the same time, focus on description generates an obvious attribution problem. In particular, nothing within descriptive work requires or allows systematic specification of causal factors involved in explaining socioeconomic trends. Thus, analysts may agree that social conditions seriously deteriorated in a particular country during a certain period, but they disagree as to the causes.⁴ Consequently it is difficult to derive clear and widely-accepted recommendations about how objectives of macro adjustment can be achieved without imposing undue hardship.

Nonetheless, perfect knowledge of causal relationships between adjustment measures and socioeconomic trends may be beyond our grasp, but better knowledge than we currently have is not. Work in progress through the World Bank project as well as AID's Africa Bureau will no doubt improve understanding of the connections between adjustment measures and socioeconomic trends as they have emerged in selected Sub-Saharan African countries. In the meantime, however, findings of existing studies do provide information on likely socioeconomic consequences of adjustment measures which is of relevance in defining appropriate donor strategies within the coming years.

V.B Findings of Existing Studies

V.B.1 Degree, Duration and Distribution of Hardship Associated with Adjustment

For a variety of reasons, getting out of the "transition" and into the "sustained growth" has taken much longer than expected in most countries undergoing systematic adjustment. External conditions remain unfavorable. The weight of debt overhang is consequently very heavy. Often

⁴ Thus the main questions in the debate prompted by UNICEF: was deterioration caused by the nature of the adjustment strategy and therefore could have been avoided? or did it result from continued adverse developments in external conditions? or was it exacerbated by the government's failure to implement the adjustment program as planned? or were non-policy factors such as weather and civil unrest integrally involved?

implementation of adjustment programs has not proceeded as planned due to rapid changes in external factors, political tensions associated with reform, unexpected bad weather, etc. Private sector response to adjustment measures has been cautious, partly due to considerable uncertainties about government commitment to reform.

Existing studies largely document the hardships of the transition, particularly during (a) initial contractionary periods associated with stabilization, and (b) ensuing and often extended periods of recovery. Here we report the findings of existing studies on related socioeconomic trends, particularly trends in employment, incomes, consumption, poverty incidence, health and nutrition, and access to social services.

Before we turn to specific findings, it is worth stressing that the studies reveal significant variation between countries in the degree, duration and distribution of hardship associated with the transition. With respect to the degree and duration of hardship, three important factors are:

- (1) the magnitude of the adjustment problem. In general, the larger the magnitude of the adjustment problem, the larger the initial contraction required to stabilize the economy. Countries with heavy debt burdens and significant terms of trade deterioration have been particularly likely to undergo pronounced - and sometimes prolonged - recessions (e.g. Chile). This includes many of the heavily-indebted middle income countries, as well as low-income countries in Sub-Saharan Africa.
- (2) the "deep-rootedness" of the adjustment problem. In general, the longer the period of postponing adjustment via ad hoc measures, the more deep-rooted the problem becomes in the sense of producing a distortion-driven economic structure. Large divergences between the pattern of investment, production and employment and underlying international competitiveness tend to produce large initial contractions in inefficient sectors and long periods before growth resumes. In contrast, some countries developed large cyclically-induced macro imbalances in the early 1980s that had to be addressed through stabilization; but because their underlying economic structures were basically competitive, growth resumed, unemployment fell, real incomes returned to normal levels, etc. with world economic recovery (e.g. Costa Rica).
- (3) the level of development and degree of economic dynamism. The speed at which benefits of adjustment materialize depends on countries' level of development

and degree of economic dynamism. For example, the medium-term impact of devaluation on encouraging efficient import substitution and non-traditional export promotion is likely to be much greater in a context where a dynamic group of industrial entrepreneurs already exists. Higher food prices raise small farmers incomes and induce a supply response only if they are integrated into the market via a system of decent roads. Reorienting government services to target the poor may take an unacceptably long time if the bureaucracy does not work well to begin with. In other words, while adjustment may be a necessary condition for sustained growth and development, it is not necessarily sufficient.

The distribution of hardship varies across countries according to the adjustment strategy and its interaction with patterns of employment, income generation, asset ownership and other aspects of the socioeconomic structure. But, in general, urban groups are far more likely to experience acute difficulties than their rural counterparts. Urban-based sectors of the economy tend to be much more dramatically affected by adjustment measures. Lay-offs occurring in the early phases of adjustment are concentrated in urban-based formal sector firms, public enterprises and government. Urban consumption patterns tend to have higher import content than rural patterns, so purchasing power of income is more strongly eroded by measures raising prices of imports, notably food. Contraction of formal sector employment and incomes, as well as spill-over of laid-off workers into informal sector activities, can depress incomes of informal sector workers through a multiplier process.

Concentration of adjustment-related hardship in urban areas is therefore said to have an equalizing distributional effect, since (a) urban residents have higher incomes on average than their rural counterparts, and (b) the incidence of absolute poverty tends to be lower in urban than in rural areas.⁵ This is of little consolation for two reasons. First, the relatively high urban average often derives from a very unequal urban income distribution, where a large share of total income is concentrated in middle- to upper-income groups. Thus, the information content of the average may be low.

Second, relatively lower incidence of poverty in urban areas does not mean that the incidence of poverty is low in absolute terms. On average, rural poverty incidence is 15 to 25 percentage points higher than urban poverty incidence in

⁵ This is the case in 24 of 32 countries for which data are available in the World Bank's Social Indicators of Development 1987.

Asia, Latin America and the Caribbean, and Sub-Saharan Africa; the difference is much narrower in North Africa. Nonetheless, one-quarter to one-third of urban populations are poor. Moreover, after decades of rapid urbanization, urban areas are now home to large shares of the population, especially in Asia, Latin America and the Caribbean, and North Africa. Consequently, in these regions one-quarter to one-half of all poor people live in urban areas. In Sub-Saharan Africa, in contrast, only 15% of all poor people are found in the cities and larger towns.

In short, the urban concentration of negative effects of adjustment may indeed equalize rural/urban income distribution. But of and within itself, equalization of incomes is not desirable since, especially during contractionary phases of adjustment, equalization may be associated with serious deterioration in the absolute living standards of lower-income groups.

V.B.2 Adjustment and Employment

Unemployment. As expected, unemployment has tended to increase in the early phases of adjustment when fiscal and monetary contraction are being used to stabilize the economy. In Chile, unemployment rose from 6% to 17% in the mid-1970s when the country's long-standing orthodox stabilization efforts were initiated. Elsewhere in Latin America, systematic adjustment began around the time of the 1980s world recession when net capital inflows dried up. Where resulting contraction was severe, unemployment increased substantially.⁶

Urban-based unskilled workers were particularly affected by contraction in job opportunities.⁷ Investment levels declined sharply in the adjustment process since (a) the brunt of government spending cutbacks fell on the investment budget, and (b) private investment also contracted due to depressed aggregate demand, considerable economic uncertainty, and incentives for capital flight.⁸ The associated slowdown in construction activity sharply reduced jobs for manual laborers, many of whom tended to be recent migrants to the cities and only casually employed.

⁶ Pfeffermann (1986); Altimar (1985).

⁷ Pfeffermann (1986); Altimar (1985); French-Davis and Raczynski (1987).

⁸ Thus, for Latin America as a whole, real per capita investment fell by 33% between 1978 and 1984 (Musgrove 1987).

In Subsaharan Africa, unemployment trends cannot be documented. Labor market statistics cover only the 10% or so of the labor force employed in the formal sector. However, data from a handful of countries - Cote d'Ivoire, Malawi, Zambia - do show reductions in total formal sector employment during contractionary phases of adjustment. Very little can be said with precision about this reduction except that three factors are involved. First, as in Latin America, deficit reduction efforts have involved sharp cutbacks in public investment and related drying up of construction jobs for unskilled laborers.

Second, in selected countries,⁹ efforts are being made to scale back employment in government and public enterprises to reduce government expenditures on wages and salaries and transfers to PEs. In general, government staff reduction programs have focused on trimming back the ranks of lower-level employees since overstaffing was perceived to be most pronounced at this level. Particularly affected have been those without tenure in the civil service.

Third, reductions in current account deficits have been realized through severe reductions in imports, given perceived difficulties in increasing export revenues in the short run. In some places, this has given rise to "import strangulation", i.e. private firms' inability to get imported intermediate inputs necessary for production. Lay-offs have resulted, again apparently concentrated among lower-skilled workers since firms have tried to hang onto experienced, skilled workers till crises pass.

Shifting employment patterns. Few studies or statistical sources permit documentation of how employment patterns have shifted over time following initiation of systematic adjustment. Available information is therefore primarily suggestive.

In the absence of government-provided safety nets, many urban workers laid off from paid jobs take up casual work or informal sector activities. In Costa Rica, this produced an increase in underemployment: the share of the work force classified as "underemployed" rose from 8% to over 13% during the 1980-82 crisis. In Chile, the crisis of the early 1980s exacerbated employment instability among the lower echelons of the work force: a study of the slums of Greater Santiago found that less than 50% of the economically active population had a stable job. However, in many Latin American countries, this trend reversed itself as recovery proceeded,

⁹ C.A.R., Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Nigeria, Somalia, Zambia.

i.e. people were drawn out of low-income informal or casual activities back into better-paying, more stable jobs.¹⁰

Elimination of price controls appears to have created new opportunities in informal sector commerce in some Subsaharan countries; for example, in Ghana, the "renaissance of legal trade" attracted many of the laid-off workers from the civil service and public enterprise. In Ghana and Nigeria, increased involvement in informal sector food processing is reported to have accompanied higher prices of food imports, as consumers shifted to lower-priced domestic substitutes (e.g. cassava).

Rural-urban migration decelerated in Brazil and Mexico, as urban job opportunities contracted. In Costa Rica, employment in agriculture increased during the worst year of the crisis, partly because the extent of erosion in real wages made it attractive for farm owners to hire more workers (see below). However, this trend reversed itself when recovery was underway. In some Subsaharan African countries (e.g. Ghana and Nigeria), urban contraction - as well as improvements in the rural sector's terms of trade - reportedly provoked some urban-rural migration, though this trend has not been statistically documented.¹¹

The labor force participation rate increased markedly in Costa Rica during the crisis, as non-heads of household entered the labor force to compensate for sharp reductions in family income. Poorer households were particularly likely to intensify their labor force involvement as a coping strategy: among this group, 12% more household members of economically active age joined the labor force, of which three-quarters found work. But again this trend reversed itself as the economy recovered.¹²

In some countries, governments and donors have set up emergency employment programs to buffer hardships of economic contraction and related displacement of workers. The Chilean programs have provided work for 5-13% of the labor force. Pay is set at below minimum income to avoid creating incentives for permanent dependence on government assistance, but the programs have played an important role in supplementing and reducing the variability of poor households' incomes. Few Subsaharan African countries have such safety net programs in place. International agencies

¹⁰Fields (1986); French-Davis and Raczynski (1987); Pfeffermann (1986).

¹¹Pfeffermann (1986); Collier (1985); West Africa, various issues.

¹²Fields (1986); Altamar (1985).

have therefore been more involved in setting up and financing schemes to alleviate hardships in worker displacement. The ILO in particular is supporting schemes to help laid-off public sector employees resettle in private sector activities via training and small business credit programs, agricultural resettlement schemes, and emergency public works programs.

V.B.3 Adjustment and Incomes

Trends in GDP per capita. In many countries undergoing adjustment, GDP per capita declined in the early- to mid-1980s, reflecting the combined influences of economic contraction or stagnation with continued high rates of population growth. In 1986, per capita GDP was 15% lower than it was in 1978 in Subsaharan Africa and almost 10% lower in the 15 heavily-indebted countries. In contrast, it was 25% higher in countries primarily exporting manufactured goods.¹³

Of and within themselves, these trends suggest declining living standards of worrisome proportions in countries with adjustment problems. Of course, trends pick up the multiplicity of factors influencing aggregate economic performance, including all the adverse external developments discussed above. Indeed, simple statistical analysis confirms intuition about the severity of the adjustment problem and trends in per capita income: GDP per capita has tended to decline more rapidly in countries facing heavy debt burdens and significant terms of trade deterioration than it has in countries facing less adverse external developments.

There is still a considerable amount of "noise" left in data on trends in per capita GDP, i.e. these external conditions explain only a small part of the variance between countries in trends in per capita GDP. No doubt more variance could be explained through incorporating factors connected to adjustment strategy and other exogenous developments (e.g. rainfall), though such a task is clearly beyond the scope of this paper. Nonetheless, it is clear that, in the 1980s, acute adjustment problems have been associated with marked compression in average living standards, whether on a short-lived or persistent basis.

Other information on incomes. Of course, trends in GDP per capita do not provide any information on two issues of key concern: (a) how reductions in income are distributed among socioeconomic groups, and (b) how the incomes of the

¹³IMF World Economic Outlook 1987.

poor have been affected by economic stagnation or contraction. Labor market and household surveys provide important supplementary information in this regard.

Data on real wages for Latin America and Sub-Saharan Africa show that, for urban wage earners, nominal wage increases have lagged far behind rates of inflation in the 1980s, resulting in marked erosion of real wages.¹⁴ In Mexico, real wages fell by over 25% between 1981 and 1983. In Brazil, unskilled workers' wages dropped by almost one-third between 1980 and 1985. In Costa Rica, average wages fell nearly 40% between 1979 and 1982 due to a bout of severe inflation. Real wages have recovered somewhat as countries pulled out of the crises of the early 1980s. But for the most part real wages remain below their pre-crisis level.

In Sub-Saharan Africa, governments have exercised high degrees of restraint in adjusting public sector pay scales for inflation, first as part of ad hoc adjustment strategies and now in accordance with terms of IMF agreements. Given the rapid rates of inflation prevailing until recently, nominal wage restraint has resulted in prolonged and sometimes severe real erosion of public sector and legislated wages.¹⁵ Though there is substantial variation between countries, on average, the official minimum wage now commands one-half of the purchasing power it commanded fifteen years ago.

There is no clear pattern across countries as to how income reductions have been distributed within the urban wage-earning work force. Altamar (1985) documents trends between 1979 and 1982 in five Latin American countries. In Chile during this period, households at the bottom and the top of the income distribution experienced the largest percentage reductions in income, whereas those in upper-middle income categories did much better than average. In Panama, the exact opposite pattern emerged: middle-income groups suffered the largest percentage reductions in income, while those at the tails did better than average. In Colombia, incomes of blue collar and self-employed workers fell by less than incomes of employers, professionals, and managers. A similar pattern occurred in Costa Rica. In Venezuela, low-income households experienced larger than average reductions in income in Caracas but smaller than average reductions in agricultural regions.

Little can be said about the incomes of those outside of the urban wage-earning sector in Latin America. Real

¹⁴Bianchi et al (1986); Pfeffermann (1986).

¹⁵Lindauer et al (1985); Harris and Starr (1987).

agricultural prices increased in Brazil, Chile and Mexico. At least in Brazil, the terms of trade shifted in favor of farmers and against the urban sector. While this benefited farmers, it had an adverse impact on the poorest group within society: landless farm laborers. For this group, higher food prices contributed to significant reductions in their real wages, in the order of 30% in Brazil and Mexico.¹⁶

In Sub-Saharan Africa, there is some evidence that (a) income reductions have been most pronounced among mid- to upper-income groups, and consequently (b) the degree of dispersion in incomes has narrowed since the mid-1970s. Within the public sector, salaries of higher-level staff have received much less protection from inflation than those of lower-level staff. This has significantly squeezed skill differentials, as the real salaries of the former have fallen substantially more than those of the latter in relative terms.¹⁷

At the same time, restraint in adjusting legislated wages for inflation appears to have eroded differentials between formal sector wages and incomes in the informal or agricultural sectors. For example, between 1970 and the mid-1980s, the average differential between the minimum wage and average agricultural income was cut in half. Indeed, in a number of countries in the mid-1980s, real legislated wages virtually collapsed, falling to 10-20% of their value 15 years earlier (Ghana, Somalia, Sudan, Zaire). In these places, minimum wage workers - once a relatively privileged group - received paychecks below the average agricultural income. However, most no doubt had extensive involvement in other income-generating activities to supplement their meager paycheck.¹⁸

While it is probable that formal sector incomes fell more rapidly than other incomes, it is not so clear what has happened to the latter. Of particular concern is the incomes of small farmers, who make up the majority of the poor in Sub-Saharan Africa. Nominal prices of export and food crops have increased to varying degrees in most countries. But it is difficult to tell what has happened to farmers' real incomes, particularly because consumer price indices are based on urban consumption bundles and therefore are unlikely to be suitable for measuring the purchasing power of rural incomes.

¹⁶Pfeffermann (1986).

¹⁷Lindauer et al (1985).

¹⁸Harris and Starr (1987).

The only hard statistical evidence comes from Côte d'Ivoire during the 1980-1984 period, when a serious stabilization effort provoked marked economic contraction. Overall, real per capita incomes declined by almost 7% per year during this period. But rural incomes were much less severely affected, declining by only 1.2% per year. Urban incomes dropped by almost 11% per year, though low-income urban households fell at a rate of 4% per year, i.e. by much less than the urban average.¹⁹ Thus, for Cote d'Ivoire at least, the dramatic negative effects of adjustment were concentrated among those groups best able to withstand hardship, while poorer groups were better buffered from the effects of aggregate contraction.

V.B.4 Adjustment and Poverty Incidence

Regularly-collected statistics on poverty incidence are not available for Sub-Saharan Africa. Some studies have reported trends in poverty incidence in Latin American countries between the late 1970s and mid-1980s. Overall, they confirm what one would expect: poverty incidence tends to increase during periods of economic contraction, with larger magnitudes of contraction associated with larger increases in poverty incidence. For example, Altimir (1985) reports that, in the period 1979-1982, poverty incidence increased markedly in three places experiencing significant recessions (Chile, Costa Rica, and urban Venezuela). In contrast, incidence continued to decrease in three places where the effects of recession were mild (Colombia, Panama, and an agricultural region of Venezuela).

Altimir's data also suggest that households with large numbers of children were particularly vulnerable to becoming poor in periods of generalized economic downturn. In the places where poverty incidence increased, increases were concentrated among households with larger numbers of children. In fact, in Caracas, the increase was almost exclusively among households with 3 or more children. Conversely, where poverty incidence declined, decreases were also concentrated among households with larger numbers of children.

Overall, female-headed households, like households with large numbers of children, experienced higher rates of poverty than other households. But the connection between female-headedness and vulnerability to cyclically-induced poverty was less clear than it was in the case of households with large numbers of children. In Chile, female-headed households tended to have more difficulties contending with recession than their male-headed counterparts. The opposite

¹⁹Noel (1986); see also Section IX of this report.

was true in Costa Rica. In two of the three places where poverty incidence declined, female-headed households lagged behind (Colombia and the agricultural region of Venezuela). In the third, poverty incidence actually decreased more rapidly among female- than among male-headed households (Panama).

V.B.5 Adjustment and Consumption.

Trends in private consumption. In many countries undergoing adjustment, expenditure reduction has emphasized compressing investment rather than consumption. Thus, while many countries registered declining per capita consumption in the 1980s, often private consumption per capita fell less rapidly than investment per capita. The strategy of placing a larger burden of adjustment on investment does provide some measure of protection to current living standards. But this protection is in part at the expense of future growth and consumption.²⁰

Of course, trends in private consumption derived from macro data tell us nothing about the magnitude, composition, distribution or significance of consumption reductions accompanying adjustment. Yet better information is scarce. In assessing the links between adjustment and consumption, the key concern is changing quality and quantity of food intake, particularly among poorer households. Sources of information useful to varying degrees in this regard include (1) caloric intake per capita, and (2) household-based consumption and expenditure surveys.

Caloric intake per capita. Data on daily caloric intake per capita need to be taken with a large dose of salt, for all the reasons described in Chapter IV. Data suggest that, in heavily-indebted middle-income countries, levels of per capita caloric intake increased steadily in the 1970s but fell by an average of 2% between 1980 and 1984. In 8 of 15 countries, however, levels prevailing in the mid-1980s remained above those of the early 1970s.²¹

In Sub-Saharan Africa, per capita intake levels also declined by about 2% on average in the 1980s, though their initial levels were lower than those in the middle-income countries.²² In Africa, however, declining per capita intake did not start in the 1980s. In fact, 1985 intake levels were below levels prevailing 20 years earlier in 17 of 23 low-

²⁰Development Committee (1987).

²¹Ibid.

²²Ibid.

income Subsaharan countries for which data are available.²³ These trends may well signal an alarming situation. But they do not tell us much at all about the link between adjustment and food intake in Subsaharan Africa, since they clearly also pick up the full range of longer-term problems facing agriculture on the continent (recurrent drought, increasing demographic pressure, declining productivity, etc).

Other information on consumption. The few household-based surveys covering consumption trends over time tend to confirm a correlation between declining caloric intake and periods of economic downturn, particularly among low-income households. They also suggest significant changes in the composition of food expenditures when the level of real expenditure declines, with diets becoming less varied and more dominated by staple foodstuffs.

In Chile over the course of the 1970s, the poorest 20% of all households reduced their real expenditures on meat, oils, milk, eggs, vegetables, and sugar by 20-30%. In contrast, real expenditures on flour and flour products increased slightly. Moreover, the average daily caloric intake among this group was 17% below the FAO norm in the late 1960s.²⁴ In 1978, the average had dropped to 30% below the norm.

In Mexico, the depression caused lower-middle income people to shift the composition of their diets in favor of cheaper foods (e.g. chicken, eggs and potatoes, substituted for beef, milk, pork, sugar, and canned goods).²⁵ In Costa Rica, there was a slight reduction in per capita intake of calories, protein, fat, carbohydrates, and calcium, especially in rural areas.²⁶

V.B.6 Adjustment and Access to Social Services

Public expenditures on social services. In the absence of measures of consumption of various types of social services, most studies attempting to get at the connection between adjustment and access to social services focus on public spending levels in health, nutrition and education. Real compression in social spending per capita has accompanied deficit reduction measures, with the degree of compression varying across countries. In general, social

²³World Development Report 1987.

²⁴French-Davis and Raczynski (1987).

²⁵Pfeffermann (1986).

²⁶Ibid.

spending has been less severely squeezed than other types of expenditure, notably investment and productive programs.²⁷

How compression in real social expenditure has affected the level and composition of social services provided, particularly to the poor, is not clear but appears to vary across countries. In Sub-Saharan Africa, it seems that the worst-case scenario has often arisen: the efficiency with which available resources are used has deteriorated at the same time that the total resource availability declined.²⁸ In particular, in terms of the economic classification of expenditure, public expenditures on materials and supplies have been compressed much more severely than wage expenditures. Thus, not only are social service personnel poorly-paid, but they very often lack complementary inputs needed to perform their work: clinics lack drugs and clean water; schools lack books, paper, chairs and desks, etc. In some extreme cases, social service delivery has virtually collapsed as a result. For example, in Ghana, real health expenditure per capita declined by almost 80% during the years of chaotic adjustment and economic decline. Thus, between 1979 and 1984, attendance at hospitals and clinics dropped by almost one-third.²⁹

In Latin America, there is no evidence that declining efficiency in social service provision has accompanied real expenditure reductions. For example, a study of health care in Central America found that, although total health care funding levels had stagnated, the balance between personnel and operating cost expenditure was more or less maintained.³⁰

However, in some cases, the composition of social services provided has been altered in the course of real expenditure reductions. There is debate as to whether this has increased, decreased or left unchanged the access of the poor to social services. The evidence is ambiguous. In general, it seems programs most heavily utilized by low-income groups have been better protected from real expenditure reductions than other programs. In Brazil, for example, funding for preventive and ambulatory health care has done better than expenditure on higher cost services like hospitalization.³¹ Similarly, in several countries,

²⁷See for example Kubisch and Hicks (198)

²⁸Starr (1987).

²⁹See Cornia and Stewart (1987).

³⁰Musgrove (1987).

³¹Ibid.

spending on primary education has suffered less than spending on higher education. However, it is unclear whether this has succeeded in maintaining lower-income groups' access to social services or whether it has provided them with some degree of differential protection from the full impact of real expenditure reductions.

In Chile, deliberate efforts were made to target social services to poorer groups.³² Aspects of health care had been privatized in the 1970s. But functions remaining in the government domain were streamlined to address the needs of poorer groups, particularly mothers and children at nutritional risk. Intensification of mother-child health care programs did contribute to continued progress in reducing infant mortality and malnutrition, despite the extremely difficult circumstances poorer families were facing.

Also to better address the needs of the poor, public spending on education in Chile was reoriented from secondary to primary school programs. However, this reorientation has not been particularly effective: primary school enrollment rates sagged and drop-out rates increased. Addison and Demery (1987) place considerable emphasis on improving returns to assets owned by the poor as a means of alleviating poverty in the course of adjustment. Unfortunately, the Chilean experience with attempting to improve the human capital of young poor people illustrates that such efforts do not always take hold in difficult economic periods: day-to-day pressures to make ends meet, bleak medium-term job prospects, etc. can make education look like a very uncertain investment that takes too long to yield.

³²French-Davis and Raczynski (1987).

VI. EVALUATION OF EXISTING STUDIES AND HYPOTHESIS GENERATION

In this section results of existing studies are used to derive working hypotheses about the socioeconomic impact of macro adjustment. Availability of evidence to confirm or reject the hypotheses is discussed. This approach serves the dual purposes of evaluating existing work as well as indicating what unresolved questions might be addressed using alternative research methodologies. In this second respect we hope to set the stage for case studies to be done in the following sections of this report.

VI.A The Rural/Urban Impact of Macro Adjustment Policies

Existing studies indicate that several adjustment policies have potential to exacerbate urban poverty in the short- to medium-run. Yet rural poverty is unlikely to increase and may well be alleviated even in the initial phases of adjustment.

Factors weighing against the urban sector include the following:

Hypothesis 1. Trade liberalization by itself tends to hurt workers in the urban formal sector when firms in this sector were originally heavily protected.

Hypothesis 2. Devaluation can sharply reduce urban purchasing power by raising the cost of imported food and domestic substitutes.

Hypothesis 3. Food subsidy reductions have a negative impact on most urban dwellers, especially the poorer ones, depending on the degree of targeting.

Hypothesis 4. The impact of public investment reductions may be concentrated in urban areas especially if the cuts involve urban construction projects.

Hypothesis 5. Government wage and employment restraint will have urban-focused effects since a large proportion of the public sector jobs are in the major cities.

Hypothesis 6. Government services are sometimes urban-biased so reductions in the level of these services will be more damaging to urban dwellers.

In contrast, adjustment policies tend to have positive or smaller negative effects in the rural sector:

Hypothesis 7. Many trade regimes in developing countries have been biased against agriculture. Tariff reform should therefore raise crop prices and thus increase farmers' incomes.

Hypothesis 8. Farmers will benefit from devaluation and the removal of exchange allocation mechanisms favoring food imports.

Hypothesis 9. Farmers will benefit from marketing board reforms which reduce implicit taxes on agricultural goods and bring producer prices closer to world levels.

It is generally true that urban incomes are higher than rural ones, so one might conclude that the effect of these policies is progressive. But there is a real danger of significant increases in urban poverty. For the types of reform measures discussed above the urban groups at greatest risk are casual workers in construction jobs associated with public investment, unskilled workers, workers in inefficient import-substituting industries, and public sector employees with no tenure or job security. These people are often in lower-paid urban jobs and have the potential to form a new class of urban poor if they become unemployed.

There will be some losers in the rural sector as well. In particular, families that are net food purchasers may not benefit from the increase in the relative price of agricultural products. Landless farm laborers may experience a deterioration in purchasing power in the short- to medium-run. There may also be increased burdens put on the rural families with members returning from the cities.

In summary, it would appear that structural changes are unlikely to increase rural poverty and may well reduce poverty among smallholders even in the short-run. But urban poverty may be exacerbated in the short-to medium-term, particularly due to increased food prices and contracting job opportunities for unskilled workers. Rural landless laborers and net-food-purchasing households may also be negatively affected.

VI.B Welfare Measurement and Trend Analysis

Available data on socioeconomic trends are not always as comprehensive or reliable as one would like, though they do provide some empirical basis for understanding how living standards have evolved during adjustment. Several key factors are not picked up in available statistical sources, although they exert significant influence on living standards and are likely to change in the course of adjustment.

Substitutions in the allocation of time to different activities may have important effects on welfare. Time substitutions are not reflected in regularly-available data on income and expenditure primarily because the activities are unpaid. The main areas for concern here include reductions in womens' work for the family, removal of children from school for domestic services, reduction in the level of nutrition for infants, and reduction in the quality of care for children.

Another problem area concerns the functioning of the social support network. Greater economic hardship in urban areas may provoke significant migration back to the villages. Families that must support those returning will suffer a reduction in living standards because of crowding effects which may not be adequately reflected in the statistics. Moreover, economic recession often reduces the social support network's capacity to meet members' needs simply because the effects of the contraction are generalized.

A further weakness concerns inadequate treatment of the role of assets in buffering the effects of recession. The distribution of liquid assets is very important to determining the distribution of hardship. In addition, the time span over which economic pressures can be sustained without serious injury is directly related to the stock of such assets. Despite the relevance of such matters to the design of adjustment programs little useful research is available.

Adjustment programs often cause a variety of changes in relative prices, thereby encouraging changes in consumption patterns and/or households' productive activities. Inadequate tracking of these changes can result in serious biases in the measure of real incomes. For example, consumer price indices are based on the cost of a fixed bundle of goods. Yet the bundle of goods consumed may well be adjusted when relative prices change. If for example consumers switch to less expensive domestic foodstuffs when the price of imported food rises, the consumer price index can overestimate the extent of erosion of purchasing power. But when there are few substitution possibilities in consumption, price increases may be significantly more damaging to living standards. Similarly, producers are better off if production substitution possibilities exist under changing prices than if they are unable to adjust the composition of output to reflect the changes. Without information on the flexibility consumers and producers have to respond to price changes, there is a risk of getting a biased measure of the impact of adjustment policies.

Finally, there is a tendency, because of data limitations, to rely on aggregated data. These data are clearly inadequate in assessing distributional effects.

From these observations on the issue of welfare measurement and trends, the following set of hypotheses can be developed:

Hypothesis 10. Where adjustment has been associated with increased unemployment or significant income erosion, welfare of the lower socioeconomic groups is likely to decline because of reductions in time spent in unpaid services within the household. This reduction is not reflected in income or expenditure data.

Hypothesis 11. Sharp changes in relative prices influence the pattern of real income changes by socioeconomic group. The pattern of changes is determined by differences in the composition of consumption and income-earning activities between the groups. These effects are difficult to pick up from aggregate data.

Hypothesis 12. Asset ownership offers a mechanism for buffering household consumption levels against changes in income. Asset distribution is therefore an important determinant of changes in welfare, yet it is rarely measured from available information.

Hypothesis 13. Household structure often changes during adjustment. Such changes may involve greater sharing of fixed resources and as such imply reductions in welfare which are likely to be concentrated among the poor.

Hypothesis 14. Changes in the provision of public goods and services have resulted in reductions in welfare for certain groups. In general, higher-income groups may have experienced larger relative reductions in access to public goods and services than their lower-income counterparts. Yet the relatively smaller reduction for lower-income groups may be more serious given their far more precarious living standards.

VI.C Connection between Macro Imbalances, Adjustment Strategy and Socioeconomic Trends

Most empirical work on macroeconomic adjustment does not clearly trace linkages between policy measures and specific socioeconomic groups as outlined in the hypotheses above. Often no effort is made to separate the effects of policy measures from those of changes in external conditions. Instead, much of the work to date focuses on describing trends in socioeconomic conditions during adjustment. While trend analysis is important, it obviously does not offer

adequate explanation or analysis of the impact of macroeconomic adjustment. These trends can be better understood through more detailed analysis of the links between these trends and the macroeconomic context within which they occur, particularly the magnitude of adjustment problems and the nature of the policy package in use to address these problems.

Existing studies suggest that, with the exception of food price changes, it is not the structural policies directed at adjusting relative prices and ensuring greater economic efficiency that are most likely to increase poverty. Rather it is the policies relating to the containment of aggregate demand that pose the greater threat.

Moreover, the gains that should come from freeing up the economy so that prices reflect scarcity values and true comparative advantage will be much slower to materialize in an environment of sharp economic contraction where there are no resources for infrastructure development and sources of private investment capital are tight. In this regard, the following hypotheses can be developed:

Hypothesis 15. Macroeconomic contraction during the early phases of adjustment constitutes the greatest and most immediate threat of increased poverty.

There is no doubt that the macroeconomic contraction has to (or had to) occur. Deterioration in external circumstances left many developing countries with no alternative but to adjust rates of domestic absorption. The key questions relate to improving the growth-orientation of adjustment programs and managing the social costs of the transition. There is considerable scope for improving the growth-orientation of adjustment programs through optimal pacing and sequencing of reforms. Debt relief, safety net programs and special bilateral programs all have a role to play in alleviating the extent of compression required within a given time period, as well as maximizing the prospects for resumption of growth.

Hypothesis 18. Because of this need to bring domestic absorption in line with domestic production, deterioration in socioeconomic conditions has occurred in most countries during the period of adjustment.

Hypothesis 16. The greater are the initial macroeconomic imbalances (excessive external and fiscal deficits, highly overvalued exchange rates, rapid inflation, etc.), the greater the domestic contraction necessary to restore balance and the greater is the potential for socioeconomic stress.

Hypothesis 17. The supply responsiveness of the economic system is critical to determining the length and depth of hardship. Too sharp a contraction can seriously undermine the supply response because of import strangulation and infrastructure decay. Failure to make structural adjustments in parallel with the demand management policies can also weaken the supply response.

In terms of how the burden of adjustment is distributed among socioeconomic groups, some of the systematic, model-based approaches do attempt to address this question. Specifically they establish a framework for assessing the influence of individual policies sufficient to restore external balance on rate growth of the national "pie", as well as its distribution between socioeconomic groups. The state of the art in these models is not as sophisticated or as realistic as one would like but they do represent an important improvement over other methods.

An alternative to the model-based approach is to use data on income distribution by sector or by social strata to assess how the costs of adjustment have been distributed among socioeconomic groups.

Hypothesis 18. The relative movement of income and expenditure shares gives an indication of the distribution of the deterioration across socioeconomic groups.

Hypothesis 19. Small farmers will be best buffered from effects of economic contraction when adjustment measures include agricultural sector reforms of the type discussed above.

Hypothesis 20. Urban unskilled people will be better buffered from economic contraction when there are opportunities to become involved in informal sector activities oriented toward producing income-inelastic or import-substituting goods (e.g. food processing, clothing manufacture, metal work).

VII. METHODOLOGY FOR ANALYSING THE SOCIOECONOMIC IMPACT OF MACROECONOMIC ADJUSTMENT

VII.A. Introduction

The purpose of this section is to set out a methodology for analysing the socioeconomic impact of macroeconomic adjustment programs. This methodology will then be used in case studies of Sri Lanka, Côte d'Ivoire, Morocco and Costa Rica, presented in subsequent sections.

Two main factors have conditioned the choice of methodology. First, as discussed above, the impact of adjustment programs on living standards is difficult to sort out from the effects of the problems giving rise to the need for adjustment. Setting up a comprehensive policy simulation model is one way of sorting out the two sets of influences. This is obviously a resource intensive process well beyond the scope of this study. Yet incorrectly attributing changes in living standards to adjustment programs must be avoided. The methodology presented here therefore takes as its point of departure an examination of the size and nature of macroeconomic imbalances. This provides some sense of the government's "room to manoeuvre" in defining its adjustment strategy. In this way, account can be taken of the "inevitability" of adjustment for countries with serious difficulties, as well as the degree to which average living standards are likely to fall even under the best of all possible policy regimes.

The second factor is the availability of data. Standardized, relatively up-to-date macroeconomic data are available for most developing countries. But data on socioeconomic variables vary widely from country to country in terms of their scope, reliability, timeliness, etc. The methodology presented here is not tailored to the existence of particular data. Since data are often less than ideal, efforts have been made to devise a methodology that will be useful with typically available existing data or with data that could be collected at a future stage without major time or expense.

While these constraints are somewhat confining, they parallel the situation facing many USAID officials who must make decisions about supporting macroeconomic adjustment programs devised by individual developing countries and the multilaterals, and must do so in a tight timeframe without the benefit of unlimited research resources. By imposing

these same limits on the development of the methodology, it is hoped that what emerges may be readily extended to countries beyond the case studies and will be of practical use to decision makers.

The methodology begins with a description of the size and nature of the adjustment problems facing the country. Then the economic structure is analysed along the lines suggested in Section III of this report. This lays the foundation for assessing the likely impact of adjustment measures. In particular, the poor are identified and described in terms of their production and consumption activities. The third step is to lay out the adjustment actions actually taken.

The fourth step describes the evolution of income patterns over the adjustment period. The key issue here is what happened to the income share of the poor during periods of economic contraction. The rationale for examining this issue is to get a sense of whether the adjustment strategy provided differential protection to the living standards of the poor, given that adjustment usually requires an initial compression of domestic absorption.

The fifth step focuses on trends in the absolute living standards of the poorest groups. It is here that links between specific adjustment measures and their impact on the poor are traced. Relative price changes of relevance to the production and consumption activities of the poor will be analysed, as will the employment implications of the programs. By focusing on the poor, greater effort can be devoted to uncovering the specific mechanisms by which adjustment programs influence poverty. This will prove more efficient in terms of making progressive refinements to adjustment programs, rather than trying to produce a projection of the impacts of adjustment programs across the whole socioeconomic spectrum.

The final step provides an analysis of the role of government services in the adjustment process and describes or indicates potential for compensatory programs to alleviate poverty in the critical areas identified earlier.

Success of this approach in analysing the impact of adjustment programs without recourse to large-scale modelling will depend on a well-focused and tightly-reasoned assessment of the causal links between adjustment policy actions and the welfare of the poor. This is the reason for devoting a significant part of the work to defining economic structure and identifying where the poor fit into it.

VII.B. Measuring the initial adjustment gaps

The analysis of macroeconomic adjustment must begin with a clear specification of the macroeconomic imbalances that have given rise to the need for adjustment. These imbalances take many forms and their relative importance differs across countries. Their size and nature largely determine the nature and extent of adjustment actions that must be undertaken. They therefore have a direct bearing on the distribution of adjustment costs across socioeconomic groups. This section sets out measures that can be used to quantify imbalances so that analysis of adjustment can be carried out in a systematic and consistent fashion both within and across countries. The best sources of information are given for each type of gap measure along with an indication of the timeliness of the information available.

VII.B.1 The Balance of Payments

Balance of payments gaps are perhaps the most common form of macroeconomic imbalance since it is through the balance of payments that changes in external conditions are communicated to the domestic economy. The two major components of the balance of payments are the current account and the capital account. The current account balance can be further subdivided into the trade balance and the invisibles balance where the latter includes debt service payments.

Major external imbalances that must be addressed typically emerge when (a) the trade balance deteriorates because of changes in international commodity prices or excessive domestic economic stimulation causing import surges, and/or (b) the country's access to external capital declines. To cover a trade deficit the country must register a capital account surplus usually through borrowing. As external debt mounts, rising debt service payments cause further deterioration in the current account. Difficulties may be compounded by reductions in the flows of commercial or concessional financing. Large or chronic external imbalances of this sort erode creditworthiness, become unsustainable, and must eventually be closed as part of the adjustment program.

Not all countries suffer to the same degree from imbalances in the external accounts. There are several important measures of the imbalances, and data supporting these measures are readily available on a timely and standardized basis through IMF and World Bank sources. They include the following items:

1. The trade balance
2. The current account balance
3. The capital balance (commercial and concessional)
3. Debt service payments
4. The debt service ratio
5. Terms of trade

VII.B.2 The Exchange Rate

A closely related matter concerns the gap between the currency's official exchange rate and a rate which better reflects the scarcity value of foreign exchange. The issue is to determine the extent of the devaluation necessary in the adjustment program. There is no unique measure of the degree of devaluation required to correct the exchange rate gap. First, the rate could be lowered by enough to reduce reserve losses to zero. A further devaluation would be necessary to accommodate the elimination of exchange rationing mechanisms while maintaining reserves. Finally, the rate might be set so as to maintain reserves in the face of tariff reductions that are included as part of the adjustment package.

There are several readily available sources of information on how the magnitude of overvaluation has changed over time. One is the difference between the official rate and the parallel rate which represents the premium generated by the restricting access to official foreign exchange. If an auction or other liberalized exchange allocation system were instituted the auction rate would rise although perhaps not as high as the old parallel rate. However, information on how parallel market rates evolve over time is not always readily available, particularly when the parallel market is illegal.

Real exchange rate indices are more readily available in World Bank, IMF and other publications. Roughly speaking, these indices measure the extent to which differences in the rates of inflation in a country and its trading partners are reflected in adjustments in the exchange rate. These indices give an idea of the pace at which the official rate is becoming overvalued, although they do not say much about the necessary magnitude of the devaluation. There are several ways of calculating real exchange rate indices. Measures based on consumer price indices capture changes in the purchasing power of the currency at the official rate, while those based on wholesale price indices reflect the relative cost competitiveness of domestic goods. These indices are calculated both with and without the effects of tariff changes.

VII.B.3 Fiscal balance

Evidence on the extent of the fiscal deficit is also usually widely available. Actual (as opposed to estimated) figures on the size of the deficit are usually finalized within a year of the end of the fiscal year. It is useful to look at trends in fiscal balance over time to see if the financing requirement is growing in absolute magnitude and in relation to GNP. The sources of any increases should be identified by examining major components of government revenues and expenditures. It may be that the problems are temporary as would be the case if crop failures or other natural disasters gave rise to emergency expenditures. On the other hand, components of expenditure which regularly grow faster than GNP may need to be the target of adjustment policies. Particular attention must be paid to the importance of interest payments and the government's ability to service the level of debt that has already accumulated.

VII.B.4 Money and Credit Policy Adjustments and Inflation

A situation in which inappropriate money and credit policies are pursued may emerge for a number of reasons. Often they result from budgetary pressures that translate into excessive bank borrowing. This can crowd out domestic investment and/or can cause increases in domestic money supply which are disruptive and inconsistent with longer term stability in the value of the currency. There are several standard indicators that are used to check for gaps emerging in this area. Most of them are readily available in central bank publications, as well as those of the IMF since program performance targets usually include monetary variables:

1. The level of bank borrowing by the public sector
2. The proportion of the deficit covered by bank borrowing
3. The rate of domestic credit expansion
4. The real rates of interest on deposits and loans
5. The extent of nonprice rationing of credit
6. The inflation rate

VII.B.5 Regulatory and Price Distortions

This is an area in which quantitative measures tend to be less standardized and are not calculated at regular intervals. Essentially the issue is one of determining the extent to which price distortions and undue regulatory impediments to economic activity reduce efficiency and restrict growth potential. Since price policies and the degree of government intervention in markets are frequently a key focus in the design of adjustment programs, World Bank

and IMF background analyses typically attempt to quantify their prevalence and magnitude. The list below gives a series of specific indicators.

1. The number of goods for which there are quantitative restrictions on imports.
2. Effective rates of protection where such calculations have been made for industrial and agricultural subsectors.
3. The number and value of goods on which there are price controls.
4. The rates and revenue yields of export taxes.

VII.C Economic structure

The role of economic structure in determining the distribution of the costs of adjustment was analysed in detail in Section III of this study. The first step in the case studies will be to describe the structure of the economy as fully as time and data will permit, using the breakdown of sectors and goods outlined previously. In brief, households are classified by geographical location, income source and by consumption pattern. Income sources include the industrial, service, agricultural and government sectors. Some further disaggregation should be made according to whether people are involved in the production of tradeable or non-tradeable goods. In addition, workers are classified as paid or self-employed and are divided into skill levels. Consumption patterns are defined in terms of the same basic set of goods and services as is used for the income sources. Identifying food expenditure patterns by socioeconomic group is of particular importance here (e.g. share of total expenditures allocated to food, the composition of food expenditures, etc).

The second part of the description of the economic system is the distribution of income (and where available assets). Efforts will be made to demonstrate how income shares have evolved over the reform period.

The third step will be to identify the poor. The ideal would be a detailed breakdown of income by source on a household basis in order to understand how adjustment measures were likely to influence poor households' employment prospects, incomes and consumption. Data constraints make this task difficult, but the objective will be to construct as clear a picture as possible of who the very poor and the moderately poor are and to describe them both in terms of the type of work they perform and the kinds of goods they consume.

Finally, other available data that might be useful as indicators of welfare will be identified. These data might include nutritional and anthropometric data from special surveys, health statistics, information on access to health care (e.g. clinic visitations).

Throughout this stage of the work it will be important to find data on living standards that are linked in some direct way to the production and consumption activities of households. Such linkages are essential to tracing the effects of various reform initiatives through to their impact on specific groups. Without them, one may have an indication of how much suffering there is, but there is no way to establish cause and effect relationships or to analyse methods for improving adjustment policies.

VII.D Adjustment actions

The purpose of this section will be to outline the major adjustment actions taken during a particular period. Discussion will focus on areas where links between adjustment actions and incomes, consumption patterns and employment prospects are likely to be important. The impact of adjustment measures on macroeconomic aggregates will be briefly discussed. The goal here will not be to perform a comprehensive assessment of the effectiveness of the adjustment program on eliminating macroeconomic imbalances but rather to highlight connections between macroeconomic adjustment measures and living standards as they evolved in the period under consideration. Any important lessons learned about appropriate timing and sequencing of adjustment measures will be noted, as will important discrepancies between government policies and the policies recommended by the World Bank and the IMF.

VII.E Income analysis

The first step in income analysis will be to examine trends in per capita income over the adjustment period. The purpose of this is to determine how large a deterioration in average income has taken place during the adjustment period without attributing the changes to any specific policy or external event.

Second, where there are reasonable poverty line measures and sufficient information on the distribution of income, growth in the number of poor will be compared with the percentage change in average incomes.

Third, changes in relative income levels during the adjustment period will be analysed. Where data on relative

income exists they usually take the form of averages within quintiles or deciles. Changes in average income for the lowest group or groups will be used to give an indication of the deterioration of living standards for the poorest.

Analysis based on income levels cannot constitute a full counterfactual analysis. But changes in the income shares of different socioeconomic groups controls for overall reductions in economic activity and is therefore broadly suggestive of how evenly the burden of adjustment is distributed.

VII.F Changes in living standards of the poorest groups

While adjustment measures affect people at all socioeconomic levels to some degree, more detailed analysis will be provided on poorer groups. The analysis will have several main building blocks. First, the impact of changes in relative prices on purchasing power will be analysed. There are really two parts to this matter. One is the change in real income implied by changes in the prices of goods in the consumption basket relevant to each socioeconomic group. The second is the extent to which the erosion of purchasing power can be offset by changing the composition of the basket.

Then the analysis will focus on the impact of the adjustment measures on the pattern of employment and factor returns for the poorer socioeconomic groups. The expectation is that in some countries the rise in prices of certain products will raise the nominal incomes of the poorer groups and create employment opportunities for unskilled labor, thus reducing overall poverty. In other countries the situation may be the reverse in the short- to medium-term. In many cases there will be a mixture in which some of the poor are made better off and some worse off.

One of the themes of discussion in previous sections was that non-marketed goods and services play an important role in the welfare of households. A key issue here concerns the availability of government services, discussed below. Services rendered by some household members for the benefit of others are also non-marketed services and may have a welfare enhancing character that changes during adjustment. This aspect of the adjustment process is one of the most difficult to analyse because of the lack of data. However, the previous report suggested a number of proxies that might be used to track changes. These included data on the time allocation of women such as female employment data, female wage rates and female school enrollment. In each case study the available data will be reviewed to see if it suggests that adjustment policies have caused changes in the levels of production of non-marketed goods and services.

VII.G Government services and compensatory programs

It is difficult to measure the quality and quantity of government services produced, as well as their importance in living standards. Government expenditures in given areas rather than output levels are more readily quantified. School enrollment information provides some indication of access to schooling, and (where available) data on clinic visitations or treatments can signal trends in access to health care. Detailed data is sometimes available from special studies conducted for the World Bank or other donors, especially where adjustment has involved social sector restructuring as is increasingly the case.

The first step here will be to examine changes in the level of government expenditure to see if the aggregate data suggest a deterioration of service levels. Then there will be an analysis of the composition of the expenditures by economic classification and by function. This analysis will show up instances where excessive cuts in material and maintenance expenditures have led to sharply reduced service levels. Finally, the distributive implications of the changes will be assessed in light of the relative importance of the various components of government services to the poor.

Special programs to buffer the poor from excessive hardship during adjustment have thus far been introduced in only a few countries. Programs which have been introduced or are currently being planned will be discussed to the extent that they appear in countries covered in the case studies.

VIII. SRI LANKA

VIII.A. Introduction

The macroeconomic adjustment process in Sri Lanka has been different from that of African and Latin American countries in that the major policy initiatives were undertaken before serious stabilization problems arose. In 1977 when the program began, there were not the critical balance of payments and fiscal deficit difficulties that forced governments of other countries to take action. By comparison, the program of the new Sri Lankan government that took office in 1977 was introduced in a measured fashion without an atmosphere of crisis. Moreover, the main motivation for adopting the policies came from internal sources rather than from multilateral agencies offering conditional financial assistance in a period of stress.

Adjustment took place in two phases. The phase first ran from 1979 to early 1981. The government undertook a major expansion of investment during this time and reduced the proportion of social spending in the total budget especially in the area of food subsidies. It also initiated a number of liberalizing reforms related to foreign investment, import regulations and access to foreign exchange. The second phase began in 1981 when budgetary and balance of payments problems began to emerge and the government instituted demand management policies to cool an overheated economy and prevent further deterioration of the government and external accounts.

This phasing of the Sri Lankan adjustment experience makes it an interesting case to study. Most other countries making structural adjustments have had to launch demand management programs at the same time with the result that the socioeconomic impacts of both are blended together. That has complicated analysis of the macroeconomic adjustment process.

Moreover, in many other countries a history of accumulated balance of payments and budgetary pressures made adjustment inevitable. Sorting out the effects of the adjustment actions from the potentially depressing effects of large debt loads and disordered public sector finances constitutes the "counterfactual" problem described in Chapter V. This methodological problem exists to much lesser degree in Sri Lanka because the initial demand management situation was relatively much better. In essence, changes in socioeconomic conditions in Sri Lanka during 1979-1981 cannot be linked to general economic contraction because the government was rapidly expanding expenditures and the private sector was being encouraged to do the same. Any

changes can therefore be more closely associated with structural adjustment policies than is possible in other countries.

The period after 1981 combines the effects of both structural adjustment and demand management policies and is therefore similar to adjustment in other Latin American and African countries. Partly for this reason, most of the analysis done on Sri Lanka to date has focused on the 1979-1981 period. This focus is also due to the availability of data. There are two Consumer Finance Surveys: 1978/79 and 1981/82, which cover the period of interest. Both surveys were done by the Central Bank of Ceylon. They were conducted using the same methodology and therefore give a good reading of changes in important socioeconomic conditions over the period. There was a Socioeconomic Survey done in 1980/81 and a Nutrition Status Survey in 1980/82 both done by the Department of Census and Statistics, Ministry of Plan Implementation. These two surveys give good information on nutritional standards over the period. Another important source of information is the 1982 Agricultural Census. The Central Bank of Ceylon provides good data on government revenues and expenditures with excellent detail on individual line items. The quality of the other standard statistics on banking, finance, national accounts, trade, etc, are all good. The one major area of weakness is data on labor markets and this is an important limiting factor as far as this study is concerned. These data are acknowledged to be weak in official government publications. Rough estimates of labor force size and unemployment have been constructed by IMF staff on an occasional basis but there is nothing in the way of composition.

It would be very interesting to study the post 1981 period as well. Carrying the analysis through to this period would permit analysis of the impact of demand management policies and would provide a useful comparison with the 1979-81 period of structural reform. This is not practical at this point because of data limitations. But the 1986/87 Consumer Finance Survey is due out in summer 1988, and the Department of Census and Statistics will be making its decennial survey available shortly as well. With these two data sources it should be possible to draw stronger inferences about the effects of both the demand management and the structural reform aspects of macroeconomic adjustment than would be possible in most other countries.

VIII.B. The initial adjustment gaps

For a long period dating back to independence and earlier, Sri Lanka pursued a policy of relative economic isolation with a strong welfare orientation. During the colonial period the British developed profitable tea and

rubber plantations. After independence the foreign exchange and export tax revenue generated by these plantations financed substantial public expenditures on education, health and subsidized consumption of rice, wheat, sugar and other basic commodities. There were strict controls on foreign investment and the allocation of foreign exchange was regulated by a licensing system. The government controlled the distribution of the major food items through state corporations. Prices of these goods were set by the state. There was significant intervention in other areas including wage setting and direct production through state-owned enterprises.

These policies gave the government a high degree of control over the economic system and enabled it to direct the flow of resources so as to support high levels of social spending. As a result, Sri Lanka achieved higher literacy and life expectancy rates and lower infant mortality rates than most other countries with similar levels of per capita income.

However, the tax squeeze on export industries and the distortions created by the various government interventions resulted in low overall growth rates. Savings accumulation was low and investment averaged only 15% of GDP in 1970-77 as opposed to 30% in 1979-81. In addition, there were some external developments which contributed to lower economic performance than other far eastern economies with whom Sri Lanka had shared a comparable level of development a few decades previously. In particular, there were a series of poor harvests and a deterioration in the terms of trade in the early 1970's as the first oil shock hit. In addition, there was a contraction in foreign assistance levels. But as indicated in Table 1, the deficit was running at well under 10% of GDP for the whole pre-reform period and in 1977 it was less than 6%. The terms of trade had suffered badly in 1974 and 1975 but recovered strongly thereafter. Consumer price inflation was very low and the current account balance was positive.

With the exception of the exchange rate which had become overvalued, almost all macroeconomic indicators were clear of problem ranges on the eve of reform. Accordingly, the major thrust of the policies introduced at that time was towards structural adjustment and there were virtually no demand management initiatives.

VIII.C. The structure of the Sri Lankan economy

VIII.C.1. Agriculture Sector

Sri Lanka is predominantly an agricultural economy. Approximately four-fifths of all households and roughly a

quarter of GDP are in the agricultural sector. Patterns of production and land tenure and the prices of agricultural commodities are therefore of major importance to the distribution of income and welfare.

Approximately 40% of cultivated land is accounted for by the export-oriented plantation sector (see Table 2). The three major crops in this sector are tea, rubber and coconut. There are also some other minor crops including cocoa, coffee, and various spices. Tea is the most important crop and accounts for nearly a third of all export earnings. Tea production is done primarily on estates (holdings of 20 or more acres) and the cultivation is done by resident laborers most of whom are Indian Tamils. Household earnings of the estate families are less than half that of their rural counterparts outside the estates, and are less than 40% of the mean household income in the urban sector. 70% of the tea estate lands are in the public sector.

In addition to the estates, there were some 80,000 smallholders in tea production at the time of the 1982 Agricultural Census. The smallholders collectively account for about a fifth of the land under tea cultivation. In both the smallholdings and the estates much of the tea currently in production is old stock (over 50 years old) and a major replanting will be necessary to maintain yields and quality.

Rubber is the second largest export crop. It accounts for about 15% of foreign exchange earnings and provides about 9% of total agricultural employment. The main rubber growing regions are in the southwest and, to a lesser extent, in the northwest. In 1972 the ownership of land above 50 acres was transferred to the state under the Land Reform Law. This resulted in public ownership of about 30% of the rubber acreage. The depressed level of world rubber prices and the uncertainty surrounding the takeovers caused a decline in replantings and cultivation effort. As with tea, rubber replanting is essential to keep plantation yields at economical levels. Productive tree life is about 30 years so one thirtieth, or about 15,000 acres, should be replanted every year.

Coconut is the third largest perennial crop and earns 7-10% of foreign exchange earnings. It accounts for more than a fifth of the daily calorie intake of the rural population and employs about 5% of the total work force. The smallholders' share of total planted area is almost 70%. This compares with only 18.6% and 34.7% in the tea and rubber sectors respectively. The average smallholding is just over one acre for coconut as opposed to 1.34 and 1.87 for tea and rubber.

Domestic production accounts for 60% of cultivated land. The major domestic crop is rice, the vast majority of

which is grown in smallholdings. Fully two thirds of the holdings are less than two acres and these account for 30% of the total acreage. Only 11.3% of the total acreage is in holdings of more than 10 acres. 68% of holdings are owner-operated with a further 13% operated by persons having a share in the ownership.

In addition, there is a variety of other food crops, 90% of which are grown in smallholder plots. The most important among these are chilies onions and potatoes.

Home gardens are an important source of supplementary food for many families in the rural sector. There were some 900,000 acres of home gardens which accounted for over 25% of all land under cultivation.

The total population of agricultural operators was estimated in 1982 to be 8.8 million including household members. This is about 59% of the total population and about 75% of the rural population. The average household size for agricultural operators was 5.2 persons which is slightly higher than the 4.9 for the rural population as a whole. Household size varies directly with size of holding. The average size is 2.17 acres running from a low of 1.91 for 3 person households to a high of 2.80 for households of more than 9 people (see Table 3). However, the acres per person drops steadily as family size increases. There is a clear indication that resources per family member are negatively related to family size. However, it is also likely that in the larger households some members may have sources of income unrelated to the farm operation. Unfortunately the tabulation of the data from the Agricultural Survey do not allow an analysis of this factor.

Approximately two thirds of the holdings produce mainly for home consumption and this accounts for about half the area in the smallholding sector. The survey data indicate that holdings up to 4 or 5 acres are devoted almost entirely to home consumption and, depending on family size, it is only holdings above this size that have a marketable surplus.

Rice is the main staple in Sri Lanka. Chart 1 shows the distribution of paddy holdings by size. There are 734,000 rice paddy farm operators in total. With an average of approximately 5 household members per operator this means that something like 4 million individuals in a total rural population of close to 12 million are in households producing the staple. The other 8 million produce none of the staple at all. Moreover, the majority of these rice paddy holdings are well under the 4 to 5 acres estimated to be necessary to meet household consumption needs. There is therefore a large number of households in the rural sector that are net purchasers of food. This is an important factor

in explaining the impact of food price increases on rural welfare as discussed below.

VIII.C.2 Manufacturing and Government Sectors

As in many developing countries, data on the labor force in Sri Lanka are not very good. Total employment in the organized sector is estimated at 1.6 million in 1982 and has remained at or near that level through 1985. Of this, about 30% is in the central government and almost 50% is in semi-government institutions. Unskilled or semi-skilled workers account for 40% of all government and semi-government workers.

The manufacturing survey of 1982 indicates that, of the 89,000 employees in the manufacturing sector, 23,000 worked in textiles and wearing apparel, 21,000 worked in food industries and the bulk of the remainder were in chemical and non-metallic mineral product industries.

Data on the sectoral distribution of employment are poorest in the area of services. This sector accounts for some 47% of GDP. A significant portion of this is accounted for by government and semi-government activities but almost half is commercial services which are almost wholly private.

VIII.D. Adjustment actions

The adjustment program introduced in 1977 consisted of the following main initiatives which were implemented over the period from 1977 to 1981.

1. The currency was devalued by 43% in November 1977. Further devaluations were allowed in several steps after 1981.
2. The long-standing policy of providing subsidized rice on a universal basis plus the use of a free rice ration for the needy was abolished. In its place a system of food stamps was instituted. This program involved a means test applied at regular three month intervals.
3. Food subsidies were reduced from 5.3% of GDP in 1979 to 1.1% in 1983.
4. The government monopolies on the importation and trade of a wide range of goods were terminated. This included most imports and exports, rice purchasing and wholesaling, fertilizer distribution and many other goods.

5. Private investment in passenger bus transportation and local shipping was allowed.
6. Substantial increases in the price of petroleum and electricity were introduced except for the poorest consumers.
7. Strong restrictions on foreign investment were lifted and some government monopolies were broken. This policy was supported by the institution of export processing zones which eliminated tariffs on imported inputs.
8. Some small plantations were returned to private ownership and textile mills were placed under private management. The government monopoly in cement was ended as private firms were allowed to begin production.
9. Export duties were reduced after a devaluation-related adjustment in 1977. However, the duties remained significant and were actually raised again for tea in 1983.
10. Government housing policy shifted from construction to infrastructure development for the support of private construction.
11. Rationalization of the tariff regime was initiated in 1984.
12. Interest rates were moved towards free market rates with sharp increases in 1979 and 1980.
13. Certain management incentives and performance evaluation systems were introduced for government-owned plantations in 1984/85.
14. The government embarked on a large scale investment program for public sector infrastructure which was supported by sharply increased inflows of foreign aid.

As suggested above, these policies were a reflection of the government's desire to increase investment, both foreign and domestic, and to relax the controls on foreign and domestic trade with hopes of stimulating higher rates of economic growth through greater competition and increased incentives. Increased saving and investment along with privatization of public enterprises were seen as central to the process of liberalization. The policies were therefore primarily of a restructuring nature. The reductions in subsidies did have some impact on aggregate demand but the main purpose was to move towards a system of pricing according to scarcity and to preserve economic incentives

for farmers. There was not a strong perception that a rigorous set of demand management policies was needed. Moreover, at the time the new policies were adopted, the full impact of the world recession had yet to be felt and the escalation in world interest rates that strained the foreign exchange resources of other developing countries presented no difficulty in the Sri Lankan case.

But the reforms planned in 1977 set in motion a number of processes culminating in an overheated economy. Powerful investment incentives were provided by generous tax rules. The liberalization of import licensing and foreign exchange allocation mechanisms provided further inducement to invest. Unused capacity that had previously existed, in part because of lack of spares, was reduced. The investment to GDP ratio rose from 15% during the 1970-77 period to an average of some 30% in the 1979-81. Overall unemployment fell from 24% in 1978 to 14% in 1981 and shortages of labor were reported in some sectors. Increased capacity and rates of capacity utilization, plus the freer availability imported materials, allowed industrial production to increase by 11% in 1978 and by an average of 4% in 1979-81 as opposed to 2.3% in 1970-1977.

Liberalization of agricultural commodity markets, especially the removal of wheat subsidies, led to a steady rise in rice prices. This in turn stimulated production of paddy to increase by an average 7% per year. It should be noted, though, that rice production was helped at least until 1982 by favorable weather conditions, and that the acceleration in production began somewhat before the reforms were initiated.

Performance in the tea, rubber and coconut sector was hampered by a number of factors including poor replanting rates over the past decade; poor management of public sector estates; and low rates of economic return due to rising production costs and export taxes which remained at more than 32% for tea and almost 50% for rubber. In addition, the real exchange rate was allowed to appreciate again after the initial devaluation and this worked against the export sector.

So with the exception of the tree crop sector, the initial supply response of the economy was good and the increases in demand did not create any serious inflationary pressures. But by mid-1979 excess industrial capacity was almost fully utilized and in 1980 inflation accelerated sharply. From this point on the economy began to accumulate the problems typically associated with countries in need of a demand management program. The government deficit rose to 23% of GDP as expenditures increased by about 50%. Much of this increased spending was financed by bank borrowing, and

domestic credit rose by 69% in 1980. The current account balance leaped from 11% of GDP in 1979 to 20% in 1980.

Government investment policies during this period deserve special mention. There was generally a two-pronged approach. First, the government hoped to provide a better environment for growth by improving social and economic infrastructure and by large scale investments in irrigation, power, housing and urban development. Second, generous tax holidays were offered including 100% write-off of some capital purchases, three- to five-year tax holidays on a wide range of activities, and tax-free distribution of dividends. Investment in both the public and private sectors was highly capital- and import-intensive. Government investment projects suffered huge cost overruns which partly explain the high levels of bank borrowing in the early years of adjustment. At the same time, real interest rates were negative which caused excessive capital deepening and created a pattern of expanded capacity that did not favor job creation. In addition, the rupee was allowed to appreciate by about 30% in real terms between 1978 and 1981. This, in combination with tariff rates, gave high rates of effective protection to certain industries that were neither oriented towards exports nor labor intensive. All these factors tended to put extra pressure on the balance of payments and government budget.

In 1981 the need for a shift of course became apparent. A round of interest rate increases was instituted to tighten private credit and lessen some of the factor market distortions. Tax concessions to domestic private investors were curtailed and the exchange rate was allowed to depreciate by some 16%. The government reduced its capital expenditure plans and shored up the current expenditures related to subsidies on flour, fertilizer and petroleum products. These policy actions had the predictable effect of enhancing export performance and reducing imports (although some of the import reductions might have been due to the tailing off an initial burst of pent-up demand after trade and exchange liberalization). The current account balance improved and there was a slight abatement in the rate of inflation.

VIII.E. The Socioeconomic impact of adjustment

Since 1981 the rate of economic growth has settled around 5% which is about 2 percentage points higher than in the period leading up to adjustment. Recent years have also seen the onset of serious civil strife and increased defense spending. This conflict is of obvious importance to the pace of economic development and to the welfare of individual Sri Lankans. But it clouds analysis of the impact of the reform initiatives so it is best to restrict our attention to the period before the civil disturbances.

Even within this timeframe, the evidence on the socioeconomic impact of the adjustment actions is mixed. On the one hand, there have been impressive gains in the overall rate of growth, with real GDP growth rates shifting up by about 2 percentage points. Unemployment dropped from 14.7% to 11.7% between 1978/79 and 1981/82. There was a clear increase in economic activity stimulated by the government investment program. On the other hand, data on income and expenditure shares seems to indicate little consistent improvement in the distribution of economic wellbeing, and the data on caloric intake, stunting and wasting suggest a deterioration of nutrition standards.

As a result there has been an active debate over the benefits of the adjustment program. Perhaps the greatest concern that not all socioeconomic groups have shared in the increased aggregate prosperity centers on changes in the food subsidy program.

VIII.E.1 The Food Subsidy Program

The food subsidy program was phased out in three steps carefully designed to avoid the strong negative public reaction that had accompanied previous failed attempts to reduce subsidies. The first step was taken in January 1978 when a means test was conducted. This enabled the authorities to restrict the distribution of free rice rations to about 50% of the population. The amount of the rations was maintained at one pound per person per week. Ration recipients could buy a further three pounds per week at subsidized prices.

In September 1979 the free ration system was replaced with a system of food stamps. These stamps are issued to households with less than Rs 3,00 monthly income. This threshold was increased by Rs 60 per month for every additional family member. The stamps are worth from Rs 15 to 25 per family member depending on age. In addition, kerosene stamps worth Rs 9.50 were given to each eligible family. The stamps can be used for purchases of rice, wheat, flour, bread, dried fish, milk, and pulses.

It was expected that the food stamp program would be effective in reducing the number of recipients of the free food from the levels that had prevailed under the food rationing system. This was not the case, however. The means test of 1978 left 90% of the recipients on the rolls and the eligibility conditions were not significantly changed with the introduction of the food stamp program. Over time the number of recipients began to rise. A suspicion developed that there was deliberate underreporting of income and that significant numbers of households were getting stamps when

they should not have. These difficulties led the authorities to freeze the new issues of stamps in 1981. Moreover, a cap of Rs 1.8 billion was placed on the annual cost of the stamp program. This fixed nominal cap was maintained in spite of rises in the cost of food and kerosene. This resulted in reductions in the volumes of goods provided.

The final step in the phase-out program was the elimination of all subsidies on food prices. These subsidies, which had amounted to Rs 2.3 billion in 1979, were reduced to virtually zero by 1983. The cost of the subsidies and the food stamps program are shown in Table 4 below. The total value peaked in 1979 at Rs 2.8 billion and thereafter ran at or near the nominal cap of Rs 1.8 billion. This reflects a sharp decline in real terms.

Distributive Effects of the Food Stamps Program

Under the old system of subsidies plus rations, virtually all households received food-related transfers from the government. The per capita benefits of rice subsidies were three times greater for the lowest expenditure quintile than for the highest. However, subsidies on wheat, bread and sugar were significantly skewed towards the upper expenditure quintiles. The removal of these subsidies therefore had a progressive effect. The extent to which the higher income groups had been benefiting under the old system is illustrated by Table 5. Despite the concentration of the benefits of the rice subsidies in the lower expenditure groups the highest expenditure quintile still received 76% of the overall benefits received by the lowest expenditure quintile.

The old system of rations and subsidies gave the greatest per capita benefits to those in the estate sector. These are people who work on the large plantations of tea, rubber and coconut. This group accounts for about 8% of the population and consists predominantly of Indian Tamils. The relative importance of wheat and bread subsidies was much higher for the estate group than for the urban and rural groups. This fact is demonstrated in Table 6 and is significant because the wheat subsidy was eliminated in the move to the stamps program.

Table 7a shows the distribution of the benefits of the rice ration and subsidies by sector and expenditure quintile in 1978/79. The overall structure of the benefits is moderately progressive with 25.7% of the benefits going to the lowest quintile and 13% going to the highest. The pattern of benefits is distributed across the sectors in almost exact proportion to the number of households.

Tables 7b and 7c illustrate how the distribution changed under the food stamps program.¹ First, there was a sharper concentration of benefits in the lower expenditure quintile with the lowest group's share rising from 25.7% to 38.5%. Second there was a shift of 18 percentage points of the total benefits to the rural sector from the urban and estate sectors. The rural sector which has about 20% of the households got 11.8% of the benefits. But the estate sector with 8% of the households was clearly hit the hardest when its benefits were reduced to 1.1% of the total. In part, this reflects their heavy dependence on wheat subsidies under the old regime which were eliminated under the new one. It may also be because the estate workers have readily identifiable earnings that cannot be hidden from the authorities charged with issuing food stamps.

However, the importance of these shifts in relative shares is not as significant as the sharp reduction in the real value of total benefits due to the fixed nominal value of the food stamps and the rising price of food items. Table 8 captures these price effects by deflating the nominal value of the food stamps by price indices based on the food consumption baskets of each expenditure quintile.² The table indicates that when the food stamp program was introduced in September 1979, the lowest expenditure quintile received 97% of the benefits that it had previously received under the subsidy and ration programs. But by 1981/82 this had fallen to 47% largely because of the effect of higher prices for food items. These food price rises are shown in Chart 2 below.

Calorie Consumption

In aggregate terms, changes in calorie consumption are not that significant between 1978/79 and 1981/82. The national average dropped from 2283 to 2271 calories per day. This difference is not statistically significant and both figures are above the recommended level of 2200. On a sectoral basis changes reflect the redistributive effects of the food stamps program. The estate sector experienced the largest drop from 2763 to 2639. Its caloric intake remains the highest of the three sectors although it is the poorest by a substantial margin. There are no sector-specific recommended calorie requirements but it has been suggested that climatic and occupational demands of the estate workers indicate higher calorie needs. The urban sector experienced a small decline from 2240 to 2249. The rural sector, which accounts for 73% of all households, had the lowest calorie intake rate in 1978/79. But partly because of large increases in agricultural production, especially of rice,

¹These calculations are adapted from Edirisinghe (1987).

²Again, adapted from Edirisinghe (1987).

calorie consumption increased from 2230 to 2246 putting the rural sector slightly ahead of the urban sector in 1981/82.

Changes in calorie consumption are more clearly evident when broken down by expenditure deciles. The pattern that emerges is one in which the lowest three deciles are made worse off. As indicated in Table 9 there was an 11.5% drop in the calorie consumption in the lowest decile as against a 0.5% drop overall. The drop in this decile was fairly evenly spread over the three sectors.

These data suggest that there may well have been some deterioration of nutrition during this period. In 1978/79 7% of the individuals lived in households with less than 1600 calories per adult equivalent (as opposed to the recommended level of 2200). By 1981/82 this proportion had risen to 10.2%.

There are some problems in using data on calorie consumption as a measure of nutrition standards. However, the two Central Bank Consumer Finance Surveys in 1978/79 and the 1981/82 on which the data presented here are based were conducted using virtual identical methodologies and provide a high degree of comparability. It is true that there was a drought in one season in 1982. However the per capita availability of rice was 7% higher in 1981/82 than in 1978/79 largely because domestic rice production rose 9%. On the other hand wheat imports fell by 25%. It is the reduction in the consumption of wheat flour that accounts for the drop in calorie consumption of the lower income groups. On balance then the evidence suggests that any deterioration in nutrition standards was because of changes in the subsidization and rationing schemes rather than technical factors affecting the production and availability of food.

Further evidence on changes in nutrition standards can be found in the two surveys containing anthropometric data conducted in 1975/76 and 1980/82. The data show the extent of stunting (reduced growth due to accumulated periods of undernourishment and reflected in low height-for-age) and wasting (low weight-for-height due to recent acute malnourishment). Correct interpretation of these data requires recognition of dietary shortfalls in the 1972-74 period when domestic harvests were poor and the world food crisis occurred.

Data in these surveys focus on children in various age cohorts up to 60 months. They show a lower incidence of stunting in 1980/82 than in 1975/76. Sahn (1987) attributes this to the effects of the 1972-74 food crisis and the relatively better food availability in the period from 1976 to 1979. Whereas stunting reflects long-run nutritional status, short-run nutritional stress shows up in figures on

wasting. The incidence of wasting was higher in 1980/82 than in the earlier survey. Thus evidence suggests that, while overall nutritional status had improved in the past decade, there was some deterioration in nutritional standards from 1979 onward (Sahn 1987). These data are shown in Table 10.

VIII.E.2 Income and Expenditure

Despite decreased unemployment and the surge in activity related to the investment program, there have been no significant gains in real expenditure per capita between 1978/79 and 1981/82 among the poorest groups. The measurement of real expenditures depends critically on the price index used. The Colombo Consumer Price Index used in the Central Bank of Ceylon annual reports is thought to understate the effects of inflation because it is based on administrative prices. The Alternative Consumer Price Index developed at the Department of Census and Statistics gives a clearer reading of real expenditure trends because it is based on market prices. According to the Colombo index, real expenditures fell by 0.5% for the lowest expenditure decile. But using the more accurate alternative index the drop was over 9%.

These reductions in real expenditures and the deterioration in nutritional standards can be reconciled with the improved employment and GDP growth trends by examining the evolution of real wages. Minimum wages in the government sector declined anywhere from 12% for minor employees to 31% for clerical employees during the period from 1978 to 1984. Among workers covered by the wage boards, those in industry and commerce suffered the greatest drop in real income - almost 50% - followed by services at 40% and agriculture at 16%. In most instances the biggest declines took place between 1979 and 1981. Unorganized laborers had steady or slightly declining real incomes, although male tea workers suffered an almost 20% drop (Sahn 1987).

VIII.E.3. Government Services

Government adjustment strategy involved a substantial redirecting of expenditures towards investment. The cost of these investments was partly made up by reductions in the subsidy system. But significant amounts also came from other components of the social expenditure. Table 11 below gives an overview of the composition of government expenditures during the period from 1975 to 1983. The table clearly demonstrates the sharp rise in government expenditures at the beginning of the adjustment period. This is in contrast to the experience in most other countries where demand management programs have called for reductions in expenditure. Not only did the level of expenditures change

but the composition was altered dramatically. Capital expenditures rose by 163% as a portion of GDP between 1975 and 1980. If it were not for these capital expenditures the deficit would have been close to zero in every year from 1975 to 1983. Instead the deficit ballooned from 8.4% to 23.2% of GDP. The greatest part of these capital expenditures took the form of transfers to state corporations for investment in physical capital. Only a small portion is due to increases in social services, and these are mostly in housing.

Current expenditures rose significantly in 1978 and remained high until 1981. Again the increases were not due to social services but to increased transfers to public corporations which are a main component of the "other" category.

The impact of these changes in the areas of education and health can be seen in Table 12. Current expenditure on education fell steadily from 2.4% of GDP in 1977 to 1.9% in 1984, while the numbers of primary and secondary students rose. As a result there was a marked deterioration in the student-teacher ratio from 22 in 1977 to 26 in 1981. In the universities there was an even sharper increase in the student-teacher ratio from 6.2 to 11.8, and, despite the increase in the number of students, there was a significant drop in the number of graduates. Again, it is interesting to note that while the current expenditures (mostly salaries) declined as share of GDP during this period, there was a very strong increase in the level of capital spending and this is reflected in the addition of over 200 new schools to the system. These statistics suggest a lack of balance in the composition of expenditures with too heavy a reliance on capital expansion and a consequent deterioration of standards.

In the health care system the pattern is even more exaggerated. Current expenditures dropped from 1.3% of GDP to less than 1%. At the same time capital expenditures rose from less than a third of the total health budget to 60% in 1981 and to 80% percent in 1982. There was no significant increase in the numbers of persons per hospital and per bed (as might be expected given the level of capital spending) but the number of persons per doctor increased steadily throughout.

It must be born in mind, however, that capital spending is by its nature lumpy and one would expect to see fairly sharp jumps in the proportion of current to capital spending as large projects are undertaken. But one should not expect to see the current expenditures dropping at the same time. On the contrary, they should increase in line with the larger stock of classrooms, hospitals, beds, etc.

VIII.E.4. The Overall Effect of Adjustment

In evaluating the impact of the adjustment program in the 1978-81 period, four points are important. First, there were clear reductions in government services, especially social services, as there were in many other countries undergoing adjustment. However, unlike the other countries, in Sri Lanka these reductions were made during a period of strong fiscal expansion. The composition of government spending shifted sharply and its overall level rose. It is therefore difficult to attribute the reductions in social services to accumulated pre-adjustment imbalances or to argue that such reductions would have to have been made eventually under any circumstances.

The second point to consider is whether, rather than being an unintended casualty of reform, some of the social spending levels were too high for a country at Sri Lanka's stage of development and that they were deliberately reduced in order to increase the rate of economic growth. The answer to this is yes and no. There were some planned reductions in social spending to make room for the increased investment expenditures. But with the failure of domestic savings rates to increase in line with expectations, it became necessary to cut back further to avoid creating macroeconomic problems. The capital spending programs clearly ran well over budget and this necessitated some unanticipated compression in other spending areas.

A third matter is the pacing of the adjustment program. At the aggregate level it would appear that the government overestimated the capacity of the country to absorb new investment. The issue was not, as it has been in other countries, the emergence of excess capacity, on the contrary capacity tightened through the adjustment period. Rather it was the poor response of domestic savings to the new initiatives and the spillover of financing requirements into foreign debt. The country could not sustain the pace financially, despite the solid support of foreign donors. The liberalization of exchange and import regulations which lead to a strong surge of imports and the perhaps excessive tax concessions for investors are the main factors here. It would seem that careful analysis of the private responses to liberalization is necessary to plan the timing and speed of liberalization initiatives in a way that ensures that the government need not make ad hoc budgetary adjustments that unduly squeeze vulnerable expenditure items (such as freezing new ration card registrations).

Finally, there is the question of the appropriate emphasis on capital spending. Again the Sri Lankan experience is different. Usually capital spending is the first casualty of adjustment. If fiscal restraint is needed,

capital spending can be cut with the least short run impact on vulnerable groups. Operating and maintenance budgets are the next things to be cut. The result is excess capacity - hospitals with no drugs, and schools with no books. In Sri Lanka capital spending was increased rather than cut. But the result is oddly similar - hospitals with no doctors and schools with no teachers.

VIII.E.5. The Most Seriously Affected Groups

The estate workers are clearly the poorest major group in Sri Lanka. This was true before the adjustment actions and continues to be true today. As such they are the most likely to slip below minimum acceptable standards of wellbeing if there is a general compression of income or government services. Statistics on stunting and wasting show that these households are considerably more poorly nourished than the rural and urban households. The statistics on per capita calorie intake are higher for the estate sector but this is probably because the climate and type of work require greater intake to sustain a given nutrition level.

Estate workers were hardest hit by the change from subsidies to food stamps. The loss of wheat subsidies was an important factor because these were much more important to the estate workers than to the other groups. A large portion of the estate workers who had received the rice ration became ineligible for food stamps and as a result their share dropped from 10% of the subsidies to 1% of the food stamp expenditures. They form 2% of the households.

In contrast the rural sector lost the least under the food stamps program. Their share jumped a total of 17.9 points and this increase was largely focused on the poorest group. But with the real value of the program dropping by over 50% they obviously received considerably less than before. The urban sector was the intermediate case. Its share of the total was about halved.

Given these changes the results of the nutrition surveys are a bit puzzling. Both the estate and the rural sectors suffered drops in levels of nutrition. The estate sector is still the worst off in terms of both stunting and wasting. But the magnitude of the change was much greater for the rural sector. One would expect that estate households' relative position would have declined, given that (a) estate workers' consumption is dominated by wheat for which subsidies were eliminated, and (b) rural households received much more favorable treatment under the food stamps program. There are three reasons for this apparent anomaly. First, there was a sharp improvement in tea prices at the time of the second survey. This may have

led to improvements in tea estate workers' earnings. Second, the effects of eliminating wheat subsidies may not have been completely passed on to estate workers. Workers buy their food at estate stores. It is possible that estate owners adjusted food prices to avoid causing severe nutritional deterioration in the interests of maintaining productivity. Third, the flow of resources into CARE's Tripcscha (three nutrients) program was augmented. This program had been in operation for some 15 years and deals largely with the estate sector. With the advent of the new food policies the program was expanded significantly. The program is well-targeted and has special infant and child feeding components. These operate through a special daycare network used by the estate workers that allows both parents to work. This mechanism makes targeting very effective.

Unfortunately urban nutrition data were not collected in the base period so one cannot make inferences about the relative impact on this group. In terms of both stunting and wasting the urban households were better off in 1980-82 than either of the other two sectors, sometimes by a wide margin. What evidence there is suggests that this sector was better able to insulate itself from the effects of the adjustment policies. For one thing they were in a better position to benefit from the expansion of investment programs of a capital nature since many of them involved the urban construction and supply industries. Urban-based service industries also expanded rapidly providing more jobs. The wage rates did not rise significantly but hours worked per worker probably rose as well as participation rates.

VIII.F Summary and lessons for donors

The Sri Lankan macroeconomic adjustment experience embraced two phases. The first was a period of rapid expansion of government and private sector investment combined with liberalization of markets and major reductions in social programs, particularly food subsidies. The second was a retrenchment necessitated by an overheated economy characterized by tightening capacity utilization, balance of payments and budgetary difficulties and accelerating inflation. This situation is unique in that adjustment started with a boom, whereas in most countries it starts with a recession. It also allows a separation of the effects structural adjustment (1979-81) from those of demand management (1981 on). This study has focused on the period from 1978 to 1981 because this is the period for which data are now available. Data covering the latter period are due to be published in the near future.

The main features of the adjustment program during 1979-81 were the reduction in subsidization of food through the introduction of a food stamps program, the freeing of

food prices, freeing of exchange and import regulations, a massive government investment program and the introduction of a range of tax and other incentives for private investment.

The economy has three main sectors. These are a rural sector (73% of households) growing rice and other domestic crops, an estate sector (8%) growing export crops, and an urban sector (20%). Incomes are highest in the urban sector and lowest in the estate sector. Changes in the food subsidy system reduced the welfare of all three groups because the expenditures under the program were capped while prices rose. The real value of the food transfers was about halved. There was a significantly greater focus of the benefits among the poorer groups. But there was also a strong redistribution of the benefits to the rural sector at the expense of the other two sectors. The estate sector was hit the hardest and ended up with about a 1% share although it represents almost 10% of households.

Despite the rises in the price of rice to producers and the increase in the share of the the food subsidy going to the rural sector, it would appear that this is the sector that was worst hit by the combined effect of the adjustment policies. The estate sector is still the worst off in terms of income and the data on child malnutrition. But the gap was closed considerably. This is partly due to the boom in tea prices but is probably more directly attributable to the well-targeted CARE program called Triposha that boosted feeding programs for children on the estates in anticipation of the effects of higher rice prices and the removal of wheat subsidies. Within the rural sector there are a large number of households that grow only a portion of their food requirement. These food deficit families are probably contain the greatest concentration of cases of true hardship attributable to the changes contained in the reform program. The urban population seems to have been better positioned to adapt to the changes. Pre-reform data on malnourishment are not available but the instances malnutrition in 1981 were lowest in the urban sector. The bulk of the stimulative effects of the government's investment drive would have accumulated to the urban sector (and the foreign sector) rather than the other two sectors as would the effects of greater private investment brought about by the tax incentives.

Thus, despite the rise in food prices which is usually a rural biased policy, the urban sector seems to have suffered the least. It may well be that this ceased to be the case after 1981. By 1984 real growth rates were back in the range of the early 1970s. Data from the new surveys may show a decline in the relative position of the urban sector if the demand restraining policies instituted at that time had the effect of slowing the pace of urban job creation

while food prices remained high. One might then be able to conclude that the urban population is more sensitive to demand management policies while the (landless or food deficit) rural sector is more sensitive to the structural adjustment ones. It should also be remembered that real interest rates were negative and that the level of effective protection afforded some local industry was still fairly high in 1981 because of an overvalued exchange rate. The subsequent devaluations and the interest rate hikes could have caused the urban sector's relative position to slip.

An important lesson for donors in Sri Lanka is the role of the Triposha program in averting what might otherwise have been a serious nutrition problem among the estate workers and their families. The effectiveness of this program stems in part from the fact that it is so well focused on those who need support. Partly this was possible because the program had been in operation for some 15 years. But the use of the daycare system among the tea workers is an inventive way of targeting worth noting.

Another lesson is that success of adjustment programs seems to be critically dependent on matters relating to timing and phasing. In the Sri Lankan case there seems to be some evidence that the investment programs, both public and private were pursued too quickly and that this resulted in greater financing requirements than the system could sustain in spite of active donor support. It may also have contributed to an inappropriate balance between current and capital costs in the public expenditures in health and education thereby compromising the quality of service.

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CHART 1: PADDY HOLDINGS BY SIZE

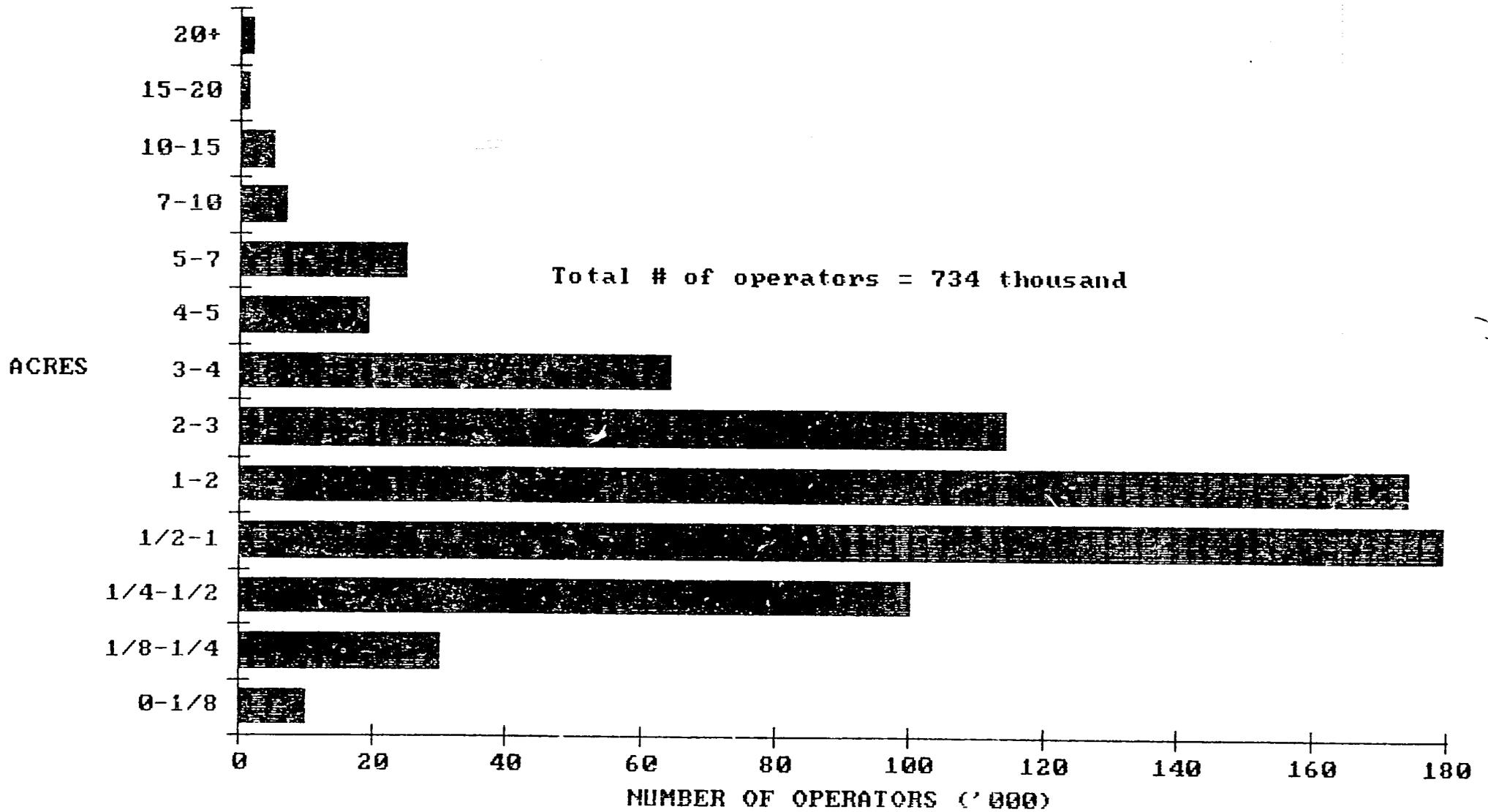
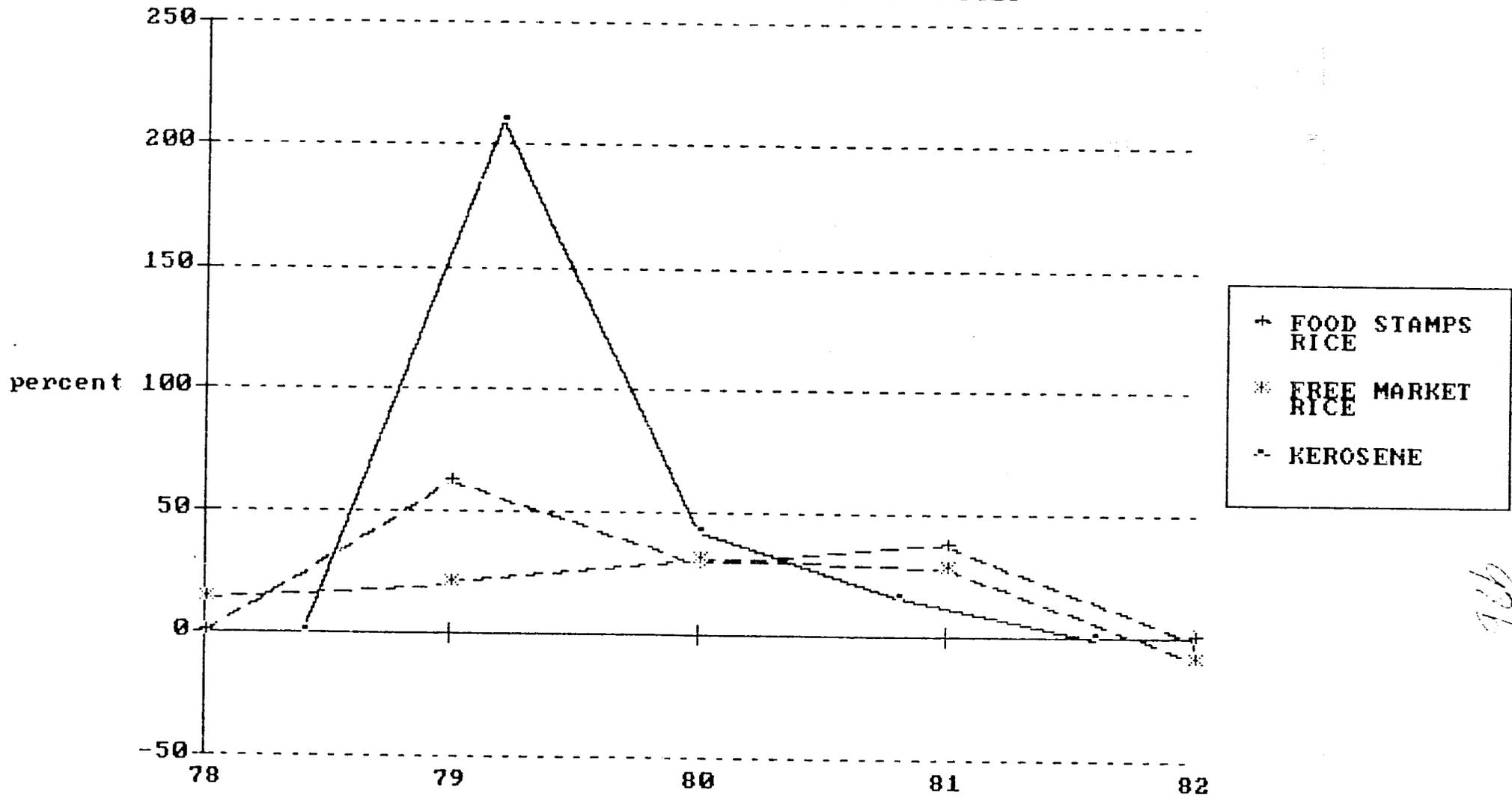


CHART 2: INCREASES IN COMMODITY PRICES



936

95c

TABLE 1: MAJOR ECONOMIC INDICATORS

| | pre reform | | | | | | | | post reform | | | | | | | | |
|----------------------------------|----------------|-------|-------|-------|-------|------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
| NATIONAL ACCOUNTS | | | | | | | | | | | | | | | | | |
| | Rs billion | | | | | | | | | | | | | | | | |
| GDP current prices | 13.6 | 14.1 | 15.2 | 18.4 | 23.7 | 26.6 | 30.2 | 36.4 | 42.7 | 52.4 | 66.5 | 85.0 | 99.2 | 121.6 | 153.7 | 162.4 | 179.5 |
| GDP 1980 prices | 42.0 | 41.9 | 45.2 | 46.8 | 48.7 | 51.0 | 53.2 | 55.2 | 59.1 | 62.9 | 66.5 | 70.4 | 74.0 | 77.6 | 80.8 | | |
| REAL GDP GROWTH % | | -0.1 | 7.8 | 3.5 | 4.0 | 4.7 | 4.4 | 3.8 | 7.0 | 6.4 | 5.8 | 5.8 | 5.1 | 5.0 | 4.1 | | |
| GROSS FIX CAP FORM | 2.4 | 2.1 | 2.2 | 2.5 | 3.0 | 3.7 | 4.6 | 5.0 | 8.5 | 13.2 | 20.8 | 23.3 | 30.3 | 35.3 | 39.6 | 33.5 | 42.3 |
| as percent of GDP | 17.3 | 15.2 | 14.5 | 13.5 | 12.5 | 13.9 | 15.2 | 13.8 | 20.0 | 25.3 | 31.3 | 27.4 | 30.5 | 29.1 | 25.7 | 23.7 | 23.6 |
| GOVERNMENT FINANCE | | | | | | | | | | | | | | | | | |
| | Rs billion | | | | | | | | | | | | | | | | |
| REVENUE | 2.7 | 3.0 | 3.3 | 4.0 | 4.8 | 5.1 | 5.7 | 6.7 | 11.7 | 12.7 | 14.1 | 16.2 | 17.8 | 25.2 | 37.7 | 39.0 | |
| EXPENDITURE | 3.6 | 4.1 | 4.5 | 5.0 | 5.8 | 7.2 | 8.7 | 8.8 | 17.7 | 20.3 | 28.8 | 29.5 | 35.3 | 41.8 | 51.4 | 57.8 | |
| DEFICIT | -0.9 | -1.2 | -1.2 | -1.0 | -1.0 | -2.1 | -2.9 | -2.1 | -6.0 | -7.6 | -14.8 | -13.3 | -17.5 | -16.6 | -13.6 | -18.8 | |
| | percent of GDP | | | | | | | | | | | | | | | | |
| REVENUE | 19.9 | 21.3 | 21.7 | 21.7 | 20.3 | 19.2 | 18.9 | 18.4 | 27.4 | 24.2 | 21.2 | 19.1 | 17.9 | 20.7 | 24.5 | 24.0 | |
| EXPENDITURE | 26.5 | 29.1 | 29.6 | 27.2 | 24.5 | 27.1 | 28.8 | 24.2 | 41.5 | 38.7 | 43.3 | 34.7 | 35.6 | 34.4 | 33.4 | 35.6 | |
| DEFICIT | -6.6 | -8.5 | -7.9 | -5.4 | -4.2 | -7.9 | -9.6 | -5.8 | -14.1 | -14.5 | -22.3 | -15.6 | -17.6 | -13.7 | -8.8 | -11.6 | |
| TRADE AND EXCHANGE | | | | | | | | | | | | | | | | | |
| CURRENT ACCT. BAL. | -59 | -36 | -33 | -25 | -136 | -110 | -6 | 142 | -66 | -226 | -655 | -444 | -548 | -466 | 6.5 | -556 | |
| percent of GDP | -2.6 | -1.5 | -1.3 | -0.9 | -3.8 | -2.9 | -0.2 | 3.5 | -2.4 | -6.7 | -16.3 | -10.1 | -11.5 | -9.0 | 0.1 | -9.3 | |
| EXCHANGE RATE Rs/\$ | 6.0 | 6.0 | 6.2 | 6.4 | 6.7 | 7.0 | 8.4 | 8.9 | 15.6 | 15.6 | 16.5 | 19.3 | 20.8 | 23.5 | 25.4 | 27.2 | 28.0 |
| rate of dprcn %pa | | 0.0 | 4.2 | 3.1 | 3.9 | 5.3 | 20.1 | 5.5 | 76.0 | -0.3 | 6.2 | 16.5 | 8.1 | 13.1 | 8.1 | 6.8 | 3.2 |
| IMPORT PRICES | 8.9 | 9.4 | 10.0 | 13.3 | 23.3 | 27.2 | 24.4 | 30.0 | 55.6 | 84.4 | 100.0 | 111.1 | 118.9 | 122.2 | 132.2 | 146.7 | 137.8 |
| EXPORT PRICES | 14.3 | 14.3 | 14.3 | 16.8 | 26.0 | 24.4 | 28.6 | 46.2 | 84.0 | 91.6 | 100.0 | 105.3 | 103.2 | 132.6 | 173.7 | 148.4 | 132.6 |
| TERMS OF TRADE | 160.7 | 152.1 | 143.0 | 126.3 | 111.6 | 89.7 | 117.2 | 154.0 | 1151.1 | 108.5 | 100.0 | 94.8 | 86.8 | 108.5 | 131.4 | 101.2 | 96.2 |
| INTEREST RATES AND PRICES | | | | | | | | | | | | | | | | | |
| BANK RATE | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 10.0 | 10.0 | 10.0 | 12.0 | 14.0 | 14.0 | 13.0 | 13.0 | 11.0 | 11.0 |
| MONEY MARKET RATE | - | - | - | - | - | - | - | - | 9.5 | 11.0 | 21.1 | 19.0 | 16.9 | 23.9 | 21.4 | 14.6 | 13.0 |
| CONSUMER PRICES index | 43.3 | 44.6 | 47.4 | 52.0 | 58.4 | 62.3 | 63.1 | 63.8 | 71.6 | 79.3 | 100.0 | 117.9 | 130.7 | 149.0 | 173.8 | 176.2 | 190.4 |
| MIN WAGE AGR index | 20.2 | 20.4 | 21.4 | 24.3 | 30.3 | 34.8 | 35.6 | 44.8 | 65.1 | 80.1 | 100.0 | 100.2 | 118.0 | 129.3 | 162.9 | 178.0 | 187.5 |
| CPI rate of increase | | 3.0 | 6.3 | 9.7 | 12.3 | 6.7 | 1.3 | 1.1 | 12.2 | 10.8 | 26.1 | 17.9 | 10.9 | 14.0 | 16.6 | 1.4 | 8.0 |
| MIN WAGE rt of incr | | 1.0 | 4.9 | 13.6 | 24.7 | 14.9 | 2.3 | 25.8 | 45.3 | 23.0 | 24.8 | 0.2 | 17.8 | 9.6 | 26.0 | 9.3 | 5.3 |

SOURCE: International Financial Statistics, IMF

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TABLE 2: NUMBER AND SIZE OF AGRICULTURAL HOLDINGS, 1982

| | ESTATE | | SMALLHOLDERS | |
|---------------------|------------|--------|--------------|--------|
| | AREA | NUMBER | AREA | NUMBER |
| | '000 acres | '000 | '000 acres | '000 |
| PLANTATION | | | | |
| TEA | 417 | 2.0 | 95 | 79.9 |
| RUBBER | 276 | 2.4 | 146 | 52.0 |
| COCONUT | 254 | 6.3 | 773 | 698.5 |
| DOMESTIC | | | | |
| RICE | - | - | 1213 | 734.5 |
| POTATO ONION CHILLI | - | - | 74 | - |
| HOME GARDEN | - | - | 908 | 1300 |

SOURCE: AGRICULTURAL SURVEY, 1982

TABLE 3: AGRICULTURAL OPERATOR HOUSEHOLD SIZE AND LAND HOLDINGS

| HOUSEHOLD SIZE | NUMBER OF | % OF | AREA | | AVERAGE AREA PER | |
|----------------|-----------|--------|-------------|-------|------------------|---------|
| | HSGLDS | HSGLDS | AREA | AREA | SIZE | PERSON |
| | (000) | | (000 acres) | (%) | (acres) | (acres) |
| ALL | 1672 | 100.0 | 3632 | 100.0 | 2.17 | 0.42 |
| 1 | 69 | 4.1 | 142 | 3.9 | 2.06 | 2.06 |
| 2 | 115 | 6.9 | 226 | 6.2 | 1.97 | 0.98 |
| 3 | 200 | 12.0 | 362 | 10.5 | 1.91 | 0.64 |
| 4 | 283 | 16.9 | 554 | 15.3 | 1.96 | 0.49 |
| 5 | 309 | 18.5 | 635 | 17.5 | 2.06 | 0.41 |
| 6 | 249 | 14.9 | 557 | 15.3 | 2.24 | 0.37 |
| 7 | 182 | 10.9 | 436 | 12.0 | 2.40 | 0.34 |
| 8 | 120 | 7.2 | 297 | 8.2 | 2.48 | 0.31 |
| 9 | 70 | 4.2 | 189 | 5.2 | 2.70 | 0.30 |
| 9+ | 75 | 4.5 | 214 | 5.9 | 2.85 | 0.29 |

SOURCE: AGRICULTURAL SURVEY, 1982

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TABLE 4: COST OF SUBSIDIES AND FOOD STAMPS

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|-----------------------|---------------------|------|------|------|------|------|------|------|------|------|
| | (million of rupees) | | | | | | | | | |
| RICE | 786 | 679 | 943 | 1066 | 1215 | 72 | 75 | 0 | 0 | 0 |
| FLOUR | 218 | 52 | 363 | 1027 | 894 | 272 | 105 | 0 | 0 | 0 |
| SUGAR | 215 | 165 | 70 | | 138 | -144 | 48 | 0 | 0 | 0 |
| OTHERS | 12 | 41 | 47 | 68 | 77 | 105 | 82 | 100 | 0 | 0 |
| NET SUBSIDIES | 1231 | 937 | 1423 | 2161 | 2324 | 305 | 310 | 100 | 0 | 0 |
| FOOD STAMPS | 0 | 0 | 0 | 0 | 508 | 1614 | 1321 | 1475 | 1427 | 1405 |
| KEROSENE STAMPS | 0 | 0 | 0 | 0 | 59 | 163 | 164 | 171 | 287 | 397 |
| TOTAL VALUE | 1231 | 937 | 1423 | 2161 | 2891 | 2082 | 1795 | 1746 | 1714 | 1802 |
| | (percent) | | | | | | | | | |
| SHARE OF GOV'T EXPEND | 18.3 | 11.6 | 17.0 | 13.0 | 14.9 | 7.6 | 6.4 | 5.2 | 4.3 | 3.7 |
| SHARE OF GNP | 4.6 | 3.1 | 3.9 | 5.1 | 5.5 | 3.1 | 2.1 | 1.8 | 1.4 | 1.2 |

SOURCE: NEVILLE EDIRISINGHE, IFPRI RESEARCH REPORT #58, 1987

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TABLE 5: FOOD SUBSIDIES BY EXPENDITURE QUINTILE 1978/79

| PER CAPITA EXPENDITURE QUINTILE | COMMODITY | PER CAPITA VALUE OF SUBSIDY | | |
|---------------------------------------|-----------------|-----------------------------|--------|-------|
| | | RATION RECIPIENTS | OTHERS | ALL |
| | | (rupees per month) | | |
| 1 | RICE | 13.90 | - | 11.11 |
| | WHEAT AND BREAD | 4.12 | 6.82 | 4.31 |
| | SUGAR | 0.81 | 0.40 | 0.72 |
| | ALL | 18.92 | 7.72 | 16.21 |
| 2 | RICE | 15.46 | - | 10.00 |
| | WHEAT AND BREAD | 4.97 | 7.49 | 5.57 |
| | SUGAR | 0.88 | 0.56 | 0.76 |
| | ALL | 21.31 | 8.05 | 16.33 |
| 3 | RICE | 15.77 | - | 7.90 |
| | WHEAT AND BREAD | 5.69 | 8.30 | 6.74 |
| | SUGAR | 0.97 | 0.66 | 0.81 |
| | ALL | 22.43 | 8.96 | 15.45 |
| 4 | RICE | 16.27 | - | 6.40 |
| | WHEAT AND BREAD | 6.11 | 8.26 | 7.23 |
| | SUGAR | 1.02 | 0.84 | 0.91 |
| | ALL | 23.40 | 9.10 | 14.54 |
| 5 | RICE | 17.91 | - | 3.35 |
| | WHEAT AND BREAD | 7.06 | 8.21 | 7.83 |
| | SUGAR | 1.25 | 1.20 | 1.21 |
| | ALL | 26.22 | 9.41 | 12.39 |
| ALL | RICE | 15.34 | - | 7.76 |
| | WHEAT AND BREAD | 5.20 | 8.00 | 6.36 |
| | SUGAR | 0.92 | 0.84 | 0.88 |
| | ALL | 21.46 | 8.84 | 15.00 |

SOURCE: CONSUMER FINANCES AND SOCIOECONOMIC SURVEY,
BANK OF CEYLON, AS QUOTED IN IFRPI RESEARCH REPORT # 58

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TABLE 6: FOOD SUBSIDIES BY SECTOR 1978/79

| SECTOR | COMMODITY | PER CAPITA VALUE OF SUBSIDY | | |
|---|-----------------|-----------------------------|--------|-------|
| | | RATION RECIPIENTS | OTHERS | ALL |
| | | (rupees per month) | | |
| URBAN (20 percent of households) | RICE | 13.71 | - | 5.64 |
| | WHEAT AND BREAD | 6.14 | 7.75 | 6.94 |
| | SUGAR | 0.95 | 1.04 | 1.00 |
| | ALL | 20.80 | 8.79 | 13.54 |
| RURAL (72 percent of households) | RICE | 15.76 | - | 9.14 |
| | WHEAT AND BREAD | 4.67 | 6.16 | 5.00 |
| | SUGAR | 0.93 | 0.85 | 0.89 |
| | ALL | 21.36 | 7.01 | 15.03 |
| ESTATE (8 percent of households) | RICE | 14.32 | - | 2.92 |
| | WHEAT AND BREAD | 11.53 | 15.44 | 14.55 |
| | SUGAR | 0.68 | 0.47 | 0.51 |
| | ALL | 26.53 | 15.91 | 17.98 |

SOURCE: CONSUMER FINANCES AND SOCIOECONOMIC SURVEY,
BANK OF CEYLON, AS QUOTED IN IFRPI RESEARCH REPORT # 58

TABLE 7a: DISTRIBUTION OF TOTAL SUBSIDY 1978/78

| PER CAPITA EXPENDITURE QUINTILE | URBAN SECTOR | RURAL SECTOR | ESTATE SECTOR | ALL |
|---------------------------------------|-----------------|-----------------|------------------|-------|
| 1 | 5.2 | 19.7 | 0.8 | 25.7 |
| 2 | 3.9 | 17.7 | 2.3 | 23.9 |
| 3 | 3.3 | 14.0 | 2.9 | 20.2 |
| 4 | 3.7 | 10.9 | 2.6 | 17.2 |
| 5 | 4.7 | 6.8 | 1.5 | 13.0 |
| ALL | 20.8 | 69.1 | 10.1 | 100.0 |

TABLE 7b: DISTRIBUTION OF FOOD STAMP PAYMENTS 1981/82

| PER CAPITA EXPENDITURE QUINTILE | URBAN SECTOR | RURAL SECTOR | ESTATE SECTOR | ALL |
|---------------------------------------|-----------------|-----------------|------------------|-------|
| 1 | 3.8 | 34.2 | 0.5 | 38.5 |
| 2 | 2.8 | 25.4 | 0.3 | 28.5 |
| 3 | 2.3 | 15.3 | 0.2 | 17.8 |
| 4 | 2.0 | 8.9 | 0.2 | 11.1 |
| 5 | 0.9 | 3.2 | 0.0 | 4.1 |
| ALL | 11.8 | 87.0 | 1.1 | 100.0 |

TABLE 7c: CHANGE IN DISTRIBUTION FROM SUBSIDY TO FOOD STAMPS

| PER CAPITA EXPENDITURE QUINTILE | URBAN SECTOR | RURAL SECTOR | ESTATE SECTOR | ALL |
|---------------------------------------|-----------------|-----------------|------------------|------|
| 1 | -1.4 | 14.5 | -0.3 | 12.8 |
| 2 | -1.1 | 7.7 | -2.0 | 4.6 |
| 3 | -1.0 | 1.3 | -2.7 | -2.4 |
| 4 | -1.7 | -2.0 | -2.4 | -6.1 |
| 5 | -3.8 | -3.6 | -1.5 | -8.9 |
| ALL | -9.0 | 17.9 | -9.0 | 0.0 |

SOURCE: CONSUMER FINANCES AND SOCIOECONOMIC SURVEY,
BANK OF CEYLON, AS QUOTED IN IFRPI RESEARCH REPORT # 58

TABLE 8: CHANGE IN THE REAL VALUE OF FOOD TRANSFERS

| PER CAPITA EXPENDITURE QUINTILE | 1981/82 | 1981/82 | FOOD STAMPS AS SHARE OF GENERAL FOOD SUBSIDY | | |
|---------------------------------------|---------------------------|---------------------------|---|---------------------------|------|
| | FOOD STAMPS PER CAPITA | FOOD STAMPS PER CAPITA | SEPT 1979 | DURING (A)/(B) 1981/82 | |
| | 1981/82 Rs | 1978/79 Rs | (percent) (A) | (percent) (B) | |
| 1 | 18.43 | 9.00 | 97 | 47 | 0.48 |
| 2 | 18.89 | 9.35 | 88 | 43 | 0.49 |
| 3 | 16.99 | 8.41 | 75 | 37 | 0.49 |
| 4 | 17.00 | 8.50 | 72 | 36 | 0.50 |
| 5 | 17.25 | 9.32 | 65 | 35 | 0.54 |
| ALL | 17.98 | 9.36 | 83 | 43 | 0.52 |

SOURCE: CONSUMER FINANCES AND SOCIOECONOMIC SURVEY,
BANK OF CEYLON, AS QUOTED IN IFRPI RESEARCH REPORT # 58

TABLE 9: PER CAPITA CALORIE CONSUMPTION

| PER CAPITA EXPENDITURE DECILE | 1978/79 | | | |
|-------------------------------------|---------|-------|--------|------|
| | URBAN | RURAL | ESTATE | ALL |
| 1 | 1288 | 1346 | 1324 | 1335 |
| 2 | 1620 | 1663 | 1821 | 1663 |
| 3 | 1718 | 1855 | 2027 | 1848 |
| 4 | 1824 | 1999 | 2222 | 1994 |
| 5 | 1917 | 2155 | 2490 | 2157 |
| 6 | 2079 | 2385 | 2716 | 2377 |
| 7 | 2260 | 2505 | 3032 | 2528 |
| 8 | 2495 | 2757 | 3160 | 2738 |
| 9 | 2674 | 3071 | 3884 | 3054 |
| 10 | 3181 | 3336 | 3845 | 3296 |
| ALL | 2240 | 2230 | 2763 | 2283 |

| PER CAPITA EXPENDITURE DECILE | 1981/82 | | | |
|-------------------------------------|---------|-------|--------|------|
| | URBAN | RURAL | ESTATE | ALL |
| 1 | 1137 | 1186 | 1214 | 1181 |
| 2 | 1351 | 1586 | 1607 | 1558 |
| 3 | 1589 | 1813 | 1924 | 1794 |
| 4 | 1784 | 2031 | 2122 | 2008 |
| 5 | 1927 | 2184 | 2371 | 2168 |
| 6 | 2088 | 2392 | 2687 | 2373 |
| 7 | 2216 | 2581 | 3024 | 2553 |
| 8 | 2484 | 2869 | 3344 | 2838 |
| 9 | 2705 | 3203 | 3783 | 3120 |
| 10 | 2882 | 3475 | 3649 | 3216 |
| ALL | 2229 | 2246 | 2639 | 2271 |

| PER CAPITA EXPENDITURE DECILE | PERCENT CHANGE | | | |
|-------------------------------------|----------------|-------|--------|-------|
| | URBAN | RURAL | ESTATE | ALL |
| 1 | -11.7 | -11.9 | -8.3 | -11.5 |
| 2 | -16.6 | -4.6 | -11.8 | -6.3 |
| 3 | -7.5 | -2.3 | -5.1 | -2.9 |
| 4 | -2.2 | 1.6 | -4.5 | 0.7 |
| 5 | 0.5 | 1.3 | -4.8 | 0.5 |
| 6 | 0.4 | 0.3 | -1.1 | -0.2 |
| 7 | -1.9 | 3.0 | -0.3 | 1.0 |
| 8 | -0.4 | 4.1 | 5.8 | 3.7 |
| 9 | 1.2 | 4.3 | -2.6 | 2.2 |
| 10 | -9.4 | 4.2 | -5.1 | -2.4 |
| ALL | -0.5 | 0.7 | -4.5 | -0.5 |

SOURCE: DAVID SAHN, 1987, IFPRI.

TABLE 10: MALNUTRITION AMONG CHILDREN 1980-82 AND 1975/76

| AGE (months) YEAR | 6-11 | | 12-23 | | 24-35 | | 36-47 | | 48-60 | | AVERAGE | |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1980-82 | 1975/76 | 1980-82 | 1975/76 | 1980-82 | 1975/76 | 1980-82 | 1975/76 | 1980-82 | 1975/76 | 1980-82 | 1975/76 |
| STUNTED | percent | | | | | | | | | | | |
| URBAN | 15.8 | | 32.9 | | 34.1 | | 38 | | 40.8 | | 33.6 | |
| RURAL | 15.8 | 19.3 | 33.9 | 38.6 | 34.8 | 43.2 | 42.5 | 50.3 | 48.5 | 60.1 | 35.3 | 44 |
| ESTATES | 41.5 | 44.3 | 59.6 | 67.4 | 64.3 | 74.2 | 62.6 | 79 | 68 | 85.1 | 60.6 | 72 |
| ALL | 17.7 | | 35.3 | | 36.6 | | 42.7 | | 48 | | 37.3 | |
| WASTED | | | | | | | | | | | | |
| URBAN | 12.4 | | 14.2 | | 10.5 | | 4.5 | | 4.7 | | 10.5 | |
| RURAL | 13.4 | 5.2 | 24.3 | 18.1 | 16.1 | 9.8 | 6.7 | 4.4 | 5.9 | 3.1 | 13.8 | 8.4 |
| ESTATES | 14.2 | 3.8 | 24.6 | 23.6 | 18 | 12.6 | 6.7 | 8.1 | 5.1 | 4.6 | 14.3 | 11.2 |
| ALL | 13.2 | | 23.1 | | 14.9 | | 6.2 | | 5.6 | | 13.1 | |
| BOTH | | | | | | | | | | | | |
| URBAN | 1.1 | | 7.9 | | 5.6 | | 2.4 | | 1.4 | | 4.1 | |
| RURAL | 1.4 | 1.8 | 8.8 | 8.8 | 8.3 | 6.7 | 4.2 | 4 | 2.3 | 1.9 | 5.5 | 4.9 |
| ESTATES | 4.7 | 2.9 | 16.9 | 17.7 | 12.5 | 11.1 | 5.6 | 0.8 | 3.3 | 0.5 | 9.4 | 7.1 |
| ALL | 1.5 | | 9.1 | | 8 | | 3.9 | | 2.2 | | 55.4 | |

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TABLE 11: GOVERNMENT REVENUE AND EXPENDITURE

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---------------------------------------|------|-------|------|-------|-------|-------|-------|-------|-------|------|
| TOTAL REVENUE | 17.2 | 17.2 | 16.7 | 26.1 | 23.0 | 19.9 | 18.0 | 16.7 | 19.5 | 22.7 |
| INCOME TAX | 2.9 | 3.1 | 2.6 | 2.6 | 2.6 | 3.1 | 2.4 | 2.9 | 2.8 | 3.2 |
| GOODS AND SERVICE TAX | 5.9 | 5.7 | 6.0 | 7.2 | 6.1 | 5.4 | 5.8 | 6.5 | 7.9 | 9.4 |
| IMPORT TAX | 1.3 | 1.6 | 1.5 | 3.4 | 4.3 | 4.4 | 3.8 | 3.2 | 4.0 | 4.4 |
| EXPORT TAX | 1.6 | 1.4 | 1.7 | 9.9 | 8.0 | 5.5 | 4.3 | 2.5 | 2.0 | 2.1 |
| tea | 0.7 | 0.6 | 0.8 | 6.5 | 4.8 | 2.9 | 2.2 | 1.5 | 1.1 | 1.2 |
| rubber | 0.5 | 0.7 | 0.7 | 2.3 | 2.4 | 2.1 | 1.7 | 0.8 | 0.7 | 0.7 |
| coconut | 0.2 | 0.0 | 0.0 | 0.8 | 0.6 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| other | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 |
| OTHER TAX AND REVENUE | 5.5 | 5.4 | 5.0 | 2.9 | 2.0 | 1.5 | 1.6 | 1.5 | 2.8 | 3.7 |
| TOTAL CURRENT EXP | 18.1 | 18.5 | 17.0 | 27.6 | 22.9 | 25.8 | 19.8 | 16.4 | 19.7 | |
| ADMINISTRATION | 3.4 | 3.0 | 2.7 | 3.9 | 4.1 | 3.7 | 3.4 | 3.8 | 3.5 | 3.0 |
| SOCIAL SERVICES | 3.8 | 4.0 | 3.8 | 3.7 | 3.5 | 3.3 | 3.0 | 3.1 | 3.1 | 2.8 |
| education | 2.5 | 2.6 | 2.4 | 2.3 | 2.2 | 2.1 | 1.9 | 2.0 | 1.9 | 1.7 |
| health | 1.2 | 1.3 | 1.3 | 1.2 | 1.2 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 |
| ECONOMIC SERVICES | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 |
| proportion of wages in above 3 (%) | - | 53.5 | 46.4 | 46.2 | 47.4 | 44.2 | 43.9 | 42.4 | 39.0 | 40.6 |
| INTEREST | 2.6 | 2.8 | 2.8 | 3.2 | 3.2 | 3.4 | 4.5 | 5.2 | 5.4 | 5.2 |
| domestic | 2.1 | 2.2 | 2.3 | 2.5 | 2.6 | 2.8 | 3.7 | 4.2 | 4.4 | 4.1 |
| foreign | 0.5 | 0.6 | 0.5 | 0.7 | 0.7 | 0.6 | 0.8 | 0.9 | 1.0 | 1.1 |
| GROSS FOOD SUBSIDY | 4.6 | 3.1 | 3.9 | 5.1 | 4.4 | 0.5 | 0.4 | 0.3 | 0.1 | 0.2 |
| PENSIONS | 1.2 | 1.3 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.4 | 1.5 | |
| OTHER TRANSFERS TO HSHLDS | 0.9 | 1.4 | 0.9 | 2.9 | 1.4 | 3.6 | 3.0 | 2.7 | 2.1 | |
| OTHER | 0.9 | 2.2 | 1.2 | 7.2 | 4.4 | 7.6 | 3.9 | 1.3 | 3.3 | |
| TOTAL CAPITAL EXP | 7.4 | 8.8 | 5.8 | 12.3 | 14.0 | 19.3 | 13.8 | 16.0 | 13.3 | 13.7 |
| SOCIAL SERVICES | 0.7 | 1.0 | 0.7 | 1.4 | 2.4 | 1.9 | 0.9 | 0.9 | 1.2 | |
| education | 0.2 | 0.4 | 0.3 | 0.4 | 0.5 | 0.7 | 0.5 | 0.5 | 0.4 | |
| health | 0.3 | 0.4 | 0.1 | 0.4 | 0.7 | 0.9 | 0.2 | 0.2 | 0.6 | |
| housing | 0.2 | 0.1 | 0.1 | 0.6 | 1.1 | 0.1 | 0.1 | 0.2 | 0.1 | |
| other | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | |
| ECONOMIC SERVICES | 2.9 | 3.4 | 2.2 | 3.0 | 3.9 | 4.1 | 2.8 | 2.7 | 2.7 | |
| CAPITAL TRANSFERS | 3.0 | 3.4 | 2.6 | 6.1 | 6.6 | 9.4 | 8.6 | 1.1 | 8.8 | 8.0 |
| OTHER | 0.7 | 1.0 | 0.4 | 1.8 | 1.1 | 4.0 | 1.6 | 11.3 | 0.5 | |
| DEFICIT | -8.4 | -10.2 | -6.0 | -13.8 | -13.9 | -23.2 | -15.7 | -17.6 | -13.4 | 0.0 |
| MEMO ITEM: IMPLICIT TAX RATES | | | | | | | | | | |
| TEA | 10.6 | 11.5 | 10.6 | 46.1 | 47.1 | 34.7 | 32.9 | 27.0 | 18.8 | 13.8 |
| RUBBER | 21.4 | 22.1 | 20.0 | 49.5 | 49.7 | 53.5 | 49.6 | 32.4 | 29.9 | 30.6 |
| COCONUT | 16.8 | 1.3 | 8.2 | 35.5 | 25.8 | 28.9 | 2.2 | 19.0 | 17.1 | 19.1 |

SOURCE: CENTRAL BANK OF CEYLON; INTERNATIONAL FINANCIAL STATISTICS, IMF;
RECENT ECONOMIC DEVELOPMENTS, WORLD BANK, 1985

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TABLE 12: SELECTED SOCIAL INDICATORS

| | 1971 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| EDUCATION | | | | | | | | | | | |
| ADULT LITERACY % | 78 | - | 85 | - | - | - | 88 | 87 | 85 | - | - |
| SCHOOL ENROLL RATIO | 100 | - | 80 | - | 94 | - | 94 | 98 | - | - | - |
| NUMBER OF SCHOOLS | 9777 | 9657 | 9683 | 9671 | 9725 | 9626 | 9794 | 9879 | 9901 | 9947 | 9914 |
| NUMBER OF GOV SCHOOLS | 8585 | 9386 | 8655 | 8673 | 9072 | 9052 | 9117 | 9572 | 9544 | 9595 | 9556 |
| STUDENTS GRADES 1 - 8 | 2492 | 2461 | 2462 | 2990 | 3135 | - | 2738 | 2822 | 2871 | - | - |
| STUDENTS GRADES 9 -12 | 134 | 110 | 104 | 93 | 72 | - | 651 | 628 | 613 | - | - |
| STUDENT/TEACHER | 29 | 25 | 23 | 22 | 25 | 24 | 24 | 26 | 26 | 27 | 26 |
| UNIVERSITY STUDENTS '000 | 11.8 | 13.3 | 13.3 | 12.7 | 16.2 | 18.4 | 16.3 | 18.1 | 18.1 | - | - |
| STUDENT/TEACHER (U) | 10.14 | 6.65 | 6.567 | 6.201 | 7.792 | 11.22 | 10.16 | 11.76 | - | - | - |
| GRADUATES (U) | 3941 | 3146 | 3350 | 3802 | 3850 | 3372 | 2252 | 2893 | - | 3953 | - |
| CURRENT ED EXP %GDP | 4.52 | 2.48 | 2.63 | 2.39 | 2.31 | 2.16 | 2.09 | 1.87 | 2.01 | 2.00 | 1.92 |
| CAPITAL EXP %ED EXP | 8.902 | 8.091 | 15.60 | 13.48 | 15.98 | 22.07 | 32.99 | 26.32 | 23.60 | 16.04 | 21.30 |
| HEALTH | | | | | | | | | | | |
| LIFE EXPECTANCY | 66 | - | - | 69 | 67 | 69 | 69 | 66 | - | - | - |
| INFANT MORTALITY | 45 | 45 | 44 | 42 | 37 | 38 | 42 | 34 | - | - | - |
| PERSONS/HOSPITAL '000 | 27.6 | 29.5 | 29.8 | 29.9 | 29.3 | 30 | 30.7 | 30.7 | 30.9 | 31.3 | - |
| PERSONS/BED | 320 | 331 | 334 | 336 | 341 | 341 | 340 | 340 | 350 | 349 | - |
| PERSONS/DOCTOR '000 | 8.7 | 6.3 | 6.1 | 6.4 | 6.3 | 6.4 | 7.2 | 6.7 | 7.5 | 7.9 | - |
| CURR HLTH EXP AS % GDP | 2.23 | 1.23 | 1.29 | 1.26 | 1.22 | 1.21 | 1.11 | 1.00 | 0.95 | 1.02 | 1.09 |
| CAP EXP AS % HLTH EXP | 11.8 | 26.5 | 29.5 | 9.5 | 34.6 | 60.3 | 61.4 | 16.5 | 18.3 | 41.0 | 7.5 |

SOURCE: Department of Census and Statistics; Registrar General's Department; Central Bank of Ceylon; as quoted in Recent Economic Developments, World Bank, 1985

IX. COTE D'IVOIRE

IX.A. Introduction and summary

Côte d'Ivoire's adjustment problems originated with the 1975-77 "beverage boom" when the terms of trade moved dramatically in its favour. Government investment was significantly expanded, requiring a sizeable increase in imports. Boom turned to bust soon thereafter, but since government expenditure and imports were not scaled back, Côte d'Ivoire developed large fiscal and current account deficits which were financed through heavy foreign borrowing.

In 1981, the government launched stabilization and adjustment programs. Fiscal contraction was the primary instrument used to stabilize the economy. Public investment was halved in real terms between 1980 and 1984. Various fiscal austerity measures were enacted. Agricultural prices were brought into line with world prices: producer prices were increased; fertilizer subsidies were reduced; and consumer prices for bread, rice and palm oil were raised. The government also began to regularize effective protection for industrial activities in 1984.

Contractionary effects of stabilization were compounded by a serious drought in 1983-84. Between 1980 and 1984, the Ivoirian economy shrank by 10.6% in real terms. Per capita GDP declined by 23.6%. A large share of the burden of adjustment fell on urban middle- to upper-income groups who experienced the most marked contraction in incomes. Whereas urban incomes declined by over 10% per year on average, rural incomes fell by 1.2%. Consequently, the gap between rural and urban incomes narrowed, as did income dispersion within the urban sector.

Interaction of adjustment strategy and economic structure explains why the poor fared better than average in adjustment process. Poor farmers did benefit from higher prices for their crops and were not strongly affected by contraction in urban economy. Urban informal sector goods and services are relatively income-inelastic in demand and/or substitute for goods whose prices were rising. Consequently incomes of informal sector producers were also not strongly affected by economic contraction. In contrast, formal sector workers in both the public and private sectors experienced significant real income erosion as well as higher probabilities of becoming unemployed. Yet groups affiliated with these sectors had income levels well above subsistence levels. As a result, they were able to withstand

aggregate economic downswing through strategies that did not endanger minimum living standards: cutting back on luxury items, postponing purchases of consumer durables, reducing savings and transfers, and increasing involvement in other income-generating activities.

IX.B. Economic and socioeconomic structure

Côte d'Ivoire is a lower-middle income country with a per capita income of \$660 in 1985. The Ivoirian economy has been one of the most dynamic in Subsaharan Africa, growing at an average annual rate of 7% between 1965 and 1980. A variety of factors account for Côte d'Ivoire's strong economic performance, including its abundant natural resources and the government's relatively liberal attitude toward the private sector.

Côte d'Ivoire occupies a prominent position in the regional Customs Union (UDEAO) and is a member of the West African Monetary Union (UMOA). Its membership in UMOA means the government has no control over the nominal exchange rate, which is fixed at a rate of 50 CFAF per French franc. The country's nominal effective exchange rate therefore varies with movements of the French franc against other currencies. Monetary policy is determined for the Union as a whole by a regional central bank (BCEAO). Lack of autonomy in controlling money supply and the nominal exchange rate is occasionally criticized. But it has helped Côte d'Ivoire and other franc zone countries maintain fairly stable, open macroeconomic policy environments.

Figure 1 shows the structure of the Ivoirian economy. As is well-known, agriculture has played a central role in Côte d'Ivoire's rapid growth. In the decades after Independence, agricultural growth was fueled by rapid expansion of land under cultivation; a substantial influx of migrant laborers from neighbouring Sahelian countries; and relatively minimal government intervention in agricultural markets. Crop production is overwhelmingly dominated by small- to medium-sized holdings. A wide variety of foodstuffs is produced, including yams, plantains, cassava, rice, maize, millet and sorghum. Important cash crops include coffee, cocoa, cotton, rubber, and sugar. Between 1960 and 1975, cash crop production grew at 7.5% per year. This fostered the growth of domestic agro-industries (see below) and led to a dramatic expansion of exports. Côte d'Ivoire became the world's largest cocoa exporter, dominating over 25% of world market; the third largest

exporter of coffee after Colombia and Brazil;¹ and an important exporter of tropical timber. In 1980, the primary sector generated 28% of GDP and 80% of export revenues. Socioeconomically, the north/south division of the agricultural sector is important. The northern part of the country is drought-prone savanna dominated by low productivity cultivation of cereals, cotton, rice and sugar. The southern region is higher-rainfall forest dominated by tree crops (coffee, cocoa), maize, roots and tubers. Average incomes are much higher in the forest region (see below), and there have been significant north-to-south migration flows in the decades since Independence.

Agricultural growth was accompanied by rapid growth of urban-based sectors of economy, at least in part due to (a) Côte d'Ivoire's openness to private foreign investment, and (b) the government's reinvestment of funds from implicit agricultural export taxes.² Manufacturing grew at an average annual rate of 13% per annum in the 1960s and 1970s. In 1980, it represented 13% of GDP. There were 700 modern manufacturing firms in operation, dominated by large-scale private and parapublic enterprises. Industrial production is oriented both to domestic consumption and to regional and European export markets. In the 1980s, manufactured goods have accounted for 12% of exports, of which over two-thirds goes to other developing countries. Agricultural processing activities are the most dynamic component of the industrial sector, generating almost 40% of manufacturing value-added. Important products include coffee, fruit juices, flour, sugar, and vegetable oils. Also important is the textiles and clothing subsector, which generates another 30% of value-added and is composed of 40 modern firms plus numerous small-scale enterprises (tailors). Construction activity was substantial during the 1970s but has largely fizzled out in the 1980s, accounting for around 5% of GDP (see below). Services represent 37% of GDP, including government, commerce, and transportation. Much of the service sector is connected to evacuation of primary commodities and active domestic trade networks.

Côte d'Ivoire's growth pattern was associated with substantial rural-urban migration. By 1986, 46% of the

¹Côte d'Ivoire is the world's largest exporter of robusta coffee with 30% of world market.

²An Agricultural Price Stabilization Fund (CSSPPA) sets prices for some export and import-substituting crops, in theory to buffer domestic producers and traders from excessive fluctuations in the world price. In practice, domestic prices of coffee and cocoa have been kept well below world prices, causing enormous surpluses to accrue to the Stabilization Fund.

population resided in urban areas, compared to 23% in 1965. The share of the labor force working in agriculture dropped from 81% to 65% between these two years. Only 8% of the labor force currently works in industry. The remainder of the labor force works in government, commerce and transportation. Overall, only 10% of the labor force is engaged in modern sector wage-paying employment. An unusual feature of Côte d'Ivoire's labor market is the importance of non-Ivoirians, who made up 26% of the total work force in 1984. The non-Ivoirian work force is clustered at the tails of the income distribution, namely Sahelians working as unskilled laborers in agricultural and other activities at low end of the income spectrum, and Europeans working in managerial positions in modern enterprises at the upper-end. Non-Ivoirians' remittances to their home countries are an important outflow on Côte d'Ivoire's balance of payments.

The recent World Bank-sponsored living standards measurement study (LSMS) contains detailed information on incomes, employment, and consumption patterns in Côte d'Ivoire. The study is based on a random sample of 1,600 households (or over 15,000 individuals) conducted in 1985-1986.³ Repeat surveys are being conducted in connection with the institutionalization of living standards monitoring in Côte d'Ivoire. But at present, only cross-sectional information from the first survey is available.

LSMS findings relevant to the socioeconomic dimension of adjustment in Côte d'Ivoire are as follows.

(a) Expenditure patterns confirm a high degree of inequality in Ivoirian income distribution.⁴ The average consumption of the highest deciles was 5 or 10 times greater than that of the lowest deciles (see Fig.2). The wealthiest 20% of the population undertook 50% of total expenditure, while the poorest 20% undertook only 9% (Fig.3). Available data suggest some very slight leveling tendency in the 1960s and 1970s.⁵ But this pattern is nonetheless characteristic

³See Ainsworth and Muñoz (1986) for details.

⁴The LSMS survey gathered information on expenditure rather than incomes since the latter are more readily quantified (see Chapter IV). But since expenditure distribution underestimates the degree of inequality in income distribution, income distribution in Côte d'Ivoire is no doubt more skewed than available figures suggest.

⁵Between the 1960s and the 1970s, the expenditure share of the upper 20% of households is reported to have declined from 52% to 50%, while that of the poorest 20% increased from 7% to 9% (World Bank, Socioeconomic Indicators of Development 1987).

of one of the most unequal income distributions in Subsaharan Africa and possibly the world.⁶ The factors underlying this inequality - covered in the points that follow - are important to understanding the distribution of socioeconomic costs of adjustment across groups.

(b) As expected, expenditures on food rise as one moves up the socioeconomic spectrum, while food's share in total spending declines (see Fig.2). The lowest deciles spend 60-70% of their budgets on food which seems low by cross-country standards.

(c) In terms of the geographical distribution of the population, the poorest segments of the population are overwhelmingly rural whereas the wealthiest are predominantly urban (Fig.4). Abidjan and other urban areas are home to almost 75% of the wealthiest households but only 10% of the poorest households. The poorest stratum is dominated by inhabitants of the savanna and secondarily the Eastern Forest. In these two regions, average annual expenditure was 25-50% below the national average (Fig.5). Of the rural areas, the Western Forest had the highest average expenditure but even that was less than half the average expenditure in Abidjan. The middle-income groups tended to be concentrated in the forest regions and secondary urban centers.⁷

(d) Nationality is another important dimension of income inequality in Côte d'Ivoire. On average, Burkinaabe and Guineans had lower annual expenditures than Ivoirians, while those of Ghanaians, Malians and other Africans were higher (Fig.6). Non-Africans' average expenditure was more than double that of Ivoirians.

(e) In terms of the distribution of the labor force across productive sectors, the study found that 60% of household heads had agriculture as their main income source, 20% had commerce, 11% had office work, and 5% had factory or construction work. As one moves up the socioeconomic scale, the importance of agricultural income steadily diminishes while that from office work steadily increases (Fig.7). Agriculture was the main income source of 90% of the poorest households versus 23% of the wealthiest households. Office work provided the main income source for 36% of the wealthiest households versus less than 1% of the poorest. Average expenditures for office workers were far and away

⁶See World Development Report 1987, Table 26. Glewwe (1987) does not agree.

⁷Correction for differing costs of living across regions does not substantially alter the information reported in this paragraph.

the highest, more than double the national average (Fig. IVS10). Average expenditures for agricultural households were more than 33% below. Average expenditures for households whose main incomes sources were commerce or factory/construction work were 65-85% above those of agricultural households.

(f) In terms of the employment status of the work force, almost three-quarters of the work force was self-employed, 12.5% had wage-paying jobs in the private sector, and 13% worked in the public sector (government and parapublic agencies). The importance of self-employment markedly diminishes as one moves up the socioeconomic spectrum: whereas 97% of the poorest group was self-employed, less than 40% of the wealthiest group fell into this category (Fig.9). Within the wealthiest group, 55% were employed by the government or a private sector establishment.

(g) Finally, in terms of educational attainment, 65% of household heads had not completed primary school. Again, degree of educational attainment increases markedly as one moves up the socioeconomic spectrum (Fig.10). Among the poorest group, only 14% had completed primary school and less than 1% had gone on to further studies. Among the wealthiest group, 66% had completed primary school and 50% had gone on to further studies. Average expenditure is strongly correlated with degree of educational attainment (Fig.11). Expenditures of households whose heads had at least a primary school degree were more than double those of households whose heads did not complete primary. An econometric study (van der Gaag and Vijverberg 1987) verifies that a high premium accrues to educational attainment in the Ivoirian labor market.

Despite Côte d'Ivoire's relatively strong economic performance in the 1960s and 1970s, its standing in terms of basic needs indicators compares unfavourably to other countries with similar per capita income levels. Compared to other lower-middle income countries, Côte d'Ivoire's life expectancy is shorter, its infant mortality rate higher, and its school enrollment rates markedly lower (see Table).

| | Côte d'Ivoire | Other Lower-middle income |
|---------------------------------|---------------|---------------------------|
| Life expectancy (yrs) | 52 | 58 |
| Infant mortality rate (per th) | 106 | 82 |
| Primary school enrollment (%) | 79 | 100 |
| Secondary school enrollment (%) | 19 | 40 |

Work on the incidence of absolute poverty in Côte d'Ivoire is relatively new. Preliminary work by the World Bank suggests that poverty incidence across productive sectors is as follows:⁸

- one-half of all farmers predominantly growing food crops;
- just over one-third of all farmers predominantly growing export crops;
- one-fifth of all informal sector producers;
- around one-twentieth of formal sector workers.

IX.C. Macro framework

The origins of Côte d'Ivoire's adjustment problems are fairly typical. During the "beverage boom" of 1975-1977, world coffee and cocoa prices soared, contributing to a 70% improvement in Côte d'Ivoire's terms of trade (See Fig.12) and a doubling in the dollar value of its exports. Prevailing government policy aimed at stabilizing domestic prices of export crops by implicitly taxing export crops when world prices were high and subsidizing them when world prices were low. Consequently, producer prices were not raised by as much as world prices, and windfall revenues accrued to Agricultural Stabilization Fund (CSSPPA). At their peak, these revenues were equivalent to 16% of GDP. The CSSPPA transferred a large share of export crop tax revenue to the government. The government supplemented these funds with foreign official borrowing and dramatically increased its investment in the country's infrastructure and agroindustrial base. Public investment increased to almost 20% of GDP, compared to an average of 5-8% of GDP earlier in the 1970s. This sudden expansion in aggregate demand strained productive capacity, and inflation accelerated to 27% in 1977.

In 1978, the beverage boom abruptly ended. In the three years that followed, Côte d'Ivoire experienced a 30% deterioration in its terms of trade. Yet government spending was not scaled back to reflect lower revenues. Rather it ran large public sector deficits amounting to close to 15% of GDP by the early 1980s. Imports had also increased dramatically during the beverage boom, largely due to the high import-intensity of the public investment program. Failure to scale back investment kept import levels propped up despite falling export receipts (Fig.13). Consequently the current account deficit widened to around 19% of GDP in

⁸These estimates are based on a relative definition of poverty in 1985 in the absence of a better cut-off point.

1980 (Fig.14). Foreign borrowing was used extensively to finance the current account deficit. In U.S. dollar terms, the size of Côte d'Ivoire's foreign debt quadrupled between 1975 and 1981, while its debt service rose from 10% to 40% of the value of exports. This put Côte d'Ivoire into the category of most heavily indebted countries.

IX.D. Adjustment actions

Côte d'Ivoire began its systematic adjustment efforts in 1981. IMF support came in the form of an Extended Fund Facility (EFF) in 1981-83, followed by two successive one-year standby arrangements in 1984 and 1985-86. It also obtained three structural adjustment loans (SALs) from the World Bank in 1981, 1983 and 1986. The 1981 SAL emphasized studies of policy options without many conditionalities concerning specific policy reforms, partly because of the relative newness of the SAL concept at that time.

From the outset, Côte d'Ivoire made a serious commitment to eradicating unsustainable macro imbalances. Between 1981 and 1985, Côte d'Ivoire's progress in bringing down its current account deficit far exceeded that of other countries in comparable situations (IMF 1986). Its adjustment efforts have largely emphasized stabilization through sharp real reduction in government expenditures between 1980 and 1985. In the process, the government also attempted to improve the efficiency with which available fiscal resources were used. Some growth-oriented adjustment measures were introduced, including changes in agricultural incentives and commercial policies affecting the manufacturing sector. However, these measures were relatively limited in scope before 1984-85.

In the first half of the 1980s, domestic absorption was brought back in line with production through severe fiscal restraint. Emphasis on fiscal restraint partly derived from the fact that the government could not use nominal devaluation to promote expenditure switching along with expenditure reduction. However, other options could have been used to promote real depreciation and increase the relative price of tradeable goods, particularly adjustments in commercial and industrial policies.⁹ As it was, the government made only limited use of these options, and movements in relative prices provided only weak incentives for productive resources to shift from nontradeables to tradeables. Consequently the bulk of adjustment to adverse external developments occurred through marked economic contraction, rather than through other potentially less painful routes.

⁹See Devarajan and de Melo (1987) and Liederman (1987).

Key elements of the government's adjustment program were as follows.

1. First and foremost, deep cuts in government investment. In real terms, government investment was slashed by approximately 65% between 1982 and 1985, falling from 15% to below 6% of GDP. The bulk of this reduction was achieved through cutting infrastructure investment, particularly in the areas of transportation and communications (Fig.15). Investment in education practically evaporated.

2. Restraint in current expenditures. In terms of the economic classification of expenditures, as in other debt-distressed countries, rapid growth in interest payments on the public debt meant that other types of current expenditures had to be tightly controlled to achieve progress in deficit reduction. Key measures to restrain current expenditures were:

- (a) containing growth in the public sector wage bill through freezing salaries at their 1982 level, reducing fringe benefits for civil servants (especially rental housing), freezing grade promotions, laying off daily paid workers and technical assistance personnel, and lowering admissions to civil service schools.
- (b) severe restraint on materials and supplies. Expenditure on these items per CFAF of personnel expenditure declined, suggesting diminished productivity in public service delivery.¹⁰
- (c) Restraint or reduction in subsidies and transfers, mainly to PEs, local governments and households (in the form of scholarships).

In terms of functional classification, the government authorized modest increases in funding for priority programs such as health and education, while reducing funding for general services, defense, housing and amenities, social security and welfare, and maintenance of public works.

3. Recentralization of public finance to facilitate orderly deficit reduction and external debt management.¹¹

¹⁰See Starr (1987).

¹¹Over the course of the 1970s, considerable revenue and expenditure flows had shifted outside of the Treasury's domain due to the emergence of important parapublic institutions such as the Agricultural Stabilization and Compensation Funds.

Measures to raise government revenues were also implemented, including increased excise taxes on petroleum products, higher value-added and service tax rates, and improved tax collection.

4. Various changes in agricultural incentives. These were basically aimed at (a) increasing producer prices of export crops; (b) reducing effective protection to inefficient import-substituting production or processing; (c) reducing consumer subsidies on imported food items; (d) privatizing inefficient agro-industrial enterprises or aspects thereof; and (e) improving the financial profitability and managerial efficiency of operations remaining under the public domain.

Coffee and cocoa. In the first half of the 1980s, nominal producer prices were increased by 33%. Since Côte d'Ivoire is a major world producer of these crops, an increase in its exports could drive down world prices. Consequently newly-introduced incentives emphasize improvements in crop quality¹² and rehabilitation of aging plantations, while generally discouraging new plantings.

Rice. Since 1981, producer and consumer prices were increased by 60% in nominal terms. Production continues to receive a high rate of effective protection. Some government-owned rice mills were denationalized.

Cotton. The government took steps to lower input subsidies while raising producer prices. Subsidies on sales to domestic mills were eliminated.

Sugar. The government closed two unprofitable sugar complexes and is trying to improve efficiency at the remaining four. Sugar remains characterized by high production costs estimated at around three times the world market price.

Other crops. In connection with efforts to diversify agricultural exports, export duties were eliminated for palm products, sugar, cotton, rubber, coconut, copra, and fresh pineapples.

Agricultural Stabilization Fund (CSSPPA). CSSPPA devolved responsibility for palm products to the palm parastatal (PALMINDUSTRIE) but continues to set prices for cocoa, coffee, cotton, exported sugar, and locally-produced rice. CSSPPA's implicit tax revenues from these crops

¹²A fairly high share of coffee exports is discounted on world markets due to poor quality. 20% of coffee production does not even make it onto world markets since it does not meet minimum criteria for export.

increased significantly in the 1980s due to appreciation of the US dollar. These funds were transferred to the Treasury to help finance agricultural investment, debt service and arrears reduction.

5. Commercial and industrial policy reforms. Starting in 1984, the government began a reform to regularize effective rates of protection (to 40%) across industries and between import-substituting and export-oriented activities. The investment code was revised to remove discrimination against smaller-scale enterprises and local suppliers of intermediate inputs, as well as to encourage investment outside of Abidjan. On an experimental basis, the government removed quantitative restrictions on imports for a group of five products; to avoid a surge in demand following removal of QRs, a temporary import surcharge was imposed with the intention of phasing it out over a five-year period. The tax code was also revised to improve incentives for reinvestment of profits.

6. Monetary and credit restraint. In a fixed exchange rate economy, continuous deficits in the balance of payments decrease a country's net assets and thus money supply. In Côte d'Ivoire, the rate of growth of money supply plunged from double-digits during the beverage boom to around 5% per year in the early 1980s. The rate of growth of credit also declined though somewhat less severely, indicating that the authorities had sterilized some part of the monetary contraction induced by adverse external developments.¹³

Outcome on macro variables.

During the first few years of the stabilization program, the budget and current account deficits remained high (Fig.16). This was largely due to exogenous factors, including a severe drought in 1983, continued terms of trade deterioration through 1982, and high international interest rates. Thereafter progress in eliminating macro imbalances was dramatic. The cutback in government investment produced an uninterrupted decline in import volumes during the 1981-1985 period; by the mid-1980s, import levels were 43% lower than their peak in 1979-80. The budget deficit was virtually eliminated by 1985, compared to a deficit equivalent to 15% of GDP in 1982. The current account deficit had fallen to less than 2% of GDP. This dramatic progress was due to both serious stabilization efforts and a fair amount of good luck in exogenous circumstances.¹⁴

¹³See Liederman (1987).

¹⁴Côte d'Ivoire's terms of trade turned around in 1983 and increased substantially in 1984, partly due to appreciation of the US dollar against the French franc. This appreciation

IX.E. Incomes

The cost of this dramatic progress in reducing macro imbalances was a marked contraction in GDP. Between 1980 and 1984, GDP shrank by 10.6% in real terms. The contractionary effects of stabilization policies were compounded by a severe drought in 1983, which reduced agricultural output by 13%. The manufacturing sector slipped into a deep recession in that year due to reduced supplies of agricultural raw materials, tight credit market conditions, depressed agricultural incomes, reduced public sector demand and loss of external competitiveness due to real exchange rate appreciation.

These factors shaved away one-quarter of real per capita GDP between 1980 and 1984 (Fig.17). On average, real per capita disposable income declined by 6.6% per year. This suggests a deterioration in average living standards of alarming proportions. However, income reductions were distributed very unevenly across socioeconomic groups.

Specifically, the most dramatic reductions in real income were concentrated among urban-based middle- to upper-income groups. Urban high-income groups saw their average incomes decline by 18% per year.¹⁵ Urban middle-income groups experienced real income erosion of 11% per year. In contrast, the effects of aggregate contraction on rural and urban low-income groups were relatively mild. Average annual real income erosion amounted to 3.7% for urban low-income groups, 1.6% for rural groups in the South and less than 1% for rural groups in the North. A large part of the real income erosion experienced by rural groups resulted from the 1983-84 drought: rural incomes recovered with the return of good rainfall in 1985, shifting back above their 1980 level.

The way in which Côte d'Ivoire's adjustment strategy interacted with the socioeconomic structure explains this highly differential impact of adjustment on incomes. From discussion in IX.D above, it is clear that urban-based formal sector activities were most adversely affected by measures used to compress aggregate demand. More specifically:

also contributed importantly to real exchange rate depreciation after 1982 (see Krumm 1987).

¹⁵The departure of 10% of the non-African labor force in the first half of the 1980s may also help explain this dramatic decline in average income among the upper-income group.

Public sector and public sector-related activities. Fiscal austerity obviously adversely affected households affiliated with the public sector. The purchasing power of public sector salaries declined sharply due to government restraint in adjusting nominal wages for inflation. For example, in real terms, the minimum wage fell by over 20% between 1980 and 1985. This underestimates the extent of average real wage erosion experienced by public sector employees, since wages for unskilled personnel are adjusted more generously than salaries for higher-level staff. Austerity measures also reduced public sector employees' non-salary benefits, most notably access to subsidized housing.

There are several probable consequences of this erosion of real public sector incomes. First, one would expect the usual adjustments in consumption patterns following real income reductions, namely a shift away from higher-priced goods towards cheaper substitutes and postponed purchases of consumer durables. Second, civil servants may have reduced their on-the-job productivity in response to real pay cuts¹⁶ while increasing time spent on other income-generating activities. Third, at least some component of reduced real income was probably dealt with not by compressing consumption, but rather through reducing (a) investment in other income-generating activities,¹⁷ (b) contributions to savings clubs, and/or (c) transfers to other households.

With regard to (c), household budget studies in Côte d'Ivoire repeatedly document significant transfers of funds between households, often from urban wage-earners to parents and other relatives in rural areas. These funds are in turn used to finance consumption, social obligations (baptisms, funerals), acquisition of land or other productive investments (livestock) and/or youngsters' school fees. No data are available to quantify how the volumes of such transfers were affected by reduced real urban wage earnings in the first half of the 1980s. But it is possible that some of the burden of reduced urban incomes was shifted to rural inhabitants via such linkages between households.

In terms of the employment implications of fiscal austerity, statistics do not indicate any aggregate

¹⁶Due not only to lower real pay but also to reduced availability of complementary inputs.

¹⁷For example, many small agro-industrial enterprises in Côte d'Ivoire were started with savings from wage-paying jobs. Many such entrepreneurs keep their wage-paying jobs to stabilize their income flows, at least during the business's start-up period.

contraction in civil service employment but rather a slower rate of net increase in staff. Some daily paid and technical workers were laid-off, as were some employees of public enterprises undergoing reform. But the numbers involved seem to be relatively small. Possibly the most significant effect of government hiring restraint was that it reduced job opportunities open to recent graduates of post-secondary schools and universities.

Sharp cutbacks in government investment markedly depressed the level of construction activity in Côte d'Ivoire. In the early 1980s, employment in construction fell by 20%. This was the most important factor involved in the overall contraction in formal sector employment between 1981 and 1983. It is likely that the end of the construction boom particularly affected job opportunities for unskilled workers, often recent migrants from rural areas or neighbouring Sahelian countries.

Private formal sector activities. The transportation sector also slumped during the early 1980s, partly due to drought-related reductions in export crop evacuation. As mentioned, manufacturing output contracted sharply in 1983-1984. Figures from the Central des Bilans show a 13% reduction in manufacturing employment between 1982 and 1983. Industrial subsectors dependent on agricultural inputs (food, textiles, wood processing and rubber) were particularly affected, indicating that both drought and stabilization measures were responsible for the contraction in manufacturing employment. The textiles subsector also had to deal with higher costs following the elimination of subsidies on cotton sales to domestic manufacturers in 1982. Modern textiles employment dropped by 18% between 1980 and 1983.

More detailed information on wages and employment in the manufacturing sector is provided by repeat sample surveys conducted in 1979 and 1984, i.e. at the beginning of austerity period and again during the beginning of economic recovery.¹⁸ These surveys showed a 30% reduction in the size of the total work force in manufacturing over the period. Two-thirds of this reduction was due to closure of firms, while one-third came from lay-offs in firms that made it through the recession. Average real wages fell in 40% of all firms that made it through the recession.¹⁹ This lends

¹⁸ See Lavy and Newman (1987) and Liederman (1987).

¹⁹ Reductions in average real wages occurred for two reasons. First, nominal wages of existing employees were raised by less than the rate of inflation. Second, newly-hired workers were paid nominal wages much less than those of existing workers. This second factor was pronounced enough that, in 16% of all surviving firms, the average nominal wage - as

support to the finding that unit labour costs in Ivoirian industry declined over the first half of the 1980s, thereby helping to restore external competitiveness.

Thus formal sector employment shrank by 2.7% per year in 1981-1983 as both public and private formal sector activities contracted. Employees remaining in formal sector jobs experienced a considerable amount of real wage erosion, particularly in the public sector. Yet, as discussed above, groups affiliated with these sectors were overwhelmingly at the middle- to upper-end of the socioeconomic spectrum. Consequently they were able to withstand aggregate economic downswing through strategies that did not endanger minimum living standards: cutting back on luxury items, postponing purchases of consumer durables, reducing savings, and increasing involvement in other income-generating activities. Rural households' incomes may have been indirectly affected by real erosion of urban wages if urban wage earners scaled back their transfers to rural relatives. Some lower-middle income individuals may have been directly affected by urban contraction, specifically those dependent on construction labour or "daily paid" government jobs. But it is difficult to quantify what happened to this group due to its relatively small size.

IX.F. Incomes of poorest groups

In contrast, lower-income groups - predominantly in the agricultural and urban informal sectors - were relatively buffered from the effects of economic contraction. This was not because policies were deliberately pursued to minimize the negative impact of adjustment on vulnerable groups. Rather it was a function of the structure of economy, coupled with the fact that the limited growth-oriented measures undertaken in the first half of the 1980s had some positive effect on agricultural incomes. Specifically:

Agricultural activities. Most growth-oriented measures undertaken during this period were aimed at the sector in which poverty was concentrated, namely agriculture. For the most part, these measures by themselves did not have a major effect on farmers' real incomes. On one hand, producer price increases were relatively modest in real terms (Fig.18).²⁰

well as the average real one - declined between 1979 and 1984.

²⁰In the absence of a rural consumer price index, Fig.18 shows nominal producer prices deflated by the moderate income CPI for Abidjan. This procedure is likely to underestimate real producer price increases, since the

On the other, drought-related output variation remained the most important factor explaining rural income trends during this period. But agricultural policy changes did maintain overall incentives to engage in export crop production, while moderately adjusting relative returns between crops and between productive techniques for given crops.

At the same time, it is probable that other adjustment measures had fairly favourable indirect effects on returns to food crop production. Consumer prices of imported foodstuffs and import-substitutes were increased during this period (bread, rice and palm oil), while urban formal sector incomes were compressed in real terms. It is likely that these factors induced urban consumers to substitute domestically-produced foodstuffs for now higher-priced imported commodities. Figures from the Ministère du Développement Rural suggest that this contributed to increased food output in the period after the 1983 drought (Fig.19). It is of course difficult to disentangle the roles of demand-side and supply-side factors in explaining these estimated increases in production. IMF (1986) observers suggest that increased demand for domestic foodstuffs generated a large increase in output with only modest increases in prices, i.e. supply elasticities are likely to be fairly high for domestically-produced foodstuffs.

In the absence of household-level data on rural income trends in the 1980s, it is impossible to determine how benefits of higher food prices and expanded sales opportunities were distributed across different types of farmers. In particular, the extent to which the poorest group of farmers - food crop producers in the Savanna - benefited from food market developments is unclear. However, unlike other cases where higher imported food prices have shifted demand toward domestically-produced substitutes, in Côte d'Ivoire the purchasing power of food-deficit households was probably not significantly eroded since domestic food prices increased only modestly during the period.

Urban informal sector. Urban informal sector incomes were not as adversely affected by economic contraction as urban formal sector incomes, though they were not as well buffered as rural incomes. As always, there is little detailed time series information on the Ivoirian informal sector to shed light on what happened to incomes and employment in the 1980s. However, it is probable that two key factors contributed to the fact that urban informal sector incomes fared better than average during the overall recession in urban-based sectors of the economy.

Abidjan CPI probably overestimates inflation in the rural cost of living.

First, expenditure on informal sector goods and services did not fall sharply, though urban formal sector incomes declined markedly and workers with urban formal sector jobs form an important part of the market for informal sector output. On one hand, some substitution away from imports and formal sector goods toward informal sector output was probably going on. Processing of domestic foodstuffs (e.g. cassava) probably benefited in this regard. Various repair services (e.g. electrical appliances, vehicles) may have seen business increase in connection with postponed purchases of new durable goods. On the other hand, expenditures on informal sector items are not particularly income-elastic given that most items are necessities. Consequently the decline in formal sector incomes would not anyway have had a strong negative effect on demand for the sector's output.

Second, unlike other cases, adjustment in Côte d'Ivoire did not produce a major influx into the urban informal sector of people laid off from formal sector jobs. Since total expenditure on informal sector goods and services is relatively stable in the short-run, a sudden rise in the number of participants in the informal sector increases competition for existing business and drives down average incomes. In Côte d'Ivoire, formal sector employment declined by 8% between 1980 and 1983. But the number of jobs lost was 37,500, compared to a total urban labour force of 1.3 million. Thus even if all people laid off from formal sector jobs shifted into informal sector activities, the magnitude of the influx was not large enough to exert a strong depressive influence on informal sector incomes.

IX.G. Government services

Current expenditures on health and education were not compressed as much in real terms as expenditures in other areas. Thus some differential protection was given to building human capital and improving basic needs despite the general climate of fiscal austerity. However, funds for scholarships were cut back during this period.²¹ The extent to which students were able to mobilize private funds to continue their studies is unclear, since many wealthier relatives who could usually be persuaded to contribute to school fees were facing strong real income erosion.

At the same time, fiscal austerity measures contributed to growing imbalance in current expenditures on social and

²¹This was partly due to a sense that there were "too many" humanities students, graduating with few valuable skills yet expecting to find high-paying employment in the modern sector.

productive services. Strong measures had been taken to contain growth in personnel-related costs, including a multi-year wage freeze, reduced fringe benefits, hiring restraint, and lay-offs in surplus technical staff. But in real terms cuts in non-personnel operating costs were deeper than cuts in the government wage bill. Decreased availability of complementary inputs contributed to declining productivity in public service delivery, as did the real income erosion experienced by public employees. In some sectors, efforts were made to counteract this trend. For example, a reform was initiated to make agricultural extension services - which have been important in disseminating new crop varieties, inputs, and techniques in Côte d'Ivoire - more cost-effective and responsive to farmers' needs.

One of the most disturbing implications of government expenditure cutbacks for social service coverage is largely invisible. Even with the differential protection offered to social services in a climate of overall fiscal austerity, for the foreseeable future funding levels for *expanding* health coverage and access to education will remain very low. Thus there is not only a short-run problem of defending coverage levels achieved in the period of rapid growth, but also a longer-term problem of continuing basic needs progress under much tighter funding constraints. This highlights the importance of restructuring public expenditures to maximize the social impact of available fiscal resources.

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Fig.1 Côte d'Ivoire

Structure of GDP

CFAF trillion (1981 prices)

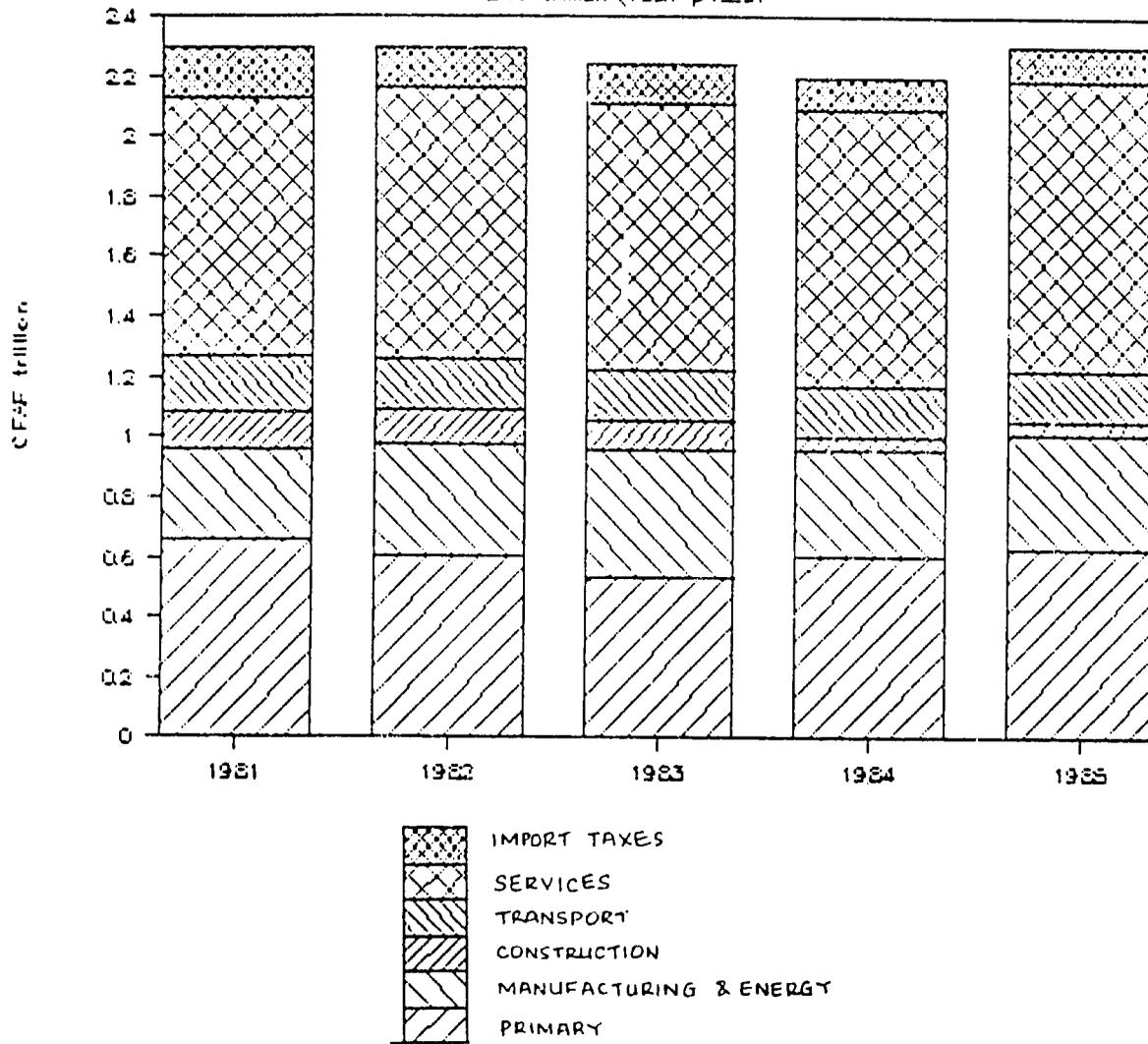


Fig.2 Côte d'Ivoire

total annual expenditures per person

CFAF million, by income decile

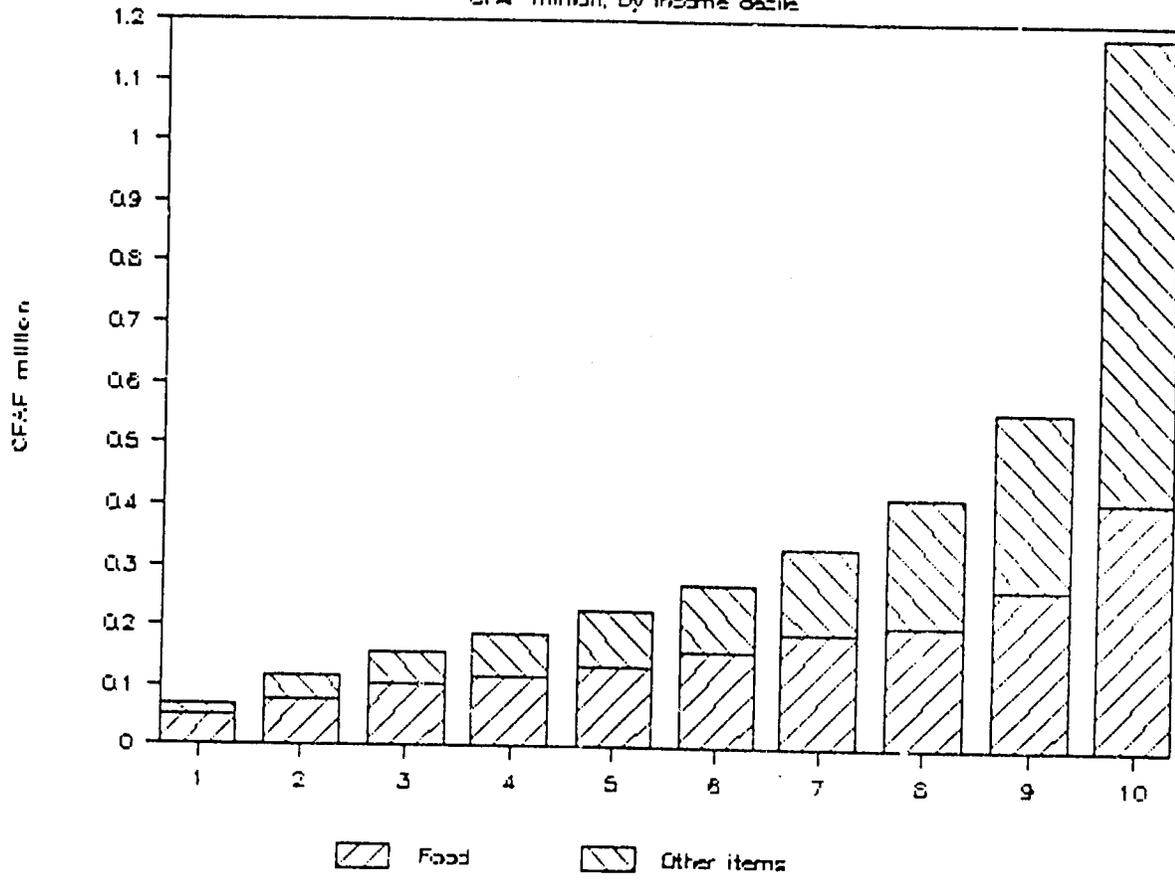


Fig.3 Côte d'Ivoire

Distribution of total expenditure

% of expenditure by income quintile

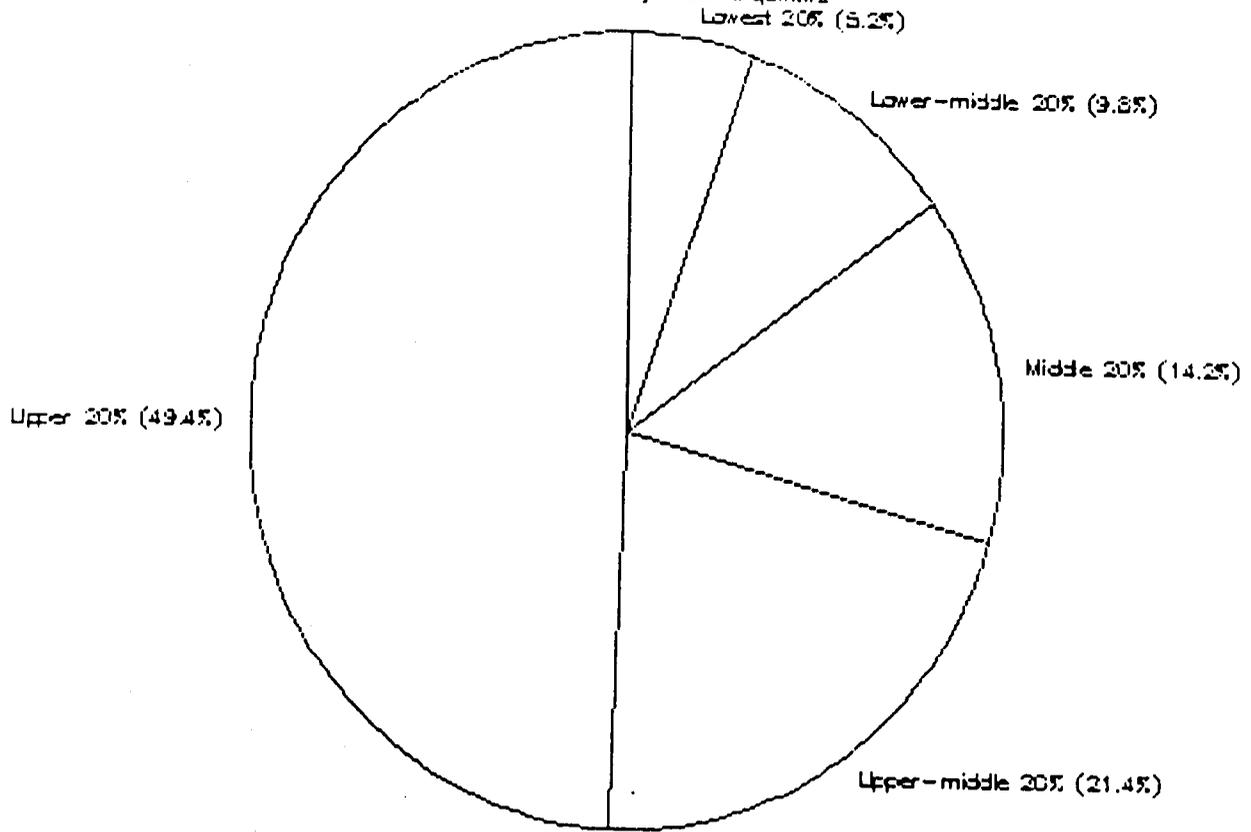


Fig.4 Côte d'Ivoire

Geographical distribution of population

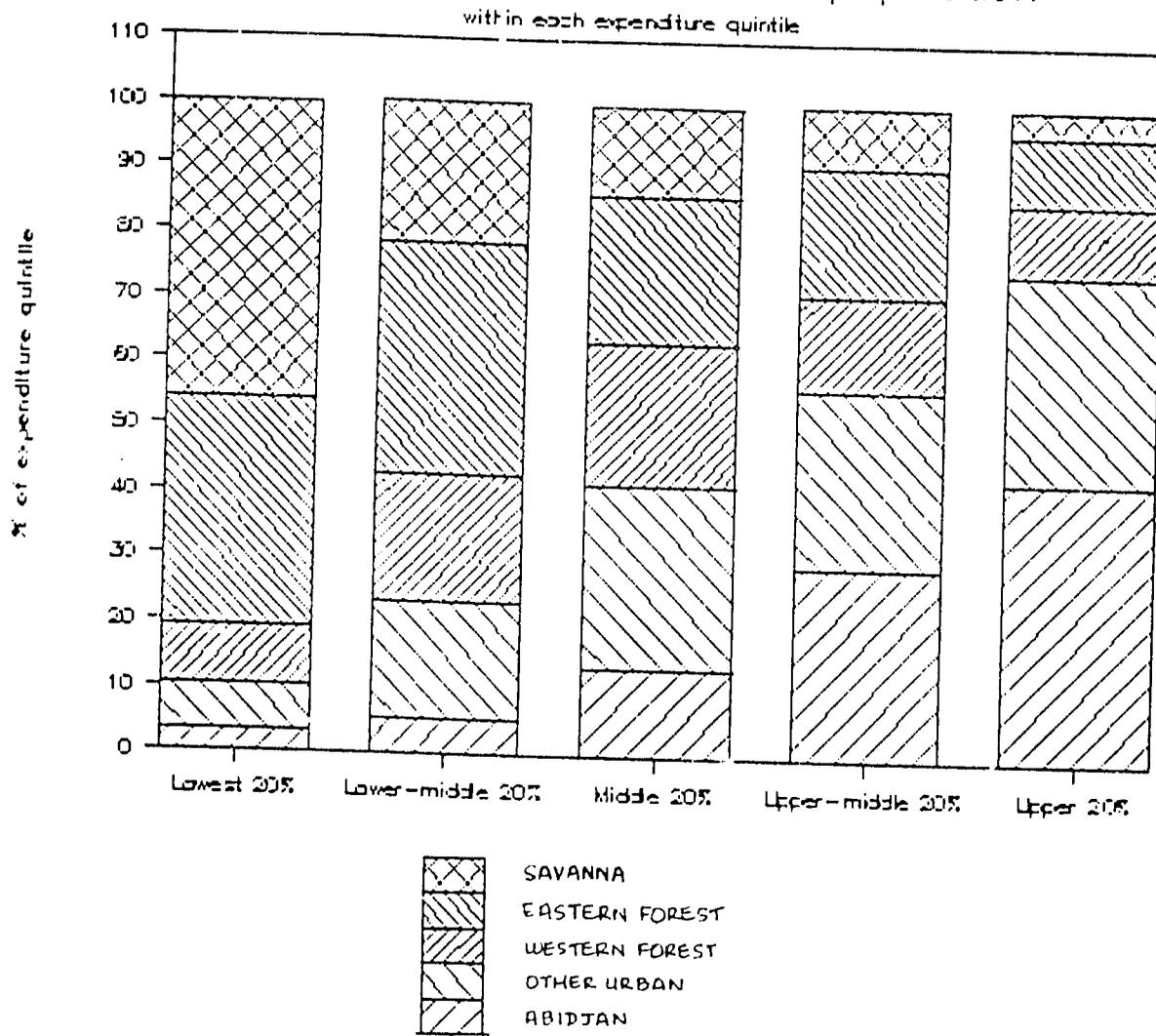


Fig.5 Côte d'Ivoire

Per capita expenditure by region

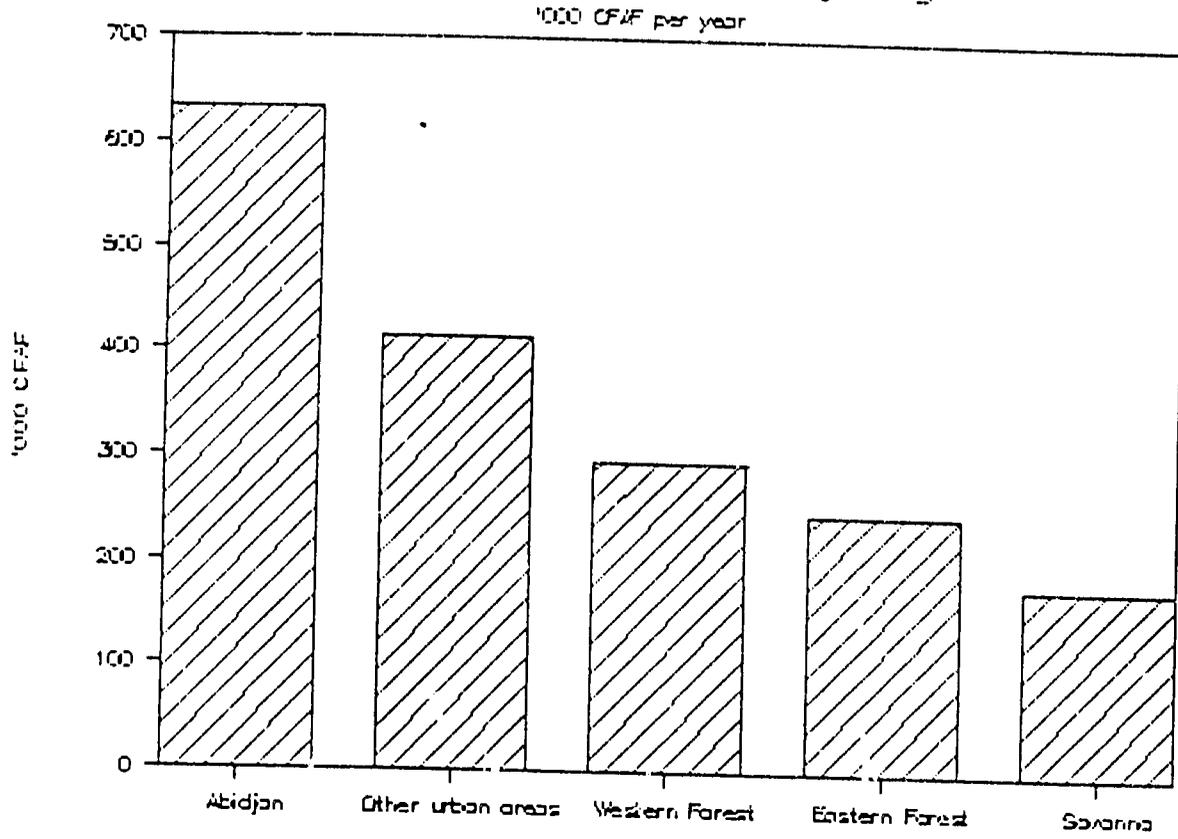


Fig.6 Côte d'Ivoire

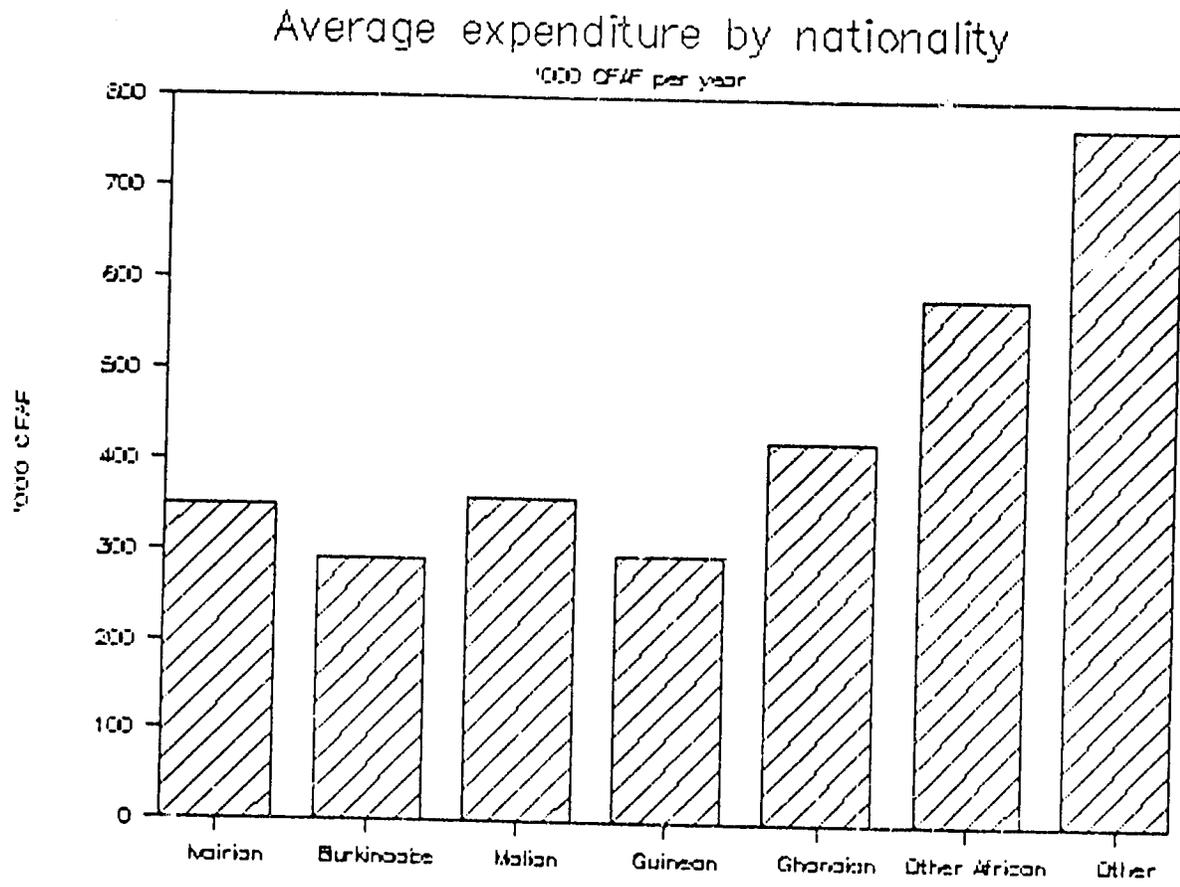
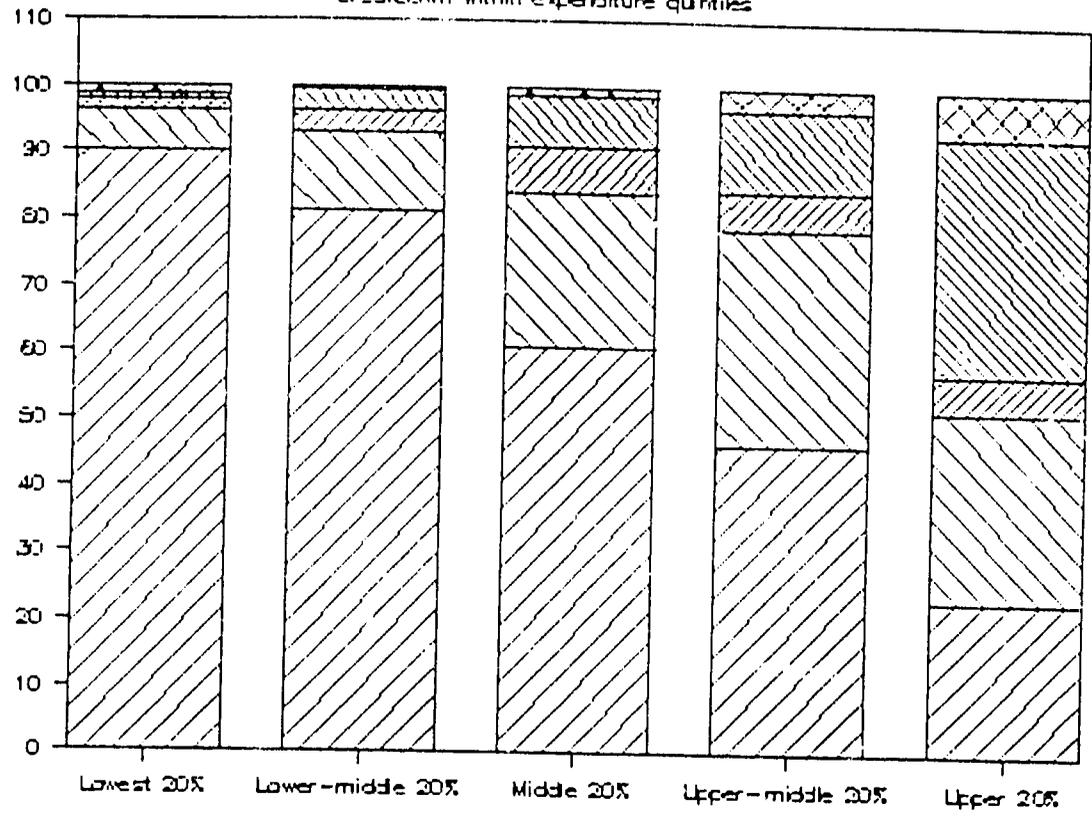


Fig.7 Côte d'Ivoire

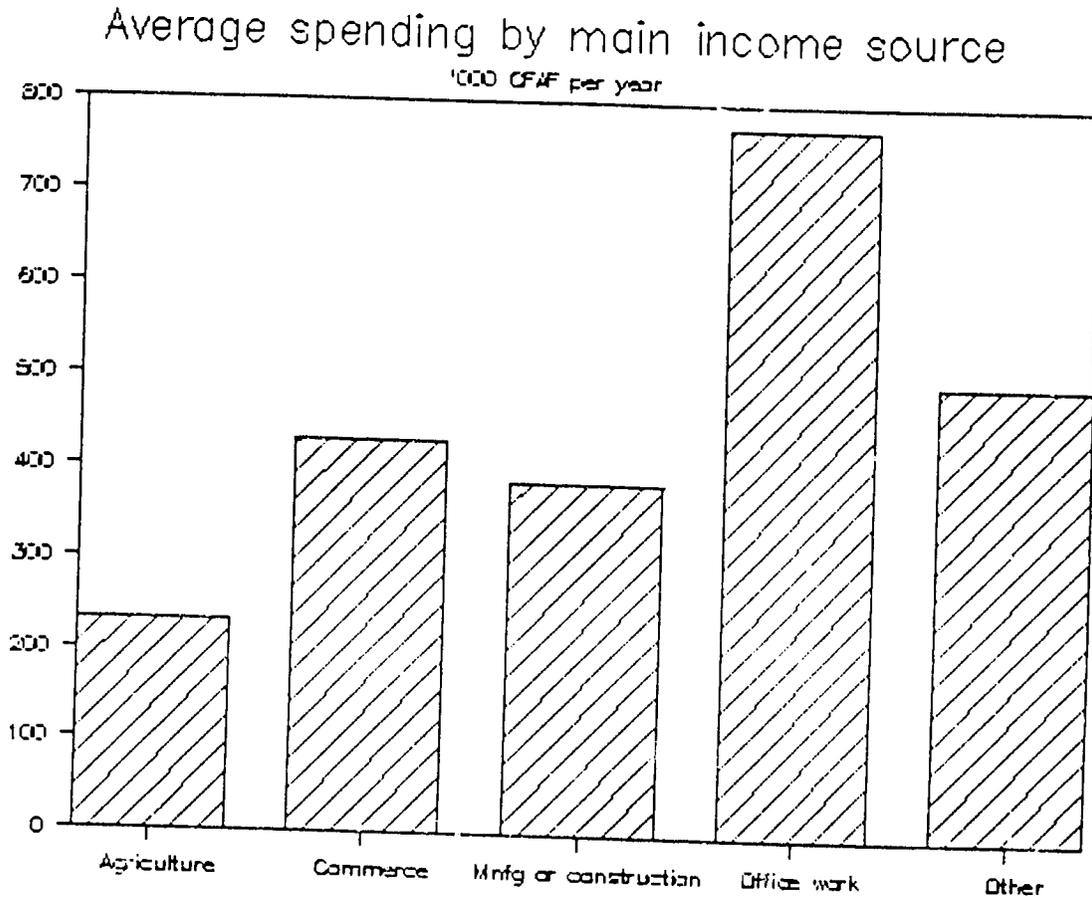
Labor force distribution

breakdown within expenditure quintiles



-  OTHER
-  OFFICE WORK
-  MANUFACTURING & CONSTRUCTION
-  COMMERCE
-  AGRICULTURE

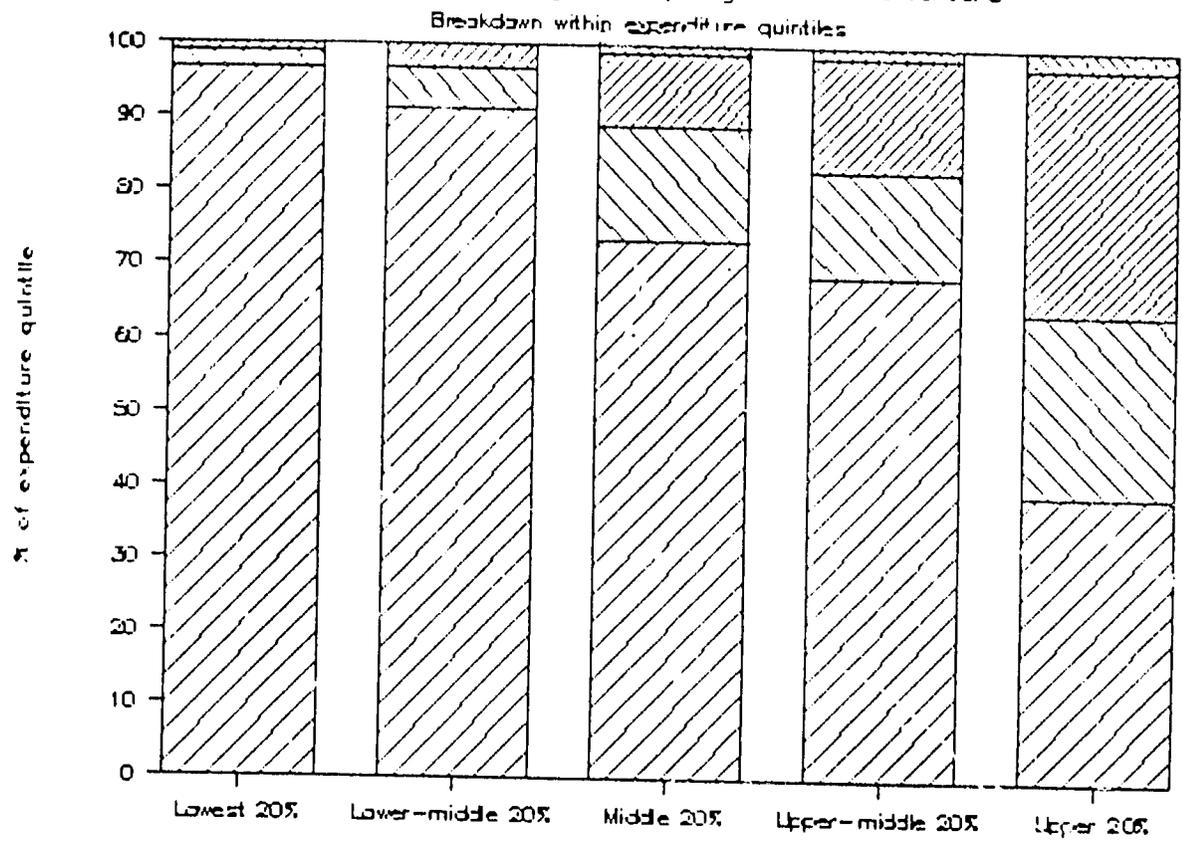
11781
Fig.8 Côte d'Ivoire



117a

Fig.9 Côte d'Ivoire

Distribution by employment status



-  OTHER
-  GOVERNMENT & PUBLIC ENTERPRISES
-  PRIVATE FIRM
-  SELF-EMPLOYED

Fig.10 Côte d'Ivoire

Distribution by education

Breakdown within expenditure quintiles

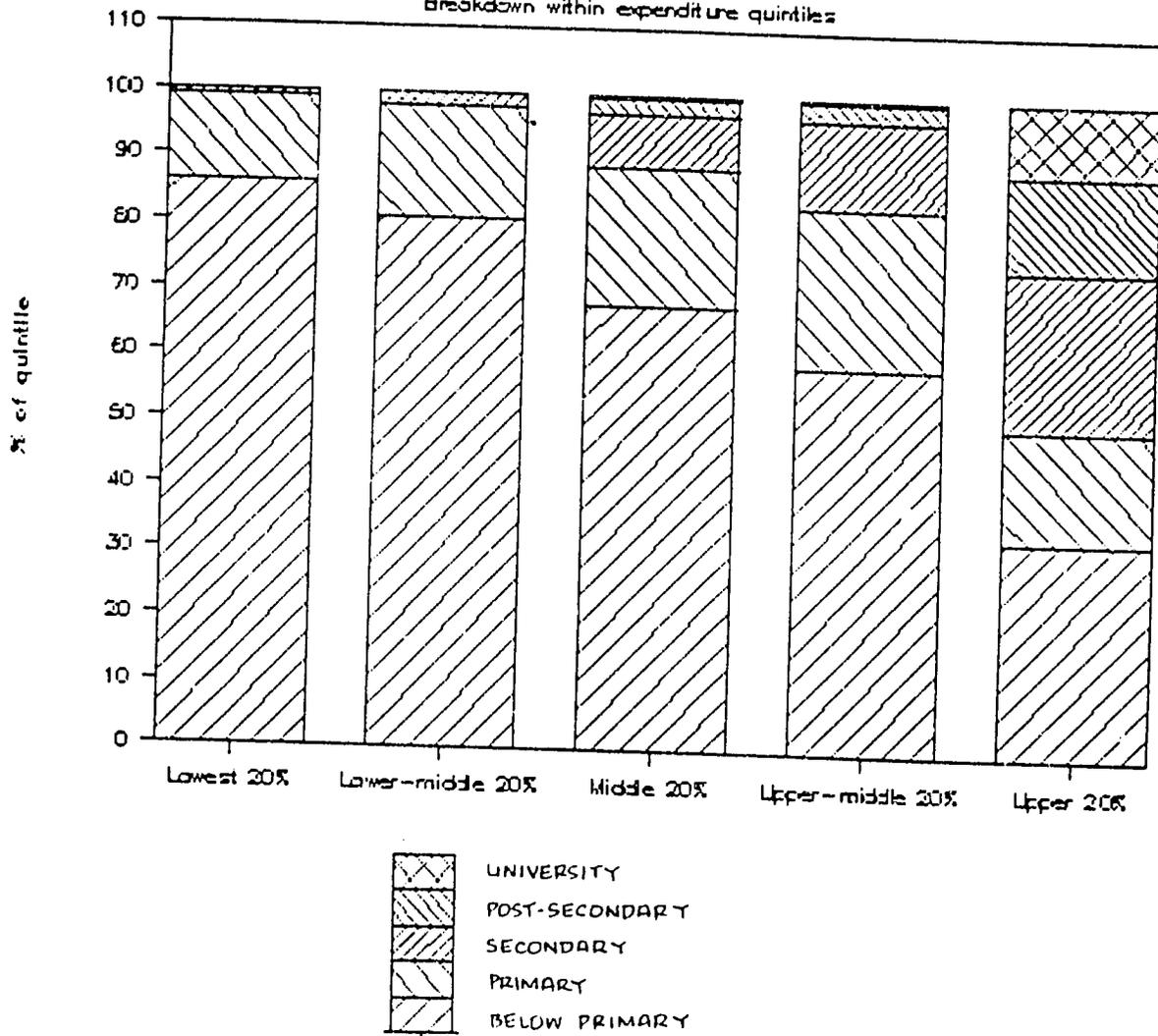


Fig.11 Côte d'Ivoire

Average expenditure by education

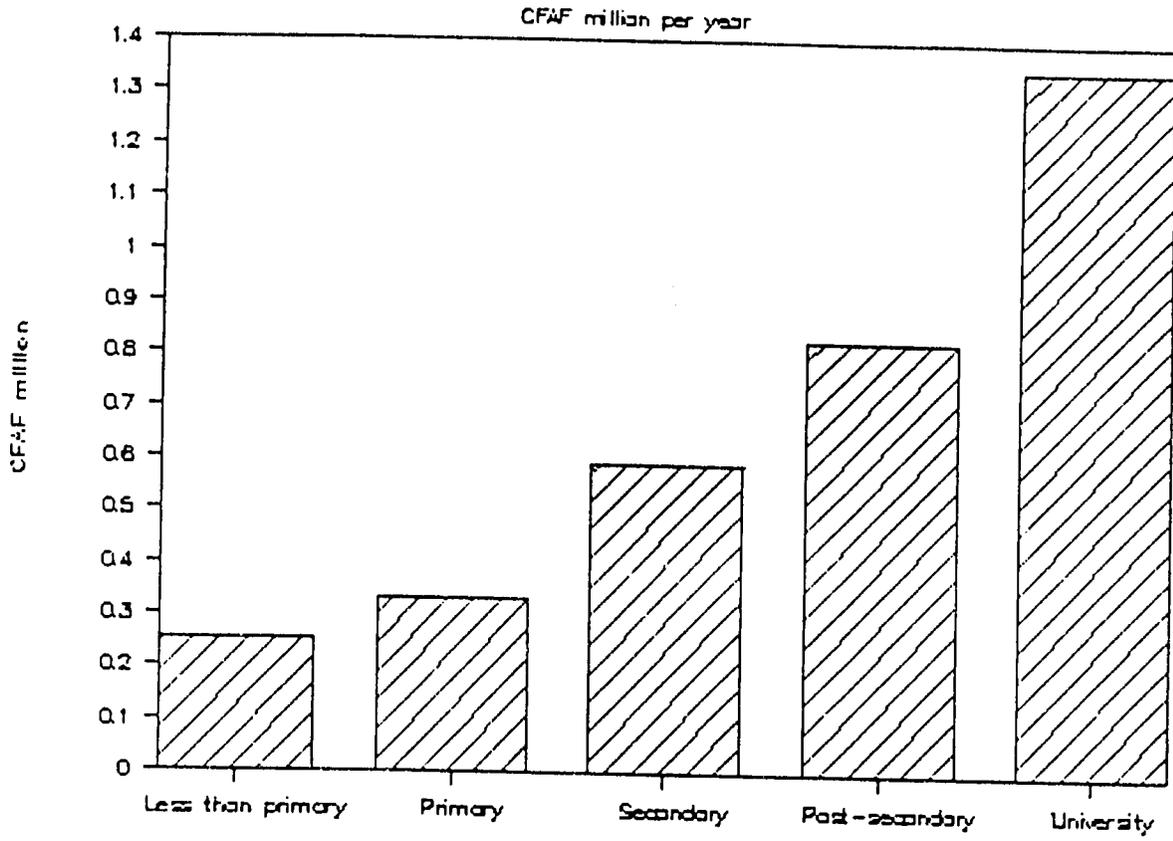


Fig.13 Côte d'Ivoire

Imports, exports & net factor services

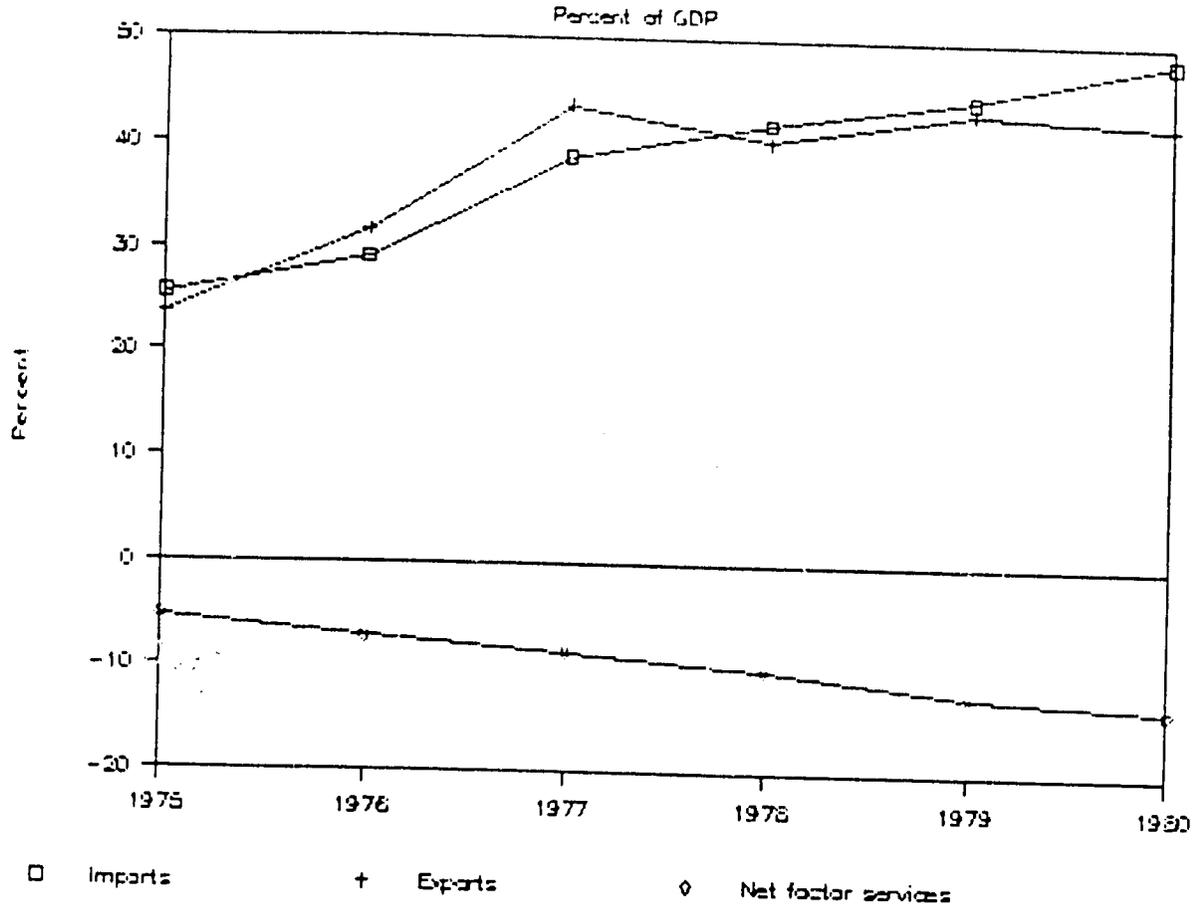
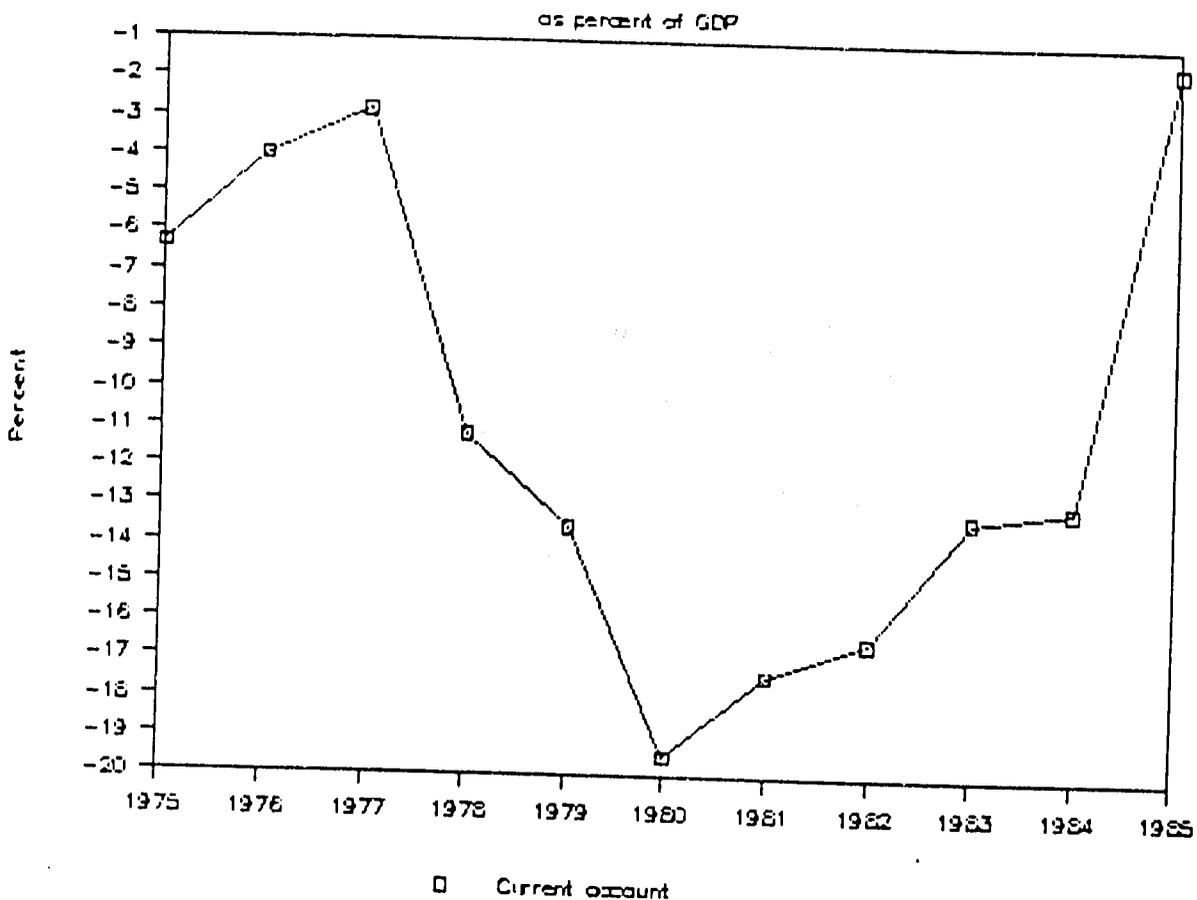


Fig.14 Côte d'Ivoire

Current account balance

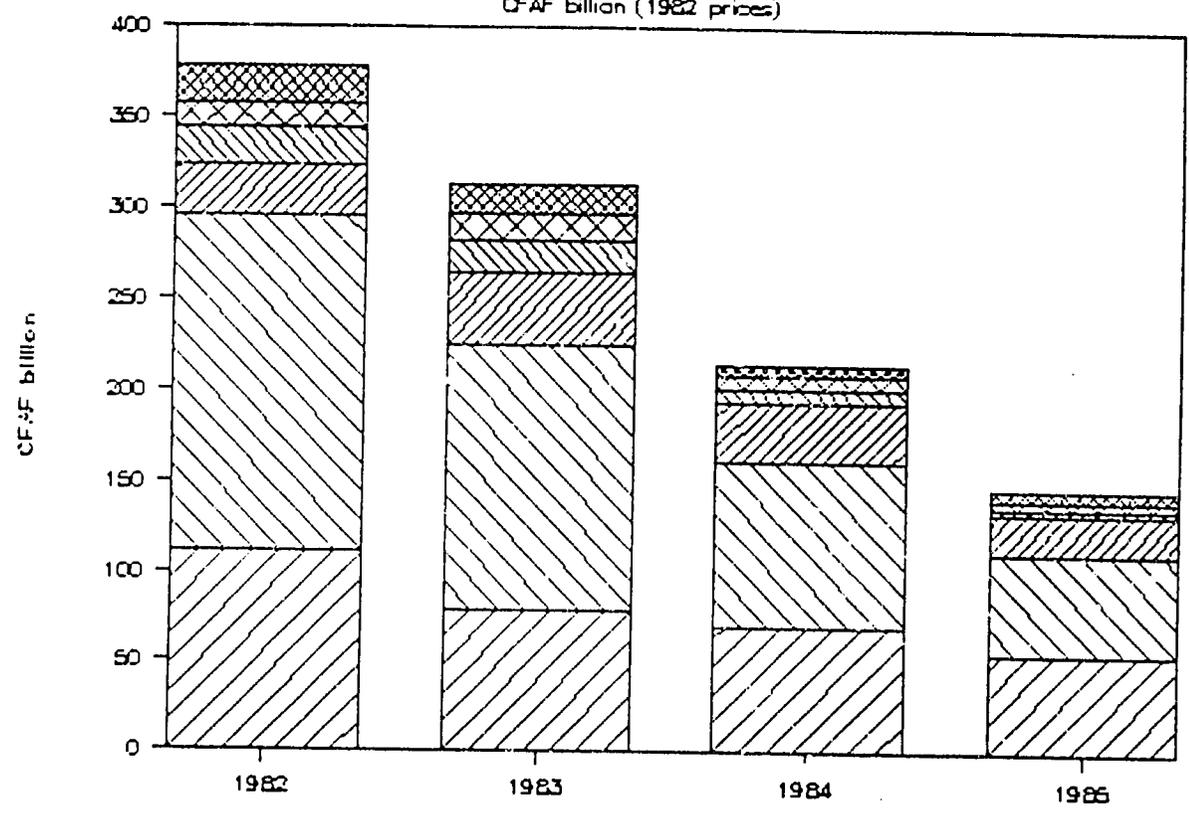


1171

Fig.15 Côte d'Ivoire

Public investment by sector

CFAF billion (1982 prices)



- OTHER
- ADMINISTRATION
- EDUCATION
- URBAN & HOUSING
- INFRASTRUCTURE & ENERGY
- AGRICULTURE

Fig.16 Côte d'Ivoire

Current account & fiscal deficits

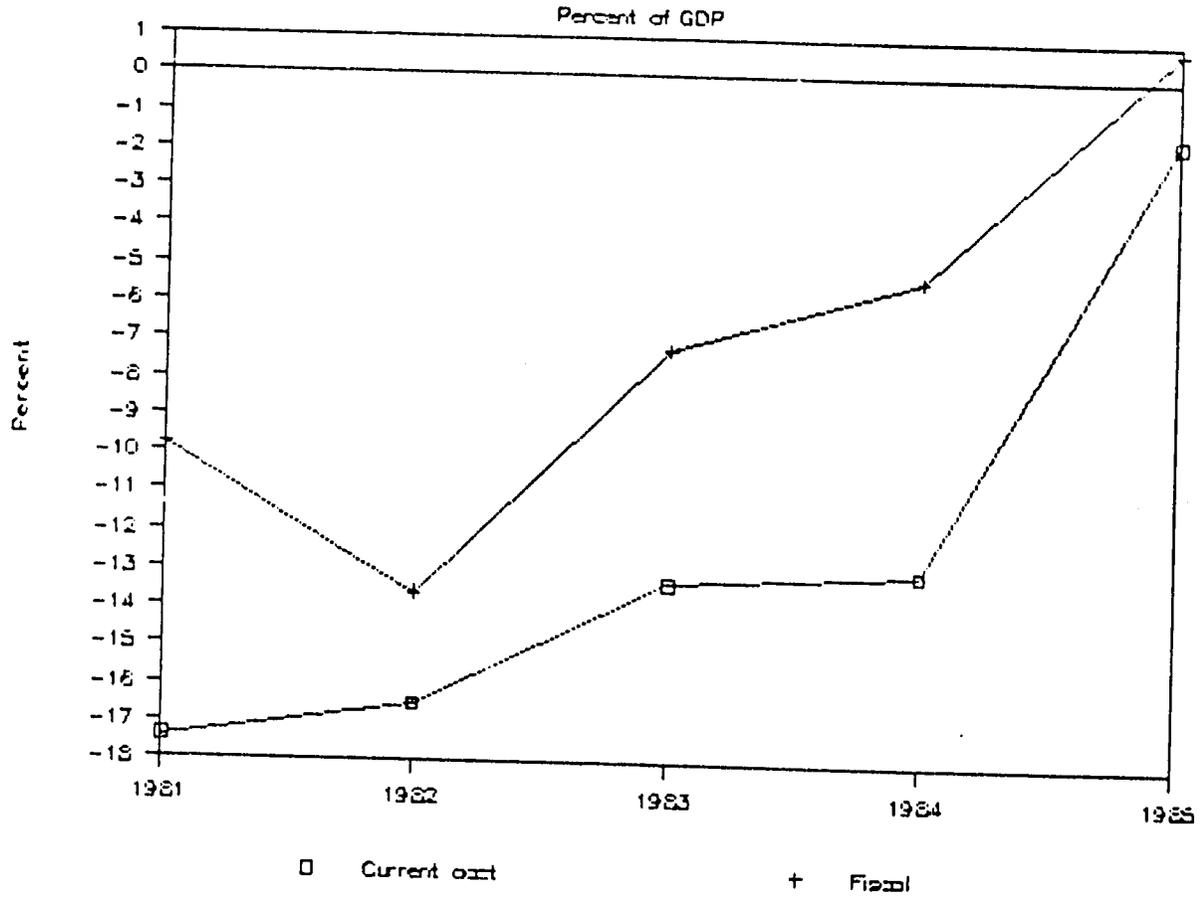


Fig.17 Côte d'Ivoire

Real GDP per capita

Index 1980=100

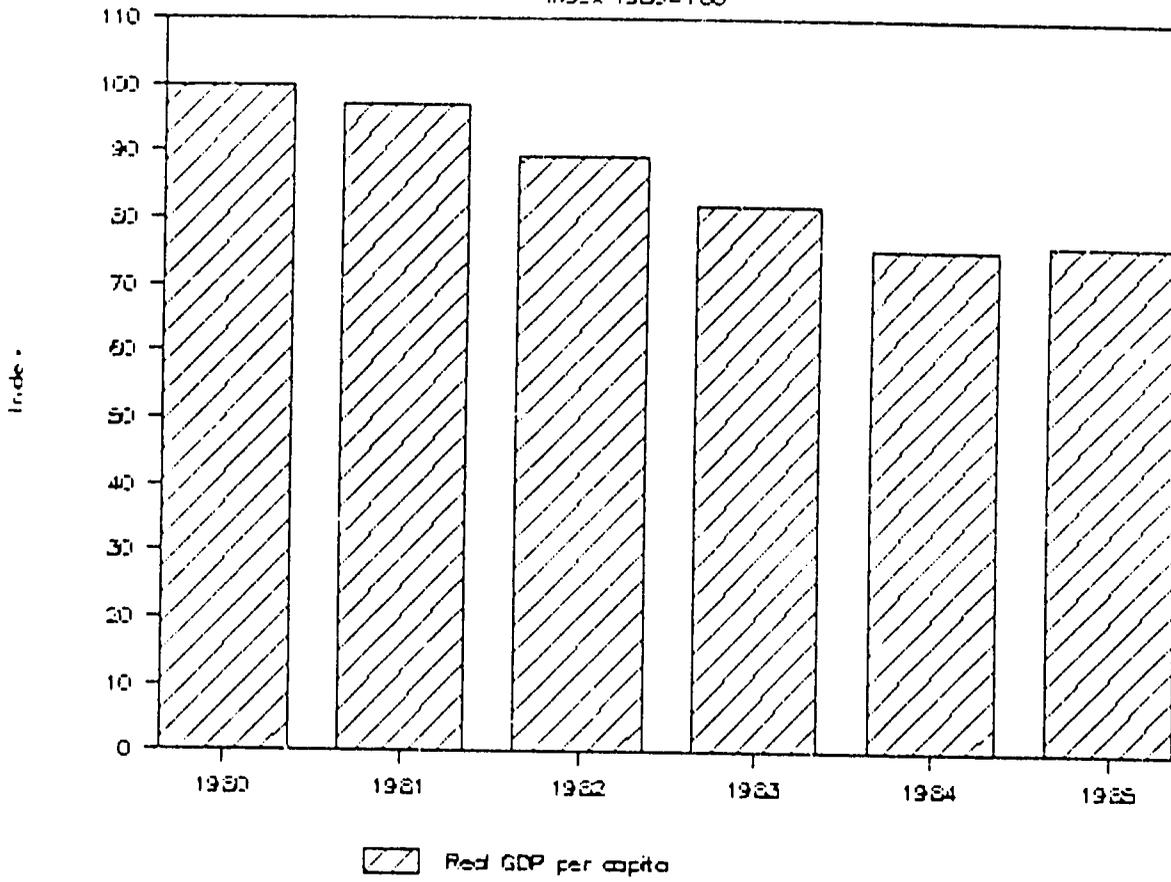
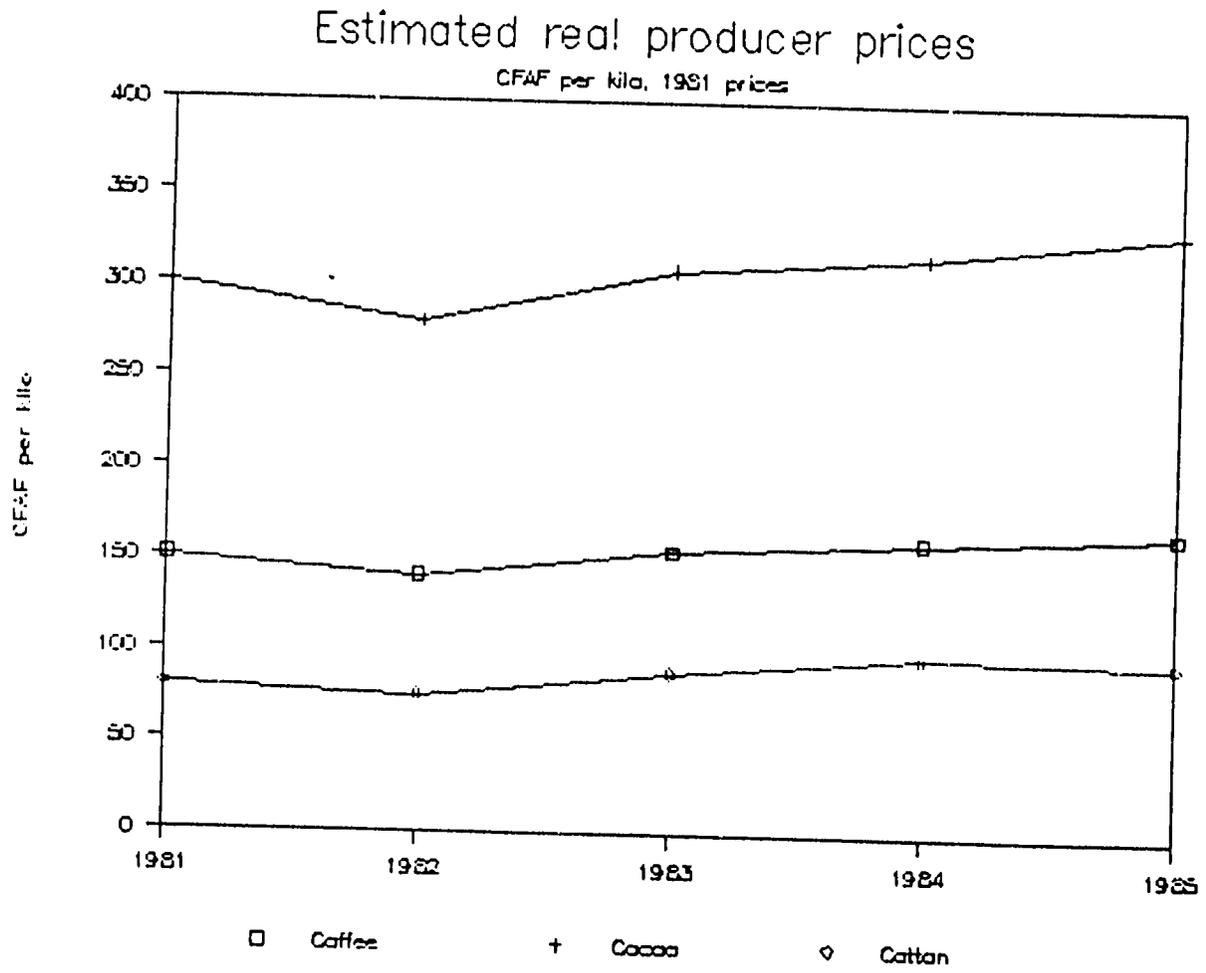


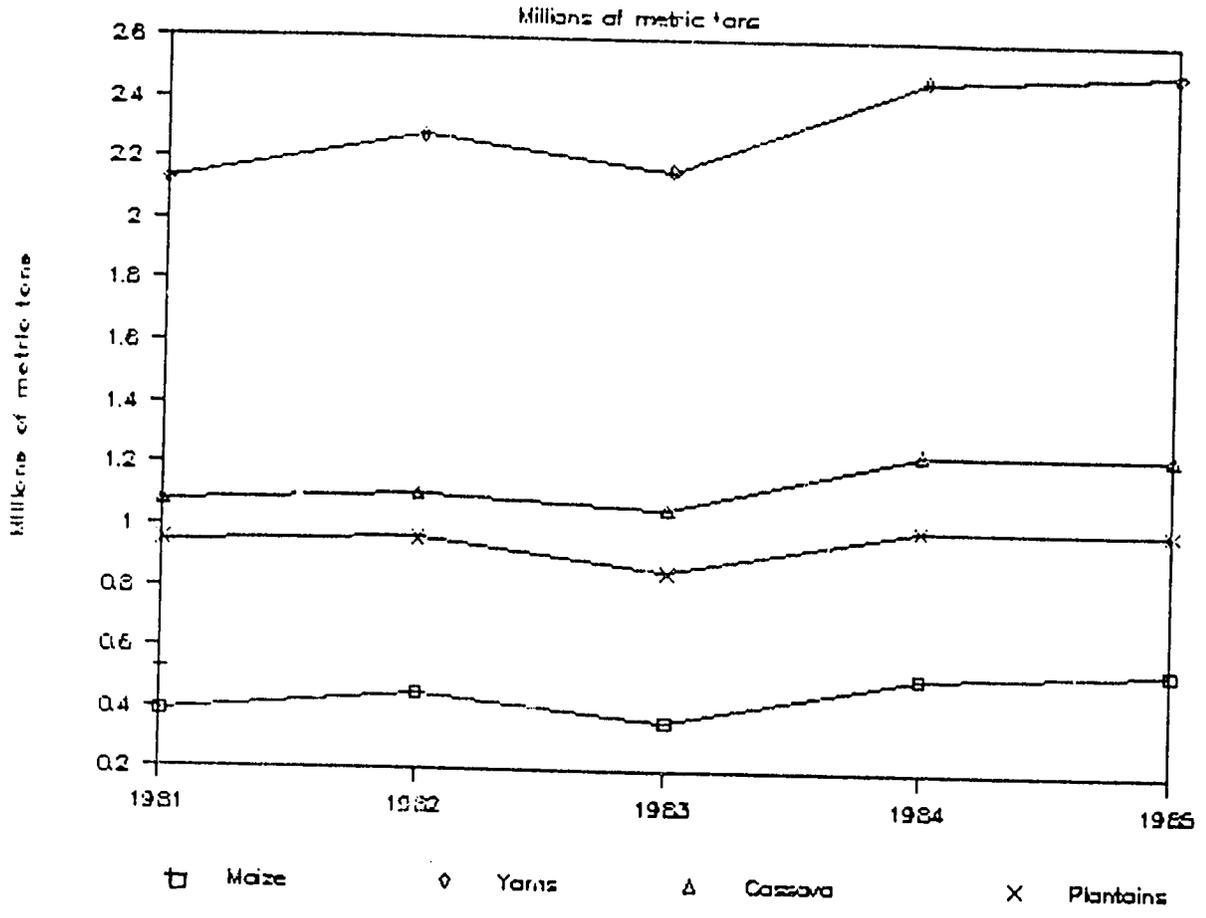
Fig.18 Côte d'Ivoire



176

Fig.19 Côte d'Ivoire

Food crop production



X. MOROCCO

X.A. Introduction and summary:

Despite major adjustment problems, stabilization in Morocco has not produced contraction on the same magnitude as in other heavily indebted countries. Consequently, incomes, employment and consumption have stagnated in the 1980s but have not been markedly compressed. Two key factors account for the relatively mild socioeconomic effects of adjustment thus far. First, the pace of stabilization has been relatively relaxed, largely because external capital has not dried up as sharply as it did in other heavily indebted countries. So far there has therefore been no need to subject the economy to "shock treatment" to close the current account deficit. Second, selected growth-oriented measures also served to minimize the recessionary potential of adjustment, particularly improved access to imported inputs, export simplification and depreciation of the dirham. Response to growth-oriented measures was relatively rapid, partly because the increased competitiveness of Moroccan firms could be exploited through better use of existing capacity.

However, Morocco's progress in restoring macroeconomic balance has been mixed and several important areas remain to be addressed. The most difficult issue left on Morocco's adjustment agenda is the heavy subsidies on imported food. As in other countries, these subsidies strain the balance of payments and absorb an important part of the government budget. A large part of the subsidies finance consumption of the non-poor. Subsidies have depressed food producers' incomes due to high degrees of substitutability between domestic and imported foodstuffs.

Yet the subsidies have proved very difficult to revoke. They are central to the living standards of the urban poor who represent one-quarter of the urban population. In the short- to medium-term, response of domestic production to higher food prices is unlikely to be strong due to the fragility of the rainfed cereals-producing sector. Repeated efforts to remove subsidies in the 1980s met with substantial unrest especially because severe droughts made domestically-produced foodstuffs scarce and expensive during this period.

To find a more viable way of proceeding, a multi-year plan was developed for phasing out the general subsidies while targeting subsidized food to the poor. The plan took two years to develop, emphasizes donor coordination, and makes use of national institutions and PVOs experienced in administering targeted, developmentally-oriented food aid.

As such it is an important model of relevance to other countries struggling to reduce food subsidies without inflicting excessive hardships on vulnerable sectors of the population.

X.B. Economic and socioeconomic structure

Morocco is a lower-middle income country with a per capita GDP of \$580 in 1986. The economy is highly diversified, reflecting the country's varied resource base. Figure 1 shows the sectoral breakdown of GDP. Phosphate mining represents about 5% of GDP and 40% of exports. The modern manufacturing sector has both (a) import-substituting activities oriented toward consumer goods and (b) a wide range of export-oriented activities, including fruit and fish canning, textiles, leather products, shoes and more recently electronic appliances, kitchen appliances and cosmetics. Including informal sector production, manufacturing accounts for around 17% of GDP. The agricultural sector represents only 16% of GDP but employs about 40% of the labor force. Irrigated agriculture produces two-thirds of Morocco's agricultural exports (including citrus fruits, vegetables and industrial crops) though it occupies only 10% of cultivated land. Small cereals-producing farms are predominant in rainfed agriculture. The rainfed subsector has stagnated in the past two decades due to repeated droughts and inappropriate government pricing policies. Finally, services represent almost one-half of GDP, including particularly commerce, transport, government services and the small but growing tourism sector.

The Moroccan economy grew at an average annual rate of 5.7% between 1965 and 1980 (see Fig. 1). Most of the growth occurred in urban-based sectors and was associated with high rates of rural-urban migration. Partly as a result, Morocco is more urbanized than other lower-middle income countries, with 44% of the population residing in urban areas in the late 1970s. The percentage of the labor force in agriculture dropped from 54% in 1973 to 46% in 1986. There are also substantial outflows of workers to France and other European countries. Their remittances figure significantly in Morocco's balance of payments.

Greater inequality in income distribution accompanied the urban-based growth of the 1960s and 1970s.¹ The share of income accruing to the richest 20% of all households rose from 43% to 49%, while the share going to the poorest 20% declined from 18% to 12%. However, growth was sufficiently rapid to reduce incidence of absolute poverty, which fell from almost 50% in 1960 to 37% in 1979 (Fig.2). Lower

¹See World Bank, Social Indicators of Development 1987.

overall poverty derived primarily from the sharp drop in urban poverty incidence which fell from 51% in 1960 to 28% in 1984. Rural poverty declined much more slowly, falling from 49% to 42% during the same period.

Identifying the distribution of the poor across productive sectors is made difficult by weak data on incomes and employment. However, data on consumption and expenditure patterns are relatively good. On the employment side, the urban poor are concentrated in (a) unskilled casual labor, particularly construction, and (b) urban informal sector activities, i.e. commerce and "handicrafts". The rural poor are (a) small rainfed farmers; (b) landless laborers whose employment prospects are highly seasonal; and (c) people involved in services in urban fringe.

On the consumption side, a 1972 Household Consumption Survey identified patterns of expenditure across income groups. A similar study was conducted in 1984 though its results are not yet available. The World Bank has updated the 1972 figures based on estimates generated under a detailed study. Available figures indicate that:

(a) the poorest 30% of all households allocate 70-90% of their expenditures to food (Fig.3). Clothing, services and energy absorb most of the remainder of their expenditures. Housing and consumer durables have negligible shares in the expenditures of the poor.

(b) in contrast, the upper 30% of all households allocate less than 50% of their expenditures to food (Fig.3). Services figure prominently in the consumption of upper-income groups, followed by clothing and consumer durables.

(c) the level and composition of food expenditures vary significantly across income groups and between rural and urban areas.

i. Overall, as one would expect, upper-income households allocate a much larger share of their food expenditures to meat and milk than lower-income households. The expenditures of low-income households are dominated by cereals and flour. The share of food expenditure allocated to barley and maize declines markedly as household income rises; whereas, the poorest 20% of all households spend about 10% of their food budgets on these two grains, these foodstuffs receive negligible shares of the food expenditures of the richest 20%. See Fig.4.

ii. Within urban areas, per capita food expenditure rises markedly with household income. In 1984 on a per capita basis, the wealthiest 20% of all urban households spent more than twice as much on food as the poorest 20%

(Fig.5). In absolute terms, expenditures on all types of foodstuffs rise as household income increases, with the notable exception of grains.² Grains have become relatively unimportant in urban diets due to the penetration of subsidized wheat flour. Soft wheat flour represents about 80-90% of total cereal consumption for urban households, with little variation across income groups. Subsidized vegetable oils have replaced olive oil in urban diets.

iii. Within rural areas, per capita food expenditures rise with household income as one moves from low- to middle-income households. Thereafter, unlike in urban areas, there is no marked positive correlation between food expenditures and household income.³ Barley and maize are more important for low-income rural households than they are for low-income urban households. Nonetheless, expenditures on flour by rural households are higher than one might expect, representing 20-30% of total cereal consumption. This confirms a non-negligible degree of penetration of subsidized wheat flour into rural areas. (Fig.6).

iv. In terms of the nutritional adequacy of food consumption, the 1972 consumer survey found that 46% of the Moroccan population had a daily caloric intake below the FAO norm of 2,300 calories (Fig.7). More significantly, 27% of the population consumed less than 1,800 calories per day. In general, caloric intake increased with household income level in both rural and urban areas. Urban caloric intake was significantly below rural caloric intake at all income levels. Before the results of the more recent consumer survey become available, it is difficult to say how the nutritional adequacy of diets has evolved since the early 1970s. The World Bank (1986:32) estimates that urban diets improved in the 1970s and early 1980s, whereas rural diets did not change significantly.

²Econometric estimates confirm that barley and maize are inferior goods in the Moroccan food demand system. See Mateus (1986).

³This may be due to the relatively low degree of income dispersion in rural areas compared to that found in urban areas.

X.C. Macro framework⁴

Morocco's adjustment problems originated with a short-lived phosphate boom in the first half of the 1970s. The sudden quadrupling of the world price temporarily more than offset higher import costs associated with the first oil price shock. Thus the terms of trade moved sharply in Morocco's favor between 1973 and 1975 (Fig.8).

Imports soared with the increased availability of foreign exchange, rising from below 20% of GDP in 1972 to 38% of GDP in 1976 (see Fig.9). Dramatic increases in government spending were financed through windfall government revenues plus foreign borrowing permitted by Morocco's improved creditworthiness. The government investment budget was tripled, primarily to finance construction of infrastructure such as schools, health facilities, roads and dams (see Fig.10). Salary increases were granted to public sector employees. A major expansion of education and health programs was launched. Finally, an important defense build-up related to the Sahara war was initiated.

Soon after, the phosphate boom turned to bust. Export receipts slumped while import costs continued to rise. This converted Morocco's modest current account surpluses into massive deficits (see Fig.11). By 1977, the current account deficit had soared to 16.5% of GDP. Heavy foreign borrowing was initially used to fill the widening gap between exports and imports (Fig.12). Between 1975 and 1984, the value of Morocco's external debt rose from 20% to almost 100% of GDP. Debt service payments jumped from 7% to over 50% of the value of exports. This rapid and unsustainable accumulation of foreign debt put Morocco into the category of most heavily indebted countries.

Exchange rate policy in the second half of the 1970s did not reflect the diminished purchasing power of Morocco's exports (Fig.13). Between 1974 and 1980, the exchange rate remained roughly constant in nominal, trade-weighted terms. In real terms it appreciated by almost 17%, despite the fact that the terms of trade downswing indicated a need for real depreciation.⁵

⁴Information in this section is taken from Brendan Horton, "Economic Policy Analysis and Reform: a Case Study of Morocco" (Boston University and World Bank Economic Development Institute, forthcoming 1988).

⁵Note that the real effective exchange rate referred to here is based on wholesale price indices. The measure used in IMF publications - based on consumer price indices - does not indicate a real appreciation of the dirham in the late

Both trade taxes and quantitative restrictions were initially used to contain excess demand for imports. Both measures provided varying degrees of protection to domestic industries competing with imports. A World Bank-sponsored study found that, in the early 1980s, import-substituting industries received effective rates of protection ranging from 35% to 200%. Import duties also provided the most important source of government revenues.

Government revenues had slumped with the end of the phosphate boom. Yet government expenditures continued to mount. Consequently, the fiscal deficit ballooned, reaching 14.5% of GDP in 1981 (see Fig.14). Beginning in the late 1970s and early 1980s, efforts to bring the government deficit under control were hampered by rising interest payments on the public debt due to higher international interest rates, appreciation of the U.S. dollar, and the rapid rate of debt accumulation. Because of these rising non-discretionary payments, discretionary expenditures had to be reduced substantially to achieve even modest progress in deficit reduction.

Growing subsidies on basic consumer goods represented a particularly difficult area in deficit reduction efforts. The original rationale for price controls on basic commodities was to protect consumers from excessive price fluctuations, due to both world price trends and rainfall-related variations in prices of domestically-produced foodstuffs. In practice, the government's reluctance to raise consumer prices despite rising import costs meant that it wound up providing significant general subsidies on basic consumer goods (flour, edible oils, granulated sugar, petroleum, butter, milk and meat). By 1984, the government was subsidizing prices of soft wheat flour, edible oil and granulated sugar by 35% to 43% (Fig.15).

High subsidy rates reduced the relative price of softwheat flour by roughly 30% between 1974 and 1984 (Fig.16). The falling relative price of softwheat flour induced substitution away from domestically-produced grains, namely barley and maize. Between 1974 and 1984, average consumption of softwheat flour increased from 50 to 80 kilos per person per year (Fig.17).

1970s. As the IMF itself notes, the CPI-based measure of real exchange rate trends is inferior to that based on the WPI. But the Moroccan WPI's weights became seriously outdated so the index's usefulness is doubtful. In any case, neither measure indicates the real depreciation of the dirham that would have been justified to maintain the economy's competitiveness.

Subsidized foodstuffs came to represent 25-35% of total household food expenditures (Fig.18). The share of subsidized foodstuffs in total food expenditures was higher for low-income households than it was for upper-income households. Nonetheless, middle- to upper-income households became the main beneficiaries of food subsidies, since their expenditures on subsidized foodstuffs were considerably higher in absolute terms. Thus the World Bank (1986) estimated that in 1984 only 16% of subsidies went to the poorest 30% of the population; 37% went to the middle-income group; and 47% accrued to higher-income consumers.

In the first half of the 1980s, budgetary costs of the food subsidies were equivalent to an average of 1.7% of GDP and 5.2% of total government spending (Fig.19). Budgetary costs of the subsidies varied from year to year depending on import prices and volumes (Fig.20). Overall, subsidy costs involved a strong countercyclical element since import volumes jumped up in years of poor domestic food production.

X.D. Adjustment actions

In 1977, rapid deterioration in the current account caused Morocco to turn to IMF for balance of payments assistance. It has had various agreements with the Fund since that time (see Horton 1988). Efforts to stabilize the economy in the late 1970s were half-hearted and largely ad hoc, partly because Morocco's continued access to international capital markets alleviated the need to undertake more profound economic reforms. More systematic stabilization efforts began in 1983 when external capital suddenly dried up. Morocco's programs with the Fund have gone on-and-off track frequently due to unsuccessful performance vis-à-vis program targets. This unsuccessful performance has been explained by both (a) factors beyond the government's control (drought, continued deterioration in the terms of trade), and (b) government reluctance to implement policy reforms as scheduled.

After 1983, the World Bank also started up policy-based lending to Morocco. Because of the country's size and economic diversity, policy-based lending took the form of a series of sector loans rather than a single multifaceted SAL. Between 1984 and 1987, loans totalling \$840 million were signed to support the reform process in agriculture, public enterprises, education, and industrial and trade policy.

Morocco's progress in systematic adjustment has been uneven. On one hand, scaling back government expenditure was made particularly difficult by (a) recurrent droughts necessitating higher outlays on food subsidies, (b) on-going military problems related to the Sahara war, and (c)

escalating payments on public debt which, by 1986, had grown to 18% of GDP before rescheduling or 9% of GDP after rescheduling. On the other hand, concern about lost revenues from import duties slowed the pace of trade liberalization.

In any event, the key elements of Morocco's adjustment program have been as follows:

1. Substantial reductions in the government investment budget. The investment portfolio was scaled back to emphasize high-return, quick-yielding projects. On a cash basis, government investment fell from 13% of GDP in 1982 to 4-5% of GDP in 1985 and 1986 (see Fig.10).⁶

2. Efforts to control other forms of expenditure and improve revenues. Expenditure control efforts have been linked to other types of reform. These efforts include reduced transfers to unprofitable public enterprises, scaling back consumer subsidies, and public sector wage and hiring restraint. On the revenue side, the government has attempted to shift revenue composition away from import tariffs toward more trade-neutral instruments. Measures did succeed in bringing the deficit down from 14.5% of GDP in 1981 to less than 7% of GDP in 1986 (after debt relief). See Fig.14.

3. Eliminating some price controls and adjusting prices of public services to better reflect costs.

4. Establishing a more flexible system for exchange rate determination. In 1980, the government introduced a system pegging the dirham to a basket of currencies weighted according to direction of trade. This caused a continuous real depreciation of the dirham between 1980 and 1986. Different measures of the real effective exchange rate show different degrees of depreciation. But figures suggest that real depreciation in the 1980s was in the order of 20% to 40%.

5. Trade liberalization measures including (a) a shift away from the use of quantitative restrictions (QRs) on imports, (b) harmonization of tariff rates plus plans for their eventual reduction, and (c) simplification of

⁶However, Morocco has an unusually big problem with investment-related arrears: though outlays for investments already signed into law can be blocked by high-level decisions, any difference between legislated and actual levels of expenditure accumulates as arrears. Consequently, progress in investment reduction calculated on a cash basis is more impressive than it is in legal terms.

administrative procedures for exporting.⁷ There has been a fair amount of backtracking on the liberalization program. In particular, after liberalization measures were enacted in 1983, import volumes surged due to pent-up demand for intermediate inputs. Alarmed at this trend, the government temporarily re-imposed QRs to conserve foreign exchange. Similarly, import taxes have not been reduced on schedule due to concern about the impact of lost fiscal revenues on deficit reduction efforts.⁸

6. Public enterprise reforms, characterized by a wide variety of sector-specific conditionalities. Sectors affected by PE reform include transport, sugar, energy, water supply, agriculture, and mining. In general, PE reform has emphasized (a) improving PEs' managerial efficiency and financial profitability, in part by introducing more flexible pricing systems, and (b) rationalizing the complex financial flows between PEs and the central government, in particular to eliminate inefficient subsidies.

7. Scaling back consumer subsidies. Some subsidies have been lifted (milk and cement in 1982, butter in 1984), while others have been reduced (edible oil, sugar cubes, high quality flour, and petroleum prices). More detailed discussion of this issue is worthwhile, especially because scaling back subsidies is likely to have pronounced socioeconomic consequences.

Food subsidies. Repeated efforts to raise food prices in the 1980s were met with popular unrest, especially because of poor timing: when the government announced its plan to reduce consumer subsidies, domestically-produced food was scarce and expensive due to serious droughts. In response, the government postponed plans to increase food prices. But the dirham cost of food imports had risen due to currency depreciation, and food import volumes increased due to drought-induced shortfalls in domestic production. Consequently the unit value of subsidies jumped up, as did

⁷For all but a few items, an export certificate is no longer required.

⁸In 1983, government revenues declined by almost 2% in nominal terms due to lower taxes on international trade. Import tariffs are supposed to be replaced by taxes on domestic value-added. However, there is considerable skepticism that the change will be revenue-neutral due to greater difficulties administering taxes on domestic transactions.

the total cost of the subsidy program.⁹ In 1984, the share of government's current expenditures allocated to food subsidies expanded to 11.6%.

Following these repeated aborted efforts to remove food subsidies, a two-year study was launched - under World Bank coordination - to evaluate more feasible ways of eliminating the costly general food subsidies while protecting the consumption of lower-income groups. The study found that, as mentioned above, the upper-income groups were the main beneficiaries of the subsidy program. Yet because subsidized foodstuffs figured prominently in the diets of lower-income groups, complete removal of food subsidies would have highly adverse consequences: specifically, a 20% reduction in real incomes of urban poor and 2% reduction for rural poor.

The Bank mission therefore proposed an alternative plan for reducing the subsidies, based on (a) gradual liberalization of food markets and (b) replacement of general subsidies with direct distribution of subsidized food to genuinely needy segments of the population. The scheme for gradual liberalization of food markets would involve (i) a timetable for bringing consumer prices of foodstuffs to world market levels, (ii) a pricing system involving some degree of true consumer price stabilization,¹⁰ (iii) elimination of import monopolies and quotas for food, and (iv) liberalization of domestic food marketing and processing.

The scheme for targeting subsidized food to low-income groups will be supported by resources from several donors, including USAID. Distribution will be conducted through PVOs and national institutions with experience in administering targeted and developmentally-oriented food aid. A food stamp scheme was expected to be too costly and cumbersome to establish and administer without substantial leakages, given its lack of precedent in the Moroccan context. Instead, targeted food subsidies will be administered through expansion of existing programs oriented toward low-income groups (mother-child health care centers, supplementary school meals and food-for-work schemes). Plans project that the number of beneficiaries receiving targeted food aid will be around 4 million. For more information, see World Bank (1986) or CRS (1987).

⁹Whereas the total cost of subsidies had fallen from 2 to 1.6 billion dirham between 1982 and 1983, it increased to 2.2 billion in 1984 (or 2% of GDP).

¹⁰Based on a system of variable taxes for which the 5-year moving average would be zero.

X.E. Incomes

The effects of Morocco's adjustment efforts on incomes have thus far been relatively mild. Overall growth slowed significantly in the 1980s, dropping to around 3% per year. Growth in manufacturing declined particularly sharply, falling from almost 6% per year in the 1965-1980 period to less than 1% per year in 1980-1985. Unlike many other heavily indebted countries, domestic absorption was still above production in the mid-1980s.

In the first half of the 1980s, GDP per capita stagnated but showed no marked tendency to decline (Fig.21). Reductions in per capita GDP occurred in 1981 and again in 1983-84, largely due to drought-related economic contraction. Since efforts to compress domestic absorption focused primarily on investment, private per capita consumption levels have slipped only slightly (Fig.22). Poverty incidence actually continued to decline between 1979 and 1984 (Fig.2).

Wages have bounced around in real terms (Fig.23). After a period of sustained real wage erosion in the 1970s, minimum wages were adjusted upward in the 1980s. In contrast, civil servants' wages rose in the 1970s but have slipped markedly in real terms since 1982.

To promote food self-sufficiency and agricultural exports, the government took a number of measures to improve agricultural incentives. Farmers were declared exempt from the agricultural tax until the year 2000. Agricultural exporters no longer have to go through a government export agency but rather can use a commercial intermediary of their choice. Official producer prices were steadily increased in the 1980s, theoretically to keep consumer subsidies from depressing farmers' incomes (Fig.24). Indeed official producer prices for wheat and sugar have been above world market levels. From available measures of the intersectoral terms of trade, relative returns to farming have declined somewhat in the 1980s but remain more attractive than they were in the mid-1970s (IMF 1985). However, it is not clear whether this is true in practice. Available terms of trade measures are based on official prices. But actual producer prices are probably below official procurement prices since only 15% of agricultural output is bought by the government procurement agency; the remainder is bought at lower free market prices.

Overall, incomes in the rainfed sector remained low and variable due to erratic rainfall and lack of progress in increasing productivity. Some increase in employment in the irrigated sector may have accompanied the increase in agricultural exports caused by exchange rate depreciation

and export simplification, though in general irrigated farms employ relatively capital-intensive production techniques.

Statistical data on employment trends in the 1980s are weak. Open unemployment remained around 10%. It was estimated that 30-40% of the labor force was underemployed, particularly in the large, low-productivity service sector. Restrictions on government job creation have increased unemployment among young educated people (World Bank 1986). It is likely that adjustment measures have had the following additional effects on employment, though effects cannot be quantified from existing data. First, cutbacks in government investment reduced job opportunities in construction, which had been a major growth area in 1970s. Second, increased production in export-oriented sectors - both manufacturing and agriculture - probably created some new jobs as existing productive capacity was brought into use. And third, increased tourism provided a stimulus to employment in handicrafts production and service-oriented activities (restaurants, hotels, transportation).

In short, the impact of adjustment on incomes, employment and consumption appears to have been relatively mild thus far, despite Morocco's quite severe adjustment problems. Several explanations for this are possible. First, available socioeconomic data may not be detailed or accurate enough to pick up on-going changes in incomes, employment and consumption. Lack of regularly-collected data on employment is a particularly serious gap. However, it is clear that the Moroccan economy has not undergone the kind of aggregate contraction that most heavily-indebted countries experienced in the 1980s. It is therefore not surprising that average incomes and consumption were not as severely compressed.

The second and related point is that the pace of stabilization in Morocco has been relatively relaxed. Depreciation of the dirham was gradual. Fiscal austerity was not terribly severe. There was no sudden credit crunch due to monetary restraint. Note that Morocco's relaxed pace of stabilization was not so much a matter of deliberate phasing to minimize the recessionary potential of adjustment measures. Rather external capital has not dried up as sharply as it did in other heavily-indebted countries, partly because Morocco has made extensive and timely use of debt rescheduling possibilities. There was therefore no need to subject the economy to "shock treatment" to close the current account deficit, as has been done elsewhere (e.g. Costa Rica). Instead the government had a fair degree of "room to manoeuvre" and sometimes used it to postpone implementation of unpopular measures. Nonetheless, this does suggest the importance of external capital in facilitating orderly adjustment with low social costs.

Third, recessionary potential of adjustment was also minimized by growth-oriented policy reforms, including import liberalization, simplification of export procedures, adjustments in the investment code and depreciation of the dirham. Measures permitting imports of intermediate inputs and encouraging firms to increase sales for export were particularly important in this regard.

Finally, the fairly dynamic nature of the Moroccan economy meant that the lag in response to growth-oriented adjustment measures was relatively short. Increased competitiveness of Moroccan firms at home and abroad could often be exploited through better use of existing productive capacity. Private investment has also been responsive to newly-created opportunities, rising from 10% to almost 18% of GDP between 1982 and 1985.

Main references for Moroccan case

Horton, Brendan (forthcoming 1988). "Economic Policy Analysis and Reform: a Case Study of Morocco". Boston University and World Bank Economic Development Institute.

IMF (various years). Morocco: Recent Economic Developments.

World Bank (1986). Morocco: Compensatory Programs for Reducing Food Subsidies. Report No. 6172-MOR.

1700

Fig.1 Morocco

Growth of real GDP by sector

DH billion (1970 prices)

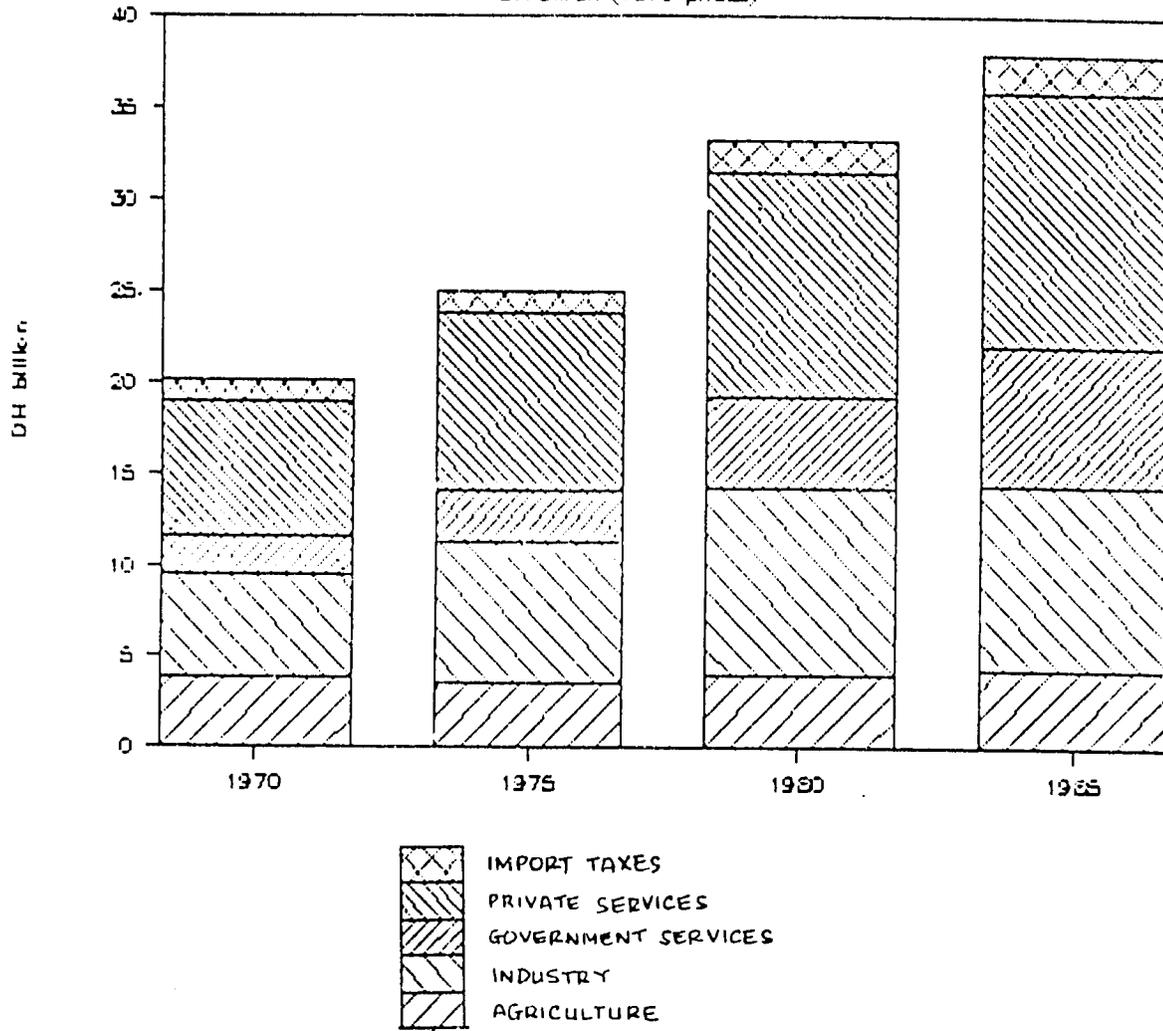


Fig.2 Morocco

Percent of urban and rural populations
below absolute poverty line

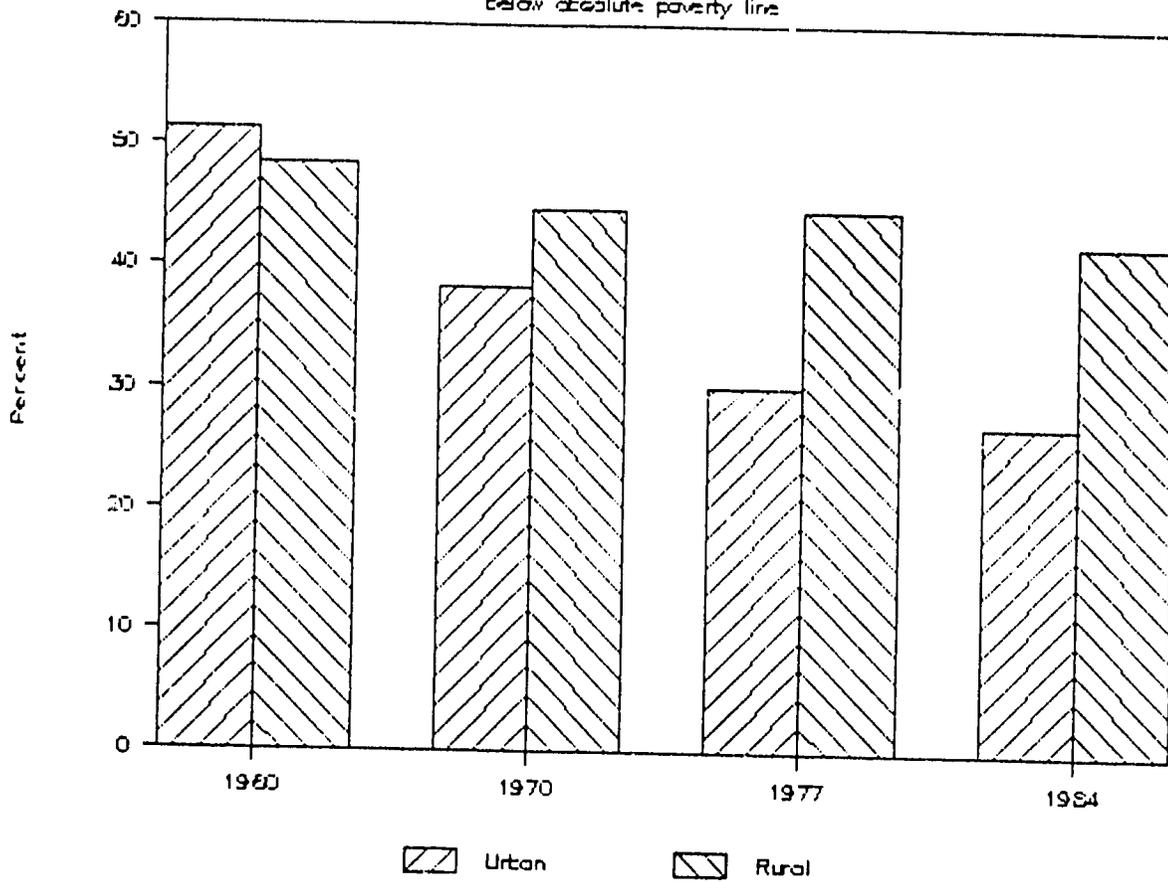
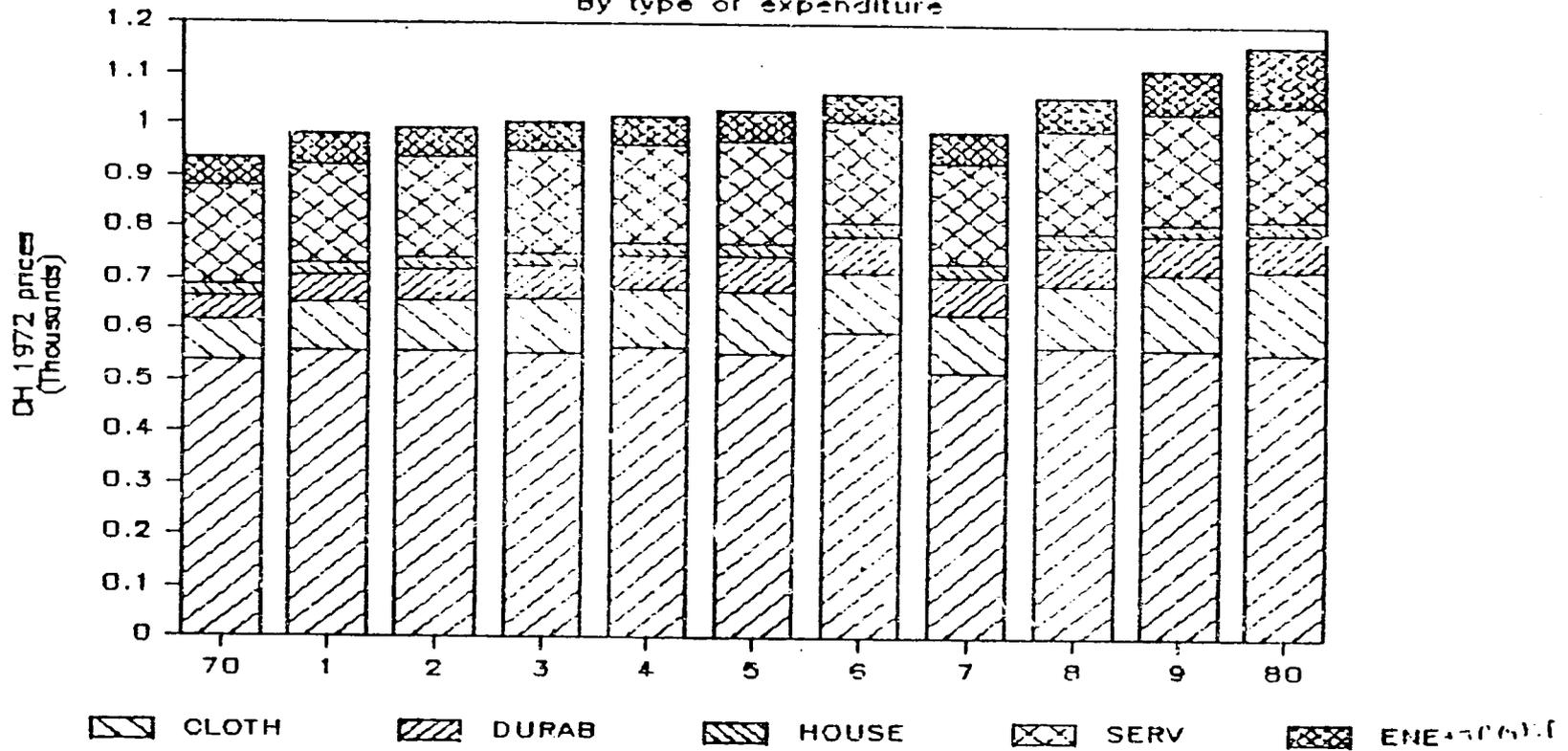


Fig.3 Morocco

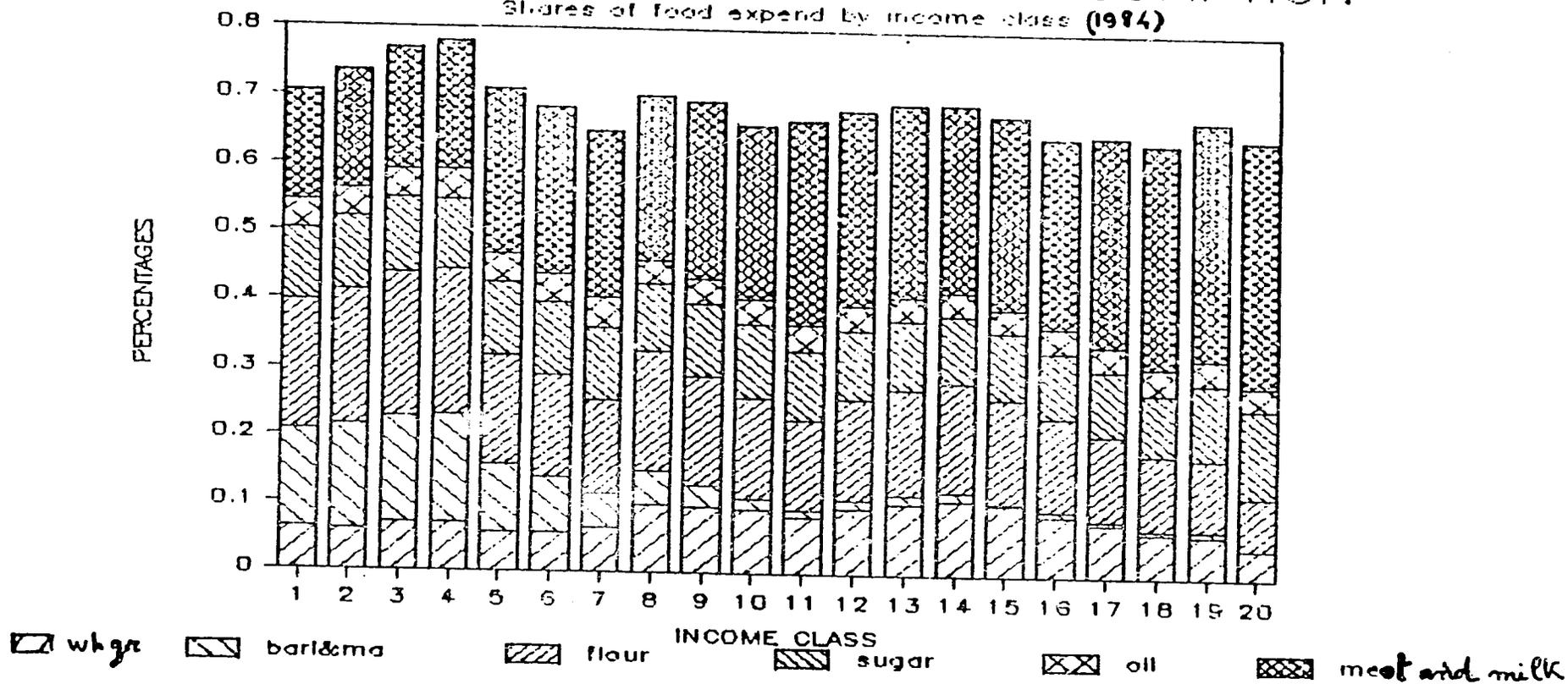
PATTERNS OF PER CAPITA CONSUMPTION
By type of expenditure



Source: World Bank (1986:16).

Fig.4 Morocco

PATTERNS OF PER CAPITA CONSUMPTION
 Shares of food expend by income class (1984)

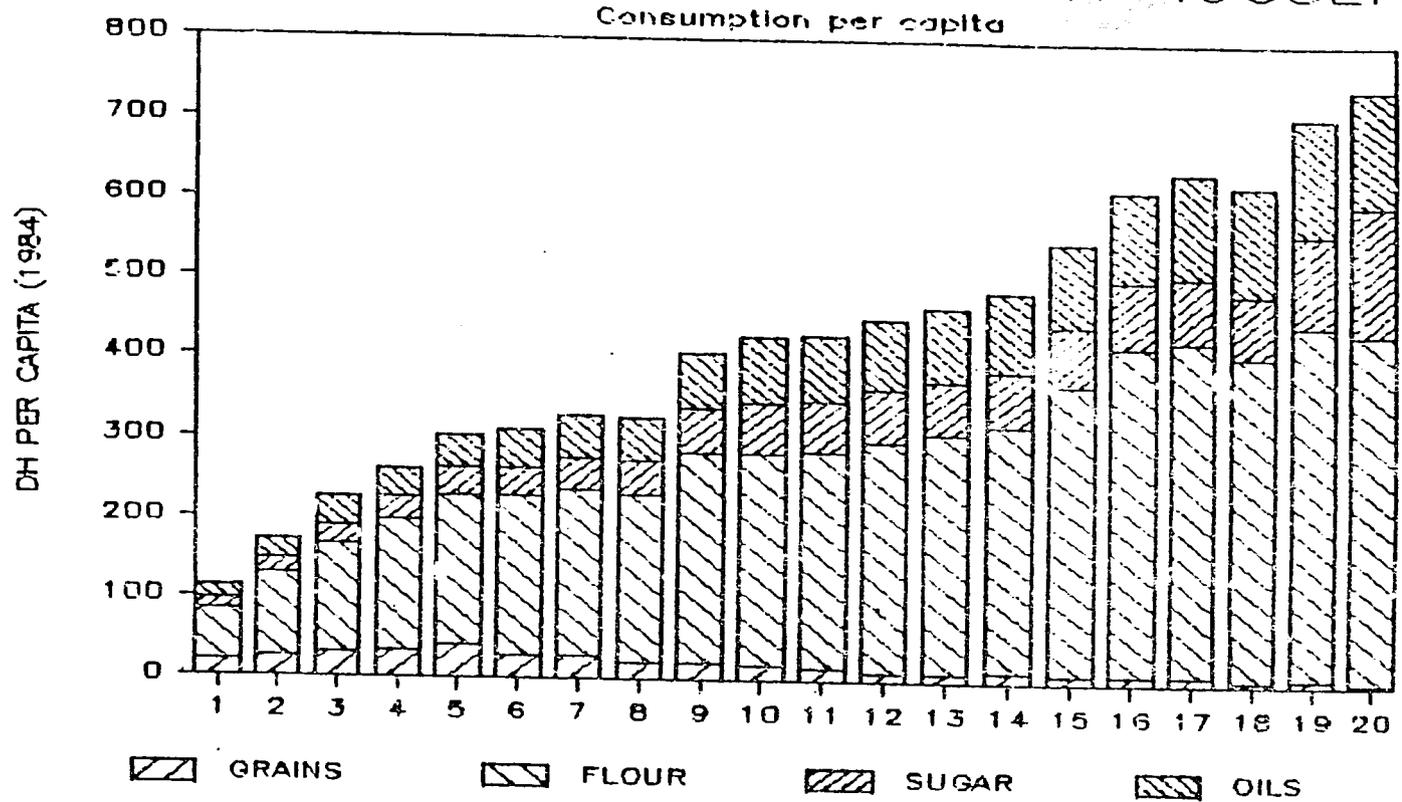


Source: World Bank (1986:17).

Food

Fig.5 Morocco

CONSUMPTION PATTERNS URBAN HOUSEHOLD

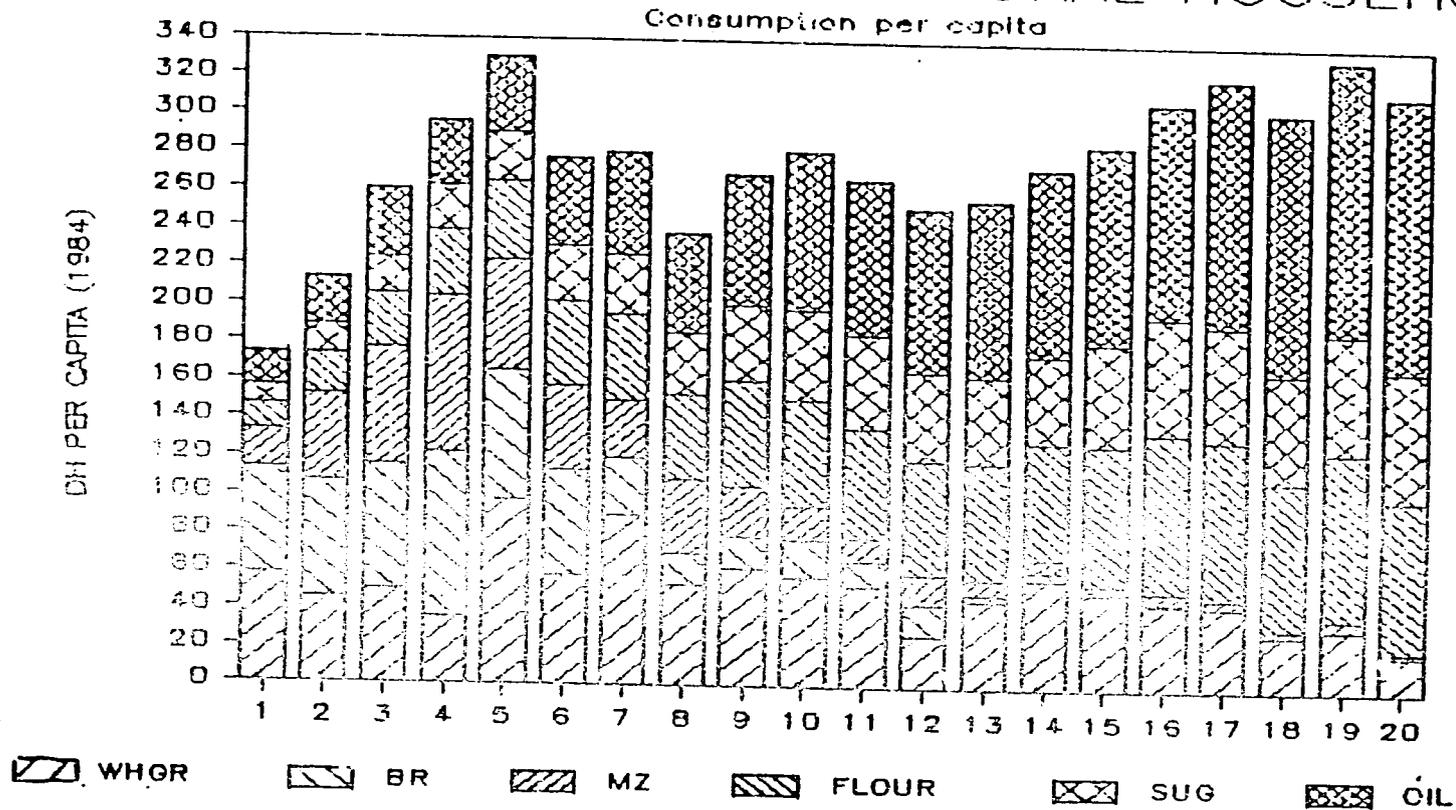


Source: World Bank (1986:18).

1300

Fig.6 Morocco

CONSUMPTION PATTERNS RURAL HOUSEHOLD



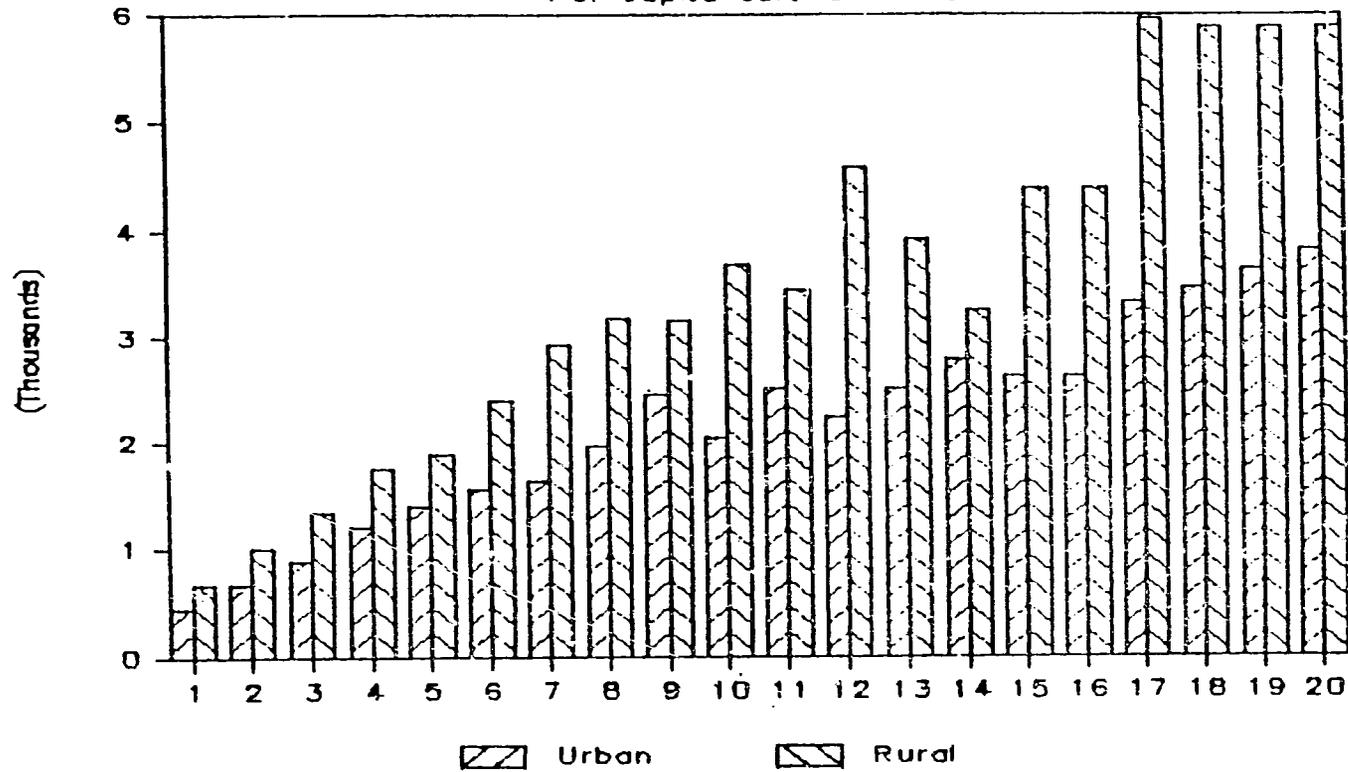
Source: World Bank (1986:19).

1308

Fig.7 Morocco

NUTRITION STATUS MOROCCAN HOUSEHOLDS

Per capita calorie intake

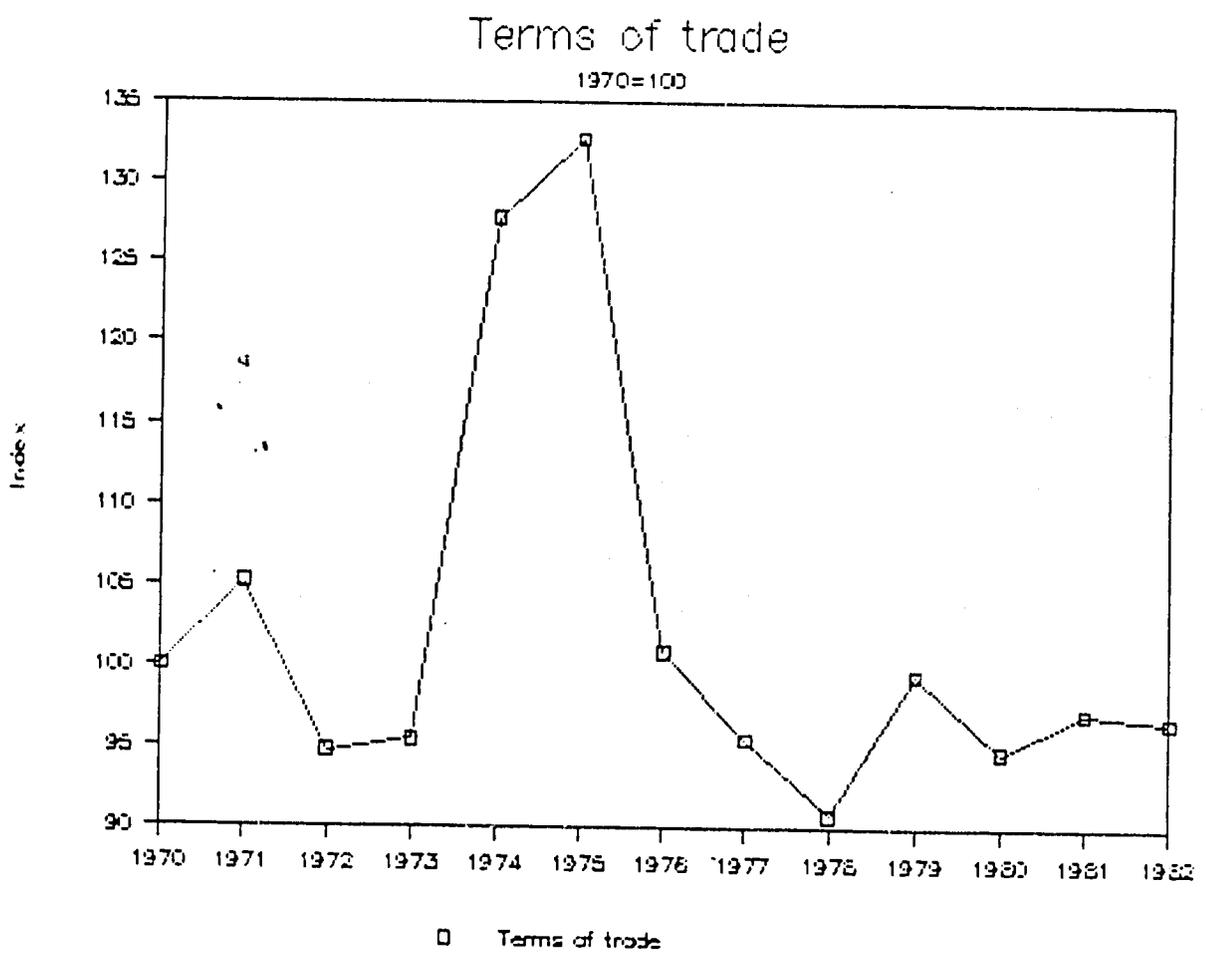


Source: World Bank (1986:33).

1309

130w

Fig.8 Morocco



130 v

Fig. 9 Morocco

Imports, exports & net foreign savings

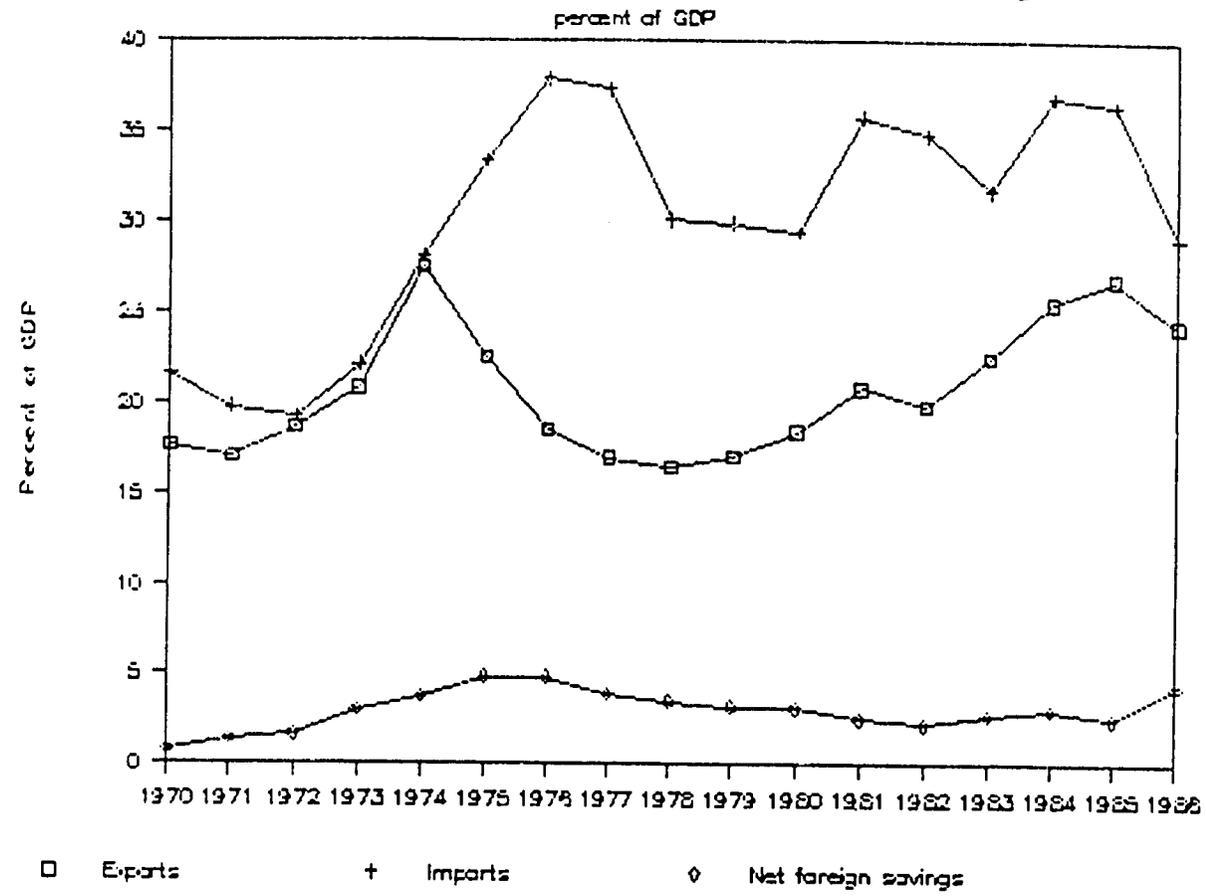


Fig.10 Morocco

Government investment budget

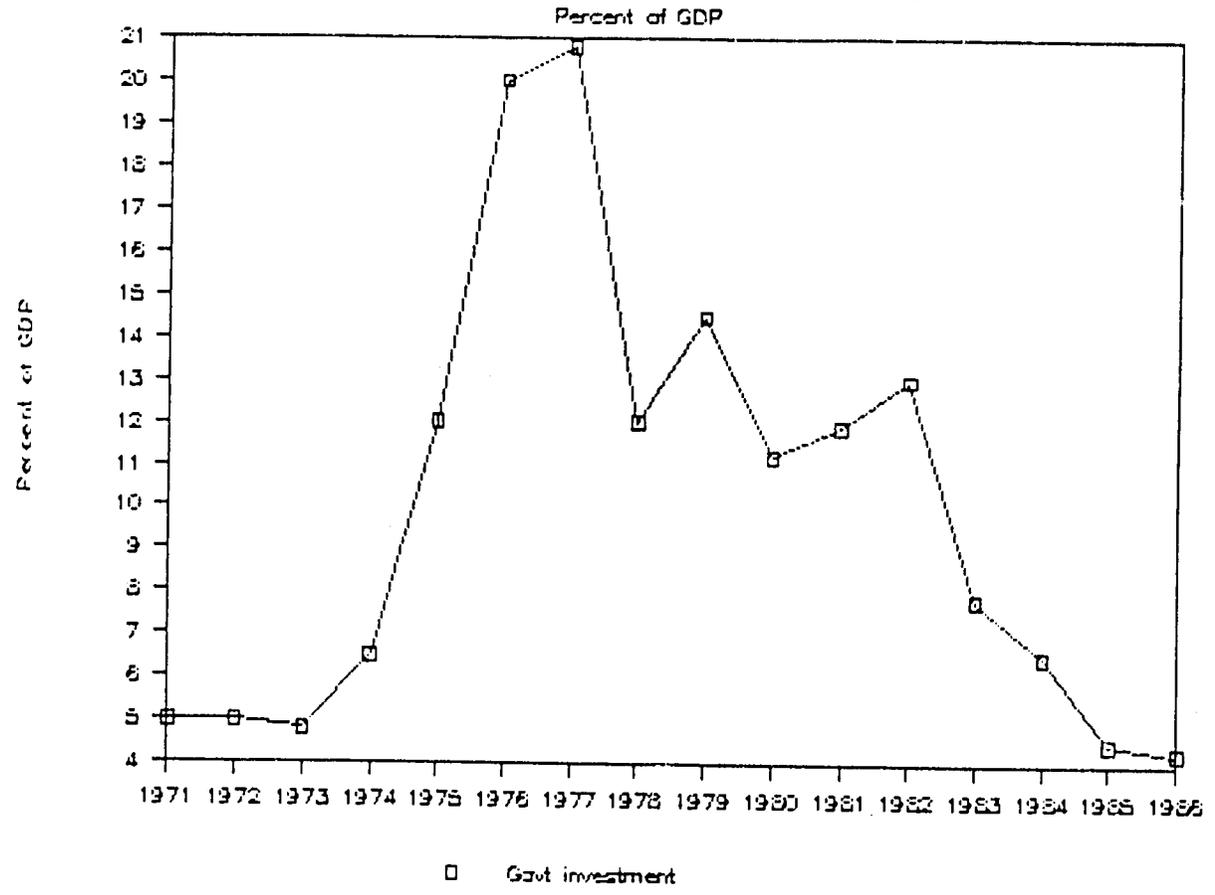


Fig.11 Morocco *1306*

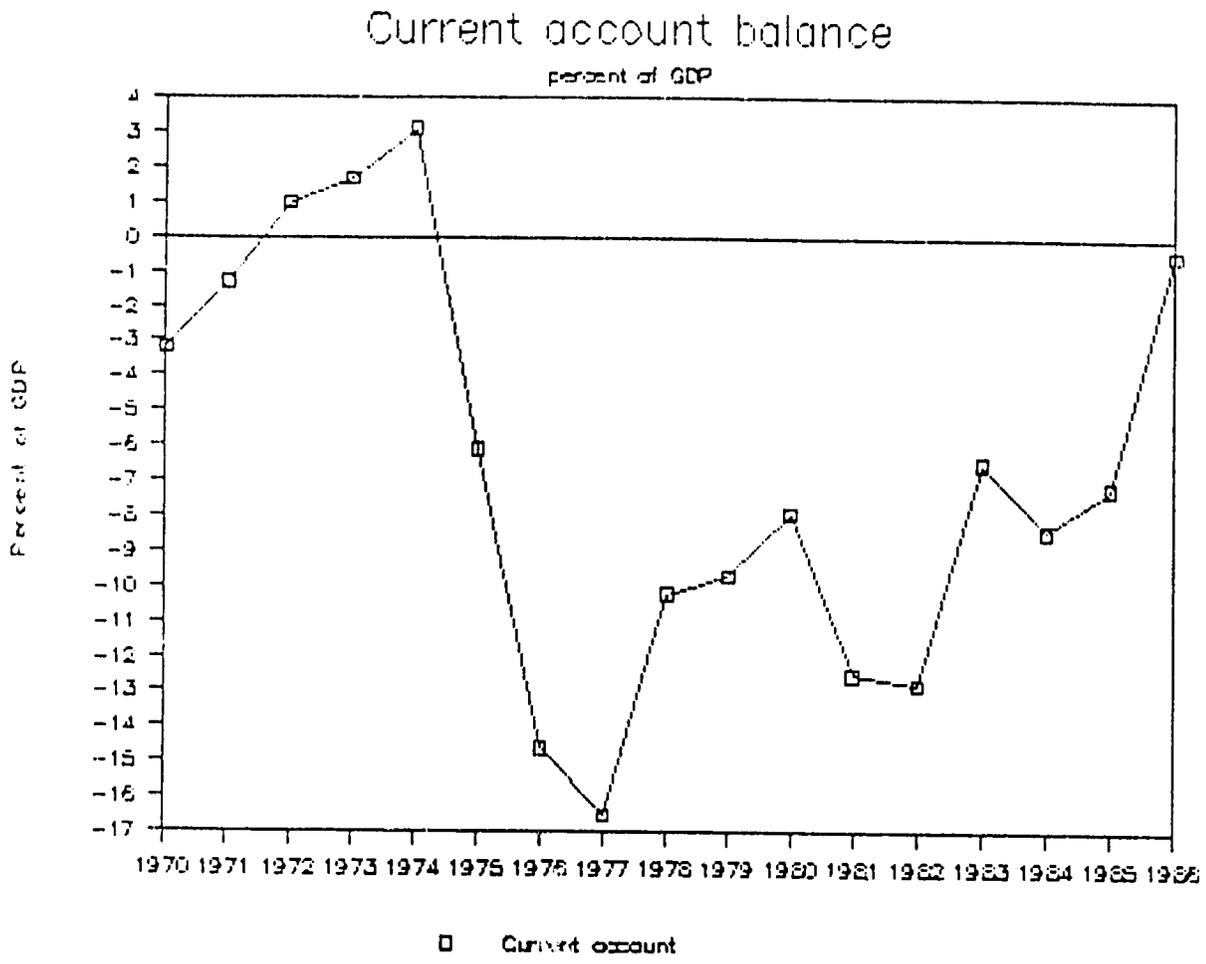


Fig.13 Morocco

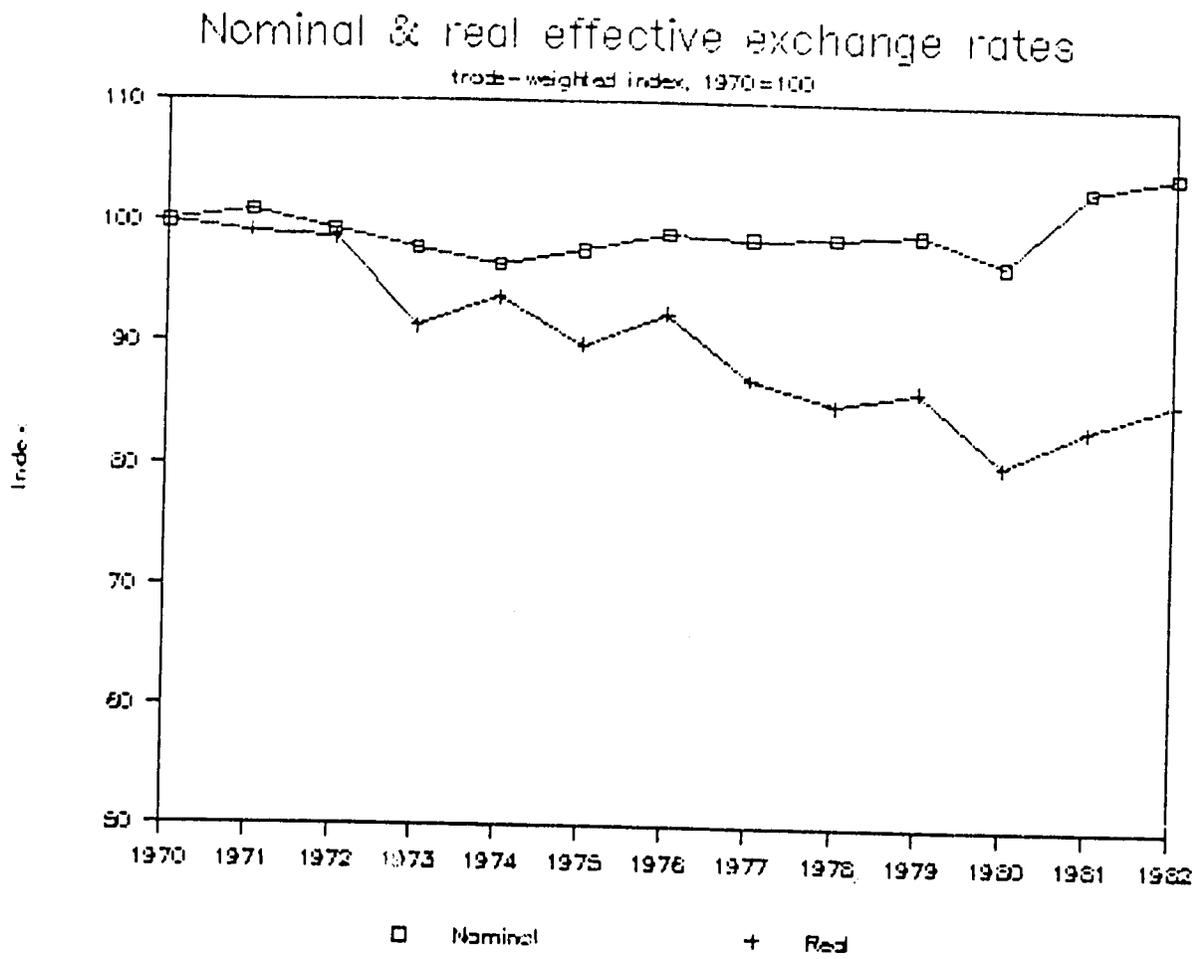


Fig.14 Morocco

Government budget deficit

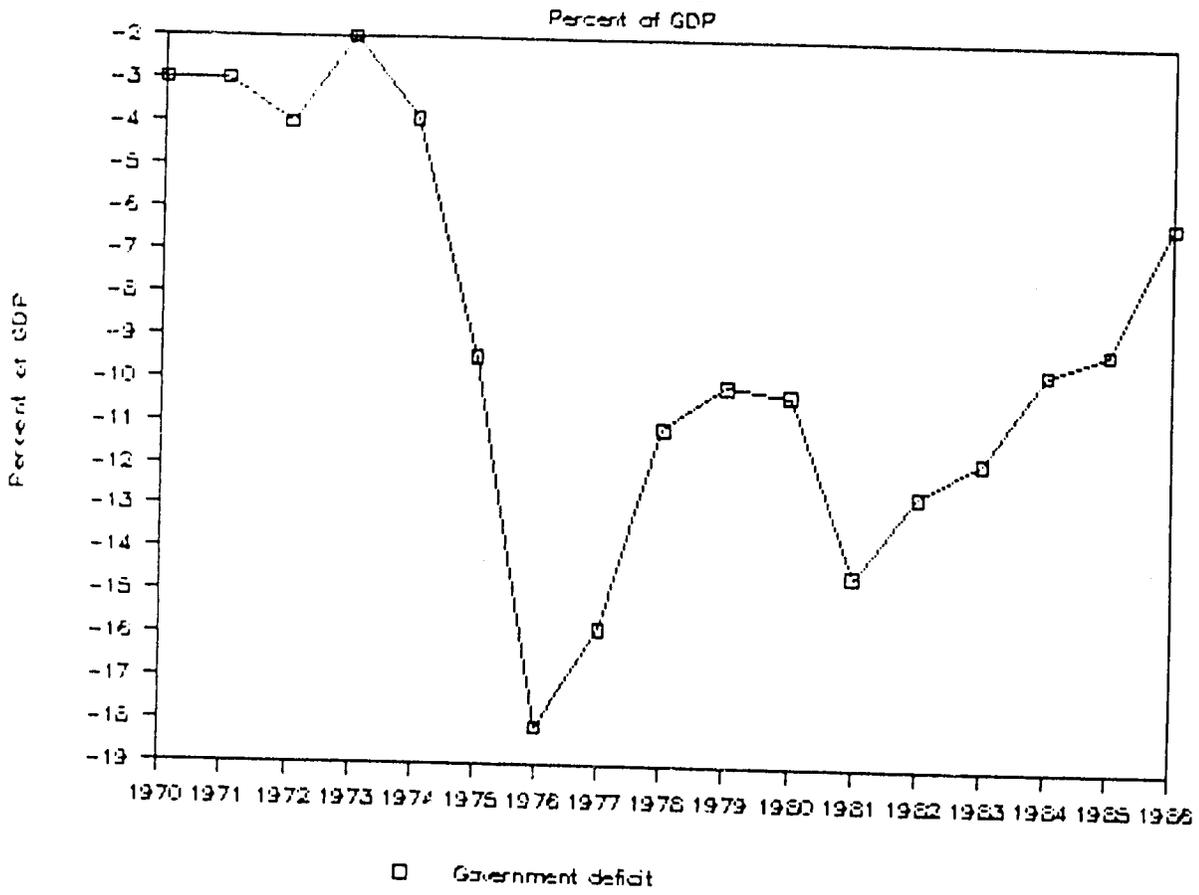


Fig.15 Morocco

Subsidies as percent of unit cost

by commodity, 1980-1984

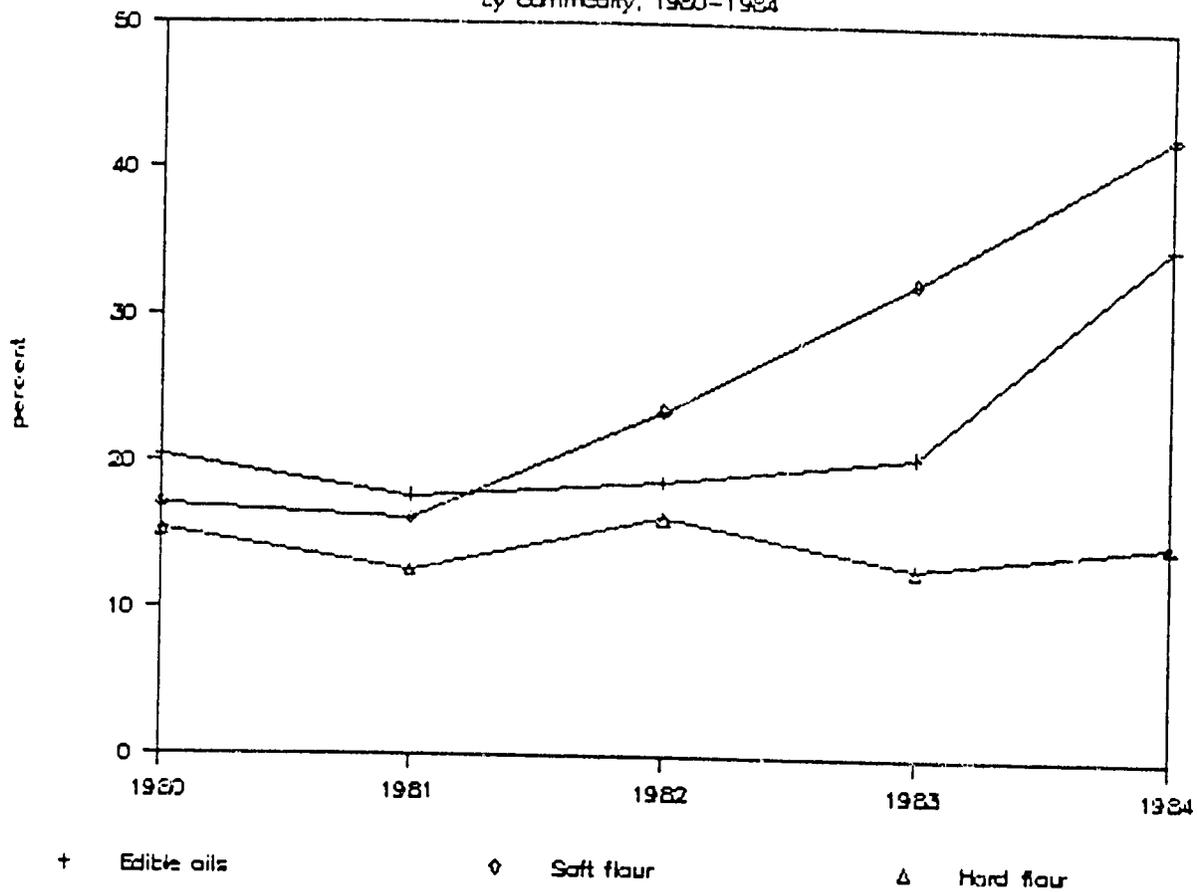
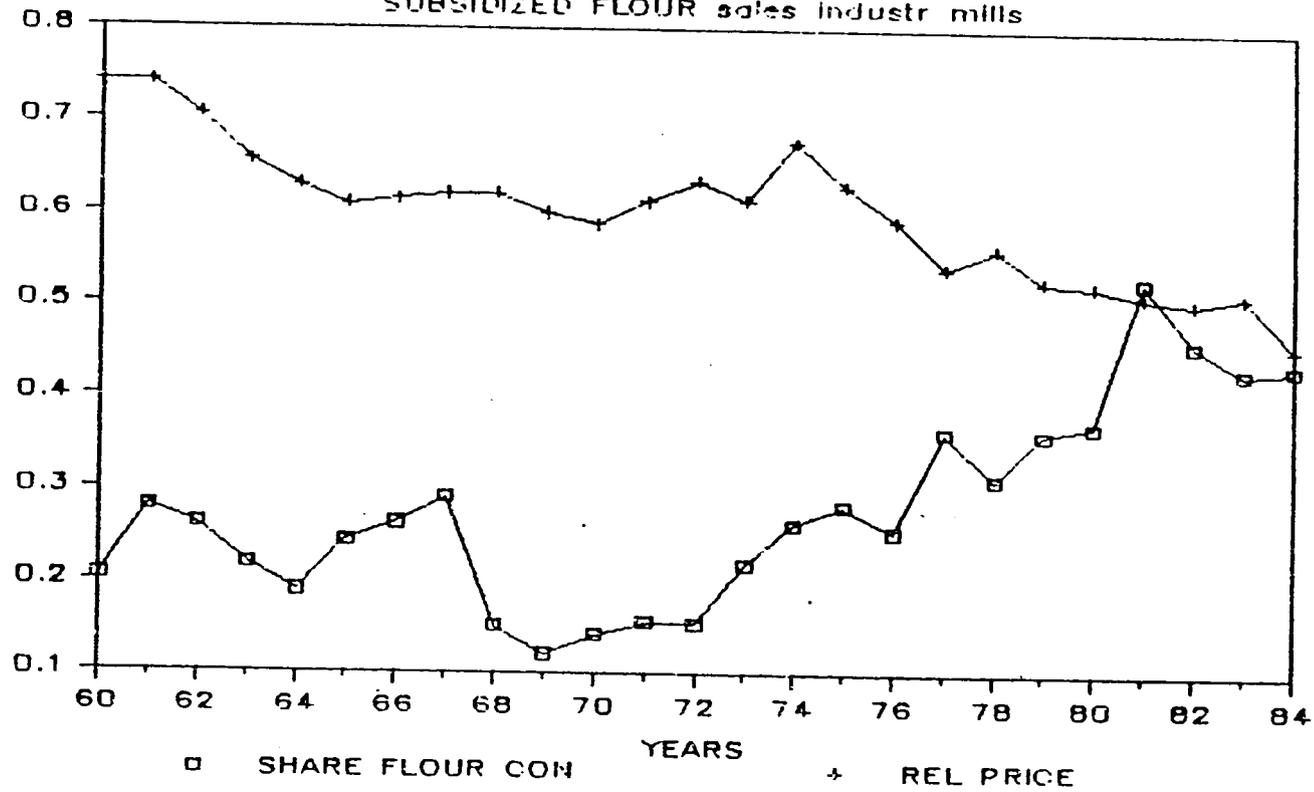


Fig.16 Morocco

SOFTWHEAT FLOUR PER CAPITA CONSUMPTION

SUBSIDIZED FLOUR sales Industr mills

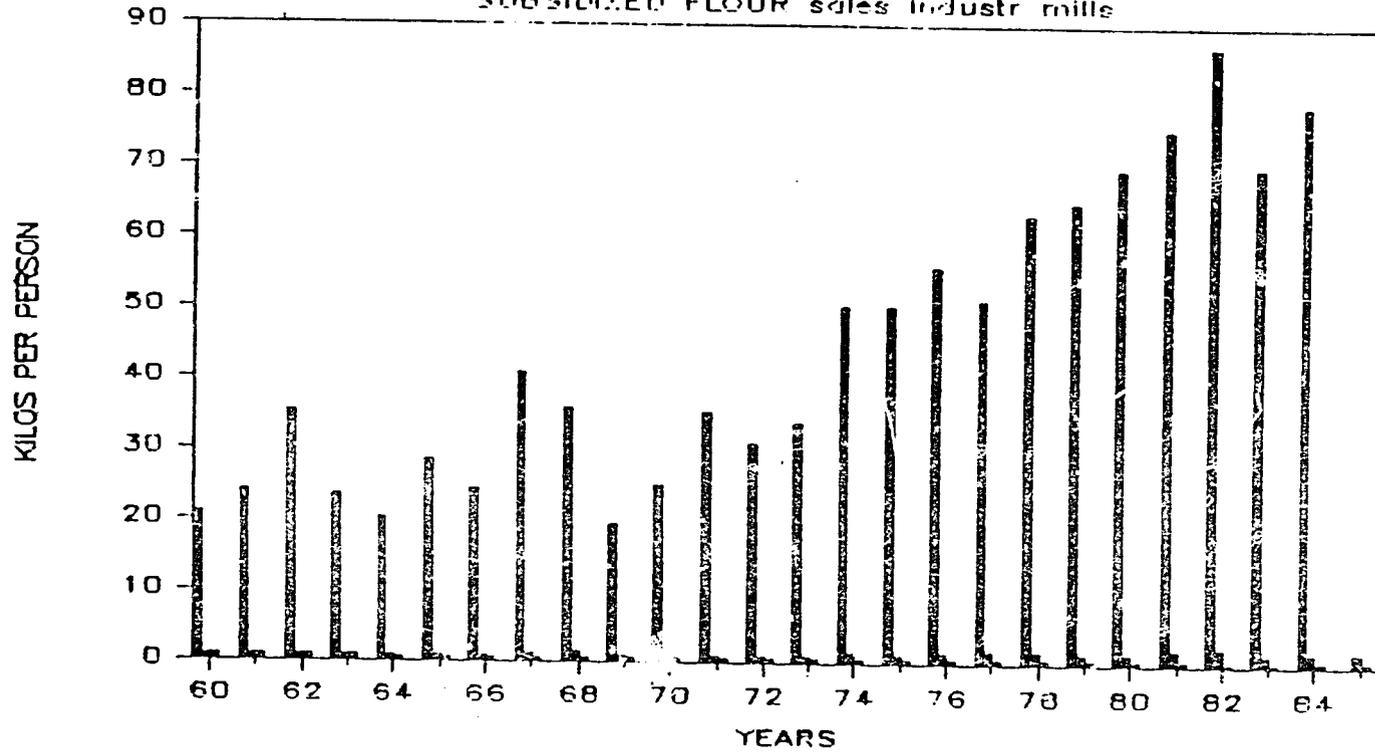


Source: World Bank (1986:22).

Fig.17 Morocco

SOFTWHEAT FLOUR PER CAPITA CONSUMPTION II

SUBSIDIZED FLOUR sales Industr mills

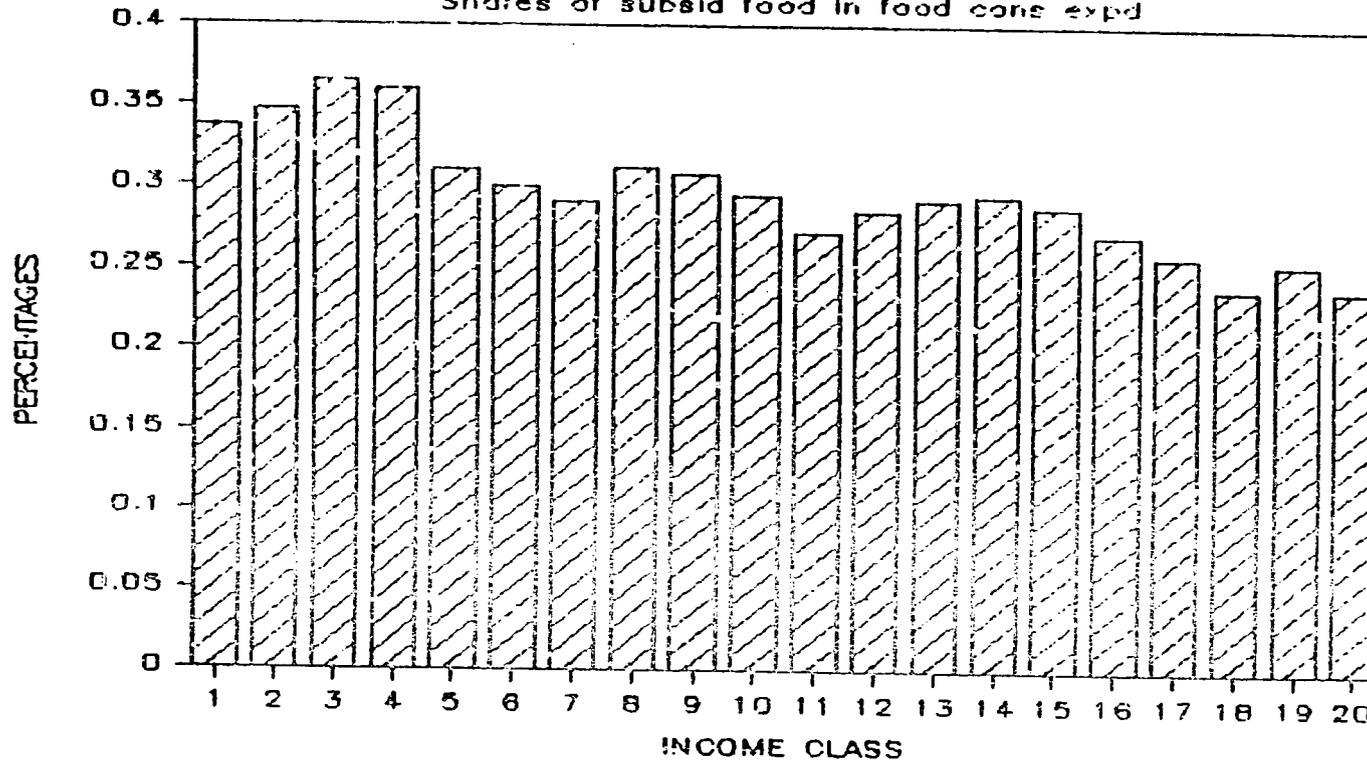


Source: World Bank (1986:21).

Fig.18 Morocco

PATTERNS OF PER CAPITA CONSUMPTION

Shares of subsid food in food cons expd



Source: World Bank (1986:28).

Boh

Fig.19 Morocco ¹⁹⁸⁵

Relative importance of food subsidies

Cost as % of GDP & govt spending

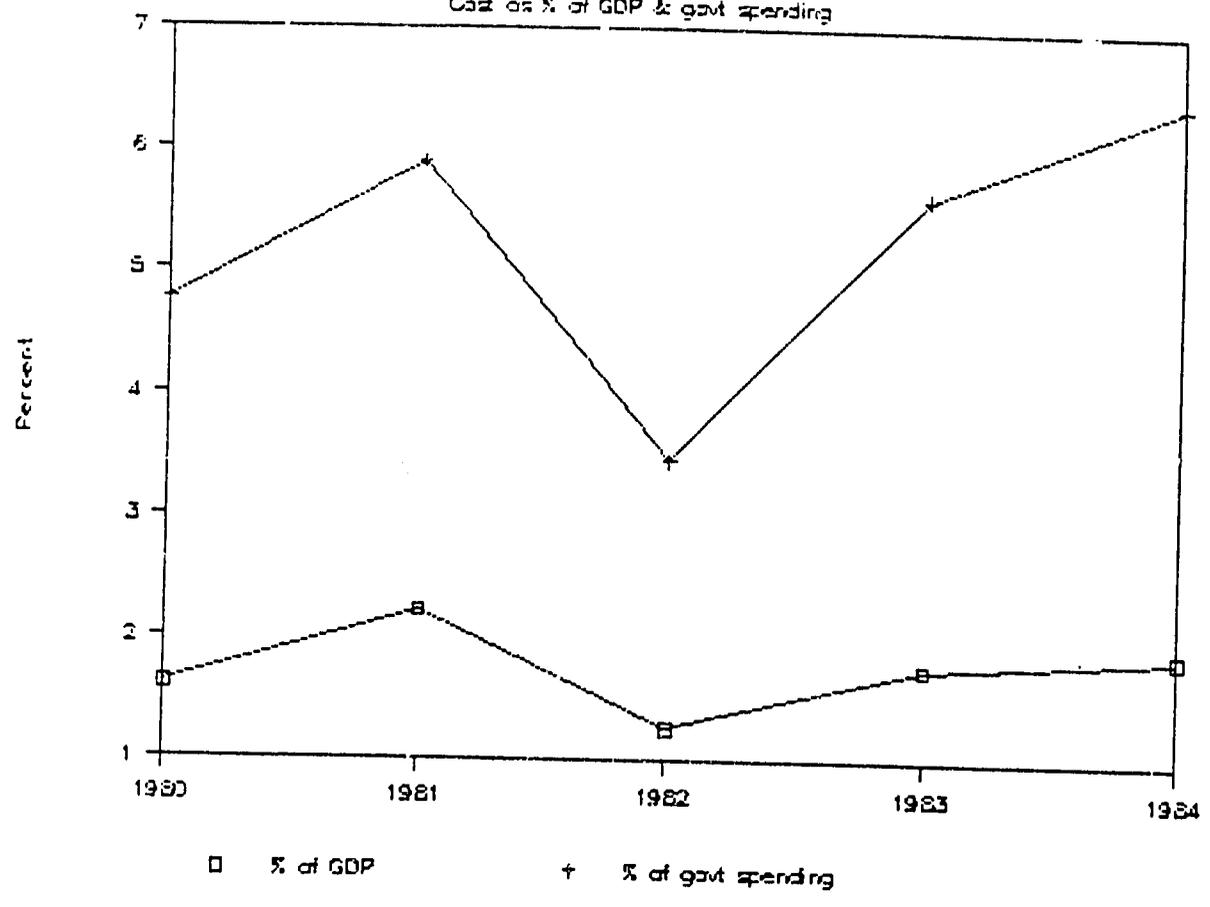
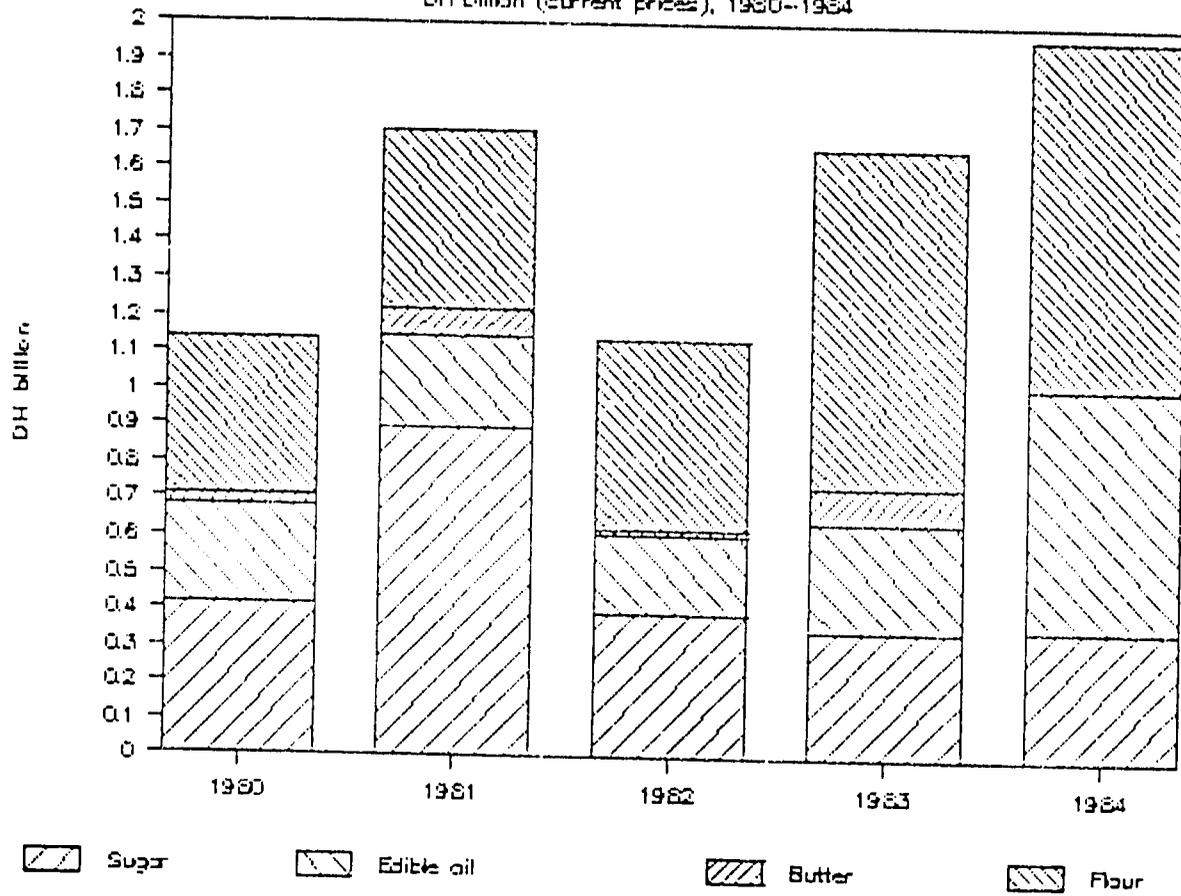


Fig.20 Morocco

Budgetary cost of food subsidies

DH billion (current prices), 1980-1984



130 u

Fig.21 Morocco

Real GDP per capita, 1970-85

Index, 1970=100

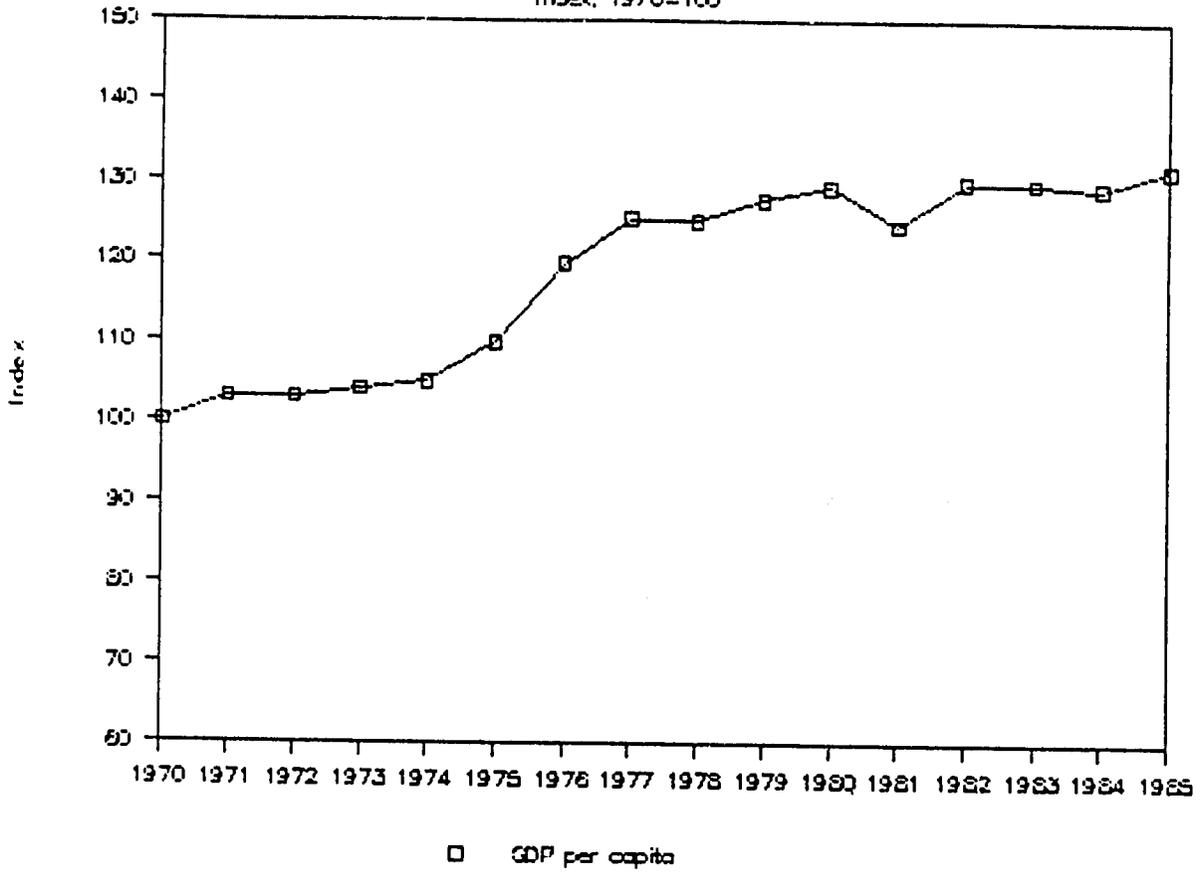
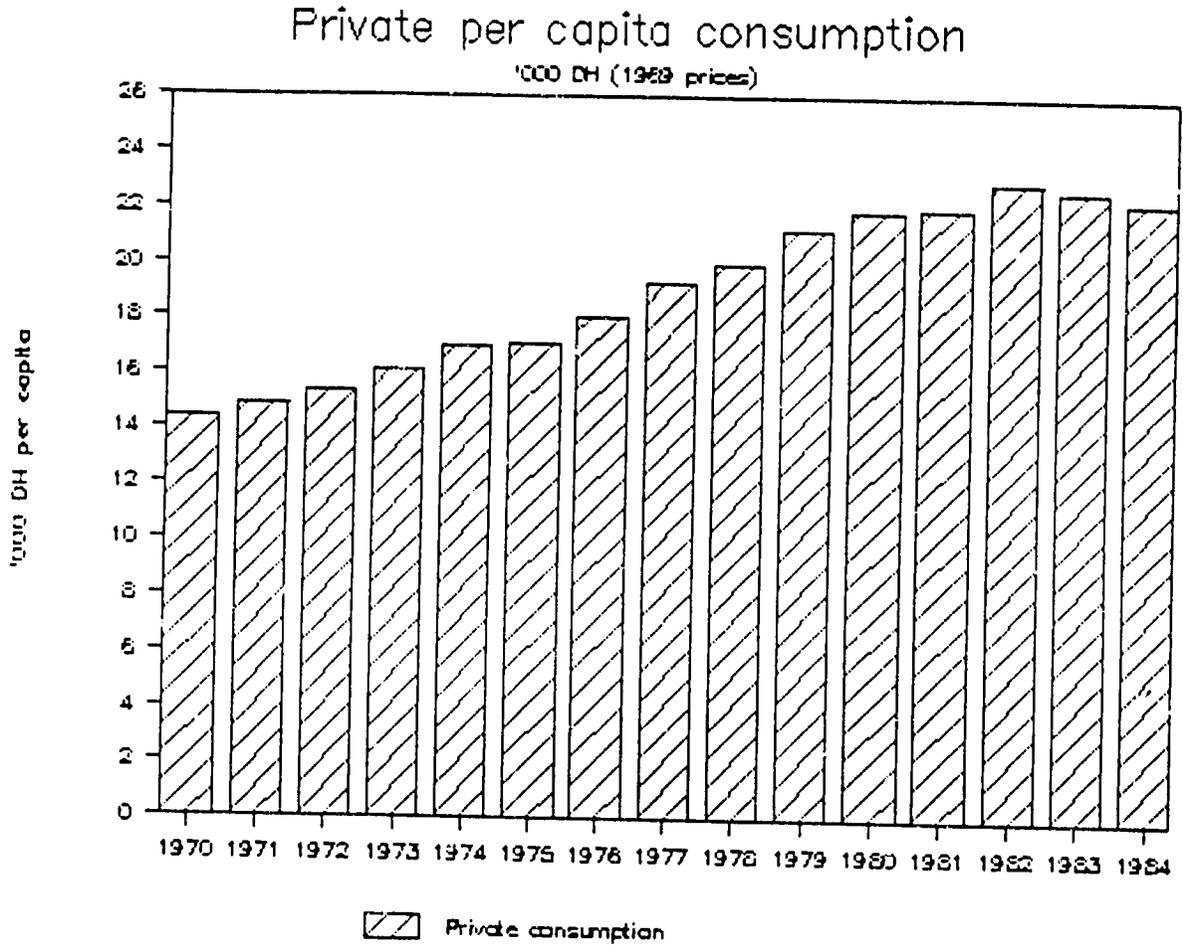


Fig.22 Morocco



130 w

Fig.23 Morocco

Real wage trends

Index 1970 = 100

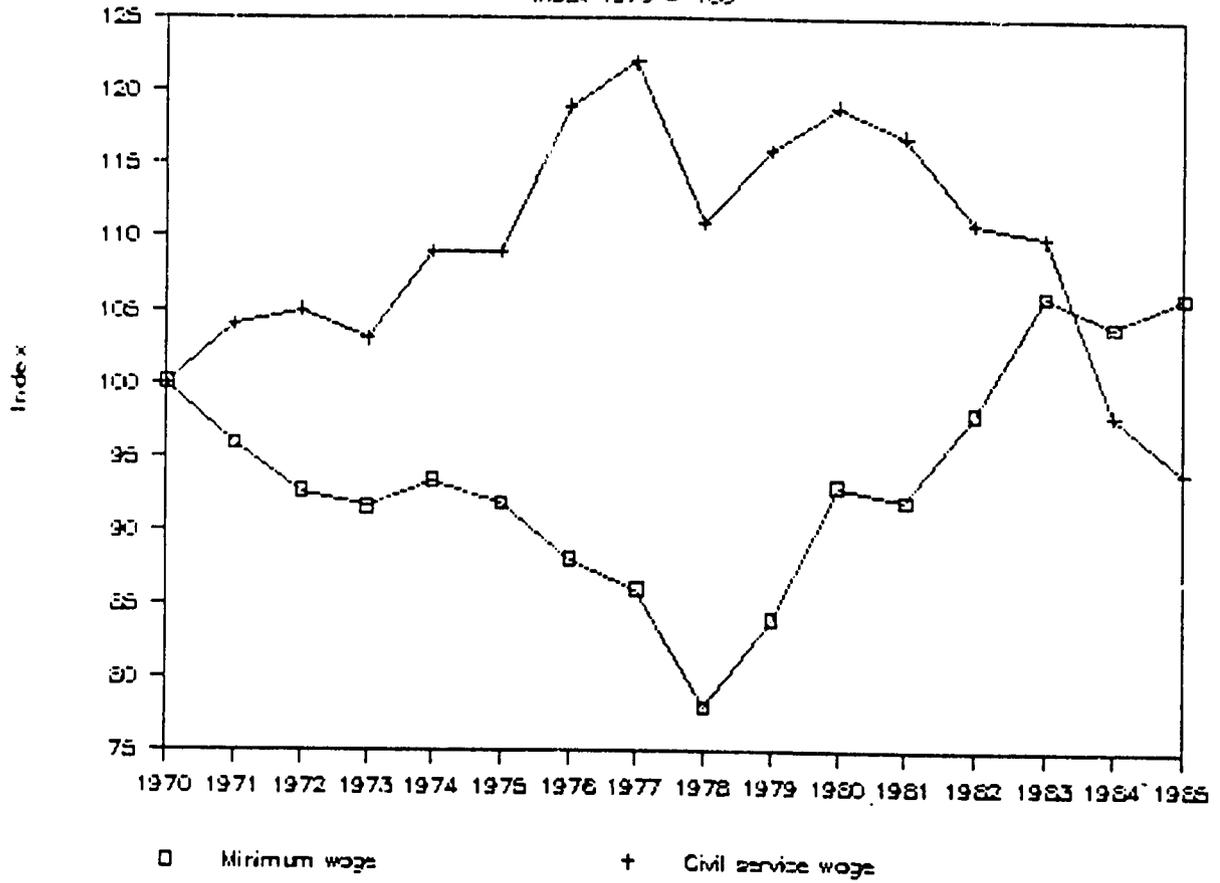
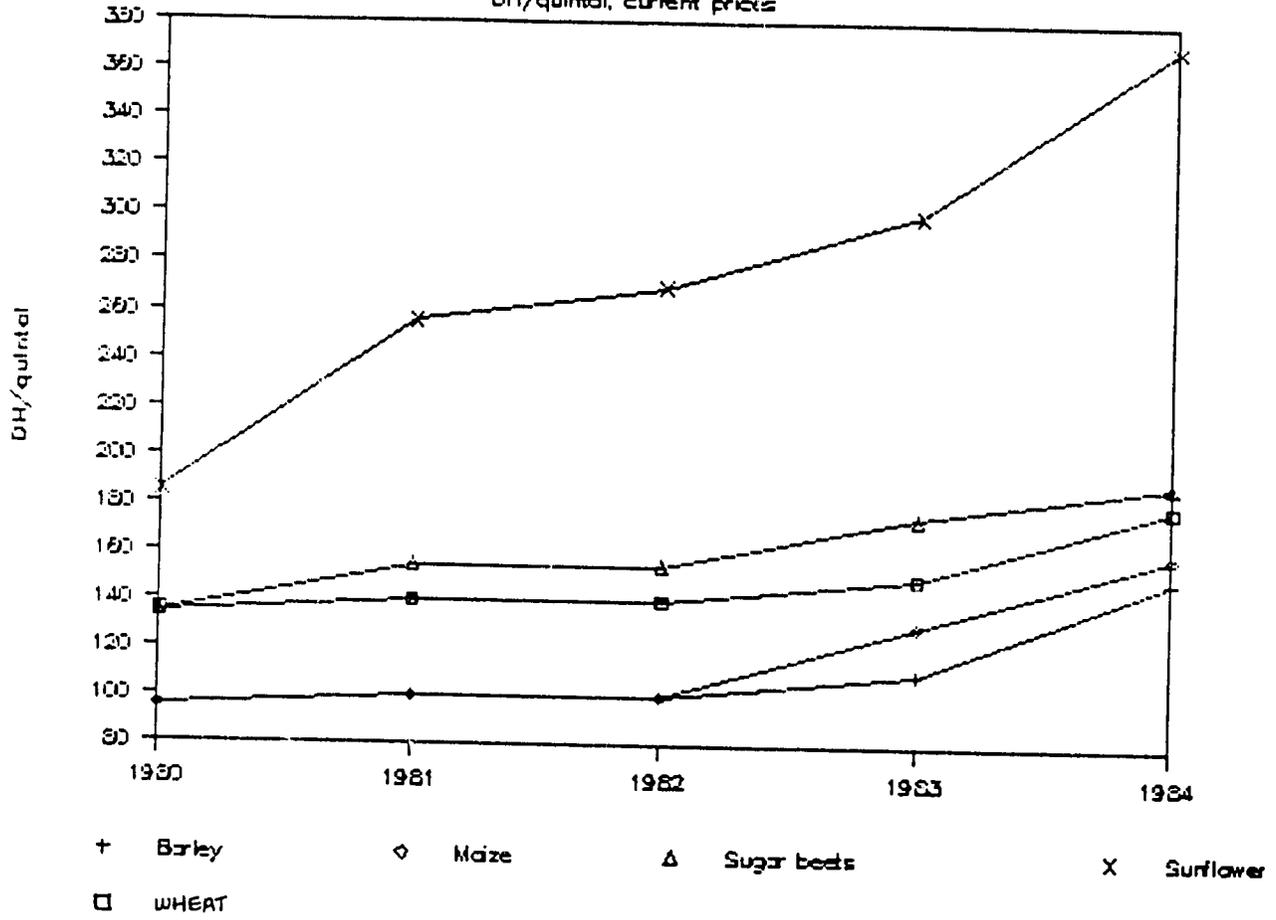


Fig.24 Morocco 130X

Official producer prices

DH/quintal, current prices



XI. COSTA RICA

XI.A. Introduction

Costa Rica experienced a sharp economic contraction in the early 1980s with the worst part falling in 1982. The contraction followed several years of growing external and public sector deficits and building inflation. A rapid loss of foreign exchange forced the government to stop debt service payments. Foreign credit was cut off and the economy slowed sharply. The adjustment actions ultimately adopted were in some respects forced by these changes in the external sector.

The contraction saw an erosion of real wages by 40%, not all of which has been recovered since. Unemployment also jumped but quickly returned to trend levels in 1983. These developments meant a drop in living standards for Costa Ricans although it was of rather short duration. The nature and distribution of this adjustment burden is the subject of this review.

XI.B. Initial adjustment gaps

In the period up to the late 1970s Costa Rica experienced steady economic growth. The country enjoyed the benefits of a stable democratic political system and real GDP increased by over 70% between 1970 and 1979. But in 1979-80 the economic system veered off track and all major economic indicators deteriorated rapidly.

The balance of trade suffered from the downturn in the international coffee market as coffee prices dropped by about 30% between 1977 and 1980. Although prices subsequently recovered, coffee export volumes fell in 1980 and did not reach the 1979 levels again until 1983. Overall the terms of trade deteriorated by 22% from 1978 to 1981 (see Table 1). Non-traditional exports, which had enjoyed steady growth in the protected Central American Common Market (CACM), declined slightly in 1981 and then fell by 20 percent in 1982, largely due to the political disturbances and depressed economic conditions in neighbouring countries.

The public sector deficit jumped sharply from 9% of GDP in 1978 to 14% in 1981 (Table 2). Export levies deteriorated with the decline in exports, and over 11 tax revenues declined in line with the general level of economic activity. There was sharp worsening of the current accounts of state enterprises. These enterprises increased expenditures by an average annual rate of almost 20% during 1978-80. Although inflation and costs were rising, they made

few adjustments to tariffs charged. Much of the resulting deficit was covered by foreign borrowing. External public sector debt measured in dollars increased by 225% between 1978 and 1981 creating a heavy debt service burden as interest rates rose (see Table 3).

The balance of trade was further weakened by increasing overvaluation of the colon. Consumer price inflation which had been moderate in the period up to 1979, increased rapidly thereafter, stimulated by the expansion of domestic credit necessary to cover the portion of the public sector deficit that could not be financed with foreign borrowing. Prices rose by 61% between 1979 and 1981. But until mid-1981 the currency remained pegged to the US dollar at the same exchange rate that had prevailed since 1974.

By 1981 the overall economic situation had deteriorated substantially and the country entered a two-year period of sharp economic contraction known locally as "the crisis". A severe shortage of foreign exchange developed and arrears began to accumulate. Foreign debt service payments were suspended in mid-1981 and the currency was devalued in an attempt to conserve foreign exchange. Despite the exchange rate adjustment, exports dropped by 12.5%. However, imports dropped by 30% so the trade balance showed a significant improvement (Table 1). The compression of imports was not due to demand management policies. It was due partly to the exchange adjustment and perhaps more importantly to constraints imposed by dwindling sources of foreign exchange as foreign lenders became alarmed at the suspension of debt service payments.

Essentially, failure to react quickly to external changes allowed a country which had enjoyed steady, low inflation growth to slide into economic crisis in three years. The slowdown in exports cut economic growth and led to a deterioration in the balance of payments. At the same time it caused government revenues to fall. The fiscal and external deficits were initially covered by foreign borrowing and printing money rather than raising taxes and trimming expenditure. The exchange rate was not adjusted quickly to compensate for accelerating inflation and the colon became overvalued which reinforced the balance of payments problems. Foreign exchange dried up, debt service was halted, and the country's creditors refused to extend more credit.

XI.C. The structure of the Costa Rican economy

Agriculture. Agriculture is a major sector in Costa Rica accounting for about 20% of GDP, 30% of employment and 50% of exports. Agricultural production is primarily for export. The major products are coffee, bananas and livestock

which together account for 80% of total agricultural production. Coffee production has been steadily increasing in recent years as a result of plantation improvements undertaken with the assistance of the government after the coffee boom in the mid-1970s. The improvements included introduction of new varieties, disease control and new cultivation practices. Recently production has exceeded the quota under the International Coffee Agreement so that prices have softened and production decreased in 1985.

Bananas are the second largest crop and account for a third of value-added in agriculture. But it is declining in relative importance. A major program of improvements for Atlantic coast plantations was planned for 1979. It was never undertaken, however, because of Central American regional conflicts and because of serious labor difficulties in the sector. Productivity declines and labor problems have lead to the closing of several Pacific region banana plantations as well.

Beef is the main product in the livestock industry. It comes largely from the Guanacaste region which experienced a major drought in 1982. Beef exports are especially sensitive to regulations regarding foreign trade. Export taxes, expectations about exchange rate adjustments, export restrictions and domestic price controls combined with large debts to the domestic banking system have created uncertainty in the industry and sharply compressed profitability, leading to periodic excessive slaughters.

Costa Rica produces some basic grains, mostly for domestic consumption. Output of corn, rice and beans has been steadily increasing in recent years although the drought hurt rice production in 1982. The government has sustained a drive towards self-sufficiency in basic grains using preferential credit arrangements, subsidized crop insurance, and producer prices set well above world levels. Basic grain production reached a peak in 1983 and has since remained high. Self-sufficiency has been attained in beans and sorghum and is close in corn. Rice is in surplus and the excess is sold at a loss on international markets.

Sugar can accounts for about 5% of agricultural output. It has been suffering from low international prices and the imposition of a quota in the US market in 1982.

Manufacturing. Costa Rica has a more fully developed industrial sector than most of its neighbours in Central America. It accounts for 22% of GDP and 15% of employment. Food processing makes up almost half of the sector's value-added. Chemicals, metals and textiles and clothing are also important. Growth of the sector was attributable to two factors. First import-substitution was pursued through

application of high tariffs to competing industrial goods from abroad. This gave domestic industry a sheltered and profitable home market. This type of growth is limited in scope, however, especially for small countries and the best opportunities exhaust rather quickly. The second factor was the establishment in 1963 of the Central American Common Market (CACM). This was an agreement among Central American countries to keep low tariffs for inter-regional trade and common tariffs for external trade. The arrangement served Costa Rica well and manufactured exports expanded from 4% of total exports to 29% between 1963 and 1979. It is significant however, that 80% of these were to other CACM countries, and that they would not generally have been competitive with other producers in the absence of the agreement.

Labor Markets. Collective agreements cover only 5% of the labor force in Costa Rica. Workers in some of the major sectors including agriculture (other than the banana workers) and commerce are not unionized. Minimum wage rates largely determine the pattern of wage adjustments in these sectors. Minimum wage rates are set by a tripartite commission with representatives from management, the Ministry of Labor and labor organizations.

The public and manufacturing sectors have a high degree of unionization. The public sector unions especially have proven a strong political force. Public sector employment rose steadily from 15% of the labor force in 1973 to 19% by 1979. This was partly a reflection of the government's desire to keep employment opportunities expanding to match the 2.5% growth rate of the labor force. Despite increases in the numbers of public employees, the unions managed to keep public sector wage rates at twice the level of the private sector. During the course of adjustment these matters were important in determining the evolving sectoral pattern of employment as will be discussed below.

On an industry basis, wage rates are highest in personal services (see Table 4). They exceed the average by about 25%. Manufacturing, commerce, transport and communications are all near the average. Wages in the non-unionized construction industry are highly variable according to changes in the business cycle but are generally below average. Agricultural wages are consistently about 2/3 of the average wage.

The trend in Costa Rica over the last two decades has been towards increased industrialization. The proportion of the workforce in wage-earning jobs has risen steadily and there has been a consistent pattern of migration from the rural areas to the cities. This is a reflection of the urban-rural wage differential and the fact that some

government services are more readily available in the urban areas. The pattern of employment has shifted with large gains in personal services and reductions in agriculture (see Table 5). Job creation in the formal urban sectors has generally been able to keep pace with this migration although in recent years the public service has been used to absorb an emerging excess.

XI.D. Adjustment actions

A Standby Agreement with the IMF outlining certain adjustment actions was not signed until the new administration took office in May of 1982. But a series of adjustment measures had already been taken by that time. The main measures taken include the following items.

1. Revenue. Central Government revenue initiatives included: a temporary 5% export tax, April 1981; an tax on foreign exchange earnings related to the exchange subsidy system, December 1981; and a corporate income tax surcharge at rates between 15% and 30%, September 1982.

2. Expenditure. Capital expenditure which had risen in 1979 and 1980 was restrained in 1981 and was constant in nominal terms in 1982. Expenditures on wages and salaries rose in real terms to 1980 but were cut in the following two years. Their share of current spending was 40%, down from 50% in 1978.

3. State Enterprise Budgeting. Expenditures of state enterprises were brought into the central administration budgetary process after having been relatively autonomous. This was done through the establishment of a central budgetary planning committee and was partly in response to rapid growth in expenditures and resultant deficits of state enterprises in the period just prior to and during the crisis.

4. State Enterprise Tariffs. The rates charged for several important goods and services provided by state enterprises were increased. While the nominal increases may appear large, in real terms it is likely that the hikes barely made up for inflation.

- a) Domestic oil product prices were raised 66 percent in June 1982.
- b) The state enterprise for importing petroleum products lost its special foreign exchange rate and was allowed to pass additional costs on to consumers.

- c) National electricity board raised rates by 70% in June 1982 and a further 20% later in 1982. Board allowed to pass on additional costs associated with oil price and exchange adjustments.
- d) Water and sewerage rates rose by 95% beginning July 1982.
- e) Wheat subsidies eliminated May 1982.
- f) General authority for privatization of state enterprises passed by Legislative Assembly.

5. Interest rate policy. The structure of interest rates was overhauled in October 1978 to allow banks to set rates based on the London Interbank rate (LIBOR). Real interest rates in general were slightly positive through 1978 and 1979 but dropped to zero in 1980 and became highly negative in 1981 and 1982. As a corrective measure interest rates were raised by 3.5% on average on December 1, 1982. Interest rates to the agriculture sector which had been lowered by 7 percentage points in June 1982 were raised back up to 25%.

6. Exchange rates. In 1981 the fixed exchange rate system was replaced with a floating rate system and the rate depreciated from 8.6 colon per US dollar to 40 colon per dollar by the end of 1982. This system was supplemented with system of exchange subsidies for government and certain private sector imports and debt repayments. This system was subsequently replaced with a three-tier system. As of May 1, 1983 the rates were: Official rate 20.50 colon per US dollar; Banking rate 40.50 colon per dollar (tied to free market rate); and Freemarket Rate 44.65 colon per dollar.

7. Wage rates. The government introduced a set of guidelines for the adjustment of minimum wages and wages in the public sector. The adjustments reflect changes in the prices of a basket of 21 basic goods and services including rice, milk, beans, sugar cane, meat, shoes, water, electricity, and transportation. The prices of some of these items were affected by other liberalization efforts listed above.

XI.E. Socioeconomic impact of adjustment policies

XI.E.1 The Overall Impact

The period of the crisis runs from 1980 through 1982 and most economic indicators show the sharpest deterioration concentrated in 1982. Real GDP contracted by more than 7% in 1982. Average real wages declined by 2.9% in 1980, by 9.1% in 1981 and then by fully 19.9% in 1982. Unemployment rates peaked in 1982 at 9.4%, almost double the rates in the pre-crisis period. There is no doubt that the economy

suffered a pronounced recession. But there are several facts which suggest that the impact on individual households may have been less severe than the aggregate statistics suggest.

The decline in real wages was due to the effects of inflation rather than wage cuts. In fact nominal wages rose by 52% in 1982 (see Table 5). Nominal wage increases failed to keep pace with inflation largely because of response lags in the wage setting administration. Average real wages recovered strongly with gains 11%, 8% and 9% per year in the three years after 1982. Moreover, the sectoral distribution of real wage declines fell hardest on those who were best able to bear the burden. The public sector, where average wages were twice the private sector level before the crisis, experienced the sharpest reductions. By 1984 their wages were only 1.6 times private sector wages.

The agricultural sector, which has by far the lowest average wages, suffered much smaller wage reductions than the other sectors. Average real wages in agriculture were 4.1% higher 1984 than in 1978. Wages were lower in all other sectors except transport and communications which registered a marginal gain. The peak to trough reduction of agricultural wages was 19%, as opposed to 29% drop overall. A significant portion of the economy-wide wage rate decline was due to the large drop in the personal services sector where average wages are among the highest. This reduction in the average service sector wage was due to both (a) real pay cuts experienced by existing workers and (b) influx of less skilled workers laid off from jobs in other sectors. On the other hand the construction sector which is a low wage sector experienced sharp wage compression during the crisis although it subsequently recovered strongly.

Table 3 shows that the drop in average wages over the crisis period were much sharper than the changes in the minimum wages. In 1982 average real wages dropped by 20% as opposed to a 7% drop in minimum wages. The recovery of real minimum wages in 1983 was also much stronger than that of average wages.

The unemployment rate doubled during the crisis period. But this was due largely to increased labor force participation. Growth in employment was consistently in the range of 3.4% to 4.0% in every year from 1979 to 1985 with the exception of 1983 when it stagnated. The increases in labor force participation rates were due almost entirely to increases for non-household heads. The increase for men was about twice that for women. These facts suggest that the decline in real wages did not cause workers to quit in favor of non-wage activities. Rather the reductions in earnings by household heads caused secondary household members to seek employment to supplement family income. This view is supported by the fact that participation rates returned to

the pre-crisis levels very shortly after the crisis ended and real wages began to climb again.

XI.E.2 The Impact by Sector

The additional workers who entered the labor market during the crisis were absorbed in two main areas. One was agriculture, the lowest wage sector, which expanded by 33,000 from 1980 to 1982. The relatively strong performance of agriculture is due in part to the effects of the devaluation. Agriculture in Costa Rica, as noted above, is strongly directed towards exports. With the devaluation, these exports became more competitive and the sector as a whole performed better than import-substituting sectors. The manufacturing sector also makes an important contribution to exports but has a much larger dependence on imported inputs. The severe shortages of foreign exchange in the pre-crisis period made raw materials and spares difficult to obtain. After the devaluation the rebuilding of inventories was more expensive as was the refurbishment of capital. There was a general contraction of these industries especially metal and mineral products. Agriculture, by contrast has much higher value added so the devaluation did not have as important an impact on costs.

Three quarters of the additional employment in agriculture was wage employment and the remainder was unpaid family labor (MIDEPLAN 1984). After the crisis, the number of agricultural workers immediately dropped by 15,000. There are probably two effects here. One is a temporary increase in the participation of secondary household members, especially women, in the rural sector trying to maintain family incomes during the crisis and then leaving the labor force after the crisis. The other effect concerns shifts between the rural and urban labor markets. There has been a steady net migration from the rural sector to the urban sector in Costa Rica for at least two decades. This reflects the increasing industrialization of the country and the relatively high urban wages. There is also an urban bias in the provision of public services which makes the cities relatively more attractive although low income housing remains a problem. During the crisis declining incomes and increased unemployment were more pronounced in the urban sector. Thus there was a significant dampening of traditional incentives to leave the village farm for the city. For this reason the supply of labor in the rural sector remained strong. After the crisis was over incentives to migrate returned and the old patterns resumed.

The other sector absorbing new labor force participants was personal services which is the highest wage sector. It expanded by 19,000 during the crisis. Again, many of these new workers were secondary household members. But unlike the

situation in agriculture, employment in personal services continued to grow strongly after the crisis. It would appear that these workers stayed in the labor force and their reasons for joining may have been different than the reasons that motivated those in the agricultural sector.

There is evidence that the incidence of unemployment may have been particularly hard on certain groups. The duration of unemployment increased sharply from 1979 through 1982 with those out of a job for more than one year rising from 1.5% of the total to 11.1%, and those with less than one month falling from 63.8% to 31.2%. This suggests that there was an increase in long-term unemployment due to the contraction in demand in certain sectors and that frictional unemployment represented a smaller proportion of the total through the crisis. Total underutilization of labor, which includes underemployment as well as open unemployment, increased from 12.5% to 23.8% between July 1979 and July 1982.

These facts suggest that there were two distinct processes at work in the labor market during this period. The low-paying urban jobs were disappearing while new higher paying ones in personal services were being created. But this did not mean simple job switching because skills are not readily transferable between these two sectors. Rather the job losers in construction and other low-paying sectors remained unemployed or underemployed and it was new entrants or more highly skilled job switchers that picked up the service sector jobs. It is likely that some of those losing low wage jobs shifted into the informal sector where education and skill requirements are minimal. Employment in this sector increased by some 20,000 between 1979 and 1982 (MIDEPLAN 1985 and Pollack 1985). Wages in the informal sector fell relatively less during the crisis than did formal sector wages (Pollack and Uthoff 1984). Some of the urban sector unemployed may have sought employment in the rural sector where the recession was less severe, and potential migrants to the city may have reversed or delayed their decision to move. This view is supported by a strong increase in underemployment in the rural sector in 1982 despite advances in the number of jobs available.

These hypotheses about the changes in the labor market are confirmed by the evidence on poverty incidence and income distribution. With an overall drop in real incomes of some 30%, one would expect to see increases in the incidence of poverty. And in fact, Pollack (1985) reports a rise the share of income earners receiving less than a constant minimum wage increased from 25.5% in 1979 to 32.5% in 1982.

There are several forces working on the distribution of income. The expansion of high-paying urban jobs would tend to worsen it as would the disappearance of jobs for

unskilled and semi-skilled urban workers. On the other hand, the relative strength of agriculture sector employment and the more moderate wage erosion there would tend to improve it. A relative increase in informal sector wages would also contribute to a better incomes distribution. Not surprisingly the studies on income distribution come to no definitive conclusion. Pollack and Uthoff (1984) report that income inequality increased from 1979 to 1982 while Altamar (1984) reports that the Gini coefficients fell from .38 to .35 over the same period.

Some other mechanisms may also have been at work in determining the pattern of income and wages. These mechanisms may cause aggregate statistics to understate the real losses of some, especially the poor. There has been some tendency for employers to fill job openings with more highly skilled and educated workers during the crisis. This might tend to keep average wage rates higher than they would otherwise have been. But on an individual basis it would mean larger earnings reductions for a given education level. In addition, there seems to have been a tendency to retain the more highly skilled workers in the manufacturing sector during the recession while letting the others go. This would make average wage figures look better and obscure the fact that the process cuts off income to the poorest first. Finally, the real wage data do not reflect the effects of sharply increased social security taxes in 1982. If these were taken into consideration, the formal sector workers' real disposable income losses over the crises period would be even larger.

XI.E.3 Social Indicators

Table 6 shows the level and composition of government expenditure from 1977 to 1983. There are no abrupt or large changes in the pattern over the period with the exception of education which shrank from 29% of the total to 19%. Health expenditures generally rose over the period and were consistently higher during the crisis than in the other years. The share of defense expenditures dropped over the period, and the share of welfare rose to new peaks in 1981 and 1982. There was a fairly strong deterioration in expenditures on economic services during the crisis period. This was largely due to cutbacks in the road building program and partly explains the collapse of the construction industry.

Table 7 shows selected public health indicators. The evidence on health sector performance from 1980 to 1982 is mixed and changes appear small. The numbers of hospital beds per person declined. The per capita number of hospital cases declined slightly as did doctor visits. Given the short time frame involved, it is probable that this was due to reduced

service availability or utilization rather than lower morbidity. In any case the changes are small. The percentage of the population covered by health programs fell although the percentage of hospital births increased. Nonetheless, all indicators are significantly above levels prevailing in 1976.

The evidence on food consumption and nutrition is more conclusive. Table 8 shows data for 1966, 1978 and 1982. There was a uniform deterioration in consumption of all major nutrients on the order of 5-10%, with protein intakes dropping the most. The drops appear to be somewhat larger in the rural areas than in the cities. In 1980 the rural population still had higher carbohydrate and calorie intake and lower protein and fat intake than the urban dwellers as was the case in 1978. Nutrient intakes in rural areas were the same or worse than in 1966 with the exception of fat. In the cities the drop in nutrient intakes from 1966 levels was very large. This probably reflects the shifting composition of the urban populations over the two decades as more unskilled and semiskilled rural migrants came to the cities.

Table 9 shows price changes for the CPI and for food. The relative price of food jumped sharply in 1982. This rise is partly responsible for the changes in nutrition and consumption.

Table 10 confirms the drop in protein intake with indices of milk and beef consumption both of which took sharp drops in 1982. It is interesting to note the strong performance of the electricity consumption index over this period. The government was committed to an electrification program that continued during the crisis despite the shortages of foreign exchange. The massive drop in the cement index reflects the severe contraction of the construction industry.

There is evidence of nutrition-related problems among newborns and infants during the worst part of the crisis. The neonatal mortality rate rose slightly in 1983, and the infant mortality rate showed a distinct rise in 1982. Downward trends in these indicators typically do not reverse themselves unless significant short-run stress is present. However, the 18.8 infant deaths per 1000 recorded in 1982 is still less than the 19.1 recorded in 1980 and is less than any year prior to 1980. One might expect that the increase in labor force participation rates among non-household heads would have a negative impact on breastfeeding rates. This does not appear to have been the case. Survey data reported by Mata (1984) and quoted in Vedova (1987) indicate that, while the percentage of breastfed infants fell from 85% to 77% between 1975 and 1978, it rose to over 90% in 1982.

Data on drop-out rates from the Ministry of Education show a small peak in 1982 for primary school and a very marked peak for high school students. Some 16.2% of high school students quit school in 1982 as opposed to 10.9% in 1979. It would therefore appear that at least some of the increase in labor force participation rates during the crisis was due to children working to sustain family income.

The incidence of treatments for alcoholism and the deaths for alcohol reported by the Institute for Alcoholism declined steadily throughout the period of the crisis.

Court cases have been increasing for the whole decade from 1976 on. The pattern is not strong but, if anything, there was a slowing of crime during the crisis. Cases of fraud, homicide and drug possession all declined. However, the numbers of cases in court are related to the functioning of the court system and may not accurately reflect the real underlying volume of offenses.

XI.F. Government Services and Transitional Support Mechanisms

The government operates an extensive health program especially in rural areas and the country has a well-established record in maintaining good health standards. When food prices rose sharply in 1982 the government maintained food-help programs which focused on the preschool children. The Costa Rican Social Security Institution had a program to promote breastfeeding which seems to have been effective.

The government insulated certain groups from the 1981 devaluation by offering exchange subsidies that guaranteed 8.6 colon per dollar although the new flexible exchange rate was about 40 colon per by December 1982. The transactions included the central government imports; imports of petroleum, wheat and medicine; repayments of debts incurred prior to 1981; pre-export financing for coffee; and student remittances. The program was quite expensive. To offset the cost of the subsidies, the Central Bank sold Stabilization Bonds that bore interest rates 1 to 3 points higher than the basic rate on six-month deposits.

To prevent firm bankruptcies the government designed a firm salvage program. This was implemented with financial assistance from USAID and helped to keep unemployment rates from rising higher. The public commercial banks also initiated programs to help firms affected by the devaluation and the contraction of demand in the CACM. Inclusion of pre-1981 debts in the exchange subsidy program gave further relief to financially stretched firms.

XI.G. Summary and conclusions

There are four important features of Costa Rican adjustment policies. First, deteriorating external circumstances made some slackening in the rate of growth inevitable. Policies initially made in response to the changes were ad hoc in nature and were generally implemented later than they should have been with the result that the economic system sustained more damage than was necessary. Second, there was a sharp deterioration in living standards during the worst part of the crisis, though most adverse trends reversed themselves when recovery got underway.

Third, there were a number of important measures taken to try to insulate specific groups from the full and immediate effects of the adjustment policies. These insulation efforts were partially successful in protecting the vulnerable groups, but they were also costly.

Finally, the Costa Rican economy is a dynamic one that recovered quickly after the appropriate policy settings were adopted. From 1983 on there was strong improvement in all the major economic indicators. Unemployment dropped, inflation subsided and real growth rebounded. Real wages are still not back to the 1979 levels but it may be that they had risen to unsustainable levels during the coffee boom and that an adjustment was necessary.

The delays in implementing adjustment policies stem in part from the timing of certain external events. The Costa Rican economy is dependent on foreign sources of petroleum products and therefore suffered from the first round of oil price hikes. But balance of payments problems were averted by the coffee boom. The need for adjustment policies was not clearly perceived despite the temporary nature of the coffee boom and the more permanent rise in oil prices. Coffee prices began to fall in 1977 and oil prices rose further in 1979-80. Throughout the period the government borrowed heavily. External debt swelled and the costs of debt servicing then rose very sharply as world interest rates rose. The timing and nature of these external events could not have been perfectly foreseen, of course. But domestic policies could have been conducted so as to make the ultimate corrective measures less painful. Costa Rica is not the first country to build its policies on the mistaken assumption that all positive changes are permanent and all negative ones are temporary.

The ad hoc nature of policies in 1980 and 1981 is reflected in the negotiation of an agreement with the IMF in 1980 and its suspension shortly afterwards. Cessation of debt service itself was a desperate measure taken as a last resort. Interest rate policy followed a rather erratic path

too. Rates for agricultural credit were raised and then lowered and then raised again. Real rates of interest remained negative for a protracted period. Heavy reliance on on export taxes in 1980/81 to reduce the deficit were perhaps necessary. But they are highly distorting taxes that did little to improve the balance of payments. Perhaps the most damaging of all was failure to control public enterprise deficits primarily because of lags in making adjustments to tariffs charged. The autonomy granted to these institutions to contract foreign debt was another contributing factor. And although the issue had been under review for some time, action was not taken early enough to prevent the buildup of a large debt burden.

It was not until the new government took office in May of 1982 that a firm policy course was set. A new agreement was signed with th IMF and the Paris club agreed to measures to deal with debt in May of 1983.

Despite these difficulties, the ad hoc period was relatively short and because of the dynamic nature of the economy recovery was reasonably quick. There was clearly some human suffering during the ad hoc period and during the adjustment period. However, the evidence provided by the various social indicators reviewed above suggests that it was less than in some other countries. The existence of well developed health and welfare systems and use of special temporary support programs were also important in minimizing pressures on the most vulnerable groups.

Main references for Costa Rican case

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TABLE 1: BALANCE OF PAYMENTS

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|--|-------------------|-------|-------|--------|--------|--------|--------|
| | millions of \$ US | | | | | | |
| CURRENT ACC SURPLUS DEFICIT (-) | -363 | -559 | -664 | -420 | -240 | -234 | -155 |
| EXPORTS | 864 | 942 | 1001 | 1008 | 870 | 862 | 998 |
| IMPORTS | 1166 | 1397 | 1528 | 1213 | 894 | 993 | 1202 |
| SERVICES AND OTHER CURRENT (NET) | -61 | -104 | -137 | -215 | -216 | -103 | 49 |
| CAPITAL ACCOUNT | 322 | 453 | 186 | -50 | -74 | 305 | 27 |
| | percent of GDP | | | | | | |
| CURRENT ACC SURPLUS DEFICIT (-) | -10 | -14 | -14 | -16 | -9 | -8 | -4 |
| EXPORTS | 25 | 23 | 21 | 38 | 33 | 28 | 27 |
| IMPORTS | 33 | 35 | 32 | 46 | 34 | 32 | 33 |
| SERVICES AND OTHER CURRENT (NET) | -2 | -3 | -3 | -8 | -8 | -3 | 1 |
| CAPITAL ACCOUNT | 9 | 11 | 4 | -2 | -3 | 10 | 1 |
| MEMO ITEMS | | | | | | | |
| TERMS OF TRADE | 132.1 | 120.6 | 120 | 102.9 | 103.5 | 106.8 | 110.2 |
| REAL EFFECTIVE EXCHANGE RATE (1968-70 =100) | 98.8 | 94.5 | 86.8 | 138.8 | 106.9 | na | na |
| NOMINAL EXCHANGE RATE COLON/\$ US | 9.57 | 8.57 | 8.57 | 21.763 | 37.407 | 41.094 | 44.533 |
| REAL GDP GROWTH RATE | | 4.94 | 0.75 | -2.26 | -7.29 | 2.86 | 7.47 |
| CONSUMER PRICE INFLATION | 6.02 | 9.29 | 18.06 | 37.10 | 90.08 | 32.62 | 11.95 |

SOURCE: RECENT ECONOMIC DEVELOPMENTS, IMF, 1983 AND 1986
INTERNATIONAL FINANCIAL STATISTICS, 1987

TABLE 2: REVENUE, EXPENDITURE AND FINANCING, NON-FINANCIAL PUBLIC SECTOR

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|------------------------------|---------------------|-------|-------|-------|-------|--------|-------|
| | millions of colones | | | | | | |
| CURRENT REVENUE | 6816 | 7691 | 8637 | 10235 | 17691 | 34558 | 44803 |
| TAX REVENUE | 5987 | 6687 | 7662 | 10732 | 18603 | 28809 | 35720 |
| GEN GOVT NON-TAX REVENUE | 1373 | 1460 | 1737 | 1061 | 1438 | 2456 | 3350 |
| PUB ENT CURR SURP OR DEF (-) | 291 | 14 | 7 | -1585 | -2162 | 3070 | 5606 |
| OTHER INCLUDING ADJUSTMENT | -835 | -470 | -719 | 27 | -188 | 223 | 127 |
| CAPITAL REVENUE | 19 | 47 | 73 | 208 | 213 | 114 | 80 |
| EXPENDITURE | 9513 | 11960 | 14262 | 18250 | 26379 | 39275 | 47519 |
| CURRENT | 6411 | 8133 | 9638 | 12412 | 20122 | 29538 | 36762 |
| CAPITAL | 3102 | 3827 | 4624 | 5838 | 6257 | 9737 | 10757 |
| DEFICIT | -2678 | -4222 | -5502 | -7807 | -9475 | -4603 | -2636 |
| RESIDUAL | 27 | -428 | 867 | -310 | -159 | 586 | -453 |
| FINANCING | 2651 | 4650 | 4635 | 8117 | 8634 | 4017 | 3089 |
| FOREIGN | 1764 | 1937 | 1936 | 1493 | -1459 | -341 | 1460 |
| DOMESTIC | 887 | 2713 | 2699 | 1738 | 2623 | 14848 | -471 |
| ARREARS (CHANGE) | - | - | - | 4886 | 7470 | -13767 | 2100 |
| RESCHEDULING | - | - | - | - | - | 3277 | - |
| | percent of GDP | | | | | | |
| CURRENT REVENUE | 22.6 | 22.2 | 21.0 | 17.9 | 18.1 | 27.4 | 27.5 |
| TAX REVENUE | 19.8 | 19.3 | 18.5 | 18.8 | 19.1 | 22.8 | 21.9 |
| GEN GOVT NON-TAX REVENUE | 4.5 | 4.2 | 4.2 | 1.9 | 1.5 | 1.9 | 2.1 |
| PUB ENT CURR SURP OR DEF (-) | 1.0 | 0.0 | 0.0 | -2.8 | -2.2 | 2.4 | 3.4 |
| OTHER INCLUDING ADJUSTMENT | -2.8 | -1.4 | -1.7 | 0.0 | -0.2 | 0.2 | 0.1 |
| CAPITAL REVENUE | 0.1 | 0.1 | 0.2 | 0.4 | 0.2 | 0.1 | 0.0 |
| EXPENDITURE | 31.5 | 34.6 | 34.4 | 32.0 | 27.1 | 31.1 | 29.2 |
| CURRENT | 21.2 | 23.5 | 23.3 | 21.7 | 20.6 | 23.4 | 22.6 |
| CAPITAL | 10.3 | 11.1 | 11.2 | 10.2 | 6.4 | 7.7 | 6.6 |
| DEFICIT | -8.9 | -12.2 | -13.3 | -13.7 | -8.7 | -3.6 | -1.6 |
| RESIDUAL | 0.1 | -1.2 | 2.1 | -0.5 | -0.2 | 0.5 | -0.3 |
| FINANCING | 8.8 | 13.4 | 11.2 | 14.2 | 8.9 | 3.2 | 1.9 |
| FOREIGN | 5.8 | 5.6 | 4.7 | 2.6 | -1.5 | -0.3 | 0.9 |
| DOMESTIC | 2.9 | 7.8 | 6.5 | 3.0 | 2.7 | 11.8 | -0.3 |
| ARREARS (CHANGE) | - | - | - | 8.6 | 7.7 | -10.9 | 1.3 |
| RESCHEDULING | - | - | - | - | - | 2.6 | - |

SOURCE: RECENT ECONOMIC DEVELOPMENTS, IMF, 1983 AND 1986
INTERNATIONAL FINANCIAL STATISTICS, 1987

TABLE 3: EXTERNAL PUBLIC SECTOR DEBT

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|-------------------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|
| | millions of \$ US | | | | | | | |
| TOTAL DEBT | 1050 | 1417 | 1801 | 2364 | 2962 | 3407 | 3455 | 3694 |
| CENTRAL GOVERNMENT | 356 | 453 | 531 | 580 | 731 | 800 | 837 | 940 |
| PUBLIC ENTERPRISES | 412 | 503 | 651 | 759 | 943 | 923 | 879 | 953 |
| of which electricity board | 272 | 322 | 422 | 485 | 502 | na | na | na |
| PUBLIC FINANCIAL INSTITUTIONS | 282 | 461 | 620 | 1023 | 1288 | 1685 | 1739 | 1801 |
| of which central bank | 152 | 293 | 437 | 843 | 1061 | 1480 | 1552 | 1641 |
| | percent of total | | | | | | | |
| TOTAL DEBT | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| CENTRAL GOVERNMENT | 33.9 | 32.0 | 29.5 | 24.5 | 24.7 | 23.5 | 24.2 | 25.4 |
| PUBLIC ENTERPRISES | 39.2 | 35.5 | 36.1 | 32.1 | 31.8 | 27.1 | 25.4 | 25.8 |
| of which electricity board | 25.9 | 22.7 | 23.4 | 20.5 | 16.9 | na | na | na |
| PUBLIC FINANCIAL INSTITUTIONS | 26.9 | 32.5 | 34.4 | 43.3 | 43.5 | 49.5 | 50.3 | 48.8 |
| of which central bank | 14.5 | 20.7 | 24.3 | 35.7 | 35.8 | 43.4 | 44.9 | 44.4 |

SOURCE: RECENT ECONOMIC DEVELOPMENTS, IMF, 1983 AND 1986

TABLE 4: AVERAGE REAL WAGES BY SECTOR

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | |
|-------------------------------|-------|-------|-------|--------------|-------|------|-------|-------|--|
| AGRICULTURE | 984 | 1055 | 1043 | 949 | 855 | 938 | 1024 | 1071 | |
| MANUFACTURING AND MINING | 1433 | 1511 | 1510 | 1365 | 1154 | 1296 | 1411 | 1161 | |
| CONSTRUCTION | 1190 | 1251 | 1258 | 1117 | 894 | 1070 | 1134 | 1497 | |
| COMMERCE | 1690 | 1745 | 1694 | 1563 | 1258 | 1134 | 1279 | 1251 | |
| TRANSPORT AND COMMUNICATIONS | 1565 | 1636 | 1572 | 1417 | 1162 | 1312 | 1597 | 1584 | |
| PERSONAL SERVICES | 2201 | 2274 | 2117 | 1961 | 1500 | 1633 | 1686 | 1976 | |
| TOTAL | 1638 | 1716 | 1667 | 1516 | 1215 | 1354 | 1460 | 1593 | |
| PRIVATE SECTOR | 1241 | 1303 | 1282 | 1172 | 985 | 1110 | 1206 | 1298 | |
| PUBLIC SECTOR | 2480 | 2536 | 2359 | 2257 | 1684 | 1850 | 1944 | 2191 | |
| TOTAL NOMINAL | 1872 | 2142 | 2457 | 3062 | 4668 | 6899 | 8328 | 10449 | |
| REAL MINIMUM WAGE INDEX | 120.8 | 123.9 | 125.7 | 113.4 | 105.3 | 121 | 127.2 | 132 | |
| | | | | percent p.a. | | | | | |
| AGRICULTURE | | 7.2 | -1.1 | -9.0 | -9.9 | 9.7 | 9.2 | 4.6 | |
| MANUFACTURING AND MINING | | 5.4 | -0.1 | -9.6 | -15.5 | 12.3 | 8.9 | -17.7 | |
| CONSTRUCTION | | 5.1 | 0.6 | -11.2 | -20.0 | 19.7 | 6.0 | 32.0 | |
| COMMERCE | | 3.3 | -2.9 | -7.7 | -19.5 | -9.9 | 12.8 | -2.2 | |
| TRANSPORT AND COMMUNICATIONS | | 4.5 | -3.9 | -9.9 | -18.0 | 12.9 | 21.7 | -0.8 | |
| PERSONAL SERVICES | | 3.3 | -6.9 | -7.4 | -23.5 | 8.9 | 3.2 | 17.2 | |
| TOTAL | | 4.8 | -2.9 | -9.1 | -19.9 | 11.4 | 7.8 | 9.1 | |
| PRIVATE SECTOR | | 5.0 | -1.6 | -8.6 | -16.0 | 12.7 | 8.6 | 7.6 | |
| PUBLIC SECTOR | | 2.3 | -7.0 | -4.3 | -25.4 | 9.9 | 5.1 | 12.7 | |
| RATIO PUB/PRIVATE | 2.0 | 1.9 | 1.8 | 1.9 | 1.7 | 1.7 | 1.6 | 1.7 | |
| MEMO ITEMS | | | | | | | | | |
| nominal wage rise % p.a. | | 14.4 | 14.7 | 24.6 | 52.4 | 47.8 | 20.7 | 25.5 | |
| real minimum wage rise % p.a. | | 2.6 | 1.5 | -9.8 | -7.1 | 14.9 | 5.1 | 3.8 | |

SOURCE: IMF RECENT ECONOMIC DEVELOPMENTS, 1983, 1986

TABLE 5: EMPLOYMENT BY SECTOR

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|--------------------------|------------------|-------|-------|-------|-------|-------|-------|-------|
| | thousands | | | | | | | |
| AGRICULTURE | 229 | 219 | 213 | 225 | 246 | 230 | 224 | 226 |
| MANUFACTURING AND MINING | 106 | 114 | 118 | 116 | 121 | 127 | 126 | 123 |
| CONSTRUCTION | 48 | 54 | 55 | 50 | 43 | 39 | 41 | 42 |
| COMMERCE | 121 | 127 | 135 | 133 | 133 | 138 | 152 | 156 |
| PERSONAL SERVICES | 155 | 162 | 169 | 181 | 188 | 200 | 216 | 231 |
| BASIC SERVICES | 41 | 43 | 47 | 42 | 42 | 44 | 46 | 49 |
| TOTAL | 700 | 719 | 737 | 747 | 773 | 778 | 805 | 827 |
| PRIVATE SECTOR | 551 | 571 | 582 | 612 | 642 | 632 | 650 | 681 |
| PUBLIC SECTOR | 126 | 129 | 143 | 140 | 136 | 146 | 155 | 156 |
| TOTAL | 677 | 700 | 725 | 752 | 778 | 778 | 805 | 837 |
| | percent of total | | | | | | | |
| AGRICULTURE | 32.7 | 30.5 | 28.9 | 30.1 | 31.8 | 29.6 | 27.8 | 27.3 |
| MANUFACTURING AND MINING | 15.1 | 15.9 | 16.0 | 15.5 | 15.7 | 16.3 | 15.7 | 14.9 |
| CONSTRUCTION | 6.9 | 7.5 | 7.5 | 6.7 | 5.6 | 5.0 | 5.1 | 5.1 |
| COMMERCE | 17.3 | 17.7 | 18.3 | 17.8 | 17.2 | 17.7 | 18.9 | 18.9 |
| PERSONAL SERVICES | 22.1 | 22.5 | 22.9 | 24.2 | 24.3 | 25.7 | 26.8 | 27.9 |
| BASIC SERVICES | 5.9 | 6.0 | 6.4 | 5.6 | 5.4 | 5.7 | 5.7 | 5.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| PRIVATE SECTOR | 81.4 | 81.6 | 80.3 | 81.4 | 82.5 | 81.2 | 80.7 | 81.4 |
| PUBLIC SECTOR | 18.6 | 18.4 | 19.7 | 18.6 | 17.5 | 18.8 | 19.3 | 18.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| URBAN | 47 | 47 | 48 | 49 | 48 | 50 | 50 | 51 |
| RURAL | 53 | 53 | 52 | 51 | 52 | 50 | 50 | 49 |
| TOTAL | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| TOTAL EMPLOYMENT (000) | 677 | 700 | 725 | 752 | 778 | 778 | 805 | 837 |
| growth rate (%) | | 3.40 | 3.57 | 3.72 | 3.46 | 0.00 | 3.47 | 3.98 |
| UNEMPLOYMENT RATES (%) | | | | | | | | |
| TOTAL | 4.5 | 4.9 | 5.9 | 8.7 | 9.4 | 9.0 | 6.4 | 6.8 |
| URBAN | 5.6 | 5.7 | 5.9 | 9.1 | 10.5 | 9.3 | 6.5 | 7.2 |
| RURAL | 3.6 | 4.2 | 5.9 | 8.4 | 8.3 | 8.7 | 6.2 | 6.4 |

SOURCE: IMF RECENT ECONOMIC DEVELOPMENTS, 1983, 1986
GENERAL OFFICE OF STATISTICS AND CENSUS

TABLE 6: COMPOSITION OF GOVERNMENT EXPENDITURE

| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|---------------------|-------|-------|-------|-------|-------|-------|
| | millions of colones | | | | | | |
| GENERAL PUBLIC SERVICES | 527 | 780 | 773 | 922 | 1087 | 1841 | 2677 |
| DEFENSE | 205 | 201 | 235 | 265 | 317 | 528 | 928 |
| EDUCATION | 1450 | 1799 | 2132 | 2549 | 2838 | 4051 | 5907 |
| HEALTH | 169 | 1779 | 2150 | 2979 | 3567 | 5878 | 5955 |
| of which social security funds | | 1512 | 1942 | 2456 | 3081 | 4745 | 6005 |
| other | 169 | 267 | 208 | 523 | 486 | 1133 | 950 |
| SOCIAL SECURITY AND WELFARE | 1197 | 565 | 657 | 736 | 1232 | 2011 | 4406 |
| of which social security fund | 951 | 276 | 310 | 411 | 565 | 934 | 1490 |
| other | 246 | 289 | 347 | 325 | 667 | 1077 | 2916 |
| HOUSING | 106 | 139 | 222 | 229 | 279 | 523 | 813 |
| ECONOMIC SERVICES | 994 | 1003 | 1586 | 1900 | 1823 | 2682 | 6145 |
| OTHER | 437 | 734 | 846 | 789 | 851 | 430 | 2659 |
| TOTAL | 5085 | 7000 | 8601 | 10369 | 11994 | 17944 | 30490 |
| | percent of total | | | | | | |
| GENERAL PUBLIC SERVICES | 10.4 | 11.1 | 9.0 | 8.9 | 9.1 | 10.3 | 8.8 |
| DEFENSE | 4.0 | 2.9 | 2.7 | 2.6 | 2.6 | 2.9 | 3.0 |
| EDUCATION | 28.5 | 25.7 | 24.8 | 24.5 | 23.7 | 22.5 | 19.4 |
| HEALTH | 3.3 | 25.4 | 25.0 | 28.7 | 29.7 | 32.8 | 22.8 |
| of which social security fund | 0.0 | 21.6 | 22.6 | 23.7 | 25.7 | 26.4 | 19.7 |
| other | 3.3 | 3.8 | 2.4 | 5.0 | 4.1 | 6.3 | 3.1 |
| SOCIAL SECURITY AND WELFARE | 23.5 | 8.1 | 7.6 | 7.1 | 10.3 | 11.2 | 14.5 |
| of which social security fund | 18.7 | 3.9 | 3.6 | 4.0 | 4.7 | 5.2 | 4.9 |
| other | 4.8 | 4.1 | 4.0 | 3.1 | 5.6 | 6.0 | 9.6 |
| HOUSING | 2.1 | 2.0 | 2.6 | 2.2 | 2.3 | 2.9 | 2.7 |
| ECONOMIC SERVICES | 19.5 | 14.3 | 18.4 | 18.3 | 15.2 | 14.9 | 20.2 |
| OTHER | 8.6 | 10.5 | 9.8 | 7.6 | 7.1 | 2.4 | 8.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

SOURCE: GOVERNMENT FINANCIAL STATISTICS

TABLE 7: PUBLIC HEALTH INDICATORS

| | 1976 | 1980 | 1982 |
|----------------------------------|------|-------|-------|
| HOSPITAL BEDS /000 | 3.1 | 3.4 | 3.2 |
| HOSPITAL CASES /000 | 110 | 119 | 115.8 |
| PER CAPITA DOCTOR VISITS | 2.6 | 2.70 | 2.60 |
| HOSPITAL BIRTHS % TOTAL BIRTHS | 80.9 | 89.10 | 91.20 |
| HEALTH COVERAGE % POPULATION | 39 | 78.00 | 71.00 |
| ACCESS TO WATER % POPULATION | 75 | 84 | na |
| CONNECTED TO SEWERS % POPULATION | 86 | 93 | na |

SOURCE: MINISTRY OF HEALTH

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TABLE B: NUTRIENT CONSUMPTION STATISTICS (levels)

| | RURAL | | | URBAN | | |
|---------------------|-------|------|------|-------|------|------|
| | 1966 | 1978 | 1982 | 1966 | 1978 | 1982 |
| ENERGY (K Cal) | 1894 | 2020 | 1895 | 2330 | 1947 | 1885 |
| PROTEIN (Gms) | 53.6 | 54 | 49 | 67.3 | 58.2 | 53.1 |
| FAT (Gms) | 43.9 | 57.2 | 53.4 | 66.8 | 67.2 | 63.3 |
| CARBOHYDRATES (Gms) | 332 | 332 | 315 | 334 | 284 | 285 |
| CALCIUM (MGs) | 580 | 614 | 476 | 855 | 619 | 508 |

NUTRIENT CONSUMPTION STATISTICS (percentage changes)

| | RURAL | | | URBAN | | |
|---------------------|------------------|--------|------|--------|--------|------|
| | 1966 | 1978 | 1982 | 1966 | 1978 | 1982 |
| | (percent change) | | | | | |
| ENERGY (K Cal) | 6.65 | -6.19 | | -16.44 | -3.18 | |
| PROTEIN (Gms) | 0.75 | -9.26 | | -13.52 | -8.76 | |
| FAT (Gms) | 30.30 | -6.64 | | 0.60 | -5.80 | |
| CARBOHYDRATES (Gms) | 0.00 | -5.12 | | -14.97 | 0.35 | |
| CALCIUM (MGs) | 5.86 | -22.48 | | -27.60 | -17.93 | |

SOURCE: CENTRAL AMERICAN INSTITUTE OF PUBLIC HEALTH
MINISTRY OF HEALTH

TABLE 9: FOOD PRICES AND CONSUMER PRICES

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|----------------|------|------|------|------|------|------|------|------|
| CPI | 114 | 125 | 147 | 202 | 384 | 509 | 570 | 656 |
| FOOD INDEX | 116 | 130 | 158 | 217 | 462 | 611 | 665 | 747 |
| RATIO FOOD/CPI | 1.02 | 1.04 | 1.07 | 1.07 | 1.20 | 1.20 | 1.17 | 1.14 |

SOURCE: GENERAL OFFICE OF STATISTICS AND CENSUS

TABLE 10: KEY CONSUMPTION INDICES

| | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|-------------|--------------|-------|-------|-------|-------|-------|
| | (1978 = 100) | | | | | |
| MILK | 99.1 | 97 | 95 | 88.8 | 91.7 | 104.3 |
| BEEF | 94.6 | 84.7 | 97.2 | 64.3 | 89 | 99.9 |
| ELECTRICITY | 101.4 | 111.4 | 115.4 | 118.3 | 122.8 | 125.1 |
| CEMENT | 104.8 | 106.4 | 97.4 | 65.1 | 69.5 | 83.7 |

KEY CONSUMPTION INDICES

| | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|-------------|----------------------|--------|-------|--------|------|-------|
| | (percentage changes) | | | | | |
| MILK | | -2.12 | -2.06 | -6.53 | 3.27 | 13.74 |
| BEEF | | -10.47 | 14.76 | -13.27 | 5.58 | 12.25 |
| ELECTRICITY | | 9.86 | 3.59 | 2.51 | 3.80 | 1.87 |
| CEMENT | | 1.53 | -8.46 | -33.16 | 6.76 | 20.43 |

SOURCE: ACADEMIA DE CENTROAMERICA, AS QUOTED IN VEDOVA, 1987

XII. CONCLUSIONS AND IMPLICATIONS FOR DONORS

This report has provided an analysis of the socioeconomic impact of macroeconomic adjustment programs based on (a) examination of the linkages between adjustment measures and specific groups' living standards, (b) review of existing empirical studies on how incomes, employment and consumption have evolved during periods of adjustment, and (c) case studies of Sri Lanka, Morocco, Costa Rica and Cote d'Ivoire.

Socioeconomic effects of adjustment vary considerably across countries due to differences in adjustment problems and strategies, economic structures and levels of development. But in general, some socioeconomic groups are potentially vulnerable to reductions in living standards during macroeconomic adjustment. Reductions are not always serious, but a careful ex ante analysis of the likely impact of adjustment measures on these groups can ease the transition without compromising the objectives of the adjustment program. Vulnerable groups include landless rural laborers, food-deficit rural families, and the urban poor especially those in cyclically sensitive sectors such as construction. The best protected groups are food-surplus rural families, those in export-related manufacturing and agriculture, and to some extent, urban informal sector workers. The key to predicting where problems may arise is in understanding the economic linkages which connect policy changes to levels of wellbeing for each of these groups.

Food Policy

Food subsidies drain government budgets, depress producer prices and absorb foreign exchange. Eliminating or reducing them is a major part of many adjustment programs. In Morocco and Sri Lanka, subsidy systems gave substantial benefits to upper income classes. Theoretically, targeting could have a greater impact on the living standards of the poor at a fraction of the cost. In practice, targeting is difficult to achieve and subsidy removal is politically very sensitive. Where subsidies have been reduced there is reasonably clear evidence of the following effects:

1. Food-surplus rural households gain.
2. Food-deficit rural households (often the poorest group in the country) and urban groups lose.
3. The rate of rural-urban migration slows.
4. The redistributive gain is greatest and the increase in poverty the least when

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- a) land holdings are small and widely distributed
- b) the potential for food self-sufficiency is good
- c) urban poverty incidence is relatively low
- d) the proportion of the population in agriculture is high
- e) the major crops are annuals and output is not highly drought-prone

Exchange Rate Adjustment

Overvalued currencies are a common symptom of adjustment problems and devaluation is usually part of the adjustment process. Again the evidence from the case studies on the socioeconomic impact of devaluation is fairly clear and accords well with expectations.

1. Export industries benefit, though many resource-based sectors such as agriculture may continue to be taxed due to revenue concerns.
2. Import-substituting industries gain, including some informal sector activities.
3. Debt-burdened enterprises are hurt and often face bankruptcy.
4. Urban groups are generally hurt more than rural groups. This is because often
 - a) imports form a greater share of urban consumption than rural consumption.
 - b) the rural sector exports a greater share of its output than the urban sector or is engaged in the production of import substitutes.
 - c) rural sector activities are less reliant on imported inputs.

Expenditure Restraint

In three of the four cases studied, cuts in government investment were the most important part of fiscal restraint. This has a clear contractionary effect on the construction industry and many unskilled and semi-skilled jobs are lost with adverse effects on urban poverty. Absorption of these workers in sectors stimulated by liberalization may be difficult where new sectors require higher skill levels. Some of the workers shift to informal sector activities which may drive down incomes if the influx is substantial.

Reductions in capital expenditures probably result in longer-term deterioration of the stock of public capital but these effects do not generally show up in the short term. Reductions in the non-wage components of operating and

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maintenance budgets are a much more important cause of deterioration in the level of public service provision especially in health and education.

Reductions in real wages and/or employment levels in the public sector can be important in affecting urban living standards. If wages are high in the public sector, as was largely the case in the countries studied here, reductions in real wages alone have a less serious poverty impact than reductions in the number of employees. However, if public sector pay levels were significantly eroded during ad hoc adjustment, further reductions may affect the living standards of low income groups. It is important to recognise, though, that the public sector may be overstaffed and that the long run goal of structural reform may be to decrease the size of the public service in order to increase efficiency.

Government Services and Transitional Measures

In some cases, the existing social service network and supplementary programs targeted to vulnerable groups were important in determining the incidence of adjustment costs. In Sri Lanka, targeted feeding programs reduced the negative impact of higher food prices on landless estate workers. In Costa Rica the health program, which was historically of high quality, received an increased share of the budget during the adjustment period. Food-help programs were implemented, and several measures were taken to sustain failing businesses and preserve jobs during the debt crisis.

Wage and employment policy has sometimes been used to smooth the effects of adjustment. In many countries, traditionally high public service wages have dropped substantially in real terms and relative to other sectors. In Costa Rica and Morocco, minimum wages were increased to protect the urban poor. It is important, however, that such transitional measures do not impede progress toward longer-term objectives of deficit reduction and freer market functioning.

The Overall Macroeconomic Picture

Timing is critical in successful macroeconomic adjustment and delays can ultimately make the process much more difficult. Costa Rica, Cote d'Ivoire and Morocco treated windfall revenues from commodity price booms as if they were permanent and initiated ambitious expenditure programs. Many programs were reasonably sound economically, emphasizing social and productive infrastructure development rather than pure transfers. But expenditure levels were way above long-run revenue trends. Often discipline to correct

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this structural imbalance develops only with balance of payments crises. Availability of foreign credit provides leeway to procrastinate. This was the case in Costa Rica where serious reforms came only after credit was cut off.

It is difficult to change direction after a period of relatively high growth as in Costa Rica and Cote d'Ivoire. Reduced export earnings lower foreign exchange inflows and also lower export tax revenues. Moreover, structural adjustment measures themselves may initially make it difficult to restore stability to the balance of payments and the government budget. Import and export tax reductions typically involved in trade liberalization may cause import surges and reductions in government revenue.

Positive benefits of reform may be slow to materialize even after price and other incentives have been put in place. The case studies suggest several general patterns in supply responsiveness in adjusting economies. First, in the agricultural sector, annual crops such as rice and other cereals can respond quickly, whereas tree crops or perennials respond more slowly due to the need for continuous upkeep and lags between planting and production. Second, the responsiveness of private sector firms to new incentives is better than that of public enterprises. Third, relatively advanced and dynamic economies such as Costa Rica recover more quickly from recession and are quicker to adapt to relative price changes and new investment opportunities. Finally, sharp reductions in foreign aid and/or commercial capital seriously hamper orderly adjustment because of input strangulation in the industrial sector.

Implications for Donors

For donors' purposes, there are two broad conclusions to be drawn from this work. First, it is possible ex ante to get a relatively clear picture of what groups are likely to need some form of assistance during transition. Every effort should be made on the basis of country-specific information to construct the profile of this group so that aid efforts can be focused and efficient. Second, care must be exercised in designing assistance programs to ensure that they do not frustrate the objectives of the adjustment program itself by introducing new distortions or creating unsustainable recurrent cost obligations.

Several more specific points have also emerged. One is that sharp reductions in the level of aid and commercial financing have sometimes been necessary to "shock" countries into making needed adjustments. However, the need for steady support and continued flows of foreign exchange to keep the adjustment process on track is very clear. Rescheduling,

debt relief or concessional aid may be necessary to sustain orderly adjustment.

Another point is that deficit reduction means more than just expenditure cutting. It means restructuring expenditures in an effective and permanent way that reflects new priorities in the management of public resources. Technical assistance in this area can be very important especially when the public service has very few trained people and faces long lists of IMF and World Bank restructuring conditions.

Close cooperation with the recipient country and other donors is necessary in the design of effective programs. Targeting and administration of food programs are much more effective if they exploit existing local networks rather than relying on new and largely external resources.

Aid programs which enhance the supply responsiveness of the country to changed incentives are valuable. These include: 1.) training programs geared to the needs of new industries, 2.) financing and capital rebuilding for industries in new growth areas established by adjustment policies, and 3.) refurbishment of infrastructure necessary to sustain growth (this is an area that often suffers during budgetary restraint.)

Further Research

The work done for this report supports the general conclusion that the real impact of adjustment programs can be assessed accurately only if there are good data and the more detail and disaggregation there is the better. One key element of disaggregation is that which distinguishes food deficit and food surplus rural families. In some countries, such as Sri Lanka the survey data would support analysis that preserves this distinction but to our knowledge the existing database has not been so exploited. One of the main features of many adjustment programs is the elimination of food subsidies and a rise in the price of cereals. This has the potential to hurt landless rural labor, but the damage may be offset by the increased stimulus to the agricultural production. Multiplier effects and linkages to the non-agricultural rural sector may be strong or weak. The level of food production may be responsive to the stimulus provided by reduced subsidies so that employment increases sharply and food prices rise less. The increased profitability may translate into higher wages for agricultural workers. The magnitude and speed of such adjustments can best be judged using microeconomic and household-level data. Where available, this data should be better exploited. In other cases there is a need for better data collection.

Better utilization of microeconomic data would also permit improved applied work on program and project design. Such analysis would give greater insight into the nature of supply response in agriculture and industry to new economic incentives. USAID initiatives could then be better tuned to enhance supply responsiveness.

In several countries new data have been recently released and these could now be used to assess the medium-term effects of adjustment. Sri Lanka and Morocco are two cases in point. The medium- and longer-term effects of adjustment are likely to take on greater importance with the passage of time. In particular the sharp reductions in capital spending during demand management phases of adjustment are likely to have had impacts on the level of public services and economic infrastructure that will only now be becoming noticeable. Evidence on the nature and degree of these changes may alter perceptions about the appropriateness of some adjustment initiatives.

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